

CHAPTER

38

WATER/WASTE



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3	Feb 15/2008		406	Feb 15/2009		212	Jun 10/2007	
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6	Oct 15/2008		409	Oct 15/2008		215	Feb 15/2009	
7	Feb 15/2009		410	Oct 15/2008		216	Feb 15/2009	
8	Feb 15/2008		411	Oct 15/2008		217	Feb 15/2009	
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O 10	Jun 15/2009		38-11-03			219	Feb 15/2009	
11	Feb 15/2008		401	Feb 15/2009		220	Feb 15/2009	
12	Feb 15/2009		402	Feb 15/2008		221	Feb 15/2009	
13	Feb 15/2008		403	Feb 15/2009		222	Feb 15/2009	
14	Feb 15/2008		404	Feb 15/2008		223	Feb 15/2009	
15	Feb 15/2008		405	Feb 15/2008		224	Feb 15/2009	
16	Feb 15/2008		406	Jun 15/2008		225	Feb 15/2009	
38-10-00			407	Feb 15/2009		226	BLANK	
201	Feb 15/2009		408	Feb 15/2008		38-11-06 Config 1		
202	Jun 10/2007		409	Oct 10/2004		201	Feb 15/2009	
203	Oct 10/2006		410	Oct 10/2004		202	Feb 15/2009	
204	Feb 15/2009		411	Oct 10/2004		203	Jun 10/2007	
205	Jun 10/2007		412	Oct 10/2004		204	BLANK	
206	Feb 10/2007		38-11-04			38-11-06 Config 1		
207	Feb 15/2009		401	Oct 15/2008		401	Jun 10/2005	
208	Jun 10/2004		402	Jun 10/2007		402	Jun 10/2007	
209	Jun 10/2004		403	Jun 10/2007		403	Jun 10/2007	
210	Jun 10/2004		404	Feb 15/2009		404	Feb 15/2009	
211	Jun 10/2004		405	Feb 15/2009		405	Jun 10/2007	
212	BLANK		406	Feb 15/2009		406	BLANK	
38-10-00			38-11-05			38-11-07		
701	Oct 10/2006		201	Jun 10/2007		401	Jun 10/2005	
702	Feb 10/2007		202	Oct 15/2008		402	Oct 15/2008	
703	Feb 10/2007		203	Jun 10/2007		403	Oct 10/2003	
704	Oct 10/2003		204	Jun 10/2007		404	Feb 15/2009	
705	Oct 10/2003		205	Jun 10/2007		405	Jun 10/2007	
706	BLANK		206	Jun 10/2007		406	BLANK	

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401	Feb 15/2009		506	BLANK		413	Oct 10/2007	
402	Feb 15/2009		38-14-02			414	Oct 10/2007	
403	Feb 15/2009		401	Jun 10/2005		415	Oct 10/2007	
404	Jun 15/2008		402	Feb 15/2009		416	Feb 15/2009	
405	Feb 15/2009		403	Feb 15/2008		417	Oct 10/2007	
406	Jun 15/2008		404	Feb 15/2009		418	Oct 10/2007	
407	Jun 15/2008		405	Feb 15/2008		419	Oct 10/2007	
408	Jun 15/2008		406	BLANK		420	Feb 15/2009	
409	Jun 15/2008		38-31-00			421	Feb 15/2009	
410	BLANK		201	Oct 10/2003		422	BLANK	
38-11-09			202	Feb 15/2009		38-31-03		
401	Feb 15/2009		203	Feb 15/2008		401	Jun 10/2007	
402	Feb 15/2008		204	Feb 15/2008		402	Jun 15/2008	
403	Feb 15/2009		205	Feb 15/2008		403	Jun 10/2007	
404	Feb 15/2009		206	Feb 15/2008		404	Jun 15/2008	
405	Feb 15/2009		207	Feb 15/2009		405	Jun 10/2007	
406	Feb 15/2009		208	Feb 15/2008		406	Jun 10/2007	
407	Feb 15/2009		209	Feb 15/2009		407	Jun 10/2007	
408	BLANK		210	BLANK		408	Jun 10/2007	
38-13-01			38-31-00			409	Jun 10/2007	
401	Oct 10/2004		701	Feb 15/2009		410	Jun 10/2007	
402	Feb 15/2009		702	Feb 15/2008		38-31-06		
403	Feb 15/2009		R 703	Jun 15/2009		401	Feb 15/2009	
404	Feb 15/2009		704	Oct 15/2008		402	Feb 15/2009	
405	Oct 15/2008		705	Feb 15/2009		403	Feb 15/2009	
406	BLANK		706	BLANK		404	Feb 15/2009	
38-14-01			38-31-01			405	Feb 15/2009	
401	Feb 15/2009		401	Oct 10/2005		406	Feb 15/2009	
402	Jun 15/2008		402	Feb 15/2009		407	Feb 15/2009	
403	Feb 15/2009		403	Feb 15/2009		408	BLANK	
404	Feb 15/2009		404	Feb 15/2009		38-32-00		
405	Oct 10/2003		405	Feb 15/2009		201	Feb 10/2007	
406	Jun 10/2006		406	Feb 15/2009		202	Feb 15/2009	
38-14-01			407	Oct 15/2008		203	Oct 15/2008	
501	Oct 15/2008		408	Feb 15/2009		204	Feb 10/2007	
502	Oct 15/2008		409	Feb 15/2009		205	Oct 10/2006	
503	Oct 15/2008		410	Feb 15/2009		206	Feb 10/2007	
504	Oct 10/2003		411	Feb 15/2009		207	Oct 10/2006	
505	Oct 10/2003		412	Oct 10/2007		208	Oct 10/2006	

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209	Oct 10/2006		510	Oct 10/2003		736	Feb 15/2009	
210	Oct 10/2006		511	Oct 10/2003		737	Feb 15/2009	
211	Oct 10/2006		512	Oct 10/2003		738	Feb 15/2009	
212	Feb 15/2009		38-32-00			739	Feb 15/2009	
213	Oct 10/2006		701	Feb 15/2009		740	Feb 15/2009	
214	Oct 10/2006		702	Feb 15/2009		741	Feb 15/2009	
215	Oct 10/2006		703	Feb 15/2009		742	BLANK	
216	Feb 15/2009		704	Feb 15/2009		38-32-01 Config 2		
217	Oct 10/2006		705	Feb 15/2009		401	Feb 15/2009	
218	Oct 10/2006		706	Feb 15/2009		402	Jun 10/2007	
219	Oct 10/2006		707	Feb 15/2009		403	Feb 15/2009	
220	Oct 10/2006		708	Feb 15/2009		404	Oct 10/2006	
R 221	Jun 15/2009		709	Feb 15/2009		405	Oct 10/2003	
222	Oct 10/2006		710	Feb 15/2009		406	Oct 10/2003	
223	Oct 10/2006		711	Feb 15/2009		407	Oct 10/2006	
224	Oct 10/2006		712	Feb 15/2009		408	Jun 15/2008	
225	Oct 10/2006		713	Feb 15/2009		409	Feb 15/2009	
226	Oct 10/2006		714	Feb 15/2009		410	Jun 15/2008	
227	Oct 10/2006		715	Feb 15/2009		411	Oct 10/2003	
228	Oct 10/2006		716	Feb 15/2009		412	Oct 10/2003	
229	Oct 10/2006		717	Feb 15/2009		413	Jun 10/2005	
230	Oct 10/2006		718	Feb 15/2009		414	Jun 10/2005	
38-32-00			719	Feb 15/2009		415	Oct 10/2003	
401	Feb 15/2008		720	Feb 15/2009		416	Feb 15/2009	
402	Oct 15/2008		721	Feb 15/2009		417	Oct 10/2003	
403	Oct 15/2008		722	Feb 15/2009		418	Jun 10/2005	
404	Oct 15/2008		723	Feb 15/2009		419	Oct 10/2003	
405	Feb 15/2009		724	Feb 15/2009		420	Oct 10/2003	
406	BLANK		725	Feb 15/2009		421	Feb 15/2009	
38-32-00			726	Feb 15/2009		422	Oct 10/2003	
501	Feb 15/2009		727	Feb 15/2009		423	Feb 15/2009	
502	Oct 15/2008		728	Feb 15/2009		424	Oct 10/2003	
503	Oct 15/2008		729	Feb 15/2009		425	Jun 10/2005	
504	Oct 15/2008		730	Feb 15/2009		426	Oct 10/2003	
505	Oct 15/2008		731	Feb 15/2009		427	Oct 10/2003	
506	Oct 15/2008		732	Feb 15/2009		428	Feb 15/2009	
507	Oct 15/2008		733	Feb 15/2009		429	Oct 10/2003	
508	Oct 10/2003		734	Feb 15/2009		430	Oct 10/2003	
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202	Feb 15/2009		402	Feb 15/2009		214	Feb 15/2009	
203	Feb 15/2009		403	Feb 15/2009		215	Feb 15/2009	
204	Feb 15/2009		404	Oct 10/2003		216	Feb 15/2009	
205	Feb 15/2009		405	Oct 10/2003		217	Feb 15/2009	
206	Oct 10/2003		406	BLANK		218	BLANK	
38-32-03			38-32-05			38-32-08		
R 401	Jun 15/2009		401	Feb 15/2009		401	Oct 10/2006	
402	Feb 15/2009		402	Oct 10/2006		R 402	Jun 15/2009	
R 403	Jun 15/2009		403	Jun 10/2005		403	Jun 15/2008	
R 404	Jun 15/2009		404	Jun 10/2005		404	Jun 15/2008	
R 405	Jun 15/2009		405	Feb 15/2009		405	Oct 10/2003	
R 406	Jun 15/2009		406	Feb 15/2009		406	Oct 10/2003	
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R 408	Jun 15/2009		408	Feb 15/2009		401	Oct 10/2004	
O 409	Jun 15/2009		409	Feb 15/2009		402	Feb 15/2009	
O 410	Jun 15/2009		410	Jun 10/2007		403	Feb 15/2009	
O 411	Jun 15/2009		411	Feb 15/2008		404	Feb 15/2009	
O 412	Jun 15/2009		412	BLANK		405	Oct 10/2003	
O 413	Jun 15/2009		38-32-06			406	Oct 10/2003	
O 414	Jun 15/2009		401	Oct 10/2003		38-32-10		
O 415	Jun 15/2009		402	Feb 15/2009		201	Oct 10/2003	
O 416	Jun 15/2009		403	Oct 10/2006		202	Oct 15/2008	
O 417	Jun 15/2009		404	Oct 10/2003		203	Oct 15/2008	
O 418	Jun 15/2009		405	Oct 10/2003		204	Oct 15/2008	
O 419	Jun 15/2009		406	BLANK		205	Oct 15/2008	
O 420	Jun 15/2009		38-32-07			206	Oct 10/2003	
A 421	Jun 15/2009		201	Oct 10/2003		207	Oct 10/2003	
A 422	BLANK		202	Oct 15/2008		208	BLANK	
38-32-03			R 203	Jun 15/2009		38-32-11		
501	Oct 10/2003		R 204	Jun 15/2009		201	Feb 15/2008	
502	Oct 10/2003		R 205	Jun 15/2009		202	Feb 15/2009	
503	Oct 10/2003		R 206	Jun 15/2009		203	Feb 15/2008	
504	Oct 10/2003		O 207	Jun 15/2009		204	Feb 15/2009	
505	Oct 10/2003		R 208	Jun 15/2009		205	Feb 15/2008	
506	Oct 10/2003		O 209	Jun 15/2009		206	Oct 10/2007	
507	Oct 10/2003		O 210	Jun 15/2009		207	Oct 10/2006	
508	BLANK		O 211	Jun 15/2009		208	Oct 10/2006	
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38-32-12			402	Oct 10/2006		403	Feb 15/2009	
401	Oct 10/2006		R 403	Jun 15/2009		404	Feb 15/2009	
402	Jun 15/2008		R 404	Jun 15/2009		405	Oct 10/2005	
403	Oct 10/2006		R 405	Jun 15/2009		406	Oct 10/2005	
404	Oct 10/2006		O 406	Jun 15/2009		38-42-02		
38-32-13			O 407	Jun 15/2009		401	Feb 15/2009	
401	Oct 10/2006		O 408	Jun 15/2009		402	Jun 15/2008	
402	Feb 15/2009		38-33-02			403	Feb 15/2009	
403	Oct 10/2006		701	Oct 10/2006		404	Jun 15/2008	
404	Oct 10/2006		702	Oct 10/2006		405	Jun 10/2004	
405	Oct 10/2003		703	Oct 10/2006		406	Feb 10/2006	
406	Oct 10/2003		704	BLANK		38-42-03		
38-33-00			38-33-03			401	Feb 15/2009	
501	Feb 15/2009		201	Oct 10/2006		402	Feb 15/2009	
502	Feb 15/2009		202	Feb 15/2009		403	Feb 15/2009	
503	Feb 15/2009		203	Oct 10/2006		404	Feb 15/2008	
504	Feb 15/2009		204	Oct 10/2006		405	Oct 10/2003	
505	Feb 15/2009		205	Oct 10/2006		406	Oct 10/2003	
506	Feb 15/2009		206	Oct 10/2003		38-42-06		
507	Feb 15/2009		207	Oct 10/2003		201	Feb 15/2009	
508	Oct 10/2003		208	BLANK		202	Feb 15/2009	
509	Oct 10/2003		38-33-04			203	Feb 15/2009	
510	Feb 15/2008		401	Jun 10/2005		204	Feb 15/2008	
511	Feb 15/2009		R 402	Jun 15/2009		205	Oct 10/2003	
512	BLANK		403	Feb 15/2008		206	Jun 15/2008	
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401	Oct 10/2003		405	Oct 10/2005		208	BLANK	
402	Oct 15/2008		406	BLANK		38-42-07		
403	Oct 15/2008		38-42-00			201	Feb 15/2009	
404	Oct 15/2008		201	Feb 15/2009		202	Feb 15/2009	
405	Oct 10/2003		202	Feb 15/2009		203	Feb 15/2009	
406	Oct 10/2003		38-42-00			204	Oct 10/2003	
38-33-01			501	Feb 15/2009		205	Oct 10/2003	
701	Oct 10/2003		502	Feb 15/2009		206	Feb 15/2009	
702	Oct 10/2006		503	Feb 15/2009		207	Feb 15/2009	
703	Oct 10/2006		504	BLANK		208	Oct 10/2003	
704	BLANK		38-42-01			209	Oct 10/2003	
			401	Feb 15/2009		210	BLANK	

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406	Oct 10/2003							
38-42-09								
401	Feb 15/2008							
402	Feb 15/2009							
403	Jun 15/2008							
404	Feb 15/2009							
405	Oct 10/2003							
406	Oct 10/2005							
407	Feb 15/2009							
408	Jun 15/2008							
409	Feb 15/2009							
410	Jun 15/2008							
411	Jun 15/2008							
412	Feb 15/2009							
38-42-10								
401	Feb 15/2009							
402	Feb 15/2009							
403	Feb 15/2009							
R 404	Jun 15/2009							
405	Feb 15/2009							
R 406	Jun 15/2009							
407	Feb 10/2007							
408	Feb 10/2007							
409	Feb 10/2007							
410	BLANK							

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Compressor Check Valve Installation TASK 38-42-09-400-802			402	HAP ALL
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POTABLE WATER SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) Clean the potable water system with a disinfectant.
 - (2) A test for leakage of the potable water system.
- C. It is necessary to flush and then use a disinfectant in the water system when you have these conditions:
 - (1) Contamination in the water system
 - (2) After repairs on the water system

TASK 38-10-00-600-801

2. Potable Water System - Disinfectant

- A. General
 - (1) The intent of this task is to provide a solution of disinfectant to the potable water system that achieves a concentration of 100 ppm (parts per million). When preparing the disinfectant solution, the stabilized chlorine dioxide (Purogene) and the citric acid are both measured by volume (fluid ounces or liters).

B. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
38-11-04-960-801	Water Filter Replacement (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1141	Equipment - Potable Water Servicing

D. Consumable Materials

Reference	Description	Specification
B00637	Acid, Citric	A-A-59147
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	

E. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right

F. Access Panels

Number	Name/Location
146AR	Water Service Door

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G. Prepare to Disinfectant the Potable Water System.

SUBTASK 38-10-00-680-001

WARNING: DRAIN, OR USE THE POTABLE WATER SYSTEM A MINIMUM OF ONE TIME EACH THREE DAYS. IF YOU DO NOT DRAIN, OR USE THE WATER SYSTEM FREQUENTLY, BACTERIA CAN GROW IN THE WATER. IF YOU DRINK WATER WITH BACTERIA IN IT, ILLNESS CAN OCCUR.

- (1) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

HAP 001-013, 015-026, 028-030

SUBTASK 38-10-00-020-001

CAUTION: MAKE SURE THE CLAMP BOLT ON THE WATER FILTER IS IN A POSITION TO LET YOU CLOSE THE CABINET DOOR. IF THE CLAMP BOLT IS IN AN INCORRECT POSITION, THE CABINET DOOR WILL NOT CLOSE.

- (2) To remove the filter canisters (if installed) from the water system in the lavatories, do this task: Water Filter Replacement, TASK 38-11-04-960-801.

NOTE: Make sure the top of the housing is in its position without the filter canister installed.

HAP ALL

SUBTASK 38-10-00-020-002

- (3) To remove the filter canisters (if installed) from the water system in the galleys, refer to the galley manufacturers instructions.

NOTE: Make sure the top of the housing is in its position without the filter canister installed.

SUBTASK 38-10-00-020-003

- (4) Disconnect the coffee makers (if installed) from the water system in the galleys.

H. Disinfect the Potable Water System.

SUBTASK 38-10-00-610-001

- (1) To fill the potable water system approximately half full with water, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

NOTE: The filter cartridge must not be installed in the water service equipment.

SUBTASK 38-10-00-670-001

- (2) Make the disinfectant solution as follows:

NOTE: The disinfectant mixtures will provide the full system with a solution of chlorine dioxide at 100 parts per million.

WARNING: DO NOT BREATHE THE CHLORINE DIOXIDE GAS. WHEN THE TWO CHEMICALS ARE MIXED, CHLORINE DIOXIDE IS PRODUCED WHICH CAN CAUSE INJURY TO PERSONS WHEN THEY BREATHE THE GAS.

- (a) Mix the following amounts of chlorine dioxide Purogene or Oxine compound, G00022 with citric acid, B00637 in a clean plastic container: 25.6 fl-oz (0.8 l) chlorine dioxide, 3.20 fl-oz (0.09 l) citric acid (crystal or powder) or 5.12 fl-oz (0.15 l) citric acid 50% (liquid).
- (b) Use a clean instrument to mix the solution fully.
- (c) Stop for 5 minutes.
- (d) Add water to make approximately 5 gallons (19 liters) of solution.

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SUBTASK 38-10-00-010-001

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

SUBTASK 38-10-00-670-002

- (4) Add the disinfectant to the water service potable water servicing equipment, STD-1141 for the potable water system.

SUBTASK 38-10-00-670-003

- (5) Add the disinfectant to the potable water system through the water fill connection at the water service panel.

SUBTASK 38-10-00-610-002

- (6) To add water to the potable water system until the water tank is full, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-10-00-860-001

- (7) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-10-00-860-002

- (8) Open each of the lavatory faucets (hot and cold), the galley faucet(s), and the water boiler valves in the potable water system.

NOTE: Let the water flow until you smell flow of the disinfectant solution from each faucet. The disinfectant may also be noticeable by its slight yellow color.

SUBTASK 38-10-00-860-003

- (9) After the disinfectant flows from the faucet, close the faucet.

SUBTASK 38-10-00-170-001

- (10) Flush each toilet at least twice with a 15 second delay between flushes or until water with disinfectant appears.

SUBTASK 38-10-00-860-034

- (11) To fill the remainder of the potable water system with water until it is full, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802

SUBTASK 38-10-00-670-004

- (12) It is recommended that you keep the disinfectant in the potable water system for one hour.

NOTE: The disinfectant must stay in the potable water system for one hour minimum.

SUBTASK 38-10-00-680-002

- (13) After one hour, do this task: Potable Water System - Drain, TASK 12-14-01-600-801

SUBTASK 38-10-00-680-003

- (14) Open each of the lavatory and galley faucets and water boiler valves to drain the water in the lavatory and galley supply lines.

I. Flush the Potable Water System with clean water.

SUBTASK 38-10-00-860-004

- (1) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-10-00-860-005

- (2) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

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SUBTASK 38-10-00-860-006

- (3) Open each of the lavatory faucets, galley faucets, and water boiler valves until water without the disinfectant flows through each for 1 minute.

SUBTASK 38-10-00-170-002

- (4) Flush each toilet at least twice with a 15 second delay between flushes or until water without the disinfectant appears.

SUBTASK 38-10-00-680-004

- (5) If you have water with bad taste, smell, or color, then do these steps.
 - (a) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.
 - (b) Do the Flush the Potable Water System with Clean Water procedure again. do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802

J. Put the Airplane Back to its Usual Condition

SUBTASK 38-10-00-860-007

- (1) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-10-00-420-004

- (2) Reconnect the coffee makers (if installed) in the galleys.

HAP 001-013, 015-026, 028-030

SUBTASK 38-10-00-420-001

CAUTION: MAKE SURE THE CLAMP BOLT ON THE WATER FILTER IS IN A POSITION TO LET YOU CLOSE THE CABINET DOOR. IF THE CLAMP BOLT IS IN AN INCORRECT POSITION, THE CABINET DOOR WILL NOT CLOSE.

- (3) To install the filter canisters in the water filters (if installed) for the lavatories, do this task: Water Filter Replacement, TASK 38-11-04-960-801.

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SUBTASK 38-10-00-420-002

- (4) To install the filter canisters in the water filters (if installed) for the galleys, refer to the manufacturers instructions.

SUBTASK 38-10-00-860-032

- (5) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

————— **END OF TASK** —————

TASK 38-10-00-790-801

3. Potable Water System - Leak Test

(Figure 201, Figure 202)

A. General

- (1) Use this procedure to make sure the potable water system does not have a leak.

B. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)

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(Continued)

Reference	Title
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1951	Plug - Waste Water Drain Mast (Part #: C38001-23, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Part #: TE65B50041, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500)
STD-77	Air Source - Regulated, Dry Filtered, 0-50 psig
STD-1091	Gauge - Air Pressure, 0-100 PSIG (0-690 KPa)

D. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right
200	Upper Half of Fuselage

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Potable Water System - Leakage Test

SUBTASK 38-10-00-860-009

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-10-00-010-002

(2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-10-00-020-004

(3) Do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

SUBTASK 38-10-00-020-005

(4) Remove the plug from the pressure test equipment connection tee fitting in the potable water line. (Figure 201)

SUBTASK 38-10-00-480-001

(5) Install the pressure gauge (0-100 PSIG) (0-690 KPa), STD-1091 in the pressure test equipment connection tee fitting of the potable water line. (Figure 201)

SUBTASK 38-10-00-610-003

(6) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

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SUBTASK 38-10-00-480-002

- (7) Install a 0-50 psig dry filtered regulated air source, STD-77 in the pressure test equipment connection tee fitting of the potable water line to pressurize the potable water system to 50 psig (345 kPa). (Figure 201)

SUBTASK 38-10-00-860-010

- (8) Pressurize the potable water system to 50 psig (345 kPa).

SUBTASK 38-10-00-860-011

- (9) Open the faucets in each lavatory and galley and let the water flow for 2 minutes.

NOTE: Keep the pressure at 50 psig (345 kPa) (in the potable water system).

SUBTASK 38-10-00-860-012

- (10) Close all the water faucets.

SUBTASK 38-10-00-860-013

- (11) Keep the pressure at 50 psig (345 kPa) for at least 5 minutes.

SUBTASK 38-10-00-790-001

- (12) Make sure there are no air or water leaks in these locations:

- (a) At the water tank.
- (b) At the water fill connection, on the water service panel.
- (c) At the water drain connections, on the airplane skin.
- (d) In the water tubes and hoses that supply water to the lavatories and galleys.

SUBTASK 38-10-00-860-014

- (13) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-10-00-080-001

- (14) Remove the pressure gage from the potable water line.

SUBTASK 38-10-00-420-003

- (15) Install the cap on the potable water line.

SUBTASK 38-10-00-860-015

- (16) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

G. Forward Gray Water System - Leakage Test

SUBTASK 38-10-00-480-003

- (1) Install the waste water drain mast plug, SPL-1951 to seal the forward drain mast.

SUBTASK 38-10-00-860-016

- (2) Put water in the sink in the forward galley(s) until the drain line is full of water.

NOTE: The drain line is full of water when water stays in the sink for five minutes.

SUBTASK 38-10-00-790-002

- (3) Make sure that the drain lines connected to the forward drain mast have no leaks.

SUBTASK 38-10-00-080-002

- (4) Remove the waste water drain mast plug, SPL-1951 from the forward drain mast to let the water drain.

H. Aft Gray Water System - Leakage Test

SUBTASK 38-10-00-480-004

- (1) Install the waste water drain mast plug, SPL-1951 to seal the aft drain mast.

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SUBTASK 38-10-00-860-017

- (2) Put water in the sink in the aft galley until the drain line is full of water.

NOTE: The drain line is full of water when water stays in the sink for five minutes.

SUBTASK 38-10-00-790-003

- (3) Make sure that the drain lines connected to the aft drain mast have no leaks.

SUBTASK 38-10-00-080-003

- (4) Remove the waste water drain mast plug, SPL-1951 from the aft drain mast to let the water drain.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-10-00-410-002

WARNING: OBEY THE INSTRUCTIONS IN THE PROCEDURE TO INSTALL THE CARGO LINING.
THE INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE SMOKE OUT
OF THE CARGO COMPARTMENT DURING A FIRE.

- (1) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-10-00-410-003

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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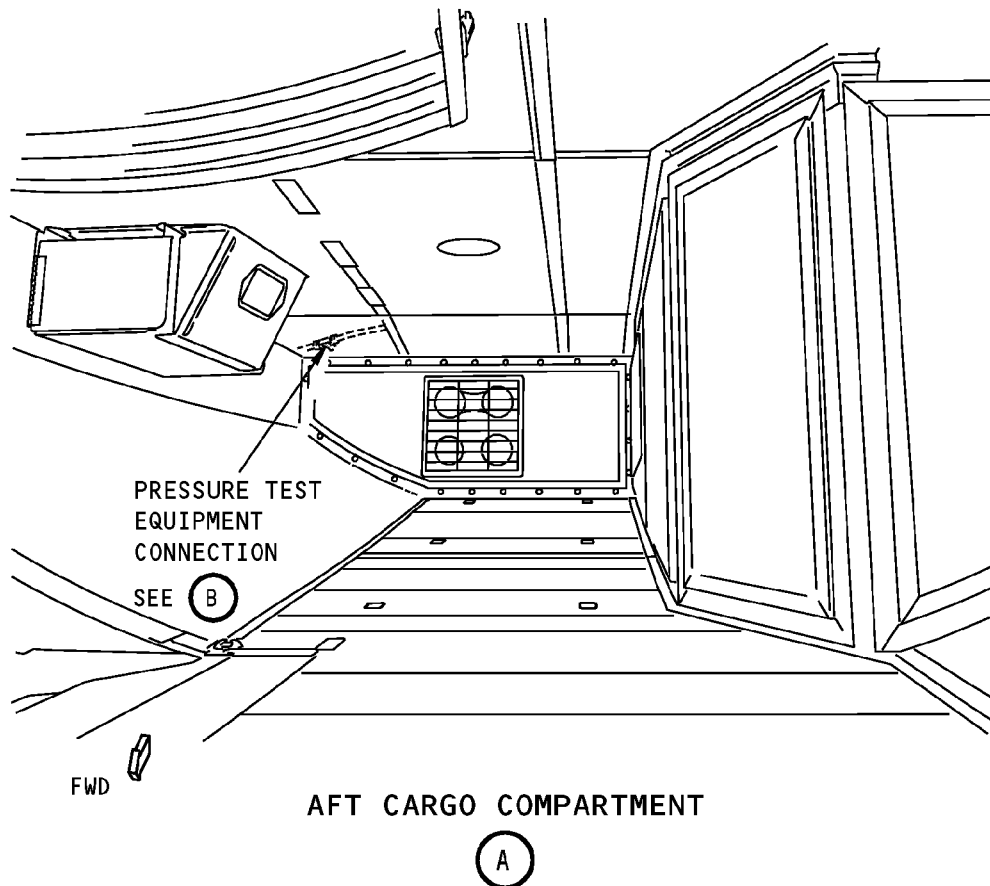
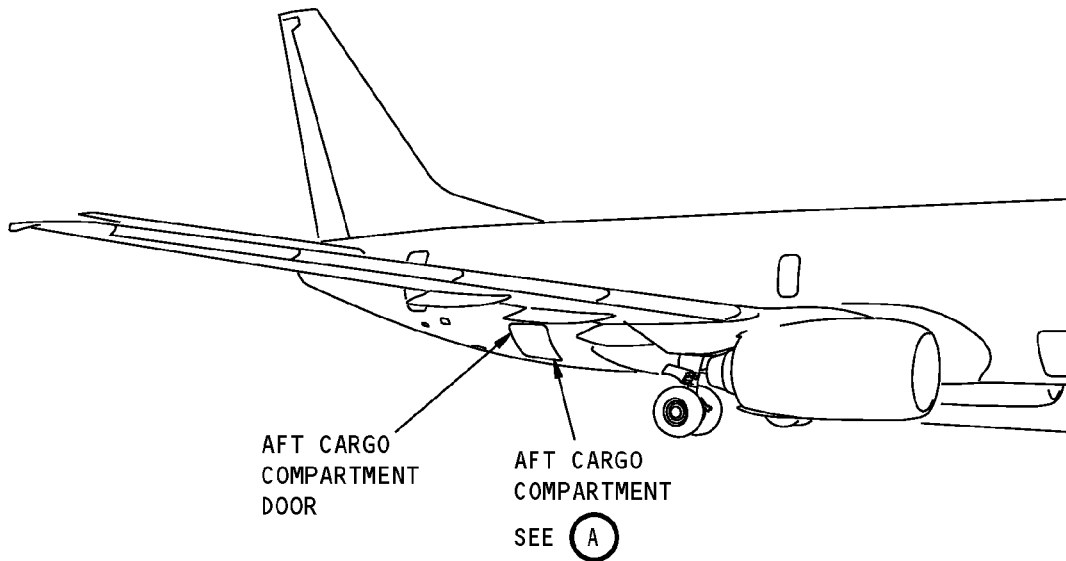
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Potable Water System Leak Test
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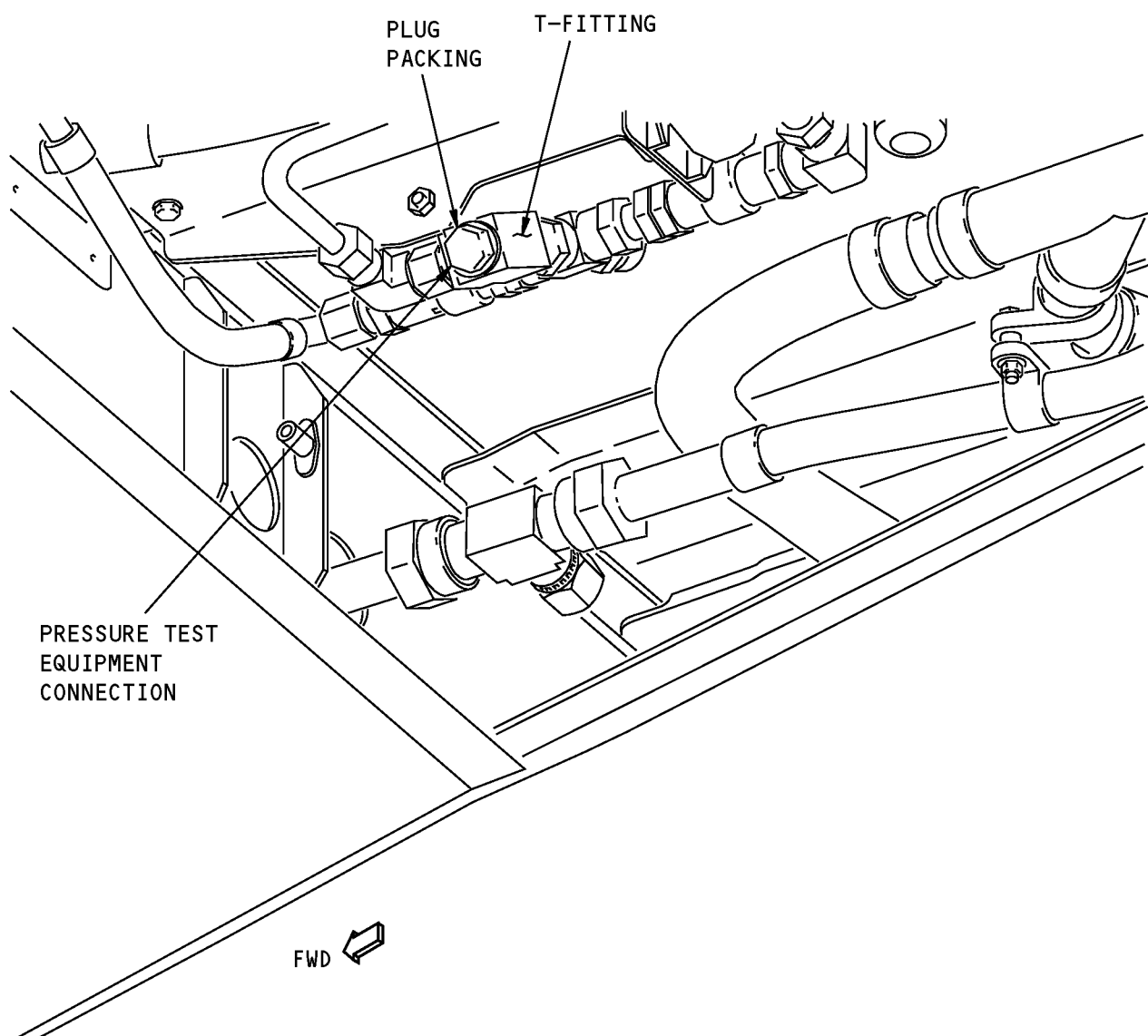
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PRESSURE TEST EQUIPMENT CONNECTION

B

Potable Water System Leak Test
Figure 201 (Sheet 2 of 2)/38-10-00-990-801

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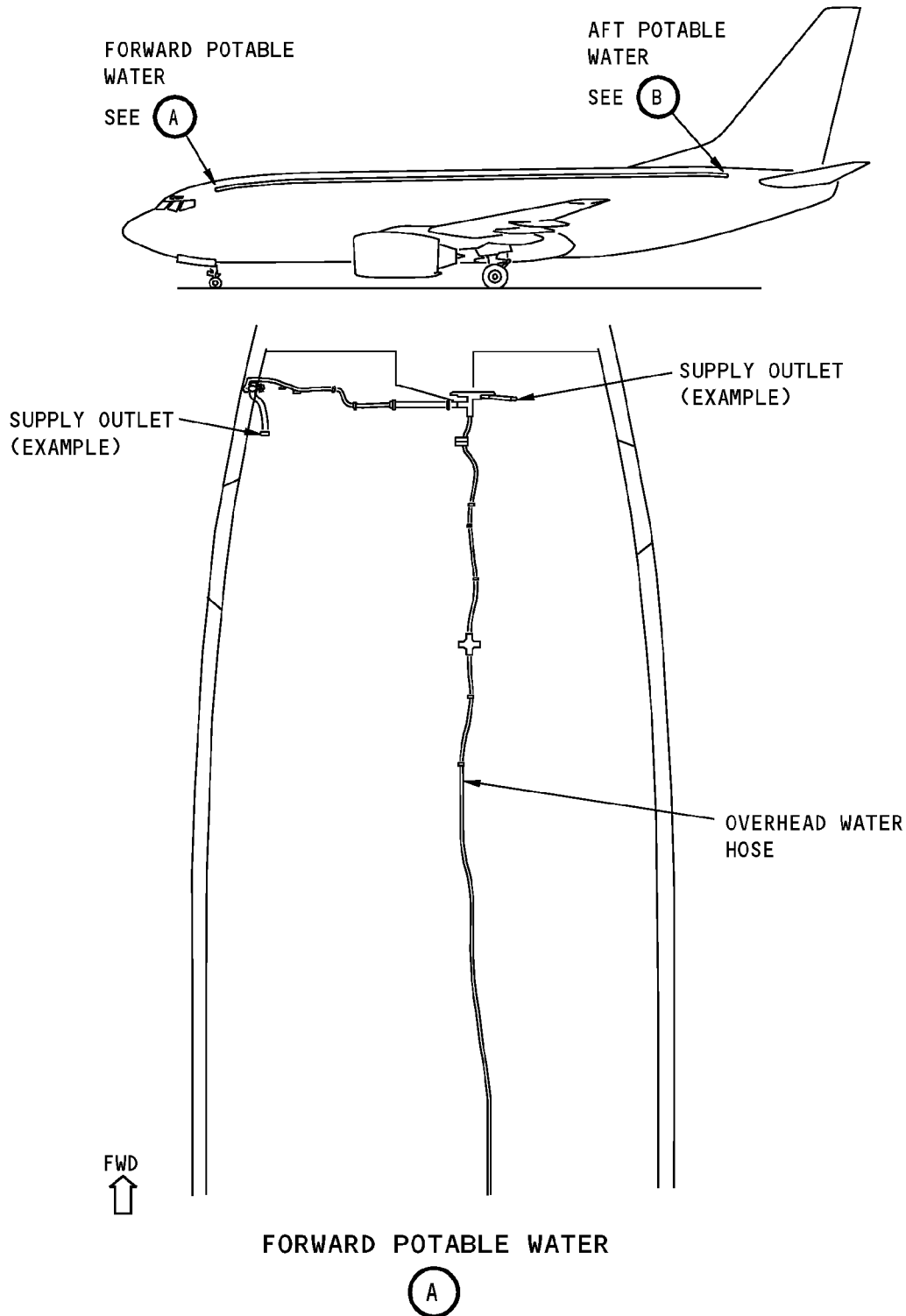
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Potable Water System - Primary Routing
Figure 202 (Sheet 1 of 2)/38-10-00-990-802

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POTABLE WATER SYSTEM - CLEANING MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Manually clean the potable water tank.

TASK 38-10-00-100-801

2. Manually Clean the Potable Water Tank

(Figure 701)

A. General

- (1) This procedure is to manual clean the potable water tank. This should only be used when the disinfecting procedure is not effective. The normal process for maintenance of the water system is, (TASK 38-10-00-600-801).

B. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
20-10-44-400-801	Lockwires Installation (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-10-00-600-801	Potable Water System - Disinfectant (P/B 201)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
COM-4911	Adapter - Plate, Potable Water Tank (Part #: 2MIT2A264-0812-1, Supplier: 1TGN3, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-123	Brush - Soft Bristle

D. Consumable Materials

Reference	Description	Specification
B00402	Cleaner - Aerospace Equipment	MIL-PRF-87937
B00637	Acid, Citric	A-A-59147
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	

E. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right

F. Access Panels

Number	Name/Location
822	Aft Cargo Door

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G. Prepare to Clean the Water Tank

SUBTASK 38-10-00-840-001

- (1) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

SUBTASK 38-10-00-840-002

- (2) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-10-00-020-006

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-10-00-010-005

- (4) Do these steps to gain access to the inside of the water tank:

WARNING: DEPRESSURIZE WATER TANK BEFORE YOU REMOVE THE TANK END CAP. IF THE TANK END CAP IS REMOVED PRIOR TO TANK DEPRESSURIZATION, THE TANK END CAP CAN INJURE MAINTENANCE PERSONNEL.

- (a) Remove the insulation on the end of the water tank.
- (b) Put the end cap, COM-4911 in its position on the end cap(s) and then remove the end cap(s).
- (c) Pull the end caps from the tank.

H. Clean the inside of the water tank

SUBTASK 38-10-00-110-001

- (1) Prepare to clean the inside of the tank.

- (a) Mix 71 ounces Purogene or Oxine compound, G00022 with 7.25 ounces of citric acid, B00637 in a 5-gallon plastic container.
- (b) Wait 5 minutes to allow activation.
- (c) Put the mixture into the water tank.
- (d) Clean the inside of the tank with a soft-bristle soft bristle brush, STD-123.

SUBTASK 38-10-00-680-005

- (2) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

SUBTASK 38-10-00-860-033

- (3) Mix 6 ounces of cleaner, B00402 and 1-gallon of water in a 2-gallon plastic container.

SUBTASK 38-10-00-140-001

- (4) Put the mixture into the water tank.

SUBTASK 38-10-00-140-002

- (5) Clean the inside of the tank and covers with a soft-bristle soft bristle brush, STD-123.

SUBTASK 38-10-00-680-006

- (6) Do these steps to flush the inside of the water tank.

- (a) Flush the inside of the tank with water.
- (b) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.
- (c) Do the step above for three times.
- (d) Wash the tank cover(s) with clean water.

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SUBTASK 38-10-00-420-005

- (7) Do these steps to install the cover on the water tank.
 - (a) Make sure the O-ring is not dislodged, pinched or damaged during assembly.
 - (b) Put the end cap, COM-4911 in its position on the end cap(s) and install the covers in the tank so that the spherical surface is inside the tank.
 - (c) Tighten the end cap(s) to 600-800 lbs-inches (68-90 newton-meters).
 - (d) To install the lockwire, do this task: Lockwires Installation, TASK 20-10-44-400-801.

SUBTASK 38-10-00-420-006

- (8) Make sure the drain valve is closed.

SUBTASK 38-10-00-110-002

- (9) Do this task: Potable Water System - Disinfectant, TASK 38-10-00-600-801.

SUBTASK 38-10-00-680-007

- (10) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-10-00-840-003

- (11) To restore pressure to the potable water system, do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-10-00-790-009

- (12) Examine all the connections for leakage.
 - (a) Make sure there is no leakage.

SUBTASK 38-10-00-420-007

- (13) Install the insulation cover on the water tank.

I. Put the Airplane Back to its Usual Condition

SUBTASK 38-10-00-410-005

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-10-00-410-007

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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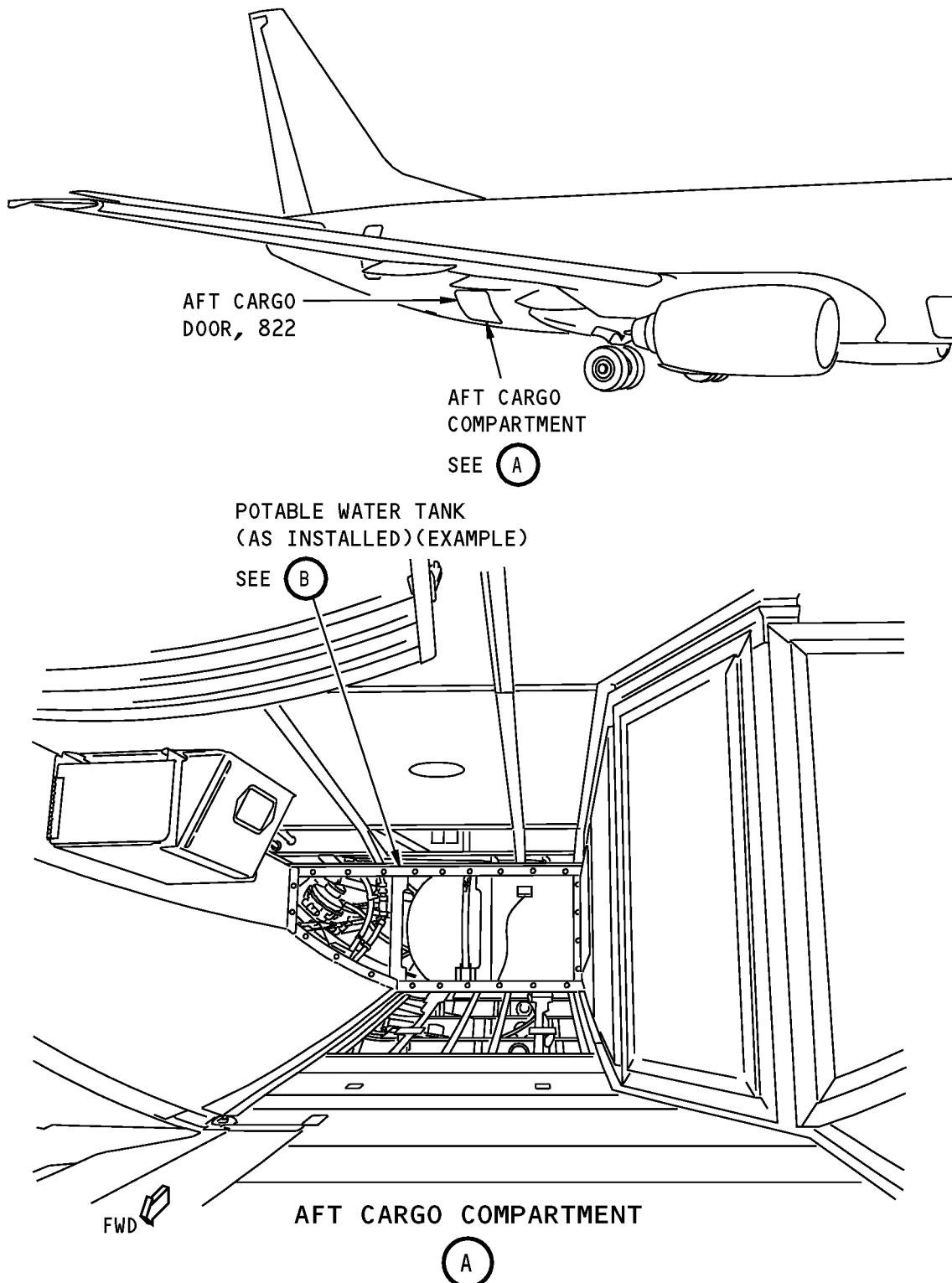
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Water Tank Cleaning
Figure 701 (Sheet 1 of 2)/38-10-00-990-803

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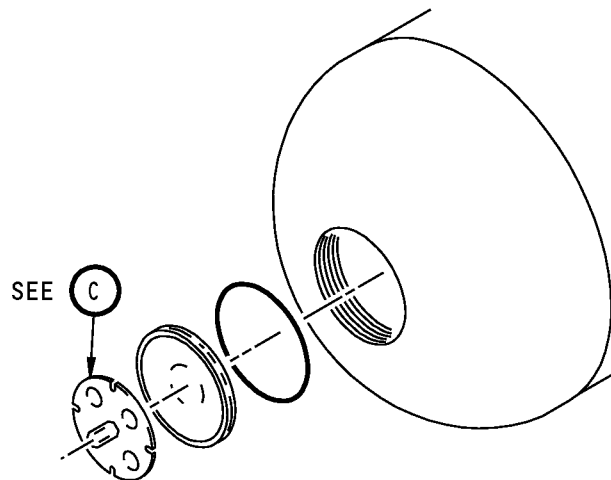
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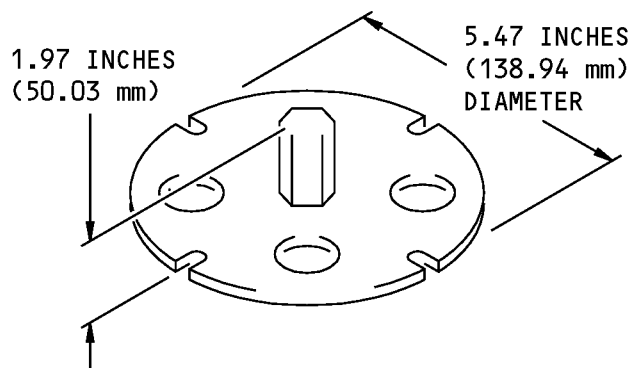


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WATER TANK END CAP

(B)



SPECIAL TOOL

(C)

Water Tank Cleaning
Figure 701 (Sheet 2 of 2)/38-10-00-990-803

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WATER TANK - REMOVAL/INSTALLATION

1. MAIN WATER TANK - REMOVAL/INSTALLATION

- A. This procedure has these tasks:
- (1) The removal of the main water tank.
 - (2) The installation of the main water tank.
- B. In this procedure, the main water tank shall be referred to as the water tank.

HAP 001-011

- C. Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A or (TASK 38-14-01-400-801).
- D. The water tank material can be identified by color. A yellow to light green appearance identifies the fiberglass water tank, whereas a black to dark gray appearance identifies the graphite water tank.

HAP ALL

TASK 38-11-01-000-801

2. Water Tank Removal

(Figure 401)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-07-000-801	Pressure Limit Switch Removal (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-11-01-860-001

- (1) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-11-01-680-001

- (2) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

SUBTASK 38-11-01-860-007

- (3) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
F	13	C00104	LAVATORY WATER HEATER A

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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C	9	C00138	WATER QTY IND
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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SUBTASK 38-11-01-010-001

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-01-010-002

- (5) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-11-01-020-001

- (6) Do these steps to get access to the tank assembly [1].
- (a) Remove screw [3], screw [4], and screw [5] to disconnect the support assembly [2].
 - (b) Remove screw [4] to disconnect the stanchion [6].
 - (c) Pull the pull pin [8] to disconnect the stanchion [7].

E. Water Tank Removal

SUBTASK 38-11-01-020-002

- (1) Disconnect the water quantity transmitter as follows.
- (a) Remove screw [16] and washer [17] to remove the cover [15].
 - (b) Remove screw [18] and washer [19] to disconnect the transmitter cable [20] for the water quantity transmitter.

SUBTASK 38-11-01-020-003

- (2) Disconnect the electrical connector [12] from the pressure switch [11].

SUBTASK 38-11-01-020-004

- (3) To remove the pressure switch, do this task: Pressure Limit Switch Removal, TASK 38-42-07-000-801.

SUBTASK 38-11-01-020-005

- (4) Disconnect the pressurization connection [9] from the top of the water tank assembly [1].

HAP 001-011

SUBTASK 38-11-01-020-006

- (5) Remove the nut [28] and washer [27] to disconnect the ground connection [26] from the water tank assembly [1].

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SUBTASK 38-11-01-020-007

- (6) Remove the clamshells [13] to disconnect the water hoses from the top of the water tank assembly [1].

SUBTASK 38-11-01-020-008

- (7) Remove the clamshell [34], sleeve [35] and packings [36] to disconnect the drain fitting [37] from the tank fitting [33]

SUBTASK 38-11-01-860-003

- (8) Remove the bolt [21], washer [22], washer [23], and nut [24] to disconnect the tie rod assembly [25].

SUBTASK 38-11-01-860-004

- (9) Disconnect the strap assemblies [10] that hold the water tank assembly [1] in its position.

SUBTASK 38-11-01-020-009

- (10) Remove the bolts [29], washers [30] and nuts [31] to disconnect the forward mounts [32].
 - (a) Remove the outboard (right side) forward mount [32].

SUBTASK 38-11-01-020-010

- (11) If it is necessary to prevent damage, remove the insulation blankets from the water tank assembly [1].

SUBTASK 38-11-01-020-011

- (12) Remove the water tank assembly [1].

————— END OF TASK —————

TASK 38-11-01-400-801

3. Water Tank Installation

(Figure 401)

A. General

- (1) In this procedure, the potable water tank shall be referred to as the water tank.

HAP 001-011

- (2) Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A or (TASK 38-14-01-400-801).
- (3) The water tank material can be identified by color. A yellow to light green appearance identifies the fiberglass water tank, whereas a black to dark gray appearance identifies the graphite water tank.

HAP ALL

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-10-00-600-801	Potable Water System - Disinfectant (P/B 201)
38-14-01-400-801	Water Quantity Transmitter Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)
38-42-07-400-801	Pressure Limit Switch Installation (P/B 201)

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C. Consumable Materials

Reference	Description	Specification
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Tank assembly	38-11-01-12-315	HAP ALL
14	Packing	38-11-01-12-235	HAP ALL
36	Packing	38-11-01-12-270	HAP ALL

E. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

F. Access Panels

Number	Name/Location
822	Aft Cargo Door

G. Water Tank Installation

SUBTASK 38-11-01-420-001

(1) Put the potable water tank assembly [1] into the aft cargo compartment.

SUBTASK 38-11-01-420-003

(2) Put the water tank assembly [1] in its position.

SUBTASK 38-11-01-420-004

(3) Put the outboard (right side) forward mount [32] in its position.

SUBTASK 38-11-01-420-005

(4) Install the bolts [29], washers [30] and nuts [31] to connect the forward mounts [32].

SUBTASK 38-11-01-420-006

(5) Install the bolt [21], washer [22], washer [23], and nut [24] to connect the tie rod assembly [25].

SUBTASK 38-11-01-420-007

(6) Install the strap assemblies [10].

SUBTASK 38-11-01-420-015

(7) Install the insulation blankets on the water tank assembly [1].

SUBTASK 38-11-01-640-001

(8) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the new packings [36].

SUBTASK 38-11-01-420-008

(9) Install the clamshell [34], sleeve [35] and new packings [36] to connect the tank fitting [33] to the drain fitting [37].

SUBTASK 38-11-01-640-002

(10) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the new packings [14].

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SUBTASK 38-11-01-420-009

- (11) Install the clamshell [13] and new packings [14] to connect the water hoses to the top of the water tank assembly [1].

SUBTASK 38-11-01-410-001

- (12) Connect the pressurization connection [9] to the top of the water tank assembly [1].

(a) Use a wrench to prevent movement of the tank fitting.

SUBTASK 38-11-01-420-010

- (13) To install the pressure switch, do this task: Pressure Limit Switch Installation, TASK 38-42-07-400-801.

SUBTASK 38-11-01-420-011

- (14) Connect the electrical connector [12] to the pressure switch [11].

HAP 001-011

SUBTASK 38-11-01-410-006

- (15) If you are replacing a graphite tank with a fiberglass tank, cap and stow the ground connection [26].

SUBTASK 38-11-01-410-002

- (16) Install the nut [28] and washer [27] to connect the ground connection [26] to the water tank assembly [1].

(a) Fillet seal both sides of the ground connection with sealant, A02315.

HAP ALL

SUBTASK 38-11-01-420-012

- (17) Connect the water quantity transmitter as follows.

HAP 001-011

- (a) If you are replacing a graphite water tank with a fiberglass water tank, replace the existing water quantity transmitter with a unit compatible with the new tank material. See SL-38-028A or (TASK 38-14-01-400-801).

NOTE: Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A or (TASK 38-14-01-400-801).

HAP ALL

- (b) Install the screw [18] and washer [19] to connect the transmitter cable [20] for the water quantity transmitter.

NOTE: There are two connector terminals on the water tank. The transmitter cable connector may be connected to either terminal. Each terminal is attached to the sensor grid within the tank sidewall.

- (c) Install the screw [16] and washer [17] to install the cover [15].

SUBTASK 38-11-01-020-013

- (18) Do these steps to install the cargo liner support.

(a) Install the stanchion [7] and insert the pull pin [8].

(b) Install screw [4] to connect the stanchion [6].

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(c) Install screw [3], screw [4], and screw [5] to connect the support assembly [2].

SUBTASK 38-11-01-860-010

(19) Close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	13	C00104	LAVATORY WATER HEATER A
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	18	C00873	POT WATER COMPRESSOR

HAP 001-013, 015-026, 028-036

HAP ALL

C	9	C00138	WATER QTY IND
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-11-01-670-001

(20) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-11-01-670-002

(21) Do this task: Potable Water System - Disinfectant, TASK 38-10-00-600-801.

SUBTASK 38-11-01-790-001

(22) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-11-01-710-001

(23) Examine the connections of the water hoses and the pressurization connection [9] for leakage.

SUBTASK 38-11-01-710-002

(24) Examine the fittings on the bottom of the water tanks for leakage.

H. Put the Airplane Back to its Usual Condition

SUBTASK 38-11-01-410-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-11-01-410-004

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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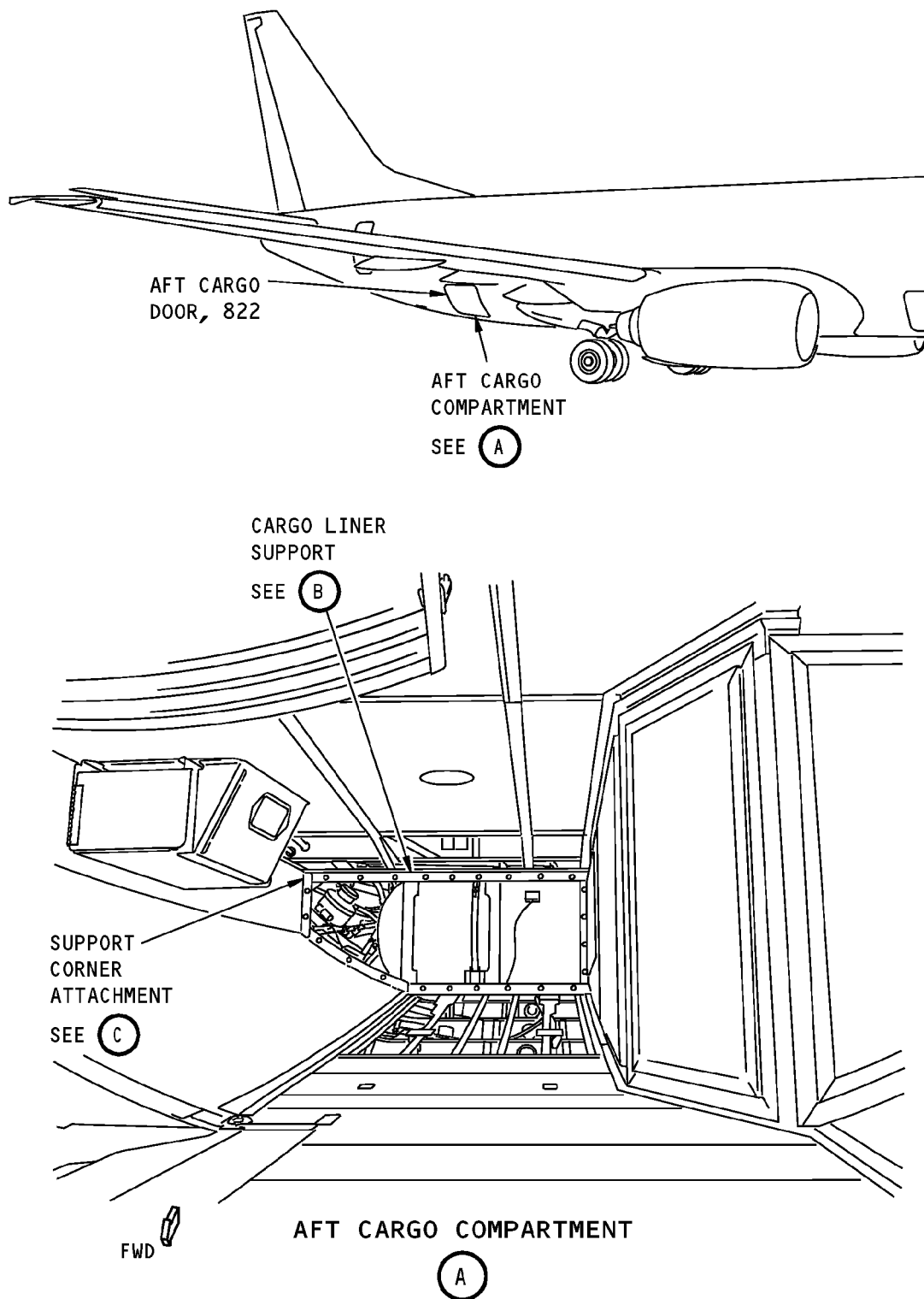
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Potable Water Tank Installation
Figure 401 (Sheet 1 of 6)/38-11-01-990-801

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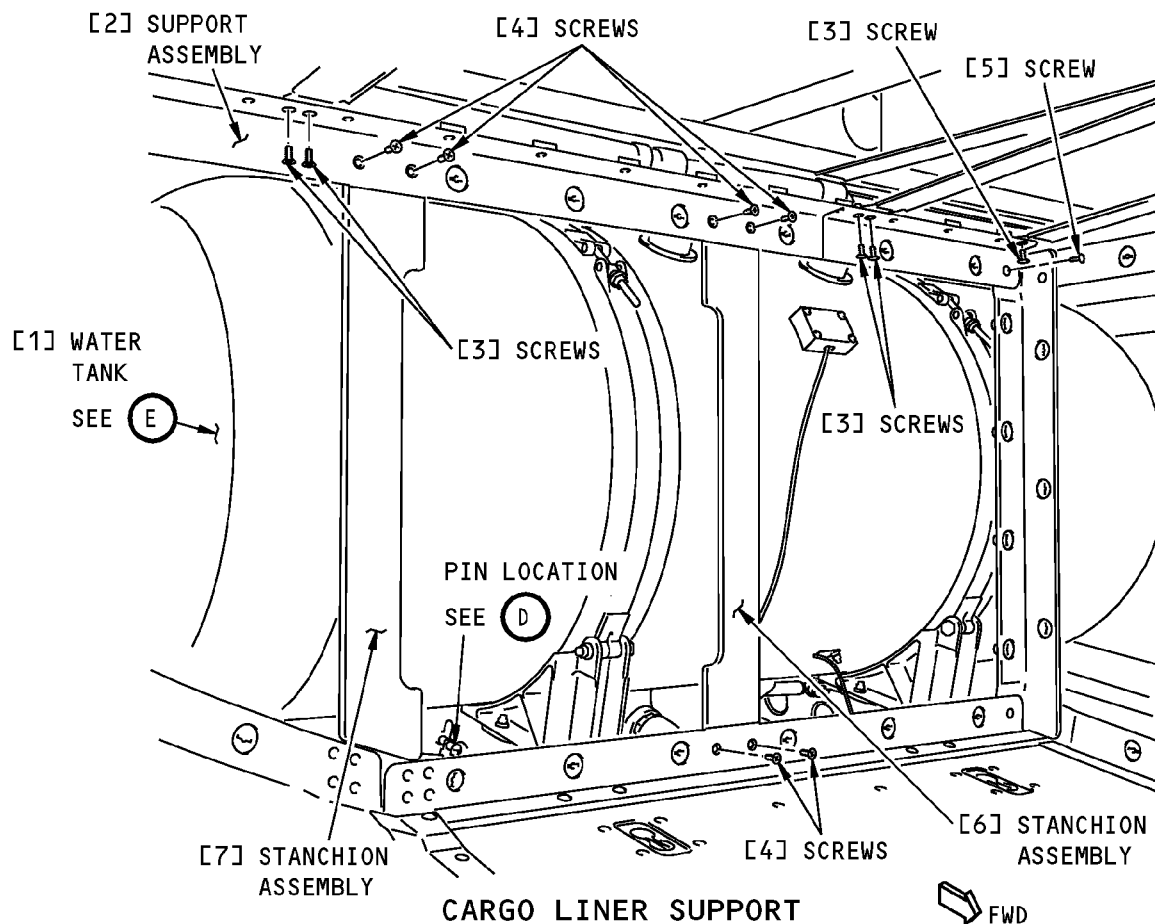
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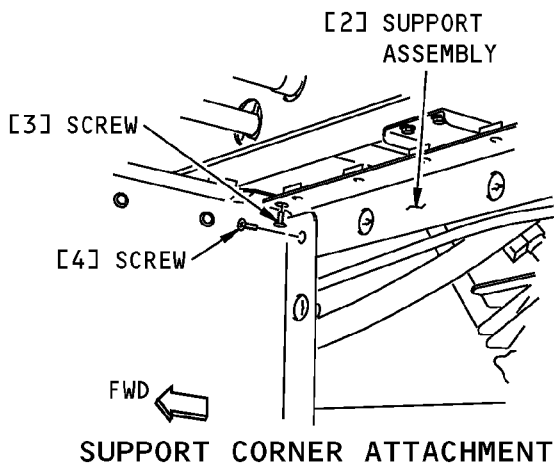
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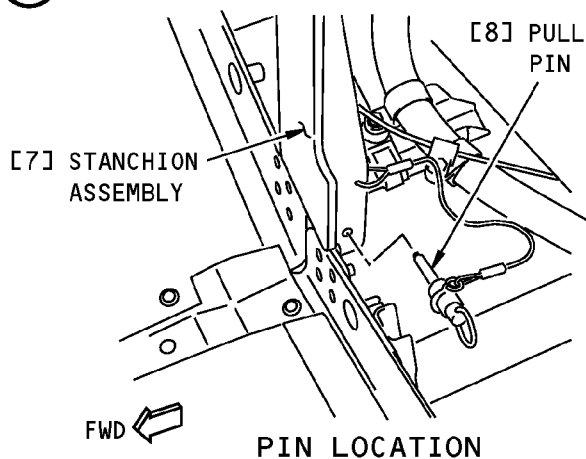
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(B)



(C)



(D)

Potable Water Tank Installation
Figure 401 (Sheet 2 of 6)/38-11-01-990-801

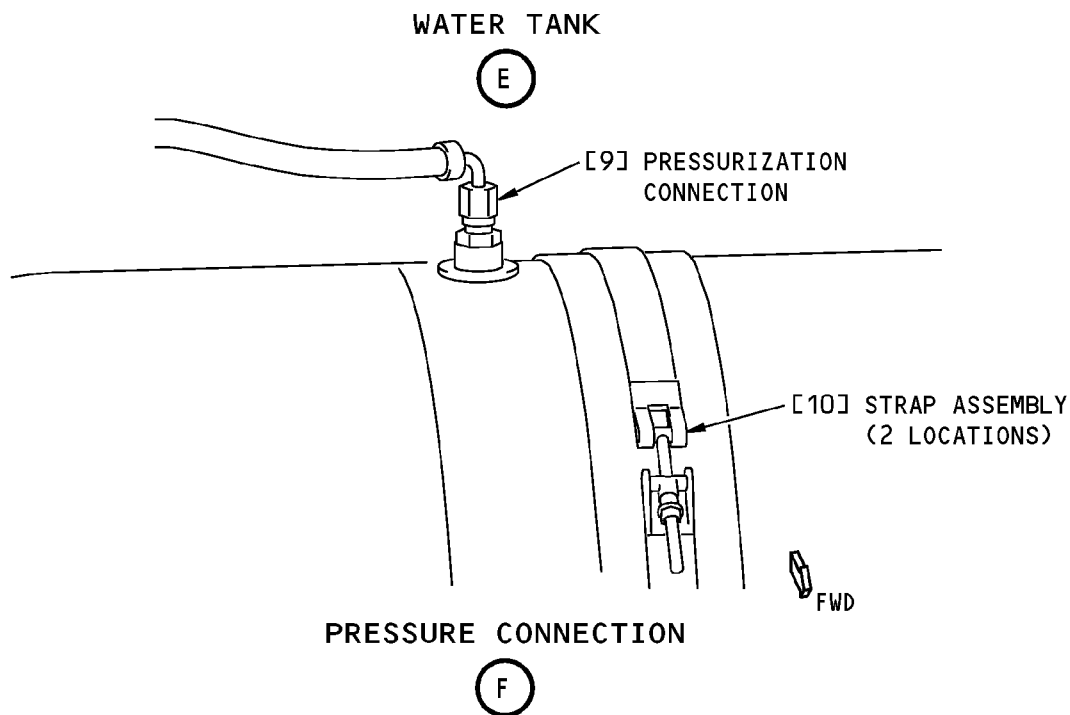
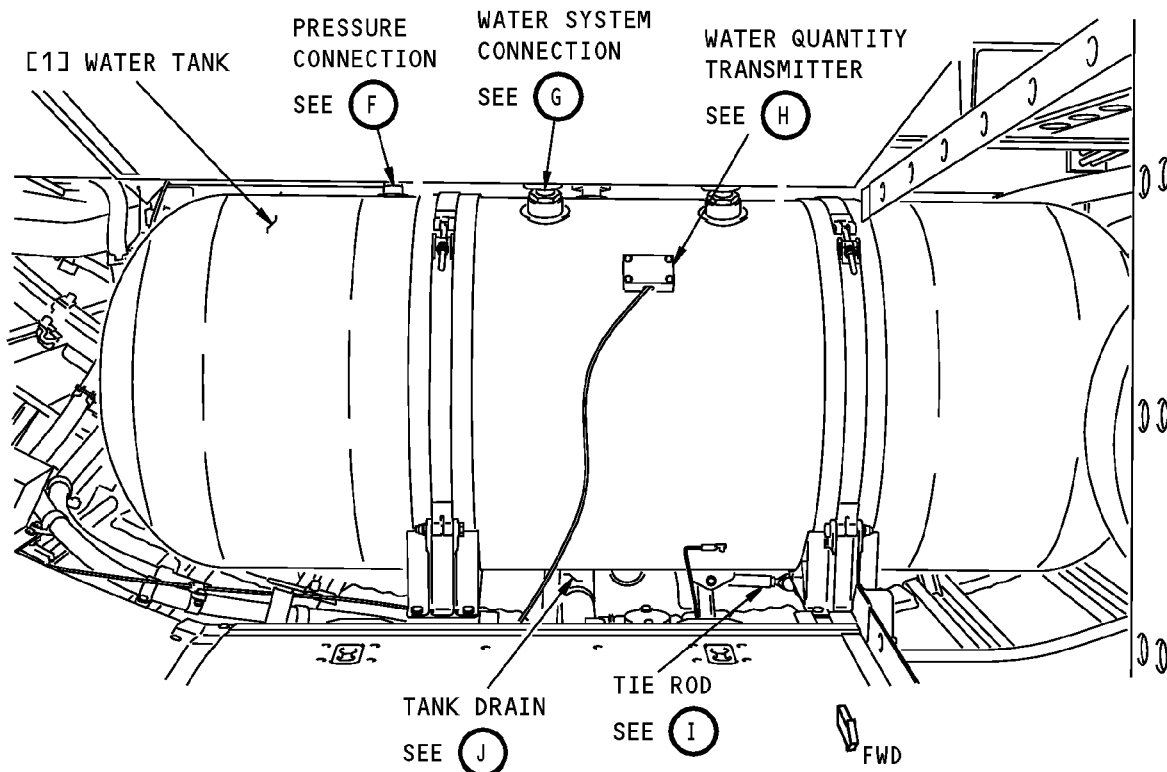
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Potable Water Tank Installation
Figure 401 (Sheet 3 of 6)/38-11-01-990-801

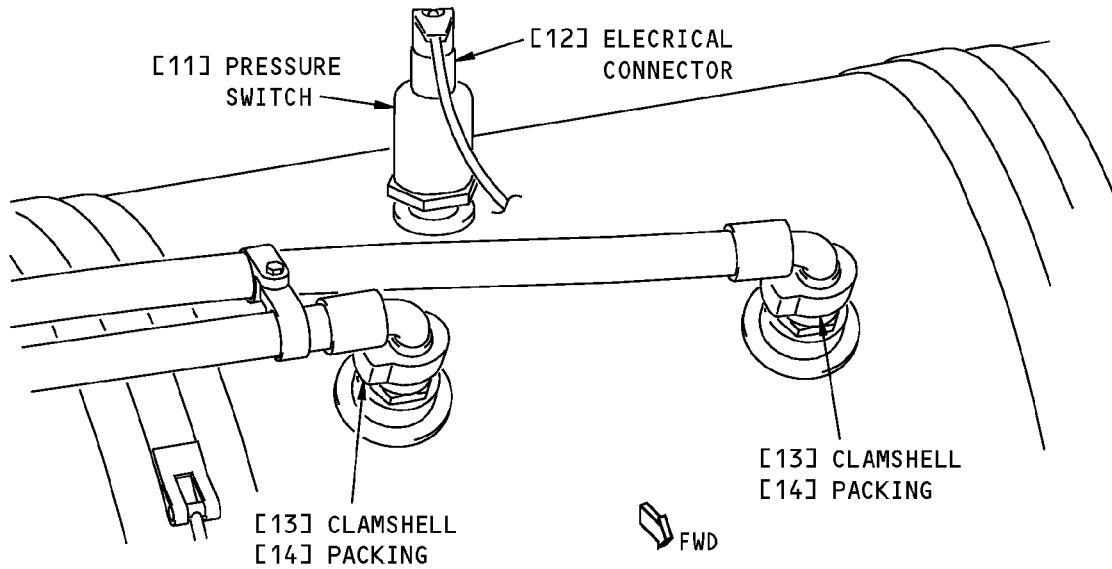
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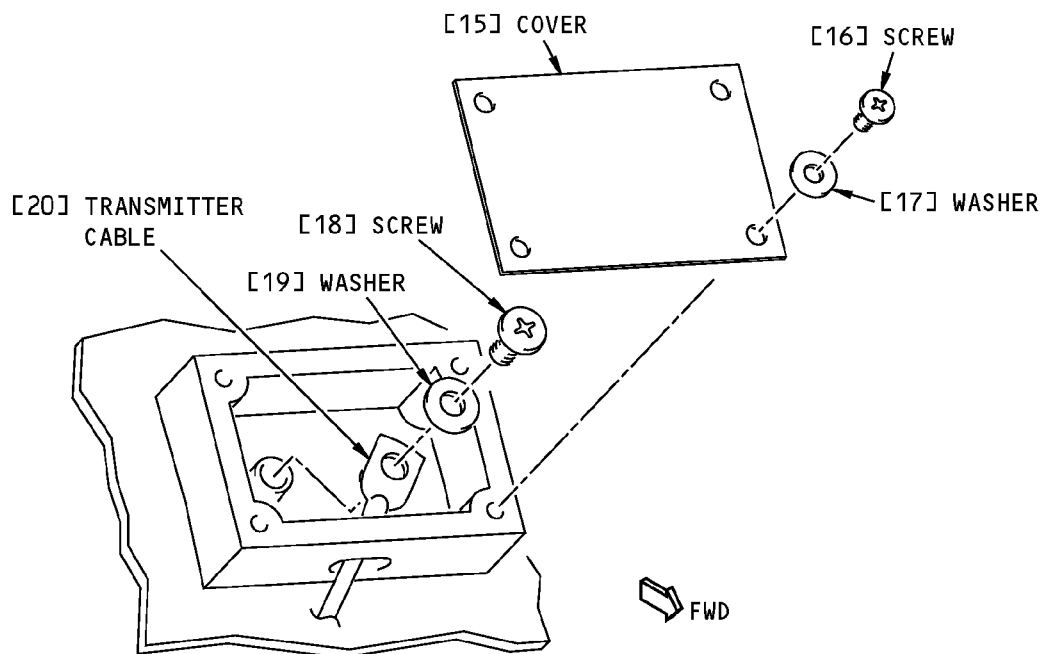
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WATER SYSTEM CONNECTION

(G)



WATER QUANTITY TRANSMITTER

(H)

Potable Water Tank Installation
Figure 401 (Sheet 4 of 6)/38-11-01-990-801

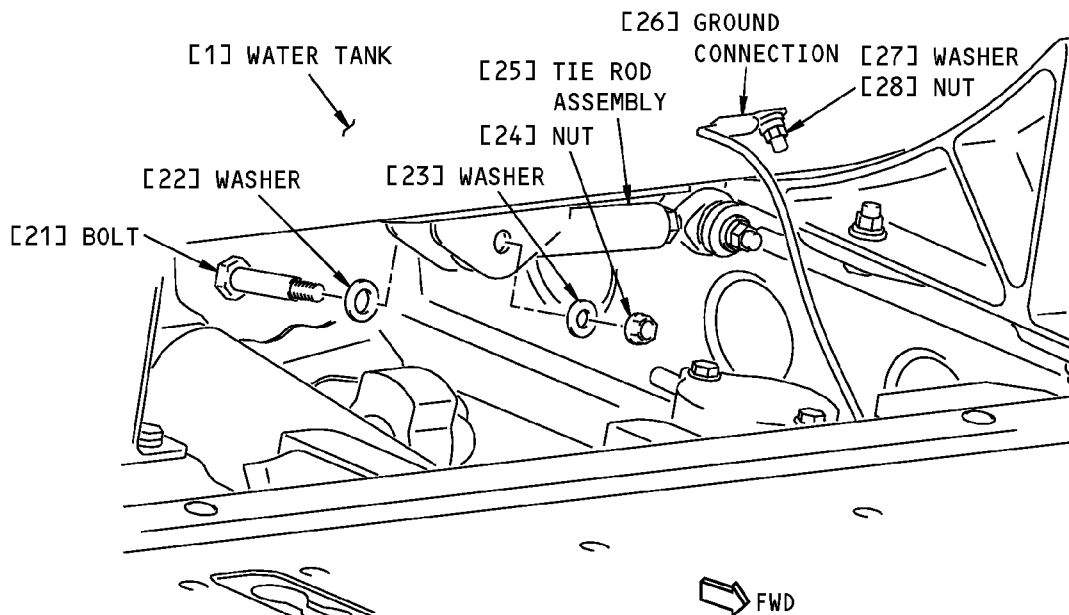
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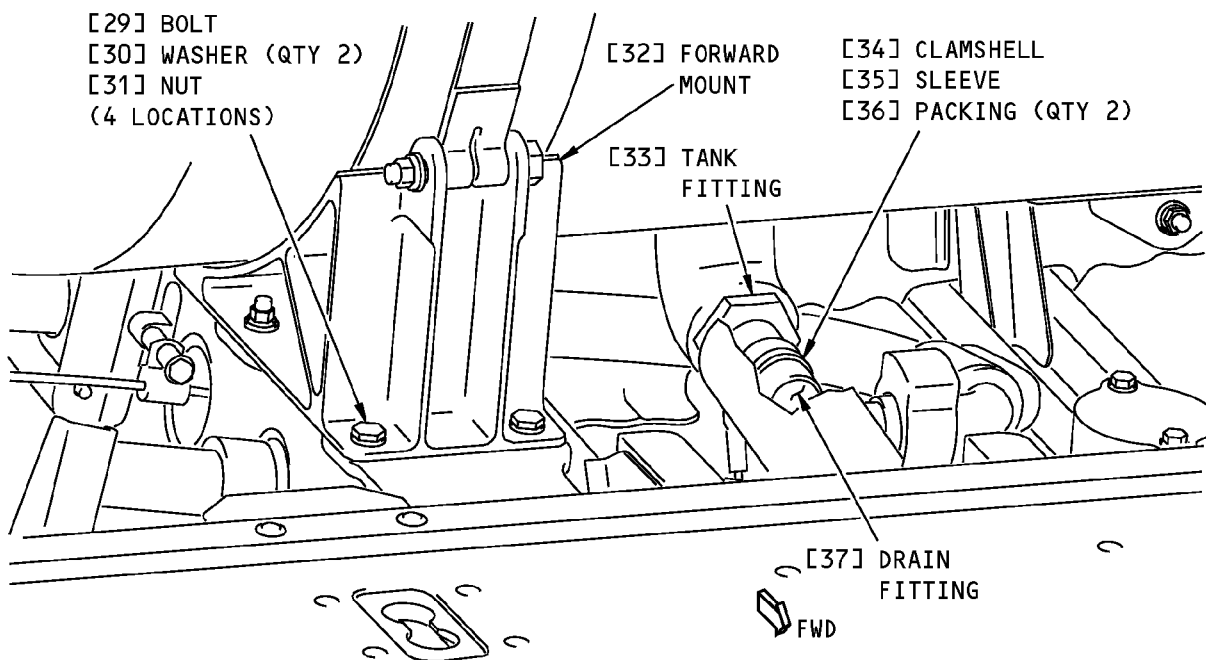
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TIE ROD CONNECTION

I



TANK DRAIN

J

Potable Water Tank Installation
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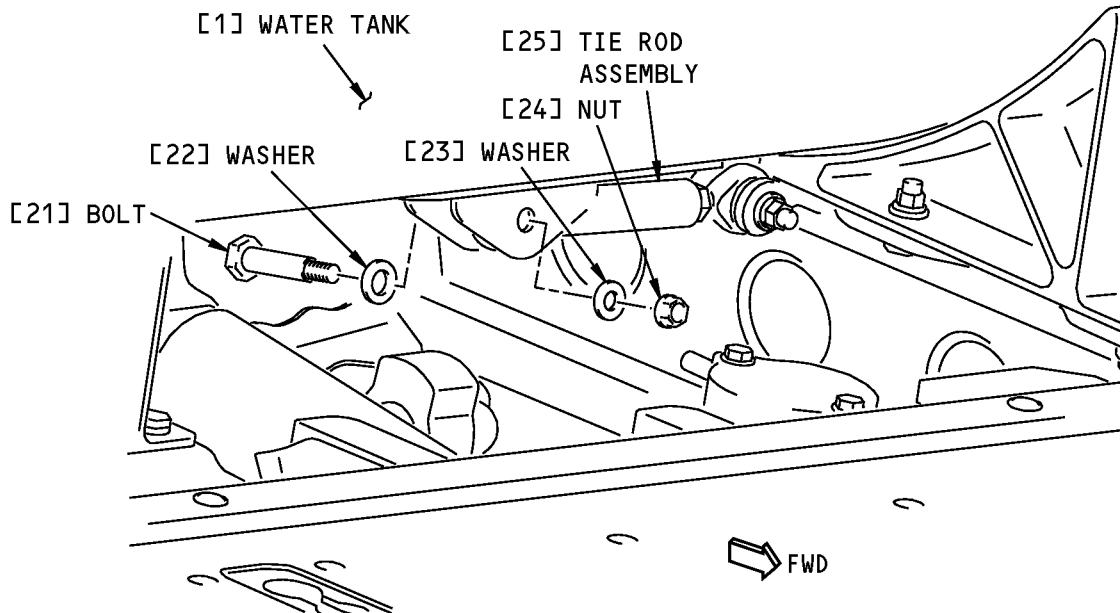
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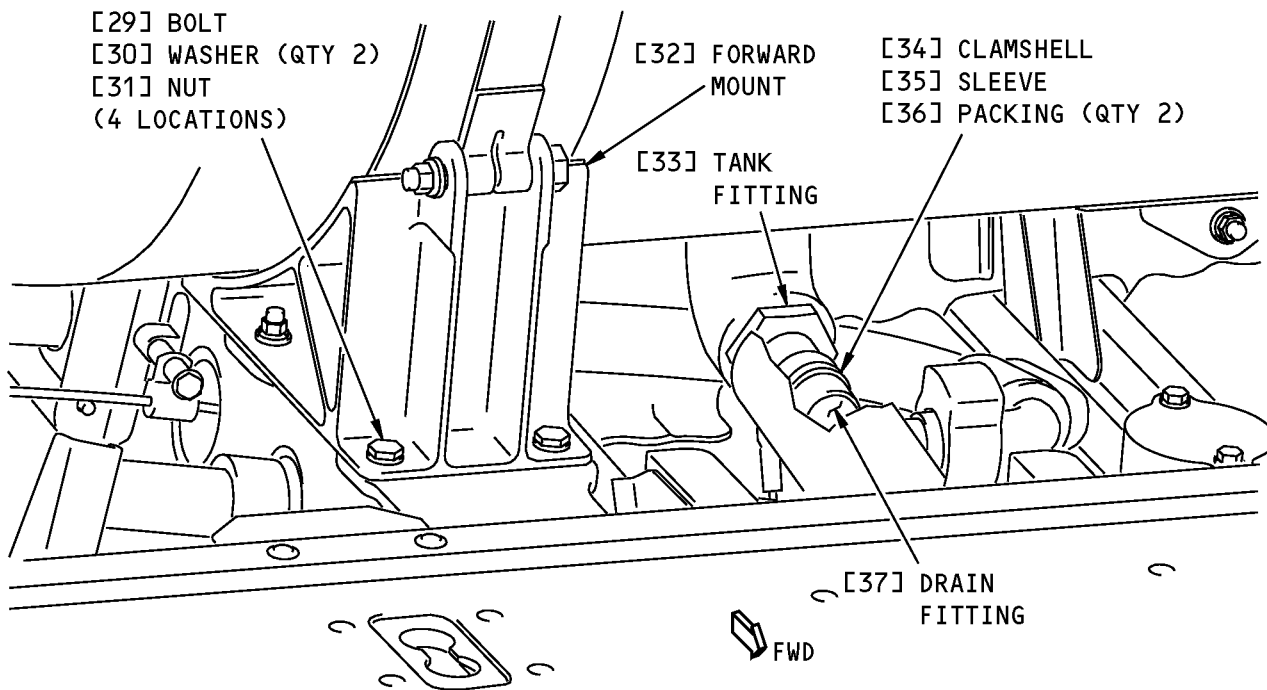
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TIE ROD CONNECTION

I



TANK DRAIN

J

Potable Water Tank Installation
Figure 401 (Sheet 6 of 6)/38-11-01-990-801

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FILL/OVERFLOW VALVE AND CONTROL CABLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the fill/overflow valve.
- (2) An installation of the fill/overflow valve.
- (3) A removal of the control cable for the fill/overflow valve.
- (4) An installation of the control cable for the fill/overflow valve.

TASK 38-11-03-000-801

2. Fill/Overflow Valve Removal

(Figure 401)

A. References

Reference	Title
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

D. Prepare for Removal

SUBTASK 38-11-03-010-007

(1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

SUBTASK 38-11-03-040-001

(2) Turn the handle for the fill/overflow valve to the OPEN position.

NOTE: This handle is on the water service panel.

SUBTASK 38-11-03-860-007

(3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP ALL			
C	9	C00138	WATER QTY IND
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

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SUBTASK 38-11-03-010-008

- (4) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-11-03-010-009

- (5) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

E. Fill/Overflow Valve Removal

SUBTASK 38-11-03-020-001

- (1) Remove the bolts [5] and washers [6] to disconnect the control cable assembly [13] from the fill/overflow valve [23].

SUBTASK 38-11-03-020-002

- (2) Remove the screws [1] and washers [2] that attach the fill/overflow valve [23] to the structure.

SUBTASK 38-11-03-020-003

- (3) Disconnect these water hoses from the fill/overflow valve [23]:

- (a) The water hose to the water service panel.
- (b) The water hose to fill the water tanks.
- (c) The water hose for the water tank overflow.
- (d) The water hose to attach the overflow to the skin fitting.

SUBTASK 38-11-03-020-004

- (4) Remove the screws [3] that attach the fill/overflow valve [23] to the bracket [4].

SUBTASK 38-11-03-020-005

- (5) Remove the fill/overflow valve [23].

————— END OF TASK —————

TASK 38-11-03-400-801

3. Fill/Overflow Valve Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-10-00-600-801	Potable Water System - Disinfectant (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
23	Valve	Not Specified	

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

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D. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

E. Fill/Overflow Valve Installation

SUBTASK 38-11-03-420-002

- (1) Install the screws [3] and bracket [4] on the fill/overflow valve [23].

SUBTASK 38-11-03-420-003

- (2) Put the fill/overflow valve [23] in its position.

SUBTASK 38-11-03-420-004

- (3) Connect these water hoses to the fill/overflow valve [23]:
 - (a) The water hose to the water service panel.
 - (b) The water hose to fill the water tanks.
 - (c) The water hose for the water tank overflow.
 - (d) The water hose to drain the water at the skin fitting.

SUBTASK 38-11-03-420-005

- (4) Install the screws [1] and washers [2] that connect the fill/overflow valve [23] to the structure.

SUBTASK 38-11-03-420-006

- (5) Do these steps to attach the control cable to the fill/overflow valve:
 - (a) Make sure the fill/overflow valve is in the CLOSE position.

NOTE: Align the arrows to show that the valve is closed.
 - (b) Make sure the control cable assembly [13] is in the CLOSE position.
 - (c) Install the bolts [5] and washers [6] to connect the control cable assembly [13].

SUBTASK 38-11-03-670-001

- (6) Do this task: Potable Water System - Disinfectant, TASK 38-10-00-600-801.

F. Fill/Overflow Valve Installation Test

SUBTASK 38-11-03-860-008

- (1) Close these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP ALL			
C	9	C00138	WATER QTY IND
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

SUBTASK 38-11-03-860-009

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-11-03-710-002

- (3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

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- (a) Make sure the air compressor for the potable water system is on.

SUBTASK 38-11-03-710-003

- (4) Turn the handle for the fill/overflow valve to the OPEN position.

- (a) If the fill/overflow valve is not in the OPEN position, then do a check for correct installation.

- (b) Turn the handle for the fill/overflow valve to the CLOSED position.

G. Put Airplane Back to its Usual Condition

SUBTASK 38-11-03-410-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-11-03-410-007

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-03-410-008

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

————— END OF TASK —————

TASK 38-11-03-000-802

4. Fill/Overflow Valve Control Cable Removal

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
25-52-10-000-801	Cargo Floor Panel Removal (P/B 401)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

B. Location Zones

<u>Zone</u>	<u>Area</u>
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door
822	Aft Cargo Door

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D. Prepare for Removal

SUBTASK 38-11-03-020-006

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

SUBTASK 38-11-03-010-010

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-03-010-011

- (3) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-11-03-010-012

- (4) Do this task: Cargo Floor Panel Removal, TASK 25-52-10-000-801.

E. Control Cable Removal

SUBTASK 38-11-03-020-007

- (1) Remove the fill/overflow valve handle [22] and screw [21] for the control cable assembly [13] at the water service panel.

SUBTASK 38-11-03-020-008

- (2) Remove the hardware that follows to disconnect the cable assembly [13]:

- (a) Remove the clamp [7], screw [8], washer [9], and spacer [10].
- (b) Remove the clamps [7], screws [16], and washers [9].
- (c) Remove the clamp [7], screw [14], and washer [9].
- (d) Remove the clamp [7], screw [17], washer [9], and spacer [18]
- (e) Remove the clamp [7], screw [14], and washer [9].
- (f) Remove the clamp [7], screw [14], washers [9], and nut [15]
- (g) Remove the clamp [7], screw [14], and washer [9].

SUBTASK 38-11-03-020-009

- (3) Remove the bolts [19], washers [20], nuts [11], and washers [12] to remove the control cable assembly [13] from water service panel.

SUBTASK 38-11-03-020-010

- (4) Remove the bolts [5] and washers [6] to disconnect the control cable assembly [13] from the fill/overflow valve [23].

SUBTASK 38-11-03-020-011

- (5) Remove the control cable assembly [13].

————— **END OF TASK** —————

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TASK 38-11-03-400-802

5. Fill/Overflow Valve Control Cable Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-10-400-801	Cargo Floor Panel Installation (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)
51-31-00-390-801	Non-Removable Faying (Mated) Surface Seal Application (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
13	Cable assembly	Not Specified	

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

E. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

F. Control Cable Installation

SUBTASK 38-11-03-420-007

- (1) Pull the control cable assembly [13] from the water service panel to put the control cable assembly in its position.

SUBTASK 38-11-03-420-008

- (2) Do these steps to attach the control cable to the fill/overflow valve:
 - (a) Make sure the fill/overflow valve is in the CLOSE position.
NOTE: Align the arrows to show that the valve is closed.
 - (b) Make sure the control cable assembly [13] is in the CLOSE position.
 - (c) Install the bolts [5] and washers [6] to connect the control cable assembly [13] to the fill/overflow valve [23].

SUBTASK 38-11-03-010-013

- (3) Remove the screw [21] and handle [22] from the handle end of the control cable assembly [13].

SUBTASK 38-11-03-420-009

- (4) Install the hardware that follows to connect the control cable assembly [13] to structure.

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- (a) Install the clamp [7], screw [8], washer [9], and spacer [10].
- (b) Install the clamps [7], screws [16], and washers [9].
- (c) Install the clamp [7], screw [14], and washer [9].
- (d) Install the clamp [7], screw [17], washer [9], and spacer [18]
- (e) Install the clamp [7], screw [14], and washer [9].
- (f) Install the clamp [7], screw [14], washers [9], and nut [15].
- (g) Install the clamp [7], screw [14], and washer [9].

SUBTASK 38-11-03-420-010

- (5) Get access to the water service panel.

SUBTASK 38-11-03-390-001

- (6) To apply the sealant, A00247 as a fay surface seal to the inner area of the water service panel around the control cable assembly [13], do this task: Non-Removable Faying (Mated) Surface Seal Application, TASK 51-31-00-390-801.

SUBTASK 38-11-03-420-011

- (7) Loosely install the screws [19], washers [20], nuts [11] and washers [12] to attach the control cable assembly [13] to the water service panel.

SUBTASK 38-11-03-420-012

- (8) Install the handle [22] and screw [21].

SUBTASK 38-11-03-410-016

- (9) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.

G. Control Cable Installation Test

SUBTASK 38-11-03-710-004

- (1) Make sure the load you use to operate the control cable is less than 50 pound-inches (5.6 newton-meters).

SUBTASK 38-11-03-860-010

- (2) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP ALL			
C	9	C00138	WATER QTY IND
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

SUBTASK 38-11-03-860-011

- (3) do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-11-03-710-005

- (4) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.
 - (a) Make sure the air compressor for the potable water system is on.

SUBTASK 38-11-03-610-001

- (5) Turn the handle for the fill/overflow valve to the OPEN position.

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(a) Make sure the fill/overflow valve is completely open.

H. Put the Airplane Back to its Usual Condition

SUBTASK 38-11-03-410-009

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-11-03-410-010

(2) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.

SUBTASK 38-11-03-410-011

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-03-410-012

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

————— END OF TASK —————

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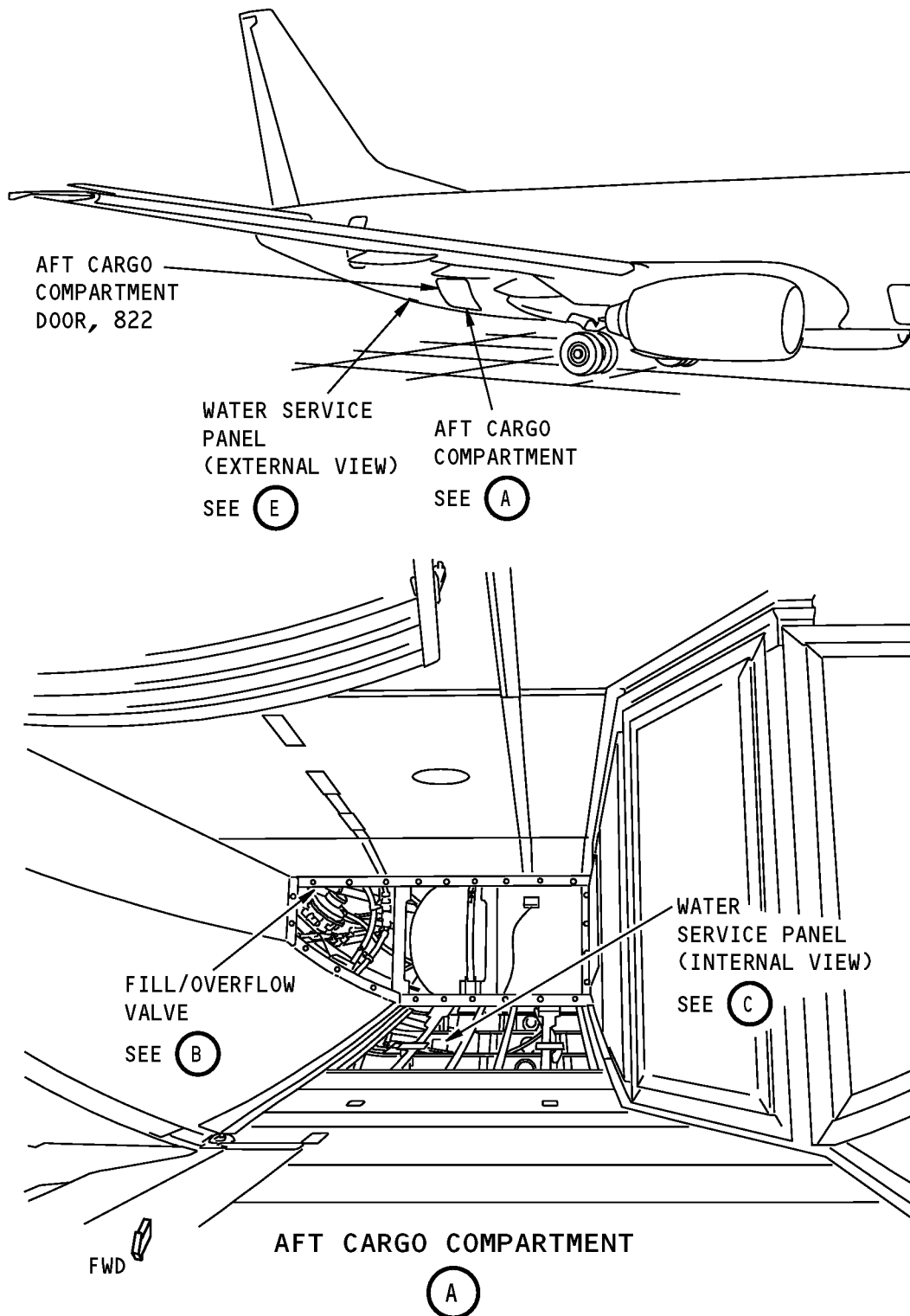
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Fill/Overflow Valve and Control Cable Installation
Figure 401 (Sheet 1 of 4)/38-11-03-990-802

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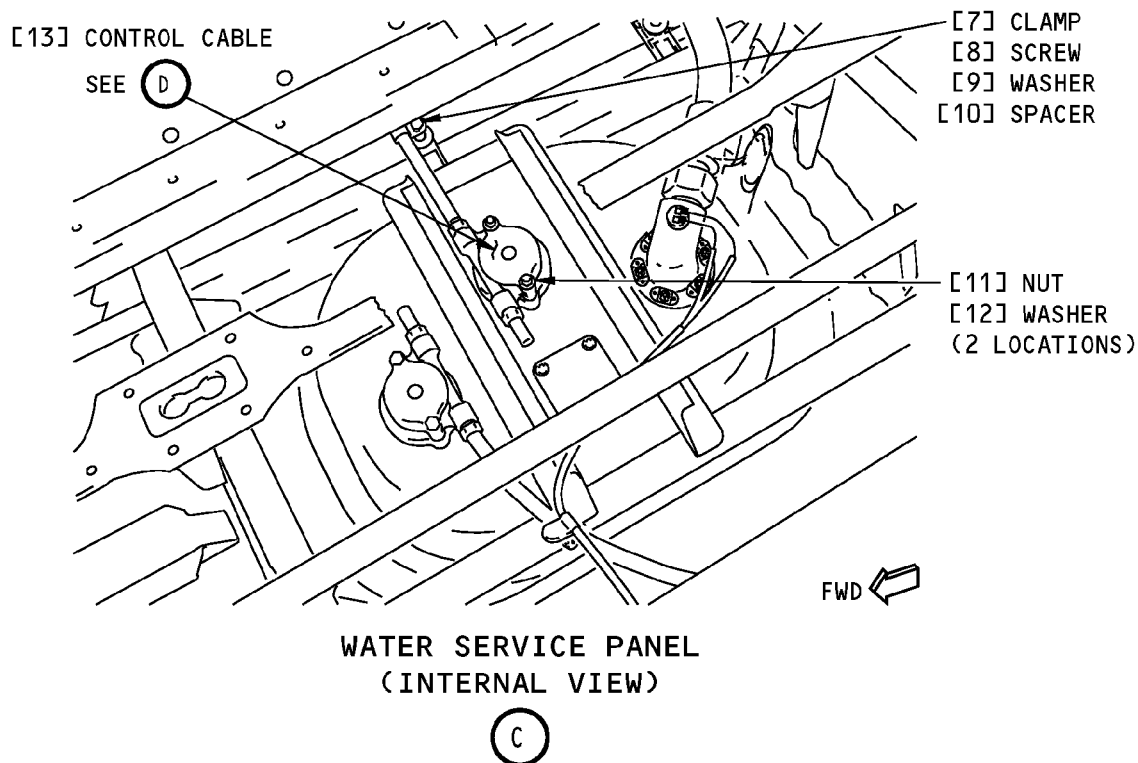
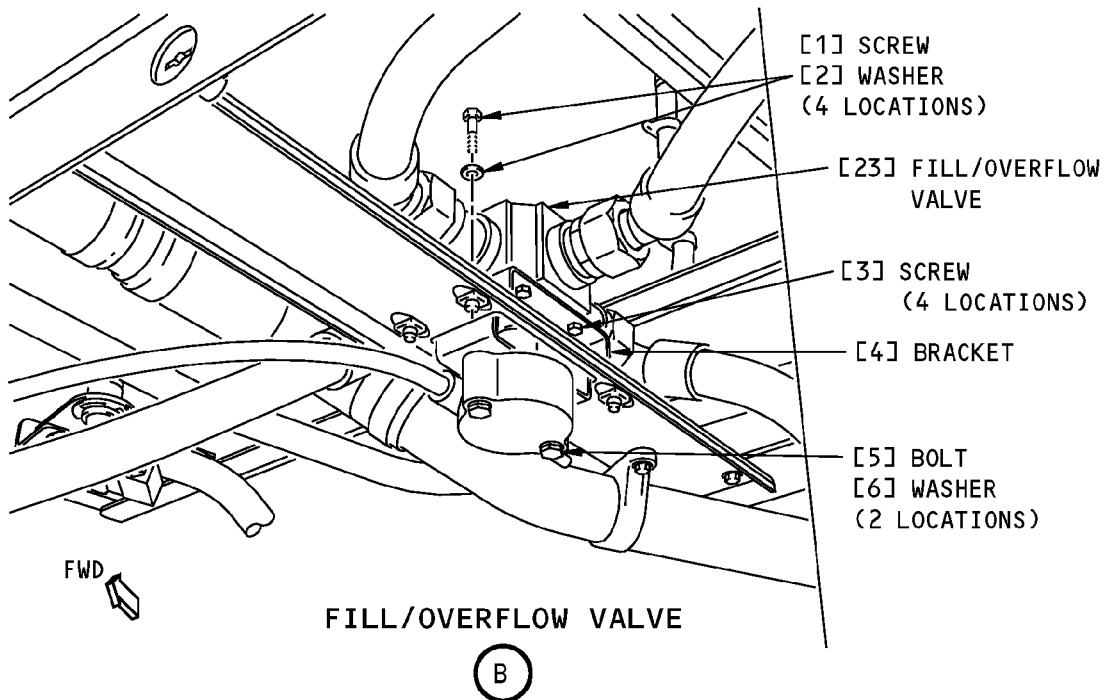
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Fill/Overflow Valve and Control Cable Installation
Figure 401 (Sheet 2 of 4)/38-11-03-990-802

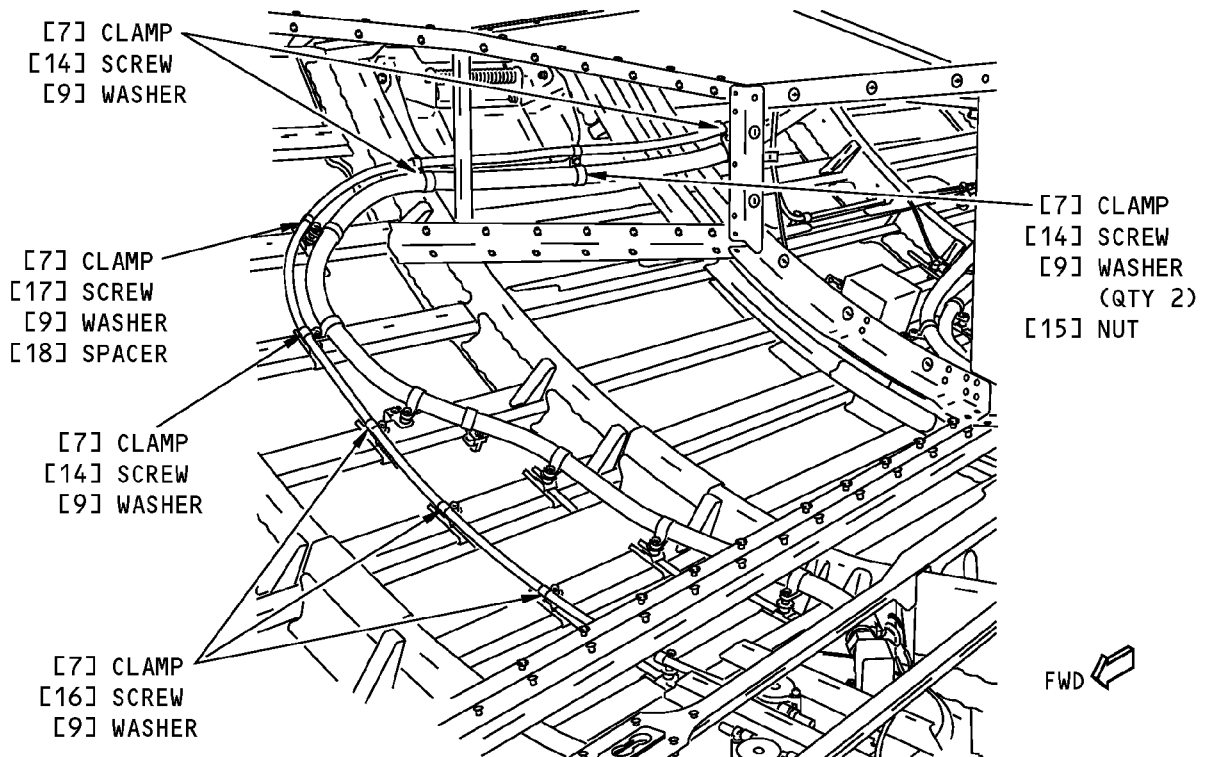
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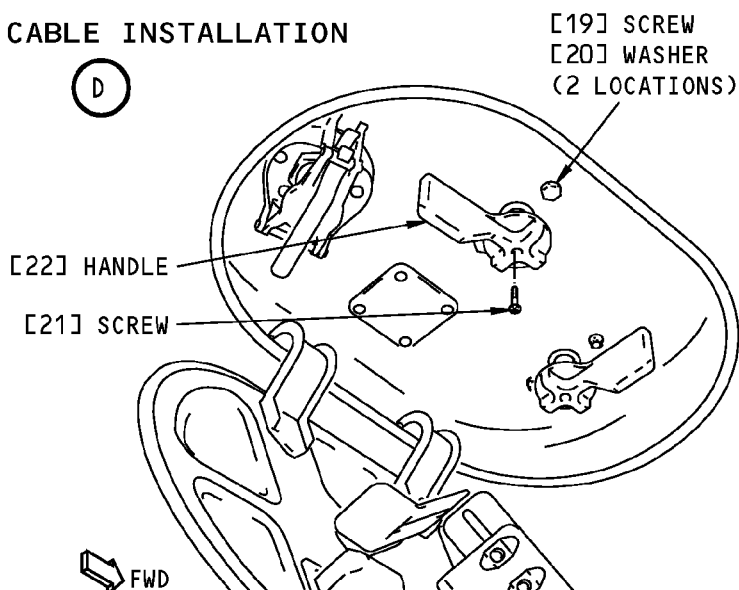
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CONTROL CABLE INSTALLATION

(D)



WATER SERVICE PANEL (EXTERNAL VIEW)

(E)

Fill/Overflow Valve and Control Cable Installation
Figure 401 (Sheet 3 of 4)/38-11-03-990-802

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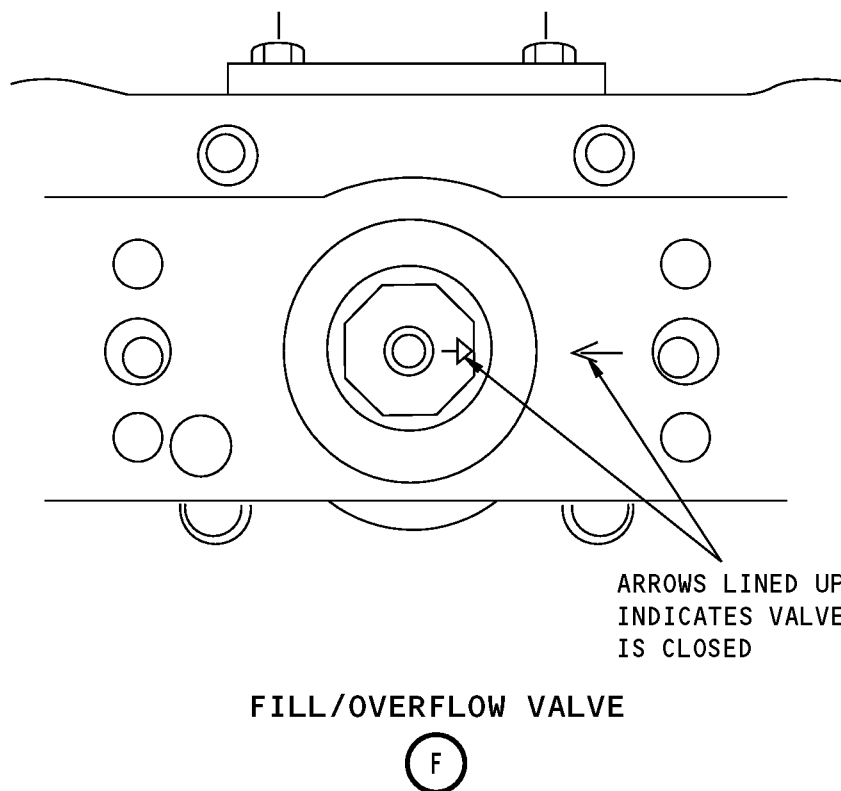
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Fill/Overflow Valve and Control Cable Installation
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AIRCRAFT MAINTENANCE MANUAL

WATER FILTER - REMOVAL/INSTALLATION

1. General

- A. This procedure has one task to replace the lavatory filter for the potable water system.
- B. The water filter is in the lavatory below the sink.

HAP 001-013, 015-026, 028-030

TASK 38-11-04-960-801

2. Water Filter Replacement

(Figure 401)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Filter cannister	38-11-04-13-075	HAP 001-013, 015-026, 028-030

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Prepare to Replace the Water Filter

SUBTASK 38-11-04-010-001

- (1) Get access to the lavatory.

SUBTASK 38-11-04-040-001

- (2) Turn the handle for the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is behind the mirror above the sink in the lavatory.

SUBTASK 38-11-04-040-002

- (3) Open the faucet to release the pressure and to drain some of the water.

SUBTASK 38-11-04-680-001

- (4) Make sure the drain valve for the lavatory is in the OPEN TO DRAIN position.

NOTE: The drain valve is found below the sink in the lavatory.

SUBTASK 38-11-04-680-002

- (5) If it is necessary, do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

SUBTASK 38-11-04-010-002

- (6) Open the cabinet door immediately below the sink.

E. Water Filter Replacement

SUBTASK 38-11-04-680-003

- (1) Put a cloth below the water filter assembly to absorb the water that stays in the lines.

SUBTASK 38-11-04-010-003

- (2) Loosen the clamp [3] which keeps the top on the housing [5].

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HAP 001-013, 015-026, 028-030 (Continued)

SUBTASK 38-11-04-010-004

- (3) Lift the top of the housing [6] and then move it away from the housing [5].

SUBTASK 38-11-04-020-001

- (4) Remove the water filter cannister [2] from the housing [5].

SUBTASK 38-11-04-420-001

- (5) Put a new waterfilter cannister [2] into the housing [5].

SUBTASK 38-11-04-410-001

- (6) Make sure the gasket [4] between the top of the housing [6] and the housing [5] is not broken and is in its position.

- (a) Replace the gasket [4] between the top of the housing [6] and the housing [5] if it is broken.

SUBTASK 38-11-04-410-002

- (7) Put the top of the housing [6] in its position on the housing [5].

SUBTASK 38-11-04-420-002

CAUTION: MAKE SURE THE CLAMP BOLT ON THE WATER FILTER IS IN A POSITION TO LET YOU CLOSE THE CABINET DOOR. IF THE CLAMP BOLT IS IN AN INCORRECT POSITION, THE CABINET DOOR WILL NOT CLOSE.

- (8) Install the clamp [3].

SUBTASK 38-11-04-610-001

- (9) If it is necessary, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-11-04-860-001

CAUTION: MAKE SURE YOU CLOSE THE DRAIN VALVE TO PREVENT A FROZEN DRAIN LINE DURING THE OPERATION OF THE WATER SYSTEM. IF THE DRAIN LINE FREEZES DURING THE WATER SYSTEM OPERATION, THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

- (10) Move the drain valve in each lavatory to the CLOSED position.

SUBTASK 38-11-04-440-001

- (11) Turn the handle for the water shutoff valve to the ON position.

SUBTASK 38-11-04-440-002

- (12) Make sure there are no leaks.

SUBTASK 38-11-04-020-002

- (13) Remove the cloth from below the housing [5].

SUBTASK 38-11-04-410-003

- (14) Close the cabinet door below the sink.

————— **END OF TASK** —————

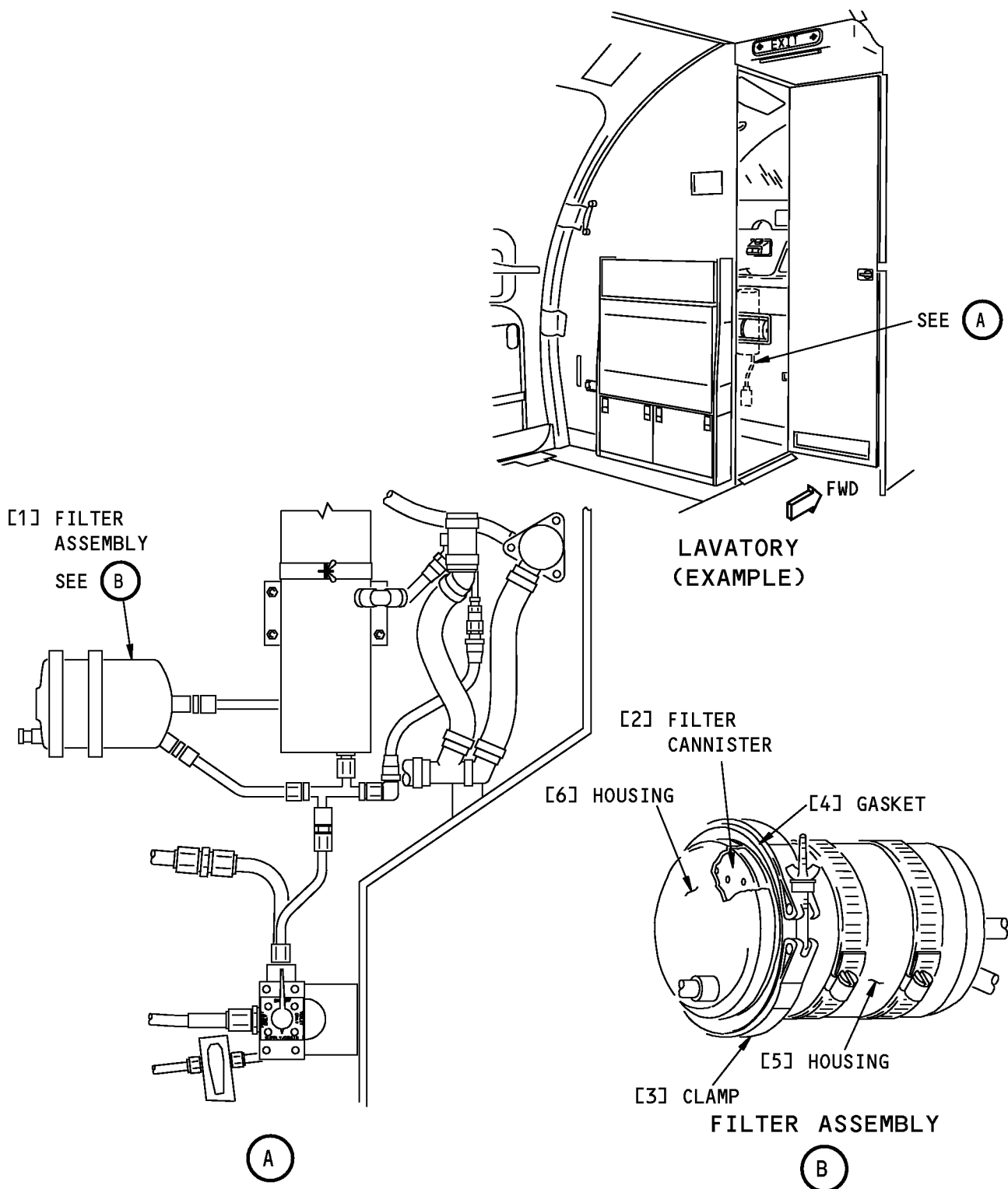
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Water Filter Installation
Figure 401/38-11-04-990-801

EFFECTIVITY
HAP 001-013, 015-026, 028-030

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HAP 001-013, 015-026, 028-030 (Continued)

HAP 031-054, 101-999

TASK 38-11-04-960-802

3. Cold Water Filter Replacement

(Figure 402)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare to Replace the Water Filter

SUBTASK 38-11-04-010-005

- (1) Get access to the lavatory.

SUBTASK 38-11-04-040-003

- (2) Turn the handle for the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is behind the mirror above the sink in the lavatory.

SUBTASK 38-11-04-680-005

- (3) Open the faucet to release the pressure and to drain some of the water.

SUBTASK 38-11-04-680-006

- (4) Make sure the drain valve for the lavatory is in the OPEN TO DRAIN position.

NOTE: The drain valve is found below the sink in the lavatory.

SUBTASK 38-11-04-680-007

- (5) If it is necessary, do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

SUBTASK 38-11-04-010-006

- (6) Open the cabinet door immediately below the sink.

D. Water Filter Assembly Removal

SUBTASK 38-11-04-680-008

- (1) Put a cloth below the water filter assembly [1] to absorb the water that stays in the lines.

SUBTASK 38-11-04-030-001

- (2) Disconnect the water lines from the water filter assembly.

SUBTASK 38-11-04-030-002

- (3) Disconnect the clamp [7] that attaches water filter assembly to the bracket, and remove the water filter assembly.

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HAP 031-054, 101-999 (Continued)

E. Water Filter Assembly Installation.

SUBTASK 38-11-04-430-001

- (1) Put the water filter assembly [1] in its position on the bracket and install the clamp.

NOTE: Make sure that the clamp [3] and clamp [7] are positioned to let you close the cabinet door. If the clamp bolts are not in the correct, the cabinet door will not close.

SUBTASK 38-11-04-430-002

- (2) Connect the inlet and outlet water lines to the filter assembly [1].

SUBTASK 38-11-04-610-002

- (3) If it is necessary, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-11-04-860-003

CAUTION: MAKE SURE THAT YOU CLOSE THE DRAIN VALVE TO PREVENT A FROZEN DRAIN LINE DURING THE WATER SYSTEM OPERATION. THE DRAIN LINE CAN FREEZE DURING FLIGHT. THIS CAN CAUSE DAMAGE TO THE EQUIPMENT.

- (4) Move the drain valve in each lavatory to the CLOSED position.

SUBTASK 38-11-04-860-004

- (5) Turn the handle for the water shutoff valve to the ON position.

SUBTASK 38-11-04-863-001

- (6) Do this task, as necessary, to pressurize the potable water system. Potable Water System - Pressurization, TASK 38-42-00-800-802

SUBTASK 38-11-04-171-001

- (7) Open the water faucet, purge the air from the water lines, and close the faucet.

SUBTASK 38-11-04-790-001

- (8) Make sure there are no water leaks.

SUBTASK 38-11-04-030-003

- (9) Remove the cloth from below the water filter assembly [1].

SUBTASK 38-11-04-410-004

- (10) Close the cabinet door below the sink.

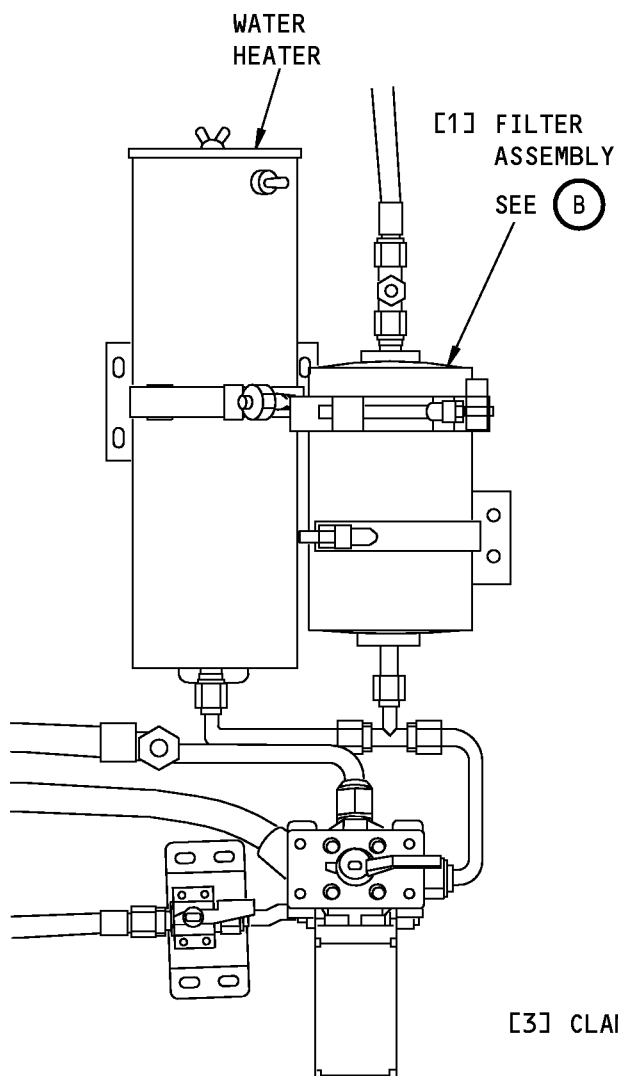
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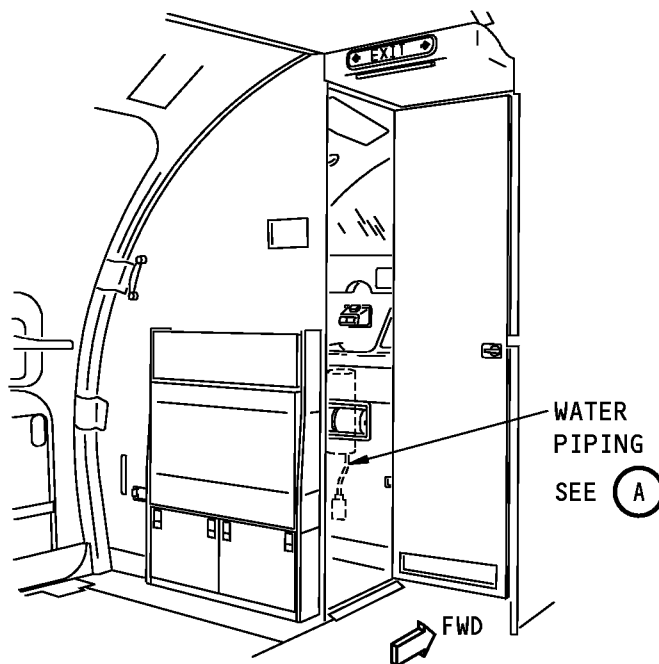
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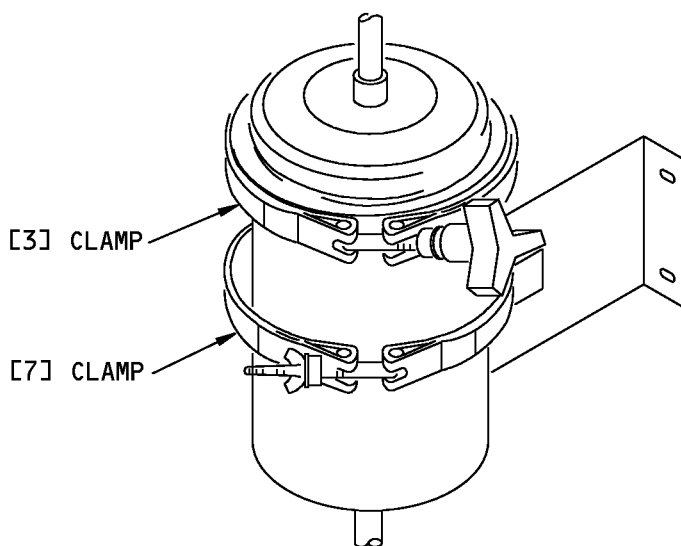


WATER PIPING

(A)



LAVATORY
(EXAMPLE)



FILTER ASSEMBLY

(B)

Cold Water Filter Installation
Figure 402/38-11-04-990-802

EFFECTIVITY
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LAVATORY FAUCET - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the faucet assembly.
- (2) An installation of the faucet assembly.
- (3) The cartridge valve assembly replacement.
- (4) A removal of the drain valve assembly.
- (5) An installation of the drain valve assembly.
- (6) An adjustment of the water flow.
- (7) An adjustment of the drain valve assembly.

HAP 001-013, 015-026, 028-030

TASK 38-11-05-000-801

2. Faucet Assembly Removal

(Figure 201)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the removal

SUBTASK 38-11-05-010-001

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-010-002

- (2) Open the access door for the water system.

SUBTASK 38-11-05-860-001

- (3) Turn the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is below the sink in the lavatory.

SUBTASK 38-11-05-680-001

- (4) Push each of the push buttons [2] to drain the water from the lines.

C. Faucet Assembly Removal

SUBTASK 38-11-05-020-001

- (1) Disconnect the hot and cold water connections.

SUBTASK 38-11-05-020-002

- (2) Disconnect the spring [9].

SUBTASK 38-11-05-020-003

- (3) Remove the nuts [8] that attach the bracket [10].

SUBTASK 38-11-05-020-004

- (4) Remove the reducer assembly [14] and screws [13] that attach the faucet cover [12].

SUBTASK 38-11-05-020-005

- (5) Remove the faucet cover [12].

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HAP 001-013, 015-026, 028-030 (Continued)

SUBTASK 38-11-05-020-006

(6) Remove the screws [4] for the faucet assembly [1].

SUBTASK 38-11-05-020-007

(7) Disconnect the drain rod [7] from the drain valve assembly.

SUBTASK 38-11-05-020-008

(8) Remove the hot and cold water connections from the bracket [10] with the grommets [11].

(a) Make sure the grommets [11] stay with the bracket [10].

SUBTASK 38-11-05-020-009

(9) Remove the faucet assembly [1] and gasket [6].

END OF TASK

TASK 38-11-05-400-801

3. Faucet Assembly Installation

(Figure 201)

A. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Faucet assembly	38-11-05-01-100	HAP 001-013, 015-026, 028-030
		38-11-05-01C-050	HAP 006, 007
		38-11-05-05-025	HAP 008-013, 015-026, 028-030
		38-11-05-05L-050	HAP 006, 007

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Faucet Assembly Installation

SUBTASK 38-11-05-420-001

(1) Put the faucet assembly [1] and gasket [6] in their position.

SUBTASK 38-11-05-420-002

(2) Put the hot and cold water connections and the grommets [11] in their positions.

SUBTASK 38-11-05-420-003

(3) Connect the drain rod [7] from the faucet assembly [1] to the drain valve assembly.

SUBTASK 38-11-05-420-004

(4) Install the screws [4] for the faucet assembly [1].

SUBTASK 38-11-05-420-005

(5) Install the nuts [8] and bracket [10].

SUBTASK 38-11-05-020-010

(6) Put the faucet cover [12] in its position.

NOTE: Make sure the drain button [15] is fully engaged on the drain rod [7].

SUBTASK 38-11-05-020-011

(7) Install the reducer assembly [14] and screws [13] for the faucet cover [12].

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HAP 001-013, 015-026, 028-030 (Continued)

D. Faucet Assembly Installation Test

SUBTASK 38-11-05-860-002

- (1) Turn the water shutoff valve to the ON position.

SUBTASK 38-11-05-790-001

- (2) Make sure that the water hose connections do not have a leak.

SUBTASK 38-11-05-710-001

- (3) Make a selection of the time the water flows from 4 seconds to 10 seconds, then do this test.
 - (a) Push each of the push buttons [2] to make sure the time the water flows is satisfactory.
 - (b) If the length of time the water flows is not satisfactory, do this task: Water Faucet Adjustment, TASK 38-11-05-820-801.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 38-11-05-410-001

- (1) Close the access door for the water system.

SUBTASK 38-11-05-410-002

- (2) Close the access to the lavatory module.

————— END OF TASK —————

TASK 38-11-05-000-802

4. Drain Valve Assembly Removal

(Figure 202)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the Removal

SUBTASK 38-11-05-010-003

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-860-003

- (2) Turn the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is below the sink in the lavatory.

SUBTASK 38-11-05-010-004

- (3) Open the access door for the water system.

C. Drain Valve Assembly Removal

SUBTASK 38-11-05-020-012

- (1) Disconnect the hose [33] and clamp [31] from the drain valve assembly [32].

SUBTASK 38-11-05-020-013

- (2) Loosen the screw that attaches the drain valve link [38] to the drain rod [7].

SUBTASK 38-11-05-020-014

- (3) Disconnect the drain valve link [38] from the drain rod [7].

SUBTASK 38-11-05-020-015

- (4) Loosen and then remove the rod assembly [39] from the drain valve body [42].

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HAP 001-013, 015-026, 028-030 (Continued)

SUBTASK 38-11-05-020-016

- (5) Remove the drain plug [34] and packing [44] from the collar [35].

NOTE: Discard the packing [44].

SUBTASK 38-11-05-020-017

- (6) If it is necessary, loosen the nut [41] to disconnect the outlet elbow [40] from the drain valve body [42].

SUBTASK 38-11-05-020-018

- (7) Disconnect the drain valve body [42] from the collar [35].

SUBTASK 38-11-05-020-019

- (8) Remove the collar [35], nut [43], washer [37] and gasket [36] from the lavatory sink.

SUBTASK 38-11-05-020-020

- (9) Make sure you keep the loose parts of the drain valve assembly [32].

————— **END OF TASK** —————

TASK 38-11-05-400-802

5. Drain Valve Assembly Installation

(Figure 202)

A. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
32	Valve assembly	38-11-05-02-065	HAP 001-013, 015-026, 028-030
36	Gasket	38-11-05-02-085	HAP 001-013, 015-026, 028-030
44	Packing	38-11-05-02-075	HAP 001-013, 015-026, 028-030

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Drain Valve Assembly Installation

SUBTASK 38-11-05-020-021

- (1) Put the drain valve assembly [32] in its position.

NOTE: It is necessary to remove some of the parts of the drain valve assembly [32] for the installation.

SUBTASK 38-11-05-420-006

- (2) Put the collar [35], nut [43], washer [37] and gasket [36] in position.

SUBTASK 38-11-05-420-007

- (3) Connect the drain valve body [42] and nut [43] to the collar [35].

SUBTASK 38-11-05-420-008

- (4) Put the packing [44] on the drain plug [34] and then install the drain plug [34] in the drain valve body [42].

SUBTASK 38-11-05-420-009

- (5) Install the rod assembly [39] into the drain plug [34] in the drain valve body [42].

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- (a) Loosely install the rod assembly [39].

SUBTASK 38-11-05-020-022

- (6) Install the drain valve link [38] to connect the rod assembly [39] to the drain rod [7].

SUBTASK 38-11-05-020-023

- (7) Tighten the screw to hold the drain valve link [38] in its position and then tighten the nut [39].

SUBTASK 38-11-05-420-010

- (8) If it is necessary, install the nut [41] and outlet elbow [40] for the drain valve body [42].

SUBTASK 38-11-05-420-011

- (9) Connect the hose [33] and clamp [31] to the drain valve assembly [32].

D. Drain Valve Assembly Installation Test

SUBTASK 38-11-05-860-004

- (1) Turn the water shutoff valve to the ON position.

SUBTASK 38-11-05-790-002

- (2) Push the push button assemblies to fill the lavatory sink approximately half full.

- (a) Make sure there is no leakage under the lavatory sink.

- (b) If the drain valve does not keep the water in the sink, do this task: Drain Valve Adjustment, TASK 38-11-05-820-802.

SUBTASK 38-11-05-710-002

- (3) Push the drain button [15] for the drain valve on the water faucet.

- (a) Make sure the drain valve opens and that the operation of the lavatory sink drain is satisfactory.

- (b) If the length of time for the water to drain is not satisfactory, do this task: Drain Valve Adjustment, TASK 38-11-05-820-802.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 38-11-05-410-003

- (1) Close the access door for the water system.

SUBTASK 38-11-05-410-004

- (2) Close the access to the lavatory module.

END OF TASK

TASK 38-11-05-960-801

6. Cartridge Valve Assembly Replacement

(Figure 201)

A. General

- (1) This task is for one of the two water cartridges for the water faucet. If it is necessary to replace the two water cartridges, do this task two times.

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
18	Valve assembly	38-11-05-02-195	HAP 001-005, 008-013, 015-026, 028-030
19	Packing	38-11-05-02-200	HAP 001-013, 015-026, 028-030

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
20	Packing	38-11-05-02-205	HAP 001-013, 015-026, 028-030

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Prepare to Replace the Cartridge Valve Assembly

SUBTASK 38-11-05-010-005

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-860-005

- (2) Turn the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is below the sink in the lavatory.

SUBTASK 38-11-05-680-002

- (3) Push each of the push buttons [2] to drain the water from the lines.

E. Cartridge Valve Assembly Removal

SUBTASK 38-11-05-020-024

- (1) Remove the reducer assembly [14] and screws [13] that attach the faucet cover [12].

SUBTASK 38-11-05-020-025

- (2) Remove the faucet cover [12].

SUBTASK 38-11-05-020-026

- (3) Disconnect the push button [2] from the cartridge valve assembly [18] as follows:

- (a) Remove the shoulder screw [3].
- (b) Remove the push button [2] and spring [17].

SUBTASK 38-11-05-020-027

- (4) Pull the cartridge valve assembly [18] from the faucet assembly.

F. Cartridge Valve Assembly Installation

SUBTASK 38-11-05-420-012

- (1) Install the cartridge valve assembly [18], packing [19], and packing [20] in the faucet assembly.

SUBTASK 38-11-05-420-013

- (2) Connect the push button [2] as follows:

NOTE: Make sure you install the compression spring between the faucet body and the push button assembly.

- (a) Install the push button [2] and spring [17].
- (b) Install the shoulder screw [3].

SUBTASK 38-11-05-410-005

- (3) Put the faucet cover [12] in its position.

NOTE: Make sure the drain button [15] is fully engaged on the drain rod [7].

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SUBTASK 38-11-05-420-014

- (4) Install the reducer assembly [14] and screws [13] that attach the faucet cover [12].

G. Cartridge Valve Assembly Installation Test

SUBTASK 38-11-05-860-006

- (1) Turn the water shutoff valve to the ON position.

SUBTASK 38-11-05-710-003

- (2) Make a selection of the time the water flows from 4 second to 10 seconds, then do this test.
 - (a) Push the push button [2] to make sure the time the water flows is satisfactory.
 - (b) If the length of time the water flows is not satisfactory, do this task: Water Faucet Adjustment, TASK 38-11-05-820-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-11-05-410-006

- (1) Close the cabinet door behind the mirror.

SUBTASK 38-11-05-410-007

- (2) Close the access to the lavatory module.

————— END OF TASK —————

TASK 38-11-05-820-801

7. Water Faucet Adjustment

(Figure 201)

A. Consumable Materials

Reference	Description	Specification
A00026	Compound - Sealing, Locking And Retaining, Single Component	ASTM D5363

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Water Faucet Adjustment

SUBTASK 38-11-05-010-006

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-020-028

- (2) Remove the reducer assembly [14] and screws [13] that attach the cover [12].

SUBTASK 38-11-05-020-029

- (3) Remove the faucet cover [12].

SUBTASK 38-11-05-710-004

- (4) Make a selection of the time the water flows from 4 seconds to 10 seconds, then do this test.
 - (a) Push each of the push buttons [2] to make sure the time the water flows is satisfactory.
 - (b) If the length of time the water flows is more than necessary, then do these steps:
 - 1) Turn the adjustment screw [5] clockwise.
 - 2) Push the push button [2] again to make sure the time the water flows is satisfactory.

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- 3) If the length of time the water flows is not satisfactory, then do this step again:
- (c) If the length of time the water flows is less than necessary, then do these steps:
 - 1) Turn the adjustment screw [5] counterclockwise.
 - 2) Push the push button [2] again to make sure the time the water flows is satisfactory.
 - 3) If the length of time the water flows is not satisfactory, then do this step again:
- (d) If the length of time the water flows is satisfactory, put compound, A00026 grade C, on the threads of the adjustment screw [5], then continue.

SUBTASK 38-11-05-410-008

- (5) Put the faucet cover [12] in its position.

NOTE: Make sure the drain button [15] is fully engaged on the drain rod [7].

SUBTASK 38-11-05-420-015

- (6) Install the reducer assembly [14] and screws [13] for the faucet cover [12].

SUBTASK 38-11-05-410-009

- (7) Close the access to the lavatory module.

————— **END OF TASK** —————

TASK 38-11-05-820-802

8. Drain Valve Adjustment

(Figure 202)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Drain Valve Adjustment

SUBTASK 38-11-05-010-007

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-010-008

- (2) Open the access door for the water system.

SUBTASK 38-11-05-020-030

- (3) Loosen the screw that attaches the drain valve link [38] to the drain rod [7].

SUBTASK 38-11-05-860-007

- (4) Push the end of the rod assembly [39] up to make sure the drain plug [34] is fully engaged against the collar [35].

SUBTASK 38-11-05-420-016

- (5) Tighten the screw that attaches the drain valve link [38] to the drain rod [7].

SUBTASK 38-11-05-710-005

- (6) Push the buttons for the water supply to fill the lavatory sink approximately half full.

- (a) Make sure the water stays in the lavatory sink.

SUBTASK 38-11-05-420-017

- (7) Push the drain button [15] for the drain valve on the water faucet.

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- (a) Make sure the drain valve opens and that the operation of the lavatory sink drain is satisfactory.

SUBTASK 38-11-05-410-010

- (8) Close the access door for the water system.

SUBTASK 38-11-05-410-011

- (9) Close the access to the lavatory module.

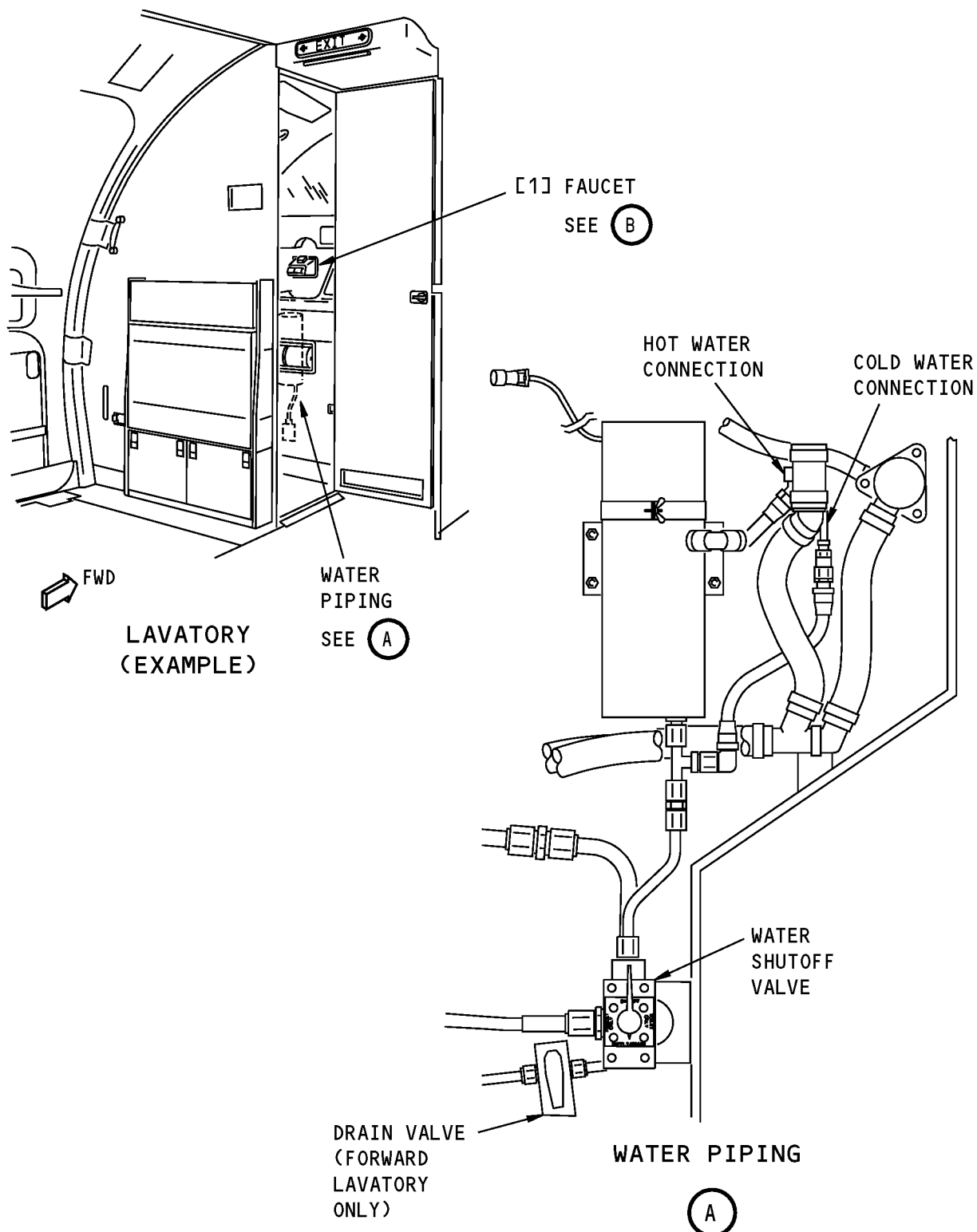
————— **END OF TASK** —————

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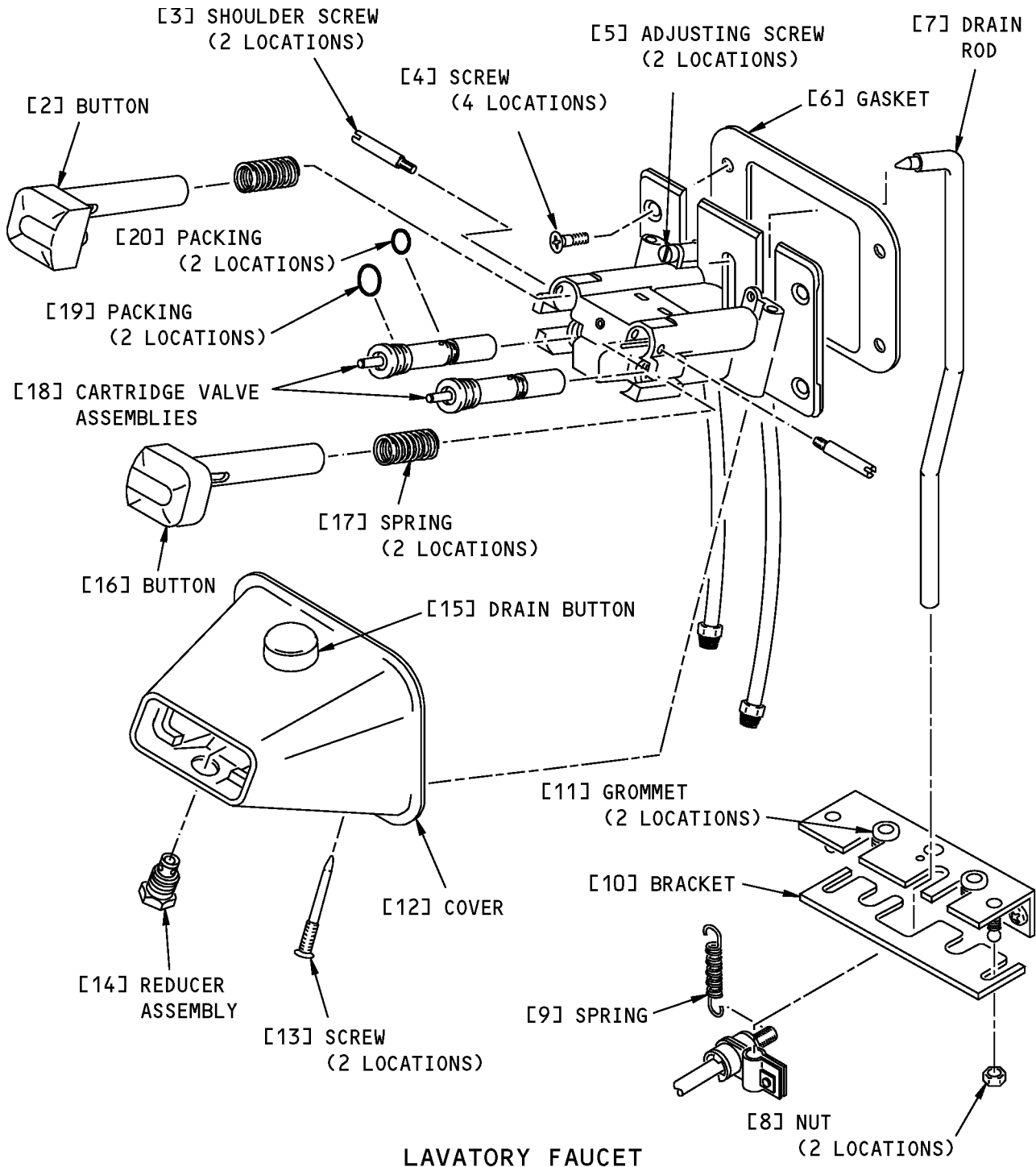
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B

Lavatory Faucet Installation
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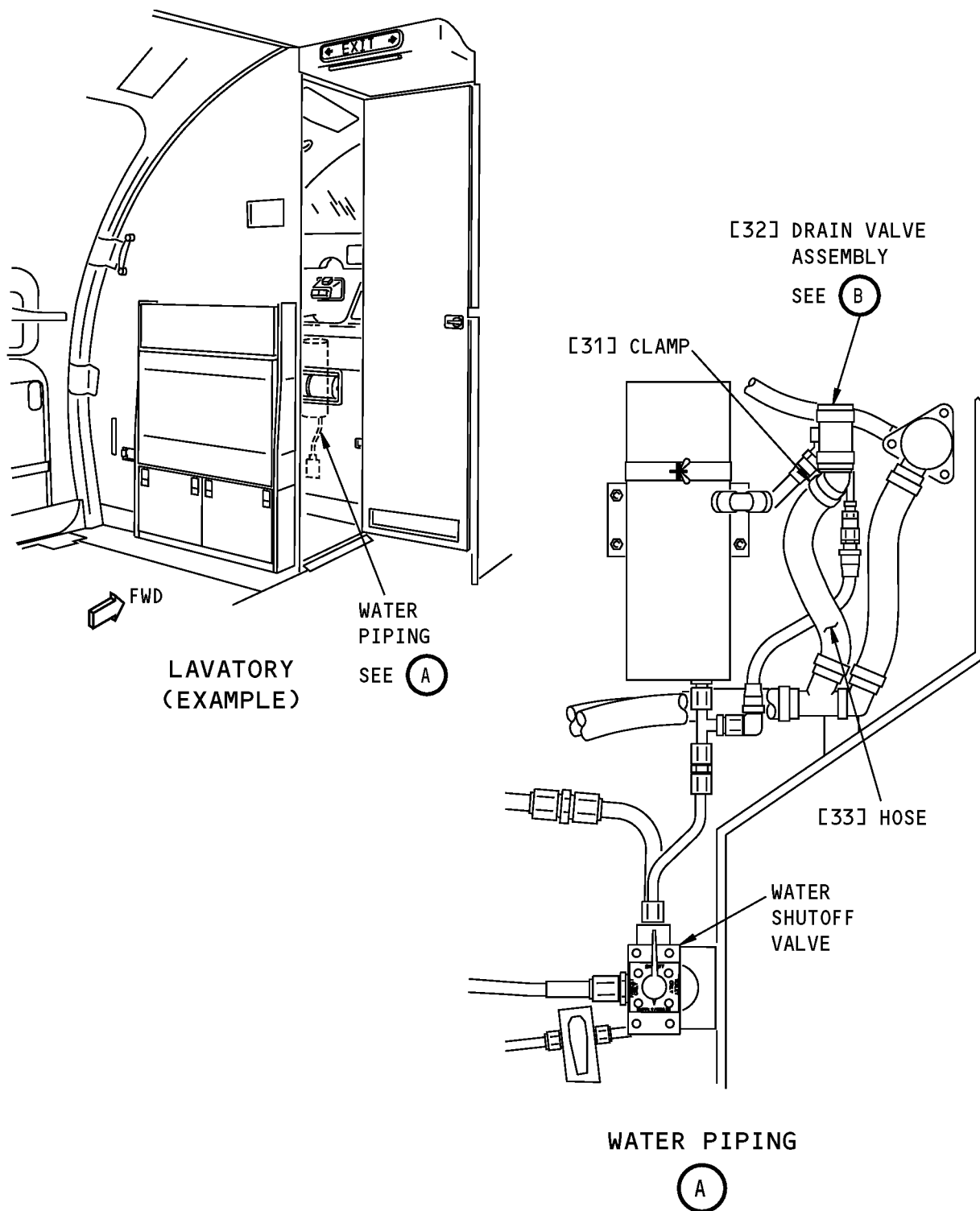
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Lavatory Drain Valve Installation
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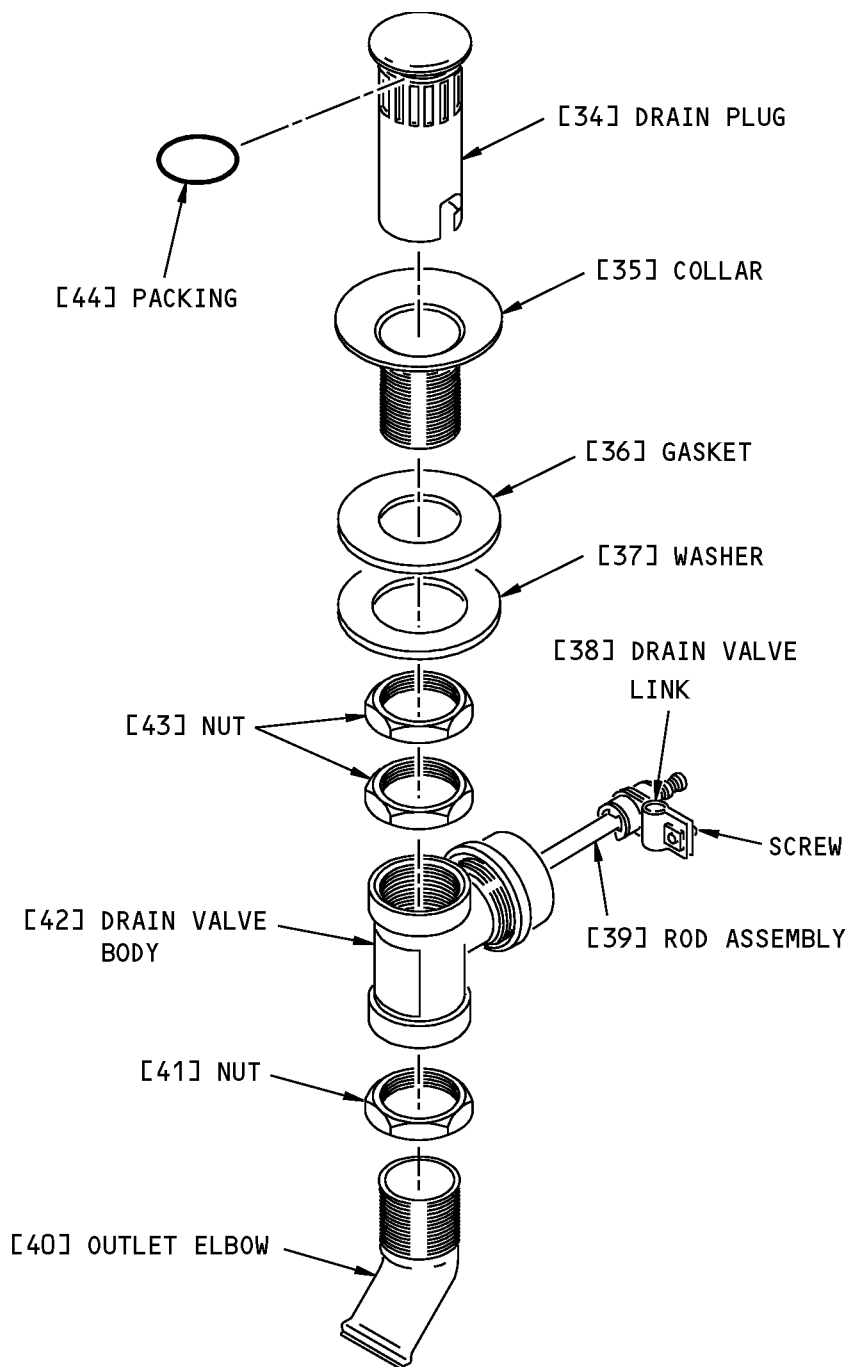
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DRAIN VALVE ASSEMBLY

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HAP 031-054, 101-999

TASK 38-11-05-000-805

9. Faucet Assembly Removal

(Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the removal

SUBTASK 38-11-05-010-009

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-010-010

- (2) Open the access door for the water system.

SUBTASK 38-11-05-860-008

- (3) Put the water heat switch [64] in the off position.

SUBTASK 38-11-05-860-009

- (4) LAVATORIES WITH TWO VALVES (SHUTOFF AND DRAIN)

Do these steps:

- (a) Close the shutoff valve [65]
- (b) Open the drain valve assembly [66]

SUBTASK 38-11-05-860-010

- (5) LAVATORIES WITH ONE VALVE (SHUTOFF)

- (a) Close the shutoff valve [65].

SUBTASK 38-11-05-480-001

- (6) Put a container below the faucet to catch the water.

C. Faucet Assembly Removal

SUBTASK 38-11-05-020-031

- (1) Disconnect the water lines [63] from the faucet assembly [56].

SUBTASK 38-11-05-020-032

- (2) Cap the water lines [63] to keep contamination out.

SUBTASK 38-11-05-020-033

- (3) Disconnect the spring [57] from the actuator rod assembly [58].

SUBTASK 38-11-05-020-034

- (4) Loosen the screw [60] that attaches the drain valve link [54] to the drain rod [51].

SUBTASK 38-11-05-020-035

- (5) Remove the nut [52] (that holds the mounting bracket), the lockwasher [53] and the mounting bracket [55].

SUBTASK 38-11-05-020-036

- (6) Remove the faucet assembly [56].

————— **END OF TASK** —————

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TASK 38-11-05-400-805

10. Faucet Assembly Installation

(Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Faucet Assembly Installation

SUBTASK 38-11-05-420-019

- (1) Put the faucet assembly [56] in its position.

SUBTASK 38-11-05-420-020

- (2) Install the mounting bracket [55], the lockwasher [53], and the nut [52].

SUBTASK 38-11-05-420-021

- (3) Install the drain rod [51] into the drain valve link [54].

SUBTASK 38-11-05-420-022

- (4) Attach the spring [57] to the actuator rod assembly [58].

SUBTASK 38-11-05-820-001

- (5) Adjust the position of the actuator rod assembly [58] to cause the drain rod [51] to be up when the drain valve assembly [66] is closed.

SUBTASK 38-11-05-420-023

- (6) Tighten the screw [60]

SUBTASK 38-11-05-710-006

- (7) Make sure the drain valve assembly [66] opens when you push the drain rod [51] down and closes when you release the drain rod [51].

- (a) Adjust the drain valve link [54] on the drain rod [51] if it is necessary.

SUBTASK 38-11-05-420-024

- (8) Remove the caps from the water lines [63].

SUBTASK 38-11-05-420-025

- (9) Connect the water lines [63] to the faucet [56].

C. Faucet Assembly Installation Test

SUBTASK 38-11-05-860-011

- (1) LAVATORIES WITH TWO VALVES (SHUTOFF AND DRAIN)

Do these steps:

- (a) Close the drain valve assembly [66].
 - (b) Open the shutoff valve [65].

SUBTASK 38-11-05-860-012

- (2) LAVATORIES WITH ONE VALVE (SHUTOFF)

- (a) Open the shutoff valve [65].

SUBTASK 38-11-05-790-003

- (3) Make sure the faucet assembly [56] and water lines [63] do not have a leak.

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HAP 031-054, 101-999 (Continued)

D. Put the Airplane Back to its Usual Condition

SUBTASK 38-11-05-860-013

- (1) Put the water heater switch [64] in the ON position.

SUBTASK 38-11-05-410-012

- (2) Install the waste container.

SUBTASK 38-11-05-410-013

- (3) Close the access door for the water system.

SUBTASK 38-11-05-410-014

- (4) Close the access to the lavatory module.

————— **END OF TASK** —————

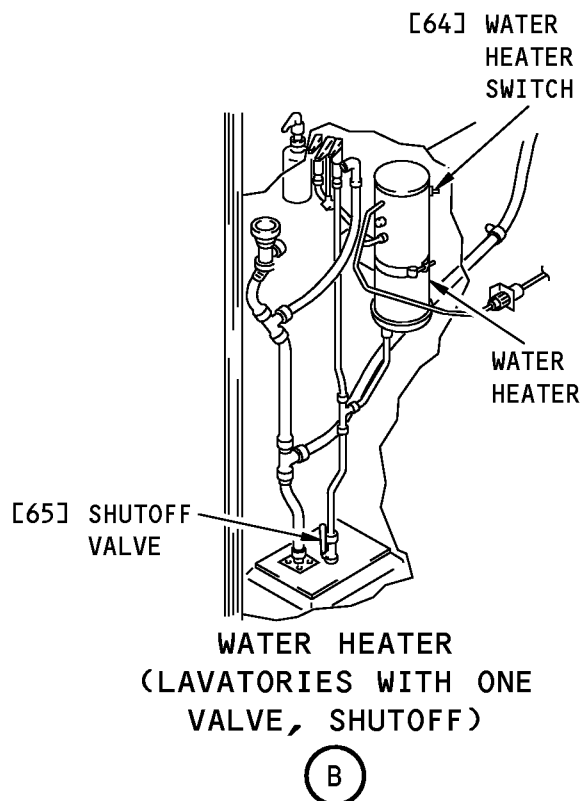
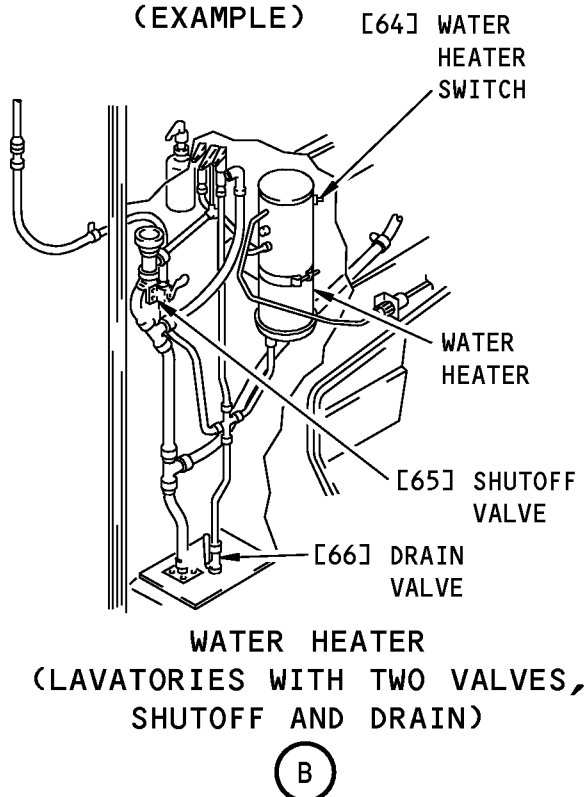
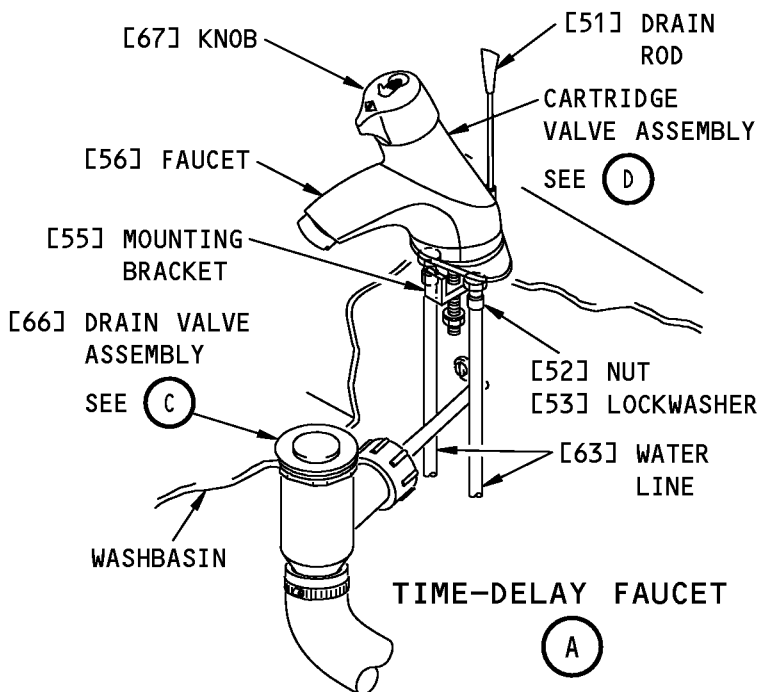
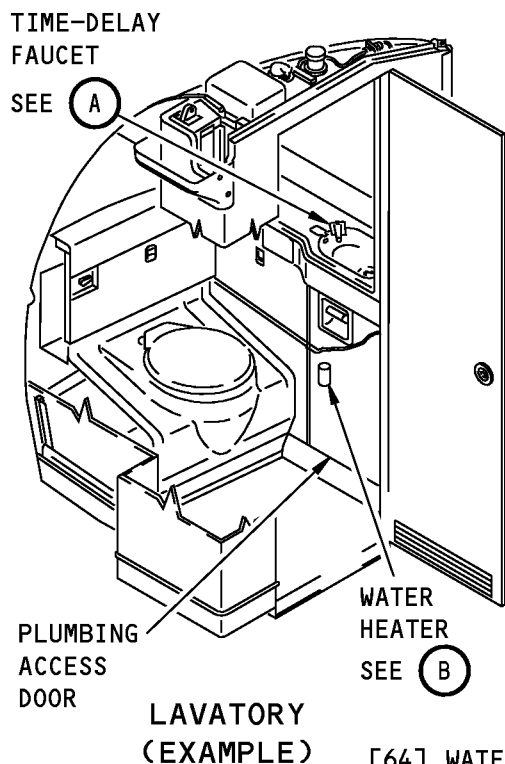
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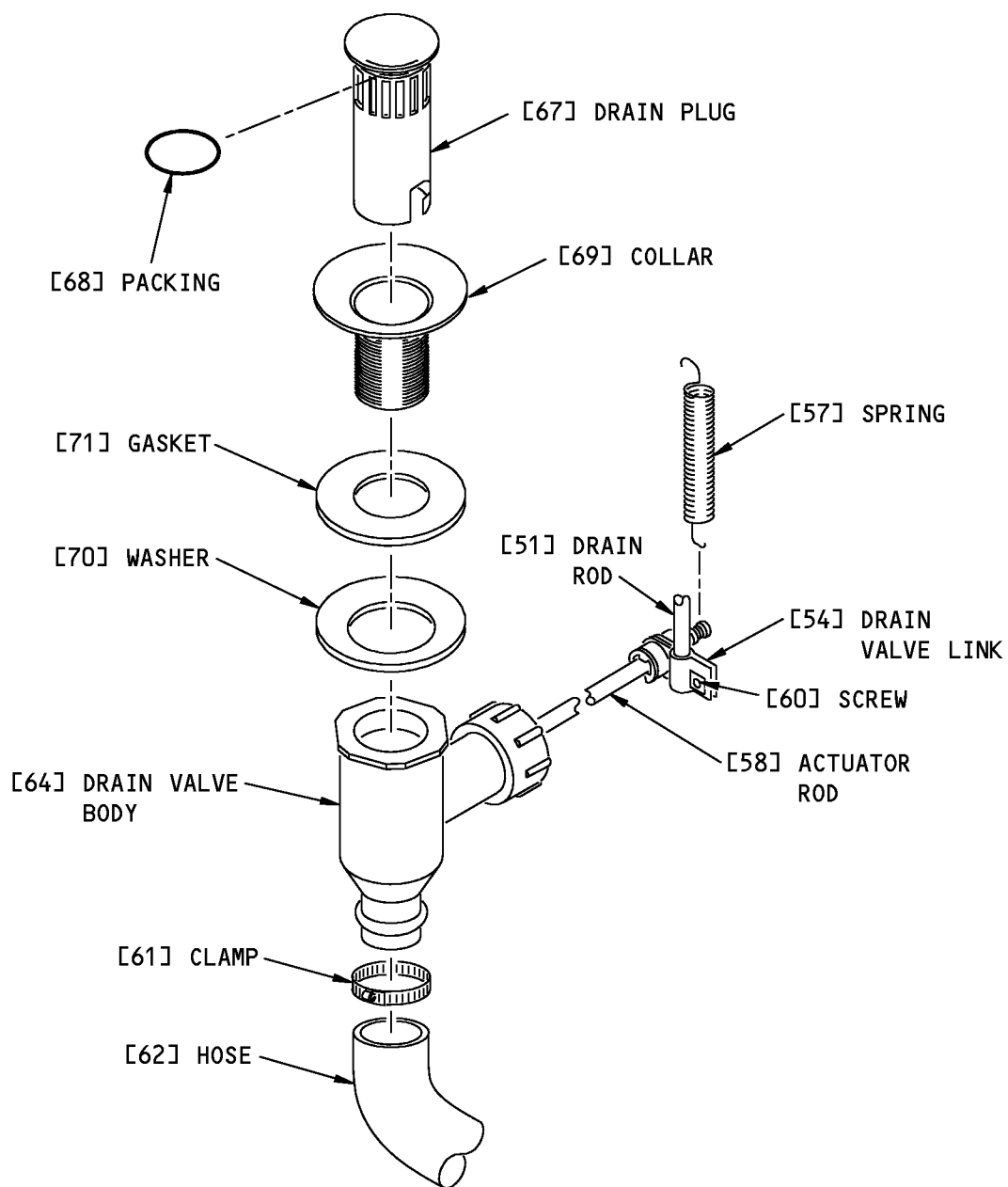
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Lavatory Faucet and Drain Installation
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DRAIN VALVE ASSEMBLY

(C)

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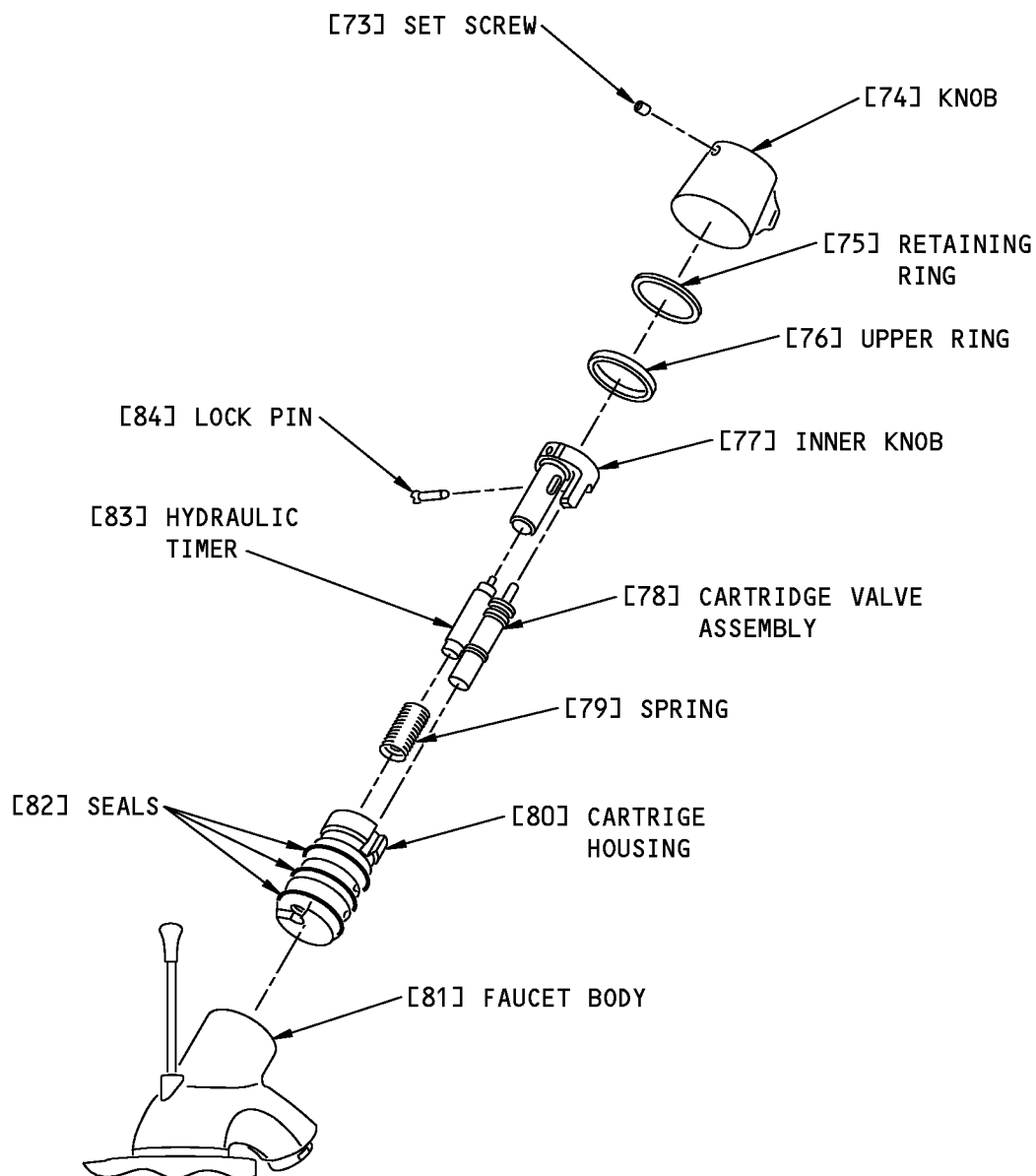
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CARTRIDGE VALVE ASSEMBLY

(D)

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HAP 031-054, 101-999 (Continued)

TASK 38-11-05-000-806

11. Drain Valve Assembly Removal

Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the Removal

SUBTASK 38-11-05-010-011

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-860-014

- (2) Turn the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is below the sink in the lavatory.

SUBTASK 38-11-05-010-012

- (3) Open the access door for the water system.

C. Drain Valve Assembly Removal

SUBTASK 38-11-05-030-001

- (1) Disconnect the hose [62] and clamp [61] from the drain valve body [64].

SUBTASK 38-11-05-030-002

- (2) Loosen the screw [60] that attaches the drain valve link [54] to the drain rod [51].

SUBTASK 38-11-05-030-003

- (3) Disconnect the drain valve link [54] from the drain rod [51].

SUBTASK 38-11-05-030-004

- (4) Loosen and then remove the actuator rod [58] from the drain valve body [64].

SUBTASK 38-11-05-020-037

- (5) Remove the drain plug [67] from the collar [69].

SUBTASK 38-11-05-030-005

- (6) Disconnect the drain valve body [64] from the collar [69].

SUBTASK 38-11-05-020-038

- (7) Remove the collar [69], washer [70] and gasket [71] from the lavatory sink.

SUBTASK 38-11-05-869-001

- (8) Make sure you keep the loose parts of the drain valve assembly [66].

————— **END OF TASK** —————

TASK 38-11-05-400-806

12. Drain Valve Assembly Installation

(Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

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B. Drain Valve Assembly Installation

SUBTASK 38-11-05-420-027

- (1) Put the drain valve assembly [66] in its position.

NOTE: It is necessary to remove some of the parts of the drain valve assembly for the installation.

SUBTASK 38-11-05-430-006

- (2) Put the collar [69], washer [70] and gasket [71] in position.

SUBTASK 38-11-05-430-007

- (3) Connect the drain valve body [64] to the collar [69].

SUBTASK 38-11-05-430-008

- (4) Put the packing [68] drain plug [67] and then install the drain plug [67] in the drain valve body [64].

SUBTASK 38-11-05-430-009

- (5) Install the actuator rod assembly [58] into the drain plug [67] in the drain valve body [64].

- (a) Loosely install the actuator rod assembly [58].

SUBTASK 38-11-05-430-010

- (6) Install the drain valve link [54] to connect the actuator rod assembly [58] to the drain rod [51].

SUBTASK 38-11-05-430-011

- (7) Tighten the screw [60] to hold the drain valve link [54] in its position and then tighten the nut.

SUBTASK 38-11-05-430-012

- (8) Connect the hose [62] and clamp [61] to the drain valve body [64].

C. Drain Valve Assembly Installation Test

SUBTASK 38-11-05-860-017

- (1) Turn the water shutoff valve to the ON position.

SUBTASK 38-11-05-790-004

- (2) Push the knob to fill the lavatory sink approximately half full.

- (a) Make sure there is no leakage under the lavatory sink.

- (b) If the drain valve does not keep the water in the sink, do this task: Drain Valve Adjustment, TASK 38-11-05-820-806.

SUBTASK 38-11-05-790-005

- (3) Push down the drain rod [51] for the drain valve assembly [66] on the water faucet.

- (a) Make sure the drain valve opens and that the operation of the lavatory sink drain is satisfactory.

- (b) If the length of time for the water to drain is not satisfactory, do this task: Drain Valve Adjustment, TASK 38-11-05-820-806.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 38-11-05-410-017

- (1) Close the access door for the water system.

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SUBTASK 38-11-05-400-001

- (2) Close the access to the lavatory module.

END OF TASK

TASK 38-11-05-960-803

13. Cartridge Valve Assembly Replacement

(Figure 203)

A. General

- (1) This task is for the water cartridge for the water faucet.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare to Replace the Cartridge Valve Assembly

SUBTASK 38-11-05-010-013

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-860-015

- (2) Turn the water shutoff valve to the OFF position.

NOTE: The water shutoff valve is below the sink in the lavatory.

SUBTASK 38-11-05-616-001

- (3) Push the knob [74] to drain the water from the lines.

D. Cartridge Valve Assembly Removal

SUBTASK 38-11-05-030-006

- (1) Loosen the set screw [73] and remove the knob [74].

SUBTASK 38-11-05-030-007

- (2) Remove the retaining ring [75] and upper ring [76] from the groove in the faucet body [81].

SUBTASK 38-11-05-030-008

- (3) Remove the cartridge housing [80].

SUBTASK 38-11-05-030-009

- (4) Remove the lock pin [84] from the inner knob [77].

SUBTASK 38-11-05-030-010

- (5) Remove the inner knob [77] and pull out the cartridge valve assembly [81] out of the cartridge housing [80].

NOTE: The hydraulic timer is spring loaded and may also come out of the cartridge housing.

E. Cartridge Valve Assembly Installation

SUBTASK 38-11-05-420-026

- (1) Install the cartridge valve assembly [78] into the cartridge housing [80].

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HAP 031-054, 101-999 (Continued)

SUBTASK 38-11-05-430-001

- (2) If the hydraulic timer [83] has been removed, apply Vibratite thread locking compound to the timer [83] and install into cartridge housing [80].

NOTE: Make sure you install the compression spring between the cartridge housing and hydraulic timer.

SUBTASK 38-11-05-430-002

- (3) Install the inner knob [77] and lock pin [84].

SUBTASK 38-11-05-430-003

- (4) Lubricate the seals [82] with Dow Corning No 7 and install cartridge assy into the faucet body using the insertion tool (P/N 72653).

SUBTASK 38-11-05-430-004

- (5) Install the retaining ring [75] and upper ring [76] in the groove in the faucet body [81].

SUBTASK 38-11-05-430-005

- (6) Install the knob [74] and set screw [73].

F. Cartridge Valve Assembly Installation Test

SUBTASK 38-11-05-860-016

- (1) Turn the water shutoff valve to the ON position.

SUBTASK 38-11-05-710-007

- (2) Test the length of time the water flows
 - (a) To test cold water flow, rotate the faucet knob to the cold side, depress and hold the knob down allowing water to flow for approximately ten seconds.
 - (b) After ten seconds allow the knob to return to the off position (no water flow).
 - (c) With the knob in the same position depress it to its full on position and allow it to return to the off position.
 - (d) If the length of time the water flows is not satisfactory, do this task: Water Faucet Adjustment, TASK 38-11-05-820-805.
 - (e) To test the hot water flow, rotate the faucet knob to the hot side and repeat the steps.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-11-05-410-015

- (1) Close the cabinet door behind the mirror.

SUBTASK 38-11-05-410-016

- (2) Close the access to the lavatory module.

————— END OF TASK —————

TASK 38-11-05-820-805

14. Water Faucet Adjustment

(Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

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B. Water Faucet Adjustment

SUBTASK 38-11-05-820-002

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-820-003

- (2) Test and adjust the length of time the water flows:
 - (a) To test cold water flow, rotate the faucet knob to the cold side, depress and hold the knob down allowing water to flow for approximately ten seconds.
 - (b) To test hot water flow, rotate the faucet knob to the hot side, depress and hold the knob down allowing water to flow for approximately ten seconds.
 - (c) After ten seconds allow the knob to return to the off position (no water flow).
 - (d) With the knob in the same position depress it to its full on position and allow it to return to the off position.
 - (e) The flow time should be 5-9 seconds.

NOTE: Check the timing for both the hot and cold water before doing the adjustment steps.

- (f) If the length of time the water flows is not satisfactory, do these steps.
 - 1) Loosen the set screw [73] and remove the knob [74].
 - 2) Remove the lock pin [84] and inner knob [77].
 - 3) Turn the hydraulic timer [83] to adjust timing using an Allen-head wrench.
 - a) Turn the timer clock wise for slower timing.
 - b) Turn the timer counter clock wise for faster timing.

SUBTASK 38-11-05-820-004

- (3) Install the inner knob [77] and lock pin [84].

SUBTASK 38-11-05-820-005

- (4) Install the knob [74] and tighten the set screw [73].

SUBTASK 38-11-05-820-006

- (5) Close the access to the lavatory module.

————— **END OF TASK** —————

TASK 38-11-05-820-806

15. Drain Valve Adjustment

(Figure 203)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Drain Valve Adjustment

SUBTASK 38-11-05-010-014

- (1) Get access to the lavatory module.

SUBTASK 38-11-05-010-015

- (2) Open the access door for the water system.

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HAP 031-054, 101-999 (Continued)

SUBTASK 38-11-05-820-007

- (3) Loosen the screw [60] that attaches the drain valve link [54] to the drain rod [51].

SUBTASK 38-11-05-820-008

- (4) Push the end of the drain rod [51] up to make sure the drain plug [67] is fully engaged against the collar [69].

SUBTASK 38-11-05-820-009

- (5) Tighten the screw that attaches the drain valve link [54] to the drain rod [52].

SUBTASK 38-11-05-820-010

- (6) Push the knob for the water supply to fill the lavatory sink approximately half full.
(a) Make sure the water stays in the lavatory sink.

SUBTASK 38-11-05-820-011

- (7) Push the drain rod [51] for the drain valve on the water faucet.
(a) Make sure the drain valve opens and that the operation of the lavatory sink drain is satisfactory.

SUBTASK 38-11-05-820-012

- (8) Close the access door for the water system.

SUBTASK 38-11-05-820-013

- (9) Close the access to the lavatory module.

————— END OF TASK —————

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FORWARD LAVATORY DRAIN VALVE - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. The Forward Lavatory Drain Valve is referred to as the Drain Valve in this procedure.
- C. This procedure has this task:
 - (1) An operational check of the drain valve in the forward lavatory.

TASK 38-11-06-000-802-001

2. Forward Lavatory Drain Valve Operational Check

(Figure 201)

- A. General
 - (1) This procedure is a scheduled maintenance task.
- B. Location Zones

<u>Zone</u>	<u>Area</u>
200	Upper Half of Fuselage

- C. Prepare for the Operational Check

SUBTASK 38-11-06-860-006-001

- (1) Make sure that this circuit breaker is closed:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	13	C00104	LAVATORY WATER HEATER A

SUBTASK 38-11-06-010-004-001

- (2) Get access to the lavatory.

SUBTASK 38-11-06-010-005-001

- (3) Open the cabinet below the sink to get access to the shutoff valve.

- D. Drain Valve Operational Check

SUBTASK 38-11-06-860-009-001

- (1) Turn the handle for the drain valve to the OPEN position.

SUBTASK 38-11-06-790-002-001

- (2) Make sure water flows from the drain port.

SUBTASK 38-11-06-860-010-001

- (3) Turn the handle for the drain valve to the CLOSE position.

SUBTASK 38-11-06-790-003-001

- (4) Make sure no water flows from the drain port after approximately 5 minutes.

- E. Put the Airplane Back in Its Usual Condition

SUBTASK 38-11-06-010-006-001

- (1) Close the cabinet below the sink.

————— **END OF TASK** —————

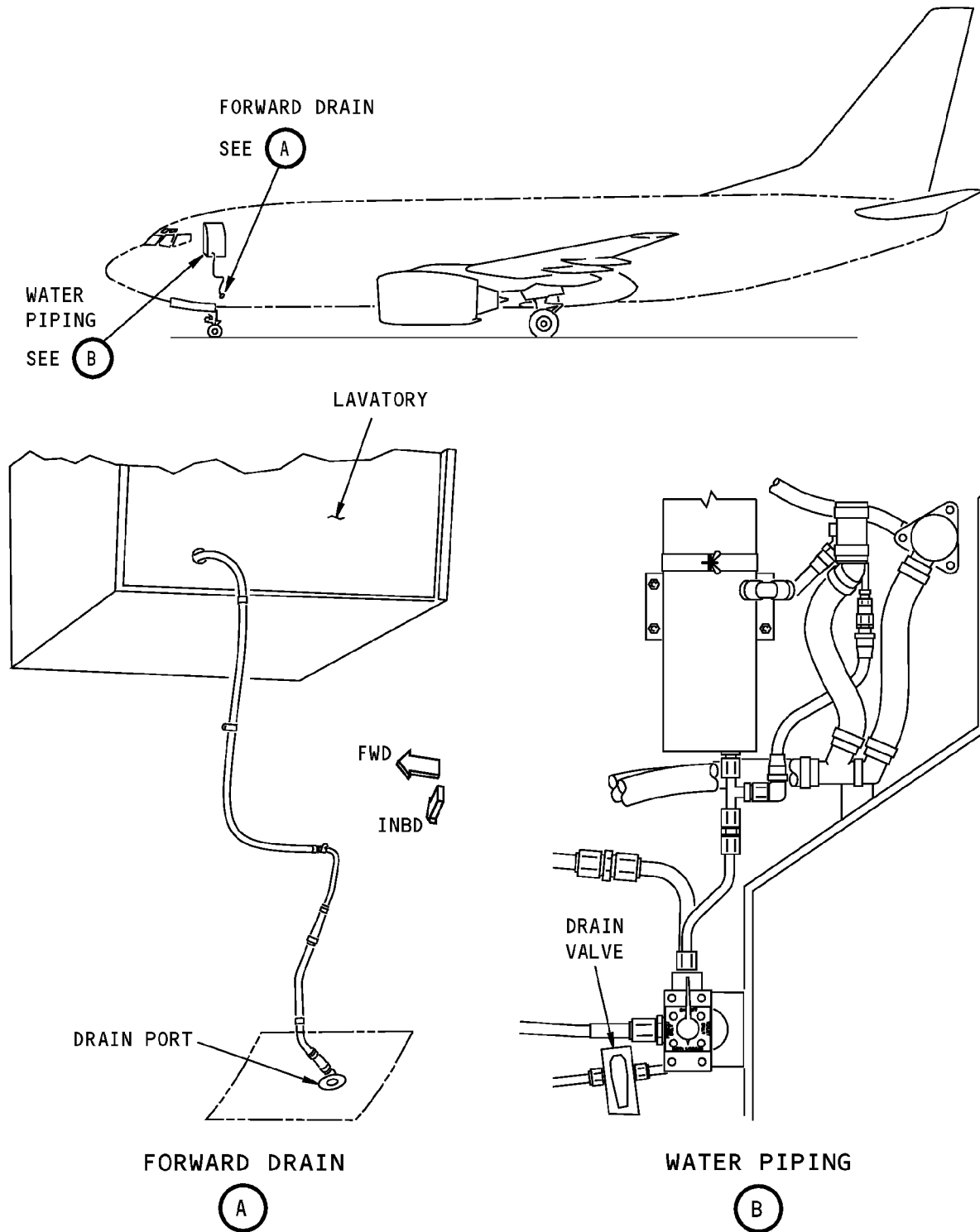
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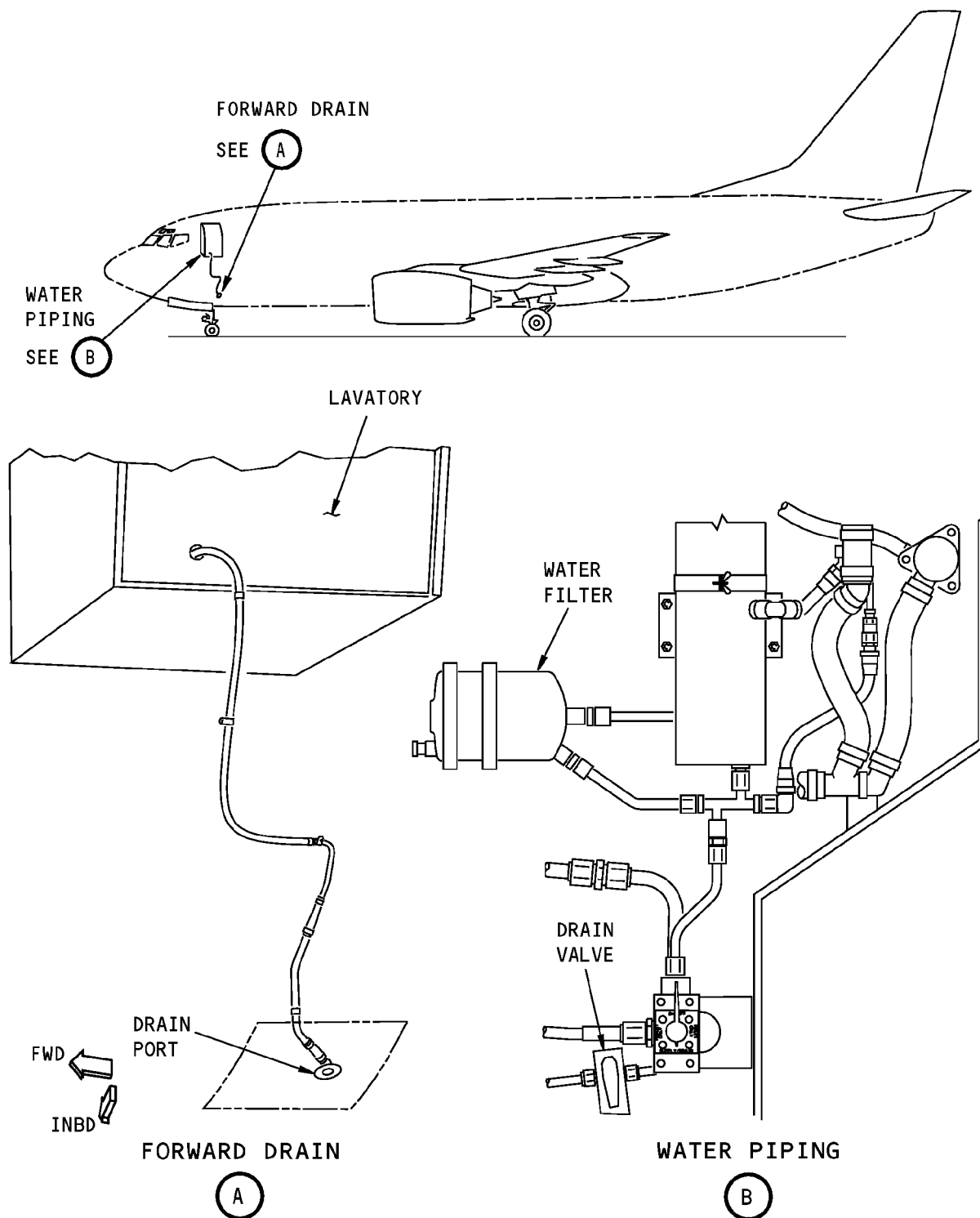
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Forward Lavatory Water Drain - Operational Check
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Forward Lavatory Water Drain - Operational Check
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FORWARD LAVATORY DRAIN VALVE - REMOVAL/INSTALLATION

1. General

- A. The Forward Lavatory Drain Valve is referred to as the Drain Valve in this procedure.
- B. This procedure has two tasks:
 - (1) A removal of the drain valve in the forward lavatory.
 - (2) An installation of the drain valve.

TASK 38-11-06-000-801-001

2. Drain Valve Removal

(Figure 401)

A. References

Reference	Title
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-11-06-860-001-001

- (1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
F	13	C00104	LAVATORY WATER HEATER A

SUBTASK 38-11-06-860-002-001

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-11-06-010-001-001

- (3) Get access to the lavatory.

SUBTASK 38-11-06-040-001-001

- (4) Open the faucet to release the pressure and to drain some of the water.

SUBTASK 38-11-06-010-002-001

- (5) Open the cabinet below the sink to get access to the shutoff valve.

D. Drain Valve Removal

SUBTASK 38-11-06-020-001-001

- (1) Loosen the B-nuts for the tube connections at the drain valve [1].

- (a) Use a rag to catch the water in the tubes.

SUBTASK 38-11-06-020-002-001

- (2) Remove the screws [3] for the bracket [4].

SUBTASK 38-11-06-020-003-001

- (3) Remove the handle of the drain valve [1] and then loosen the nut to disconnect the bracket [4].

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SUBTASK 38-11-06-020-004-001

- (4) Remove the drain valve [1].

————— **END OF TASK** —————

TASK 38-11-06-400-801-001

3. Drain Valve Installation

(Figure 401)

A. References

Reference	Title
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Valve	38-11-00-04-210 38-11-08-11B-050	HAP 001 HAP 006-013, 015-026, 028-030

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Drain Valve Installation

SUBTASK 38-11-06-420-001-001

- (1) Put the drain valve [1] in its position on the bracket [4].

SUBTASK 38-11-06-420-002-001

- (2) Put the bracket [4] in its position.

SUBTASK 38-11-06-420-003-001

- (3) Install the screws [3].

SUBTASK 38-11-06-420-004-001

- (4) Attach the water tubes to the drain valve [1] with the B-nuts [2].

SUBTASK 38-11-06-420-005-001

- (5) Tighten the B-nuts [2].

E. Drain Valve Installation Test

SUBTASK 38-11-06-860-003-001

- (1) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-11-06-860-004-001

- (2) Turn the handle for the drain valve to the OPEN position.

SUBTASK 38-11-06-790-001-001

- (3) Make sure there are no leaks.

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F. Put the Airplane Back in Its Usual Condition

SUBTASK 38-11-06-860-005-001

(1) Close this circuit breaker:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	13	C00104	LAVATORY WATER HEATER A

SUBTASK 38-11-06-010-003-001

(2) Close the cabinet below the sink.

————— **END OF TASK** —————

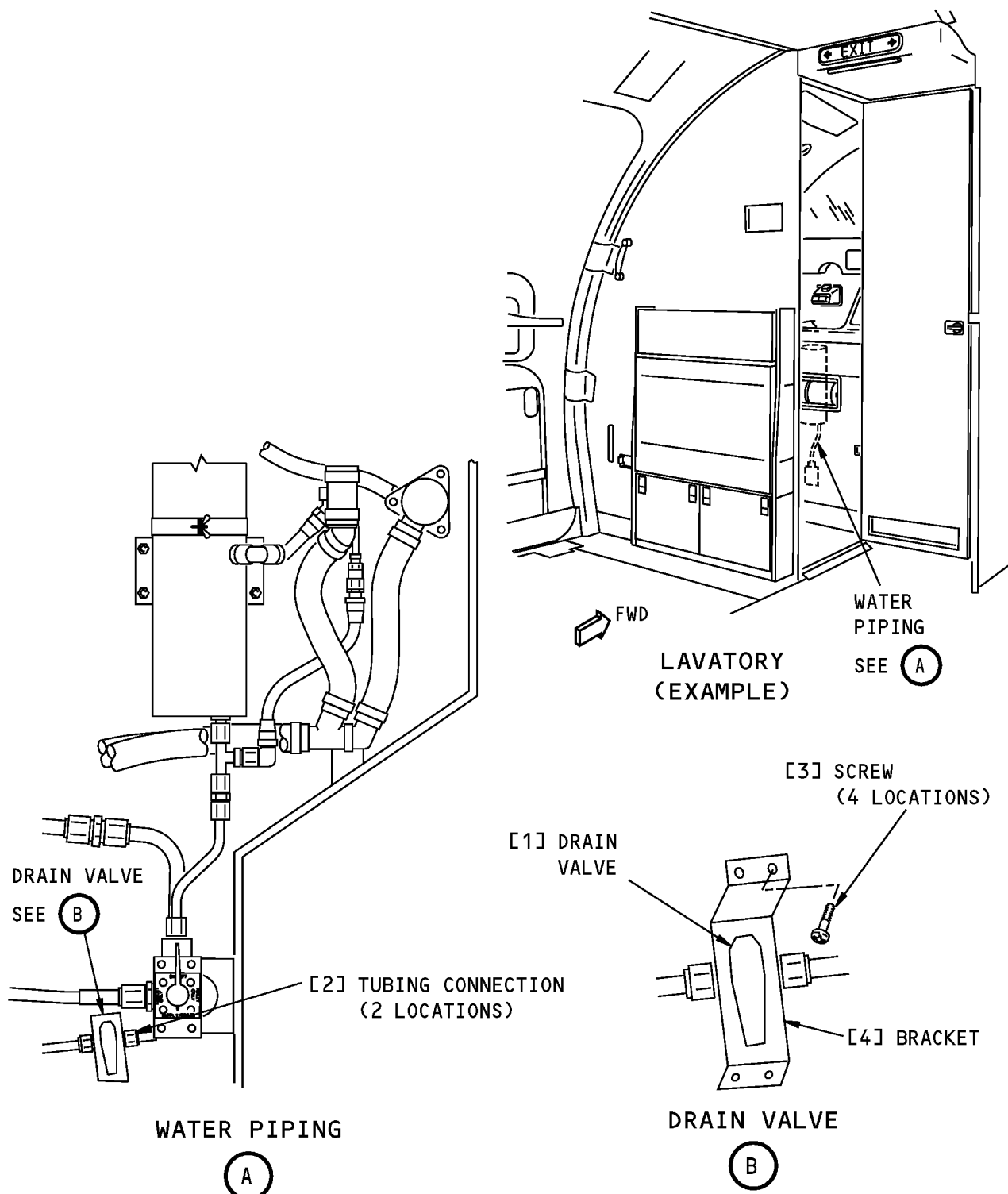
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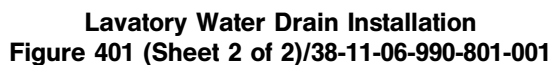
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Lavatory Water Drain Installation
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LAVATORY WATER SUPPLY SHUTOFF VALVE - REMOVAL/INSTALLATION

1. General

- A. The Lavatory Water Supply Shutoff Valve is referred to as the Shutoff Valve in this procedure.
- B. This procedure has two tasks:
 - (1) A removal of the shutoff valve for the water supply in the lavatory.
 - (2) An installation of the shutoff valve.

TASK 38-11-07-000-801

2. Shutoff Valve Removal

(Figure 401)

A. References

Reference	Title
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-11-07-860-001

- (1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
F	13	C00104	LAVATORY WATER HEATER A
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

NOTE: You must open the applicable circuit breaker for the lavatory you work in.

SUBTASK 38-11-07-860-002

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-11-07-010-001

- (3) Get access to the lavatory.

SUBTASK 38-11-07-040-001

- (4) Open the faucet to release the pressure and to drain some of the water.

SUBTASK 38-11-07-010-002

- (5) Open the cabinet below the sink to get access to the shutoff valve.

D. Shutoff Valve Removal

SUBTASK 38-11-07-020-001

- (1) Loosen the B-nuts [2] for the water connections at the shutoff valve [1].

- (a) Use a rag to catch the water in the water pipes.

SUBTASK 38-11-07-020-002

- (2) Remove the screws [3].

SUBTASK 38-11-07-020-003

- (3) Loosen the screws [5] for the bracket [4]

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SUBTASK 38-11-07-020-004

- (4) Remove the screw [7] and handle [6].

SUBTASK 38-11-07-020-005

- (5) Remove the shutoff valve [1].

NOTE: Loosely attach the screw [7] and handle [6] to the shutoff valve [1].

————— **END OF TASK** —————

TASK 38-11-07-400-801

3. Shutoff Valve Installation

(Figure 401)

A. References

Reference	Title
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Valve	38-11-00-04-395	HAP 001
		38-11-00-05-375	HAP 001-005, 008-013, 015-026, 028-030
		38-11-00-06A-340	HAP 006, 007
		38-11-00-09-300	HAP 008-013
		38-11-00-16-255	HAP 006, 007, 015-026, 028-030
		38-11-00-19-365	HAP 008-013, 015-026, 028-030

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Shutoff Valve Installation

SUBTASK 38-11-07-020-006

- (1) Remove the screw [7] and handle [6] from the shutoff valve [1].

SUBTASK 38-11-07-420-001

- (2) Put the shutoff valve [1] in its position in the bracket [4].

SUBTASK 38-11-07-420-002

- (3) Attach the water connections to the shutoff valve [1] with the B-nuts [2].

SUBTASK 38-11-07-420-003

- (4) Install the screws [3].

SUBTASK 38-11-07-420-004

- (5) Install the screws [5].

SUBTASK 38-11-07-420-005

- (6) Tighten the B-nuts [2].

SUBTASK 38-11-07-420-006

- (7) Install the screw [7] and handle [6].

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E. Shutoff Valve Installation Test

SUBTASK 38-11-07-860-003

(1) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-11-07-860-004

(2) Turn the handle for the shutoff valve to the OPEN position.

SUBTASK 38-11-07-790-001

(3) Make sure there are no leaks.

F. Put the Airplane Back in Its Usual Condition

SUBTASK 38-11-07-860-005

(1) Close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	13	C00104	LAVATORY WATER HEATER A
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

NOTE: You must close the applicable circuit breaker for the lavatory you did the work in.

SUBTASK 38-11-07-010-003

(2) Close the cabinet below the sink.

————— **END OF TASK** —————

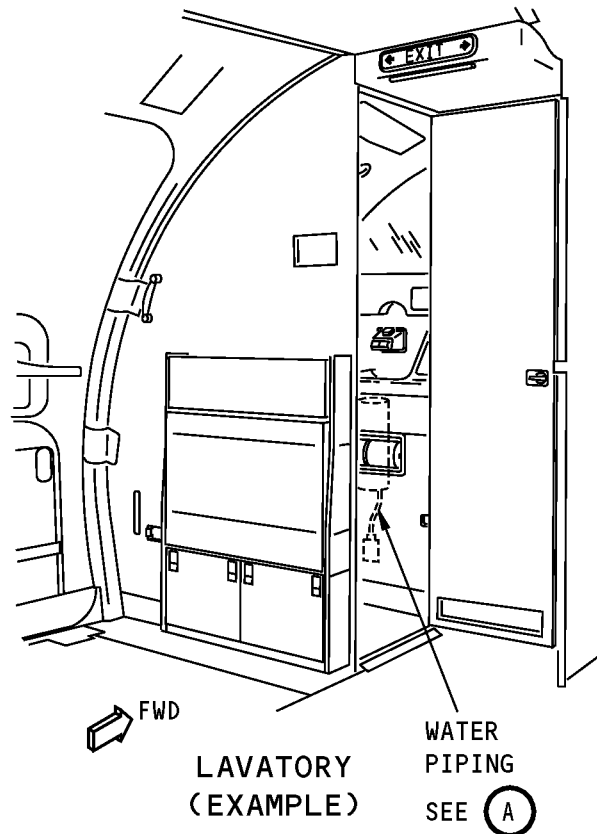
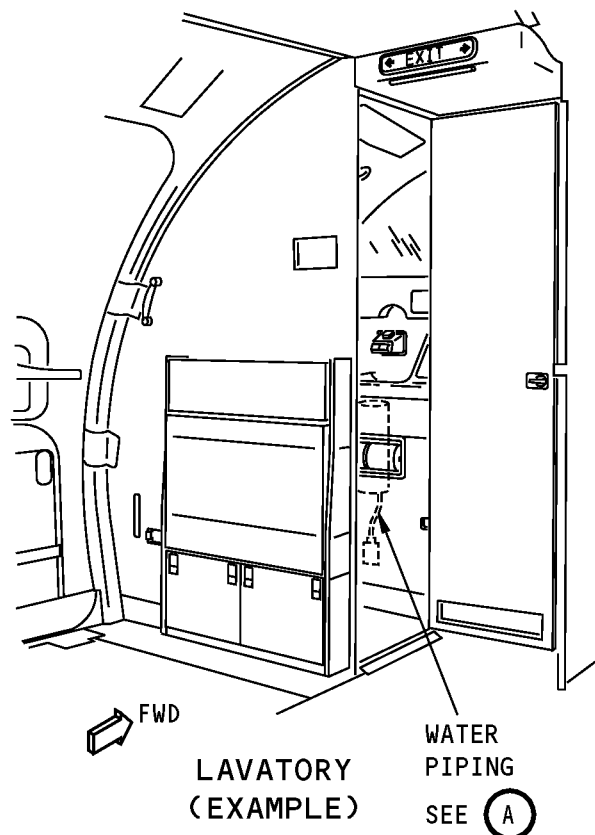
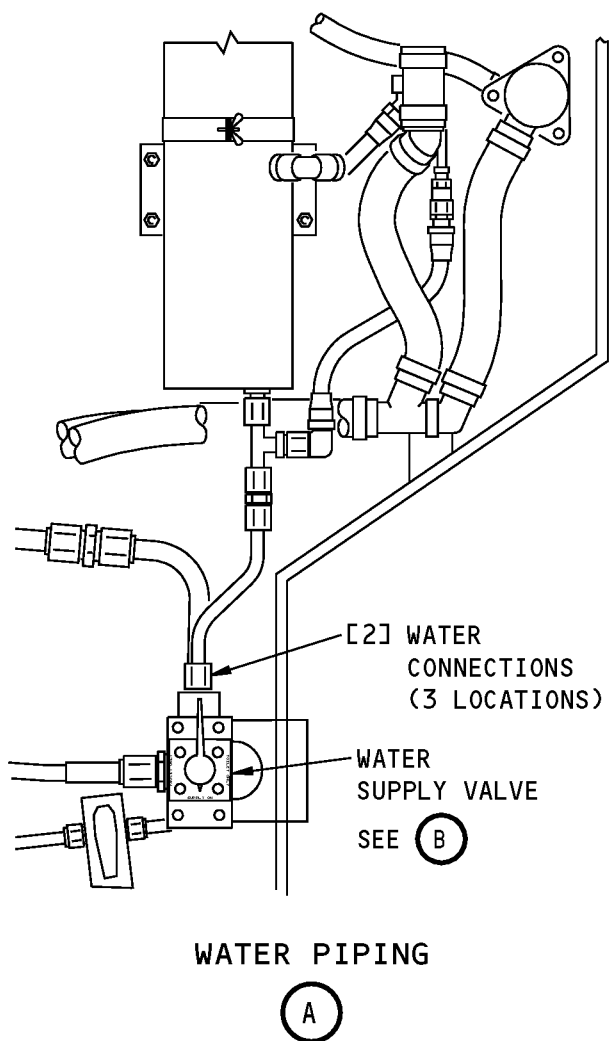
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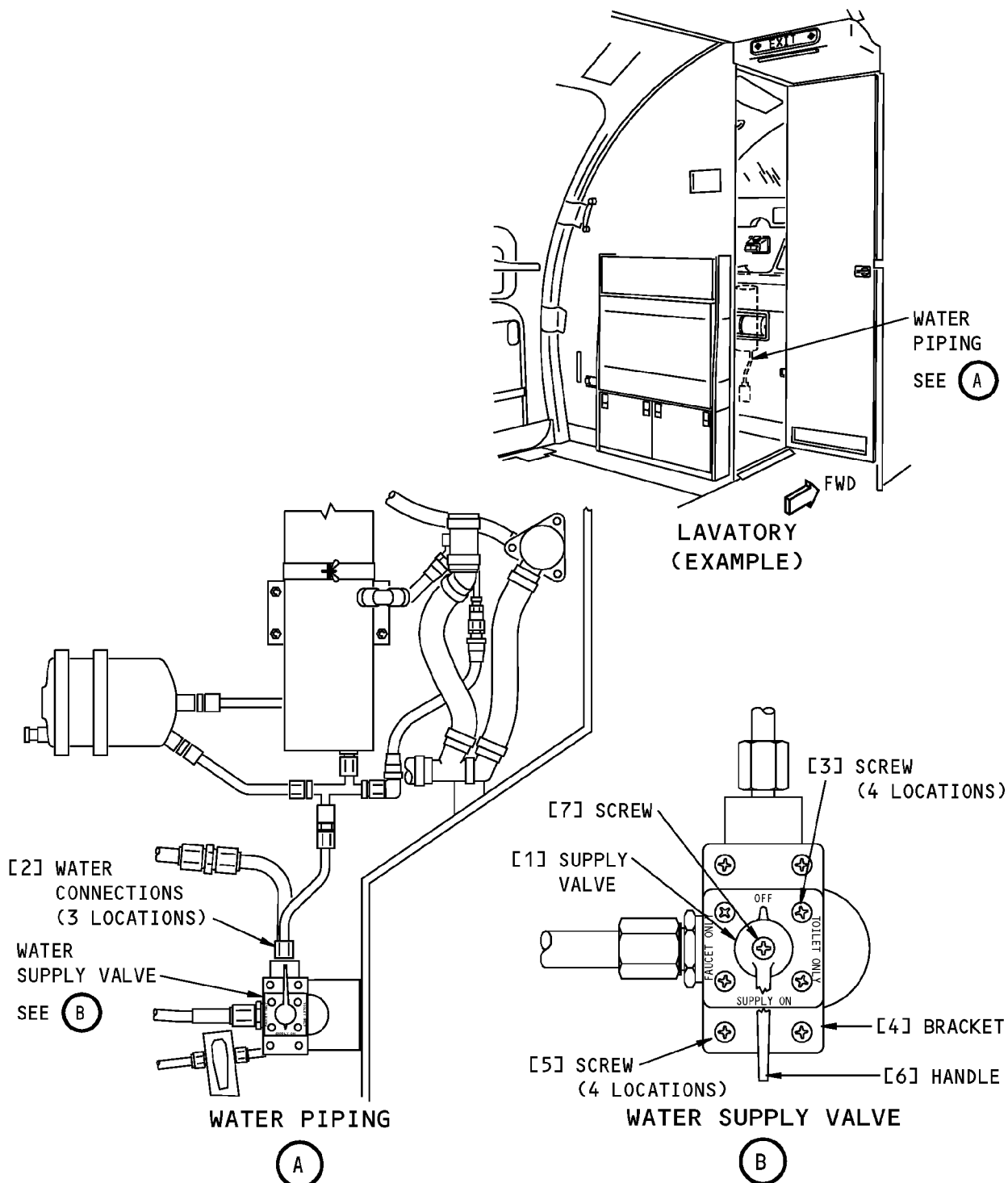
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Lavatory Water Supply Shutoff Valve Installation
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WATER TANK DRAIN VALVE AND CONTROL CABLE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the drain valve for the water tank.
- (2) An installation of the drain valve for the water tank.
- (3) A removal of the control cable for the drain valve at the water tank.
- (4) An installation of the control cable for the drain valve at the water tank.

TASK 38-11-08-000-801

2. Water Tank Drain Valve Removal

(Figure 401)

A. References

Reference	Title
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Water Tank Drain Valve Removal

SUBTASK 38-11-08-860-007

- (1) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-11-08-860-008

- (2) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-11-08-860-009

- (3) To get access to the aft cargo compartment, do this step:

Open this access panel:

Number	Name/Location
822	Aft Cargo Door

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SUBTASK 38-11-08-010-007

(4) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

E. Drain Valve Removal

SUBTASK 38-11-08-020-016

(1) Remove the clamshell [19] and packing [21] to disconnect the inlet from the drain valve [1].

SUBTASK 38-11-08-020-017

(2) Loosen the B-nut to disconnect the outlet from the drain valve [1].

SUBTASK 38-11-08-020-001

(3) Remove the screws [2] and washers [3] and then pull the control cable assembly [12] and thermal isolator [20] to disconnect from the drain valve bracket.

SUBTASK 38-11-08-020-002

(4) Remove the bolts [4], nuts [6], and washers [5].

SUBTASK 38-11-08-020-005

(5) Remove the drain valve [1] and thermal isolators [23].

END OF TASK

TASK 38-11-08-400-801

3. Water Tank Drain Valve Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-10-00-600-801	Potable Water System - Disinfectant (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Drain valve	38-11-08-02-075	HAP 001-013, 015-026, 028-030
		38-11-08-03-090	HAP 031-054, 101-999
21	Packing	38-11-08-02-050	HAP 001-013, 015-026, 028-030
		38-11-08-03-085	HAP 031-054, 101-999

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

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E. Drain Valve Installation

SUBTASK 38-11-08-420-002

- (1) Put the drain valve [1] and thermal isolators [23] in their position.

SUBTASK 38-11-08-420-011

- (2) Install the bolts [4], nuts [6] and washers [5] for the drain valve [1].

SUBTASK 38-11-08-020-007

- (3) Install the clamshell [19] and packing [21] to connect the drain valve [1].

SUBTASK 38-11-08-020-018

- (4) Connect the outlet connection to the drain valve [1].

SUBTASK 38-11-08-420-013

- (5) Align the arrows on the drain valve [1] and the bracket to make sure the drain valve is in the closed position.

SUBTASK 38-11-08-420-012

- (6) With the handle in the closed position at the service panel, align the drive shaft of the control cable assembly [12] into the drain valve [1].

SUBTASK 38-11-08-420-004

- (7) Install the screws [2] and washers [3] to connect the control cable assembly [12] and thermal isolator [20] to the drain valve bracket.

F. Drain Valve Installation Test

SUBTASK 38-11-08-860-010

- (1) Close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-11-08-860-011

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-11-08-860-012

- (3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-11-08-790-001

- (4) Make sure there are no leaks at the drain valve.

SUBTASK 38-11-08-670-001

- (5) Do this task: Potable Water System - Disinfectant, TASK 38-10-00-600-801.

G. Put the Airplane Back to its Usual Condition

SUBTASK 38-11-08-410-006

- (1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

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SUBTASK 38-11-08-410-007

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

TASK 38-11-08-020-801

4. Water Tank Drain Valve Control Cable Removal

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
25-52-10-000-801	Cargo Floor Panel Removal (P/B 401)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

B. Location Zones

<u>Zone</u>	<u>Area</u>
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door
822	Aft Cargo Door

D. Prepare for the Water Tank Drain Valve Control Cable Removal

SUBTASK 38-11-08-010-008

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-08-010-009

- (2) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-11-08-010-010

- (3) To remove the floor panels for access to the control cable, do this task: Cargo Floor Panel Removal, TASK 25-52-10-000-801.

SUBTASK 38-11-08-010-011

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

E. Water Tank Drain Valve Control Cable Removal

SUBTASK 38-11-08-020-009

- (1) Remove the screws [2] and washers [3] that attach the control cable assembly [12] to the drain valve [1].

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SUBTASK 38-11-08-020-010

- (2) Pull the control cable assembly [12] and thermal isolator [20] from the support bracket at the drain valve.

SUBTASK 38-11-08-020-011

- (3) Remove the screw [7], nut [10] and washers [8] to remove the clamp [9] from the control cable assembly [12].

SUBTASK 38-11-08-020-019

- (4) Remove the screw [18] to disconnect handle [17] for the control cable assembly [12].

SUBTASK 38-11-08-020-012

- (5) Remove the nuts [15] and washers [16] at the service panel.

SUBTASK 38-11-08-020-013

- (6) Pull the control cable assembly [12], bolts [13] and washers [14] from the thermal isolator [22] at the service panel.

SUBTASK 38-11-08-020-014

- (7) Remove the control cable assembly [12] and thermal isolator [22].

————— **END OF TASK** —————

TASK 38-11-08-420-801

5. Water Tank Drain Valve Control Cable Installation

(Figure 401)

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
25-52-10-400-801	Cargo Floor Panel Installation (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
12	Cable assembly	38-11-08-02-100	HAP 001-013, 015-026, 028-030
		38-11-08-03-120	HAP 031-054, 101-999

C. Location Zones

Zone	Area
144	Area Below Aft Cargo Compartment - Right
146	Aft Cargo Compartment Equipment Bay - Right
822	Aft Cargo Door

D. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

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E. Water Tank Drain Valve Control Cable Installation

SUBTASK 38-11-08-420-005

- (1) Put the bolts [13] and washers [14] into the control cable assembly [12] at the service panel.

SUBTASK 38-11-08-420-006

- (2) Put the control cable assembly [12] and thermal isolator [22] in their position.

SUBTASK 38-11-08-420-007

- (3) Install the nuts [15] and washers [16] for the control cable assembly [12] at the service panel.

SUBTASK 38-11-08-420-008

- (4) Install the handle [17] and screw [18] for the control cable assembly [12].

SUBTASK 38-11-08-860-013

- (5) Get access to the aft cargo compartment.

SUBTASK 38-11-08-020-015

- (6) Install the screw [7], washer [8], clamp [9], washer [8] and nut [10] on the control cable assembly [12].

SUBTASK 38-11-08-420-014

- (7) Make sure you align the arrows on the drain valve [1] and the bracket to make sure the drain valve is in the closed position.

SUBTASK 38-11-08-420-009

- (8) Put the valve end of the control cable assembly [12] under the endwall support bracket.

SUBTASK 38-11-08-420-010

- (9) With the handle in the closed position at the service panel, install loosely the screws [2], washers [3], and thermal isolator [20] for the control cable assembly [12].

F. Water Tank Drain Valve Control Cable Installation Test

SUBTASK 38-11-08-010-012

- (1) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-11-08-860-014

- (2) Make sure you have pressure in the potable water system.

- (a) If you do not have pressure in the potable water system, do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-11-08-010-013

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

SUBTASK 38-11-08-710-002

- (4) Open the drain valve for the water tank to make sure that the water flows from the drain port.

SUBTASK 38-11-08-860-015

- (5) Make sure the drain valve for the water tank is fully open.

SUBTASK 38-11-08-710-003

- (6) Close the drain valve for the aft system to make sure that the water flow stops.

SUBTASK 38-11-08-860-016

- (7) Make sure the drain valve for the water tank is fully closed.

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G. Put the Airplane Back in its Usual Condition

SUBTASK 38-11-08-410-008

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.

SUBTASK 38-11-08-410-009

(2) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-11-08-410-010

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-08-410-011

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

————— END OF TASK —————

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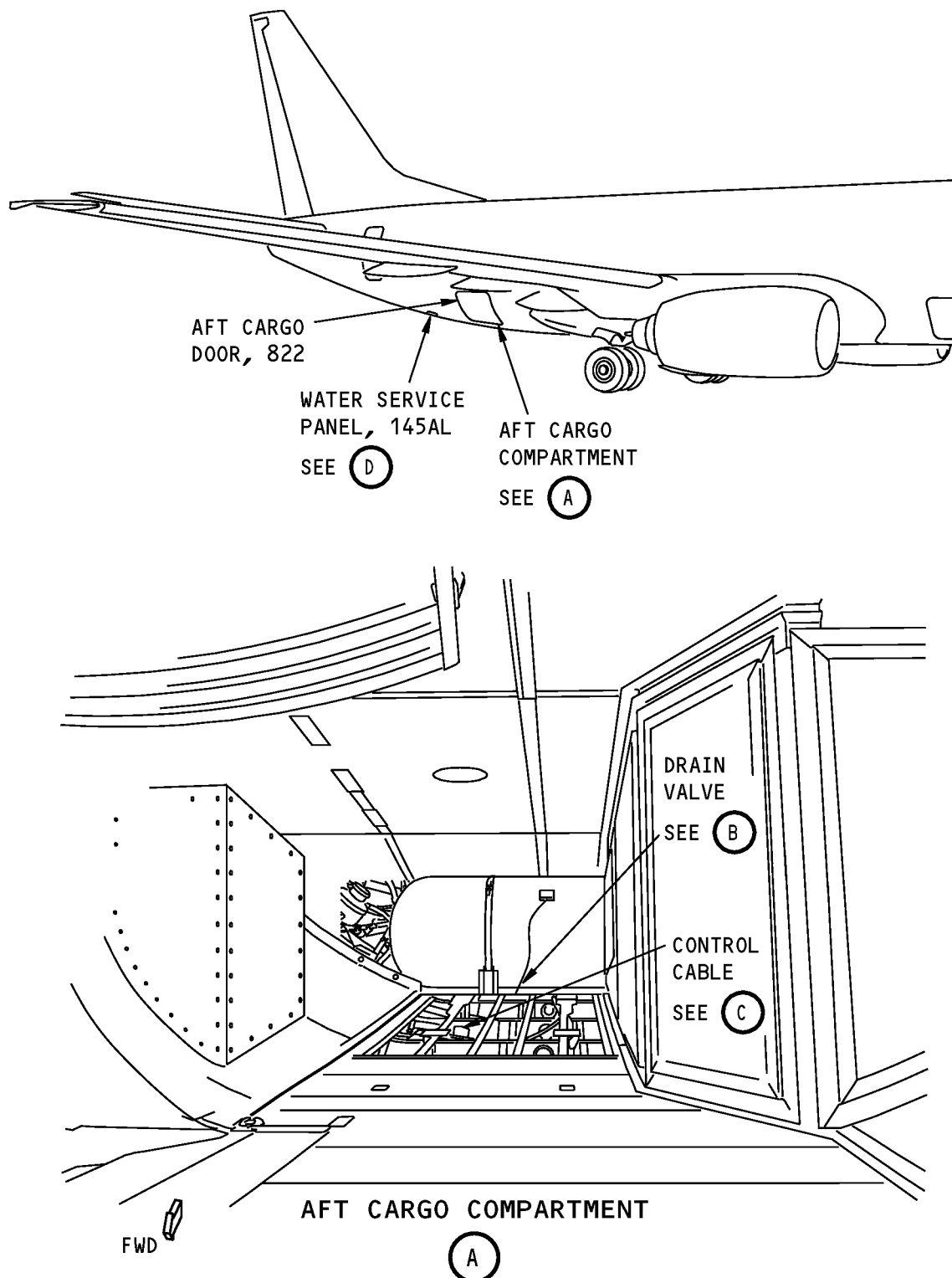
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Water Tank Drain Valve and Control Cable Installation
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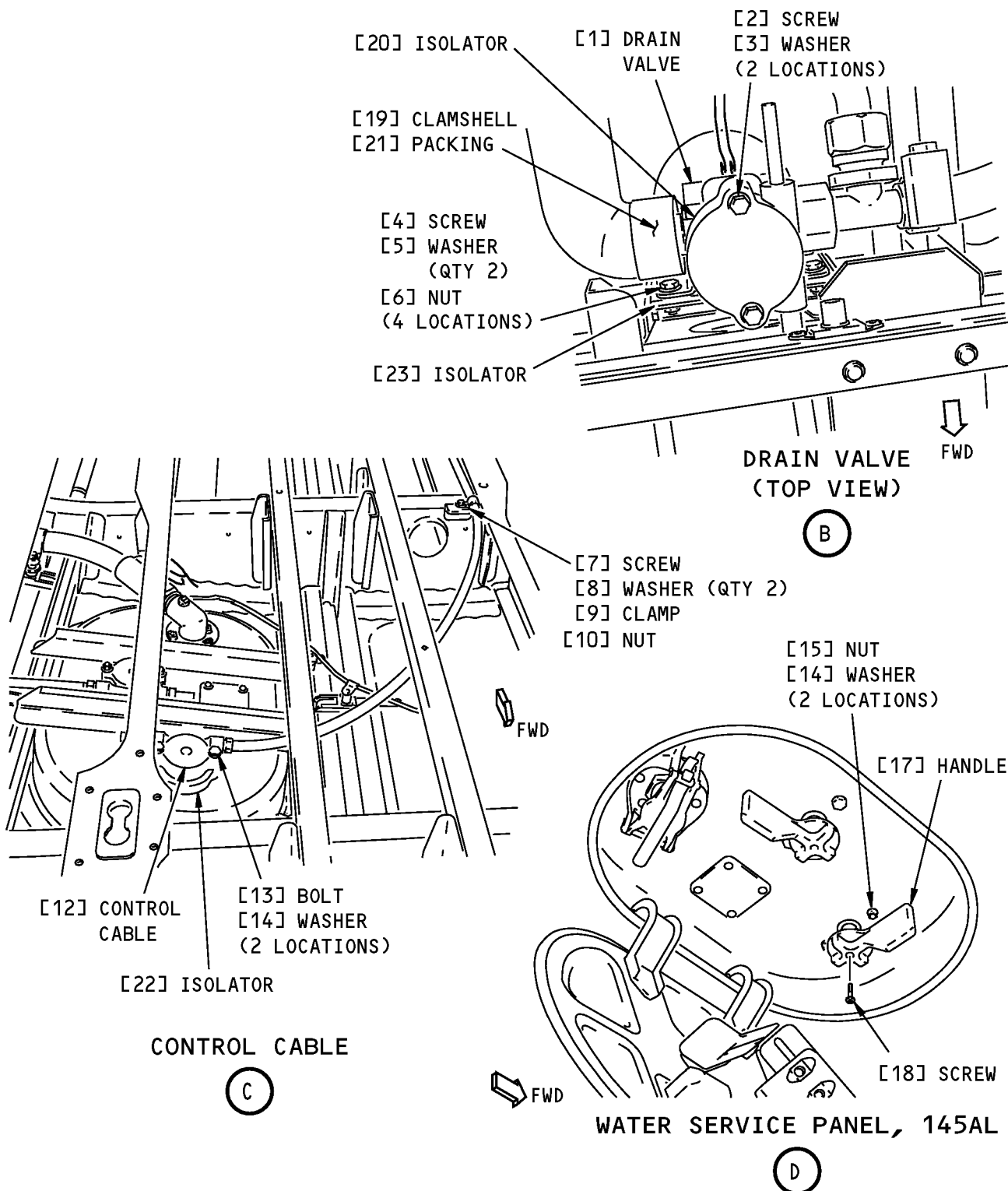
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POTABLE WATER FILL FITTING - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the potable water fill fitting.
- (2) An installation of the potable water fill fitting.

TASK 38-11-09-000-801

2. Potable Water Fill Fitting Removal

(Figure 401)

A. References

Reference	Title
25-52-10-000-801	Cargo Floor Panel Removal (P/B 401)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right
822	Aft Cargo Door

C. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

D. Prepare for Removal

SUBTASK 38-11-09-860-001

- (1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	18	C01463	WASTE/WTR LINE HEATERS

HAP 031-054, 101-999

E	18	C01473	HOSE HEATERS
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HAP 001-013, 015-026, 028-030

F	16	C01473	HOSE HEATERS
---	----	--------	--------------

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
A	18	C00873	POT WATER COMPRESSOR

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

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SUBTASK 38-11-09-010-001

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

SUBTASK 38-11-09-040-001

- (3) Pull the handle for the potable water fill valve to the OPEN position.

NOTE: This handle is on the water service panel.

SUBTASK 38-11-09-010-002

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-09-010-004

- (5) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-11-09-010-003

- (6) To remove the floor panel above the water service panel, do this task: Cargo Floor Panel Removal, TASK 25-52-10-000-801.

E. Potable Water Fill Fitting Removal

SUBTASK 38-11-09-020-001

- (1) Disconnect the heated hose from the fill heater fitting [1].

SUBTASK 38-11-09-020-002

- (2) Remove the bolts [5] that attach the fill cap assembly [4] to the structure.

SUBTASK 38-11-09-020-003

- (3) Remove the thermal spacer [2] under the fill heater fitting [1].

SUBTASK 38-11-09-020-004

- (4) Remove the thermal spacer [2] under the fill cap assembly [4].

SUBTASK 38-11-09-020-005

- (5) Remove the packing [3] from the fill cap assembly [4].
(a) Discard the packing [3].

————— **END OF TASK** —————

TASK 38-11-09-400-801

3. Potable Water Fill Fitting Installation

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-10-400-801	Cargo Floor Panel Installation (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-10-00-600-801	Potable Water System - Disinfectant (P/B 201)

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B. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Fitting	38-11-03-01-215	HAP 001-013, 015-026, 028-030
		38-11-03-03-250	HAP 031-045, 054, 101-103
		38-11-03-03A-250	HAP 046-053, 104-999
4	Cap assembly	38-11-03-01-205	HAP 001-013, 015-026, 028-030
		38-11-03-03-240	HAP 031-045, 054, 101-103
		38-11-03-03A-240	HAP 046-053, 104-999

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

F. Potable Water Fill Fitting Installation

SUBTASK 38-11-09-420-001

- (1) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [3].

NOTE: The packing [3] is part of the cap assembly [4].

SUBTASK 38-11-09-420-002

- (2) Install the packing [3] on the fill cap assembly [4].

SUBTASK 38-11-09-420-003

- (3) Apply the sealant, A00247 to the thermal isolators [6], fill heater fittings [1] and fill cap assembly [4] on the surface that is adjacent to the structure.

SUBTASK 38-11-09-420-004

- (4) Put the fill heater fitting [1] and thermal spacer [2] in its position.

SUBTASK 38-11-09-420-005

- (5) Put the fill cap assembly [4] and thermal isolator [6] in its position.

SUBTASK 38-11-09-420-006

- (6) Install the bolts [5] that connect the fill cap assembly [4] to the structure.

SUBTASK 38-11-09-420-007

- (7) Connect the heated hose to the fill heater fitting [1].

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SUBTASK 38-11-09-670-001

(8) Do this task: Potable Water System - Disinfectant, TASK 38-10-00-600-801.

G. Potable Water Fill Fitting Installation Test

SUBTASK 38-11-09-860-002

(1) Close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	18	C01463	WASTE/WTR LINE HEATERS

HAP 031-054, 101-999

E	18	C01473	HOSE HEATERS
---	----	--------	--------------

HAP 001-013, 015-026, 028-030

F	16	C01473	HOSE HEATERS
---	----	--------	--------------

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	18	C00873	POT WATER COMPRESSOR

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-11-09-860-003

(2) do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-11-09-710-001

(3) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

(a) Make sure there is no leakage at the water fill fitting.

H. Put Airplane Back to its Usual Condition

SUBTASK 38-11-09-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.

SUBTASK 38-11-09-410-005

(2) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-11-09-410-002

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-11-09-410-003

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
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<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

_____ END OF TASK _____

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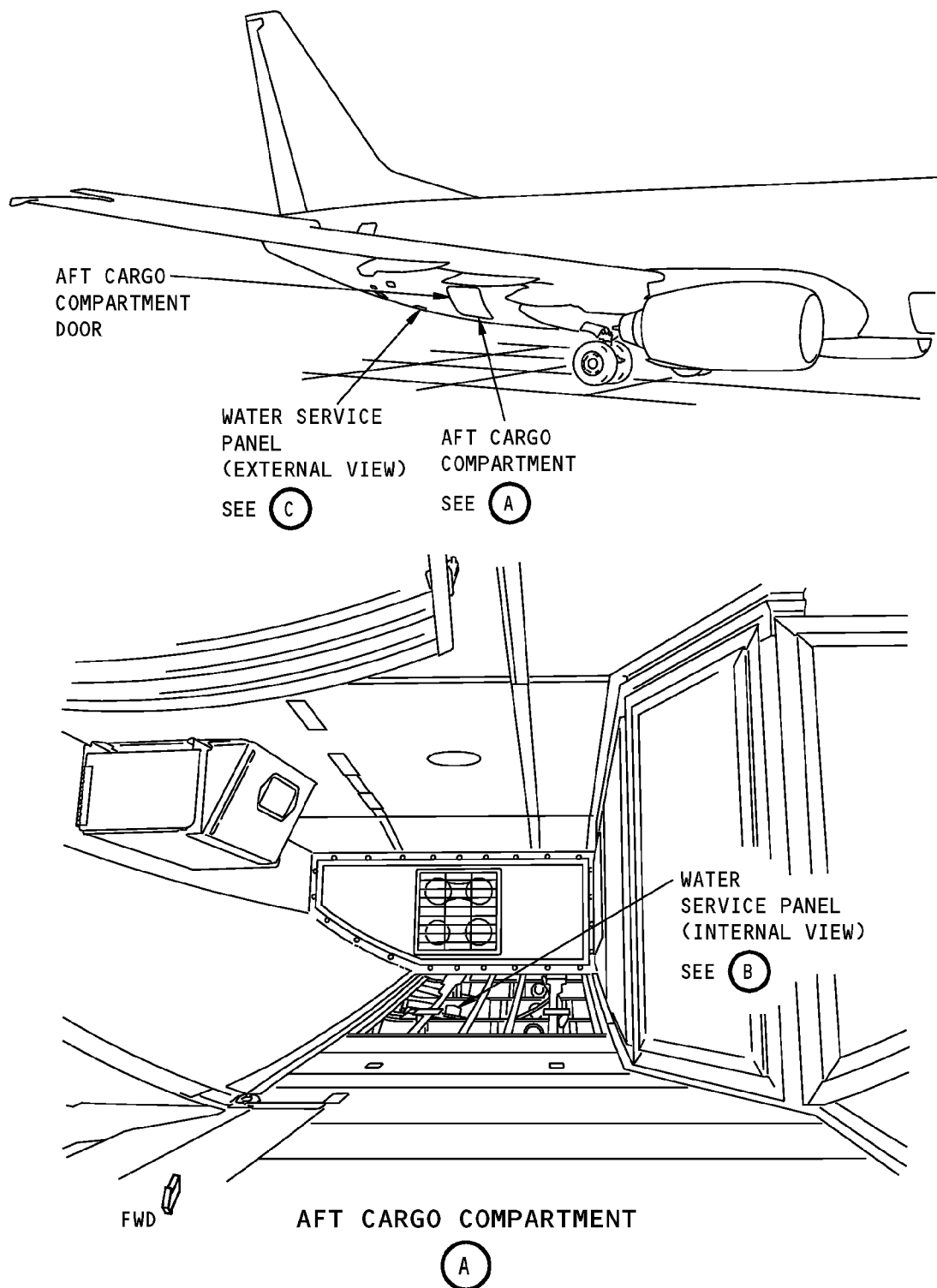
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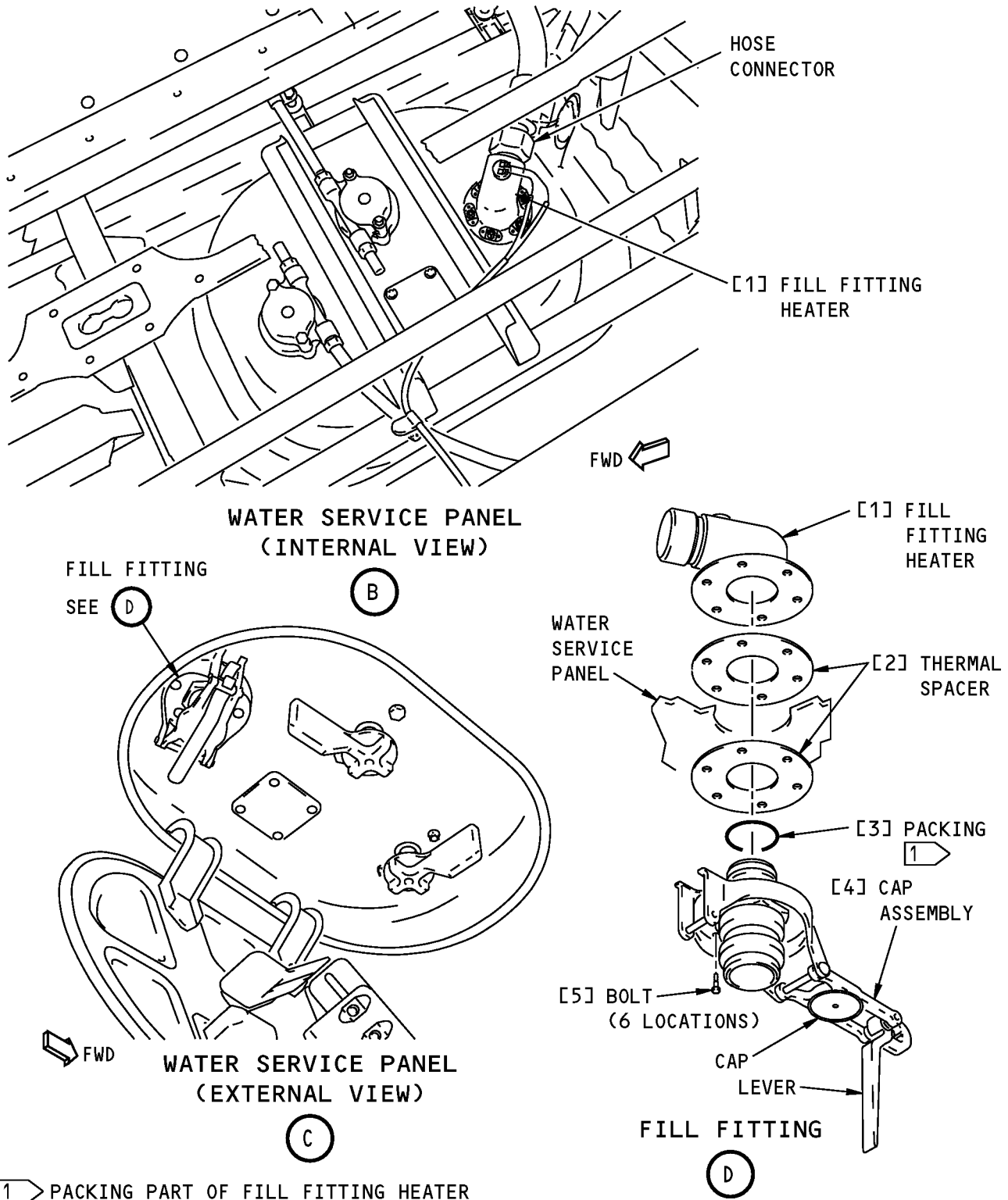
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WATER HEATER - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
- (1) A removal of the water heater
 - (2) An installation of the water heater.
- B. The water heater is below the sink in the lavatory compartment.

TASK 38-13-01-000-801

2. Water Heater Removal

(Figure 401)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-13-01-860-001

- (1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
F	13	C00104	LAVATORY WATER HEATER A
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

NOTE: You must open the applicable circuit breaker for the lavatory you work in.

SUBTASK 38-13-01-860-002

- (2) Get access to the lavatory.

SUBTASK 38-13-01-010-001

- (3) Open the door of the cabinet below the sink.

SUBTASK 38-13-01-040-001

- (4) Turn the handle for the water shutoff valve to the OFF position.

HAP ALL; AIRPLANES WITH FORWARD LAVATORY

SUBTASK 38-13-01-680-001

- (5) Make sure the drain valve for the forward lavatory is in the OPEN TO DRAIN position.

HAP ALL

SUBTASK 38-13-01-040-002

- (6) Open the faucet to release the pressure and to drain some of the water.

SUBTASK 38-13-01-680-002

- (7) If it is necessary, do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

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D. Water Heater Removal

SUBTASK 38-13-01-020-001

- (1) Disconnect the electrical connector.

SUBTASK 38-13-01-020-002

- (2) Disconnect the water outlet hose from the side of the water heater [1].

- (a) Put a cloth under the water heater to absorb the extra water.

SUBTASK 38-13-01-020-003

- (3) Disconnect the water inlet from the bottom of the water heater [1].

- (a) Put a cloth under the water heater to absorb the extra water.

SUBTASK 38-13-01-020-004

- (4) Disconnect the clamp [2].

SUBTASK 38-13-01-020-005

- (5) Remove the water heater [1].

END OF TASK

TASK 38-13-01-400-801

3. Water Heater Installation

(Figure 401)

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Heater	38-13-01-01-050	HAP 001-005, 008-013, 015-026, 028-030
		38-13-01-01-055	HAP 001-005, 008-013, 015-026, 028-030
		38-13-01-01B-050	HAP 015-026, 028-030
		38-13-01-01B-055	HAP 015-026, 028-030
		38-13-01-01C-050	HAP 006, 007
		38-13-01-01C-055	HAP 006, 007
		38-13-01-02L-060	HAP 006, 007
		38-13-01-06-145	HAP 008-013, 015-026, 028-030
		38-13-01-08-065	HAP 006, 007
		38-13-01-35C-010	HAP 042-046, 051, 052
		38-13-01-46N-010	HAP 031-037, 039-041, 047-050, 053, 054, 101-999
		38-13-01-46P-010	HAP 031-041, 047-050, 053, 054, 101-999
		38-13-01-46Q-010	HAP 031-037, 039-041, 047-050, 053, 054
		38-13-01-55A-010	HAP 038, 042-046, 051, 052

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AMM Item	Description	AIPC Reference	AIPC Effectivity
1 (cont.)		38-13-01-55C-015	HAP 038, 042-046, 051, 052
		38-13-01-89-010	HAP 101-999

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Water Heater Installation

SUBTASK 38-13-01-420-001

- (1) Put the water heater [1] in its position.

SUBTASK 38-13-01-420-002

- (2) Connect the clamp [2] for the water heater [1].

NOTE: Do not tighten the clamp [2] until a step that follows.

SUBTASK 38-13-01-420-003

- (3) Connect the water inlet to the bottom of the water heater [1].

SUBTASK 38-13-01-420-004

- (4) Connect the water outlet hose to the side of the water heater [1].

SUBTASK 38-13-01-420-005

- (5) Connect the electrical connector to the water heater [1].

SUBTASK 38-13-01-420-006

- (6) Tighten the clamp [2].

E. Put the Airplane Back in the Usual Condition.

SUBTASK 38-13-01-680-003

- (1) If it is necessary, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

HAP ALL; AIRPLANES WITH FORWARD LAVATORY

SUBTASK 38-13-01-860-003

- (2) Move the drain valve in the forward lavatory to the CLOSED position.

HAP ALL

SUBTASK 38-13-01-440-001

- (3) Turn the handle for the water shutoff valve to the ON position.

SUBTASK 38-13-01-860-004

- (4) Close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
F	13	C00104	LAVATORY WATER HEATER A
F	14	C01073	LAVATORY WATER HEATER D
F	15	C01096	LAVATORY WATER HEATER E

SUBTASK 38-13-01-790-001

- (5) Make sure the water hose connections at the water heater do not have a leak.

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SUBTASK 38-13-01-710-001

- (6) After 5 minutes, open the hot water faucet to make sure that the water is hot.
 - (a) If the water is not at the correct temperature, move the temperature select switch to a higher or lower temperature position.

SUBTASK 38-13-01-020-006

- (7) Remove the cloth from below the water heater [2].

SUBTASK 38-13-01-410-001

- (8) Close the door to the cabinet below the sink.

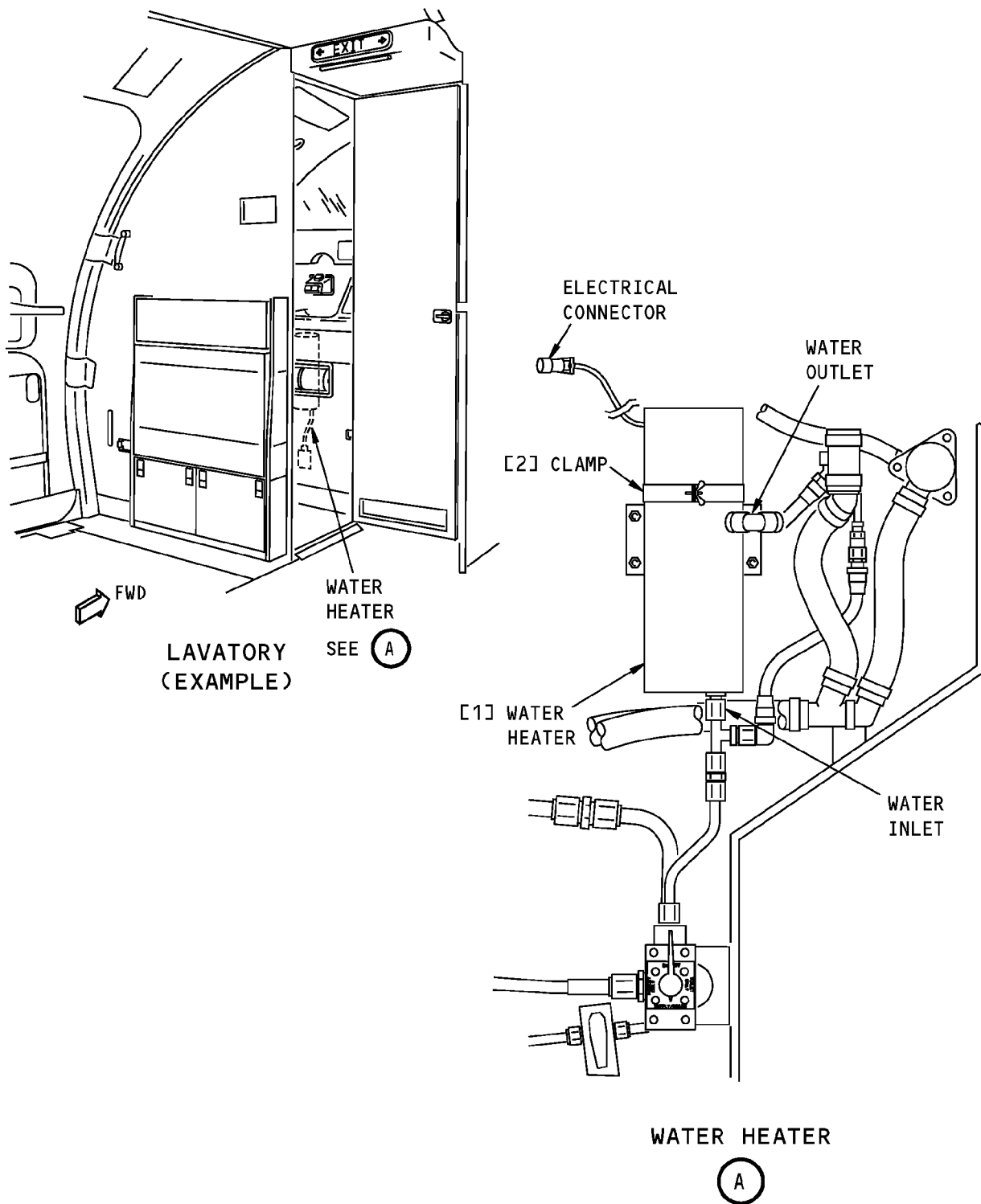
————— **END OF TASK** —————

EFFECTIVITY
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Water Heater Installation
Figure 401/38-13-01-990-801

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WATER QUANTITY TRANSMITTER - REMOVAL/INSTALLATION

1. General

- A. This procedure has these tasks:
- (1) A removal of the water quantity transmitter
 - (2) An installation of the water quantity transmitter.

HAP 001-011

- B. Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A or (TASK 38-14-01-400-801).
- C. The water tank material can be identified by color. A yellow to light green appearance identifies the fiberglass water tank, whereas a black to dark gray appearance identifies the graphite water tank.

HAP ALL

TASK 38-14-01-000-801

2. Water Quantity Transmitter Removal

(Figure 401)

A. References

Reference	Title
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-14-01-860-006

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

C	9	C00138	WATER QTY IND
---	---	--------	---------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

EFFECTIVITY
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SUBTASK 38-14-01-010-002

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-14-01-860-008

- (3) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-14-01-010-003

- (4) To remove the end wall in the aft cargo compartment, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

E. Water Quantity Transmitter Removal

SUBTASK 38-14-01-020-002

- (1) Disconnect the electrical connector [17].

SUBTASK 38-14-01-020-003

- (2) Remove the screws [18] and washers [19] that hold cover [20] in its position on the water tank.

SUBTASK 38-14-01-020-004

- (3) Remove the screw [23] and washer [22] that hold connector [23] in its position on the water tank.

SUBTASK 38-14-01-020-005

- (4) Remove the screw [2], washers [3], clamp [4], clamp [5], and nut [6] to disconnect the coaxial wire from the structure.

SUBTASK 38-14-01-020-006

- (5) Remove the screw [7], washer [8], clamp [9], and spacer [10] to disconnect the coaxial wire from the structure.

SUBTASK 38-14-01-020-007

- (6) Remove the screws [15] and nuts [16] to disconnect the transmitter connector from the bracket [13].

SUBTASK 38-14-01-020-008

- (7) Remove the screws [11] and washers [12].

SUBTASK 38-14-01-020-009

- (8) Remove the water quantity transmitter [1].

END OF TASK

TASK 38-14-01-400-801

3. Water Quantity Transmitter Installation

(Figure 401)

A. General

- (1) This procedure provides instructions to install the water quantity transmitter.

HAP 001-011

- (2) Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A.

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HAP 001-011 (Continued)

- (3) The water tank material can be identified by color. A yellow to light green appearance identifies the fiberglass water tank, whereas a black to dark gray appearance identifies the graphite water tank.

HAP ALL

B. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-14-01-800-801	Water Quantity Transmitter Adjustment (P/B 501)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Transmitter	38-14-01-01-035	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Water Quantity Transmitter Installation

HAP 001-011

SUBTASK 38-14-01-400-001

- (1) If you are replacing a graphite water tank with a fiberglass water tank, replace the existing water quantity transmitter with a unit compatible with the new tank material. See SL-38-028A.

NOTE: Due to capacitance differences between tank materials, replacing existing graphite water tanks with the new fiberglass water tanks requires that the existing water quantity transmitter be replaced with a water quantity transmitter of a design compatible with the new tank material. See SL-38-028A.

HAP ALL

SUBTASK 38-14-01-420-003

- (2) Put the transmitter [1] its position on the bracket [13].

SUBTASK 38-14-01-420-004

- (3) Install the screws [11] and washers [12] to connect the water quantity transmitter [1] to the bracket [13].

SUBTASK 38-14-01-420-005

- (4) Install the screws [15] and nuts [16] to connect the transmitter connector to the bracket [13].

SUBTASK 38-14-01-420-006

- (5) Install the screw [7], washer [8], clamp [9], and spacer [10] to connect the coaxial wire to the structure.

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SUBTASK 38-14-01-420-007

- (6) Install the screw [2], washers [3], clamp [4], clamp [5], and nut [6] to connect the coaxial wire to the structure.

SUBTASK 38-14-01-420-008

- (7) Install the screw [21] and washer [22] to hold connector [23] in its position on the water tank.

NOTE: There are two connector terminals on the water tank. The transmitter cable connector may be connected to either terminal. Each terminal is attached to the sensor grid within the tank sidewall.

SUBTASK 38-14-01-420-009

- (8) Install the screws [18] and washers [19] to hold the cover [20] on the water tank.

SUBTASK 38-14-01-420-010

- (9) Connect the electrical connector [17].

G. Water Quantity Transmitter Installation Test

SUBTASK 38-14-01-860-007

- (1) Close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP ALL			
C	9	C00138	WATER QTY IND
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

SUBTASK 38-14-01-820-005

- (2) Do this task: Water Quantity Transmitter Adjustment, TASK 38-14-01-800-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-14-01-410-005

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-14-01-410-006

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-14-01-610-003

- (3) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

————— **END OF TASK** —————

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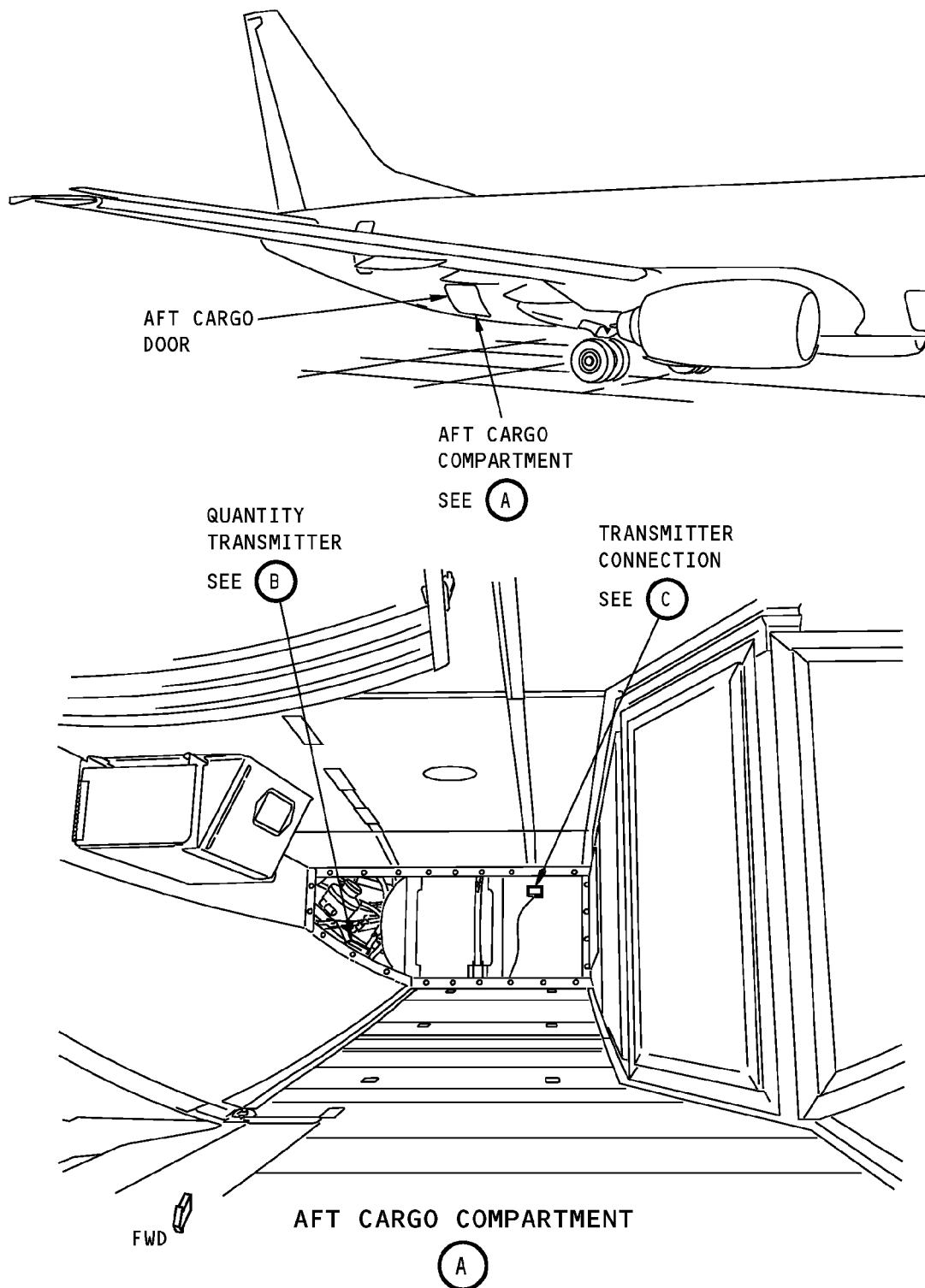
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Water Quantity Transmitter Installation
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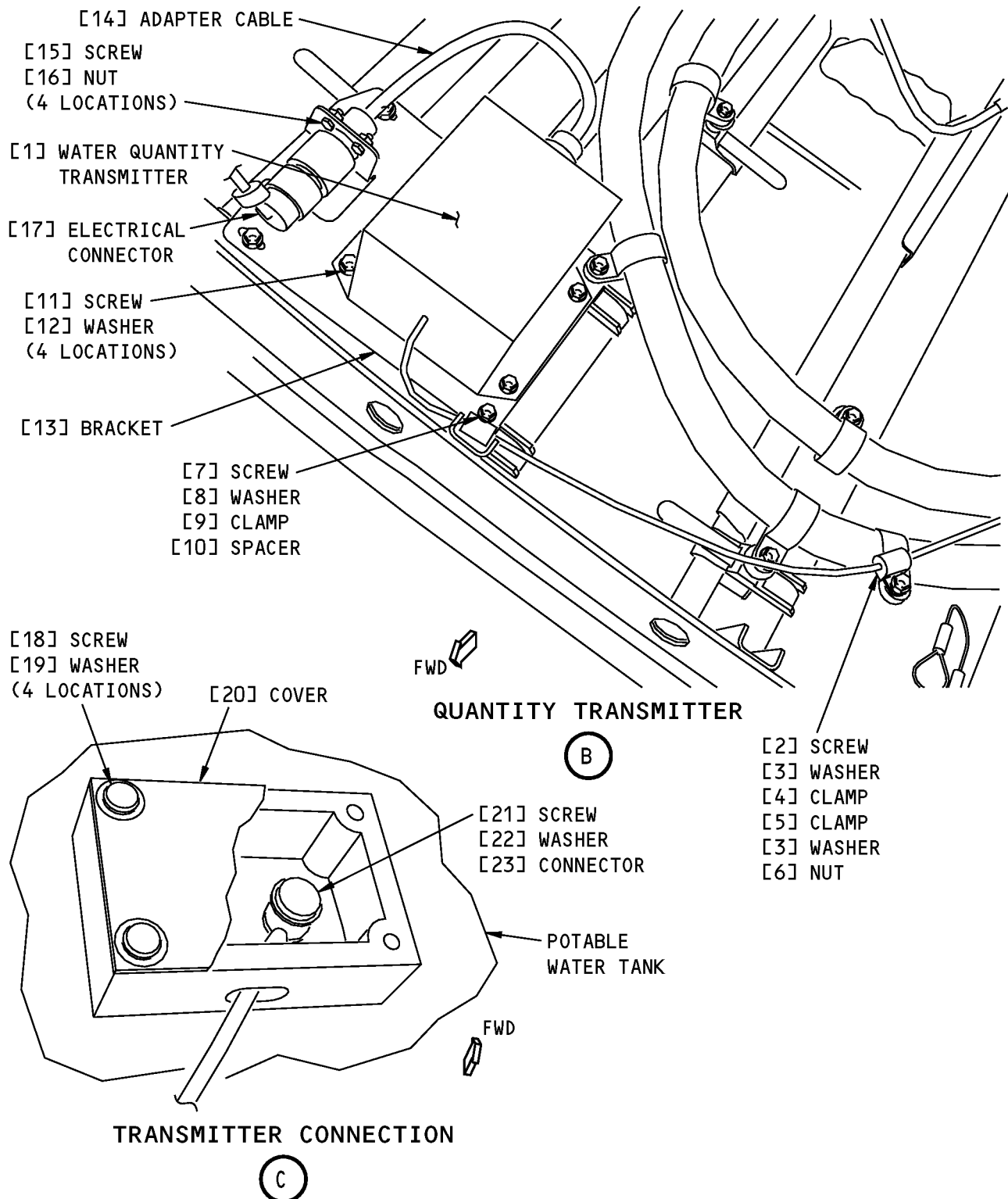
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Water Quantity Transmitter Installation
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WATER QUANTITY TRANSMITTER - ADJUSTMENT/TEST

1. General

A. This procedure has this task:

- (1) An adjustment of the water quantity transmitter.

TASK 38-14-01-800-801

2. Water Quantity Transmitter Adjustment

(Figure 501)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1949	Cable - Test, Potable Water Quantity Transmitter (Part #: A38010-11, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-1231	Multimeter - Standard

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Adjustment

SUBTASK 38-14-01-410-001

- (1) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-14-01-010-001

- (2) To remove the end wall in the aft cargo compartment, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-14-01-610-001

- (3) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

NOTE: Keep the water hose connected after you fill the water tank.

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SUBTASK 38-14-01-680-001

- (4) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

NOTE: The inner area of the water tank must be wet to make an accurate calibration of the water quantity transmitter.

SUBTASK 38-14-01-860-001

- (5) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	9	C00138	WATER QTY IND

SUBTASK 38-14-01-020-010

- (6) Disconnect the D40148J water quantity transmitter adapter from the D40148P airplane wiring electrical connector.

SUBTASK 38-14-01-480-001

- (7) Install the potable water quantity transmitter test cable, SPL-1949 between the D40148J water quantity transmitter adapter and the D40148P airplane wiring electrical connector.

SUBTASK 38-14-01-480-002

- (8) Connect the multimeter, STD-1231 to the test points on the test cable.

SUBTASK 38-14-01-860-002

- (9) Close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	9	C00138	WATER QTY IND

SUBTASK 38-14-01-860-003

- (10) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

F. Water Quantity Transmitter Adjustment

SUBTASK 38-14-01-820-001

- (1) Measure the voltage between the test points.

SUBTASK 38-14-01-820-002

- (2) If the voltage is not 0 ± 0.2 vdc, do these steps:
- (a) On the potable water transmitter, find the adjustment screw labeled "Empty".
 - (b) Turn the adjustment screw until the voltage is 0 ± 0.2 vdc on the multimeter.

SUBTASK 38-14-01-610-002

- (3) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

NOTE: Keep the water hose connected after you fill the water tank.

SUBTASK 38-14-01-820-003

- (4) Measure the voltage between the test points on the cable.

SUBTASK 38-14-01-820-004

- (5) If the voltage is not -10 ± 0.2 vdc, do these steps:
- (a) Find the adjustment screw with the FULL mark.
 - (b) Turn this FULL adjustment screw until the voltage is -10 ± 0.2 vdc on the multimeter.

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G. Put the Airplane Back to the Usual Condition.

SUBTASK 38-14-01-860-004

(1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	9	C00138	WATER QTY IND

SUBTASK 38-14-01-080-001

(2) Disconnect the multimeter from the cable.

SUBTASK 38-14-01-080-002

(3) Remove the potable water quantity transmitter test cable, SPL-1949.

SUBTASK 38-14-01-420-002

(4) Connect the D40148P electrical connector to the D40148J electrical connector.

SUBTASK 38-14-01-410-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(5) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-14-01-410-004

(6) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-14-01-860-005

(7) Close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	9	C00138	WATER QTY IND

————— **END OF TASK** —————

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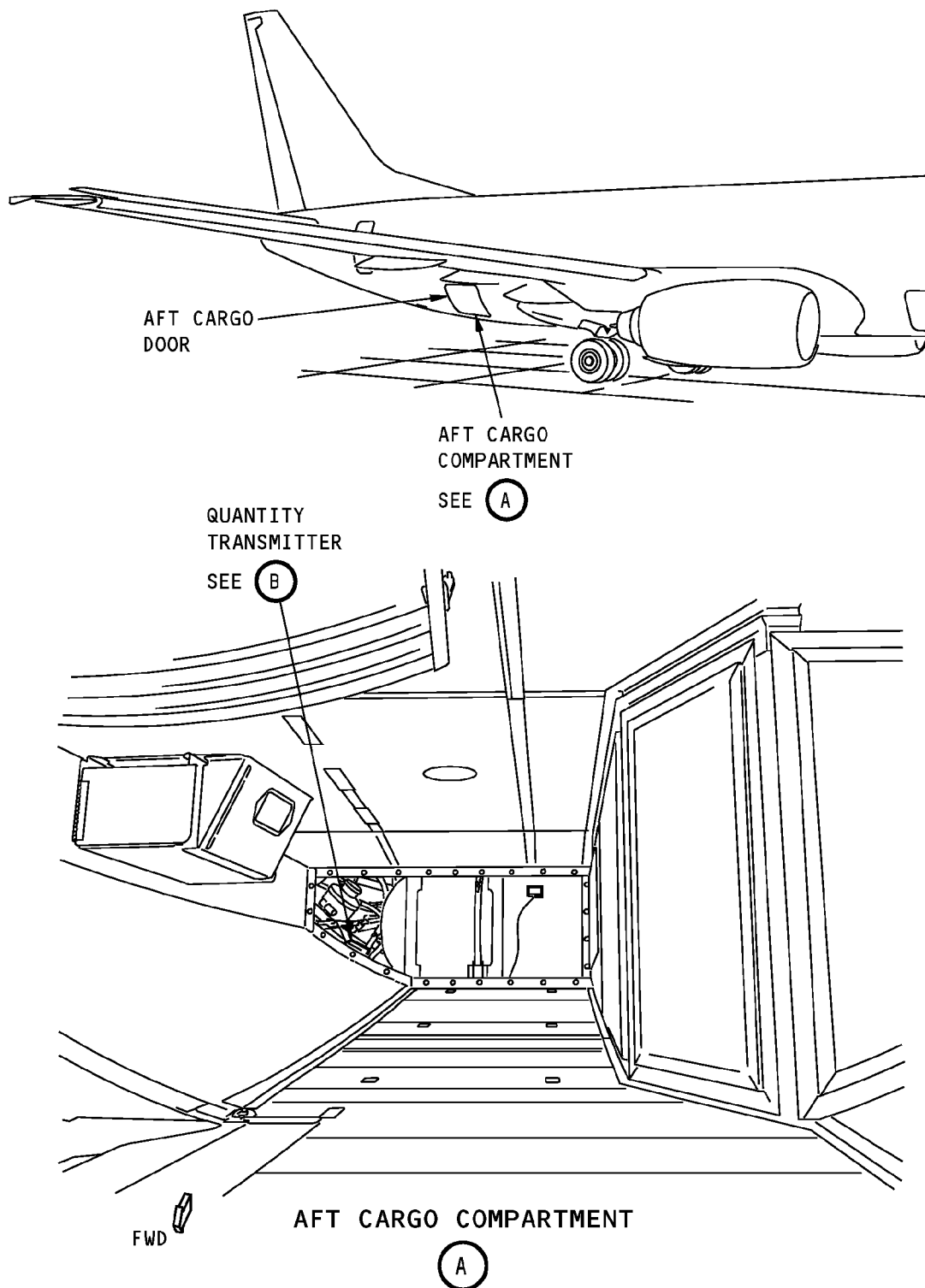
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Water Quantity Transmitter Adjustment
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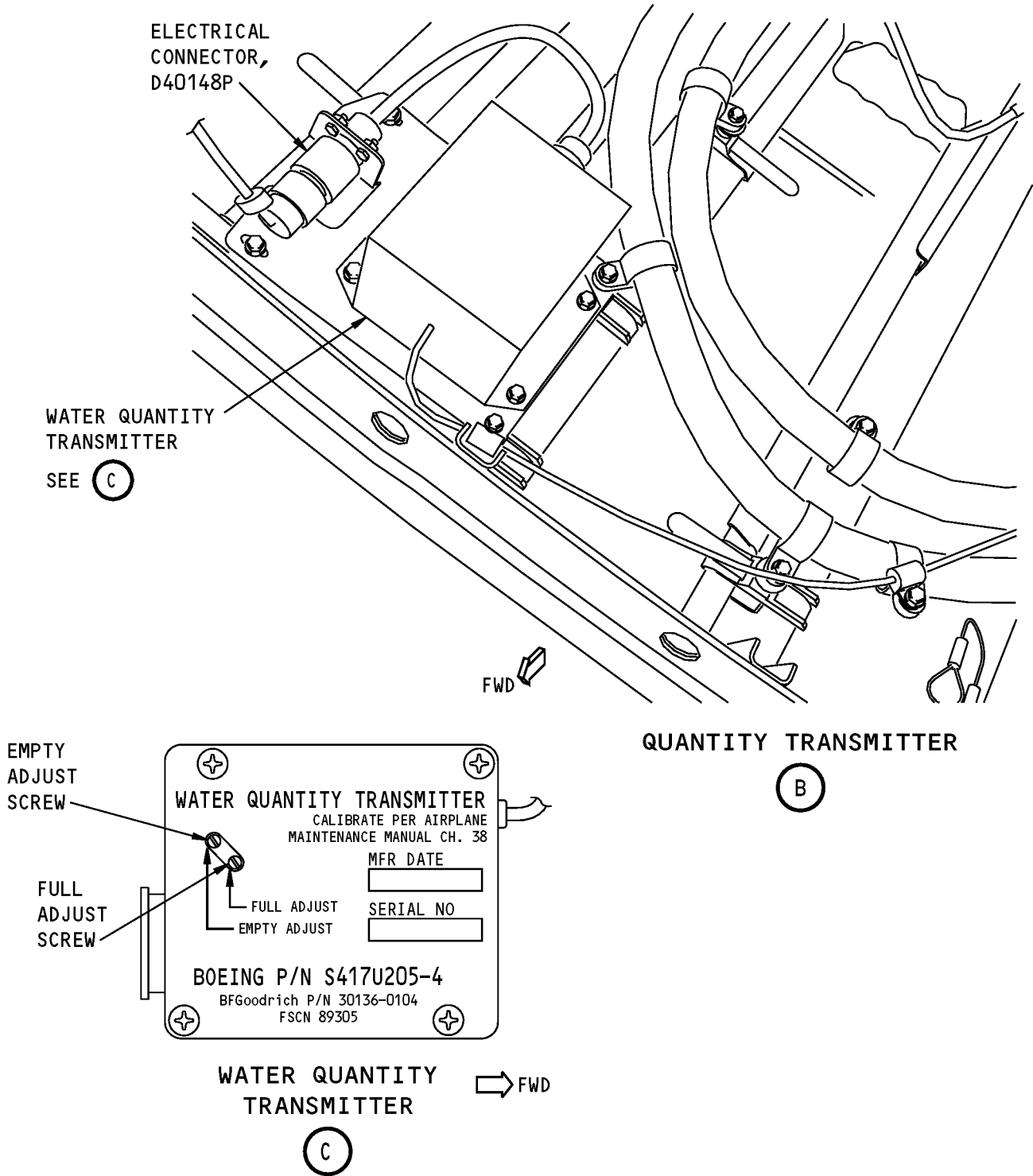
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Water Quantity Transmitter Adjustment
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AIRCRAFT MAINTENANCE MANUAL

ATTENDANT'S PANEL WATER QUANTITY INDICATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the water quantity indicator on the attendant's panel.
- (2) An installation of the water quantity indicator on the attendant's panel.

TASK 38-14-02-000-801

2. Attendant's Panel Water Quantity Indicator Removal

(Figure 401)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the Removal

SUBTASK 38-14-02-860-001

- (1) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	9	C00138	WATER QTY IND

SUBTASK 38-14-02-860-002

- (2) Get access to the aft attendant's panel.

C. Water Quantity Indicator Removal

SUBTASK 38-14-02-020-001

- (1) Remove the screws [2] that attach the aft attendant's panel shroud [1].

SUBTASK 38-14-02-020-002

- (2) Remove the shroud [1].

NOTE: The shroud [1] is held in its position by spring clips. You must pull on the shroud [1] to release the spring clips.

SUBTASK 38-14-02-020-003

- (3) Remove the screws [3] and washers [4].

SUBTASK 38-14-02-020-004

- (4) Remove the water quantity module [5].

END OF TASK

TASK 38-14-02-400-801

3. Attendant's Panel Water Quantity Indicator Installation

(Figure 401)

A. References

Reference	Title
12-14-01-600-801	Potable Water System - Drain (P/B 301)
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)

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B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Module	31-15-21-03-055	HAP 001-013, 015-026, 028-030
		31-15-21-03A-050	HAP 031-054, 101-999
		38-14-02-01-005	HAP 031-054, 101-999

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Water Quantity Indicator Installation

SUBTASK 38-14-02-420-001

- (1) Put the water quantity module [5] into its position.

SUBTASK 38-14-02-420-002

- (2) Install the screws [3] and washers [4].

SUBTASK 38-14-02-420-003

- (3) Align the spring clips to put the shroud [1] in its position.

SUBTASK 38-14-02-420-004

- (4) Install the screws [2].

E. Water Quantity Indicator Installation Test

SUBTASK 38-14-02-860-003

- (1) Close this circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	9	C00138	WATER QTY IND

SUBTASK 38-14-02-610-001

- (2) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

- (a) Make sure the potable water tank is full.

SUBTASK 38-14-02-710-001

- (3) Make sure the water quantity indicator shows F.

SUBTASK 38-14-02-610-002

- (4) Do this task: Potable Water System - Drain, TASK 12-14-01-600-801.

- (a) Make sure the potable water tank is empty.

SUBTASK 38-14-02-710-002

- (5) Make sure the water quantity indicator shows E.

F. Put the Airplane Back in Its Usual Condition

SUBTASK 38-14-02-610-003

- (1) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

————— END OF TASK —————

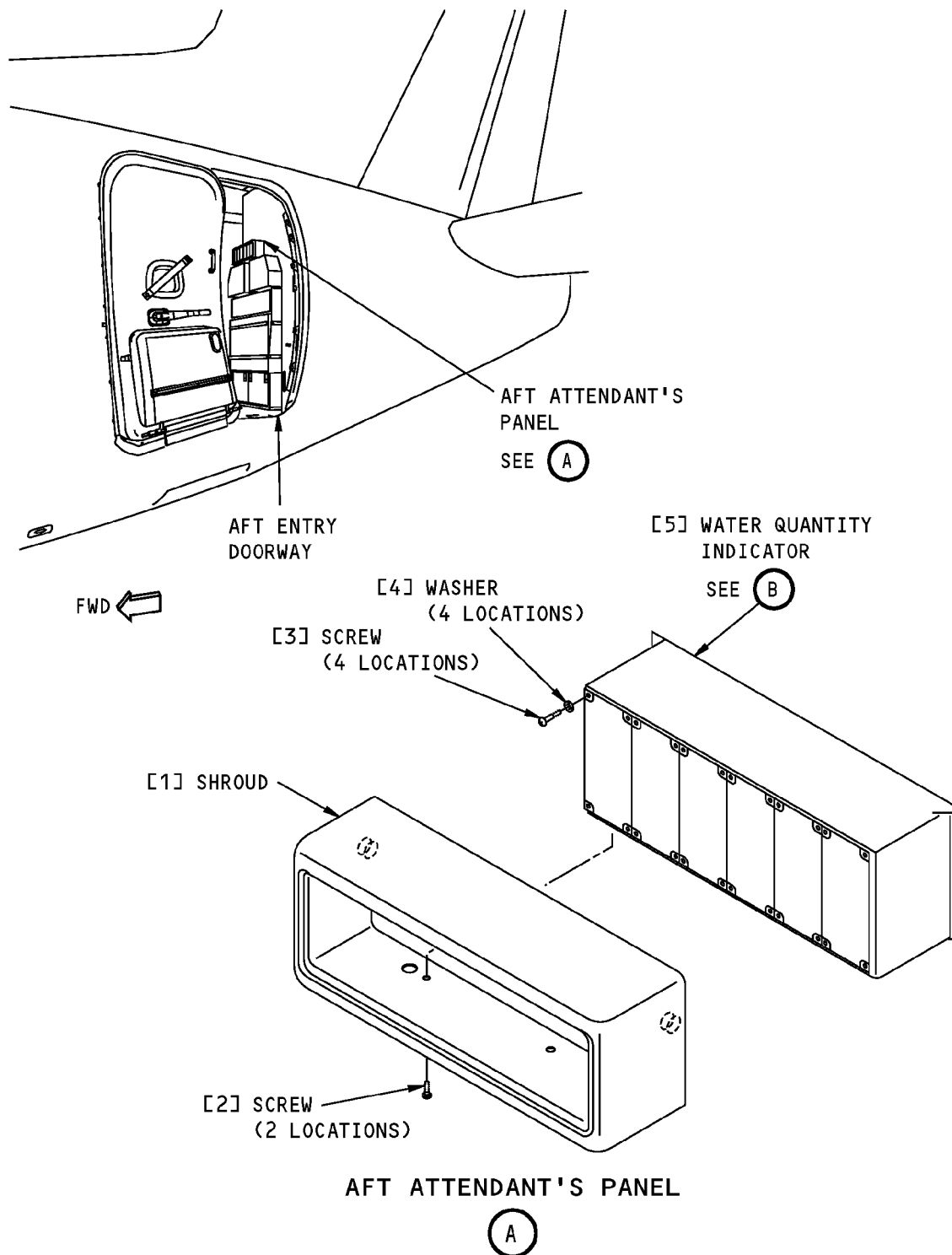
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Attendant's Panel Water Quantity Indicator Installation
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HAP 001-013, 015-026, 028-030

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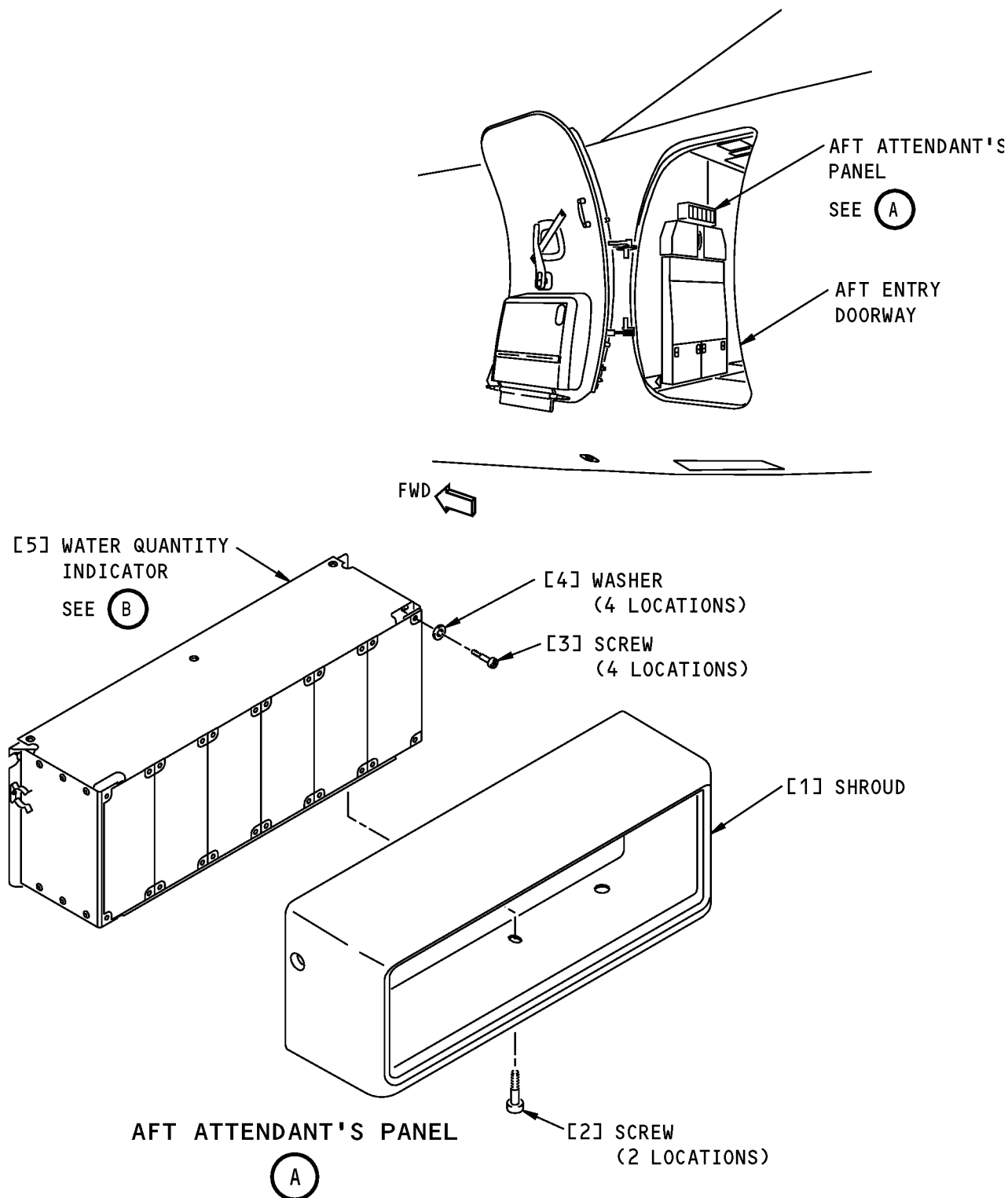
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Attendant's Panel Water Quantity Indicator Installation
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HAP 031-054, 101-999

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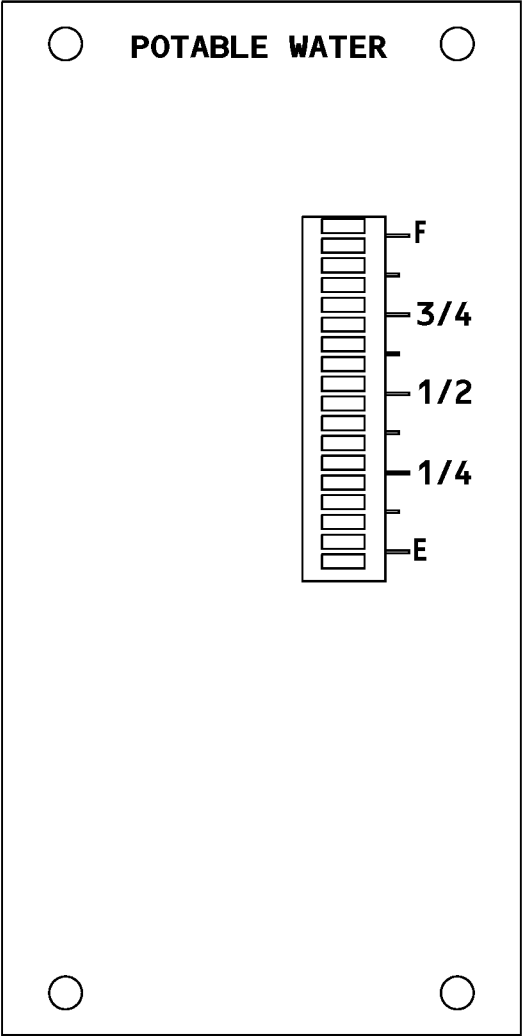
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WATER QUANTITY INDICATOR

(B)

Attendant's Panel Water Quantity Indicator Installation
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GRAY WATER/DRAIN SYSTEM - MAINTENANCE PRACTICES

1. General

- A. This procedure has these tasks:
 - (1) The primary routing for the location of these systems.
 - (a) The gray water drain system
 - (b) The potable water drain system
 - (c) The drain system for the area at the doors.
- B. This procedure gives the primary configuration items that are in the passenger compartment. This procedure is only a basic configuration of the gray water drains and potable water drains. For the accurate configuration of your airplane, it is necessary for you to refer to the approved configuration data.
- C. This procedure has these illustrations:
 - (1) (Figure 201) shows the primary routing of the tubes for the gray water system.
 - (2) (Figure 202) shows the primary routing of the tubes for the drain system.
 - (3) (Figure 203) shows the primary routing of the tubes for the door drain system.

TASK 38-31-00-910-801

2. Gray Water/Drain System - Maintenance Practice

(Figure 201, Figure 202, Figure 203)

A. Location Zones

Zone	Area
100	Lower Half of Fuselage

B. Gray Water/Drain System - Maintenance Practice

SUBTASK 38-31-00-860-002

- (1) To access the gray water system components use (Figure 201).

SUBTASK 38-31-00-860-003

- (2) To access the water drain system components use (Figure 202).

SUBTASK 38-31-00-860-004

- (3) To access the door drain system components use (Figure 203).

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

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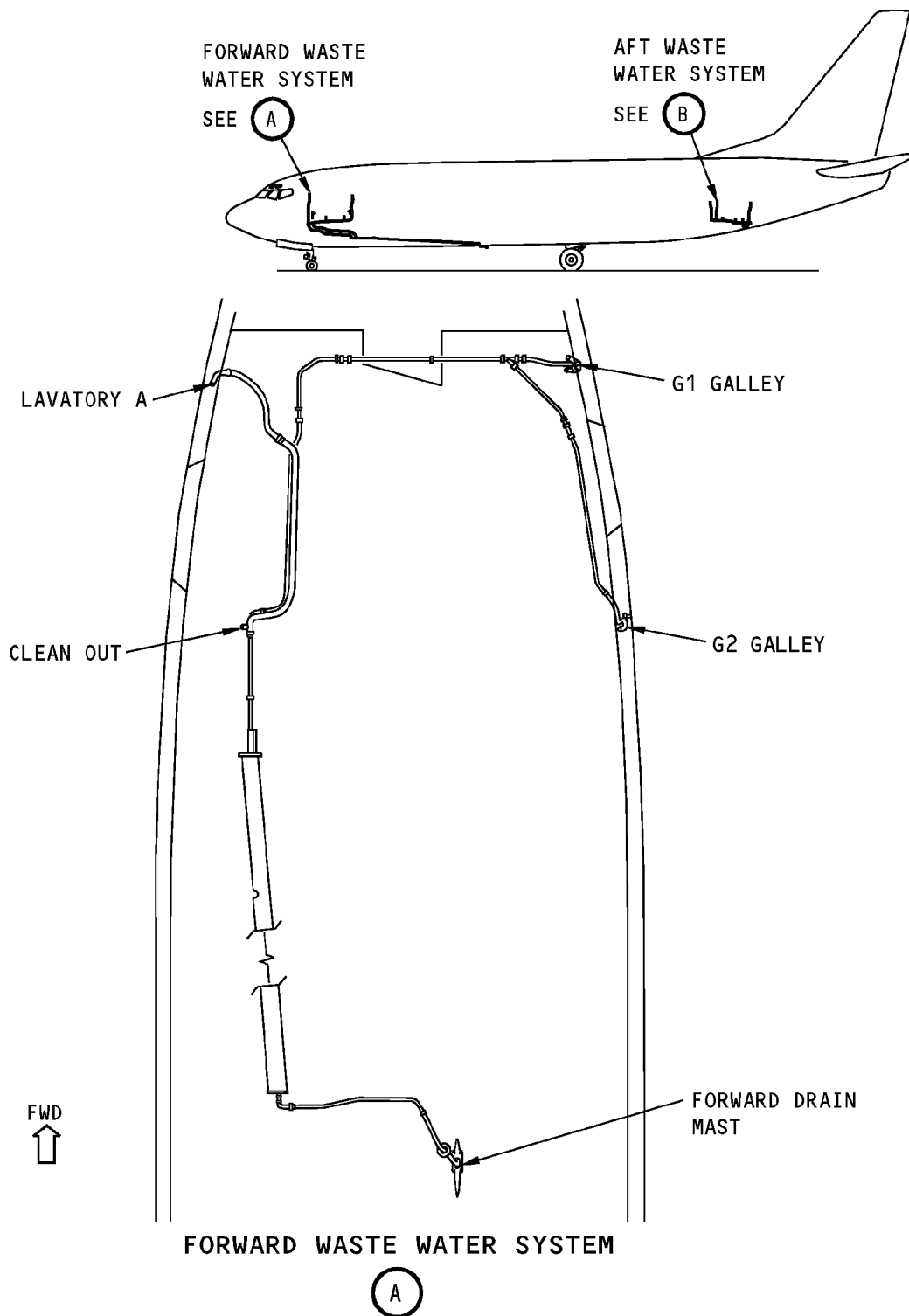
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Waste Water System - Maintenance Practice
Figure 201 (Sheet 1 of 2)/38-31-00-990-801

EFFECTIVITY

HAP 031-037, 039, 040, 048-054, 101-999

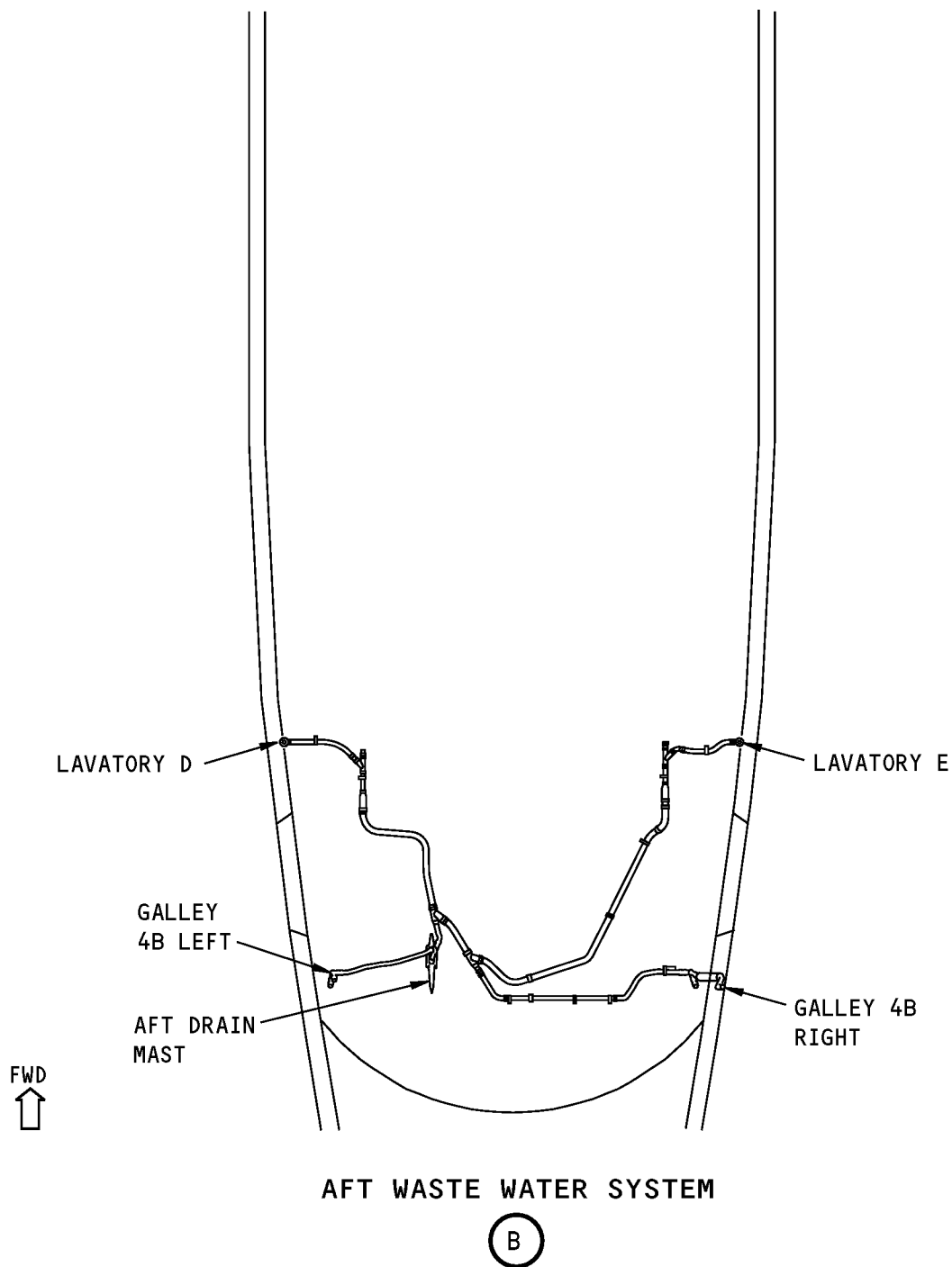
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Waste Water System - Maintenance Practice
Figure 201 (Sheet 2 of 2)/38-31-00-990-801

EFFECTIVITY
HAP ALL

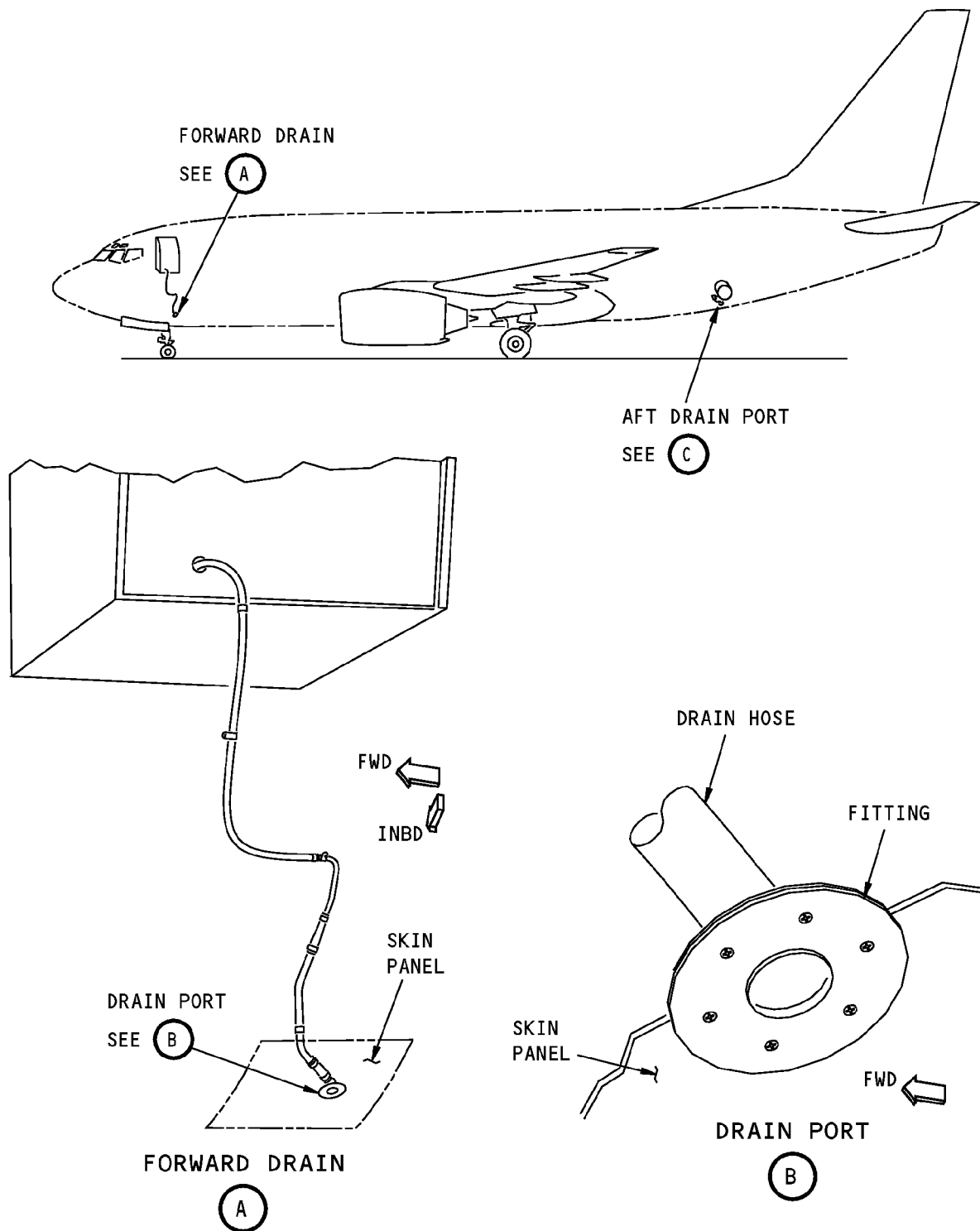
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Water Drain System
Figure 202 (Sheet 1 of 2)/38-31-00-990-802

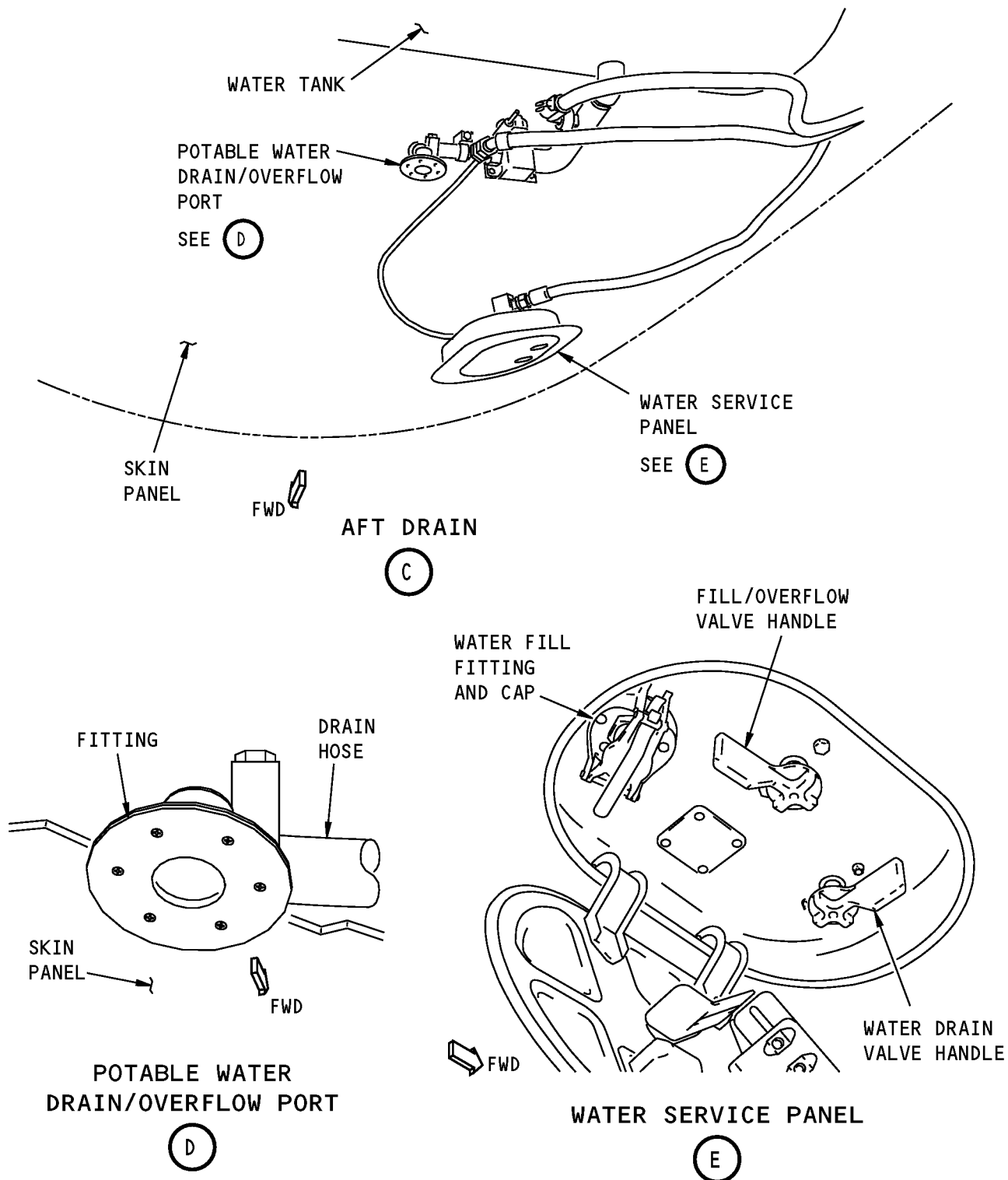
EFFECTIVITY
HAP ALL

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Water Drain System
Figure 202 (Sheet 2 of 2)/38-31-00-990-802

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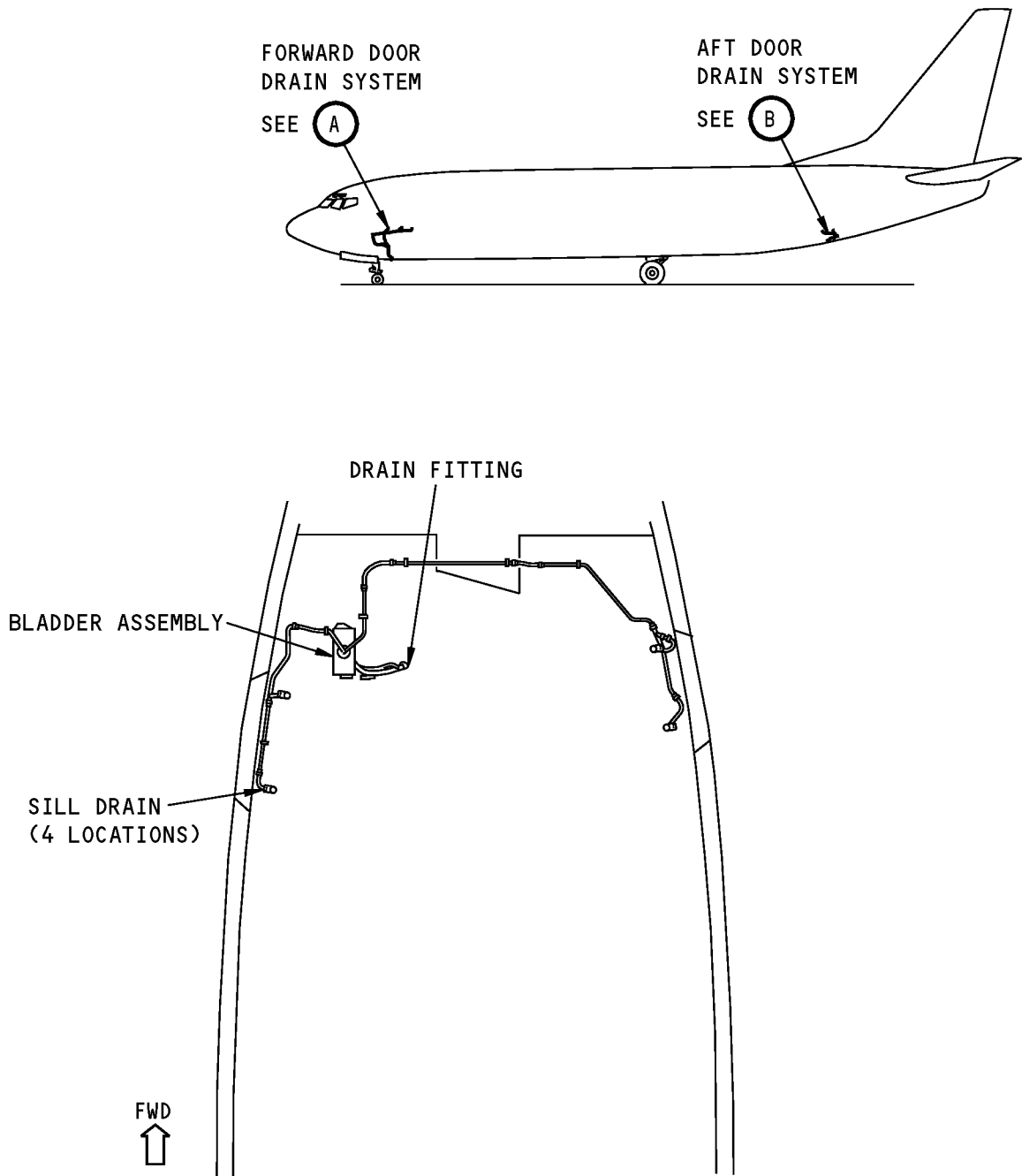
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FORWARD DOOR DRAIN SYSTEM

(A)

Door Drain System - Maintenance Practice
Figure 203 (Sheet 1 of 4)/38-31-00-990-803

EFFECTIVITY
HAP 001-013, 015-026, 028-030

D633A101-HAP

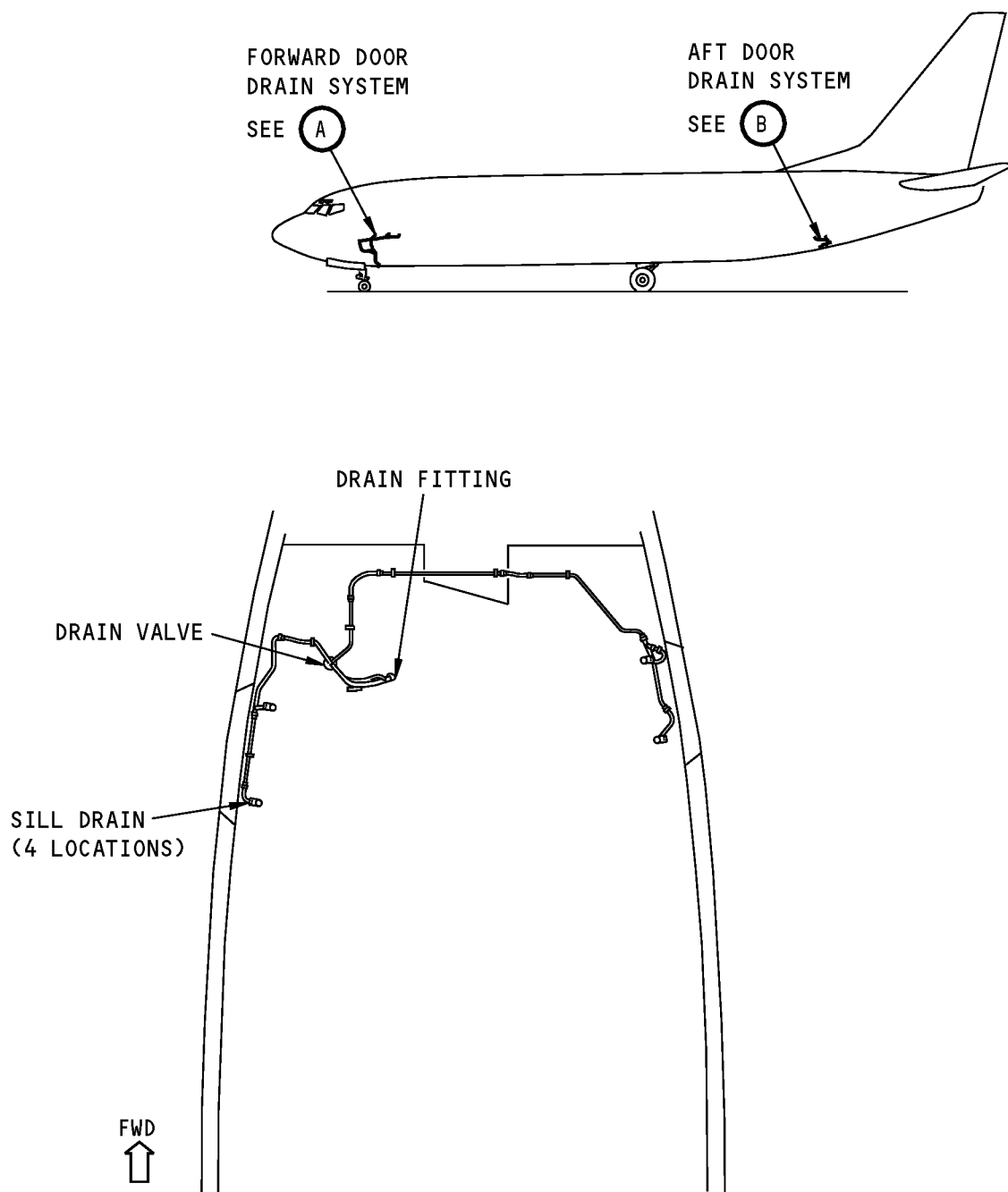
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FORWARD DOOR DRAIN SYSTEM

(A)

Door Drain System - Maintenance Practice
Figure 203 (Sheet 2 of 4)/38-31-00-990-803

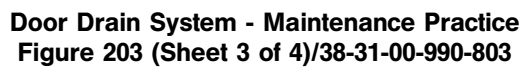
EFFECTIVITY
HAP 031-054, 101-999

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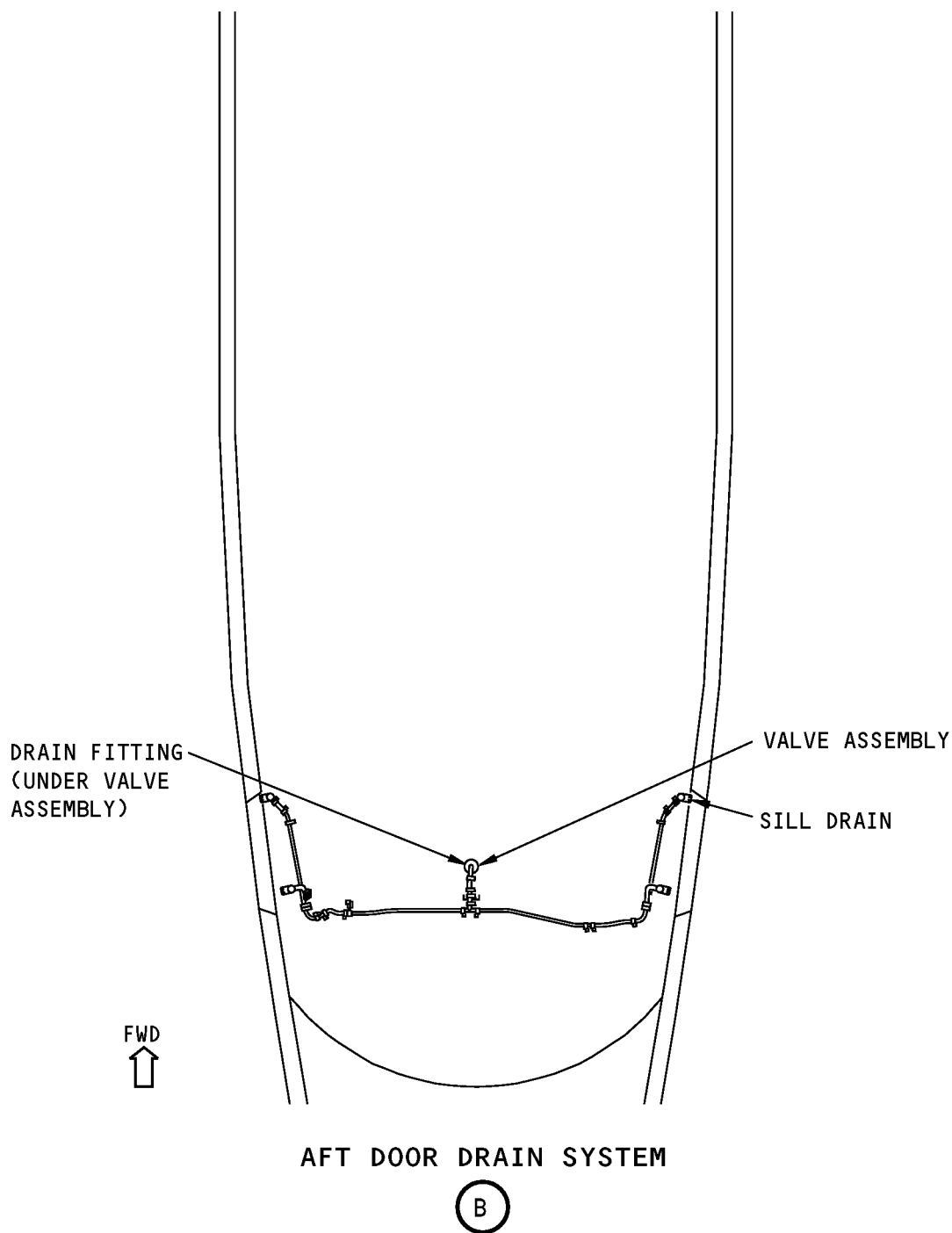


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Door Drain System - Maintenance Practice
Figure 203 (Sheet 4 of 4)/38-31-00-990-803

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GRAY WATER/DRAIN SYSTEM - CLEANING/PAINTING

1. General

- A. This procedure describes the steps to remove blockages from clogged drain lines.
- B. The lavatory and galley drain lines can become clogged when material other than water is allowed into the drain lines. Only use the drain lines for water.

TASK 38-31-00-100-801

2. Gray Water System - Cleaning

A. General

- (1) Use one or more of the procedures that follow to remove obstructions from a clogged drain line.

NOTE: If the clogged drain line has a strainer, begin with procedure 1

- (a) Procedure 1 removes the drain line strainer (if equipped) and checks the strainer for obstructions.
- (b) Procedure 2 pressurizes the drain line with air or water to remove the obstruction.
- (c) Procedure 3 uses tools (snake) to remove the obstruction.
- (d) Procedure 4 uses chemical compounds to remove the obstruction.
- (e) Procedure 5 removes the effected drain lines to clear a major obstruction.
- (f) Procedure 1 is intended for clearing drain lines equipped with strainers:
 - 1) Galley sink drains commonly have strainers mounted in the drain line just below the sink.
- (g) Procedures 2, 3, and 4 are intended for small or local blockages.
- (h) Procedure 5 is intended for large blockages.

B. References

Reference	Title
25-52-06-000-801	Remove the Sidewall Lining for the Cargo Compartment (P/B 401)
25-52-06-400-801	Install the Sidewall Lining for the Cargo Compartment (P/B 401)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
25-52-10-000-801	Cargo Floor Panel Removal (P/B 401)
25-52-10-400-801	Cargo Floor Panel Installation (P/B 401)
25-52-17-000-801	Forward Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
25-52-17-400-801	Forward Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
30-71-02-000-801	Gray Water Drain Line Heater Removal (P/B 401)
30-71-02-400-801	Gray Water Drain Line Heater Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
SPL-1951	Plug - Waste Water Drain Mast (Part #: C38001-23, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500, -600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Part #: TE65B50041, Supplier: 81205, A/P Effectivity: 737-100, -200, -200C, -300, -400, -500)
STD-1174	Snake - Plumbers

D. Consumable Materials

Reference	Description	Specification
B00126	Cleaner - Non-Etch Alkaline, Turco Altrex 24 (Supersedes Altrex Cleaner)	BAC5749
B50113	Acid, Acetic (10% / 100 grain)	JAN-A-465

E. Location Zones

Zone	Area
100	Lower Half of Fuselage
200	Upper Half of Fuselage

F. Procedure 1

SUBTASK 38-31-00-020-001

- (1) If installed, remove the strainer from the drain line.

NOTE: The strainer for the galley sink drain line is found below the galley sink. The strainer for the door sill drain is found at the drain inlet.

SUBTASK 38-31-00-210-001

- (2) Make sure the strainer is not clogged.

SUBTASK 38-31-00-210-002

- (3) Make sure the drain tube upstream of the strainer is not clogged (as applicable).

SUBTASK 38-31-00-100-001

- (4) If you did not find the blockage in the area near the strainer, use procedure 2 through 5.

NOTE: In sink drain lines, you must use the procedures 2, 3, 4, or 5 at the drain line located below the strainer, not at the sink.

G. Procedure 2

SUBTASK 38-31-00-020-002

- (1) Install plugs for all the other drain lines connected to the drain tube to be pressurized.

SUBTASK 38-31-00-170-001

- (2) If the drain tube has a strainer;

Remove the strainer and pressurize the drain tube downstream of the strainer with air or water (do not use more than 35 psi (241 kPa)).

NOTE: The strainer for the galley sink drain line is found below the galley sink. The strainer for the door sill drain is found at the drain inlet.

SUBTASK 38-31-00-170-002

- (3) If the drain tube does not have a strainer;

Pressurize the drain tube at the sink with air or water (do not use more than 35 psi pressure)(241 kPa).

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SUBTASK 38-31-00-420-001

- (4) After you remove the blockage, remove the plugs from the other drain lines.

H. Procedure 3

SUBTASK 38-31-00-140-001

CAUTION: DO NOT PUSH WITH TOO MUCH FORCE ON THE SNAKE. IF YOU PUSH WITH TOO MUCH FORCE ON THE SNAKE, YOU CAN CAUSE DAMAGE TO THE DRAIN LINE.

- (1) Use a plumbers snake, STD-1174 to mechanically clean the drain tube until the clogged drain line is clear.

NOTE: If the drain tube has a strainer, put the snake in the drain tube downstream of the strainer.

I. Procedure 4

SUBTASK 38-31-00-110-001

- (1) If the sinks or grey water lines drain slowly do these steps:

- (a) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

WARNING: DO NOT TOUCH THE DRAIN MASTS UNTIL THEY BECOME COOL. DRAIN MASTS BECOME VERY HOT. INJURIES TO PERSONNEL CAN OCCUR.

- (b) Use one of these plugs in the drain mast outlet.

- 1) waste water drain mast plug, SPL-1951

WARNING: OBEY THE VENDOR SAFETY PROCEDURES FOR THE ALKALINE CLEANER. IF YOU TOUCH THE ALKALINE CLEANER, YOU CAN IRRITATE OR BURN THE SKIN OR EYES.

CAUTION: DO NOT GET THE SOLUTION ON THE AIRPLANE OR IN THE STRAINERS FOR THE DRAIN LINES. IT CAN CAUSE CORROSION.

- (c) Use a suitable chemical cleaner Turco Altrex 24 Cleaner, B00126 or Acetic acid, B50113 to remove the blockage from the drain line.

NOTE: Do not use both solutions at the same time.

NOTE: Altrex is a stronger solution than the acetic acid and generally is most effective on organic clogs. The acetic acid is most effective on scale or lime obstructions.

- 1) If you use the Turco Altrex 24 Cleaner, B00126, mix 8 fl-oz (237 cc) of the Turco Altrex 24 Cleaner, B00126 per 1 gal (4 l) of hot water.
- 2) If you use the Acetic acid, B50113, use it full strength and do these steps:
 - a) Put 1-2 gallons of Acetic acid, B50113 in a container.
 - b) Heat the Acetic acid, B50113 to approximately 160°F (71°C).

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- (d) Fill the drain tube with the cleaner solution or acetic acid. Add the cleaner through the most forward galley or lavatory sink, as applicable. This is to prevent possible backflows into, and spills from, a more forward sink, when the airplane is nose down.

NOTE: If the drain tube has a strainer, put the cleaner solution in the drain tube downstream of the strainer.

NOTE: Both cleaners should not be used together (at the same time).

NOTE: Altrex is a stronger solution than Acetic Acid and generally is most effective on organic clogs. The acetic acid works best on scale or lime clogs.

- (e) Keep the drain tube full of the cleaner solution for approximately one hour.

NOTE: Let the cleaner solution soak for the applicable length of time. Use your experience to adjust the length of time.

- (f) Drain the cleaner solution through the drain mast plug (tool C38001-1), or remove the drain mast plug.
- (g) Remove the plug from the drain mast outlet.
- (h) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

J. Procedure 5

SUBTASK 38-31-00-160-001

- (1) Do the steps that follow to remove the section of the drain tube that you think is clogged.

NOTE: You will usually find the blockage at one of these locations: the elbow fitting below the sink, the drain tubes in the area of the drain mast, or the "Y" fittings where the drain tubes connect.

- (a) Do the applicable steps to get access to the drain lines:
- 1) Do this task: Remove the Sidewall Lining for the Cargo Compartment, TASK 25-52-06-000-801.
 - 2) Do this task: Cargo Floor Panel Removal, TASK 25-52-10-000-801.
 - 3) Do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.
 - 4) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.
 - 5) Do this task: Forward Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-17-000-801.
- (b) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

- (c) If the drain tube has heater, do this task: Gray Water Drain Line Heater Removal, TASK 30-71-02-000-801.
- (d) Remove the clamps and fasteners for the drain tube.

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- (e) Remove the drain tube.
- (f) Blow the blockage out of the drain tube with air.
- (g) If it is necessary, use a plumbers snake, STD-1174 to remove the blockage from the drain tube.
- (h) Clean the drain tube with the alkaline cleaner.
- (i) Install the drain tube.
- (j) If the drain tube has a heater, do this task: Gray Water Drain Line Heater Installation, TASK 30-71-02-400-801.

K. Put the Airplane Back to Its Usual Condition.

SUBTASK 38-31-00-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do the applicable steps to complete this task:

- (a) Do this task: Install the Sidewall Lining for the Cargo Compartment, TASK 25-52-06-400-801.
- (b) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.
- (c) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.
- (d) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.
- (e) Do this task: Forward Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-17-400-801.

SUBTASK 38-31-00-860-001

(2) Close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

————— **END OF TASK** —————

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DRAIN MAST - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward drain mast.
- (2) An installation of the forward drain mast.
- (3) A removal of the aft drain mast.
- (4) An installation of the aft drain mast.
- (5) Drain Mast electrical wiring can be identified as follows:
 - (a) Electrical power wires are identified with a one inch Black heat shrinkable sleeve.
 - (b) Ground wires are terminated with 0.25 inch terminal lugs, and:
 - 1) The heater ground wire is identified with a one inch White heat shrinkable sleeve.
 - 2) The static ground wires are identified by having no heat shrinkable sleeve.

TASK 38-31-01-000-801

2. Forward Drain Mast Removal

(Figure 401)

A. References

Reference	Title
33-42-02-960-802	Retractable Landing Light - Light Assembly Replacement (P/B 201)

B. Location Zones

Zone	Area
191	Lower Wing-To-Body Fairing - Forward of Wing Box

C. Prepare for the Removal

SUBTASK 38-31-01-860-001

- (1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
B	14	C00274	EXTERIOR LIGHTING LANDING RIGHT RETR
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

SUBTASK 38-31-01-010-003

- (2) Do the removal steps of the Retractable Landing Light for the right light to gain access to the drain mast, do this task: Retractable Landing Light - Light Assembly Replacement, TASK 33-42-02-960-802.

D. Forward Drain Mast Removal

SUBTASK 38-31-01-020-001

- (1) Loosen the clamp [2] to disconnect the hose assembly [1] from the forward drain mast assembly [7].

SUBTASK 38-31-01-020-002

- (2) Remove the wire ties to release the wires for the drain mast heaters.

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SUBTASK 38-31-01-020-003

- (3) Disconnect the electrical connector D11920 to the drain mast heaters.

SUBTASK 38-31-01-020-004

- (4) Remove the nut [9] and washers [10] that attach the ground connection [4].

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-38-1053

SUBTASK 38-31-01-020-019

- (5) Remove the nut [21] and washers [22] that attach the ground connection [23].

HAP ALL

SUBTASK 38-31-01-020-005

- (6) Remove the four bolts that attach the forward drain mast assembly to the airplane structure.

SUBTASK 38-31-01-020-006

- (7) Remove the forward drain mast assembly [7].

HAP 001-013, 015-026, 028-030 POST SB 737-38-1048 AND PRE SB 737-38-1053

SUBTASK 38-31-01-020-017

- (8) AIRPLANES WITH COMPOSITE DRAIN MAST;
Remove the Contoured Phenolic shim [41]

HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-020-021

- (9) If you are removing a drain mast with a COMPOSITE MATERIAL drain mast extension [55], then do these steps:
 - (a) Remove the nut, washer and lock washer on the thermostat stud.
 - (b) Remove the thermostat and case ground wire.
 - (c) Remove the clamp [2] from the drain mast tube.
 - (d) Remove the nut [9] and washers [10] that connect the bonding jumper [53] and the ground connection [4] to the AFT ground terminal.
 - (e) Remove the nut [21] and washer [22] that connect the bonding jumper [53] and the ground connection [23] to the FWD ground terminal at the bracket [54].

HAP ALL

————— **END OF TASK** —————

TASK 38-31-01-400-801

3. Forward Drain Mast Installation

(Figure 401)

A. General

- (1) The mast assembly 417A2093-7 (Improved Mast) may replace the 5E2675-6 or 5E2675-12 Mast assemblies. The seal bonded to 5E2675-6, and the shim used with the 5E2675-12 is not used on the 417A2093-7 mast assembly. The mast assembly 417A2093-7 may replace the 417A2093-1 or 417A2093-4 masts by removing 417T2111-8 extension and replacing it with the 417T2111-11 extension. The seal attached to 417T2111-8 extension is not used on the 417T211-11 extension. This procedure replaces the mast assembly as a unit and, does not cover swapping mast extensions.

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B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
30-71-00-720-801	Drain Mast Heater Ground and Air Mode Test (P/B 501)
33-42-02-960-802	Retractable Landing Light - Light Assembly Replacement (P/B 201)
51-31-00-390-801	Non-Removable Faying (Mated) Surface Seal Application (P/B 201)
51-31-00-390-806	Aerodynamic Smoother Application (P/B 201)

C. Tools/Equipment

Reference	Description
STD-592	Meter - Milliohms, Range from 0.001 to 100 millohms
STD-5494	Multimeter - 0-1 megohm

D. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
A00436	Sealant - Fuel Tank	BMS5-45 (Supersedes BMS 5-26)
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142
A50142	Sealant - Fuel Tank	BMS5-45 B 1/2 or BMS5-45 B 1/4
B01010	Final Cleaning Before Non-Structural Bonding To Solvent Resistant Organic Coatings (AMM 20-30-90/201) - Series 90	

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
7	Mast assembly	38-31-01-02-030	HAP 001-013, 015-026, 028-030
		38-31-01-02-135	HAP 001-013, 015-026, 028-030
		38-31-01-08A-035	HAP 031-054

F. Location Zones

Zone	Area
191	Lower Wing-To-Body Fairing - Forward of Wing Box

G. Forward Drain Mast Installation

SUBTASK 38-31-01-390-001

WARNING: DO NOT GET SOLVENTS IN YOUR MOUTH, OR YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE HAZARDOUS MATERIALS. SOLVENTS MAY BE FLAMMABLE OR HARMFUL TO THE ENVIRONMENT. REFER TO PRODUCT MATERIAL SAFETY DATA SHEETS (MSDS) AND LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.

- (1) Clean the seal surface at the drain mast and on the airplane skin with Series 90 solvent, B01010.

EFFECTIVITY
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HAP 028-030 PRE SB 737-38-1048 AND PRE SB 737-38-1053

SUBTASK 38-31-01-390-002

- (2) Apply a fay surface seal with sealant, A00247 to the mating surfaces. Do this task:
Non-Removable Faying (Mated) Surface Seal Application, TASK 51-31-00-390-801.

HAP ALL

SUBTASK 38-31-01-420-011

- (3) Install the drain mast as follows:

HAP 028-030 PRE SB 737-38-1048 AND PRE SB 737-38-1053

- (a) Put the forward drain mast assembly [7] in position.
 - 1) Loosely install the Bolts [31] for the forward drain mast assembly [7].
 - 2) Tighten the Bolts [31] for the forward drain mast assembly [7] to 50 pound-inches (5.6 newton-meters).

HAP 001-013, 015-026 PRE SB 737-38-1048 AND PRE SB 737-38-1053

- (b) Put the forward drain mast assembly [7] in position.

NOTE: Make sure the silicone seal is bonded to the mast assembly at the interface between the mast and the wing to body fairing. If the silicone seal is damaged or missing, you must replace the seal.

- 1) Loosely install the bolts [6] for the forward drain mast assembly [7].
- 2) Tighten the bolts [6] for the forward drain mast assembly [7] to 50 pound-inches (5.6 newton-meters).

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-38-1053

- (c) Put the forward drain mast assembly [7] in position.
 - 1) Loosely install the bolts [6] with sealant, A00247 applied on the threads for the forward drain mast assembly [7].
 - 2) Tighten the bolts [6] to 50 \pm 5 in-lb (6 \pm 1 N·m):

HAP 001-013, 015-026, 028-030 POST SB 737-38-1048 AND PRE SB 737-38-1053

- (d) AIRPLANES WITH COMPOSITE DRAIN MASTS, 5E2675-12;
Put the forward drain mast assembly [7] and Contoured Phenolic shim [41] in position.
 - 1) Loosely install the bolts [6] with sealant, A00247 applied on the threads for the forward drain mast assembly [7].
 - 2) Tighten the bolts as follows:
 - a) Tighten the bolts [6] for the forward drain mast assembly [7] until the bolts are seated in the locknuts.
 - b) Note the installation torque required for each bolt as they are threaded into the lock nuts.
 - c) Apply an additional 50 pound-inches (5.6 newton-meters) to the noted installation torque in a crosswise manner.

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SUBTASK 38-31-01-390-003

- (4) To apply the aerodynamic seal with sealant, A02315 to the surfaces of the forward drain mast assembly [7], do this task: Aerodynamic Smoother Application, TASK 51-31-00-390-806.

NOTE: It is not necessary to apply the sealant immediately if the cure time will cause a flight delay. But to prevent moisture damage to the airplane, sealant should be applied as soon as it is convenient for the operator.

SUBTASK 38-31-01-420-004

- (5) Install the nut [9] and washers [10] to attach the ground connection [4].
- (a) Make sure the surfaces that touch are clean.
 - (b) Apply a fillet seal with sealant, A00436 to the surfaces that touch and to the area of the fasteners.

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-38-1053

SUBTASK 38-31-01-020-020

- (6) Install the nut [21] and washer [22] to attach the ground connection [23].
- (a) Make sure the surfaces that touch are clean.
 - (b) Apply a fillet seal with sealant, A00436 to the surfaces that touch and to the area of the fasteners.

HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-420-014

- (7) If you are installing a drain mast with a COMPOSITE MATERIAL drain mast extension [55], then do these steps:

NOTE: These steps apply to drain masts with a composite drain mast extension or to drain masts with aluminum extensions when they are replacing composite masts that had bonding jumper installations.

- (a) Install the nut [21] and washer [22] that connect the bonding jumper [53] and the ground connection [23] to the FWD ground terminal at the bracket [54]. Tighten the nut to 31.5 ± 3.5 in-lb (3.56 ± 0.40 N·m)
- (b) Install the nut [9] and washers [10] that connect the bonding jumper [53] and the ground connection [4] to the AFT ground terminal. Tighten the nut to 31.5 ± 3.5 in-lb (3.56 ± 0.40 N·m)
- (c) Apply the sealant, A50142 to cover the bonding jumper [53] assembly terminals, the ground wire terminals, and the ground terminal studs.
- (d) Put the clamp [2] in its position on the drain mast tube
- (e) Put the thermostat and case ground wire in their position on the clamp.
- (f) Install the nut, washer and lock washer on the thermostat stud. Tighten the nut to 31.5 ± 3.5 in-lb (3.56 ± 0.40 N·m).
- (g) Apply the sealant, A50142 to cover the thermostat stud, case ground wire terminal, nut, washers and clamp. Apply the sealant, A50142 to cover the surfaces where the clamp and drain tube touch.

HAP ALL

SUBTASK 38-31-01-420-005

- (8) Install the clamp [2] and the hose assembly [1] to the forward drain mast assembly [7].

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SUBTASK 38-31-01-020-007

- (9) Connect the electrical connector D11920 to the drain mast heaters.

SUBTASK 38-31-01-020-008

- (10) Install the wire ties for the wires of the drain mast heaters.

SUBTASK 38-31-01-760-001

- (11) Check the electrical resistance of the drain mast installation:

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-38-1053

- (a) With a milliohm meter .001 to 100 millohms, STD-592, make sure that the resistance between the drain hole on the mast and the structure of the airplane does not exceed .01 ohms.

HAP 028-030 PRE SB 737-38-1048 AND PRE SB 737-38-1053

- (b) With a milliohm meter .001 to 100 millohms, STD-592, make sure that the resistance between the drain hole on the mast and the structure of the airplane does not exceed .01 ohms.

HAP 001-013, 015-026 PRE SB 737-38-1048 AND PRE SB 737-38-1053

- (c) With a milliohm meter .001 to 100 millohms, STD-592, make sure that the resistance between the drain hole on the mast and the structure of the airplane does not exceed .01 ohms.

HAP 001-013, 015-026, 028-030 POST SB 737-38-1048 AND PRE SB 737-38-1053

- (d) COMPOSITE DRAIN MAST P/N 5E2675-12;

With a Multimeter, STD-5494, make sure that the resistance between the unpainted area around the mounting bolts on the mast and the structure of the airplane does not exceed 300,000

HAP ALL

H. Forward Drain Mast Installation Test

SUBTASK 38-31-01-860-002

- (1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-31-01-040-001

- (2) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	14	C00274	EXTERIOR LIGHTING LANDING RIGHT RETR
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

SUBTASK 38-31-01-860-003

- (3) Open the water faucet for a forward lavatory.

SUBTASK 38-31-01-710-001

- (4) Make sure the water flows from the forward drain mast without leakage.

SUBTASK 38-31-01-710-002

- (5) To make sure the drain mast heater is in operation, do this task: Drain Mast Heater Ground and Air Mode Test, TASK 30-71-00-720-801.

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-31-01-010-004

- (1) To install and test the Retractable Landing Light for the right light, do this task: Retractable Landing Light - Light Assembly Replacement, TASK 33-42-02-960-802.

————— **END OF TASK** —————

TASK 38-31-01-000-802

4. Aft Drain Mast Removal

(Figure 401)

A. References

Reference	Title
21-31-03-000-801	Aft Outflow Valve Assembly Removal (P/B 401)
53-21-00-000-801	Passenger Cabin Floor Panel Removal (P/B 401)

B. Location Zones

Zone	Area
240	Subzone - Passenger Compartment - Body Station 663.75 to Body Station 1016.00

C. Prepare for the Removal

SUBTASK 38-31-01-860-004

- (1) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

SUBTASK 38-31-01-010-002

- (2) To get access to the aft drain mast, do one of these steps:
 - (a) Do this task: Passenger Cabin Floor Panel Removal, TASK 53-21-00-000-801.
 - (b) Do this task: Aft Outflow Valve Assembly Removal, TASK 21-31-03-000-801.

D. Aft Drain Mast Removal

SUBTASK 38-31-01-020-009

- (1) Loosen the clamp [13] to disconnect the hose assembly [12] from the aft drain mast assembly [14].

SUBTASK 38-31-01-020-010

- (2) Remove the wire ties to release the wires for the drain mast heaters [11].

SUBTASK 38-31-01-020-011

- (3) Disconnect the electrical splice connections to the drain mast heaters [11].

SUBTASK 38-31-01-020-012

- (4) Remove the nut [20] and washer [19] from the ground connection [15].

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HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-030-001

- (5) Disconnect the bonding jumper [51] and the ground wire [46] at the drain tube clamp [48]. Keep the thermostat [47], clamp, nut, washer and lockwasher. These parts are reused to install the drain mast.

HAP ALL

SUBTASK 38-31-01-020-013

- (6) Remove the packings [18], bolts [16] and washers [17] that attach the aft drain mast assembly [14] to the structure.

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-030-002

- (7) Disconnect the ground wire [46], and the ground wire [50] from the bolts bolt [16].

HAP ALL

SUBTASK 38-31-01-020-014

- (8) Remove the aft drain mast assembly [14].

————— **END OF TASK** —————

TASK 38-31-01-400-802

5. Aft Drain Mast Installation

(Figure 401)

A. References

Reference	Title
21-31-03-400-801	Aft Outflow Valve Assembly Installation (P/B 401)
24-22-00-860-811	Supply Electrical Power (P/B 201)
30-71-00-720-801	Drain Mast Heater Ground and Air Mode Test (P/B 501)
51-31-00-390-801	Non-Removable Faying (Mated) Surface Seal Application (P/B 201)
53-21-00-400-801	Passenger Cabin Floor Panel Installation (P/B 401)
SWPM 20, Standard Wiring Practices	Standard Wiring Practices

B. Tools/Equipment

Reference	Description
STD-592	Meter - Milliohms, Range from 0.001 to 100 milliohms

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
A00767	Sealant - Fuel Tank	BMS5-45
A02315	Sealant - Low Density, Synthetic Rubber. 2 Part	BMS5-142
B01010	Final Cleaning Before Non-Structural Bonding To Solvent Resistant Organic Coatings (AMM 20-30-90/201) - Series 90	

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D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
14	Aft drain mast assembly	Not Specified	
18	Packing	38-31-01-04-025	HAP ALL

E. Location Zones

Zone	Area
240	Subzone - Passenger Compartment - Body Station 663.75 to Body Station 1016.00

F. Aft Drain Mast Installation

SUBTASK 38-31-01-390-004

WARNING: DO NOT GET SOLVENTS IN YOUR MOUTH, OR YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE HAZARDOUS MATERIALS. SOLVENTS MAY BE FLAMMABLE OR HARMFUL TO THE ENVIRONMENT. REFER TO PRODUCT MATERIAL SAFETY DATA SHEETS (MSDS) AND LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.

- (1) Clean the seal surface of the drain mast and airplane skin with Series 90 solvent, B01010.

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-110-001

- (2) Clean the faying surfaces of the mast drain tube [49], the drain tube clamp [48], and the bonding jumper [51] terminals for electrical bonding (Ref: SWPM 20, Standard Wiring Practices) with the Series 90 solvent, B01010.

HAP ALL

SUBTASK 38-31-01-390-005

- (3) To apply a fay surface seal with sealant, A00247 between the airplane skin and the aft aft drain mast assembly [14], do this task: Non-Removable Faying (Mated) Surface Seal Application, TASK 51-31-00-390-801.

SUBTASK 38-31-01-420-006

- (4) Put the aft drain mast assembly [14] in its position.

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-430-001

- (5) Put the ground wire [50] and ground wire [52] on the bolts [16].

HAP ALL

SUBTASK 38-31-01-420-007

- (6) Loosely install the packings [18], bolts [16] and washers [17] for the aft drain mast assembly [14].

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-420-013

- (7) Tighten the opposite bolts [16], in an alternating pattern, to initially snug up.
(8) Tighten the bolts [16], in an alternating pattern, to 25 in-lb (3 N·m)
(9) Tighten the bolts [16], in an alternating pattern, to 50 in-lb (5.6 N·m) +/- 5 in-lb (0.6 N·m).

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SUBTASK 38-31-01-420-008

- (10) Tighten the bolts [16] for the aft drain mast assembly [14] to 50 pound-inches (5.6 newton-meters).

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

SUBTASK 38-31-01-430-002

- (11) Put the drain tube clamp [48] in its position on the drain mast. Position the thermostat [47] as near to the top of the tube as possible without interfering with the hose or hose clamp [13].
- (12) Connect the bonding jumper [51], thermostat [47], washer, lock washer, and nut to the clamp.
- (13) Tighten the nut to 18 in-lb (2.0 N·m) - 25 in-lb (3 N·m).

SUBTASK 38-31-01-760-002

- (14) Check that the resistance between the bonding jumper [51] terminal and the drain tube [49] tube does not exceed 1.5 milliohms. Use the milliohm meter .001 to 100 milliohms, STD-592, or equivalent.

SUBTASK 38-31-01-390-006

- (15) Apply the sealant, A00767 (optional sealant, A02315), to cover the exposed surfaces of the bonding jumper [51] terminal, the thermostat [47] stud, washers and nut; the ground wire [50] and ground wire [52] terminals, and the bolts [16].
- (16) Apply the sealant, A02315, to the faying surfaces of the drain mast tube and drain tube clamp [48].

NOTE: It is not necessary to apply sealant immediately if the cure time will cause a flight delay. But to prevent moisture damage to the airplane, sealant should be applied as soon as it is convenient for the operator.

HAP ALL

SUBTASK 38-31-01-420-009

- (17) Install the nut [20] and washers [19] that attach the ground connection [15].
- (a) Make sure the surfaces that touch are clean.
- (b) Apply a fillet seal with sealant, A02315 to the surfaces that touch and to the area of the fasteners.

SUBTASK 38-31-01-420-010

- (18) Install the hose hose clamp [13] and the hose assembly [12] to the aft drain mast assembly [14].

SUBTASK 38-31-01-020-015

- (19) Connect the electrical splice connections to the drain mast heaters [11].

SUBTASK 38-31-01-020-016

- (20) Install the wire ties to attach the wires for the drain mast heaters [11].

G. Aft Drain Mast Installation Test

SUBTASK 38-31-01-040-002

- (1) Remove the safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
E	3	C00234	HEATERS DRAIN MAST GND
E	4	C00700	HEATERS DRAIN MAST AIR

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SUBTASK 38-31-01-860-005

- (2) do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-31-01-860-006

- (3) Open the water faucet for an aft lavatory.

SUBTASK 38-31-01-710-003

- (4) Make sure the water flows from the aft drain mast without leakage.

SUBTASK 38-31-01-710-004

- (5) To make sure the drain mast heater is in operation, do this task: Drain Mast Heater Ground and Air Mode Test, TASK 30-71-00-720-801.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-31-01-410-002

- (1) To close the access for the aft drain mast, do one of these steps:

WARNING: SEAL THE PASSENGER COMPARTMENT WITH THE FLOOR PANELS. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE FLOOR PANELS. IF YOU INSTALL THE FLOOR PANELS INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (a) Do this task: Passenger Cabin Floor Panel Installation, TASK 53-21-00-400-801.
(b) Do this task: Aft Outflow Valve Assembly Installation, TASK 21-31-03-400-801.

————— **END OF TASK** —————

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HAP ALL

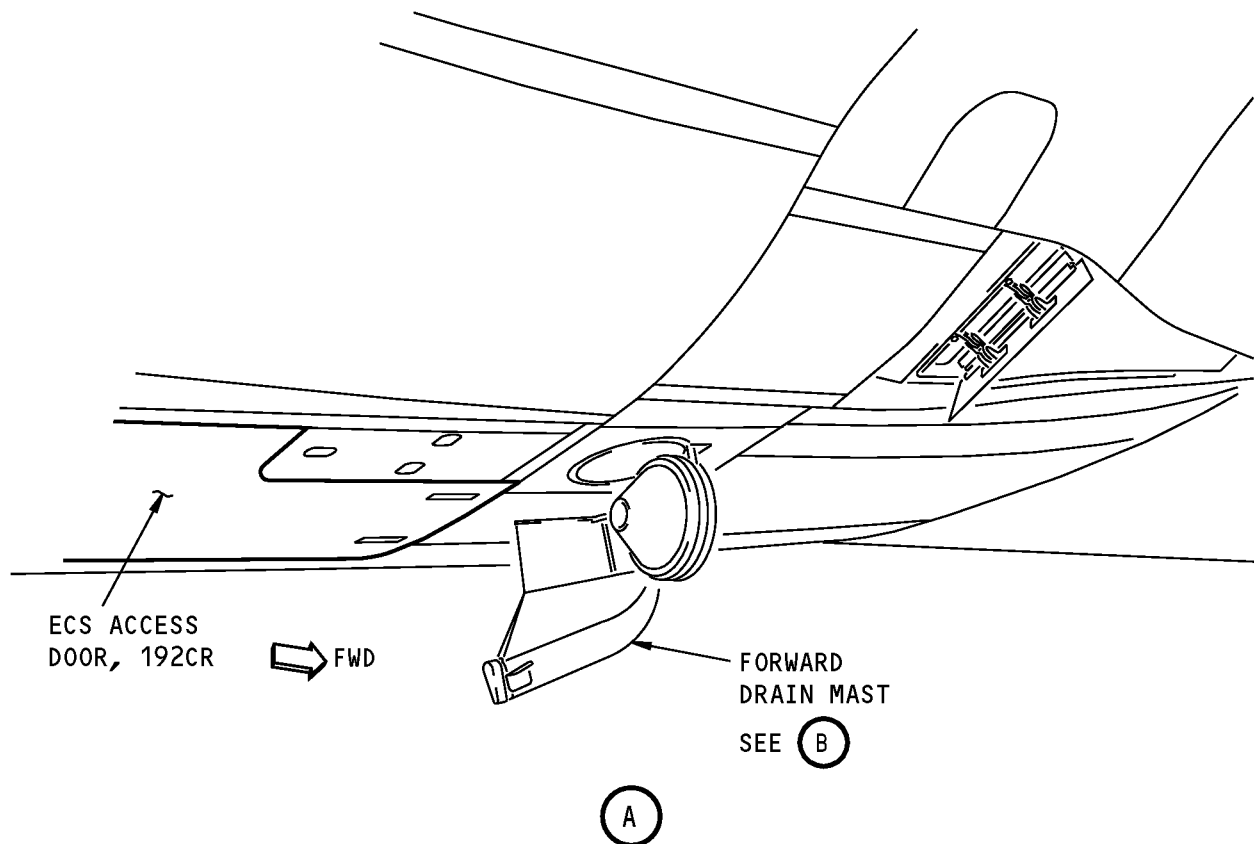
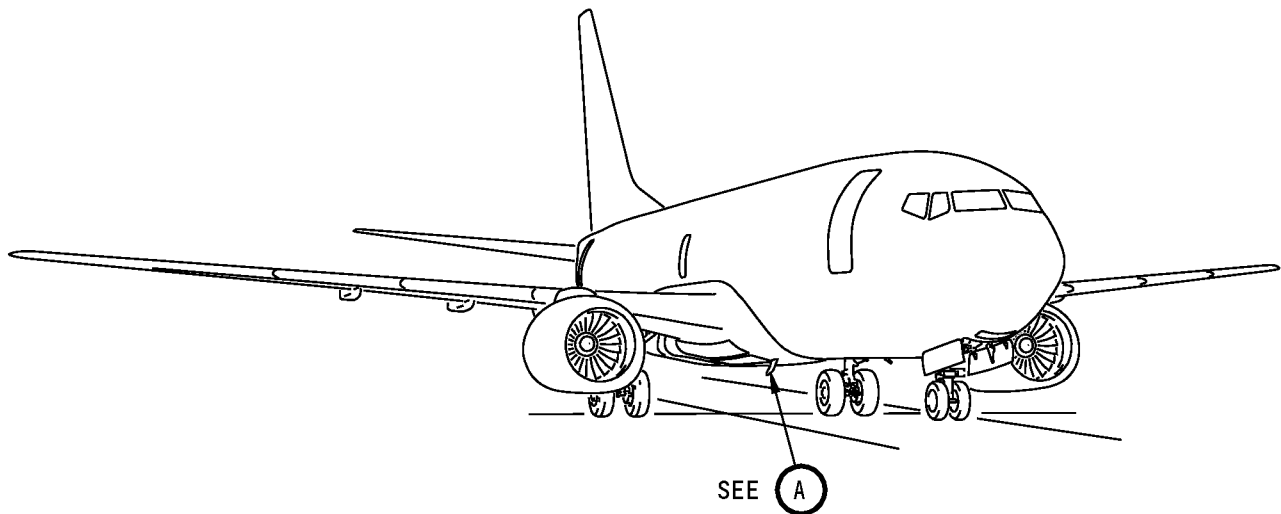
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Drain Mast Installation
Figure 401 (Sheet 1 of 10)/38-31-01-990-801

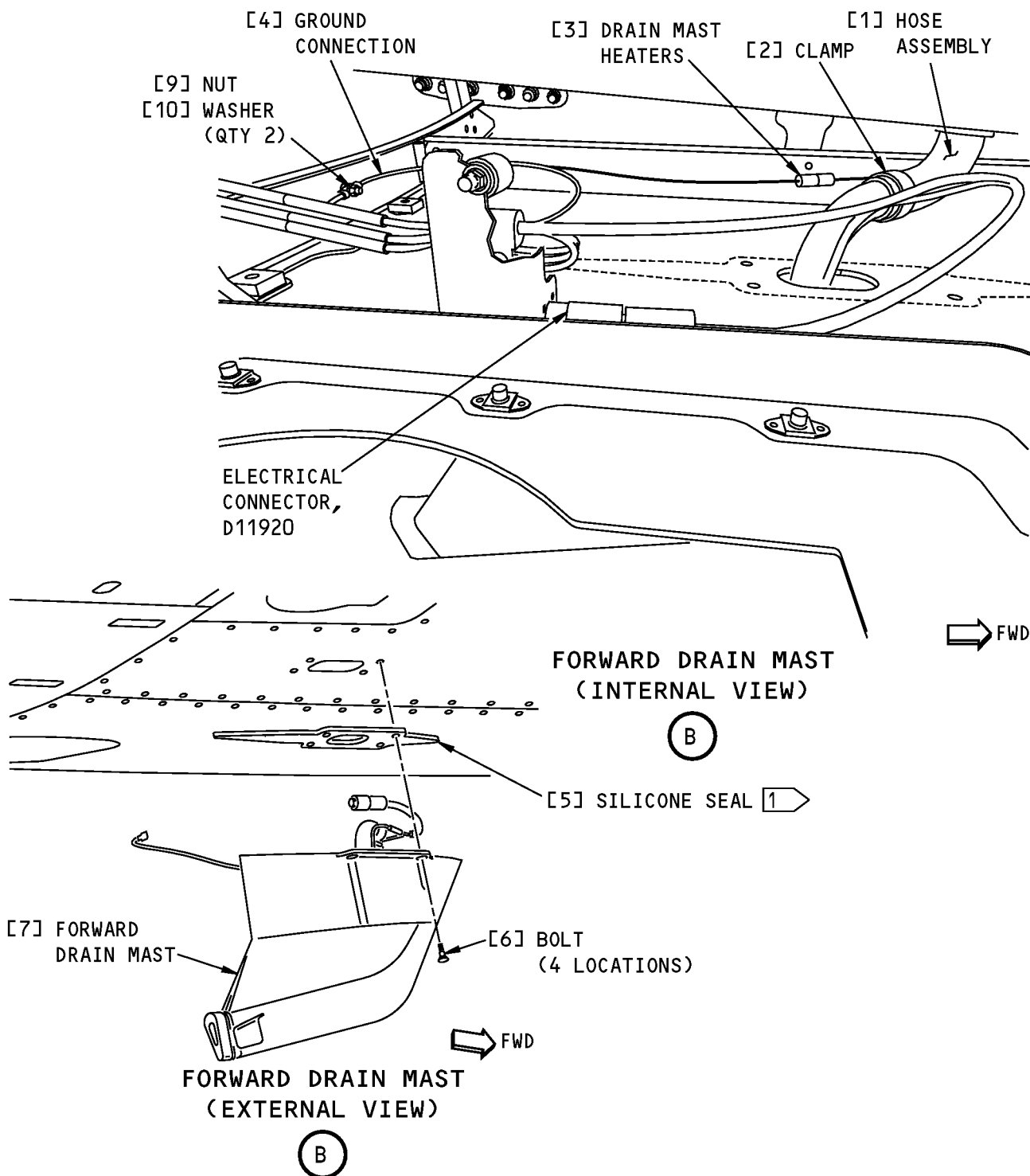
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[1] THE SEAL IS BONDED TO THE MAST

Drain Mast Installation
Figure 401 (Sheet 2 of 10)/38-31-01-990-801

EFFECTIVITY
HAP 001-013, 015-026 PRE SB 737-38-1048 AND PRE SB 737-38-1053

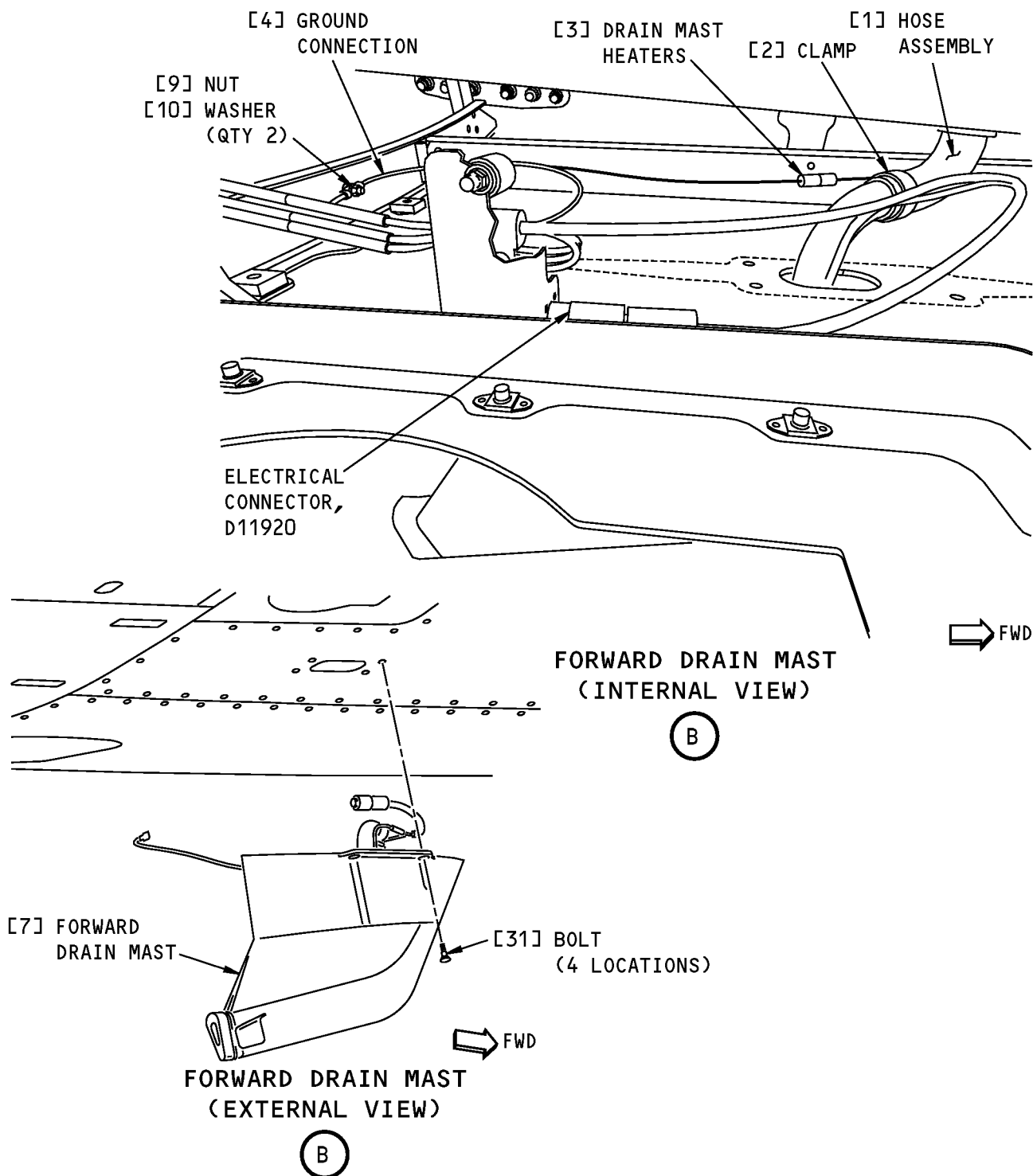
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Drain Mast Installation
Figure 401 (Sheet 3 of 10)/38-31-01-990-801

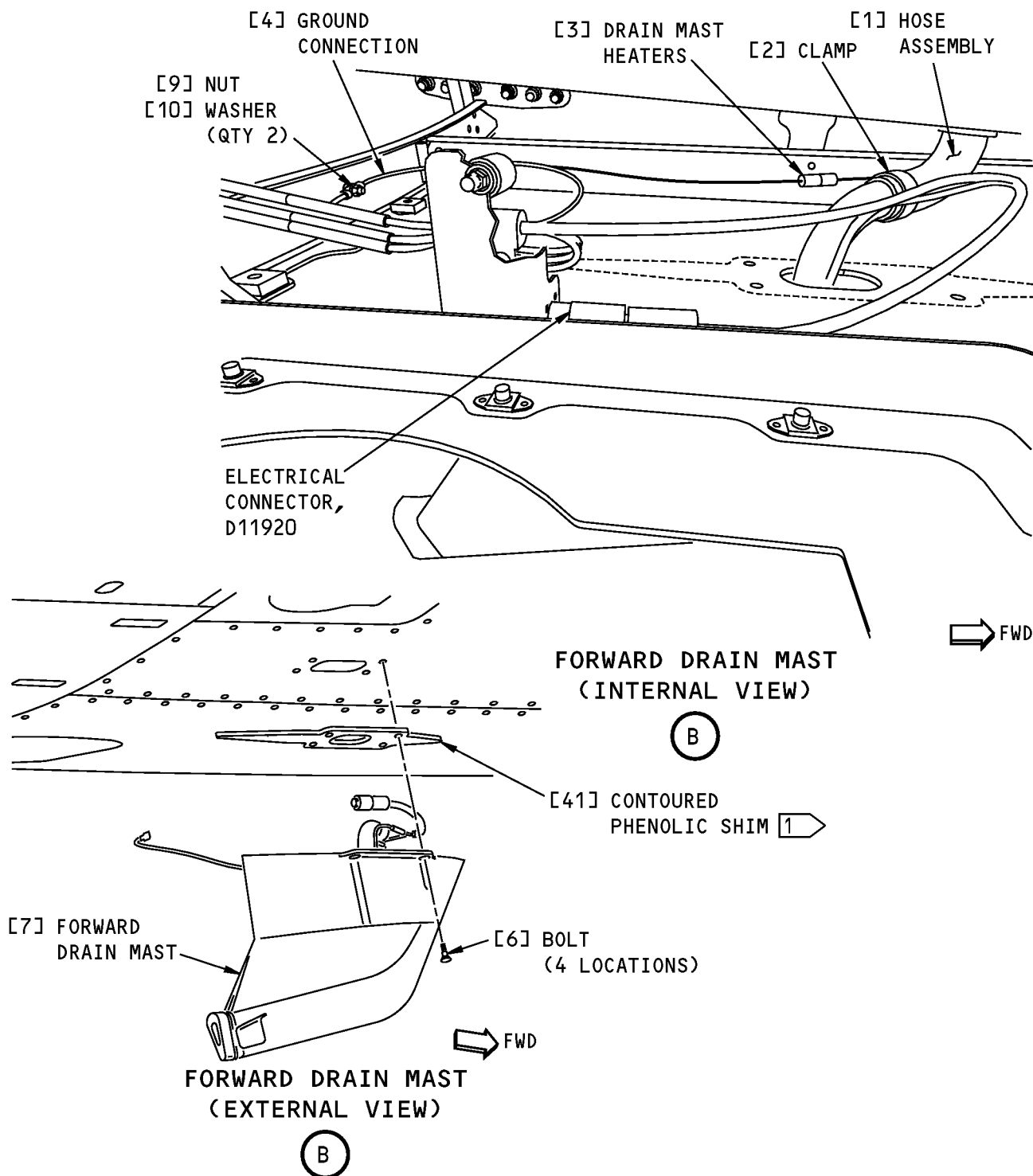
EFFECTIVITY
HAP 028-030 PRE SB 737-38-1048 AND PRE SB 737-38-1053

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[1] USED WITH THE COMPOSITE MATERIAL DRAIN MAST

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EFFECTIVITY
HAP 001-013, 015-026, 028-030 POST SB 737-38-1048 AND
PRE SB 737-38-1053

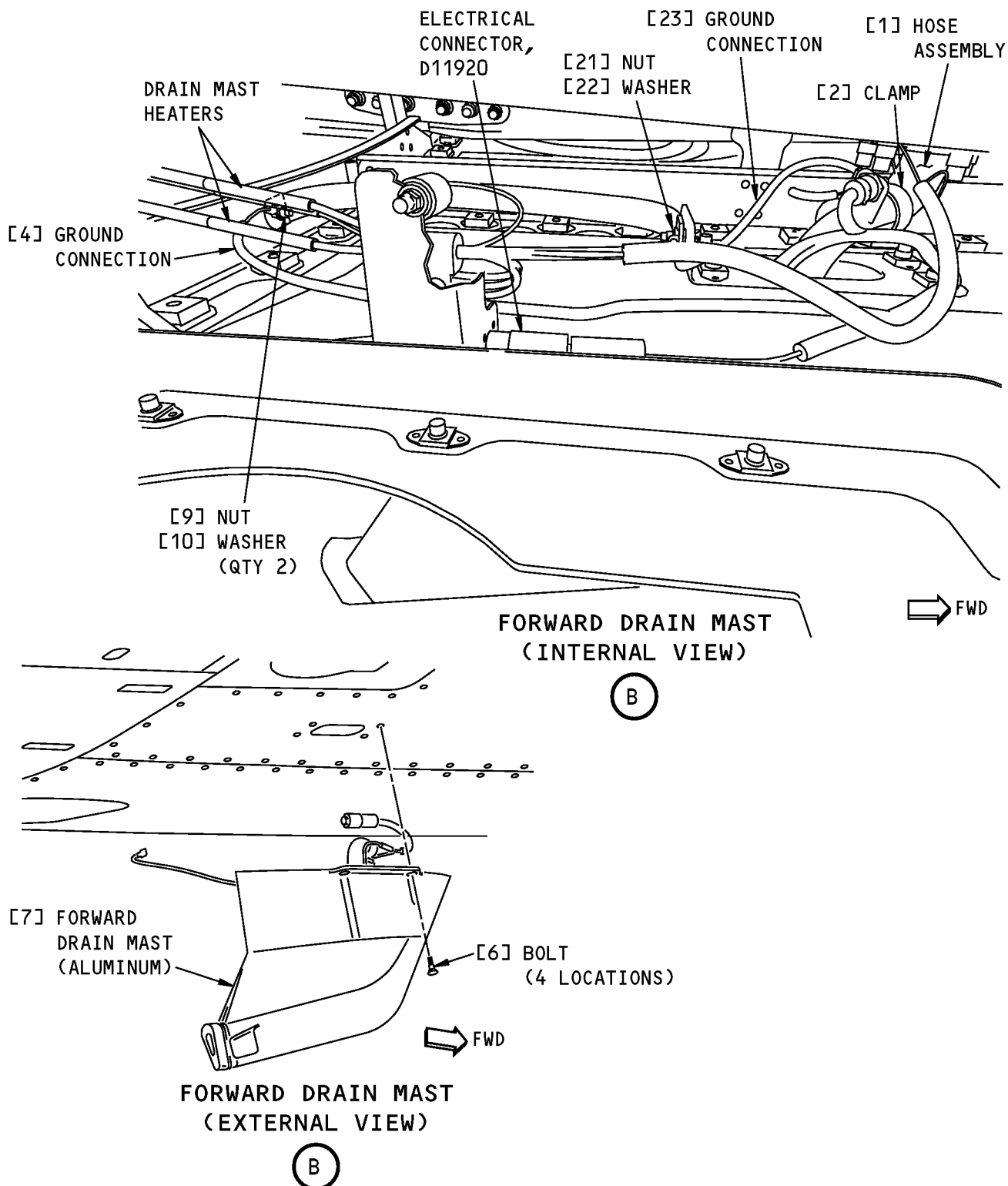
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Drain Mast Installation
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EFFECTIVITY

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST
 SB 737-38-1053

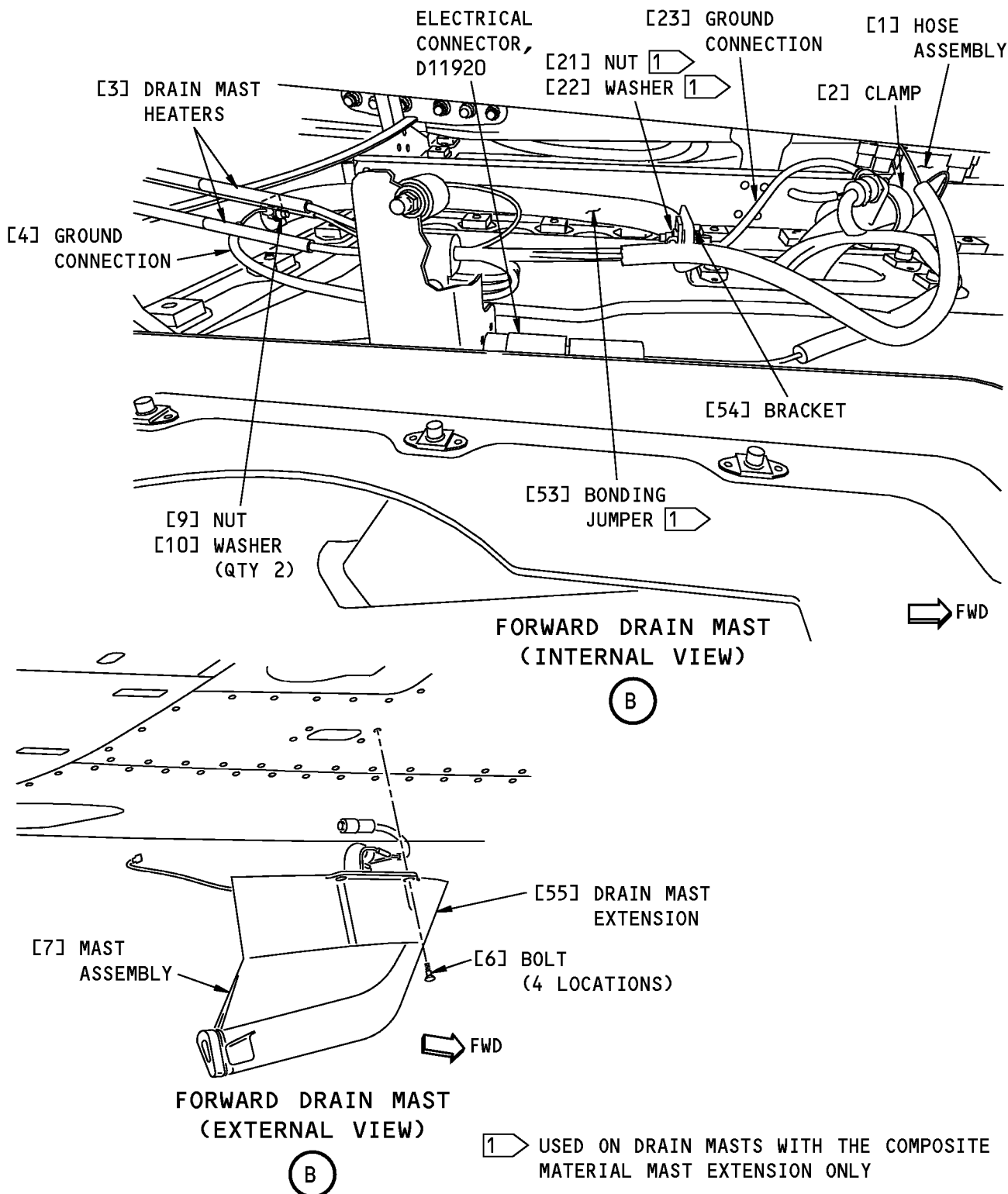
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Drain Mast Installation
 Figure 401 (Sheet 6 of 10)/38-31-01-990-801

EFFECTIVITY
 HAP 001-013, 015-026, 028-035 POST SB 737-30-1056

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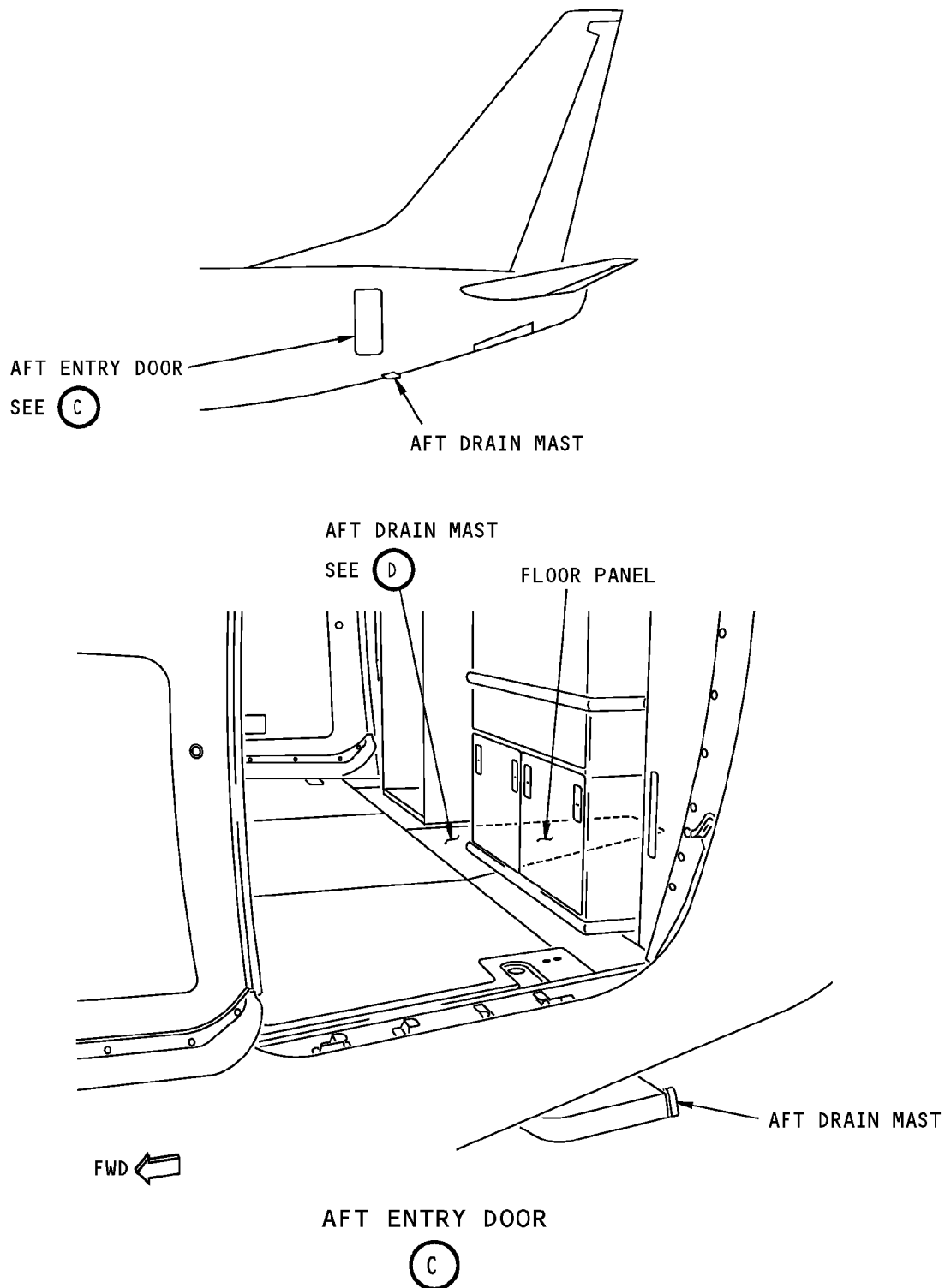
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Drain Mast Installation
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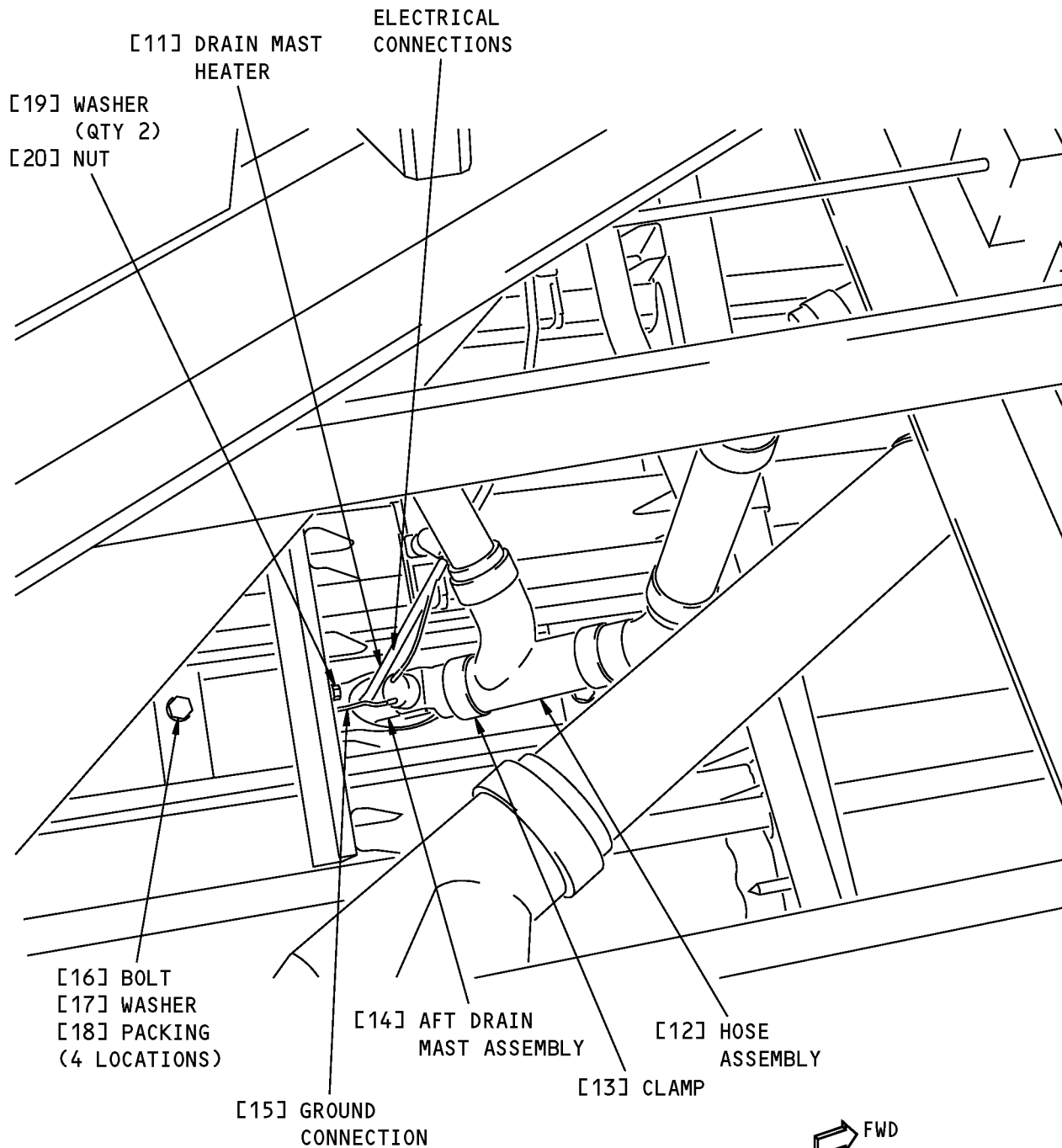
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AFT DRAIN MAST (FLOOR PANEL REMOVED)

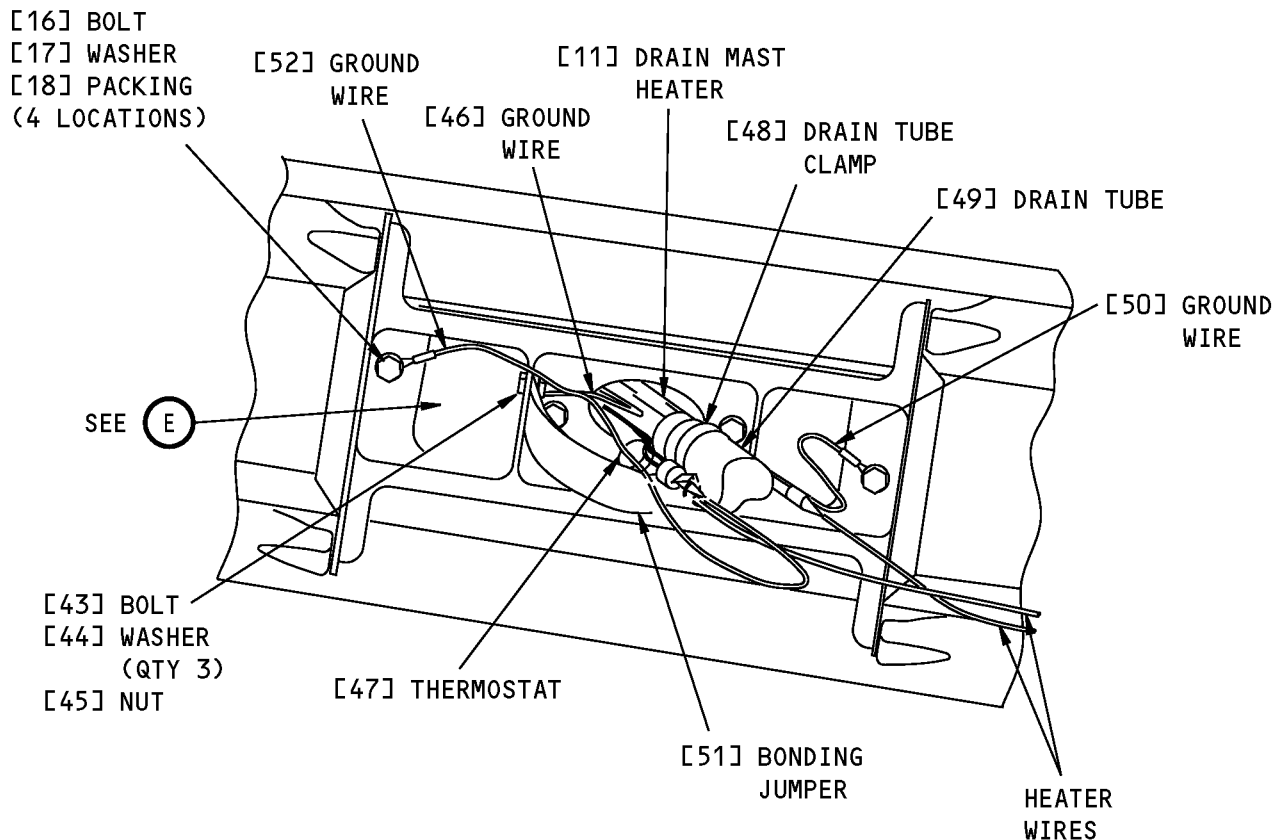
D

Drain Mast Installation
Figure 401 (Sheet 8 of 10)/38-31-01-990-801

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AFT DRAIN MAST ASSEMBLY
(COMPOSITE MATERIAL)
(FLOOR PANEL REMOVED)

D

Drain Mast Installation
Figure 401 (Sheet 9 of 10)/38-31-01-990-801

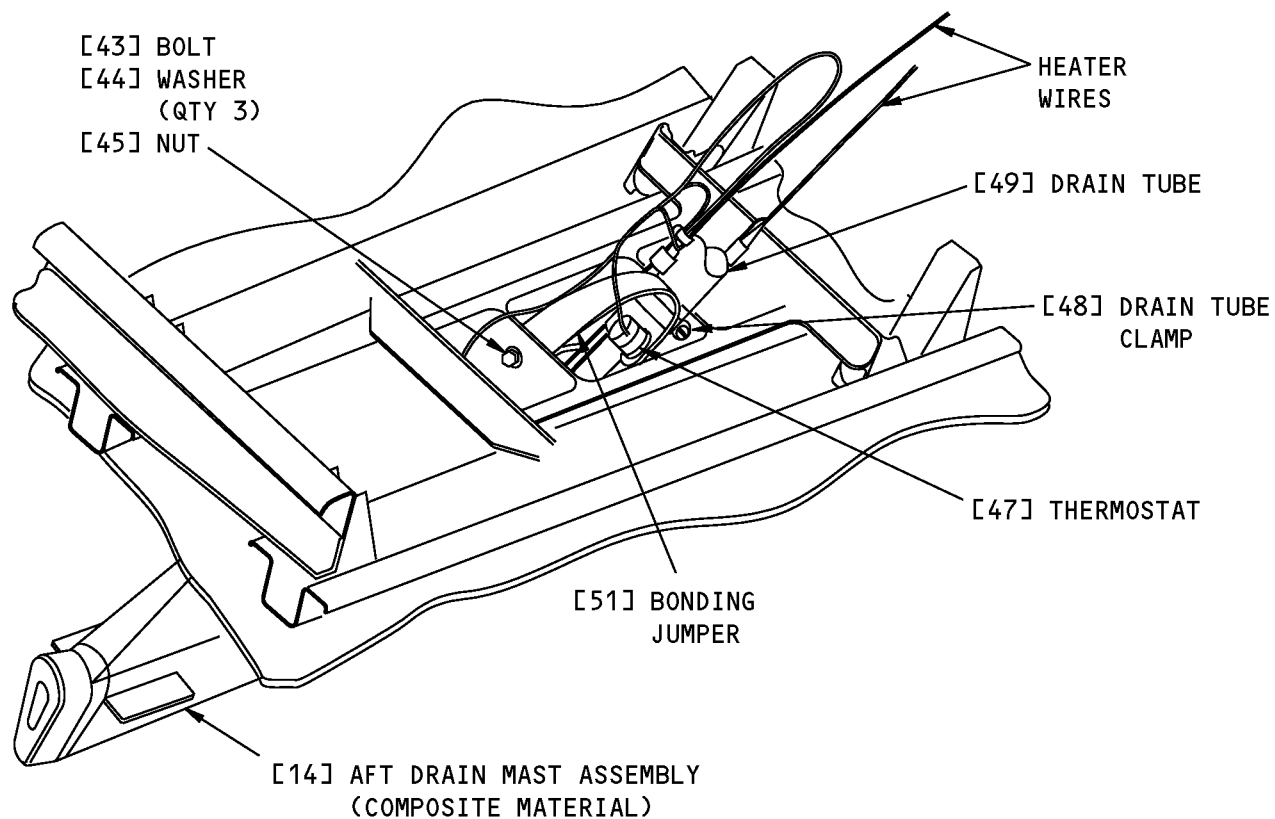
EFFECTIVITY

HAP 036-054, 101-999; HAP 001-013, 015-026, 028-035 POST
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(FLOOR PANEL REMOVED)

E

Drain Mast Installation
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SILL DRAIN BLADDER ASSEMBLY - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward sill drain bladder assembly.
- (2) An installation of the forward sill drain bladder assembly.
- (3) A removal of the aft sill drain bladder assembly.
- (4) An installation of the aft sill drain bladder assembly.

TASK 38-31-03-000-801

2. Forward Sill Drain Bladder Assembly Removal

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 38-31-03-010-001

- (1) To get access to the forward sill drain bladder assembly, do this step:

Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

D. Forward Sill Drain Bladder Assembly Removal

SUBTASK 38-31-03-020-001

- (1) Loosen the clamp [1] to disconnect the hose from the outlet of the forward drain bladder assembly [6].

SUBTASK 38-31-03-020-002

- (2) Loosen the clamps [4] to disconnect the lines from the inlet of the forward drain bladder assembly [6].

SUBTASK 38-31-03-020-003

- (3) Remove the screws [2] and washers [3] to disconnect the plate assembly [7] from structure.

SUBTASK 38-31-03-020-004

- (4) Loosen the clamp [8] to remove the cap assembly [5] from the forward drain bladder assembly [6].

SUBTASK 38-31-03-020-005

- (5) Remove the bolts [9], washers [10], countersunk washers [12], and nuts [13] that attach the forward drain bladder assembly [6] to the plate assembly [7].

SUBTASK 38-31-03-020-006

- (6) Remove the plate adapter [11] and the forward drain bladder assembly [6].

————— **END OF TASK** —————

EFFECTIVITY

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TASK 38-31-03-400-801

3. Forward Sill Drain Bladder Assembly Installation

(Figure 401)

A. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010, Type 60
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

B. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

C. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

D. Forward Sill Drain Bladder Assembly Installation

SUBTASK 38-31-03-390-001

- (1) Apply a dry surface seal with sealant, A00247 between the plate assembly [7] and the plate adapter [11].

SUBTASK 38-31-03-420-001

- (2) Put the plate adapter [11] in its position on the plate assembly [7] with the bolt holes aligned.

SUBTASK 38-31-03-390-002

- (3) Apply a dry surface seal with adhesive, A00027 between the plate assembly [7] and the forward drain bladder assembly [6].

SUBTASK 38-31-03-420-002

- (4) Put the forward drain bladder assembly [6] in its position on the plate adapter [11].

SUBTASK 38-31-03-390-003

- (5) Apply a wet seal with adhesive, A00027 to the bolts [9].

SUBTASK 38-31-03-420-003

- (6) Install the bolts [9], washers [10], countersunk washers [12], and nuts [13].

SUBTASK 38-31-03-420-004

- (7) Install the cap assembly [5] and clamp [8] on the forward drain bladder assembly [6].

SUBTASK 38-31-03-420-005

- (8) Put the plate assembly [7] in its position.

SUBTASK 38-31-03-420-006

- (9) Install the screws [2] and washers [3] to attach the plate assembly [7] to the structure.

SUBTASK 38-31-03-420-007

- (10) Install the clamp [1] and the hose to the outlet of the forward drain bladder assembly [6].

SUBTASK 38-31-03-420-008

- (11) Install the clamps [4] and the drain lines to the inlet of the forward drain bladder assembly [6].

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E. Forward Sill Drain Bladder Assembly Installation Test

SUBTASK 38-31-03-860-002

- (1) Pour water into the sill drain at the forward entry door.

SUBTASK 38-31-03-710-001

- (2) Make sure the water flows to the forward sill drain bladder assembly without leakage and drains from the drain fitting at the fuselage exterior.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-31-03-410-001

- (1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117A	Electronic Equipment Access Door

————— END OF TASK —————

TASK 38-31-03-000-802

4. Aft Sill Drain Bladder Assembly Removal

(Figure 402)

A. References

<u>Reference</u>	<u>Title</u>
21-31-03-000-801	Aft Outflow Valve Assembly Removal (P/B 401)
53-21-00-000-801	Passenger Cabin Floor Panel Removal (P/B 401)

B. Location Zones

<u>Zone</u>	<u>Area</u>
145	Aft Cargo Compartment Equipment Bay - Left

C. Prepare for the Removal

SUBTASK 38-31-03-010-002

- (1) To get access to the aft drain mast, do one of these steps:
 - (a) Do this task: Passenger Cabin Floor Panel Removal, TASK 53-21-00-000-801.
 - (b) Do this task: Aft Outflow Valve Assembly Removal, TASK 21-31-03-000-801.

D. Aft Sill Drain Bladder Assembly Removal

SUBTASK 38-31-03-020-007

- (1) Loosen the clamp [37] to disconnect the hose from the outlet of the aft drain bladder assembly [35].

SUBTASK 38-31-03-020-008

- (2) Loosen the clamps [33] to disconnect the line from the inlet of the aft drain bladder assembly [35].

SUBTASK 38-31-03-020-009

- (3) Remove the bolts [31] and washers [32] to disconnect the plate assembly [36] from structure.

SUBTASK 38-31-03-020-010

- (4) Loosen the clamp [38] to remove the cap assembly [34] from the aft drain bladder assembly [35].

SUBTASK 38-31-03-020-011

- (5) Remove the bolts [39], washers [40], countersunk washers [42], and nuts [43] that attach the aft drain bladder assembly [35] to the plate assembly [36].

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SUBTASK 38-31-03-020-012

- (6) Remove the plate adapter [41] and the forward drain bladder assembly [35].

END OF TASK

TASK 38-31-03-400-802

5. Aft Sill Drain Bladder Assembly Installation

(Figure 402)

A. References

Reference	Title
21-31-03-400-801	Aft Outflow Valve Assembly Installation (P/B 401)
53-21-00-400-801	Passenger Cabin Floor Panel Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
A00027	Adhesive - Silicone Rubber, 1 Part, RTV	BAC5010, Type 60
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
35	Bladder assembly	38-31-51-03-200	HAP 001-013, 015-026, 028-030

D. Location Zones

Zone	Area
191	Lower Wing-To-Body Fairing - Forward of Wing Box

E. Aft Sill Drain Bladder Assembly Installation

SUBTASK 38-31-03-390-004

- (1) Apply a fay surface seal with sealant, A00247 between the plate assembly [36] and the plate adapter [41].

SUBTASK 38-31-03-420-009

- (2) Put the plate adapter [41] in its position on the plate assembly [36] with the bolt holes aligned.

SUBTASK 38-31-03-390-005

- (3) Apply a fay surface seal with adhesive, A00027 between the plate assembly [36] and the aft drain bladder assembly [35].

SUBTASK 38-31-03-420-010

- (4) Put the aft drain bladder assembly [35] in its position on the plate adapter [41].

SUBTASK 38-31-03-390-006

- (5) Apply a wet seal with adhesive, A00027 to the bolts [39].

SUBTASK 38-31-03-420-011

- (6) Install the bolts [39], washers [40], countersunk washers [42], and nuts [43].

SUBTASK 38-31-03-420-012

- (7) Install the cap assembly [34] and clamp [38] on the aft drain bladder assembly [35].

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SUBTASK 38-31-03-420-013

- (8) Put the plate assembly [36] in its position.

SUBTASK 38-31-03-420-014

- (9) Install the bolts [31] and washers [32] to attach the plate assembly [36] to the structure.

SUBTASK 38-31-03-420-015

- (10) Install the clamp [37] and the hose to the outlet of the aft drain bladder assembly [35].

SUBTASK 38-31-03-420-016

- (11) Install the clamps [33] and the drain line to the inlet of the aft drain bladder assembly [35].

F. Aft Sill Drain Bladder Assembly Installation Test

SUBTASK 38-31-03-860-003

- (1) Pour water into the aft sill drain.

SUBTASK 38-31-03-710-002

- (2) Make sure the water flows to the aft sill drain bladder assembly without leakage.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-31-03-410-002

- (1) To close the access for the aft drain mast, do one of these steps:

WARNING: SEAL THE PASSENGER COMPARTMENT WITH THE FLOOR PANELS. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE FLOOR PANELS. IF YOU INSTALL THE FLOOR PANELS INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (a) Do this task: Passenger Cabin Floor Panel Installation, TASK 53-21-00-400-801.
(b) Do this task: Aft Outflow Valve Assembly Installation, TASK 21-31-03-400-801.

————— **END OF TASK** —————

EFFECTIVITY

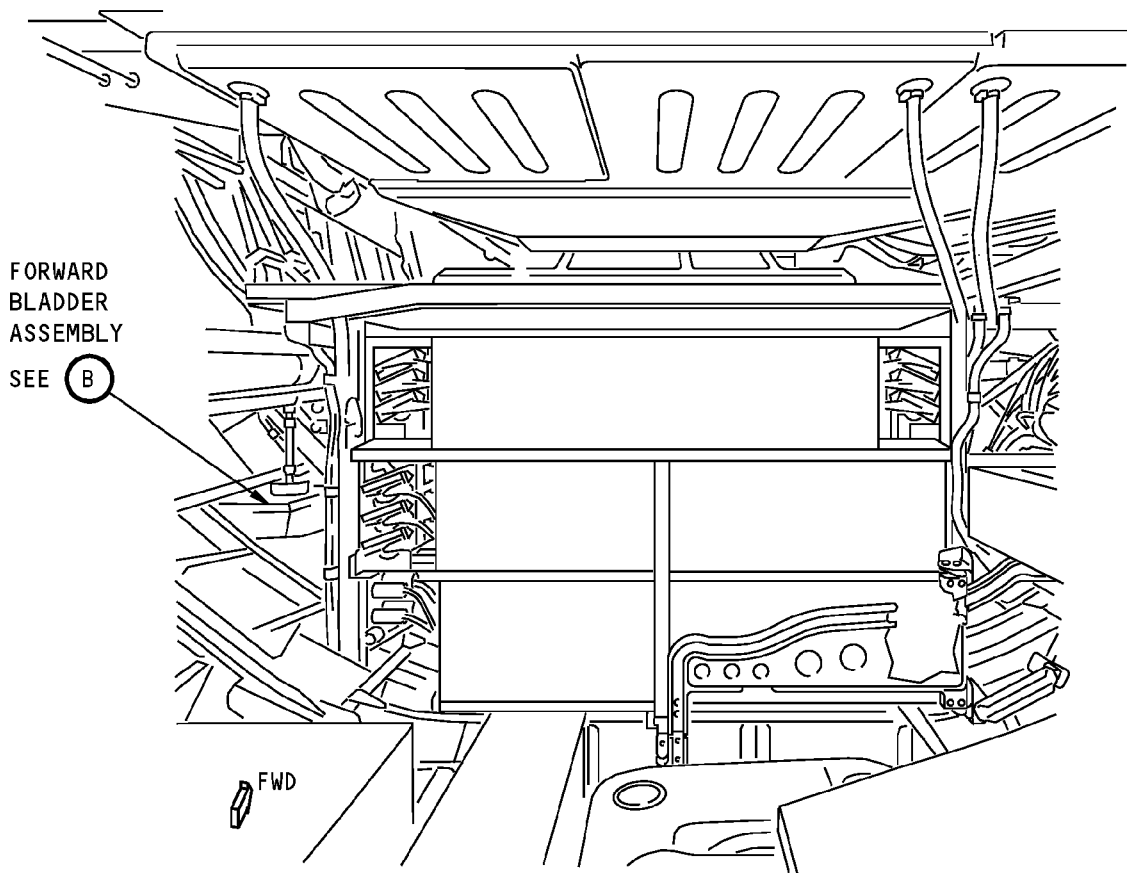
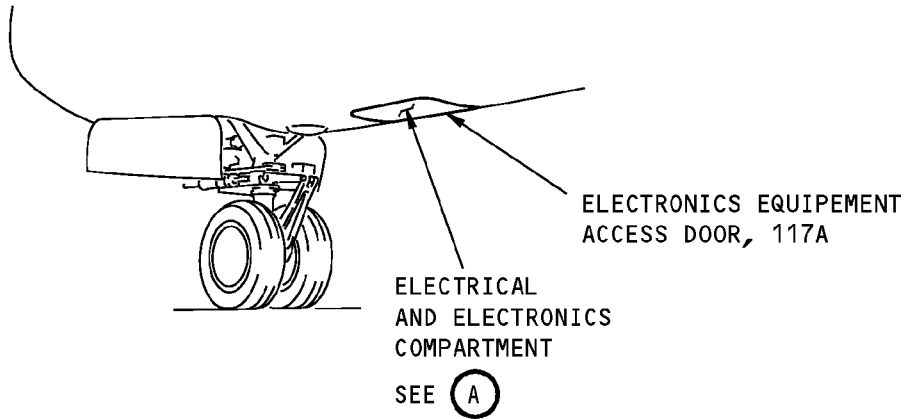
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ELECTRICAL AND ELECTRONICS COMPARTMENT

(A)

**Forward Bladder Assembly Installation
Figure 401 (Sheet 1 of 3)/38-31-03-990-801**

EFFECTIVITY
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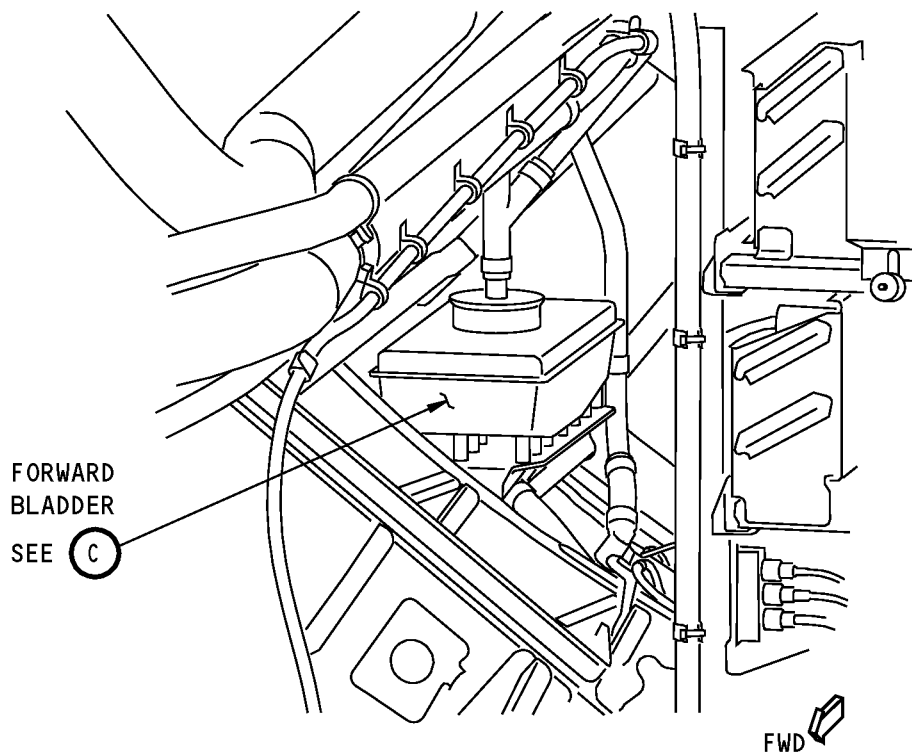
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FORWARD BLADDER ASSEMBLY

(B)

Forward Bladder Assembly Installation
Figure 401 (Sheet 2 of 3)/38-31-03-990-801

EFFECTIVITY
HAP 001-013, 015-026, 028-030

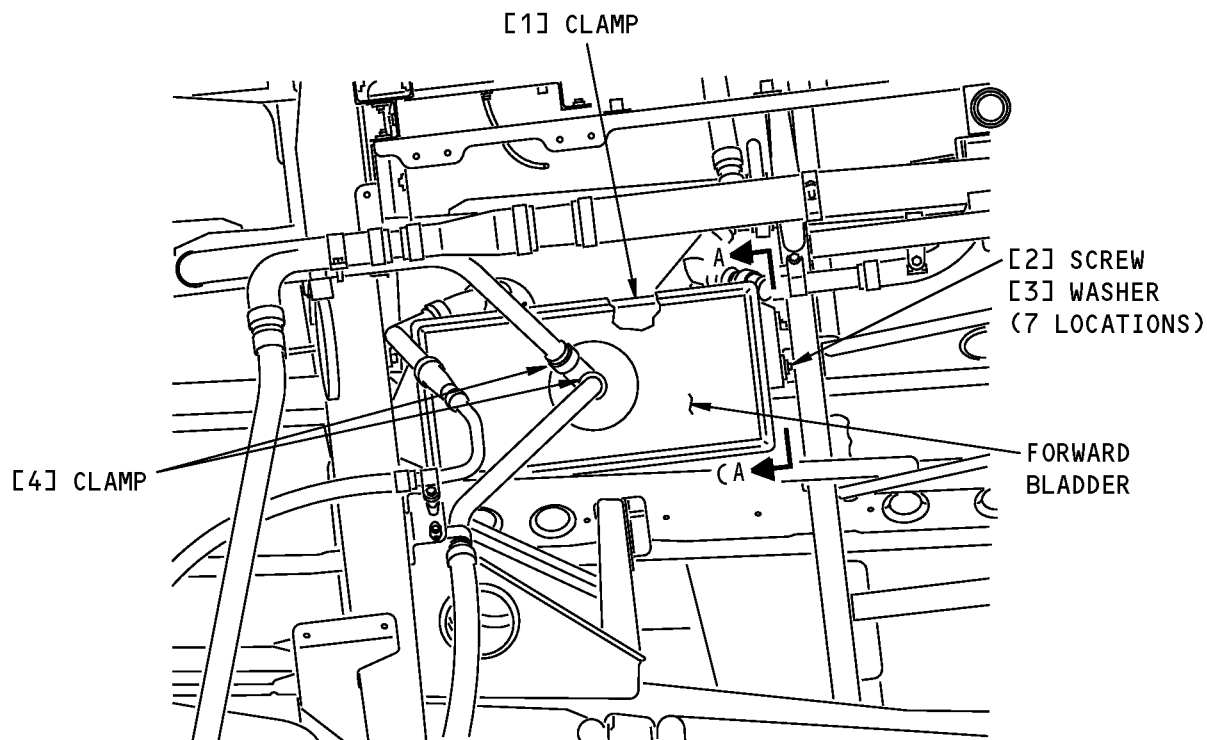
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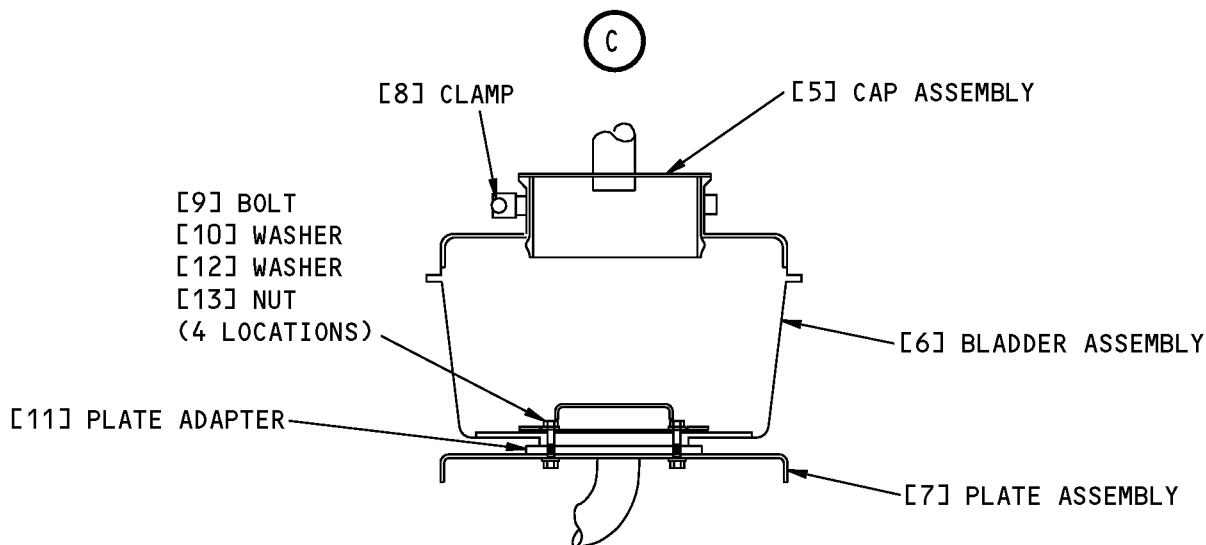
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FORWARD BLADDER
(TOP VIEW)



FORWARD BLADDER
A-A

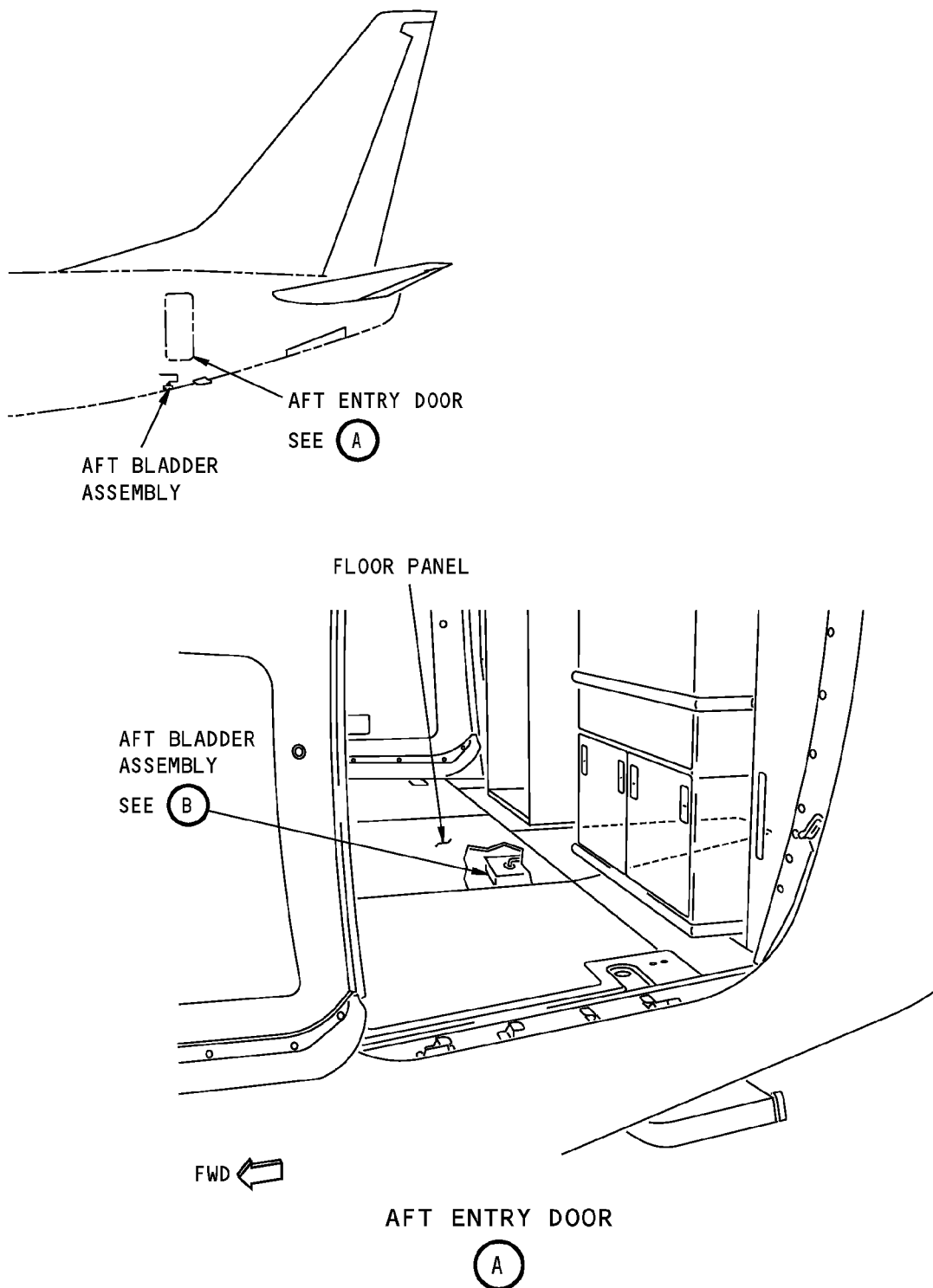
Forward Bladder Assembly Installation
Figure 401 (Sheet 3 of 3)/38-31-03-990-801

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Aft Bladder Assembly Installation
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EFFECTIVITY
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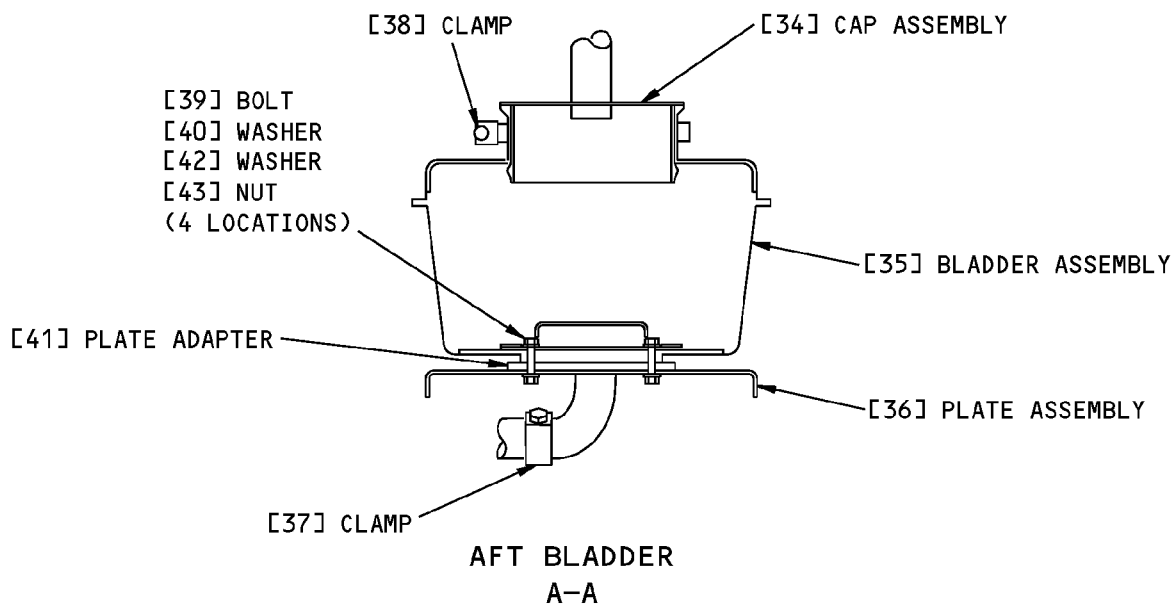
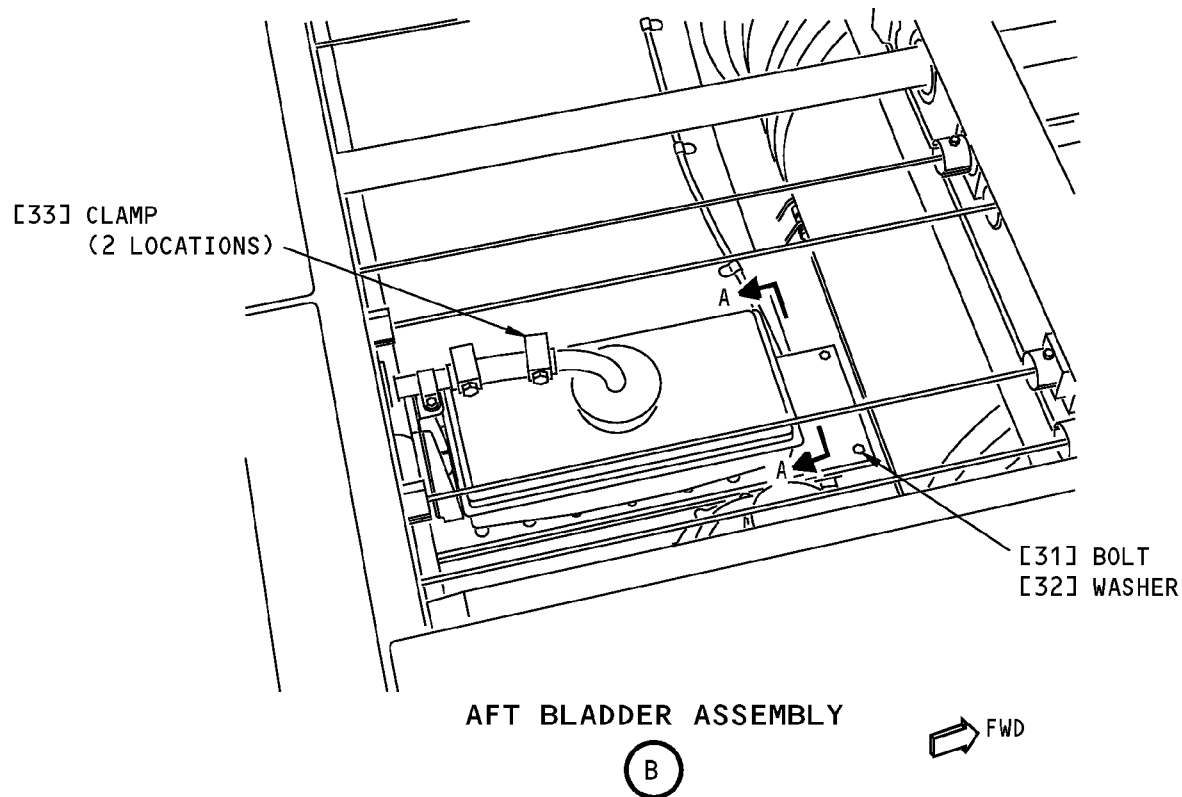
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Aft Bladder Assembly Installation
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SILL DRAIN FLOAT VALVE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the forward sill drain float valve.
- (2) An installation of the forward sill drain float valve.
- (3) A removal of the aft sill drain float valve.
- (4) An installation of the aft sill drain float valve.

TASK 38-31-06-000-801

2. Forward Sill Drain Float Valve Removal

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Prepare for the Removal

SUBTASK 38-31-06-010-001

- (1) To get access to the forward sill drain float valve, do this step:

Open this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

D. Forward Sill Drain Float Valve Removal

SUBTASK 38-31-06-020-001

- (1) Loosen the clamps [6] and disconnect the drain lines from each end of the float valve [1]. bladder assembly [6].

SUBTASK 38-31-06-020-002

- (2) Remove the screws [2], and washers [3], attaching the strap [4], saddle [5], and float valve [1] to the structure.

SUBTASK 38-31-06-020-003

- (3) Remove the float valve [1].

————— **END OF TASK** —————

TASK 38-31-06-400-801

3. Forward Sill Drain Float Valve Installation

(Figure 401)

A. Location Zones

Zone	Area
117	Electrical and Electronics Compartment - Left

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B. Access Panels

Number	Name/Location
117A	Electronic Equipment Access Door

C. Forward Sill Drain Float Valve Installation

SUBTASK 38-31-06-420-001

- (1) Attach the float valve [1] to the structure with the saddle [5], strap [4], screws [2], and washers [3].

NOTE: The lip on the float valve should be above the strap.

SUBTASK 38-31-06-390-001

- (2) Install each end of the float valve [1] to the drain lines and tighten the clamps [6].

NOTE: The large end of the float valve should be up.

D. Forward Sill Drain Float Valve Assembly Installation Test

SUBTASK 38-31-06-860-002

- (1) Pour water into the sill drain at the forward entry door.

SUBTASK 38-31-06-710-001

- (2) Make sure the water flows thru the forward sill drain valve assembly without leakage.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 38-31-06-410-001

- (1) Close this access panel:

Number	Name/Location
117A	Electronic Equipment Access Door

————— **END OF TASK** —————

TASK 38-31-06-000-802

4. Aft Sill Drain Valve Assembly Removal

(Figure 402)

A. Location Zones

Zone	Area
145	Aft Cargo Compartment Equipment Bay - Left

B. Prepare for the Removal

C. Aft Sill Drain Float Valve Removal

SUBTASK 38-31-06-020-004

- (1) Loosen the clamp [26] and disconnect the drain line from each end of the float valve [21]. .

SUBTASK 38-31-06-020-005

- (2) Remove the screws [22], and washers [23], attaching the strap [24], saddle [25], and float valve [26] to the structure.

SUBTASK 38-31-06-020-006

- (3) Remove the float valve [21].

————— **END OF TASK** —————

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TASK 38-31-06-400-802

5. Aft Sill Drain Float Valve Installation

(Figure 402)

A. Location Zones

Zone	Area
191	Lower Wing-To-Body Fairing - Forward of Wing Box

B. Aft Sill Drain Float Valve Installation

SUBTASK 38-31-06-390-002

- (1) Install each end of the float valve [21] to the drain lines and tighten the clamps [26].

NOTE: The large end of the float valve should be up.

SUBTASK 38-31-06-420-002

- (2) Attach the float valve [21] to the structure with the saddle [25], strap [24], screws [22], and washers [23].

NOTE: The lip on the float valve should be above the strap.

C. Aft Sill Drain Float Valve Installation Test

SUBTASK 38-31-06-860-003

- (1) Pour water into the aft sill drain.

SUBTASK 38-31-06-710-002

- (2) Make sure the water flows to the aft sill drain float valve without leakage.

D. Put the Airplane Back to Its Usual Condition

END OF TASK

EFFECTIVITY
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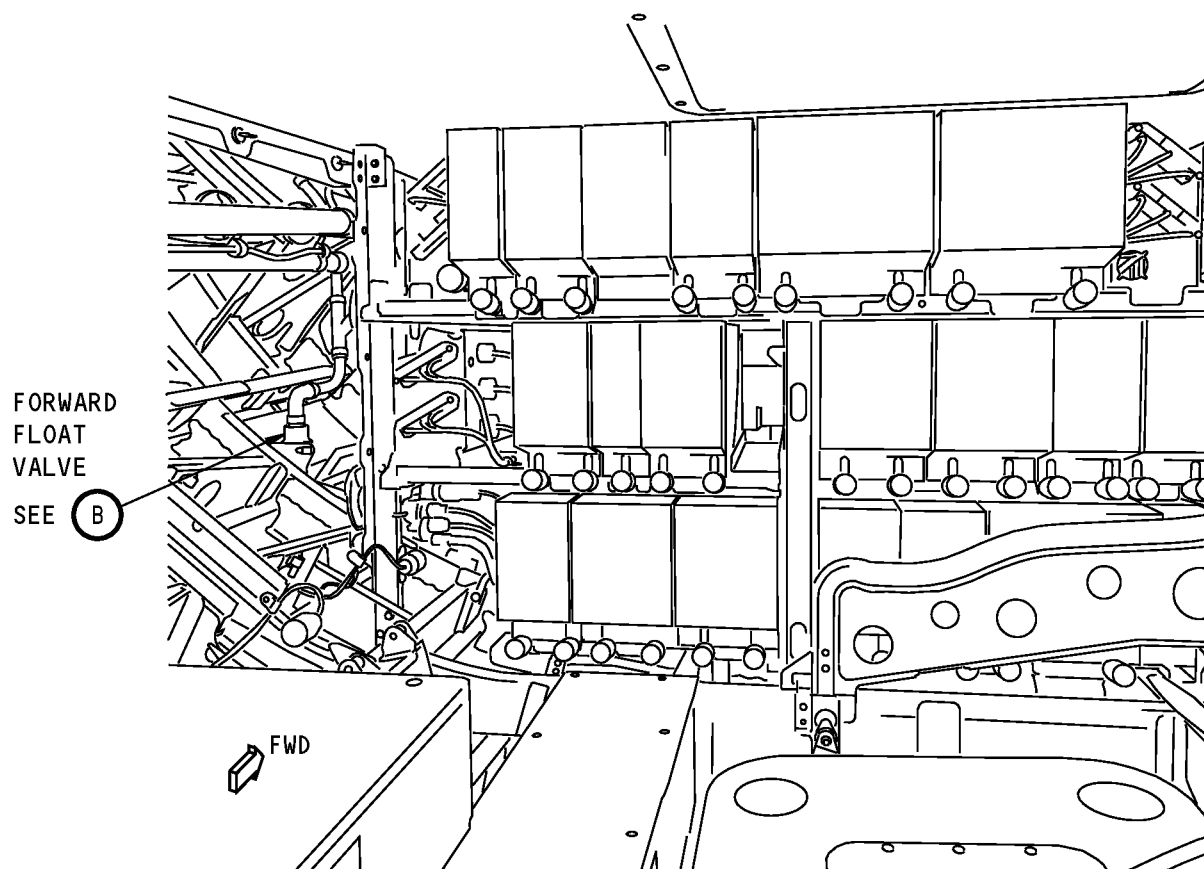
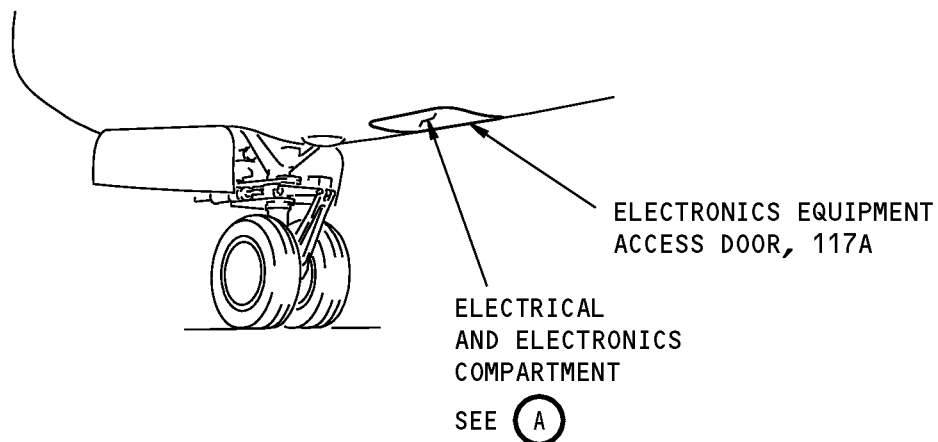
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ELECTRICAL AND ELECTRONICS COMPARTMENT

(A)

Forward Float Valve Installation
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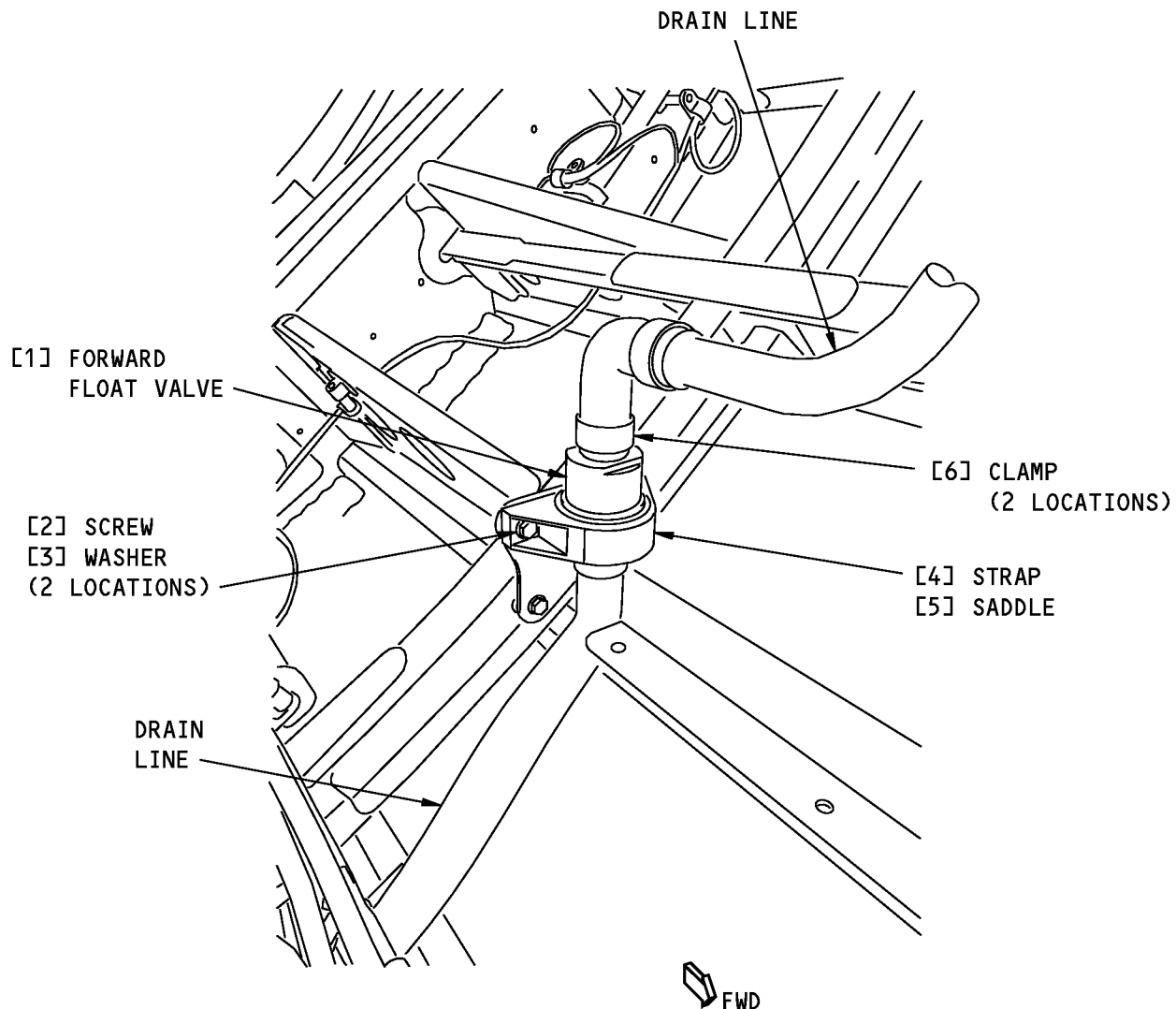
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FORWARD FLOAT VALVE

(B)

Forward Float Valve Installation
Figure 401 (Sheet 2 of 2)/38-31-06-990-801

EFFECTIVITY
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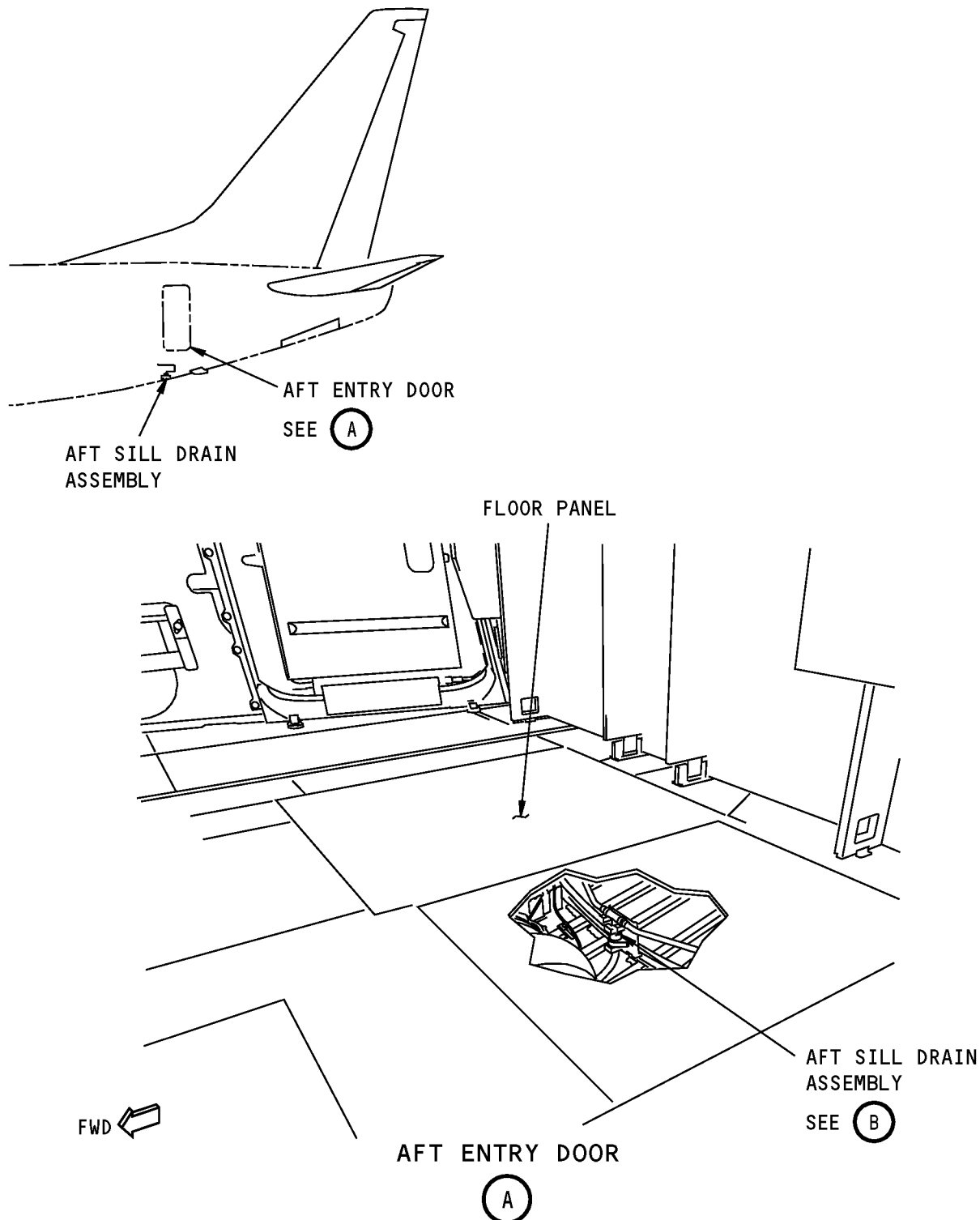
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Aft Float Valve Installation
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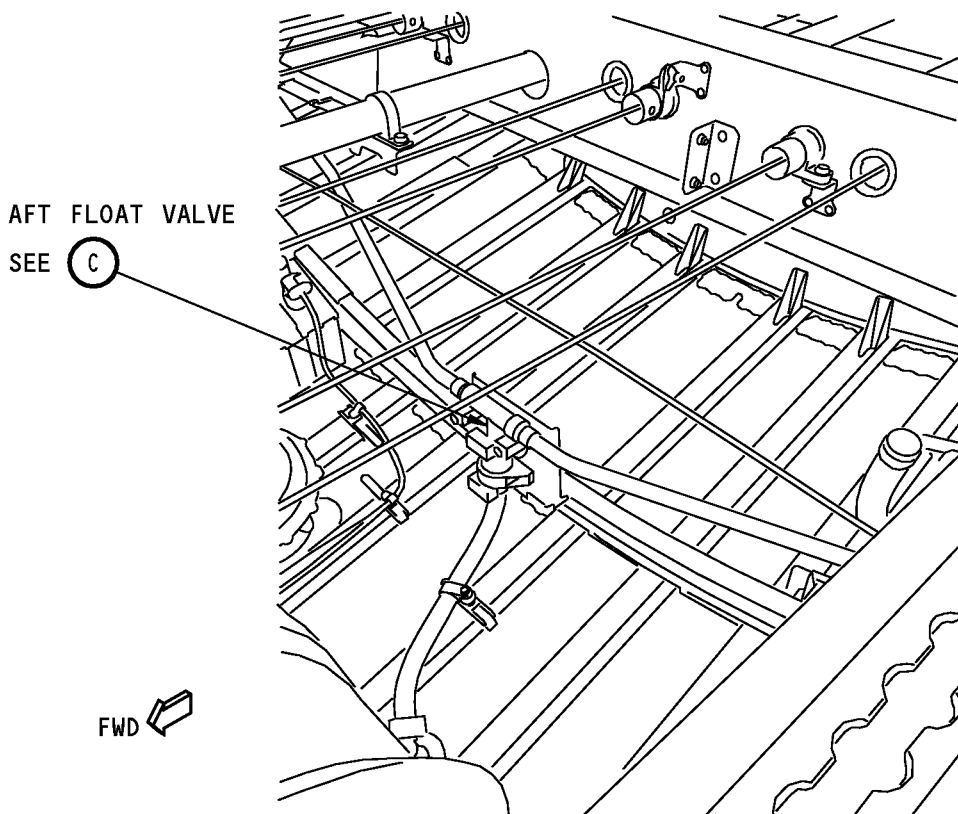
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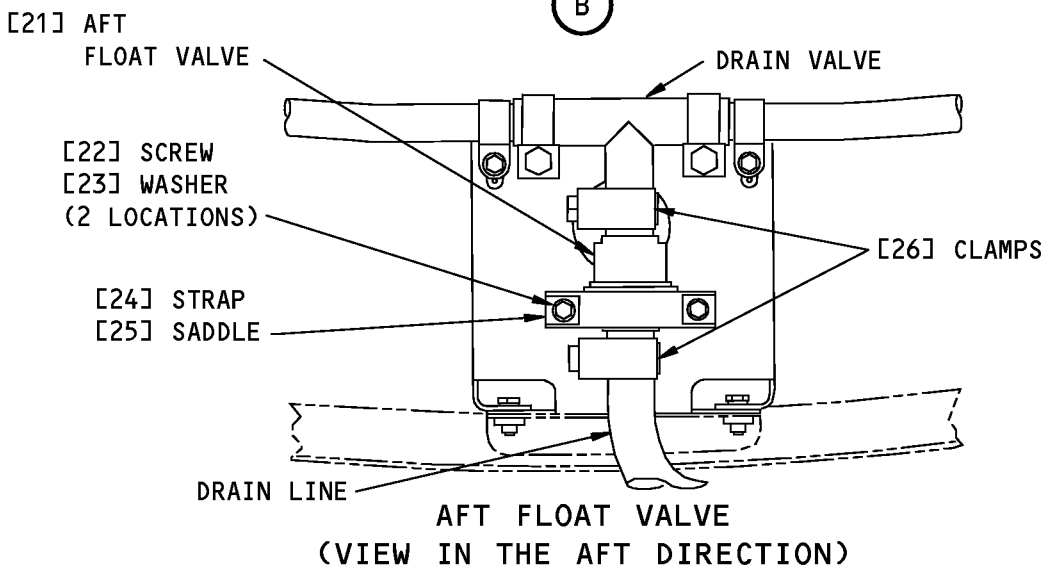
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AFT SILL DRAIN ASSEMBLY



(C)

Aft Float Valve Installation
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AIRCRAFT MAINTENANCE MANUAL

VACUUM WASTE SYSTEM - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) Standard Practices for Work with the Toilet Waste and Equipment
- (2) Waste Tube Maintenance Practice
- (3) A deactivation of the toilet.
- (4) An activation of the toilet.
- (5) A test of the vacuum pressure in the waste system.

NOTE: Use this task when you think there is leakage of the vacuum waste system.

- (6) A removal of a blockage from the toilet.

NOTE: This task is for a blockage that is upstream of the toilet flush valve.

- (7) An inspection of the vacuum lines to isolate a blockage.
- (8) A removal of a blockage from the vacuum waste lines.

NOTE: This task is for a blockage that is between the toilet flush valve and the waste tank.

- (9) A removal of a blockage from the drain line for the waste tank.

NOTE: This task is for a blockage that is between the waste tank and the service panel for the waste tank.

- (10) A removal of a blockage from the drain line for the waste tank from outside the airplane.

NOTE: This task is for a blockage that is between the waste tank and the service panel for the waste tank.

TASK 38-32-00-910-801

2. Standard Practices for Work with the Toilet Waste and Equipment

NOTE: IF YOU OPERATE THE VACUUM WASTE SYSTEM IN HANGER AREAS, ATTACH VENTING EQUIPMENT TO THE VACUUM SYSTEM EXHAUST TO REMOVE THE EXHAUST FROM PERSONNEL AND THE HANGER AREAS.

A. General

- (1) You must obey local regulatory procedures and company policies when working with toilet waste and toilet waste equipment.
- (2) Special procedures are given for work on the equipment that follows:
 - (a) The toilet assembly
 - (b) The vacuum waste lines
 - (c) The waste tanks
 - (d) The waste drain ball valves

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)

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C. Tools/Equipment

Reference	Description
STD-419	Gloves - Rubber, Elbow Length
STD-1136	Mask - Face
STD-1137	Glasses - Safety
STD-1138	Tubing - Flexible, 1.5 Inch Outside Diameter

D. Consumable Materials

Reference	Description	Specification
G02315	Clothing - Disposable Gown, Gloves For Sewage Handling	

E. Location Zones

Zone	Area
100	Lower Half of Fuselage
200	Upper Half of Fuselage

F. Procedure

SUBTASK 38-32-00-910-002

- (1) When servicing or maintaining the toilet system and its components, make sure you wear the applicable personal protection equipment such as the following:
 - (a) elbow length rubber gloves, STD-419
 - (b) face mask, STD-1136
 - (c) safety glasses, STD-1137
 - (d) Disposable clothing, G02315

SUBTASK 38-32-00-910-003

- (2) You must thoroughly disinfect anything you come in contact with when working with toilet waste.

SUBTASK 38-32-00-910-004

WARNING: ALWAYS WEAR PERSONAL PROTECTION EQUIPMENT, AND WASH HANDS THOROUGHLY WITH SOAP AND WATER AFTER COMPLETION OF WASTE SYTEM PROCEDURES. DO NOT SERVICE POTABLE WATER SYSTEMS, OR CONDUCT MAINTENANCE ON ANY POTABLE WATER SYSTEM COMPONENTS CONCURRENTLY AFTER CONDUCTING SUCH OPERATIONS WITHOUT WASHING HANDS.

FAILURE TO DO SO CAN CAUSE ILLNESS TO OTHERS OR SELF.

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (3) You must thoroughly disinfect yourself and your clothing before working on other aircraft system components.

NOTE: Never service the airplane potable water system, or maintain potable water system components after servicing or maintaining the toilet waste system and it's components without thoroughly disinfecting yourself.

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SUBTASK 38-32-00-910-005

WARNING: ALL TOILET SYSTEM COMPONENTS MUST BE CLEAN OF WASTE AND DISINFECTED PRIOR TO NORMAL HANDLING AND SHIPPING.

FAILURE TO DO SO CAN CAUSE ILLNESS TO OTHERS AND SELF.

- (4) Thoroughly clean and disinfect any toilet waste system components removed from the airplane prior to normal handling and shipping operations.

SUBTASK 38-32-00-910-006

- (5) Thoroughly disinfect the following components:

- (a) The toilet bowl
- (b) The flush valve
- (c) Any other contaminated components.

SUBTASK 38-32-00-910-007

WARNING: MAKE SURE YOU FOLLOW THE MANUFACTURER'S INSTRUCTIONS WHEN YOU TOUCH THE CHEMICAL PRECHARGE. THE CHEMICAL PRECHARGE CONTAINS MATERIALS WHICH CAN CAUSE INJURY TO YOU IF YOU DO NOT OBEY THE INSTRUCTIONS.

CAUTION: DO NOT ADD THE CHEMICAL PRECHARGE TO THE TANKS IF THE AIRPLANE IS IN AN AREA WHERE IT CAN FREEZE. THE CHEMICAL PRECHARGE CAN CAUSE DAMAGE TO THE WASTE SYSTEM IF IT FREEZES.

- (6) Add approximately 1 quart (1 liter) of chemical precharge to the toilet bowl before you remove the waste material from the bowl.

NOTE: Use a chlorine solution to clean the items you wear as an alternative to chemical precharge.

SUBTASK 38-32-00-160-003

- (7) Do these steps to remove the contents of the toilet bowl, if a waste system is serviceable:
 - (a) Install a length of 1.5 inch outside diameter flexible tubing, STD-1138 from a serviceable toilet to the blocked toilet.
 - (b) Flush the serviceable toilet to drain the toilet bowl of the blocked toilet.
 - (c) Make sure the toilet bowl is empty.
 - (d) If the toilet bowl is not empty, flush the serviceable toilet again.
 - (e) Remove the 1.5 inch (4 cm) flexible tubing.

SUBTASK 38-32-00-160-004

- (8) If no waste system is serviceable, manually remove the contents of the toilet bowl.

SUBTASK 38-32-00-910-008

- (9) Do the steps that follow before you remove these parts:
 - (a) The waste tank
 - (b) The waste tank components
 - (c) The waste drain ball valve
 - (d) The drain lines downstream from the waste tank
 - (e) The waste drain valve assembly
 - 1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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- 2) After the waste tank is serviced, drain the chemical precharge.

————— **END OF TASK** —————

TASK 38-32-00-040-801

3. Toilet Deactivation

(Figure 201)

A. General

- (1) This task is for the deactivation of a toilet while the remaining toilets in the system are serviceable.

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Procedure

SUBTASK 38-32-00-010-017

- (1) Get access to the lavatory.

SUBTASK 38-32-00-010-018

- (2) Open the cabinet under the sink to get access to the shutoff valve for the lavatory water supply.

NOTE: The shutoff valve is under the sink in the lavatory.

SUBTASK 38-32-00-040-002

- (3) Set the shutoff valve for the lavatory water supply to the FAUCET ONLY or OFF position.

SUBTASK 38-32-00-410-015

- (4) Close the cabinet under the sink.

SUBTASK 38-32-00-040-003

- (5) Pull the handle for the manual shutoff valve.

NOTE: The handle is at the bottom of the toilet shroud and above the kickstrip.

SUBTASK 38-32-00-040-004

- (6) Identify the applicable lavatory that is not serviceable.

————— **END OF TASK** —————

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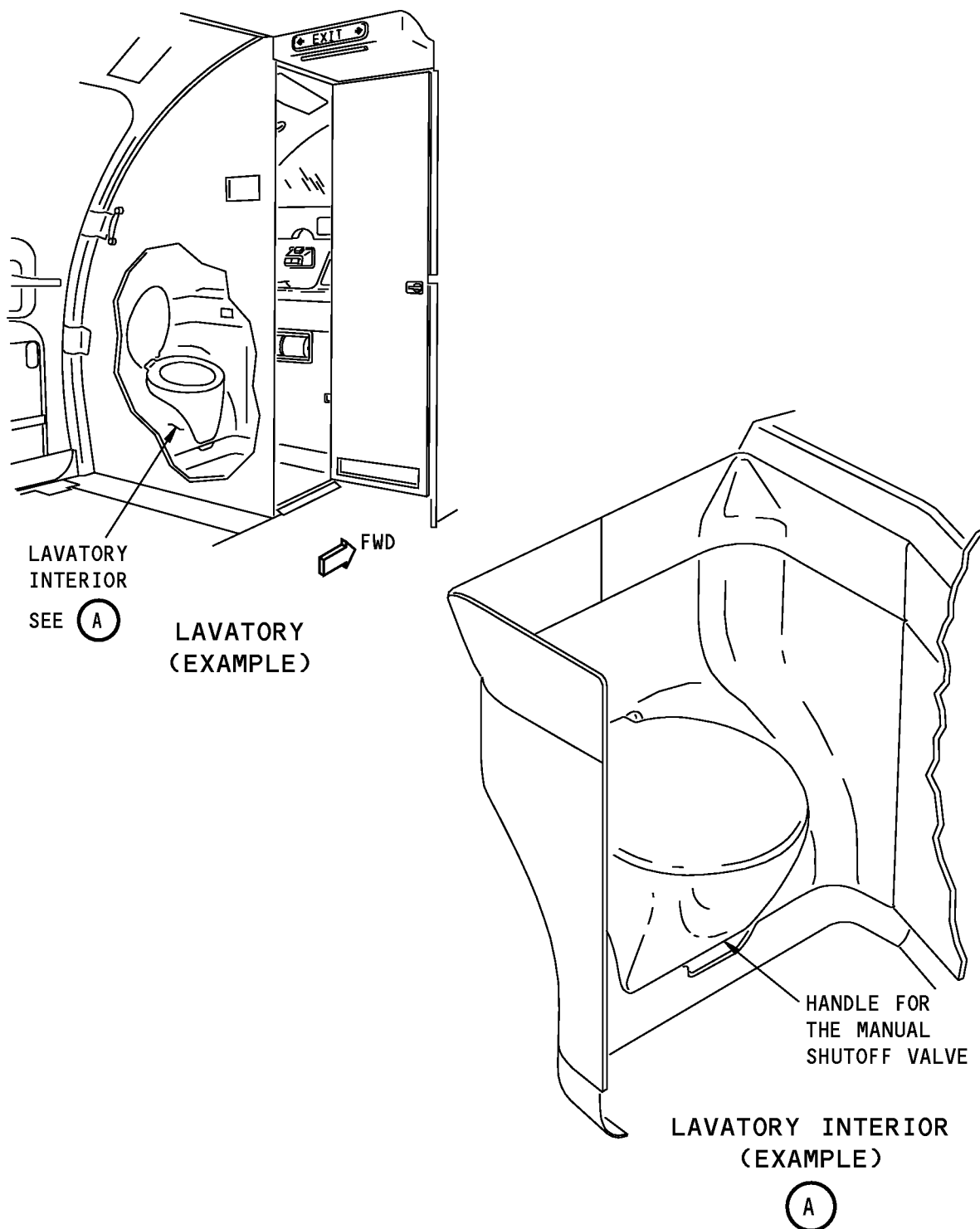
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Toilet Deactivation
Figure 201/38-32-00-990-819

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TASK 38-32-00-420-801

4. Toilet Activation

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Procedure

SUBTASK 38-32-00-010-019

- (1) Get access to the lavatory.

SUBTASK 38-32-00-040-005

- (2) Push on the handle for the manual shutoff valve.

NOTE: The handle is at the bottom of the toilet shroud and above the kickstrip.

SUBTASK 38-32-00-860-030

- (3) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-00-010-020

- (4) Open the cabinet under the sink to get access to the shutoff valve for the lavatory water supply.

NOTE: The shutoff valve is under the sink in the lavatory.

SUBTASK 38-32-00-040-006

- (5) Set the shutoff valve for the lavatory water supply to the ON position.

SUBTASK 38-32-00-410-016

- (6) Close the cabinet under the sink.

SUBTASK 38-32-00-710-014

- (7) Do these steps to make sure the toilet operates correctly:

- (a) Put approximately 1 gallon (4 liters) of water into the toilet bowl.
- (b) Operate the flush switch.
- (c) Make sure the toilet flushes correctly.

SUBTASK 38-32-00-440-002

- (8) Remove the identifier for the lavatory that was not serviceable.

————— **END OF TASK** —————

TASK 38-32-00-780-801

5. Waste System - Vacuum Pressure Test

(Figure 202)

A. General

- (1) This task uses the vacuum toilet tester to examine the vacuum during the operation of the toilet flush system.
- (2) The Vacuum Toilet Tester is referred to as the Tester in this procedure.

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B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1945	Tester - Toilet Vacuum (Part #: A38006-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Procedure

SUBTASK 38-32-00-910-012

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-860-031

- (2) Put the tester, SPL-1945 in its position as follows:
- (a) Make sure the valve on the tester, SPL-1945 is in the closed position.
 - (b) Put the end of the tester, SPL-1945 with the flexible seal into the toilet bowl on the exit hole.
 - (c) Push and then hold the tester tightly against the exit hole.

SUBTASK 38-32-00-780-007

- (3) Do these steps to do a test of the vacuum at the toilet.
- (a) Push the flush switch for the toilet.
 - (b) Make sure the water stays in the toilet bowl during the toilet flush operation.
 - (c) Write down the highest indication (inches of mercury) you see on the vacuum gage during the toilet flush operation.
 - (d) Do the steps above two more times.

SUBTASK 38-32-00-860-032

- (4) Move the valve to the open position and then remove the tester, SPL-1945 from the toilet.

SUBTASK 38-32-00-220-001

- (5) Make sure the average of the indications on the vacuum gage is from 5 to 10 inches of mercury.

NOTE: An average of less than 5 inches of mercury shows a blockage or leakage of the vacuum waste system. The blockage or leakage is between the toilet and the waste tank. An average of less than 5 inches of mercury for all of the vacuum waste system shows a problem with the vacuum blower.

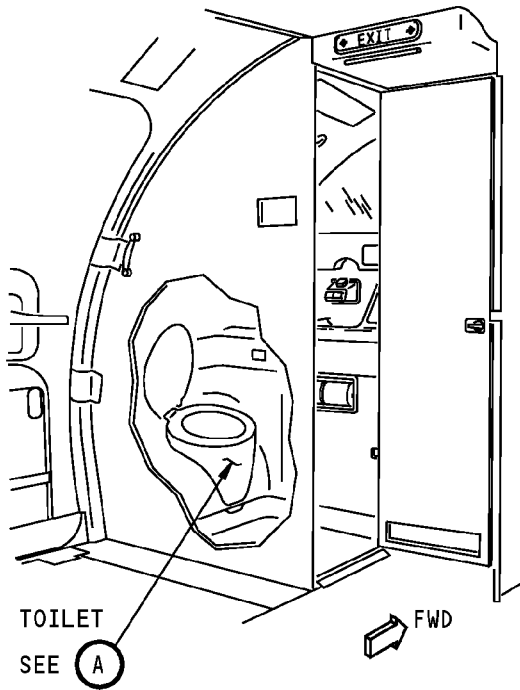
————— **END OF TASK** —————

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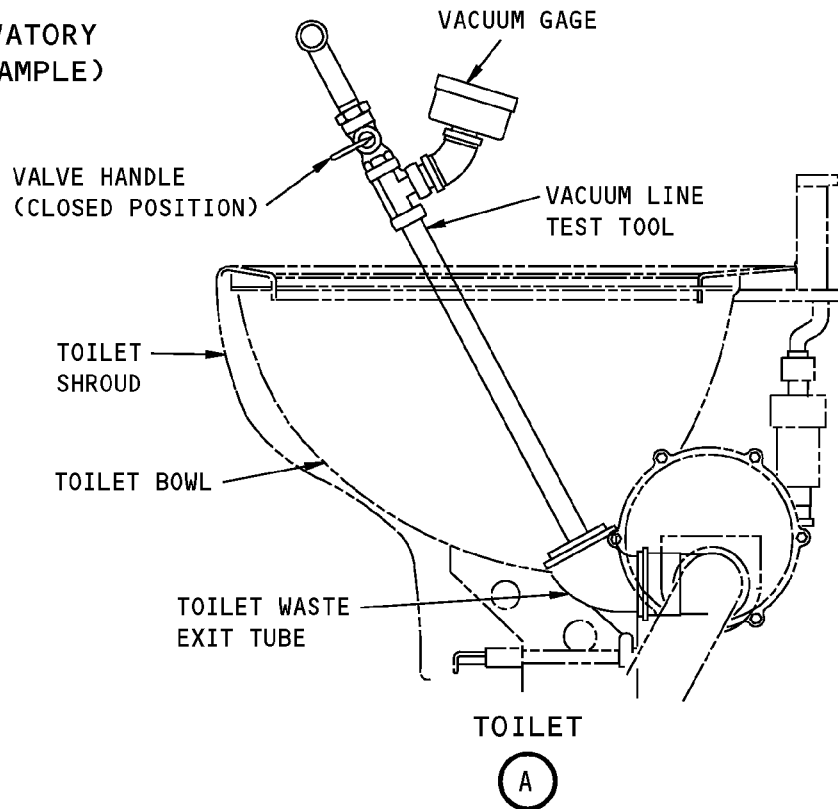
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LAVATORY
(EXAMPLE)



Vacuum Line Test
Figure 202/38-32-00-990-820

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TASK 38-32-00-160-801

6. Toilet Blockage Removal

(Figure 203)

A. General

- (1) This task is for a blockage that is upstream of the toilet flush valve.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1943	Remover - Blockage, Vacuum Toilet (Part #: A38003-20, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Toilet Blockage Removal

SUBTASK 38-32-00-910-009

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-860-016

- (2) For the toilet that has a blockage, do the necessary step:

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (a) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-480-006

- (3) Carefully put the blockage vacuum toilet blockage remover, SPL-1943 into the toilet bowl.

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SUBTASK 38-32-00-160-005

CAUTION: DO NOT PUSH THE BLOCKAGE REMOVER TOOL IN THE TOILET BOWL TOO HARD. THE END OF THE BLOCKAGE REMOVER TOOL IS SHARP AND CAN CAUSE DAMAGE TO THE TOILET OR THE FLUSH VALVE.

- (4) Move the blockage remover into the toilet bowl until it touches the blockage or until it engages in the toilet.

SUBTASK 38-32-00-160-006

- (5) When the blockage remover touches the blockage, turn its handle clockwise to engage the blockage.

SUBTASK 38-32-00-160-007

- (6) Pull the blockage remover carefully out of the toilet to pull the blockage out of the toilet.

SUBTASK 38-32-00-860-017

- (7) After you remove the blockage, do the necessary step:

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (a) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-860-018

- (8) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-00-710-007

- (9) Put approximately one gallon (4 liters) of water in the toilet bowl.

SUBTASK 38-32-00-710-008

- (10) Push the flush switch for the toilet.

SUBTASK 38-32-00-710-009

- (11) Make sure the toilet operates correctly.

————— **END OF TASK** —————

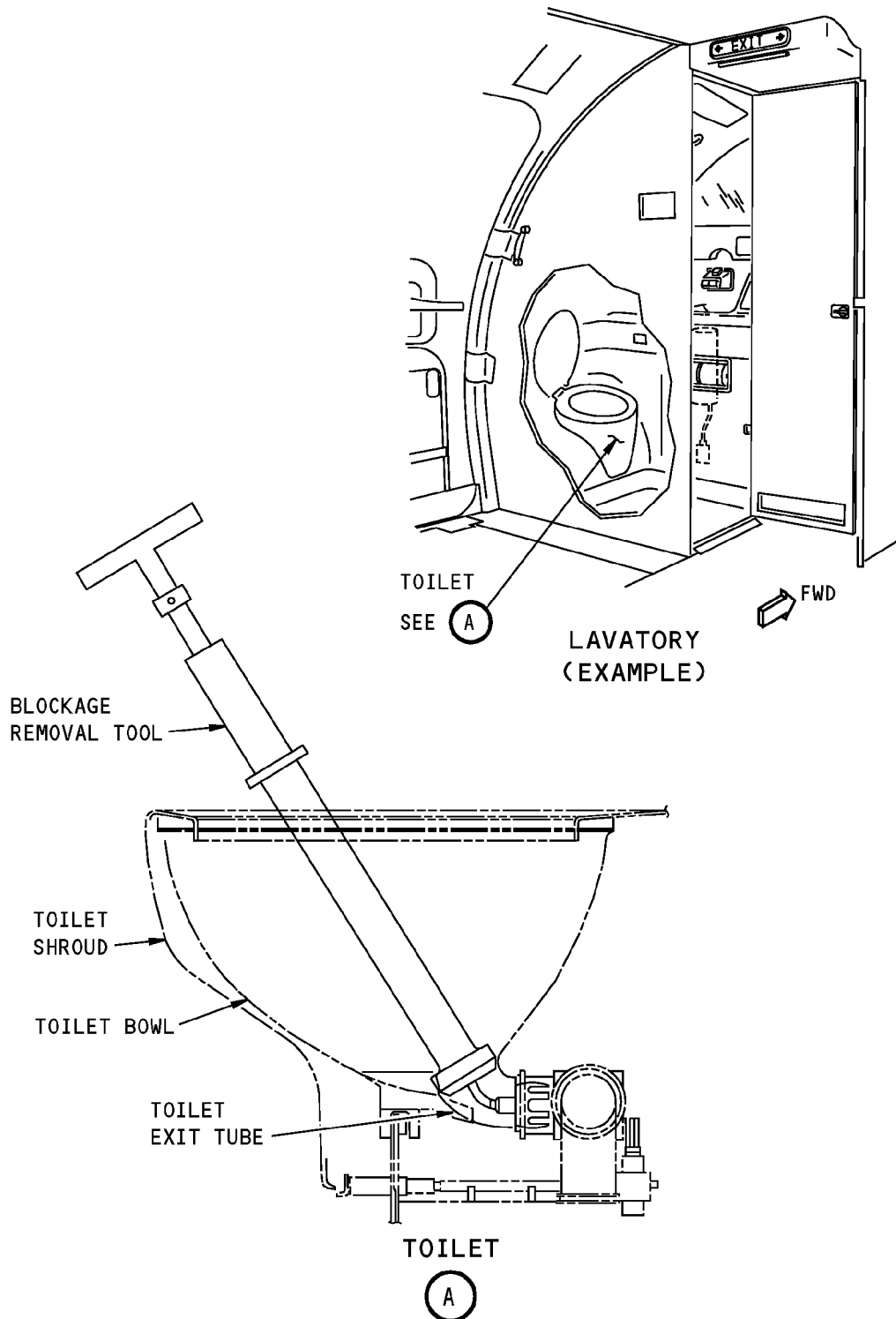
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**Toilet Blockage Removal
Figure 203/38-32-00-990-816**

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TASK 38-32-00-280-801

7. Vacuum Line Blockage Inspection

Figure 204

A. General

- (1) This task uses the "coin tap" test to isolate blockages in the vacuum waste lines. Use a small metal object (a coin) when you do this test.

B. References

Reference	Title
SOPM 20-30-03	Standard Overhaul Practices Manual

C. Location Zones

Zone	Area
100	Lower Half of Fuselage

D. Procedure

SUBTASK 38-32-00-750-001

- (1) Do the "coin tap" test as follows:

- (a) Hit the vacuum waste line lightly with the metal object for each inch of the tube.

- 1) A sharp metal ring shows that the section has no waste layer or blockages.
- 2) A dull muffled sound shows that the section has a waste layer or a blockage.

SUBTASK 38-32-00-020-004

- (2) Remove from the airplane all sections of the vacuum waste line that show a waste layer or a blockage.

SUBTASK 38-32-00-110-001

- (3) Soak the vacuum waste lines that show a waste layer or a blockage (SOPM 20-30-03)

SUBTASK 38-32-00-420-005

- (4) Install the vacuum waste lines.

————— **END OF TASK** —————

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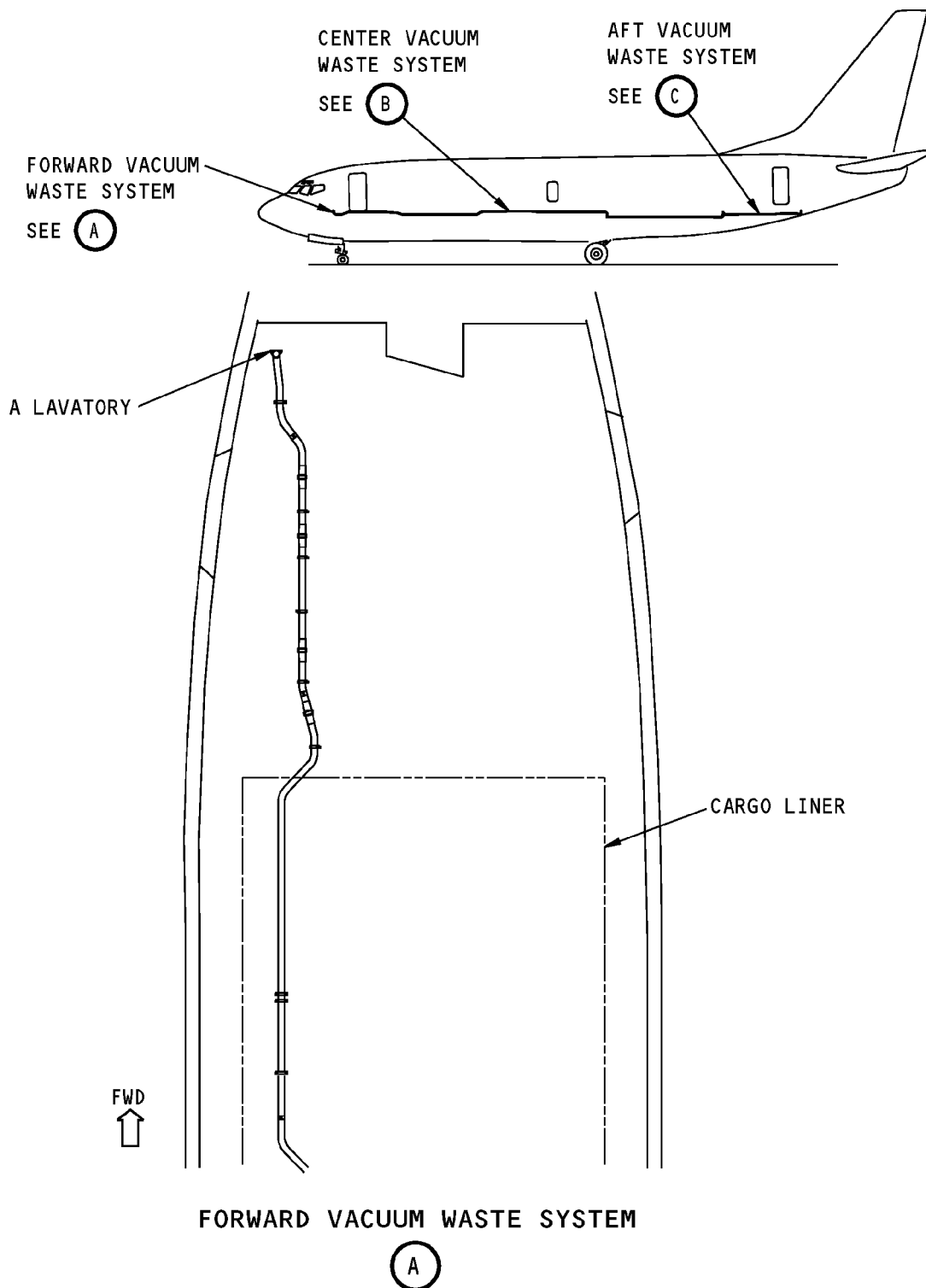
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Vacuum Waste System - Primary Routing
Figure 204 (Sheet 1 of 3)/38-32-00-990-804

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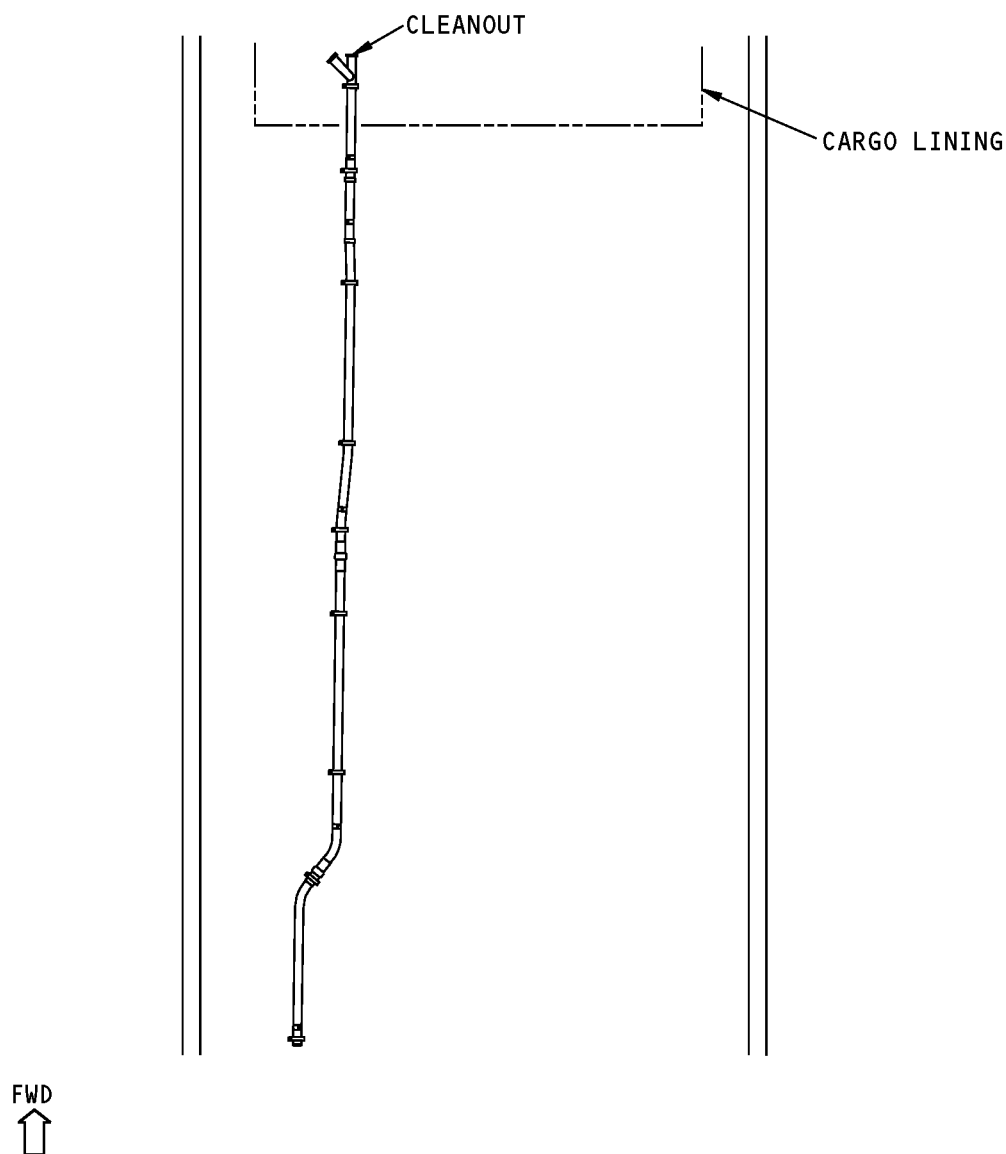
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CENTER VACUUM WASTE SYSTEM

B

Vacuum Waste System - Primary Routing
Figure 204 (Sheet 2 of 3)/38-32-00-990-804

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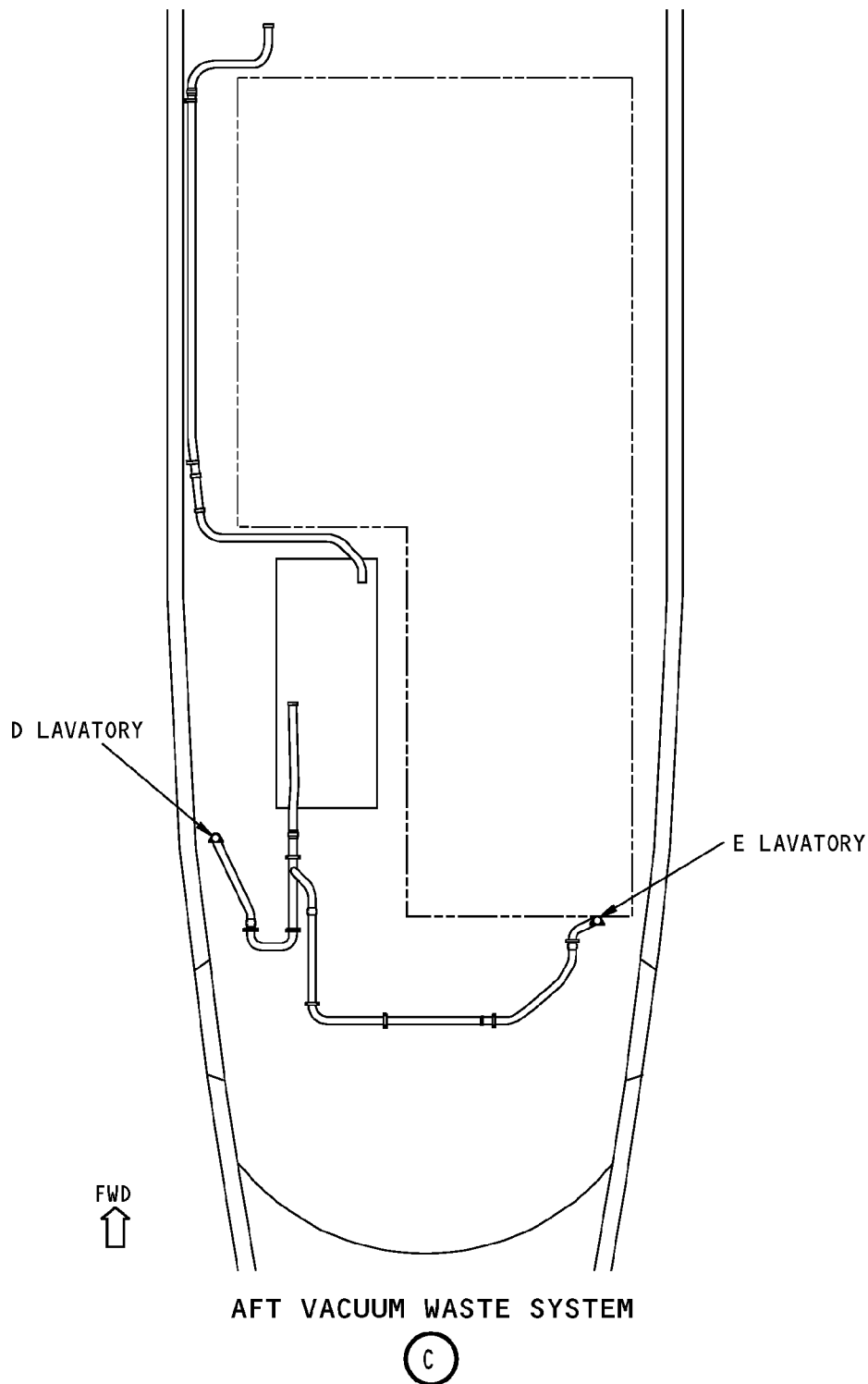
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Vacuum Waste System - Primary Routing
Figure 204 (Sheet 3 of 3)/38-32-00-990-804

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TASK 38-32-00-910-802

8. Waste Tube - Maintenance Practice

(Figure 204)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)

B. Location Zones

Zone	Area
100	Lower Half of Fuselage

C. Waste Tube - Maintenance Practice

SUBTASK 38-32-00-860-013

- (1) To access the waste tube and components, use (Figure 204).

SUBTASK 38-32-00-860-014

- (2) To remove the plug from the cleanout port, do the steps that follow:

- (a) Do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.
- (b) Remove the plug from the cleanout port.

SUBTASK 38-32-00-860-015

- (3) To install the plug from the cleanout port, do the steps that follow:

- (a) Make sure the cleanout port is clean.
- (b) Install the plug from the cleanout port.
- (c) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

————— END OF TASK —————

TASK 38-32-00-160-802

9. Vacuum Waste Line Blockage Removal

(Figure 205)

A. General

- (1) This task is for a blockage that is between the toilet flush valve and the waste tank.

NOTE: The removal of the toilet assembly is necessary to do this procedure when you do it from the upper half of the fuselage.

- (2) This procedure is also applicable to material in the lines that are sealed with a cap. The removal of the line cap and the removal of ceiling lining panels for access is necessary to do this procedure. For removal and installation procedures, do this task: Waste Tube - Maintenance Practice, TASK 38-32-00-910-802.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
38-32-01-000-838-002	Vacuum Toilet Assembly Removal (P/B 401)
38-32-01-400-838-002	Vacuum Toilet Assembly Installation (P/B 401)

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C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1947	Equipment - Removal, Vacuum Lavatory System Blockage (Part #: G38004-13, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER) (Opt Part #: G38004-10, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

D. Location Zones

Zone	Area
100	Lower Half of Fuselage
200	Upper Half of Fuselage

E. Procedure

SUBTASK 38-32-00-910-010

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-860-019

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (2) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-860-020

- (3) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-00-160-008

- (4) If it is necessary to remove the contents of the toilet bowl with the toilet flush valve open, do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-010-013

- (5) To get access to the vacuum waste line for the lavatory upstream of the blockage, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

SUBTASK 38-32-00-420-002

- (6) Install the kinetic water ram vacuum lavatory system blockage removal equipment, SPL-1947 on the vacuum waste line.

NOTE: You can use a plumbers snake if the kinetic water ram equipment is not available.

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SUBTASK 38-32-00-610-008

- (7) Fill the waste line with water from a toilet upstream of the blockage or through the kinetic water ram equipment.

SUBTASK 38-32-00-610-009

- (8) Do these steps while you fill the waste line.
- (a) Monitor the air bleed line while you fill the system.
 - (b) Stop the water flow when you see water at the bleed line exit.
 - (c) Disconnect the air bleed line.
 - (d) Put a cap on the air bleed connection.
 - (e) Do these steps for all toilets upstream of the blockage.

SUBTASK 38-32-00-860-021

- (9) Make sure the air pressure of the kinetic water ram equipment is 70 to 80 PSIG (480-550 kPa).

NOTE: You can use a shop air source to get this pressure.

SUBTASK 38-32-00-040-001

WARNING: MAKE SURE YOU ATTACH A DO-NOT-OPERATE TAG TO THE TOILET FLUSH HANDLES FOR ALL TOILETS IN THE SYSTEM. IF YOU FLUSH THE TOILETS UPSTREAM OF THE BLOCKAGE, THIS CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

- (10) Attach a DO-NOT-OPERATE tag to the toilet flush handles for all toilets upstream of the blockage.

SUBTASK 38-32-00-860-022

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (11) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-710-010

- (12) Flush a toilet in the same waste system with the blockage and then pull the handle of the kinetic water ram equipment.

NOTE: Flush the toilet and pull the handle of the kinetic water ram equipment at the same time to have the most effect on the blockage.

SUBTASK 38-32-00-710-011

- (13) Make sure the blockage is clear.

SUBTASK 38-32-00-160-009

- (14) If the blockage is not clear, pressurize the kinetic water ram equipment and do the blockage removal procedure again until the line is clear.

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SUBTASK 38-32-00-860-023

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (15) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-020-002

- (16) Remove the kinetic water ram equipment on the vacuum waste line.

SUBTASK 38-32-00-080-006

- (17) To put the system back in its usual condition, do these steps:

- (a) Remove the cap on the air bleed connection for all toilets upstream of the blockage.
- (b) Connect the air bleed line for all toilets upstream of the blockage.

SUBTASK 38-32-00-420-003

- (18) If you removed a toilet, do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.

SUBTASK 38-32-00-440-001

- (19) Remove the DO-NOT-OPERATE tag to the toilet flush handles for all toilets upstream of the blockage.

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (a) Remove the safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-710-012

- (20) Flush the toilet to make sure the toilet operates correctly.

END OF TASK

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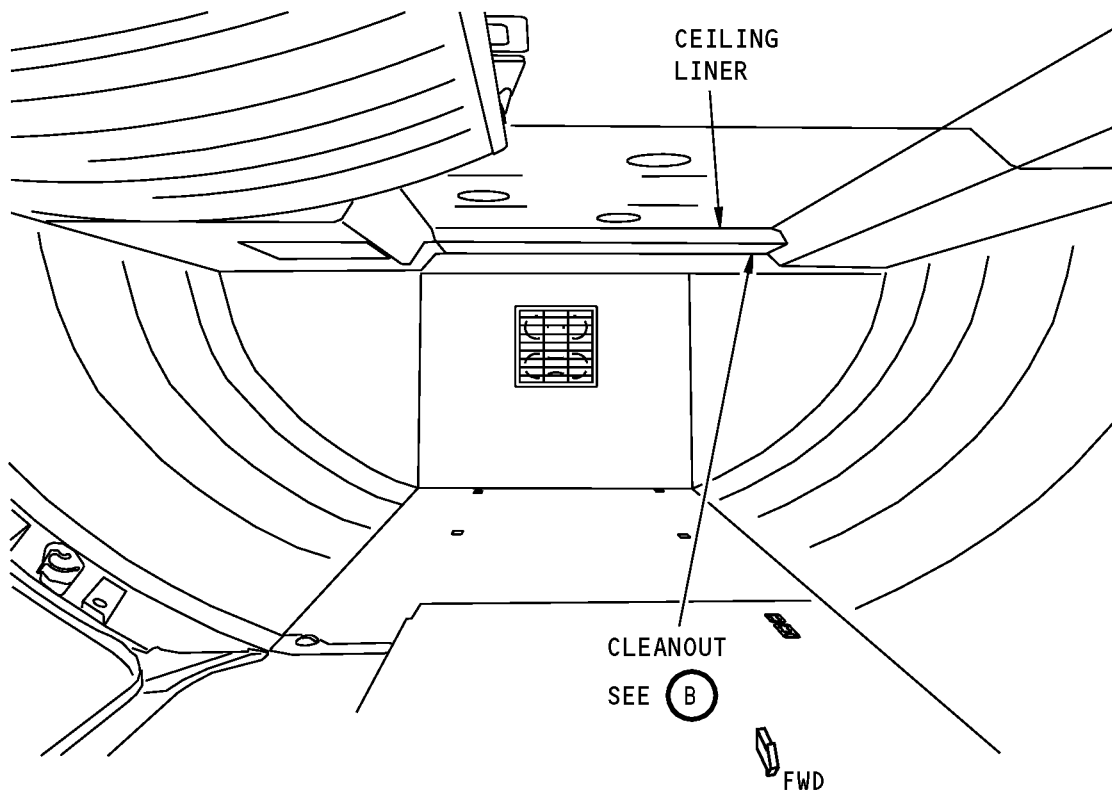
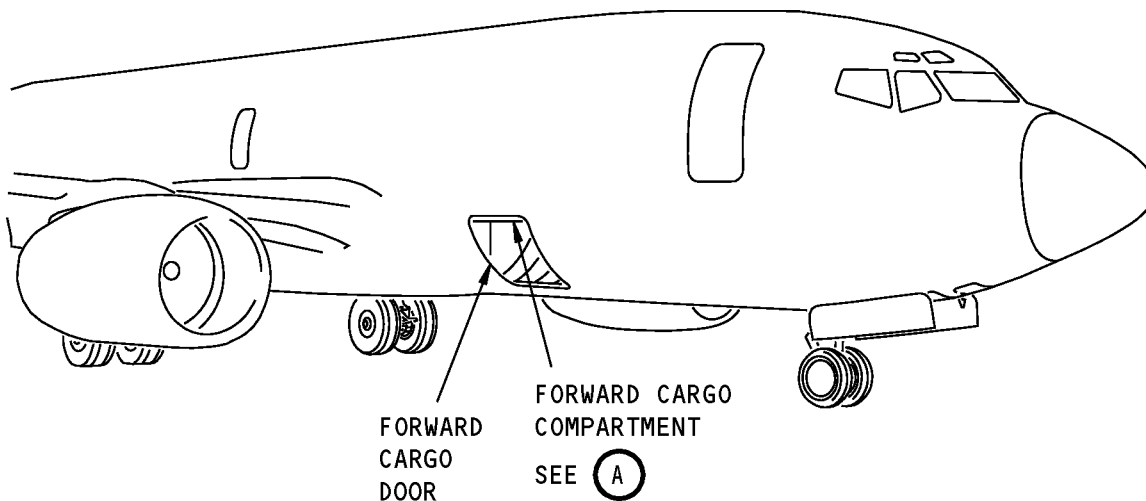
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FORWARD CARGO COMPARTMENT

(A)

Vacuum Line Blockage Removal
Figure 205 (Sheet 1 of 2)/38-32-00-990-817

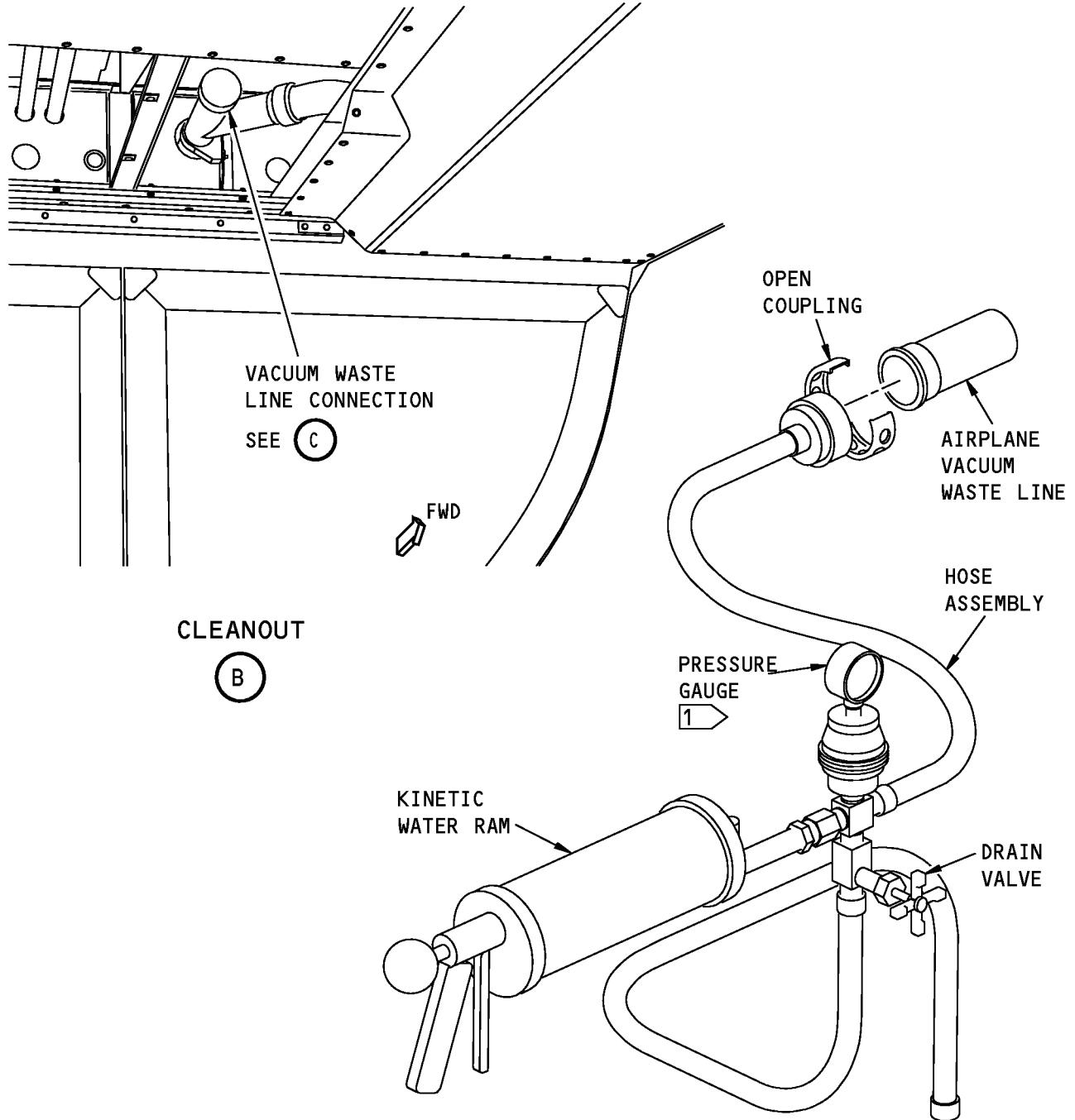
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**VACUUM WASTE LINE CONNECTION
(EXAMPLE)**

(C)

1 GAUGE INDICATES RESIDUAL PRESSURE
IN VACUUM LAVATORY SYSTEM

G21194 S0006578454_V3

**Vacuum Line Blockage Removal
Figure 205 (Sheet 2 of 2)/38-32-00-990-817**

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TASK 38-32-00-160-803

10. Waste Tank Drain Line Blockage Removal

(Figure 206)

A. General

- (1) This task is for a blockage that is between the waste tank and the waste drain valve assembly.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-33-00-740-802	LCM BITE Test (P/B 501)

C. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

D. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left
822	Aft Cargo Door

E. Access Panels

Number	Name/Location
145AL	Waste Service Door

F. Procedure

SUBTASK 38-32-00-910-011

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-010-014

- (2) Get access to the aft cargo compartment.

SUBTASK 38-32-00-010-015

- (3) To remove the waste tank enclosure, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-00-860-024

- (4) Set the blockage removal valve to the clean position.

SUBTASK 38-32-00-010-016

- (5) Open this access panel:

Number	Name/Location
145AL	Waste Service Door

SUBTASK 38-32-00-860-025

- (6) Make sure the waste drain ball valve and the waste drain valve assembly are in the closed position.

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SUBTASK 38-32-00-860-026

- (7) Open the cap on the rinse fitting on the service panel for the waste tank.

SUBTASK 38-32-00-480-007

- (8) Connect the waste system servicing equipment, STD-1142 to the rinse fitting on the service panel for the waste tank.

SUBTASK 38-32-00-610-016

- (9) Connect the waste system servicing equipment, STD-1142 to the waste drain valve on the service panel for the waste tank.

SUBTASK 38-32-00-160-010

- (10) Pressurize the rinse system to 15 PSIG (100 kPa).

SUBTASK 38-32-00-860-027

- (11) Open the waste drain ball valve.

SUBTASK 38-32-00-610-010

- (12) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to service the waste tanks. Do not disconnect the servicing equipment.

SUBTASK 38-32-00-860-028

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (13) Make sure the waste tank is empty.

SUBTASK 38-32-00-610-011

- (14) If the waste tank is empty, then continue.

- (a) If the waste tank is not empty, do these steps:

- 1) Close the waste drain ball valve.
- 2) Do the steps again to pressurize the rinse system and to open the waste drain ball valve.

- (b) If the waste tank is not empty, then continue.

- 1) Close the waste drain ball valve.

CAUTION: DO NOT INCREASE THE PRESSURE TO MORE THAN 25 PSIG (170 KPA). A PRESSURE OF MORE THAN 25 PSIG (170 KPA) CAN CAUSE DAMAGE TO THE WASTE DRAIN SYSTEM.

- 2) Increase the pressure to a maximum of 25 PSIG (170 kPa).
- 3) Do the steps again to pressurize the rinse system and to open the waste drain ball valve.

- (c) If the waste tank is not empty, remove the contents of the waste system manually.

SUBTASK 38-32-00-860-029

- (15) Set the blockage removal valve to the normal position.

SUBTASK 38-32-00-610-012

- (16) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-710-013

- (17) To make sure the system is operational, do this task: LCM BITE Test, TASK 38-33-00-740-802.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-080-007

(1) Disconnect the waste system servicing equipment, STD-1142 from the rinse fitting.

SUBTASK 38-32-00-410-012

(2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-00-410-013

(3) Close the access to the aft cargo compartment.

SUBTASK 38-32-00-410-014

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

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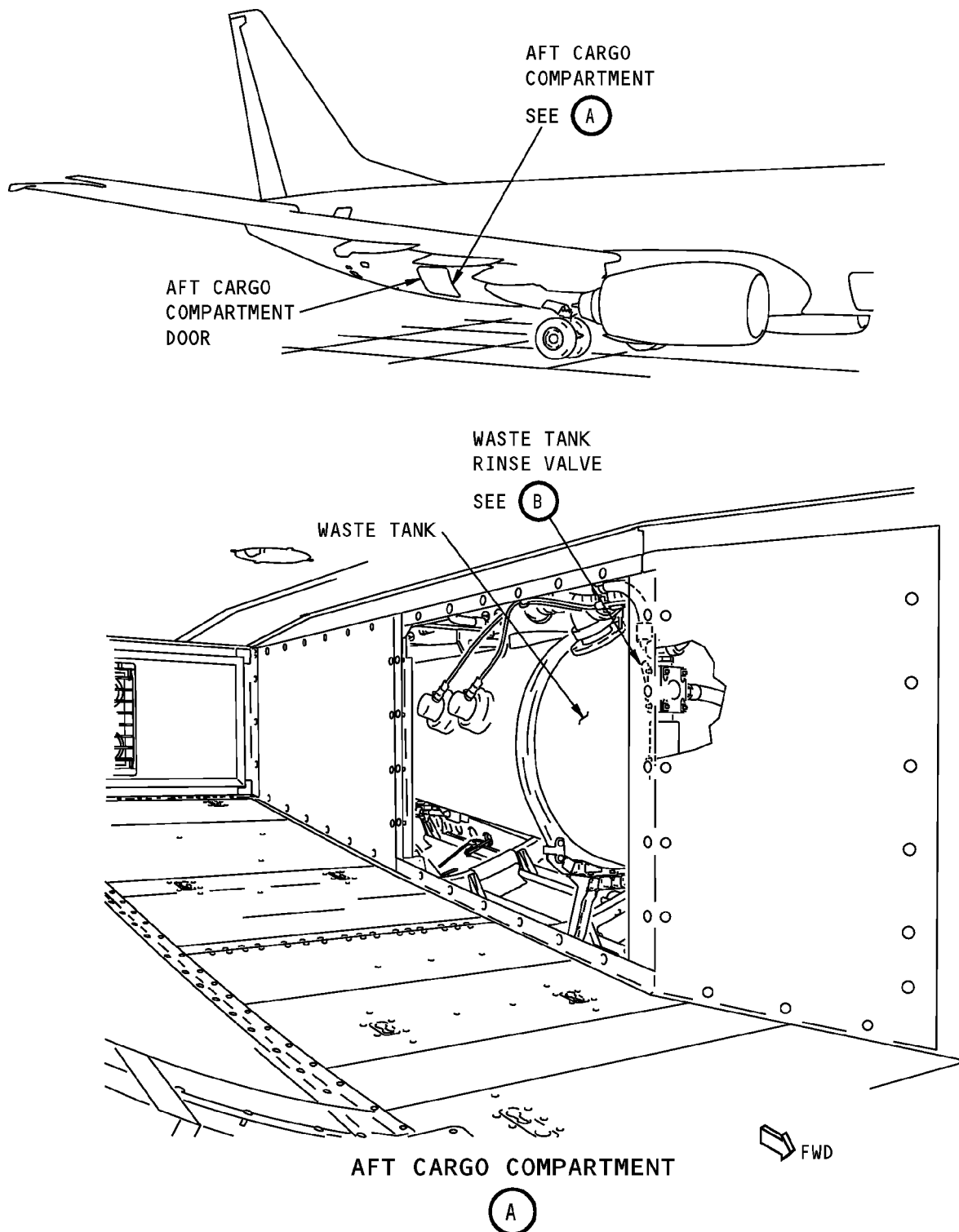
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Waste Line Blockage Removal
Figure 206 (Sheet 1 of 2)/38-32-00-990-818

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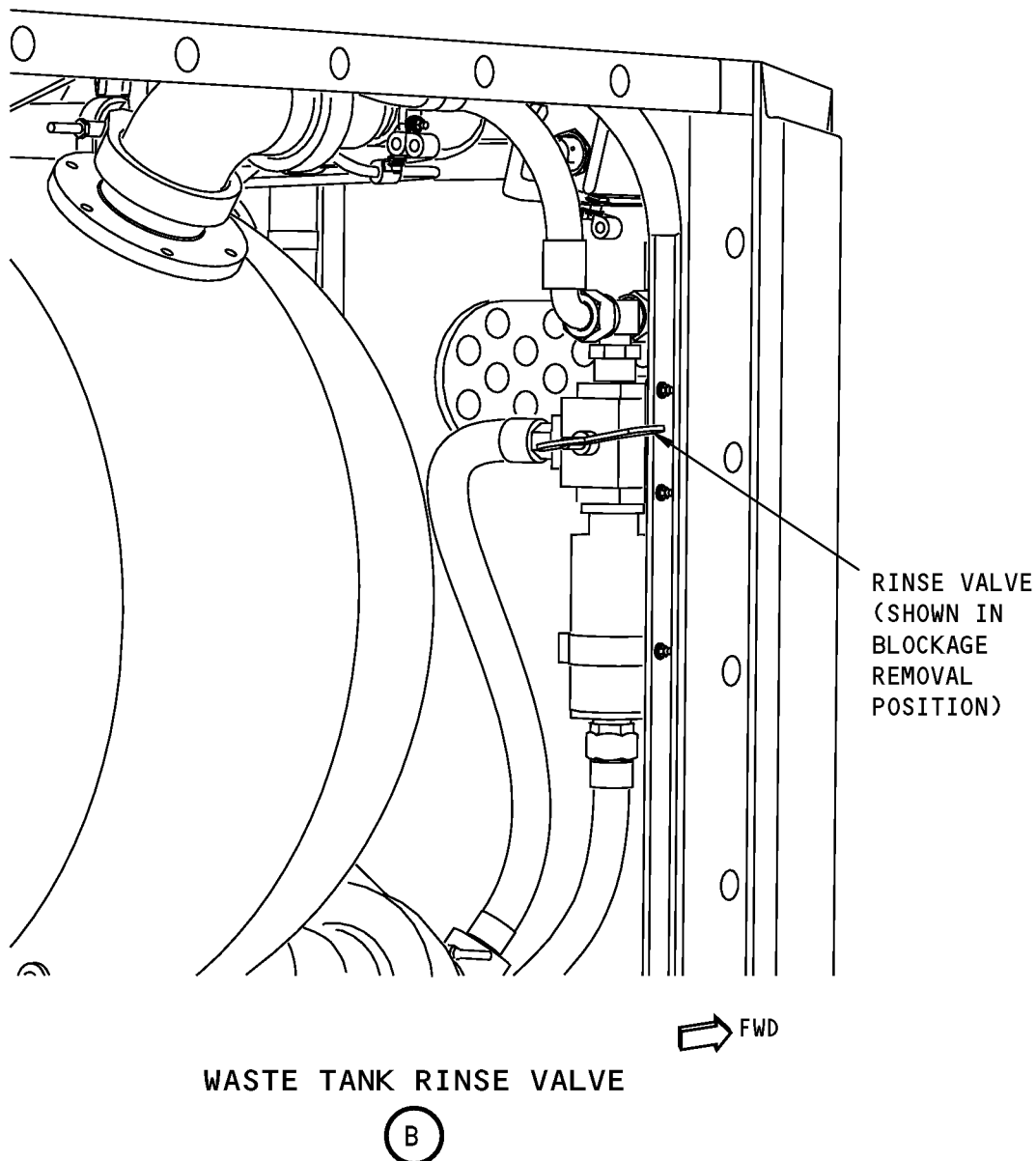
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Waste Line Blockage Removal
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TASK 38-32-00-160-804

11. Waste Drain Line Blockage Removal

(Figure 207)

A. General

- (1) This task is for a blockage that is between the waste tank and the waste drain valve assembly from outside the airplane. This task is an alternative to, do this task: Waste Tank Drain Line Blockage Removal, TASK 38-32-00-160-803.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
38-33-00-740-802	LCM BITE Test (P/B 501)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1950	Equipment - Removal, Vacuum Waste System Blockage (Part #: G38006-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-77	Air Source - Regulated, Dry Filtered, 0-50 psig
STD-1142	Equipment - Waste System Servicing

D. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
145AL	Waste Service Door

F. Procedure

SUBTASK 38-32-00-910-013

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-010-021

- (2) Open this access panel:

Number	Name/Location
145AL	Waste Service Door

SUBTASK 38-32-00-010-022

- (3) Open the cap on the waste drain valve assembly.

SUBTASK 38-32-00-480-008

- (4) Connect the vacuum waste system blockage removal equipment, SPL-1950 to the waste drain valve assembly.

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SUBTASK 38-32-00-480-009

- (5) Attach the waste drain hose from the waste system servicing equipment, STD-1142 to the vacuum waste system blockage removal equipment, SPL-1950.

SUBTASK 38-32-00-860-033

- (6) Make sure the hose clamp is in its position on the hose between the waste drain valve assembly and the waste drain hose.

SUBTASK 38-32-00-860-035

- (7) Push the PRESS TO OPEN lever on the waste drain valve assembly.

SUBTASK 38-32-00-860-036

- (8) Pull the handle at the waste service panel to open the waste drain ball valve.

SUBTASK 38-32-00-860-037

- (9) Make sure the air shutoff valve on the vacuum waste system blockage removal equipment, SPL-1950 is in the closed position.

SUBTASK 38-32-00-860-038

- (10) Attach an 0-50 psig dry filtered regulated air source, STD-77 to the vacuum waste system blockage removal equipment, SPL-1950.

SUBTASK 38-32-00-860-039

WARNING: MAKE SURE THE PRESSURE TO THE WASTE BLOCKAGE REMOVAL EQUIPMENT IS NOT MORE THAN 25 PSIG (170 KPA). IF THE PRESSURE IS MORE THAN 25 PSIG (170 KPA), INJURY TO PERSONS OR DAMAGE TO EQUIPMENT CAN OCCUR.

- (11) Make sure the pressure to the vacuum waste system blockage removal equipment, SPL-1950 is 0 to 25 PSIG (170 kPa).

SUBTASK 38-32-00-160-011

- (12) Open the air pressure valve of the vacuum waste system blockage removal equipment, SPL-1950 until the air flow is constant and the pressure does not increase or until the pressure drops, then close the air pressure valve.

SUBTASK 38-32-00-860-040

- (13) Remove the hose clamp between the waste drain valve assembly and the waste drain hose.

SUBTASK 38-32-00-710-015

- (14) Make sure the blockage is clear.

SUBTASK 38-32-00-610-013

- (15) If the blockage is clear, then continue.

- (a) If the blockage is not clear, do the blockage removal procedure again until the line is clear.

SUBTASK 38-32-00-080-008

- (16) Disconnect the waste drain hose from the vacuum waste system blockage removal equipment, SPL-1950.

SUBTASK 38-32-00-080-009

- (17) Disconnect the vacuum waste system blockage removal equipment, SPL-1950 from the waste drain valve assembly.

SUBTASK 38-32-00-610-014

- (18) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-610-015

- (19) To make sure the waste indication system is operational, do this task: LCM BITE Test, TASK 38-33-00-740-802.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-010-023

(1) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

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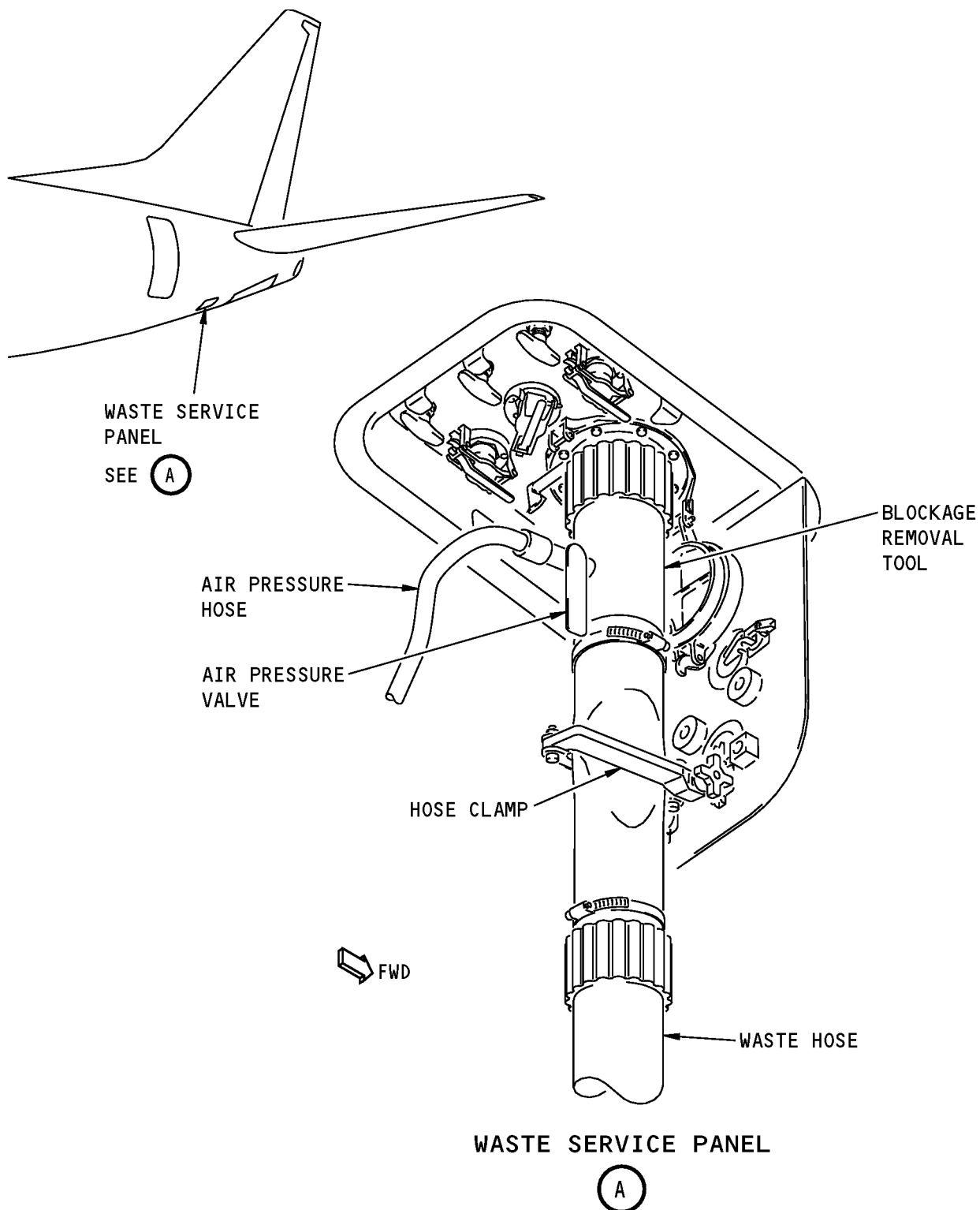
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Waste Blockage Removal Tool
Figure 207/38-32-00-990-821

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AIRCRAFT MAINTENANCE MANUAL

VACUUM WASTE SYSTEM - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) Removal of the vacuum waste tubes.
- (2) Installation of the vacuum waste tubes.

TASK 38-32-00-020-801

2. Vacuum Waste Tubes - Removal

A. General

- (1) This procedure has the steps to remove a vacuum waste tube section for replacement or maintenance.
- (2) Do this task if you can not remove a blockage in a tube by an in-situ procedure.
- (3) Do this task if it is necessary to remove a tube for access or for a replacement.

B. References

Reference	Title
05-51-57-000-801	Corrosion Removal After Acid Spills (P/B 201)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-32-00-990-804	Figure: Vacuum Waste System - Primary Routing (P/B 201)
53-11-37-990-804	Figure: Galley and Lavatory Areas (P/B 201)

C. Location Zones

Zone	Area
100	Lower Half of Fuselage

D. Prepare to Remove the Vacuum Waste Tube

SUBTASK 38-32-00-910-020

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-865-001

- (2) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-010-032

- (3) Get access to the waste tube to remove. See the figures that follow:

- Figure 38-32-00-990-804
- Figure 53-11-37-990-804
- Figure 401

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SUBTASK 38-32-00-030-002

- (4) If necessary, remove the shroud over the coupling as required.

E. Vacuum Waste Tube Removal

SUBTASK 38-32-00-030-003

- (1) To remove the clamshell coupling do these steps:

NOTE: Be prepared to catch unwanted fluid from the waste line.

- (a) Pull the latches up.
- (b) Remove the clamshell coupling from the flanges of the two ferrules and the sleeve.
- (c) Move the sleeve from the ferrules.
- (d) Pull the tubes apart.

NOTE: If necessary, loosen the support clamps on the adjacent waste lines.

- (e) Remove and discard the o-ring from each ferrule.

SUBTASK 38-32-00-020-007

- (2) Remove the tube.

NOTE: Be prepared to catch unwanted fluid from the waste line.

- (a) If necessary, do this task: Corrosion Removal After Acid Spills, TASK 05-51-57-000-801.

SUBTASK 38-32-00-620-001

- (3) Put a bag or cap on the ends of the tube that you remove to contain unwanted material.

SUBTASK 38-32-00-620-002

- (4) Put a bag or cap on the ends of the remaining tubing to contain unwanted material.

————— **END OF TASK** —————

TASK 38-32-00-420-802

3. Vacuum Waste Tubes - Installation

A. General

- (1) This procedure is used to install a vacuum waste tube section for replacement or after maintenance.
- (2) You can do this procedure if you must remove and install a waste tube because of these conditions:
 - If you can not remove a clog in a tube by an in-situ procedure (VACUUM WASTE SYSTEM - CLEANING/PAINTING, PGBLK 38-32-00-7).
 - If it is necessary to remove a tube for access or for replacement.

B. Consumable Materials

Reference	Description	Specification
B00316	Solvent - Aliphatic Naphtha (For Organic Coatings)	TT-N-95 Type I, ASTM D-3735 Type I
D00627 [P06-002]	Lubricant - White Petrolatum	VV-P-236
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5

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C. Location Zones

Zone	Area
100	Lower Half of Fuselage

D. Installation of the vacuum waste tube

SUBTASK 38-32-00-160-017

(1) Do these steps to clean the clamshell coupling:

- (a) Make sure that all the parts of the clamshell coupling are free of:
 - Cuts
 - Scratches
 - Dents
 - Distortions
 - Particles of unwanted material
- (b) Clean the areas that seal with a lint-free gauze cotton wiper, G00034, moist with solvent, B00316
- (c) Use a new, dry cotton wiper, G00034, to dry the sealing surfaces.
- (d) Clean the new o-ring with a clean, dry, lint-free gauze cotton wiper, G00034.

SUBTASK 38-32-00-420-007

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

(2) Install the clamshell coupling.

- (a) Apply a thin layer of lubricant, D00627 [P06-002] or MIL-L-4343 on the inner surface of the sleeve.
- (b) Install one new O-ring on each ferrule.
- (c) Make sure that the ends between two adjacent tubing flanges that connect at the clamshell coupling are 0.14 in. (3.56 mm) to 0.17 in. (4.32 mm) apart.
- (d) Move the sleeve to the center of the clamshell coupling.
- (e) Make sure the "S-tube" aligns with the adjacent tubing.
- (f) Push each latch down.
- (g) Make sure that each latch is on tight.
- (h) Visually examine the latches to make sure that they are at the same level.
- (i) Install the shroud on the coupling if necessary.

NOTE: The shroud is used at joints to give more leakage protection.

SUBTASK 38-32-00-420-006

(3) Install the clamp

- (a) Put the clamps onto the tubing.
- (b) Install the screws, washers, and nuts on the clamps.
- (c) Tighten the clamps.

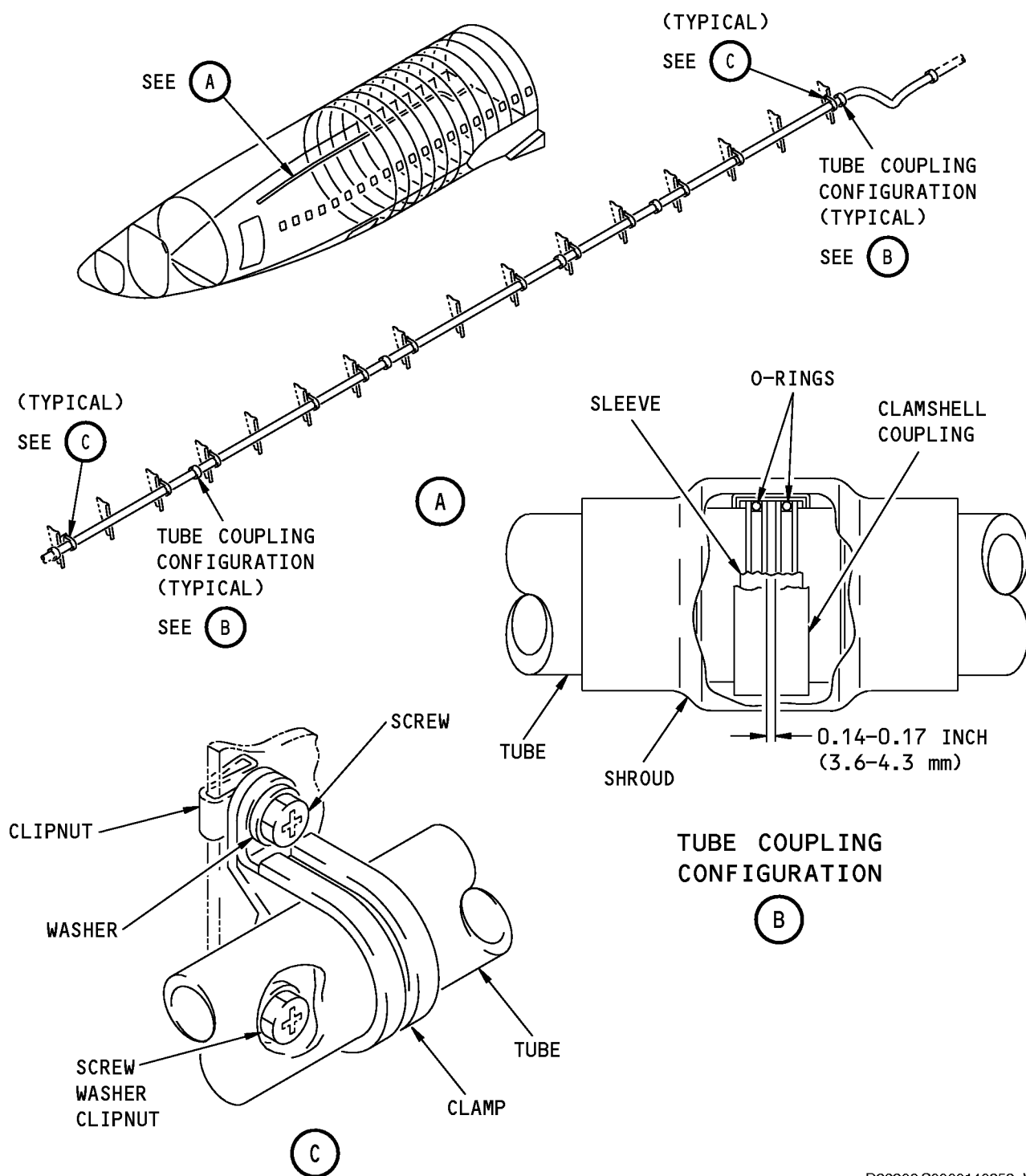
————— **END OF TASK** —————

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Vacuum Waste Tubes
Figure 401 (Sheet 1 of 2)/38-32-00-990-815

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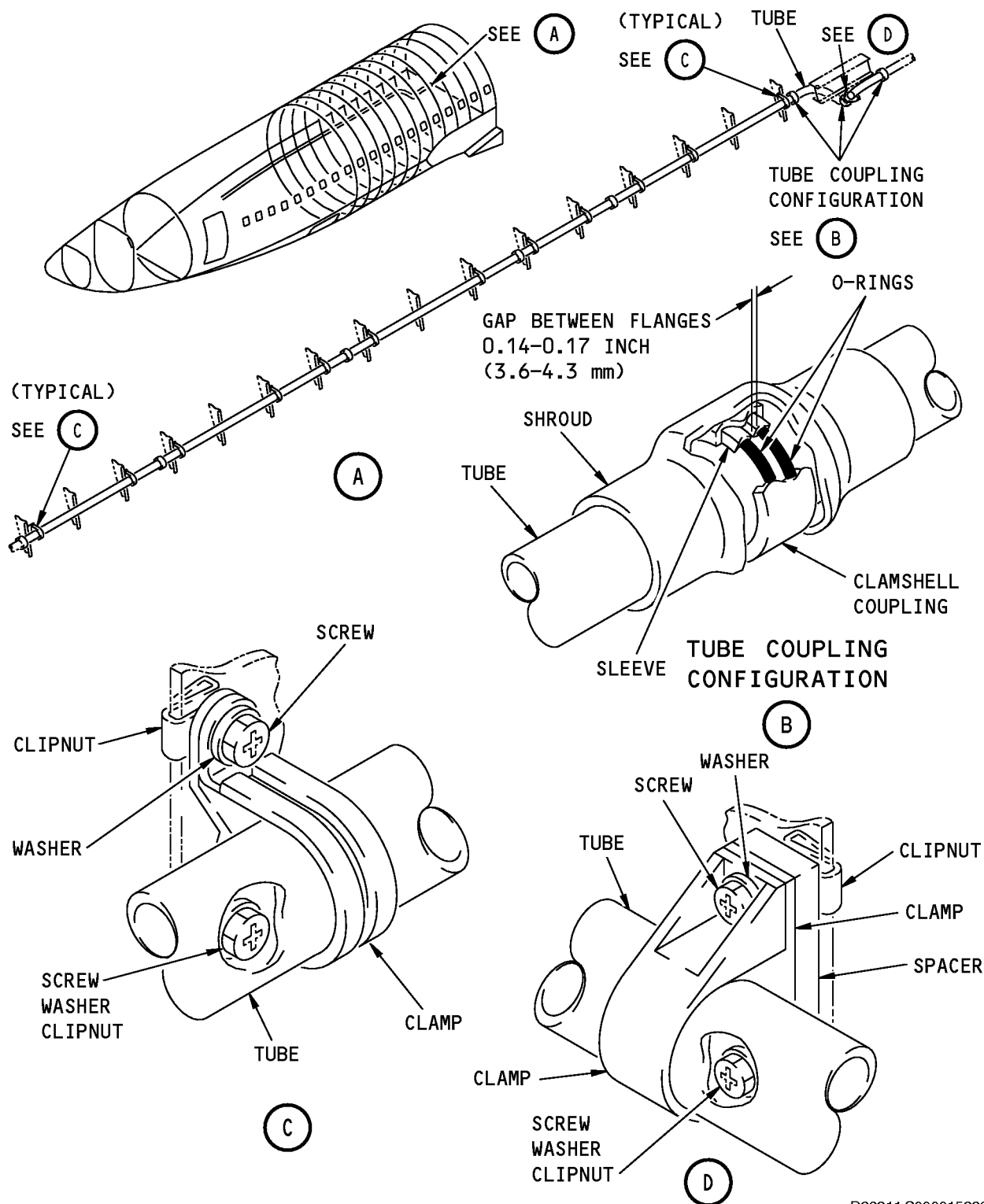
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Vacuum Waste Tubes
Figure 401 (Sheet 2 of 2)/38-32-00-990-815

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VACUUM WASTE SYSTEM - ADJUSTMENT/TEST

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A leak test for the vacuum waste system.
 - (2) A operational test of the toilet.
 - (3) A functional test of the waste drain system.

TASK 38-32-00-700-801

2. Vacuum Waste System - Leak Test

(Figure 501)

A. General

- (1) This procedure gives you the instructions you need to make sure the vacuum waste system does not have a leak.

B. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1942	Plugs - Vent, Vacuum Waste System (Part #: A38001-22, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38001-16, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
SPL-9132	Vacuum Pump (Part #: A38001-68, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-1134	Vacuum - Source, 24 Inch Hg Minimum

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
200	Upper Half of Fuselage

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

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F. Prepare for the test:

SUBTASK 38-32-00-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Make sure that these circuit breakers are open and have safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-010-001

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-00-010-002

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (3) To remove the sidewall panels to get access to the vacuum blowers, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-00-020-001

- (4) Disconnect the inlet and the outlet connections of the vacuum blower.

SUBTASK 38-32-00-480-001

- (5) Install the vent vacuum waste vent plug, SPL-1942 in the inlet and the outlet lines for the vacuum blower.

SUBTASK 38-32-00-480-002

- (6) Install the vent plug assembly in the overboard vent outlet for the vacuum blower.

SUBTASK 38-32-00-480-003

- (7) Connect the vacuum (24 Inch Hg Minimum), STD-1134 source or vacuum test equipment vacuum pump, SPL-9132 to the vent plug assembly.

G. Vacuum Waste System - Leak Test

SUBTASK 38-32-00-790-001

- (1) Supply a vacuum of 20 ± 1 inches of mercury (500 mm of mercury) to the vacuum waste system.

SUBTASK 38-32-00-790-002

- (2) Close the control valve at the vacuum source.

SUBTASK 38-32-00-790-003

- (3) Write down the initial pressure after you close the control valve.

SUBTASK 38-32-00-790-004

- (4) Write down the final pressure after 5 minutes.

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SUBTASK 38-32-00-790-005

- (5) Make sure the vacuum is between 10 and 20 inches of mercury (250 and 500 mm of mercury) after 5 minutes.

SUBTASK 38-32-00-790-006

- (6) Open the control valve at the vacuum source to bleed the vacuum.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-080-001

- (1) Disconnect the vacuum source from the vent plug assembly.

SUBTASK 38-32-00-080-002

- (2) Remove the vent plug assembly from the overboard vent outlet for the vacuum blower.

SUBTASK 38-32-00-080-003

- (3) Remove the vent plugs from the inlet and the outlet lines for the vacuum blower.

SUBTASK 38-32-00-420-001

- (4) Connect the inlet and the outlet connections of the vacuum blower.

SUBTASK 38-32-00-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (5) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-00-410-002

- (6) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-00-860-002

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (7) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

————— **END OF TASK** —————

TASK 38-32-00-700-802

3. Toilet - Operational Test

A. General

- (1) This procedure gives the instructions to test the vacuum waste system from the toilet.

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B. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
38-32-01-000-834-002	Toilet Shroud Removal (P/B 401)
38-32-01-400-834-002	Toilet Shroud Installation (P/B 401)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Prepare for the Test

SUBTASK 38-32-00-860-003

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-860-004

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-00-010-003

- (3) Get access to the lavatory for the toilet test.

SUBTASK 38-32-00-010-004

- (4) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

E. Toilet - Operational Test

SUBTASK 38-32-00-860-005

- (1) Make sure the potable water system is not empty.
- (a) If the potable water system is empty, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.
- (b) If the potable water system is not empty, then continue.

SUBTASK 38-32-00-710-001

- (2) Operate the toilet flush switch.

SUBTASK 38-32-00-790-007

- (3) Make sure the vacuum blower operates immediately.

SUBTASK 38-32-00-710-002

- (4) Make sure that water flows from all of the nozzles in the rinse ring of the toilet.

NOTE: The water must not come out of the toilet bowl as a mist.

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SUBTASK 38-32-00-710-003

- (5) Make sure the toilet flush valve opens to remove all of the water from the toilet bowl.

SUBTASK 38-32-00-710-004

- (6) Make sure the toilet flush valve closes after all of the water is removed.

NOTE: A partially open valve will cause air noise at the toilet when any toilet on the system is activated.

SUBTASK 38-32-00-710-005

- (7) Make sure the vacuum blower stops after approximately 15 seconds.

SUBTASK 38-32-00-410-003

- (8) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

SUBTASK 38-32-00-710-006

- (9) Do the Toilet - Operational Test again for the other toilets in the vacuum waste system.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-410-004

- (1) Close the access to the lavatory.

————— **END OF TASK** —————

TASK 38-32-00-700-803

4. Waste Drain System - Functional Test

(Figure 502)

A. General

- (1) This procedure gives the instructions to do a functional test of the waste drain system.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing
STD-3940	Air Source - Regulated, Dry Filtered, 0 to 150 psig

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

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F. Prepare for the Test

SUBTASK 38-32-00-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-00-010-005

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-00-010-006

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (3) To remove the waste tank enclosure panel, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-00-010-007

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

G. Waste Drain System - Functional Test

SUBTASK 38-32-00-860-006

- (1) Make sure the waste drain ball valve is closed.

SUBTASK 38-32-00-860-007

- (2) Make sure the service panel drain valve assembly is closed.

SUBTASK 38-32-00-010-008

- (3) Open and then connect the waste system servicing equipment, STD-1142 to the rinse port.

SUBTASK 38-32-00-480-004

- (4) Put the blockage removal valve in the blockage removal position.

SUBTASK 38-32-00-480-005

- (5) Connect the 0 to 150 psig dry filtered regulated air source, STD-3940 to the waste system servicing equipment, STD-1142.

SUBTASK 38-32-00-780-001

- (6) Supply pressure of 3.0 ± 0.5 psig (20.7 ± 3.4 kPa) to the waste drain system.

SUBTASK 38-32-00-780-002

- (7) Position Drain Line Blockage Removal Valve between the open and closed position.

NOTE: The Drain Line Blockage Removal Valve has a weep hole and will not hold pressure in the closed position. If you put the valve between the open and closed position, the valve will hold pressure.

SUBTASK 38-32-00-780-003

- (8) Write down the initial pressure after you close the control valve.

SUBTASK 38-32-00-780-004

- (9) Write down the final pressure after 5 minutes.

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SUBTASK 38-32-00-780-005

- (10) Make sure the pressure is between 2.5 and 3.5 psig (17.2 and 24.1 kPa) after 5 minutes.

SUBTASK 38-32-00-780-006

- (11) Open the control valve at the pressure source to bleed the pressure.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-080-004

- (1) Disconnect the air source from the waste system servicing equipment, STD-1142.

SUBTASK 38-32-00-080-005

- (2) Set the blockage removal valve to the normal position.

SUBTASK 38-32-00-410-005

- (3) Close the rinse port at the waste tank service panel.

SUBTASK 38-32-00-410-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (4) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-00-410-007

- (5) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-00-610-002

- (6) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-410-008

- (7) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— **END OF TASK** —————

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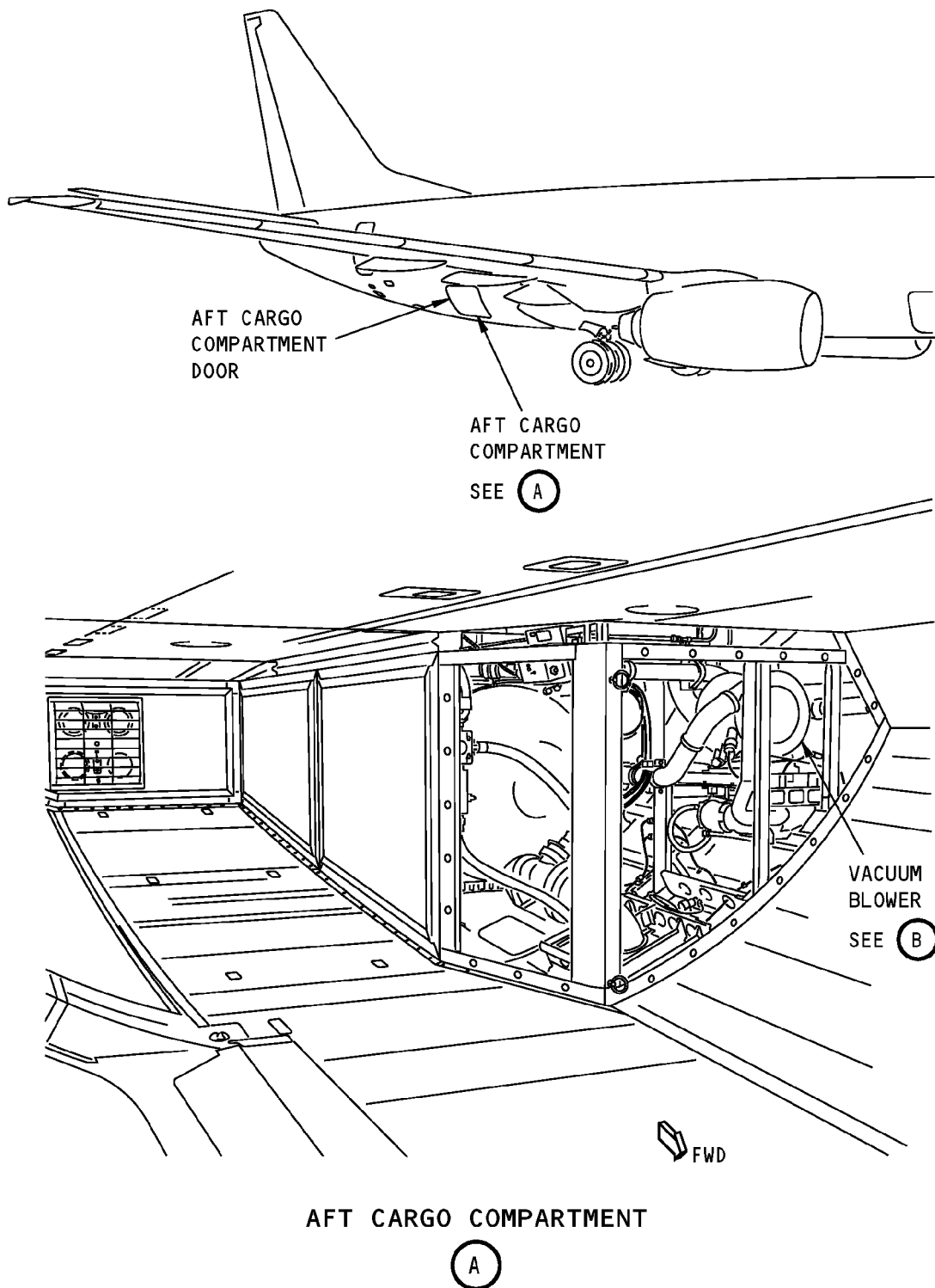
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Vacuum System - Leak Test
Figure 501 (Sheet 1 of 3)/38-32-00-990-801

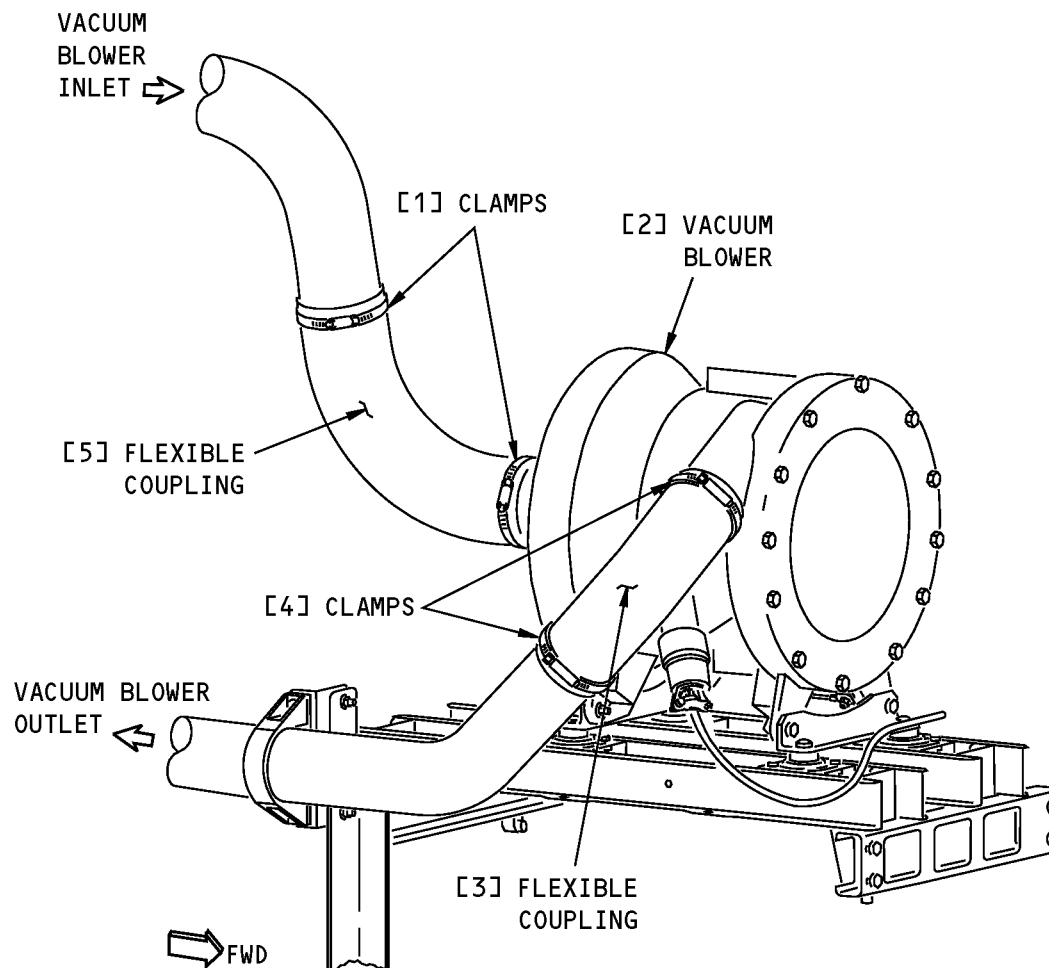
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VACUUM BLOWER

(B)

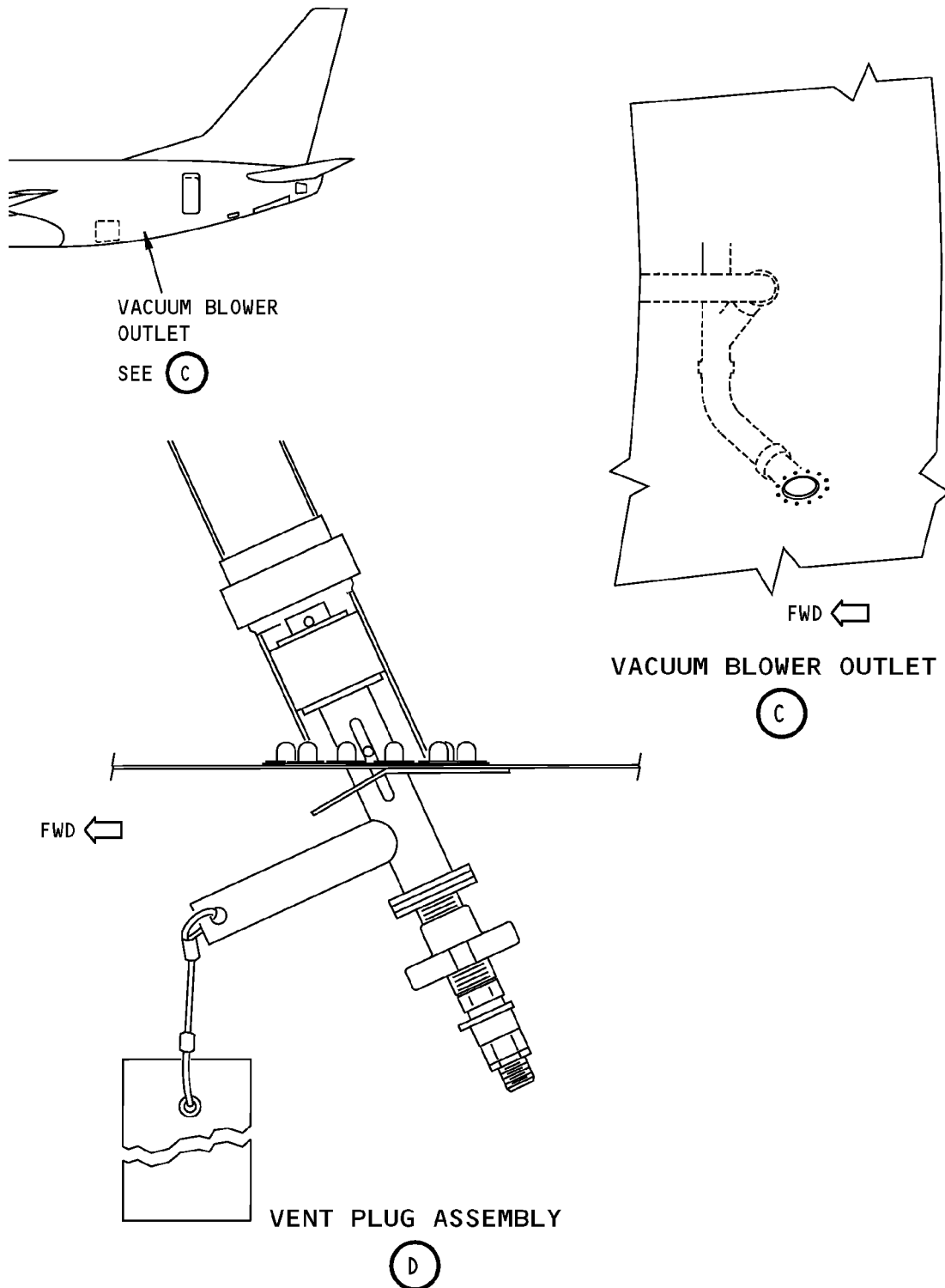
**Vacuum System - Leak Test
Figure 501 (Sheet 2 of 3)/38-32-00-990-801**

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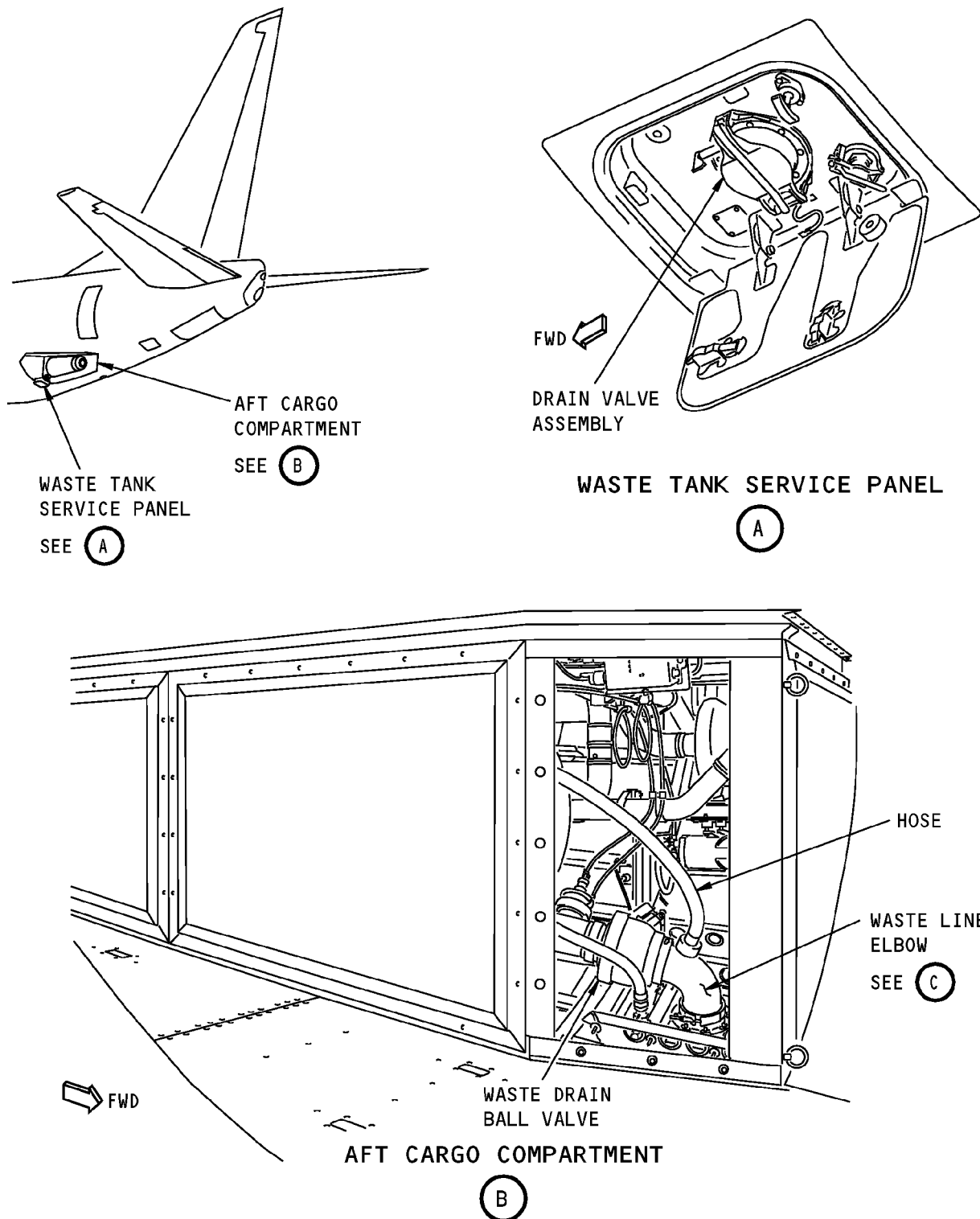
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Waste Drain System - Functional Test
Figure 502 (Sheet 1 of 2)/38-32-00-990-802

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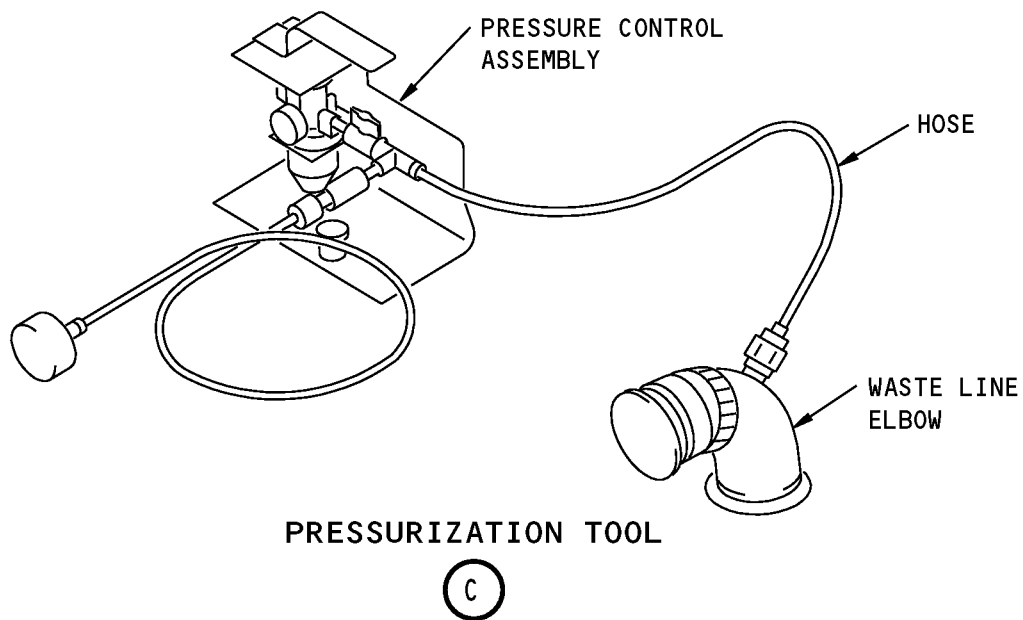
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VACUUM WASTE SYSTEM - CLEANING/PAINTING

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure gives the instructions to clean the vacuum waste tubes. Use this procedure to decrease the scale that collects in the vacuum waste tubes.
- C. One or more of these tasks may be used as required to keep the waste lines clean. Which task(s) are used and their frequency of application should be based on local conditions and operator experience.
- D. If there is excessive or quickly reoccurring scale buildup, check the operation of the toilet flush valves and make sure the valves are closing completely. A partially open valve can cause a drying effect in the tubes increasing the scale accumulation. A partially open valve will cause air noise at the toilet when any toilet on the system is activated.

E. This procedure has these tasks:

- (1) A periodic flush of the vacuum waste system.

NOTE: You use this procedure to keep the vacuum waste lines clean of the waste build-up. To get the maximum effect, you must frequently do this task.

- (2) A pressure washer cleaning of the vacuum waste lines.

NOTE: You use this procedure to clean the vacuum waste lines of the waste build-up. To get the maximum effect, you must use this procedure before you have frequent problems with the vacuum waste lines.

- (3) A pressure test procedure.

NOTE: This procedure is used before the Soak or Recirculate procedure to make sure that the waste lines will not leak.

- (4) A soak cleaning of the vacuum waste lines.

NOTE: You use this procedure to clean the vacuum waste lines of the waste build-up. To get the maximum effect, approximately 8 to 24 hours of soak time is needed to clean the vacuum waste lines.

- (5) A recirculate method of cleaning the vacuum waste lines.

NOTE: You use this procedure to clean the vacuum waste lines of the heavy waste build-up. To get the maximum effect, you must use this procedure before the waste lines are fully blocked.

TASK 38-32-00-100-801

2. Periodic Flush - Vacuum Waste System Cleaning

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

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C. Consumable Materials

Reference	Description	Specification
B00636	Acid, Acetic (Vinegar)	JAN-A-465
B00638	Cleaner - Acidic Liquid - Honey Bee 60 (McGean-Rohco)	
B50091	Cleaner - < 15% Glycolic Acid (Alph Hydroxy Acid Family)(Gly-Vak, Vendor Code: 18195)	

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Prepare for Cleaning

SUBTASK 38-32-00-010-009

- (1) Get access to the passenger compartment.

SUBTASK 38-32-00-610-003

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-610-021

- (3) Add approximately 20 gallons (75 liters) of water to the waste tank.

SUBTASK 38-32-00-860-008

- (4) Make sure that this circuit breaker is closed:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-00-860-009

- (5) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

F. Waste Line Cleaning

NOTE: Use one of the following methods to periodically clean the waste lines.

SUBTASK 38-32-00-170-001

- (1) Method I (Crushed Ice and Acid).

Do these steps for each toilet on the airplane, one toilet at a time:

CAUTION: DO NOT USE LARGE ICE CUBES AS AN ALTERNATIVE TO THE CRUSHED ICE. LARGE ICE CUBES CAN CAUSE DAMAGE TO THE POINT LEVEL SENSORS IN THE WASTE TANK.

- (a) Add approximately one-half gallon of ice approximately 1/2 to 3/4 inch maximum (1.5 cm to 2.0 cm maximum) to the toilet bowl.

NOTE: Keep the temperature of the ice at the coldest possible temperature.

WARNING: DO NOT GET THE TOILET SYSTEM CLEANER IN YOUR EYES OR ON YOUR SKIN. IF YOU DO, FLUSH YOUR EYES OR SKIN WITH WATER AND GET MEDICAL AID. IF YOU DRINK THE TOILET SYSTEM CLEANER, GET MEDICAL AID. THE TOILET SYSTEM CLEANER IS AN ACID AND CAN BURN YOU.

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(WARNING PRECEDES)

CAUTION: DO NOT GET THE TOILET SYSTEM CLEANER ON THE AIRPLANE STRUCTURE. THE TOILET SYSTEM CLEANER IS AN ACID AND CAN CAUSE DAMAGE TO THE AIRPLANE.

CAUTION: DO NOT KEEP THE TOILET SYSTEM CLEANER IN THE TOILET BOWL LONGER THAN IT IS NECESSARY. THE TOILET SYSTEM CLEANER IS AN ACID AND CAN CAUSE DAMAGE TO THE TOILET BOWL LINING.

- (b) Add approximately one-half gallon of the Honey Bee 60 cleaner, B00638 (recommended) or 5 to 10% acetic acid, B00636 (optional).
- (c) Flush the toilet to put the toilet system cleaner into the waste line.

NOTE: The longer you leave the toilet system cleaner in the waste line, the better the cleaning results.

- (d) Flush approximately 1 gal (4 l) of fresh water through the toilet to remove the toilet system cleaner from the toilet.
- (e) Let the toilet system cleaner stay in the waste lines as long as practical.

SUBTASK 38-32-00-170-010

- (2) Method II (Chemical Without Crushed Ice).

Do these steps for each toilet on the airplane, one toilet at a time:

WARNING: DO NOT GET THE TOILET SYSTEM CLEANER IN YOUR EYES, OR ON YOUR SKIN. FLUSH THE CLEANER FROM YOUR EYES AND SKIN WITH WATER. IF YOU DRINK THE TOILET SYSTEM CLEANER, GET MEDICAL AID. THE TOILET SYSTEM CLEANER IS AN ACID. IT CAN BURN YOU.

CAUTION: DO NOT GET THE TOILET SYSTEM CLEANER ON THE STRUCTURE OF THE AIRPLANE. THE TOILET SYSTEM CLEANER IS AN ACID. IT CAN CAUSE DAMAGE TO THE AIRPLANE.

- (a) Add approximately 1 qt (946 cc) of the vacuum toilet line cleaner, B50091 to the toilet bowl.

NOTE: The quantity of cleaner necessary to clean the vacuum toilet line changes with the length and condition of the line. The material manufacturer recommends 1 qt (946 cc). Operator experience shows that 1 qt (946 cc) is sufficient for short vacuum lines, but more than 1 qt (946 cc) is necessary for longer vacuum lines. The frequency of waste line cleaning and the quantity of vacuum toilet line cleaner, B50091 is established by the operator's experience.

- (b) Flush the toilet to put the toilet system cleaner into the waste line.
- (c) Flush the toilet to remove the toilet system cleaner from the toilet.
- (d) Let the toilet system cleaner stay in the waste lines as long as practical.

NOTE: The longer you leave the toilet system cleaner in the waste line, the better the cleaning results.

G. Return the Airplane to its Usual Condition

SUBTASK 38-32-00-610-004

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-32-00-862-001

- (2) Do the task Remove Electrical Power, TASK 24-22-00-860-812, if the electrical power is no longer necessary.

SUBTASK 38-32-00-410-009

- (3) Close the access to the passenger compartment.

————— END OF TASK —————

TASK 38-32-00-100-802

3. Pressure Washer Cleaning of the Vacuum Waste Lines

(Figure 701)

A. General

- (1) To clean the vacuum waste lines with the pressure washer, you must get access at one of these locations:
 - (a) In the lavatory with the toilet assembly removed when you do not open the toilet flush valve.
 - (b) At one of the cleanout ports in the forward cargo compartment with which the removal of the ceiling panel is necessary.
 - (c) In the lavatory, with the toilet flush valve open. When you use this procedure, the bends of the pressure washer hose will be more than if you remove the toilet.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
38-32-00-700-801	Vacuum Waste System - Leak Test (P/B 501)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-32-00-910-802	Waste Tube - Maintenance Practice (P/B 201)
38-32-01-000-834-002	Toilet Shroud Removal (P/B 401)
38-32-01-400-834-002	Toilet Shroud Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-419	Gloves - Rubber, Elbow Length
STD-1136	Mask - Face
STD-1137	Glasses - Safety
STD-1138	Tubing - Flexible, 1.5 Inch Outside Diameter
STD-1286	Equipment - Pressure Washer, Electric or Diesel Driven, 1500 PSIG to 2500 PSIG with Adjustable Output Pressure
STD-1287	Hose - Pressure Washer, 3/8 Inch I.D. 50 to 150 Foot Length
STD-1288	Nozzle - Rotating, for 3/8 Inch I.D. Hose (Self-Feeding Rotating Nozzle is Recommended)
STD-1289	Guide Spring - Nozzle, for 3/8 Inch I.D. Nozzle

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D. Consumable Materials

Reference	Description	Specification
B00637	Acid, Citric	A-A-59147
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	
G02315	Clothing - Disposable Gown, Gloves For Sewage Handling	

E. Location Zones

Zone	Area
200	Upper Half of Fuselage

F. Prepare for Cleaning

SUBTASK 38-32-00-010-010

- (1) Get access to the passenger compartment.

SUBTASK 38-32-00-010-011

- (2) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-910-001

- (3) For the work on the waste equipment, make sure you wear the items for your protection.

NOTE: These are items that you can wear to give you protection when it is necessary.

- (a) elbow length rubber gloves, STD-419
- (b) face mask, STD-1136
- (c) safety glasses, STD-1137
- (d) Disposable clothing, G02315

SUBTASK 38-32-00-610-005

- (4) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: After 5 minutes, drain the pre charge from the waste tank.

SUBTASK 38-32-00-860-010

- (5) Start this procedure at a toilet which is upstream of the vacuum waste line to be cleaned.

NOTE: Areas upstream of the bends have the most waste material build-up on the waste tube walls. For further reference, (TASK 38-32-00-910-802).

SUBTASK 38-32-00-160-001

- (6) If the toilet is full of waste, do these steps to remove the waste in the toilet bowl, if the waste system is serviceable:
 - (a) Install a length of 1.5 inch outside diameter flexible tubing, STD-1138 from a serviceable toilet to the blocked toilet.
 - (b) Flush the serviceable toilet to drain the toilet bowl of the blocked toilet.
 - (c) Make sure the toilet bowl is empty.
 - (d) If the toilet bowl is not empty, flush the serviceable toilet again.
 - (e) Remove the 1.5 inch outside diameter flexible tubing, STD-1138.

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SUBTASK 38-32-00-160-002

(7) Use one to three gallons of the disinfectant that follows:

NOTE: The disinfectant mixture is a solution of chlorine dioxide, citric acid, and water.

- (a) Mix the Chlorine dioxide (stabilized 2%) Purogene or Oxine compound, G00022 and citric acid, B00637 (crystals or powder) as follows:

WARNING: DO NOT BREATHE THE CHLORINE DIOXIDE GAS. WHEN THE TWO CHEMICALS ARE MIXED, CHLORINE DIOXIDE GAS IS PRODUCED WHICH CAN CAUSE INJURY TO PERSONS IF THEY BREATHE THE GAS.

- 1) Mix 20 fl-oz (0.6 l) of chlorine dioxide Purogene or Oxine compound, G00022 with 2 oz (57 g) of citric acid, B00637 (per gallon of solution needed) in a clean plastic container.
 - 2) Stop for 5 minutes (activation period).
 - 3) Use a clean instrument to mix the solution fully.
 - 4) Add 1 gal (4 l) of water to the solution.
- (b) Flush 1 gal (4 l) to 3 gal (11 l) of the disinfectant solution into the waste line.

NOTE: The quantity of solution necessary to disinfect the vacuum toilet line changes with the length and condition of the line. Operator experience shows that 1 gal (4 l) is sufficient for short vacuum lines, but more than 1 gal (4 l) is necessary for longer vacuum lines. The quantity of disinfectant necessary for a specific vacuum toilet line is established by the operator's experience.

SUBTASK 38-32-00-010-012

(8) To get access to the waste lines, do one of these steps:

- (a) To remove the toilet from the lavatory, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

NOTE: The toilet assembly removal is necessary to do this procedure from the passenger compartment when you do not open the toilet flush valve.

- (b) To get access and then remove the cap for the cleanout port, do the steps that follow:

NOTE: The removal of the ceiling lining panels is necessary to do this procedure.

- 1) Do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.
- 2) Remove the cap on the cleanout port.

- (c) ENVIROVAC TOILETS;

To open the flush valve of the toilet, do the steps that follow:

NOTE: If you open the flush valve, it is not necessary to do the toilet assembly removal. When you use this procedure, the bends of the hose will be more than if you remove the toilet.

- 1) Do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.
- 2) Get access to the power connector for the toilet assembly.
- 3) Push the toilet flush switch.
- 4) When the toilet flush valve is open, disconnect the power connector for the toilet assembly.

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SUBTASK 38-32-00-860-011

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (9) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-860-012

- (10) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-00-930-001

- (11) Make a mark on the pressure washer hose, STD-1287 at approximately 4 ft (1.2 m) from the rotating pressure washer nozzle, STD-1288 and guide spring nozzle, STD-1289.

NOTE: This location is for the removal of the hose from the waste tube to keep the pressurized water out of the work area.

G. Waste Line Cleaning

SUBTASK 38-32-00-170-002

- (1) Put the pressure washer hose, STD-1287, rotating pressure washer nozzle, STD-1288 and guide spring nozzle, STD-1289 of the pressure washer (1500 PSIG to 2500 PSIG), STD-1286 approximately 4 ft (1.2 m) into the waste line.

NOTE: The distance necessary for the nozzle to be put into the waste tube can be different for different manufacturers nozzles. The distance given is to make sure that no pressurized water goes into the work area during this operation.

SUBTASK 38-32-00-170-003

CAUTION: DO NOT USE A PRESSURE OF MORE THAN 2500 PSIG (17000 KPA) WHEN YOU OPERATE THE PRESSURE WASHER EQUIPMENT. MORE THAN 2500 PSIG (17000 KPA) CAN CAUSE DAMAGE TO THE WASTE SYSTEM EQUIPMENT.

- (2) Do the steps to operate the pressure washer (1500 PSIG to 2500 PSIG), STD-1286 as follows:
- (a) One person must operate the pressure washer (1500 PSIG to 2500 PSIG), STD-1286 at the area you use to get access.
 - (b) A second person is necessary at a different toilet to flush that toilet one time between 45 to 75 seconds.

NOTE: It is necessary to flush a toilet to operate the vacuum blower to move the fluids to the waste tank. You can monitor the tank level from the waste system gage on the aft attendant's panel. When the waste tank is full, the waste system automatically stops and the LAVS INOP light comes on. To prevent a fluid spill, you must stop the pressure washer when the waste system automatically stops. You must do the waste system servicing before you start the pressure washer after a full tank shutdown.

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- (c) If the movement of the pressure washer hose, STD-1287 is not easy, put a small quantity of non-foaming dish soap on the hose.

NOTE: This is to lubricate the pressure washer hose, STD-1287 in the waste line.

- (d) Turn on the water.

NOTE: If it is available, use hot water.

- (e) Turn on the pressure washer (1500 PSIG to 2500 PSIG), STD-1286.
- (f) Slowly put the pressure washer hose, STD-1287 of the pressure washer (1500 PSIG to 2500 PSIG), STD-1286 into the waste line in approximately 2 ft (61 cm) increments.
- (g) Move the hose forward and then back, 3 or 4 times for the maximum effect in each of the 2 ft (61 cm) sections.
- (h) When you put all the pressure washer hose, STD-1287 into the waste line or the pressure washer nozzle, STD-1288 is at the waste tank, remove the pressure washer hose, STD-1287.

NOTE: Clean the hose while you remove it to prevent contamination of the work area of the airplane.

- (i) When the mark on the pressure washer hose, STD-1287 is in the work area, turn the water off.
- (j) Remove the pressure washer hose, STD-1287, pressure washer nozzle, STD-1288 and guide spring nozzle, STD-1289.

SUBTASK 38-32-00-170-004

- (3) Stop the operation of the vacuum blower.

SUBTASK 38-32-00-170-005

- (4) Do this cleaning procedure again if it is necessary.

SUBTASK 38-32-00-170-006

- (5) Clean the work area.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-410-010

- (1) Do one of these steps to close the access:

- (a) If you removed the toilet from the lavatory, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.
- (b) If you removed the cap on the cleanout port, do the steps that follow:
 - 1) Install the cleanout plug.
 - 2) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.
- (c) ENVIROVAC TOILETS;

If you opened the flush valve of the toilet, do the steps that follow:

- 1) Connect the power connector for the toilet assembly.
- 2) Push the toilet flush switch.
- 3) Do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

SUBTASK 38-32-00-610-006

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-610-007

- (3) Do this task: Vacuum Waste System - Leak Test, TASK 38-32-00-700-801.

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SUBTASK 38-32-00-410-011

- (4) Close the access to the passenger compartment.

————— **END OF TASK** —————

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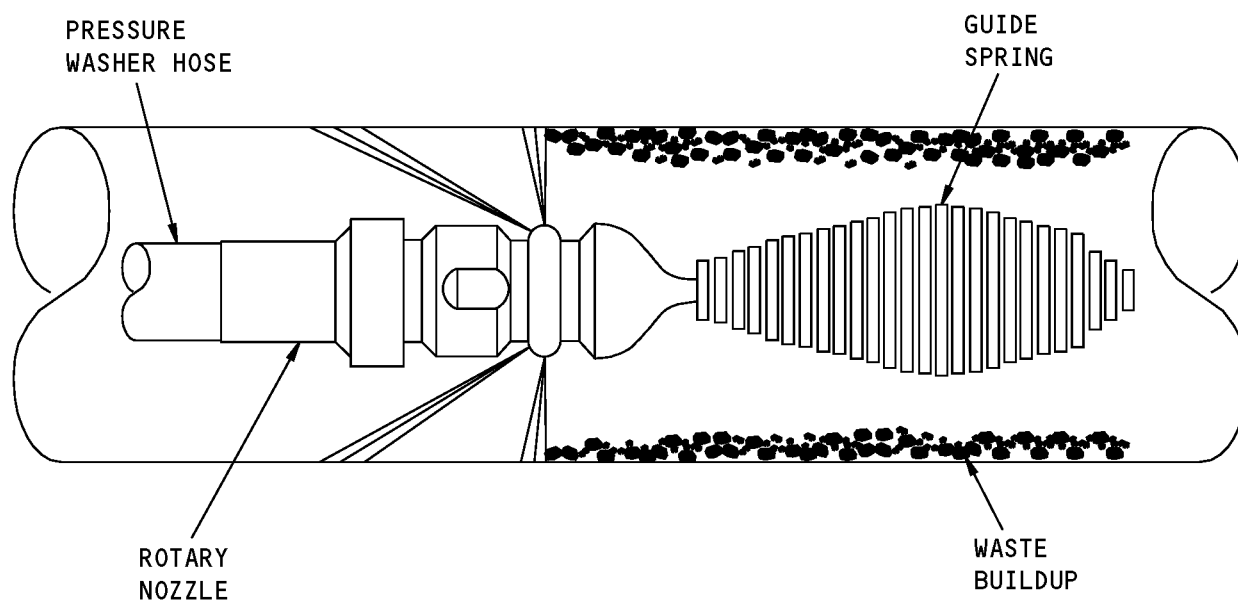
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Pressure Washer Cleaning
Figure 701/38-32-00-990-803

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TASK 38-32-00-100-803

4. Soak Method for Cleaning of the Vacuum Waste Lines

(Figure 702)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This procedure gives the instructions to clean the vacuum waste lines. Use this procedure to decrease the scale that collects in the vacuum waste lines.
- (3) To clean the vacuum waste lines using the soak method, you access at one of these locations:
 - (a) In the most forward lavatory for each vacuum waste line with the toilet assembly removed.
 - (b) At the last tube prior to the entry of the waste tank for each vacuum waste line to be cleaned with the appropriate sidewall or ceiling lining panel removed.

B. References

Reference	Title
05-51-57-000-801	Corrosion Removal After Acid Spills (P/B 201)
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-00-700-801	Vacuum Waste System - Leak Test (P/B 501)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-32-00-910-802	Waste Tube - Maintenance Practice (P/B 201)
38-32-01-000-838-002	Vacuum Toilet Assembly Removal (P/B 401)
38-32-01-400-838-002	Vacuum Toilet Assembly Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1953	Equipment - Pump, Static Soak, Vacuum Lav. System (Part #: A38012-39, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-31, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-77	Air Source - Regulated, Dry Filtered, 0-50 psig
STD-419	Gloves - Rubber, Elbow Length
STD-1056	Container - Solvent Resistant, 5 Gallon (19 Liters)
STD-1136	Mask - Face
STD-1137	Glasses - Safety
STD-1439	Container - Drum, 55 Gallon (208 Liters)
STD-3926	Water Source - Cold, Regulated, 0 to 60 PSIG
STD-6928	Coupler Sleeve - AS1654T32
STD-6930	Coupling - AS1655A32

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D. Consumable Materials

Reference	Description	Specification
B00046	Acid, Corrosion Removing, Metal Conditioning, Phosphoric	MIL-C-10578
B00636	Acid, Acetic (Vinegar)	JAN-A-465
B00637	Acid, Citric	A-A-59147
B00638	Cleaner - Acidic Liquid - Honey Bee 60 (McGean-Rohco)	
B01021	Cleaner - Drain (Enzyme) - Dispoz-All	
B01022	Cleaner - enzyme septic	
D00627 [P06-002]	Lubricant - White Petrolatum	VV-P-236
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	
G02315	Clothing - Disposable Gown, Gloves For Sewage Handling	

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
200	Upper Half of Fuselage

F. Prepare for Cleaning

SUBTASK 38-32-00-010-024

- (1) Get access to the passenger compartment.

SUBTASK 38-32-00-010-025

- (2) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-910-014

- (3) For the work on the waste equipment, make sure you wear these items for your protection.

NOTE: These are items that you can wear to give you protection when it is necessary.

- (a) elbow length rubber gloves, STD-419
- (b) face mask, STD-1136
- (c) safety glasses, STD-1137
- (d) disposable clothing, G02315

SUBTASK 38-32-00-610-017

- (4) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: After 5 minutes, drain the precharge from the waste tank.

SUBTASK 38-32-00-860-044

- (5) Start this procedure at the most forward toilet of the vacuum waste line to be cleaned.

NOTE: Areas upstream of the bends have the most waste material build-up on the waste tube walls. For the primary layout of the vacuum waste lines see this reference, (TASK 38-32-00-910-802).

SUBTASK 38-32-00-160-012

- (6) Use 1 gal (4 l) to 3 gal (11 l) of the disinfectant that follows:

NOTE: The disinfectant is a solution of chlorine, citric acid, and water.

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- (a) Flush the waste line with a chlorine mixture made of chlorine dioxide (stabilized 2%) Purogene or Oxine compound, G00022 and citric acid, B00637 (crystals or powder) as follows:

WARNING: DO NOT BREATHE THE CHLORINE DIOXIDE GAS. WHEN THE TWO CHEMICALS ARE MIXED, CHLORINE DIOXIDE GAS IS PRODUCED WHICH CAN CAUSE INJURY TO PERSONS IF THEY BREATHE THE GAS.

- 1) For each 1 gal (4 l) of disinfectant solution desired, mix 20 fl-oz (0.6 l) of chlorine dioxide Purogene or Oxine compound, G00022 with 2 fl-oz (0.06 l) of citric acid, B00637 in a plastic container.
- 2) Stop for 5 minutes (activation period).
- 3) Use a clean instrument to mix the solution fully.
- 4) Add water to make the desired quantity of solution.
- 5) Flush 1 gal (4 l) to 3 gal (11 l) of the disinfectant solution into the waste line.

NOTE: The quantity of solution necessary to disinfect the vacuum toilet line changes with the length and condition of the line. Operator experience shows that 1 gal (4 l) is sufficient for short vacuum lines, but more than 1 gal (4 l) is necessary for longer vacuum lines. The quantity of disinfectant necessary for a specific vacuum toilet line is established by the operator's experience.

SUBTASK 38-32-00-160-013

- (7) Do this task: Periodic Flush - Vacuum Waste System Cleaning, TASK 38-32-00-100-801.

- (a) Rinse the lines from the most forward toilet with approximately $\frac{1}{2}$ gal (2 l) of water.
- (b) Turn the water off to the toilet.
- (c) Flush the toilet without water at least three times.

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (d) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-010-026

- (8) To get access to the waste lines, do one of these steps:

- (a) To remove the waste tank enclosure, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (b) Disconnect the last waste tube [1] section before the waste tank inlet.

NOTE: This is the waste line section that will be temporarily replaced by the pump static soak pump equipment, SPL-1953 during the procedure. Ensure that the tool will fit in its place. If not, a section of waste line upstream will need to be chosen.

- 1) Remove the waste tube [1] from its installed position, and connect the assembled drain valve [3] and flexible hose [16] to the airplane vacuum waste line, using the sleeve, STD-6928 and coupling, STD-6930, as necessary.

NOTE: Remaining liquid can stay in the waste lines. Be prepared to collect and then discard all of the liquid.

- 2) Make sure that the drain valve [3] is closed. If the drain valve is open, the pressure test that follows will be bad.

- (c) For all lavatories on the waste line to be cleaned, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

NOTE: The toilet assembly removal is necessary to attach the tools for the pressure test and the drain/flush equipment.

G. Pressure Test Before Cleaning

SUBTASK 38-32-00-780-008

- (1) Do this task: Pressure Test Procedure, TASK 38-32-00-780-803.

NOTE: This test is necessary to make sure the waste lines are water tight. If the waste line is not water tight, a leak of the cleaner solution on the airplane structure can occur.

H. Waste Line Cleaning

SUBTASK 38-32-00-110-002

- (1) Prepare the chemical solution to soak the waste line with one of the chemical cleaners that follow:

NOTE: The quantity of the cleaner necessary for a waste line is 0.16 gallons for each linear foot (2.0 liters for each linear meter). Calculate the maximum quantity of the cleaner necessary for each line to prevent a spill when you fill the waste line.

- (a) Honey Bee 60 cleaner, B00638
- (b) 5 to 10% Acetic acid, B00636
- (c) 7% Phosphoric acid, B00046
- (d) Dispoz-All cleaner, B01021
- (e) enzyme septic cleaner, B01022

SUBTASK 38-32-00-170-007

- (2) Do these steps to fill the waste line with the cleaner solution:

- (a) Assemble the static soak pump equipment, SPL-1953

NOTE: This procedure is used to clean only one waste line at a time. Refer to Figure 702 (Sheet 5) for tool installation schematic.

- 1) At the forward most toilet waste connection [10], connect the flush plug assembly [18] and the air pressure assembly [8] (Figure 702 (Sheet 4)).

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- a) Do these steps if the coupling between the static soak pump equipment, SPL-1953 and the toilet waste connection [10] is male-male configuration Figure 702 (Sheet 5):

- < 1 > Make sure that all the parts of the clamshell coupling are clean.
- < 2 > Install the clamshell coupling
- < 3 > Apply a thin layer of lubricant, D00627 [P06-002] or MIL-L-4343 on the inner surface of the sleeve.
- < 4 > Install one new O-ring on each ferrule.
- < 5 > Make sure that the ends between two adjacent tubing flanges that connect at the clamshell coupling are 0.11 in. (2.79 mm) to 0.17 in. (4.32 mm) apart.
- < 6 > Move the sleeve to the center of the clamshell coupling.
- < 7 > Push each latch down.
- < 8 > Make sure that each latch is on tight.
- < 9 > Visually examine the latches to make sure that they are at the same level.

- 2) Connect the overflow hose [13] and shutoff valve [14] at the quick-disconnect [15].
- 3) Put the end of the overflow hose [13] in a solvent resistant container (5 gal)(19 Liters), STD-1056 [12] to contain all possible flow of the cleaner solution into the work area in the airplane.
- 4) Connect an air hose [11] to the brass nipple on the air pressure assembly [8].
- 5) In each lavatory between the most forward toilet and the waste tank, make sure a plug assembly [17] is installed in place of the toilet assembly.

NOTE: Make sure the bleed valve is closed on each plug assembly [17]

- 6) Make sure that the flexible hose [16] and drain valve [3] is connected to the waste line, at the clamp where the segment was removed Figure 702 (Sheet 2).
- 7) Connect one end of the supply hose [4] to the drain valve [3] at the quick-disconnect [2].
- 8) Open the drain valve [3].
- 9) Connect the other end of the supply hose [4] with the shutoff valves [5] and the quick-disconnects and connect to the drum pump [6] (Figure 702 (Sheet 3)).
- 10) Connect an air hose [7] to the air motor on the drum pump [6].
- 11) Place the drum pump [6] in a 55 gallon (208 liters) drum container, STD-1439 full of the cleaner solution (Figure 702 (Sheet 3)).

CAUTION: LEAKAGE OF CHEMICAL SOLUTIONS CAN CAUSE DAMAGE TO THE INTERIOR OF THE AIRCRAFT. A PERSON WITH EQUIPMENT TO PREVENT LEAKAGE (RAGS, ETC) MUST HAVE ACCESS TO EACH LAVATORY IN THE WASTE SYSTEM THAT YOU FILL. MAKE SURE THERE IS NO LEAKAGE OF THE CLEANER SOLUTION FROM THE WASTE SYSTEM INTO THE LAVATORY DURING THIS PROCEDURE.

- (b) Turn on the drum pump [6] to fill the waste lines with the cleaner solution slowly, to prevent leakage in the lavatories.

NOTE: When you smell some of the chemical solutions, they can cause persons to be offended while in the airplane. It can be necessary to supply temporary air removal equipment.

- 1) If you spill the cleaning solution, do this task: Corrosion Removal After Acid Spills, TASK 05-51-57-000-801.

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(c) Fill the waste line until you see the chemical solution in the overflow hose [13] at the lavatory end of the line.

(d) Stop the drum pump [6].

NOTE: The level of the solution in the waste system can decrease and then adjust after a short time.

(e) Slowly open each valve on the plug assemblies [17] at the lavatories between the most forward lavatory and the cargo compartment to bleed all the air out of the waste line.

(f) Continue to fill the waste line until you see the chemical solution in the overflow hose [13] at the most forward lavatory.

(g) Close the drain valve [3] on the waste line at the cargo compartment.

(h) Close all of the valves on the adapters but open the shutoff valve [14] at the most forward lavatory.

NOTE: The most forward point of the waste line must stay open to let all gases come out of the line. The open valve will prevent pressurization and leakage of the system.

(i) Make sure you put the overflow hose [13] in the most forward lavatory in the solvent resistant container (5 gal)(19 Liters), STD-1056 to prevent leakage into the airplane.

NOTE: It is necessary to empty the container before the cleaner solution flows into the work area in the airplane.

(j) Close the drain valve [3] in the aft cargo compartment , and then disconnect the supply hose [4].

(k) To soak one of the other waste lines, do these steps:

1) Connect the supply hose [4] to a different 2 inch adapter on the other waste line.

2) Connect the supply hose [4] to the other waste line.

NOTE: If you use more than one set of tools, other waste lines can be soaked at the same time.

3) Use these steps to fill the other waste line(s).

SUBTASK 38-32-00-170-008

(3) Let the cleaner solution stay in the waste line(s) for a minimum of 8 hours.

NOTE: To fully clean the waste line(s), more than 24 hours can be necessary to remove the heavy scale. The longer the cleaner is in the waste lines, the better the cleaning results. The length of time is established by the operator's experience.

NOTE: Gases are released during the chemical effect of the cleaner solution and the scale. Do a check of the container at regular times to prevent flow of the cleaner solution in the airplane.

I. Drain the Waste Line

SUBTASK 38-32-00-680-001

(1) Do these steps to drain the chemical solution from the system:

(a) Prepare to collect (for disposal) all of the chemical solution and water used to flush the system in the waste lines.

(b) Make sure you attach the supply hose [4] to the waste line to be drained.

(c) Connect the shutoff valve [19] to the drain end assembly [20] on the 55 gallon (208 liters) drum container, STD-1439 to hold used chemical solution.

(d) Open the drain valve [3] used to fill the waste line.

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- (e) Open the shutoff valve [19] in the hose at the container to drain the waste line.
- (f) Open the pressure regulator [9] valve installed on the most forward toilet to let the air into the waste line.
- (g) To flush the waste line, do the steps that follow:
 - 1) Connect a 0 to 60 PSIG regulated cold water source, STD-3926 to the pressure regulator [9].
 - 2) Flush the waste line with a minimum of 5 gal (19 l) of water for each toilet on the waste line.
 - 3) Connect an 0-50 psig dry filtered regulated air source, STD-77 to the pressure regulator [9].
 - 4) Dry the waste line with air flow (under 15 psi (103 kPa) for approximately 5 minutes.
- (h) Stop until the cleaner solution/water is fully drained from the waste line.
- (i) If it is necessary to drain other waste lines, do these steps again to drain waste lines.

SUBTASK 38-32-00-860-045

(2) Do these steps to remove the tools:

- (a) In the most forward lavatory, remove the air pressure assembly [8] and the flush plug assembly [18].
- (b) In each lavatory between the most forward toilet and the waste tank, remove the plug assemblies [17].
- (c) Do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.
- (d) Disconnect the drum pump [6] from the supply hose [4].

NOTE: Remaining liquid can stay in the waste lines. Be prepared to collect and then discard all of the liquid.
- (e) In the aft cargo compartment, disconnect the flexible hose [16] and drain valve [3] from the waste line, at the clamp where the segment was removed, .
- (f) Make sure all solid material is out of the waste line before you connect the waste line to the waste tank.

NOTE: Remaining solid material in the waste lines can cause blocked waste lines after you complete this procedure.
- (g) Put the waste tube in its installed position.
- (h) At the waste connection on the top of the waste tank, connect the first waste tube [1] to the waste tank inlet of the line that was cleaned.

NOTE: Repeat this procedure for each line to be cleaned.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-410-017

(1) Do these steps complete this task:

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (a) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-610-018

- (2) To push other solid material out of the waste system, do this task: Periodic Flush - Vacuum Waste System Cleaning, TASK 38-32-00-100-801.

SUBTASK 38-32-00-610-019

- (3) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-610-020

- (4) Do this task: Vacuum Waste System - Leak Test, TASK 38-32-00-700-801.

SUBTASK 38-32-00-860-051

- (5) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-00-410-018

- (6) Close the access to the passenger compartment.

SUBTASK 38-32-00-910-015

- (7) Obey the local authorities to discard the chemical solution.

————— **END OF TASK** —————

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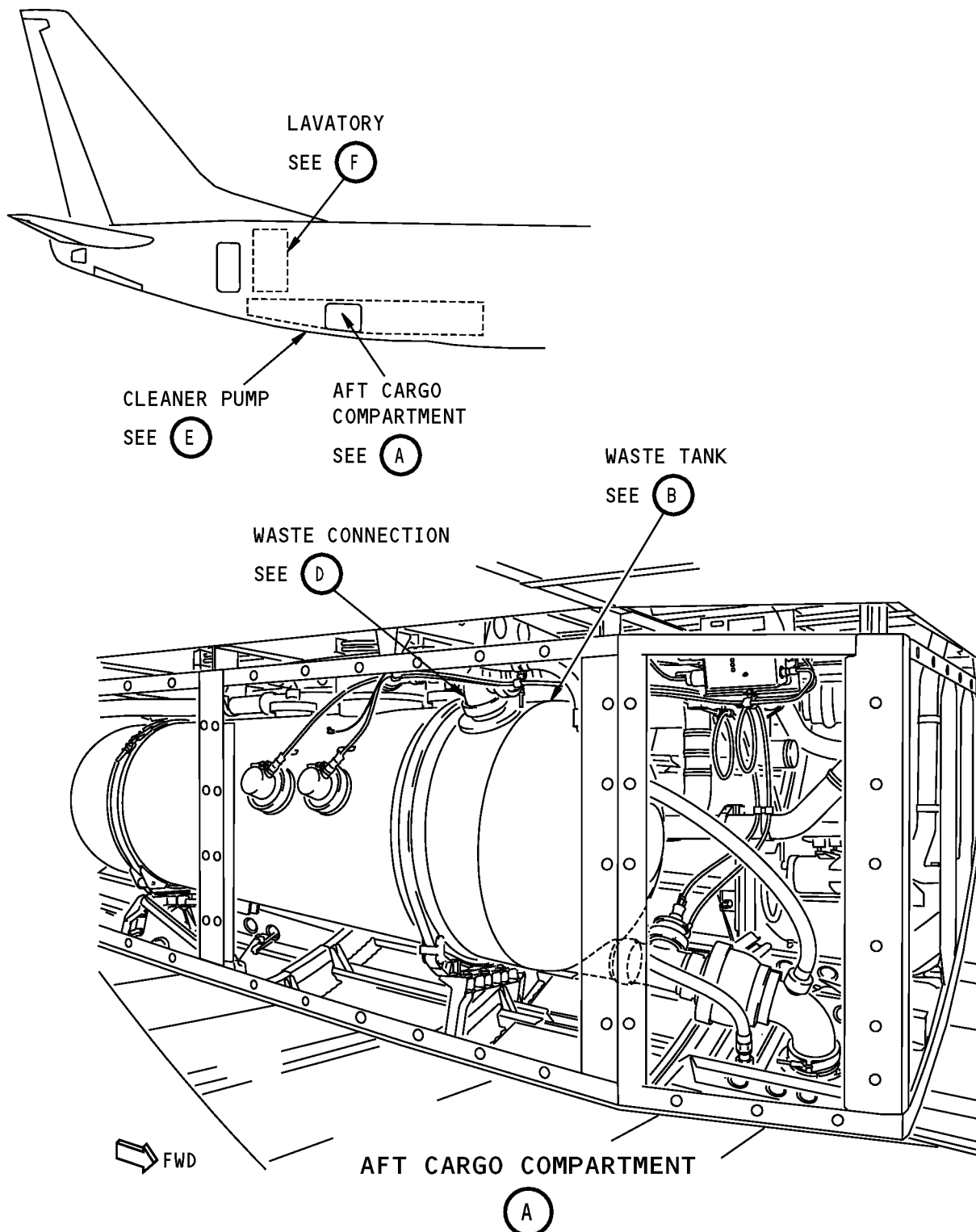
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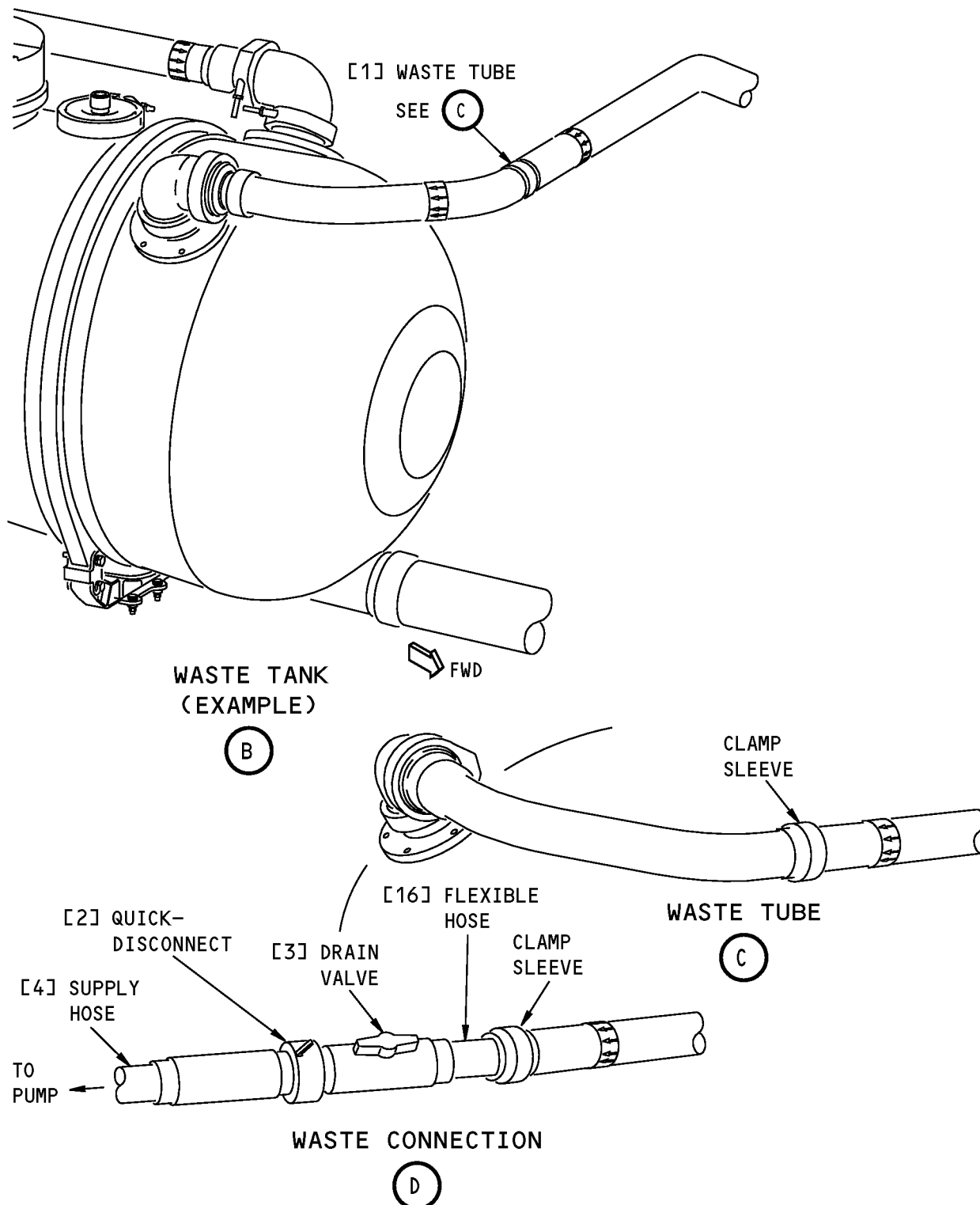
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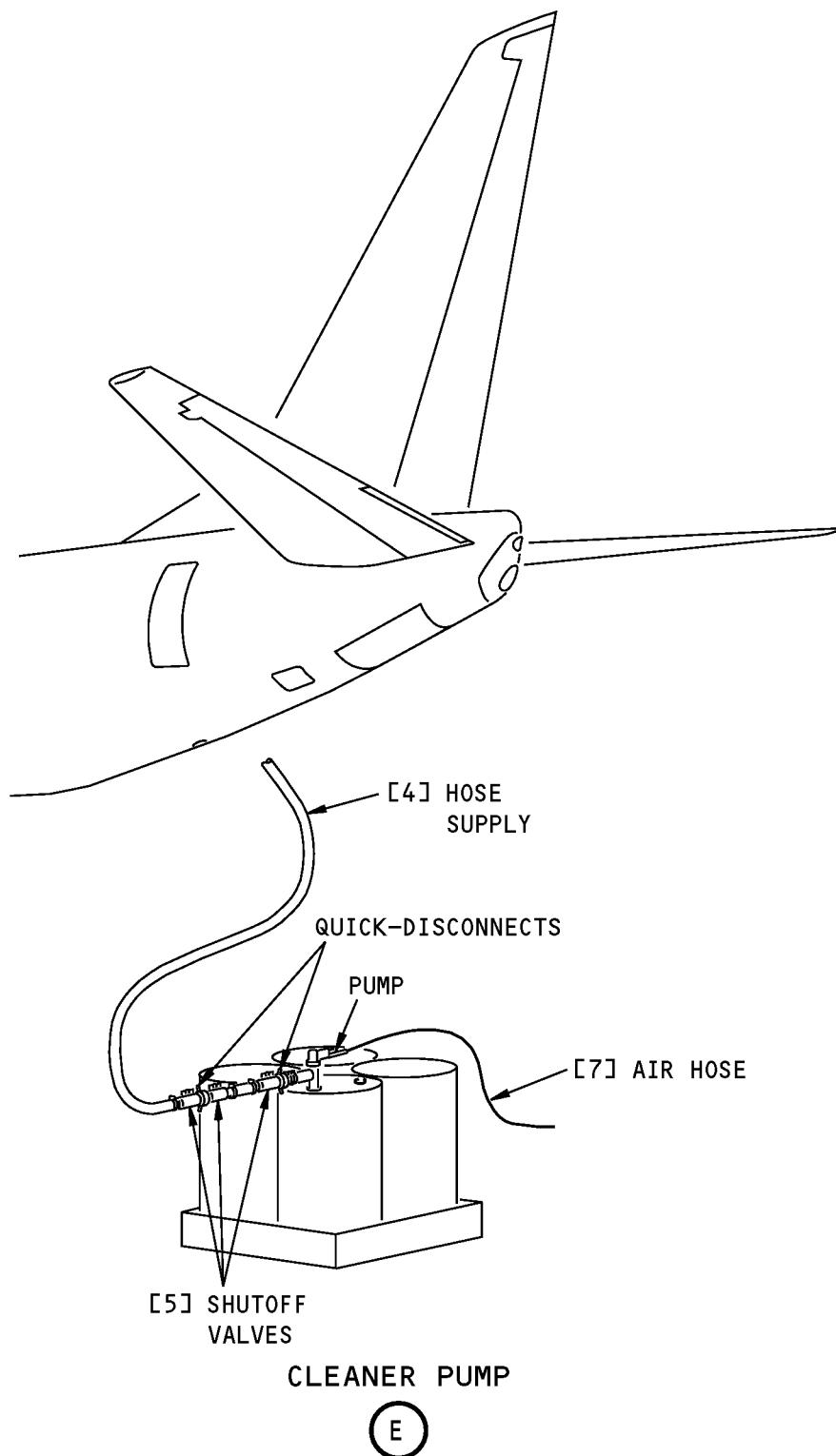
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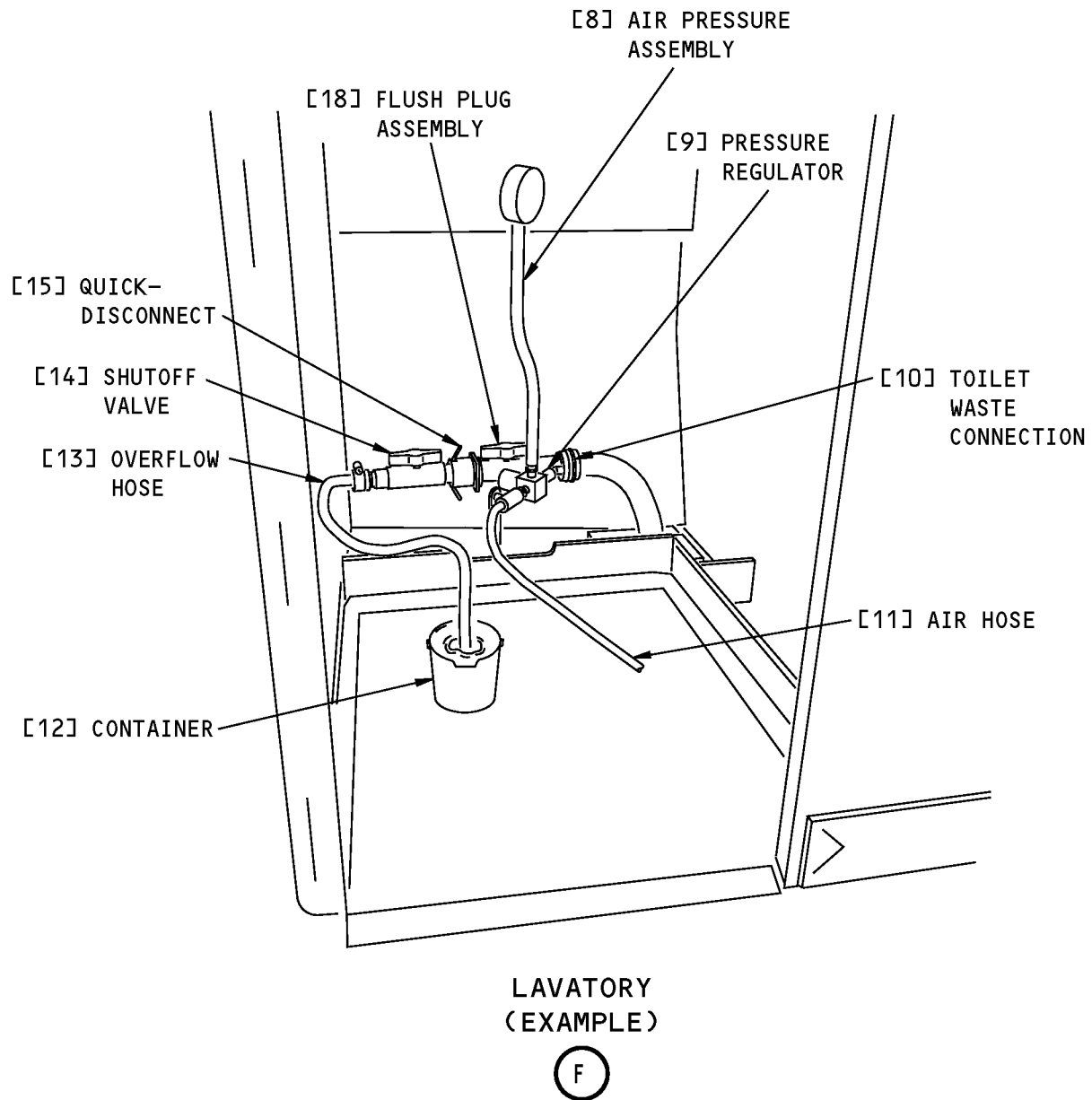
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**Soak Waste Line Cleaning
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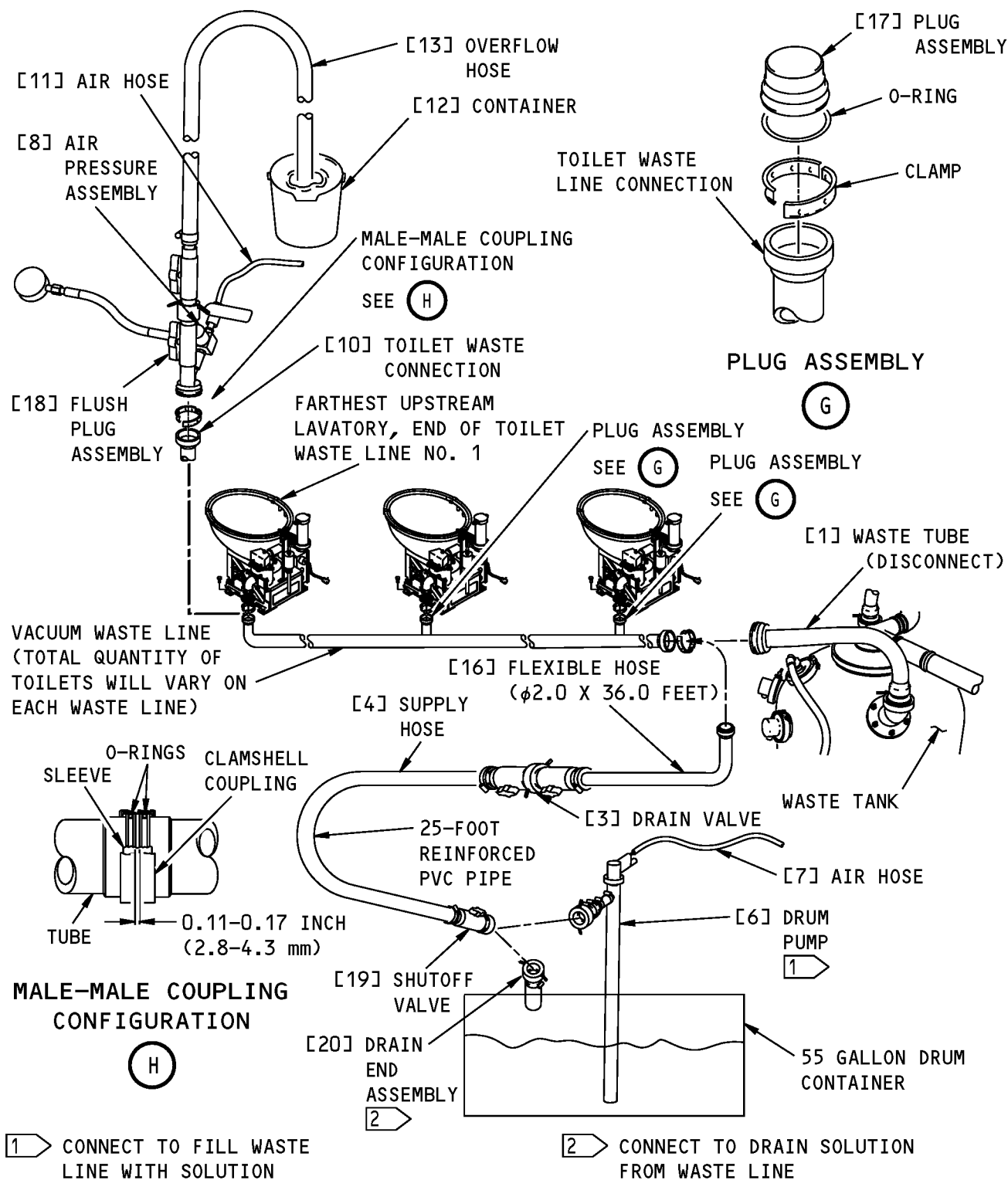
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TASK 38-32-00-110-801

5. Recirculate Method of Cleaning the Vacuum Waste Lines

(Figure 703)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This procedure gives the instructions to clean the vacuum waste tubes. Use this procedure to decrease the scale that collects in the vacuum waste tubes.
- (3) One set of tools can connect two waste lines and will allow separate cleaning of the toilet systems. Additional tool sets will allow the different toilet systems to be cleaned at the same time.
- (4) To clean the vacuum waste lines using the recirculate method, you must get access at these locations:
 - (a) In the lavatory with the toilet assembly removed.
 - (b) At the waste tube inlets to the waste tanks of the waste lines to be cleaned, where removal of the waste tank enclosure panel is necessary.

B. References

Reference	Title
05-51-57-000-801	Corrosion Removal After Acid Spills (P/B 201)
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-00-700-801	Vacuum Waste System - Leak Test (P/B 501)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-32-00-910-802	Waste Tube - Maintenance Practice (P/B 201)
38-32-01-000-838-002	Vacuum Toilet Assembly Removal (P/B 401)
38-32-01-400-838-002	Vacuum Toilet Assembly Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-4780	Equipment - Pump, Recirculating, Vacuum Lav. System (Part #: A38012-40, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-18, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-32, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-77	Air Source - Regulated, Dry Filtered, 0-50 psig
STD-419	Gloves - Rubber, Elbow Length
STD-1136	Mask - Face
STD-1137	Glasses - Safety
STD-3901	Container - Hydraulic Fluid Resistant, 50 Gallon (190 l)
STD-3910	Container - Plastic
STD-3926	Water Source - Cold, Regulated, 0 to 60 PSIG

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(Continued)

Reference	Description
STD-6928	Coupler Sleeve - AS1654T32
STD-6930	Coupling - AS1655A32

D. Consumable Materials

Reference	Description	Specification
B00046	Acid, Corrosion Removing, Metal Conditioning, Phosphoric	MIL-C-10578
B00636	Acid, Acetic (Vinegar)	JAN-A-465
B00637	Acid, Citric	A-A-59147
B00638	Cleaner - Acidic Liquid - Honey Bee 60 (McGean-Rohco)	
B01021	Cleaner - Drain (Enzyme) - Dispoz-All	
B01022	Cleaner - enzyme septic	
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	
G02315	Clothing - Disposable Gown, Gloves For Sewage Handling	

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
200	Upper Half of Fuselage

F. Prepare for Cleaning

SUBTASK 38-32-00-010-028

- (1) Get access to the passenger compartment.

SUBTASK 38-32-00-010-029

- (2) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-910-017

- (3) For the work on the waste equipment, make sure you wear these items for your protection.

NOTE: These are items that you can wear to give you protection when it is necessary.

- (a) elbow length rubber gloves, STD-419
- (b) face mask, STD-1136
- (c) safety glasses, STD-1137
- (d) Disposable clothing, G02315

SUBTASK 38-32-00-610-023

- (4) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: After 5 minutes, drain the precharge from the waste tank.

SUBTASK 38-32-00-860-047

- (5) Start this procedure at the toilet that is farthest upstream of the vacuum waste line to be cleaned.

NOTE: Areas near the bends have the most waste material build-up on the waste tube walls. For the primary layout of the vacuum waste lines, see this reference, (TASK 38-32-00-910-802).

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SUBTASK 38-32-00-160-014

- (6) Use one to three gallons (4 to 11 liters) of the disinfectant that follows:

NOTE: The disinfectant is a solution of chlorine dioxide, citric acid, and water.

- (a) Flush the waste line with a chlorine mixture made of chlorine dioxide (stabilized 2%) Purogene or Oxine compound, G00022 and citric acid, B00637 (crystals or powder), from the toilet farthest from the waste tank on the waste line being cleaned, as follows:

WARNING: DO NOT BREATHE THE CHLORINE DIOXIDE GAS. WHEN THE TWO CHEMICALS ARE MIXED, CHLORINE DIOXIDE GAS IS PRODUCED WHICH CAN CAUSE INJURY TO PERSONS IF THEY BREATHE THE GAS.

- 1) For each 1 gal (4 l) of final solution desired, mix 20 fl-oz (0.6 l) of chlorine dioxide Purogene or Oxine compound, G00022 with 2 oz (57 g) of citric acid, B00637 in a container, STD-3910.
- 2) Stop for 5 minutes (activation period).
- 3) Use a clean instrument to mix the solution fully.
- 4) Add water to make the desired quantity of solution.
- 5) Flush 1 gal (4 l) to 3 gal (11 l) of the disinfectant solution into the waste line.

NOTE: The quantity of solution necessary to disinfect the vacuum toilet line changes with the length and condition of the line. Operator experience shows that 1 gal (4 l) is sufficient for short vacuum lines, but more than 1 gal (4 l) is necessary for longer vacuum lines. The quantity of disinfectant necessary for a specific vacuum toilet line is established by the operator's experience.

SUBTASK 38-32-00-160-015

- (7) Do this task: Periodic Flush - Vacuum Waste System Cleaning, TASK 38-32-00-100-801.

- (a) Rinse the lines from the most forward toilet with approximately $\frac{1}{2}$ gal (2 l) of water.
- (b) Turn the water off to the toilet.
- (c) Flush the toilet without water at least three times.

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (d) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-010-030

- (8) To get access to the waste lines, do one of these steps:

- (a) To remove the waste tank enclosure, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (b) For both lines to be cleaned, disconnect the last sections of the waste tubes [21] before the waste tank inlet .

NOTE: This is the waste line section that will be temporarily replaced by the recirculating pump equipment, SPL-4780 during the procedure. Ensure that the tool will fit in its place. If not, a section of waste line upstream will need to be chosen.

- (c) Remove the waste tubes from their installed position, and connect the drain valve [23] to the airplane waste line, using the coupling, STD-6930 and sleeve, STD-6928, as necessary.

NOTE: Remaining liquid can stay in the waste lines. Be prepared to collect and then discard all of the liquid.

- (d) Close the drain valves [23].

NOTE: If the drain valves [23] are open, the pressure test that follows will be bad.

- (e) For all lavatories on the waste lines to be cleaned, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

NOTE: The toilet assembly removal is necessary to attach the tools for the pressure test and the drain/flush equipment.

SUBTASK 38-32-00-780-010

- (9) Do this task: Pressure Test Procedure, TASK 38-32-00-780-803.

G. Waste Line Cleaning

SUBTASK 38-32-00-840-001

- (1) Prepare the chemical solution to clean the waste line with one of the chemical cleaners that follows:

NOTE: The quantity of the cleaner necessary for a waste line is 0.16 gallons for each linear foot (2.0 liters for each linear meter). Calculate the maximum quantity of the cleaner necessary for each line to prevent a spill when you fill the waste line.

- (a) Honey Bee 60 cleaner, B00638
- (b) 5 to 10% Acetic acid, B00636
- (c) 7% Phosphoric acid, B00046
- (d) Dispoz-All cleaner, B01021
- (e) enzyme septic cleaner, B01022

SUBTASK 38-32-00-110-003

- (2) Do these steps to connect the recirculating pump equipment, SPL-4780 to fill the waste lines with the cleaner solution:

NOTE: This procedure is used to clean two waste lines simultaneously, designate a waste line #1 and a waste line #2 to help clarify tool usage. Refer to Figure 703 (Sheet 5) for a pump equipment installation schematic.

- (a) Connect one end of the supply hose [24] to the quick-disconnect [22] on the drain valve [23] near the waste tank.
- (b) Connect the other end of the supply hose [24] to the air pump [25] at the quick-disconnect [26].

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- (c) On the remaining line to be cleaned, connect one end of the drain hose [29] to the quick-disconnect [22] on the drain valve [23] near the waste tank.
- (d) Connect the other end of the drain hose [29] to the drain end assembly [39] and put the hose end into the 50 Gallon (190 l) hydraulic fluid resistant container, STD-3901 of solution.

NOTE: Put a sufficient amount of the Drain End Hose into the container so that it will not come out when the air pump [25] is turned on.

- (e) In each lavatory between the farthest upstream toilet and the waste tank make sure a flush plug assembly [38] is installed in place of the toilet assembly.
 - 1) Make sure the bleed valve on each plug assembly [38] is closed.
- (f) At the forward most lavatory of waste line #1 install the air pressure assembly [30] and the flush plug valve [32] on the toilet waste connection [31] (Figure 703 (Sheet 4)).
- (g) At the forward most lavatory of waste line #2, install the flush plug valve [32] at the toilet waste connection [36].
- (h) Connect the jumper hose valves [34] and jumper hose [35] at the quick-disconnects [33] to join the two waste lines.
- (i) Connect an air hose [37] to the brass nipple on the air pressure assembly [30].
- (j) Open all the valves on the hoses and on the drain valves [23].

CAUTION: CHEMICALS WILL BE HARMFUL TO INTERIOR OF AIRPLANE. A PERSON WITH SPILLAGE PREVENTION EQUIPMENT (RAGS, ETC) SHOULD HAVE ACCESS TO EACH LAVATORY CONNECTED TO THE EFFECTED SYSTEM DURING THIS SECTION OF THIS PROCEDURE TO MAKE SURE THAT THE CLEANING SOLUTION DOES NOT EXIT THE WASTE SYSTEM INTO THE AIRPLANE.

- (k) Put the air pump [25] intake into the container of solution and turn the pump on to fill the waste lines.

NOTE: It can take 3 to 4 minutes before the solution starts to come down the drain hose [29]. It can take more than an hour for all of the air to exit the lines.

- (l) Slowly open the bleed valve in the waste line plug assembly [38] in each of the lavatories to bleed air from the toilet waste lines
- (m) Close the bleed valve when you hear or see solution start to come through the valve.

SUBTASK 38-32-00-110-004

CAUTION: CHEMICALS WILL BE HARMFUL TO INTERIOR OF AIRCRAFT. A PERSON WITH SPILLAGE PREVENTION EQUIPMENT (RAGS, ETC) SHOULD PERIODICALLY INSPECT ALL LAVATORIES OF THE AFFECTED SYSTEM DURING THE SOAKING PERIOD OF THIS PROCEDURE TO MAKE SURE THAT THE CLEANING SOLUTION DOES NOT EXIT THE WASTE SYSTEM INTO THE AIRPLANE.

- (3) Let the cleaner solution circulate in the waste line(s) for as long as practical (a minimum of 8 hours is suggested).

NOTE: To fully clean the waste line(s), more than 24 hours can be necessary to remove the heavy scale. The longer you leave the cleaner in the waste lines, the better the results. The length of time is established by the operators experience.

- (a) If you spill the cleaning solution, do this task: Corrosion Removal After Acid Spills, TASK 05-51-57-000-801.

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SUBTASK 38-32-00-860-048

- (4) To get cleaner lines and to prevent blockage caused by scale material you can reverse the flow of the solution during the procedure.
 - (a) Turn off the air pump [25] and close the drain valves [23] on the lines near the tanks.
 - (b) Close the valves on the drain hose [29] and the supply hose [24] where they connect to the drain valves [23] near the tanks.
 - (c) Disconnect the supply hose [24] and the drain hose [29] from the drain valves [23] and reconnect them to the opposite drain valve [23] on the opposite waste line.
 - (d) Restart the air pump [25].

H. Drain the Waste Line

SUBTASK 38-32-00-840-002

- (1) Do these steps to drain the chemical solution from the system:
 - (a) Stop the air pump [25].
 - (b) Close the supply hose valve [40] and disconnect it from the air pump [25] at the quick-disconnect [26].
 - (c) Put the end of the supply hose [24] into the container and open the supply hose valve [40]. The solution will start to drain from the hose.
 - (d) To flush the waste line, do the steps that follow:
 - 1) Connect an 0-50 psig dry filtered regulated air source, STD-77 to the air pressure assembly [30] to force the solution out of the waste lines and into the container.
 - 2) Connect a 0 to 60 PSIG regulated cold water source, STD-3926 to the air pressure assembly [30] adapter in the farthest upstream lavatory
 - 3) Flush the waste line with a minimum of 5 gal (19 l) of water for each toilet on the waste line.
 - 4) Connect an 0-50 psig dry filtered regulated air source, STD-77 to the pressure adapter.
 - 5) Dry the waste line with air flow, under 15 psi (103 kPa), for approximately 5 minutes.
 - (e) Stop when the cleaning solution and flushing water is fully drained from the waste line.
 - (f) If it is necessary to drain other waste lines, do these steps again to drain waste lines.

SUBTASK 38-32-00-410-019

- (2) Do these steps to remove the recirculating pump equipment, SPL-4780:
 - (a) In the farthest upstream lavatory, remove the air pressure assembly [30] and jumper hose [35].
 - (b) In each lavatory between the farthest upstream toilet and the waste tank, remove the waste line plug assembly [38].
 - (c) Do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.
 - (d) Remove the drain valves [23] at the connection near the waste tanks for both lines that were cleaned.

NOTE: Remaining liquid can stay in the waste lines. Be prepared to collect and then discard all of the liquid.

- (e) Make sure all solid material is out of the waste line before you connect the waste line to the waste tank.

NOTE: Remaining solid material in the waste line can cause blocked waste lines after you complete this procedure.

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(f) Put the waste tubes [21] in their installed positions.

1) Connect the last section of the waste tubes [21] to the waste tank inlet.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-860-049

(1) Do these steps complete this task:

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

(a) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-00-170-009

(2) To push other solid material out of the waste system, do one of these procedures:

(a) Do this task: Periodic Flush - Vacuum Waste System Cleaning, TASK 38-32-00-100-801.

(b) Do this task: Pressure Washer Cleaning of the Vacuum Waste Lines, TASK 38-32-00-100-802.

SUBTASK 38-32-00-610-024

(3) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-00-610-025

(4) Do this task: Vacuum Waste System - Leak Test, TASK 38-32-00-700-801.

SUBTASK 38-32-00-860-050

(5) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801

SUBTASK 38-32-00-410-020

(6) Close the access to the passenger compartment.

SUBTASK 38-32-00-910-018

(7) Obey the local authorities to discard the chemical solution.

————— **END OF TASK** —————

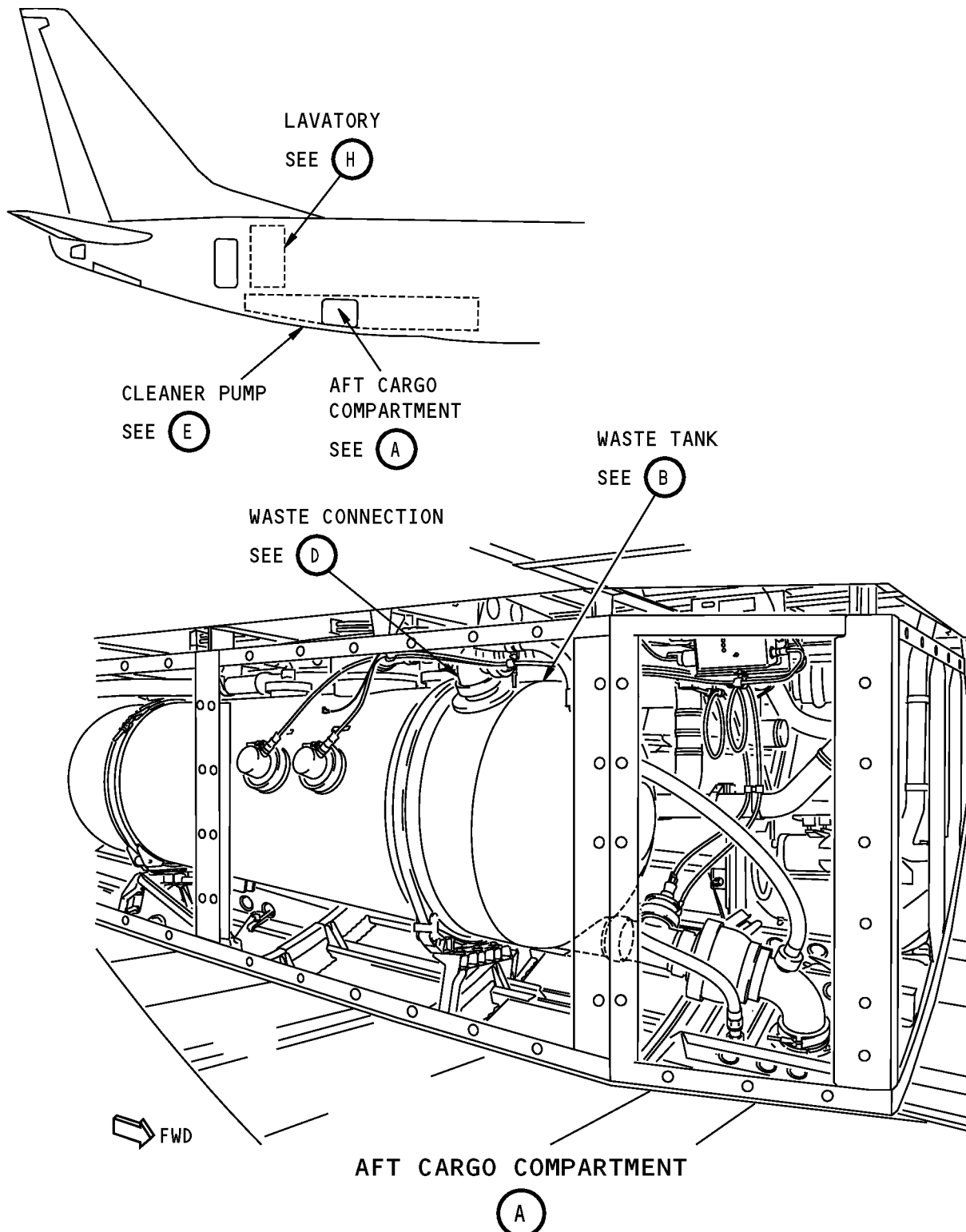
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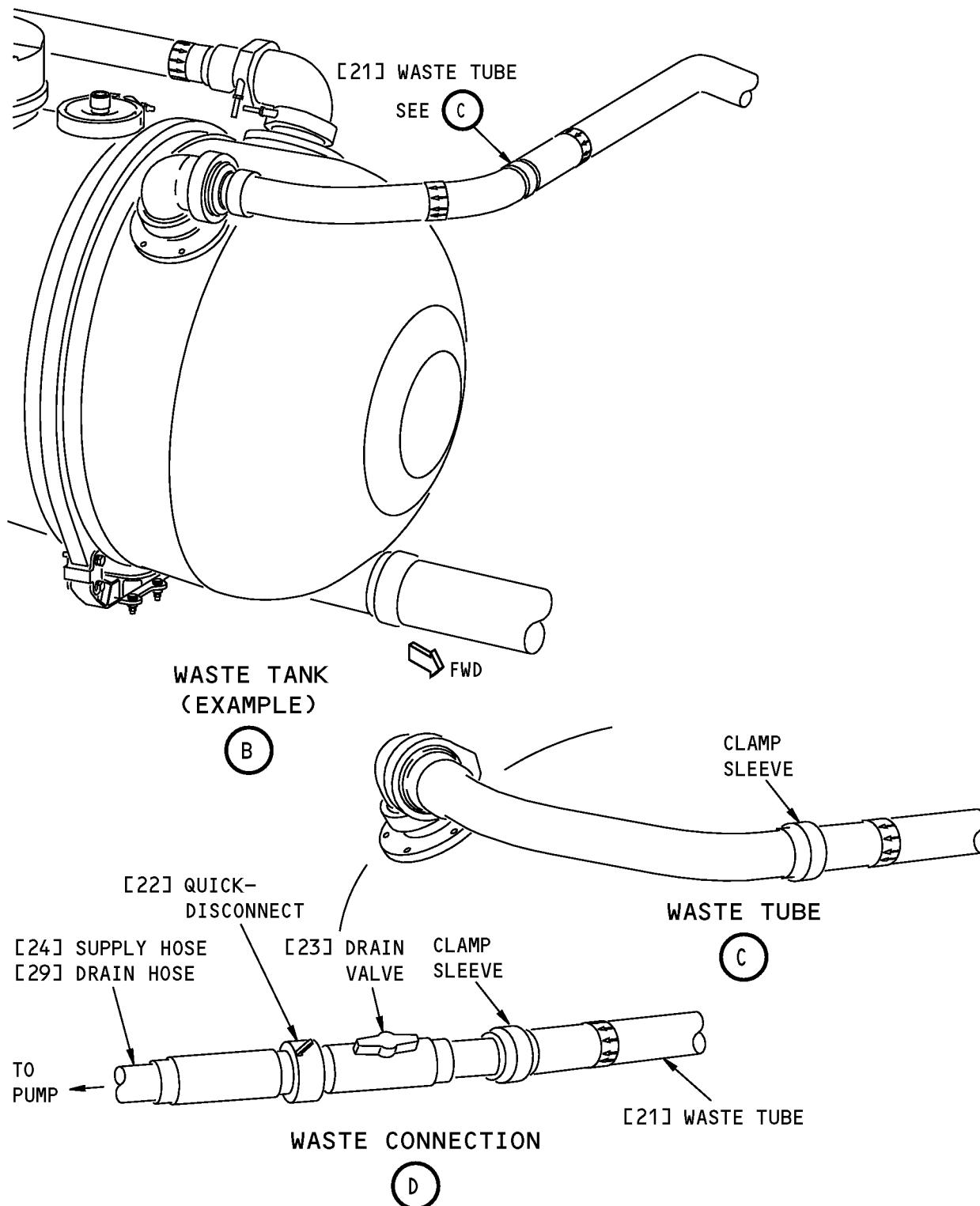
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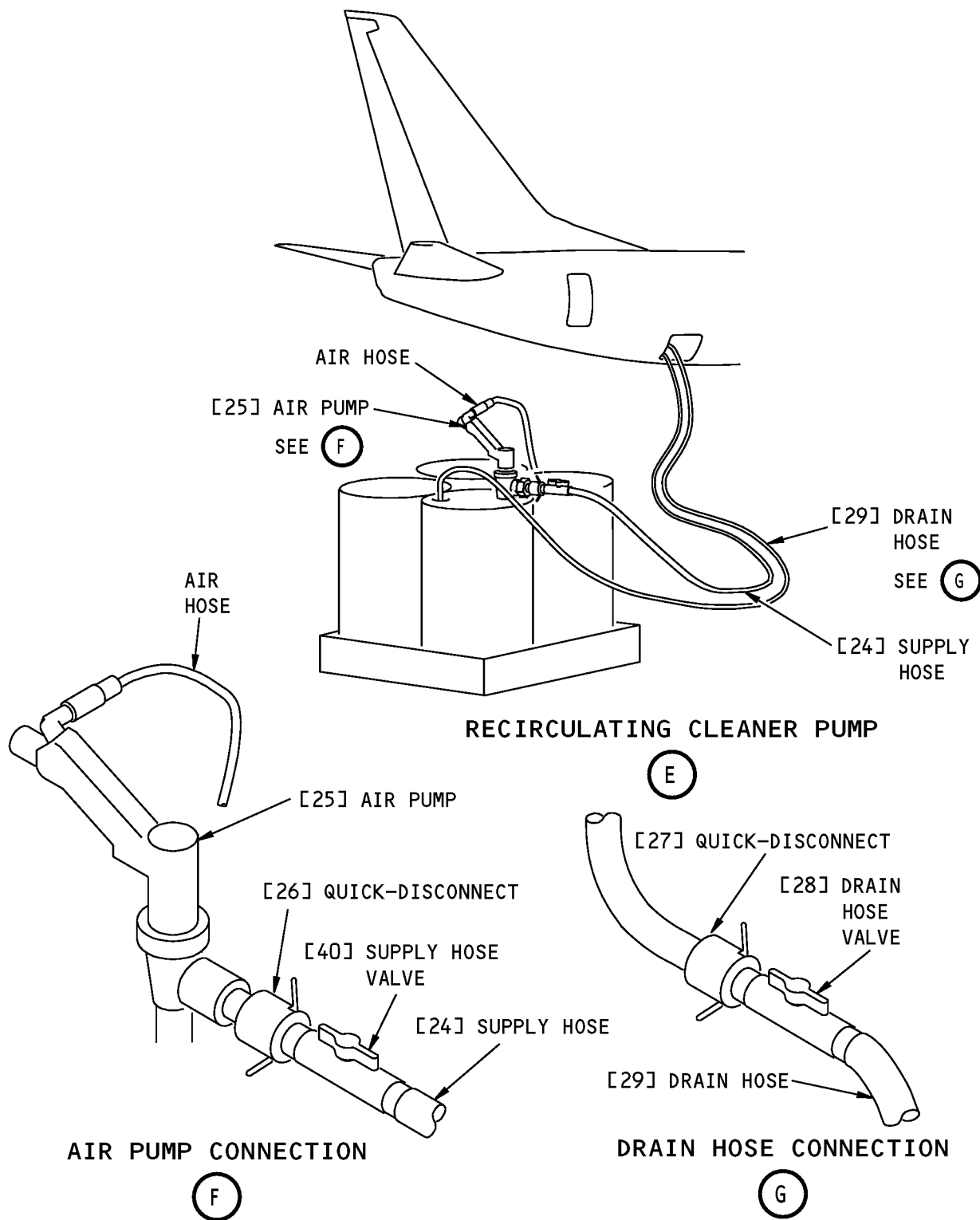
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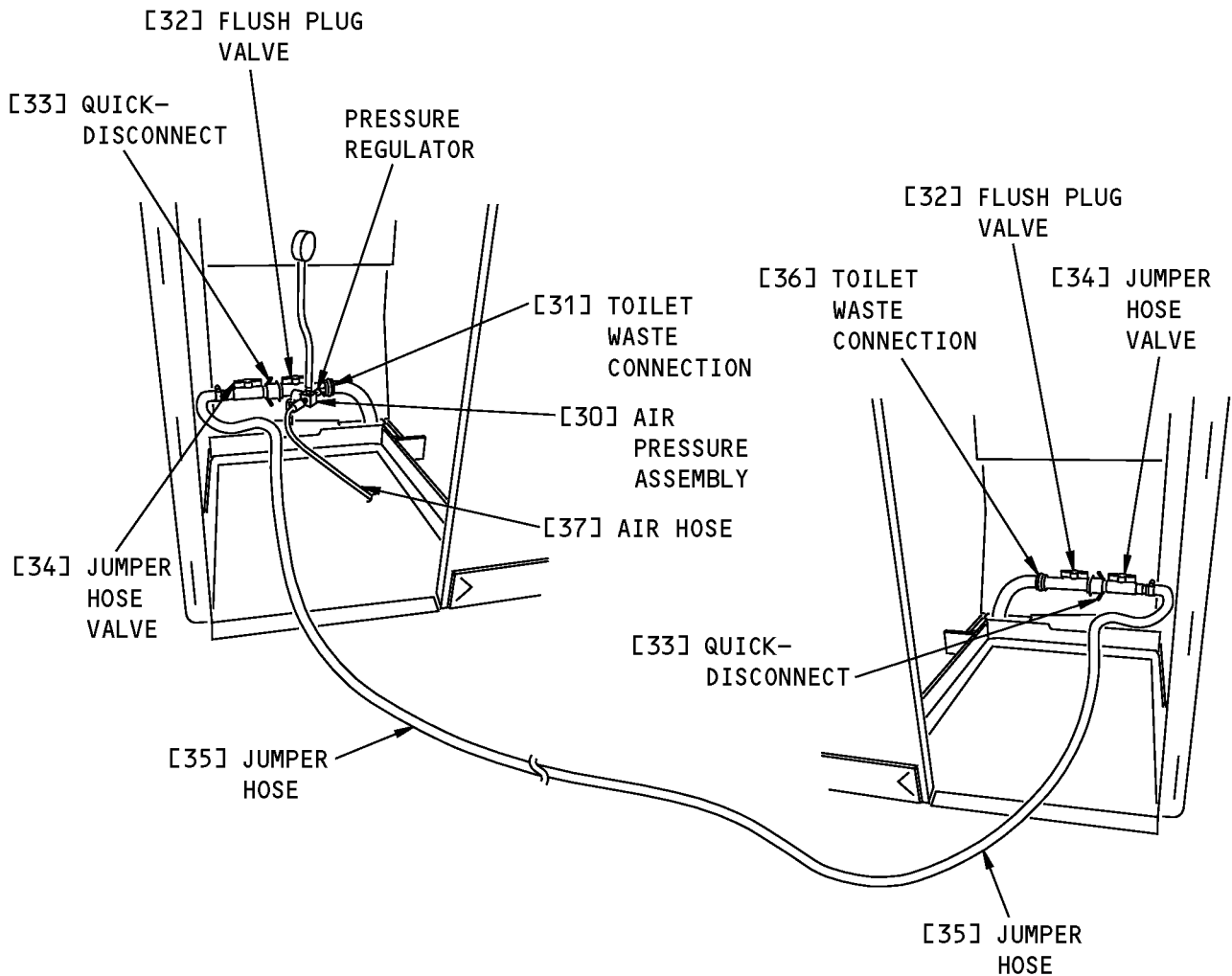
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LAVATORY
(EXAMPLE)

H

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The diagram illustrates the Waste Management System (WMS) with two waste lines, No. 1 and No. 2, connecting lavatories and toilets to a drum. The system includes various hoses, valves, quick-disconnects, and plug assemblies. A detailed view of the plug assembly is shown in a circle labeled 'I'.

Waste Line No. 1 Components:

- [31] TOILET WASTE CONNECTION
- [32] FLUSH PLUG VALVE
- [37] AIR HOSE
- [38] PLUG ASSEMBLY
- [40] SUPPLY HOSE VALVE
- [26] QUICK-DISCONNECT
- [25] AIR PUMP
- [24] SUPPLY HOSE
- [23] DRAIN VALVE
- [22] QUICK-DISCONNECT
- [21] WASTE TUBE (DISCONNECT)
- WASTE TANK

Waste Line No. 2 Components:

- [31] TOILET WASTE CONNECTION
- [32] FLUSH PLUG VALVE
- [37] AIR HOSE
- [38] PLUG ASSEMBLY
- [40] SUPPLY HOSE VALVE
- [26] QUICK-DISCONNECT
- [25] AIR PUMP
- [24] SUPPLY HOSE
- [23] DRAIN VALVE
- [22] QUICK-DISCONNECT
- [21] WASTE TUBE (DISCONNECT)
- WASTE TANK

Drum Components:

- [29] DRAIN HOSE
- [28] DRAIN HOSE VALVE
- [27] QUICK-DISCONNECT
- [39] DRAIN END ASSEMBLY

Plug Assembly Detail (I):

- [38] PLUG ASSEMBLY
- O-RING
- CLAMP
- VACUUM WASTE TUBE

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TASK 38-32-00-780-803

6. Pressure Test Procedure

(Figure 704)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This procedure is used before the Soak or Recirculate procedures to make sure that the waste lines will not leak.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1953	Equipment - Pump, Static Soak, Vacuum Lav. System (Part #: A38012-39, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-31, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
SPL-4780	Equipment - Pump, Recirculating, Vacuum Lav. System (Part #: A38012-40, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-18, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ) (Opt Part #: A38012-32, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-77	Air Source - Regulated, Dry Filtered, 0-50 psig

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
200	Upper Half of Fuselage

E. Prepare for Pressurization

SUBTASK 38-32-00-010-031

- (1) Get access to the passenger compartment.

SUBTASK 38-32-00-910-019

- (2) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-00-610-026

- (3) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: After 5 minutes, drain the precharge from the waste tank.

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SUBTASK 38-32-00-780-011

- (4) Do a pressure decay check for each waste line to be cleaned as follows:

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (a) In the farthest upstream lavatory of the waste line, install a Flush Plug and an Air Pressure Assembly from the static soak pump equipment, SPL-1953.
- (b) If you want to test more than one line at the same time, install a Flush Plug in the furthest upstream lavatory of another waste line and connect the lavatories with the Jumper Hose from the recirculating pump equipment, SPL-4780. Additional Jumper hoses must be added for distances over ten feet.

NOTE: Make sure the valves on the Flush Plugs and Jumper Hose are open.

- (c) At the end of the waste line in each lavatory between the most upstream toilet and the waste tank, install a Plug (with a bleed valve).
- (d) Install a Drain Valve at the end of the waste tube inlet where the section of tubing has been removed.

NOTE: Make sure the valve is in the closed position.

- (e) Connect the pressurization equipment (Figure 704) to the Air Pressure Assembly in the lavatory.
- (f) Pressurize the waste line system to 5 psi (34 kPa) to 10 psi (69 kPa) and then turn off the 0-50 psig dry filtered regulated air source, STD-77.
- (g) Stop for 5 minutes.
- (h) If the pressure has degraded more than 0.5 psi (3.4 kPa) over the 5 minutes, the system cannot safely be cleaned.

NOTE: You must repair all leaks. When you repair the leak, then do this pressure test.

- (i) If the pressure has not degraded by more than 0.5 psi (3.4 kPa), the system is fluid tight.
- (j) Release the pressure from the waste system.
- (k) Disconnect the pressurization equipment, but keep the Air Pressure Assembly, the Plugs and the Flush Plugs in their positions.

————— **END OF TASK** —————

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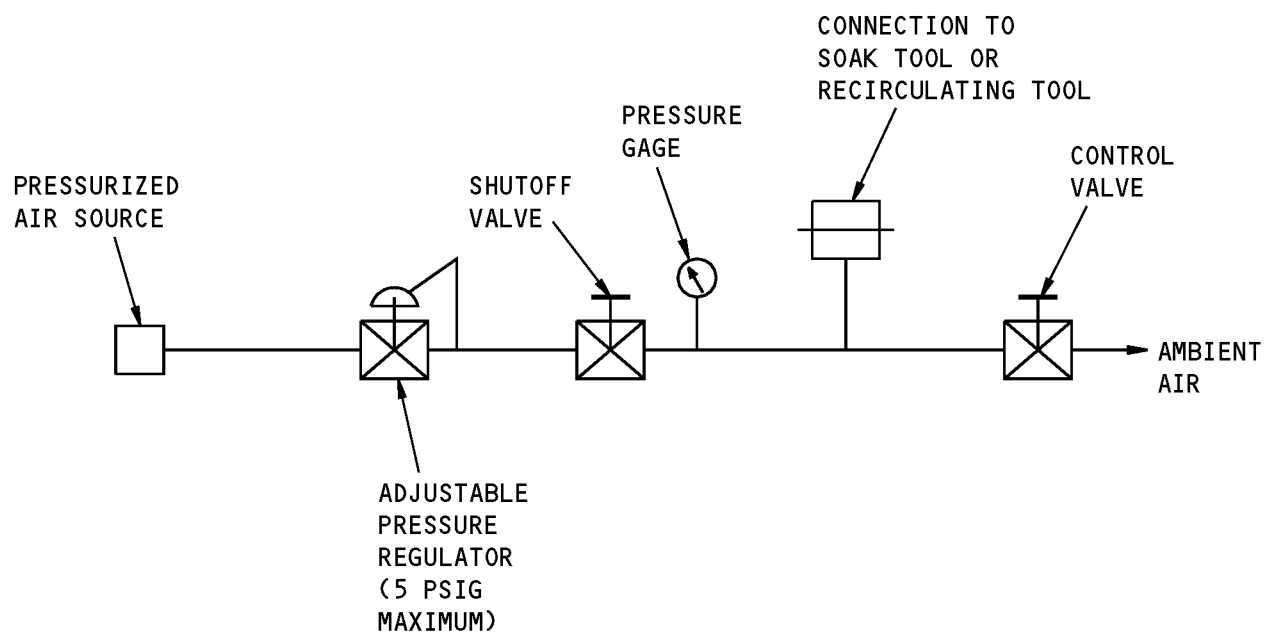
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Soak Pressure Test
Figure 704/38-32-00-990-814

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TASK 38-32-00-100-804

7. Vacuum Waste Tube Off Airplane Soak

A. General

- (1) This task gives the steps for an off-aircraft soak procedure for cleaning a vacuum waste tube that is nearly or completely blocked and can not be cleared by other means.

NOTE: You use this procedure to clean a vacuum waste tube that has a heavy waste build-up or blockage.

- (2) If there is too much or a quickly reoccurring scale buildup, make sure that the toilet flush valves fully close. A valve that is not fully closed can cause a drying effect in the tubes. This drying effect can increase the collection of scale. A valve that is not fully closed will cause air noise at the toilet when a different toilet on the system operates.
- (3) There are additional tasks that give instructions to clean the vacuum waste tubes. Use these tasks to decrease the scale that collects in the vacuum waste tubes. Use operational experience to find which task or mixture of tasks are necessary and the necessary time period between tasks.

These are the additional tasks that you can use:

- (a) A cleaning by a periodic flush of a chemical through the vacuum waste system, Periodic Flush - Vacuum Waste System Cleaning, TASK 38-32-00-100-801.

NOTE: You use this procedure to keep the vacuum waste lines clean of the waste build-up. To get the maximum effect, you must frequently do this task. Frequency and amount is operator determined from experience.

- (b) A pressure washer cleaning of the vacuum waste lines, Pressure Washer Cleaning of the Vacuum Waste Lines, TASK 38-32-00-100-802.

NOTE: You use this procedure to clean the vacuum waste lines of the waste build-up. To get the maximum effect, you must use this procedure before you have frequent problems with the vacuum waste lines.

- (c) An in-situ soak method of cleaning the vacuum waste lines, Soak Method for Cleaning of the Vacuum Waste Lines, TASK 38-32-00-100-803.

NOTE: You use this procedure to clean the vacuum waste lines of the heavy waste build-up. To get the maximum effect, you must use this procedure before the waste lines are fully blocked.

- (d) An in-situ recirculate method of cleaning the vacuum waste lines, TASK 38-32-00-110-801.

NOTE: You use this procedure to clean the vacuum waste lines of the heavy waste build-up. To get the maximum effect, you must use this procedure before the waste lines are fully blocked. This method will work quicker than the in-situ soak method.

- (e) A pressure test procedure, Pressure Test Procedure, TASK 38-32-00-780-803.

NOTE: This procedure is used for the in-situ Soak or Recirculate procedures to make sure that the waste lines will not leak while you do the cleaning procedure.

B. References

Reference	Title
38-32-00-020-801	Vacuum Waste Tubes - Removal (P/B 401)
38-32-00-420-802	Vacuum Waste Tubes - Installation (P/B 401)

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C. Tools/Equipment

Reference	Description
STD-197	Container - Plastic, Polyethylene or Polypropylene

D. Consumable Materials

Reference	Description	Specification
B00046	Acid, Corrosion Removing, Metal Conditioning, Phosphoric	MIL-C-10578
B00636	Acid, Acetic (Vinegar)	JAN-A-465
B00637	Acid, Citric	A-A-59147
B00638	Cleaner - Acidic Liquid - Honey Bee 60 (McGean-Rohco)	
B01021	Cleaner - Drain (Enzyme) - Dispoz-All	
B01022	Cleaner - enzyme septic	
B50091	Cleaner - < 15% Glycolic Acid (Alph Hydroxy Acid Family)(Gly-Vak, Vendor Code: 18195)	
B50110	Cleaner - Acidic Liquid - Cedarinse (Seiwa-Pro Co., Ltd.)	
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	

E. Location Zones

Zone	Area
100	Lower Half of Fuselage
200	Upper Half of Fuselage

F. Prepare for the Off-Aircraft Soak Procedure for Cleaning a Vacuum Waste Tube

SUBTASK 38-32-00-670-001

- (1) Disinfect the waste lines. Flush the waste line with 1 gal (4 l) to 3 gal (11 l) of the disinfectant solution.

NOTE: The disinfectant is a solution of chlorine dioxide, citric acid, and water.

- (a) Prepare the disinfectant solution as follows:

WARNING: DO NOT BREATHE CHLORINE DIOXIDE GAS. PUT ON A RESPIRATOR, AND GOGGLES. WHEN THE TWO CHEMICALS MIX, THEY MAKE CHLORINE DIOXIDE GAS. CHLORINE DIOXIDE GAS CAN CAUSE INJURIES TO PERSONNEL IF THEY BREATHE IT.

- 1) For each 1 gal (4 l) of disinfectant solution desired, mix 20 fl-oz (0.6 l) of chlorine dioxide Purogene or Oxine compound, G00022 with 2 oz (57 g) of citric acid, B00637 in a plastic container, STD-197.
 - 2) Stop for 5 minutes (activation period).
 - 3) Use a clean instrument to mix the solution fully.
 - 4) Add water to make the desired quantity of solution.
- (b) Disinfect the waste line(s) you are cleaning.

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- 1) Pour and flush 1 gal (4 l) to 3 gal (11 l) of the disinfectant solution through the toilet bowl, at the vacuum waste line you are cleaning.

NOTE: The quantity of solution necessary to disinfect the vacuum toilet line changes with the length and condition of the line. Operator experience shows that 1 gal (4 l) is sufficient for short vacuum lines, but more than 1 gal (4 l) is necessary for longer vacuum lines. The quantity of disinfectant necessary for a specific vacuum toilet line is established by the operator's experience.

SUBTASK 38-32-00-020-006

- (2) To remove a specific waste tube for cleaning, do this task: Vacuum Waste Tubes - Removal, TASK 38-32-00-020-801.

G. Off-Aircraft Soak Procedure for Cleaning a Vacuum Waste Tube

SUBTASK 38-32-00-110-006

- (1) Prepare and place in a suitable hydraulic fluid resistant container, the chemical solution to soak the waste tube. Use one of the chemical cleaners that follow:

NOTE: The quantity of the cleaner necessary for the inside of a waste tube is 0.16 gallons for each linear foot (2.0 liters for each linear meter). Calculate the maximum quantity of the cleaner necessary for each tube, or to submerge each tube.

The acid cleaners are primarily effective on hard salt and alkaline deposits. The bacterial and enzymatic cleaners are primarily effective on organic deposits (soap scums, grease, fat, starch and organic debris).

- (a) A 15% glycolic acid, vacuum toilet line cleaner, B50091.
 - (b) An 8% to 12% sulfamic acid, Honey Bee 60 cleaner, B00638.
 - (c) A 7% phosphoric acid, B00046, solution.
 - (d) A 5% to 10% acetic acid, B00636, solution.
 - (e) A bacterial cleaner, such as Dispoz-All cleaner, B01021.
 - (f) An enzymatic cleaner, such as enzyme septic cleaner, B01022.
- A bio-organic acid, Cedarinse, B50110.

SUBTASK 38-32-00-110-007

- (2) Place the waste tube to be cleaned into the container so it is completely submerged in the cleaning solution.

SUBTASK 38-32-00-110-008

- (3) Let the waste tube soak in the cleaner solution for a minimum of 8 hours.

NOTE: To fully clean the waste tube, more than 24 hours can be necessary to remove the heavy scale.

SUBTASK 38-32-00-140-001

- (4) Make sure all solid material is out of the waste tube before re-installation.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-00-420-008

- (1) To install the waste tube after cleaning, do this task: Vacuum Waste Tubes - Installation, TASK 38-32-00-420-802.

SUBTASK 38-32-00-680-002

- (2) Obey the local authorities to discard the chemical solution.

————— **END OF TASK** —————

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TOILET ASSEMBLY - REMOVAL/INSTALLATION

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks for parts of the toilet system:
 - (1) A removal of the toilet shroud assembly.
 - (2) An installation of the toilet shroud assembly.
 - (3) A removal of the vacuum toilet assembly.
 - (4) An installation of the vacuum toilet assembly.
 - (5) A removal of the flush control assembly.
 - (6) An installation of the flush control assembly.
 - (7) A removal of the manual shutoff valve.
 - (8) An installation of the manual shutoff valve.
 - (9) A removal of the flush valve.
 - (10) An installation of the flush valve.
 - (11) A removal of the flush valve motor.
 - (12) An installation of the flush valve motor.
 - (13) A removal of the rinse valve.
 - (14) An installation of the rinse valve.
 - (15) A cleaning of the rinse supply line.

TASK 38-32-01-000-834-002

2. Toilet Shroud Removal

NOTE: See Figure 401.

A. References

Reference	Title
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-32-01-010-142-002

- (1) Get access to the lavatory for the toilet or toilet component removal.

SUBTASK 38-32-01-910-022-002

- (2) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-01-010-143-002

- (3) To remove the toilet shroud, do this task: Lavatory A Shroud Removal, TASK 38-32-01-000-835-002.

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SUBTASK 38-32-01-010-146-002

- (4) To remove the toilet shroud, do this task: Lavatory D, E, F, G, H, K, L, M, or R Shroud Removal, TASK 38-32-01-000-837-002.

————— **END OF TASK** —————

TASK 38-32-01-400-834-002

3. Toilet Shroud Installation

NOTE: See Figure 401.

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Toilet Shroud Installation

SUBTASK 38-32-01-010-154-002

- (1) To install the toilet shroud, do this task: Lavatory A Shroud Installation, TASK 38-32-01-400-835-002.

SUBTASK 38-32-01-010-157-002

- (2) To install the toilet shroud, do this task: Lavatory D, E, F, G, H, K, L, M, or R Shroud Installation, TASK 38-32-01-400-837-002.

————— **END OF TASK** —————

TASK 38-32-01-000-835-002

4. Lavatory A Shroud Removal

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Lavatory A Shroud Removal

HAP 001-013, 015-026, 028-030

SUBTASK 38-32-01-010-165-002

- (1) Open and then remove the sink cabinet door to get access to the lavatory water system.

SUBTASK 38-32-01-020-187-002

- (2) Use an allen wrench to loosen the screws and then remove the flush button escutcheon.

SUBTASK 38-32-01-020-188-002

- (3) Remove the collar assembly with the flush button hole.

SUBTASK 38-32-01-020-189-002

- (4) Move the other collar assembly to the center to disengage the knob from the keyhole slot.

SUBTASK 38-32-01-020-190-002

- (5) Do these steps to remove the toilet shroud:
- (a) Disengage the top edge of the toilet shroud from the trim strip of the lavatory wall.
 - (b) Move the toilet shroud up then to your right side and then turn counterclockwise away from the toilet assembly.

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HAP 001-013, 015-026, 028-030 (Continued)

HAP 031-054, 101-999

SUBTASK 38-32-01-020-234-002

- (6) Push up the latch located at the bottom of the toilet shroud to release the lock.
- (7) Slide down the toilet shroud .
- (8) Take out the toilet shroud.

————— END OF TASK —————

HAP ALL

TASK 38-32-01-400-835-002

5. Lavatory A Shroud Installation

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Lavatory A Shroud Installation

SUBTASK 38-32-01-420-195-002

- (1) Do these steps to install the toilet shroud:
 - (a) Engage the top edge of the toilet shroud with the trim strip of the lavatory wall.
 - (b) Push the toilet shroud into the lavatory wall.
 - (c) Push the toilet shroud down.
 - (d) Make sure the top edge of the toilet shroud is fully engaged on the brackets of the lavatory walls.

SUBTASK 38-32-01-420-196-002

- (2) Install the left collar assembly.
 - (a) Move the collar assembly to engage the knob in the keyhole slot.
 - (b) Push the collar assembly into the lavatory wall until the center engages adjacent to the slot receptacles.

SUBTASK 38-32-01-420-197-002

- (3) Install the collar assembly with the flush button.

SUBTASK 38-32-01-420-198-002

- (4) Install the flush button escutcheon.

SUBTASK 38-32-01-420-199-002

- (5) Install the sink cabinet door for the lavatory water system.

————— END OF TASK —————

TASK 38-32-01-000-837-002

6. Lavatory D, E, F, G, H, K, L, M, or R Shroud Removal

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

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B. Lavatory D, E, F, G, H, or K Shroud Removal

SUBTASK 38-32-01-010-167-002

- (1) Open and then remove the sink cabinet door to get access to the lavatory water system.

SUBTASK 38-32-01-020-197-002

- (2) Use an allen wrench to loosen the screws and then remove the flush button escutcheon.

SUBTASK 38-32-01-020-198-002

- (3) Remove the collar assembly with the flush button hole.

SUBTASK 38-32-01-020-199-002

- (4) Move the collar assembly to disengage the knob from the keyhole slot.

SUBTASK 38-32-01-020-200-002

- (5) Do these steps to remove the toilet shroud:
 - (a) Disengage the top edge of the toilet shroud from the trim strip of the lavatory wall.
 - (b) Move the toilet shroud up and then away from the toilet assembly.

————— END OF TASK —————

TASK 38-32-01-400-837-002

7. Lavatory D, E, F, G, H, K, L, M, or R Shroud Installation

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Lavatory D, E, F, G, H, K, L or M Shroud Installation

SUBTASK 38-32-01-420-207-002

- (1) Do these steps to install the toilet shroud:
 - (a) Engage the top edge of the toilet shroud with the trim strip of the lavatory wall.
 - (b) Push the toilet shroud into the lavatory wall.
 - (c) Push the toilet shroud down.
 - (d) Make sure the top edge of the toilet shroud is fully engaged on the brackets of the lavatory walls.

SUBTASK 38-32-01-420-208-002

- (2) Install the left collar assembly.
 - (a) Move the collar assembly to engage the knob in the keyhole slot.
 - (b) Push the collar assembly into the lavatory wall until the center engages adjacent to the slot receptacles.

SUBTASK 38-32-01-420-209-002

- (3) Install the collar assembly with the flush button hole.

SUBTASK 38-32-01-420-210-002

- (4) Install the flush button escutcheon.

SUBTASK 38-32-01-420-211-002

- (5) Install the sink cabinet door for the lavatory water system.

————— END OF TASK —————

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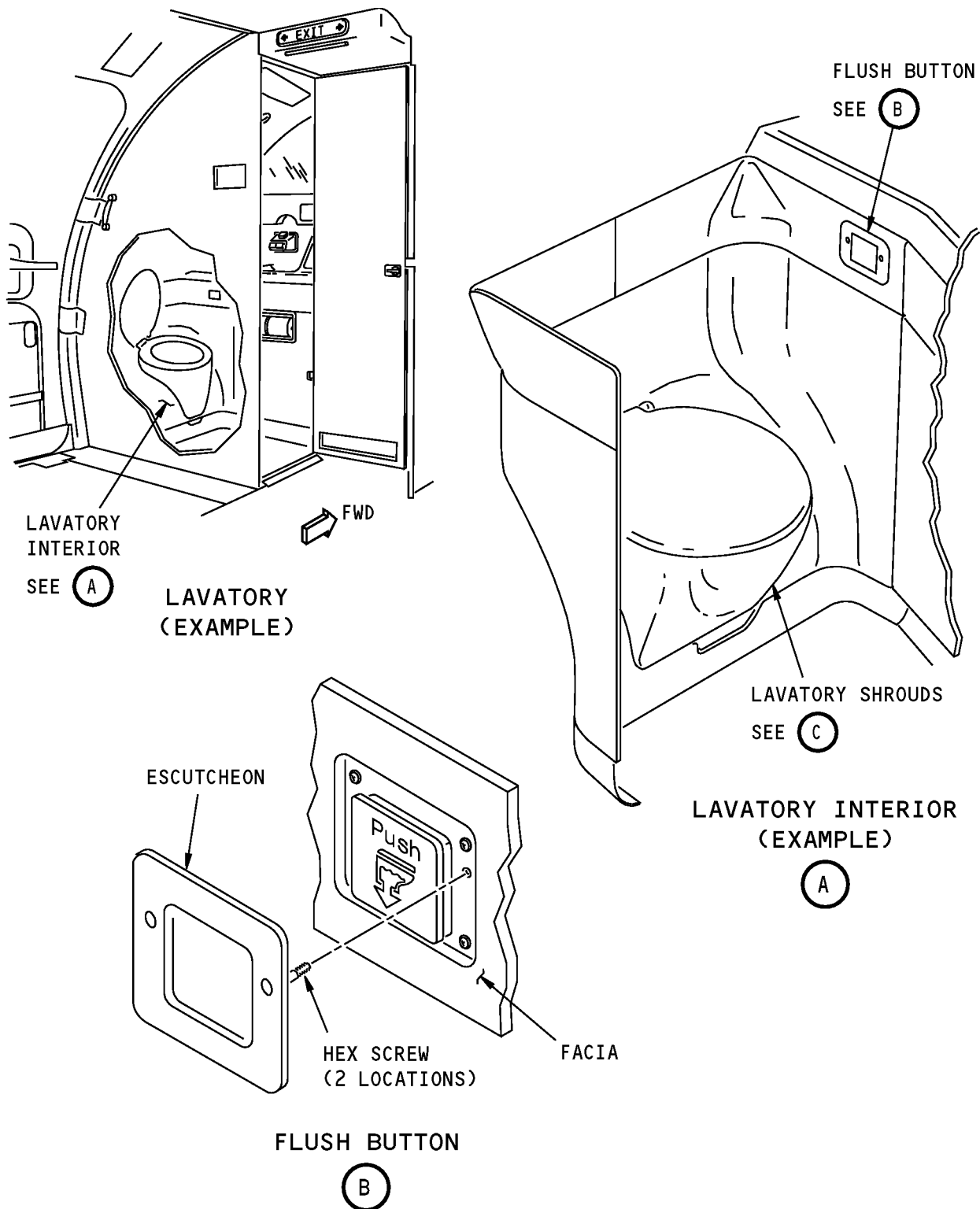
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Toilet Shroud Installation
Figure 401 (Sheet 1 of 2)/38-32-01-990-816-002

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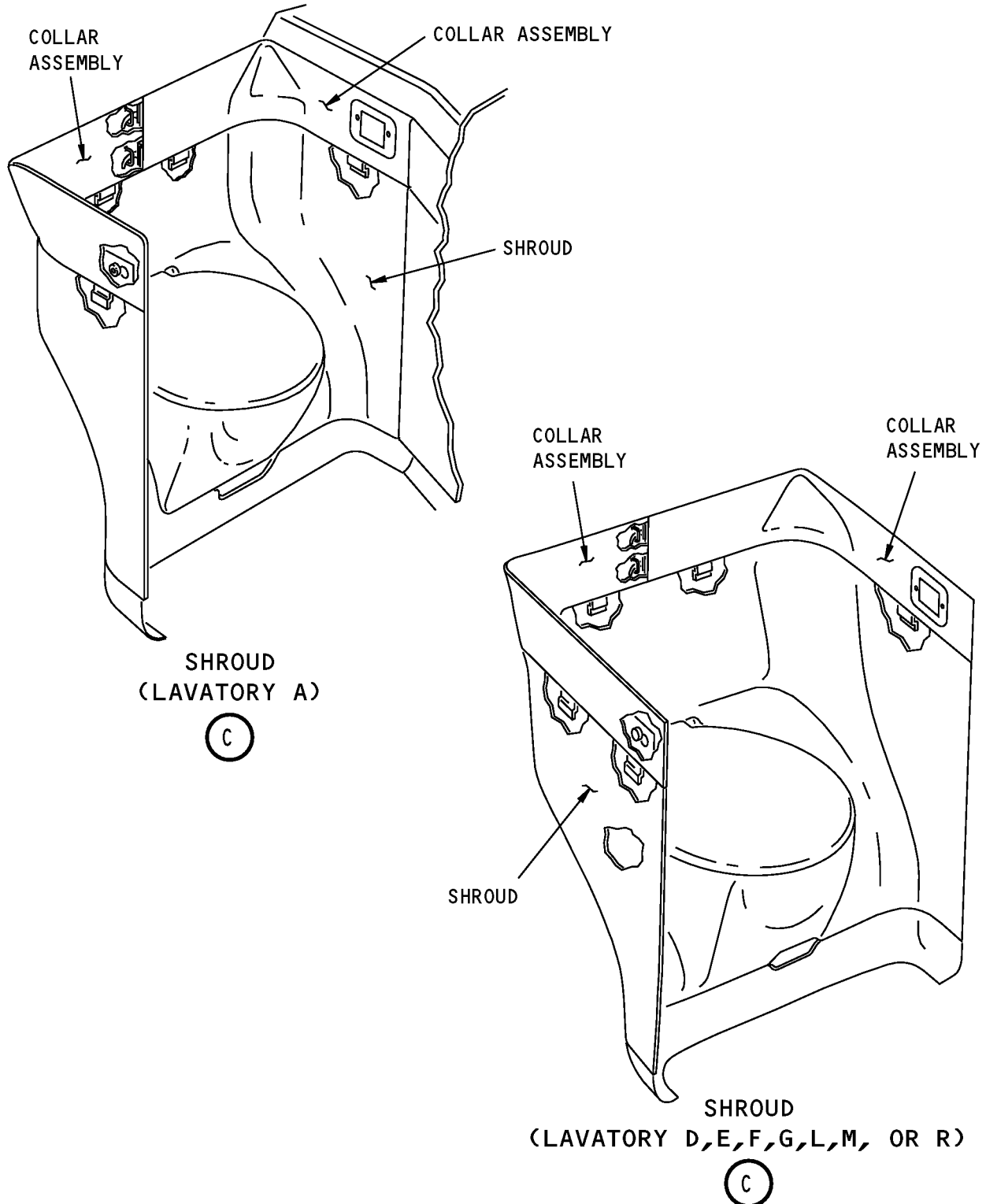
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Toilet Shroud Installation

Figure 401 (Sheet 2 of 2)/38-32-01-990-816-002

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TASK 38-32-01-000-838-002

8. Vacuum Toilet Assembly Removal

(Figure 402)

A. References

Reference	Title
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1946	Plug - Vacuum Waste System (Part #: A38007-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

C. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Prepare for the Removal

SUBTASK 38-32-01-010-168-002

(1) Get access to the lavatory for the toilet removal.

SUBTASK 38-32-01-040-043-002

(2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-071-002

(3) Set the water shutoff valve for the lavatory to the FAUCET ONLY or OFF position (Figure 402).

SUBTASK 38-32-01-910-023-002

(4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-01-010-169-002

(5) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

F. Vacuum Toilet Assembly Removal

SUBTASK 38-32-01-020-201-002

(1) Remove the electrical connector [3] to disconnect the flush control assembly of the vacuum toilet assembly.

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SUBTASK 38-32-01-020-202-002

- (2) Disconnect the connection for the rinse water supply [4].

SUBTASK 38-32-01-680-006-002

- (3) Drain the water supply line into a container.

SUBTASK 38-32-01-020-203-002

- (4) Remove the nut [15] and washer [16] to disconnect the bonding jumper [14] from the toilet and then connect the nut [15] and washer [16].

SUBTASK 38-32-01-020-205-002

- (5) Remove the coupling [6] that attaches the discharge drain [5] to the vacuum waste line [8].

SUBTASK 38-32-01-020-206-002

- (6) Remove the sleeve [7] and the packings [9] and disconnect the discharge drain [5].

SUBTASK 38-32-01-020-208-002

- (7) Remove the bolts [10] and washers [17] that attach the vacuum toilet assembly [11] to the lavatory floor.

SUBTASK 38-32-01-020-209-002

- (8) Remove the vacuum toilet assembly [11].

SUBTASK 38-32-01-020-210-002

- (9) If the vacuum waste system will be operated while the toilet is removed, then do these steps (to install a plug in the vacuum waste line):
- (a) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [9] on the waste line vacuum waste plug, SPL-1946.
 - (b) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [9] on the vacuum waste line [8].
 - (c) Put the waste line vacuum waste plug, SPL-1946 in the vacuum waste line [8].
 - (d) Attach the waste line plug to the vacuum waste line [8] with the coupling [6].

————— **END OF TASK** —————

TASK 38-32-01-400-838-002

9. Vacuum Toilet Assembly Installation

(Figure 402)

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
20-10-44-400-801	Lockwires Installation (P/B 401)
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1946	Plug - Vacuum Waste System (Part #: A38007-1, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)

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C. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
9	Packing	38-32-01-60-120	HAP 001-013, 015-026, 028-046, 054, 101-105
11	Toilet assembly	38-32-00-15-035	HAP ALL

E. Location Zones

Zone	Area
200	Upper Half of Fuselage

F. Install the Toilet Assembly

SUBTASK 38-32-01-420-212-002

- (1) If a plug is installed in the vacuum waste line, then do these steps to remove the waste line plug:
 - (a) Remove the coupling [6] that attaches the waste line vacuum waste plug, SPL-1946 to the vacuum waste line.
 - (b) Pull the plug from the vacuum waste line.

SUBTASK 38-32-01-640-010-002

- (2) Put grease, D00463 or Dow Corning 111 lubricant, D00189 on the new packings [9].

SUBTASK 38-32-01-420-213-002

- (3) Put the new packings [9] on the vacuum waste line [8] and the discharge drain [5].

SUBTASK 38-32-01-420-214-002

- (4) Put the vacuum toilet assembly [11] in its position.

SUBTASK 38-32-01-420-215-002

- (5) Put the bolts [10] and washers [17] in the installed position, but do not tighten.

SUBTASK 38-32-01-420-217-002

- (6) Install the sleeve [7] and the coupling [6] to connect the vacuum waste line [8] to the discharge drain [5].

NOTE: Turn the clamp (before you latch it) to put it in a position that will give the easiest access to the latch.

SUBTASK 38-32-01-420-218-002

- (7) Tighten the bolts [10] for the toilet.

SUBTASK 38-32-01-110-007-002

- (8) Do this task: Rinse Water Supply Cleaning, TASK 38-32-01-100-804-002.

SUBTASK 38-32-01-420-219-002

- (9) Connect the rinse water supply [4] to the rinse valve.
 - (a) Do this task: Lockwires Installation, TASK 20-10-44-400-801.

SUBTASK 38-32-01-420-220-002

- (10) Remove the nut [15] and washer [16] to connect the bonding jumper [14] to the toilet.
 - (a) Install the nut [15] and washer [16] to connect the bonding jumper [14].

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SUBTASK 38-32-01-420-221-002

(11) Connect the electrical connector [3] to the power supply for the toilet.

G. Vacuum Toilet Assembly Installation Test

SUBTASK 38-32-01-040-044-002

(1) Remove safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-072-002

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-01-860-073-002

(3) Set the water shutoff valve for the lavatory to the ON position.

SUBTASK 38-32-01-610-007-002

(4) If the potable water tank is empty, then do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-32-01-710-027-002

(5) Flush the toilet a minimum of two times to make sure it operates correctly.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-01-410-039-002

(1) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

————— **END OF TASK** —————

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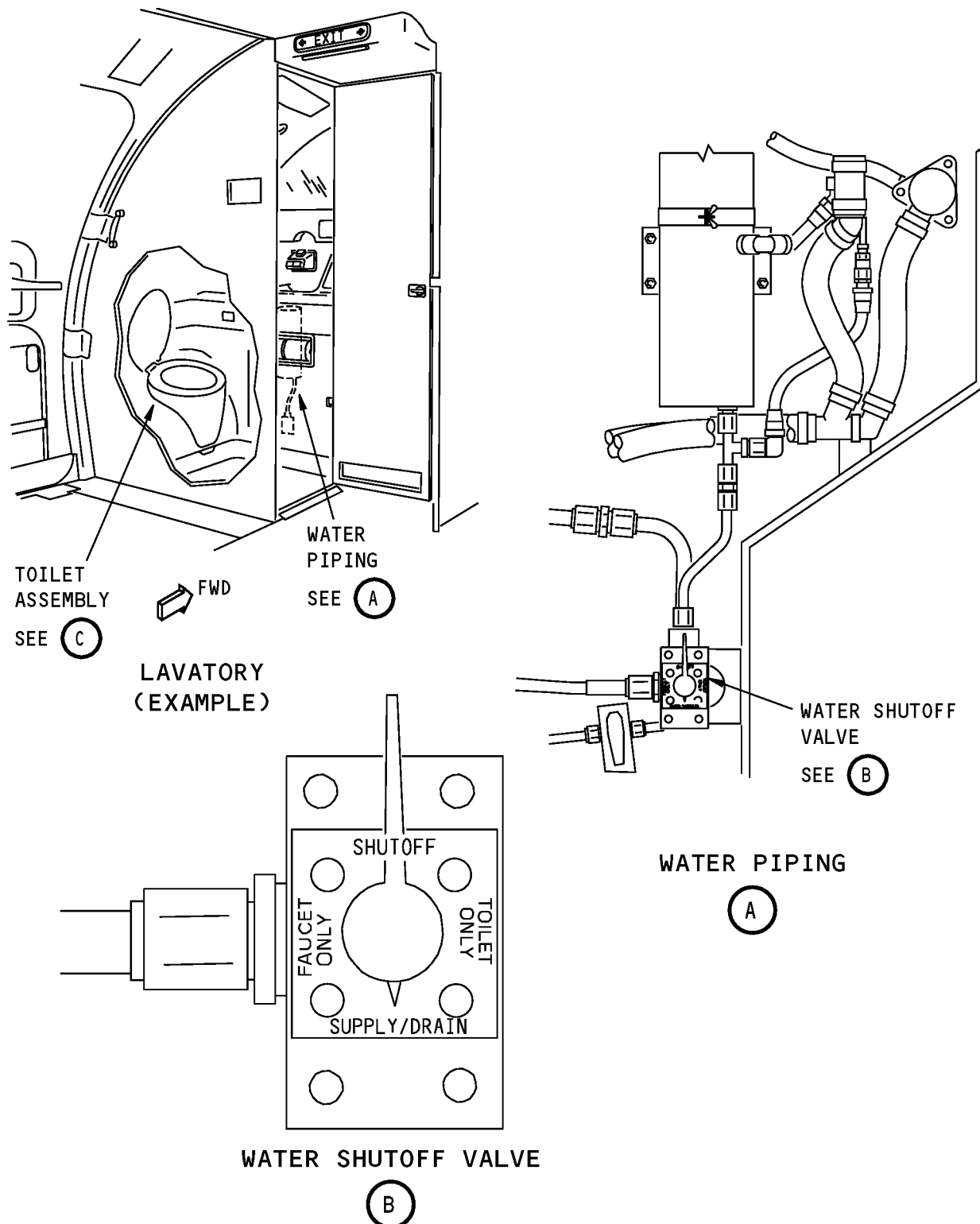
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Toilet Assembly Installation
Figure 402 (Sheet 1 of 2)/38-32-01-990-817-002

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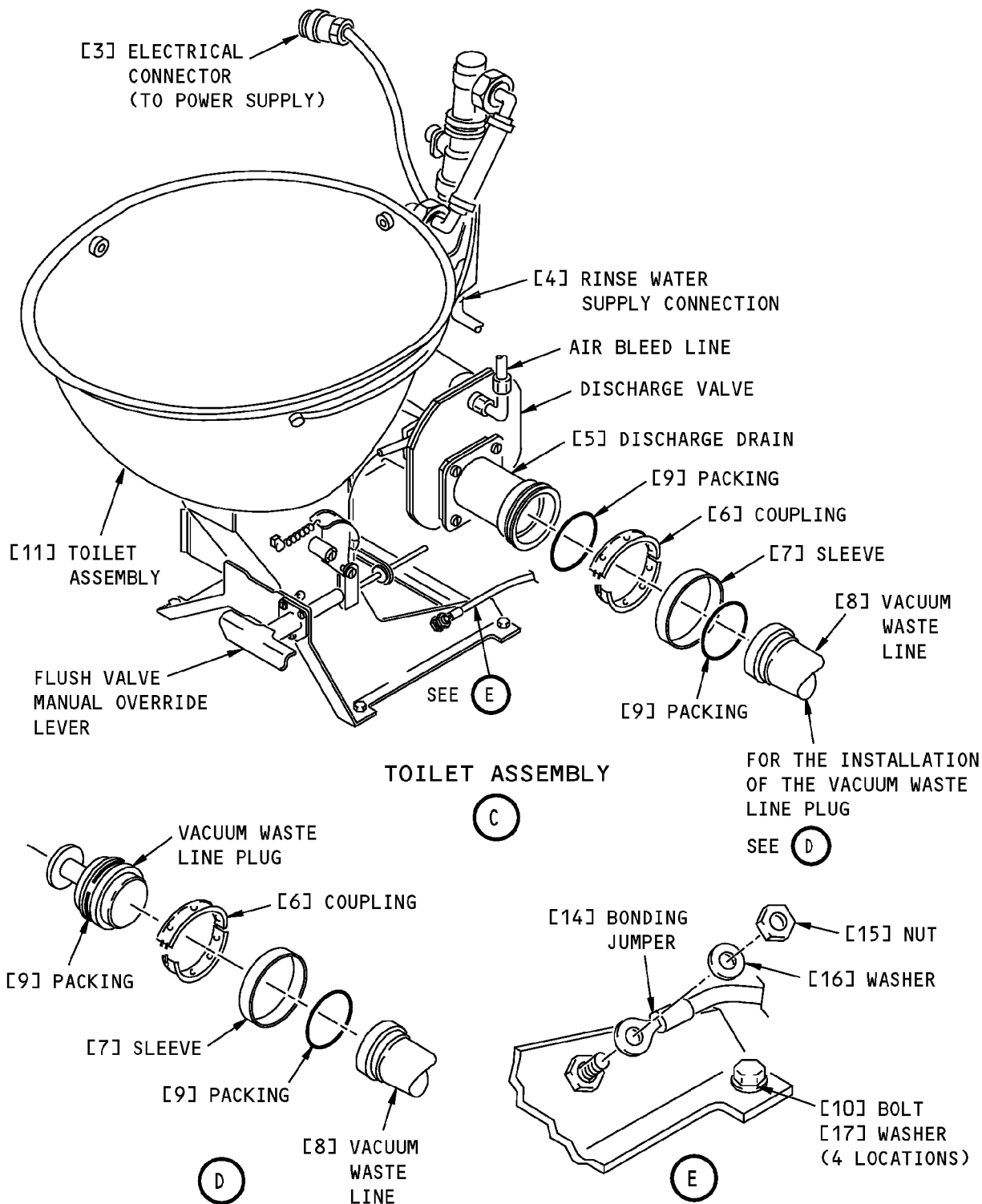
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Toilet Assembly Installation
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TASK 38-32-01-000-839-002

10. Flush Control Assembly Removal

(Figure 403)

A. References

Reference	Title
20-40-12-000-801	ESDS Handling for Printed Circuit Board Removal (P/B 201)

B. Location Zones

Zone	Area
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-32-01-010-170-002

- (1) Get access to the lavatory for the toilet removal.

SUBTASK 38-32-01-040-045-002

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-074-002

- (3) Set the water shutoff valve for the lavatory to the FAUCET ONLY or OFF position (Figure 402).

SUBTASK 38-32-01-010-171-002

- (4) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

D. Flush Control Assembly Removal

SUBTASK 38-32-01-020-211-002

- (1) Disconnect the electrical connector [33] from the power supply of the toilet.

SUBTASK 38-32-01-020-212-002

- (2) Disconnect the electrical connectors for the rinse valve and flush valve from the flush control unit [30].

SUBTASK 38-32-01-020-213-002

- (3) Remove the nuts [39] that attach the enclosure assembly [35] of the flush control unit [30] to the toilet pedestal.

SUBTASK 38-32-01-020-214-002

- (4) Remove the flush control unit [30].

SUBTASK 38-32-01-020-215-002

CAUTION: DO NOT DISASSEMBLE THE FLUSH CONTROL ASSEMBLY BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE PC BOARD.

- (5) If it is necessary, do the steps that follow to remove the PC board from the flush control assembly:

- (a) Do this task: ESDS Handling for Printed Circuit Board Removal, TASK 20-40-12-000-801.
(b) Remove the screws [31], nuts [47], seals [46], and washers [32] for the cover [43].

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- (c) Remove the cover [43] and seal [41] from the enclosure assembly [35].
- (d) Remove the PC board assembly [42] from the enclosure assembly [35].

————— **END OF TASK** —————

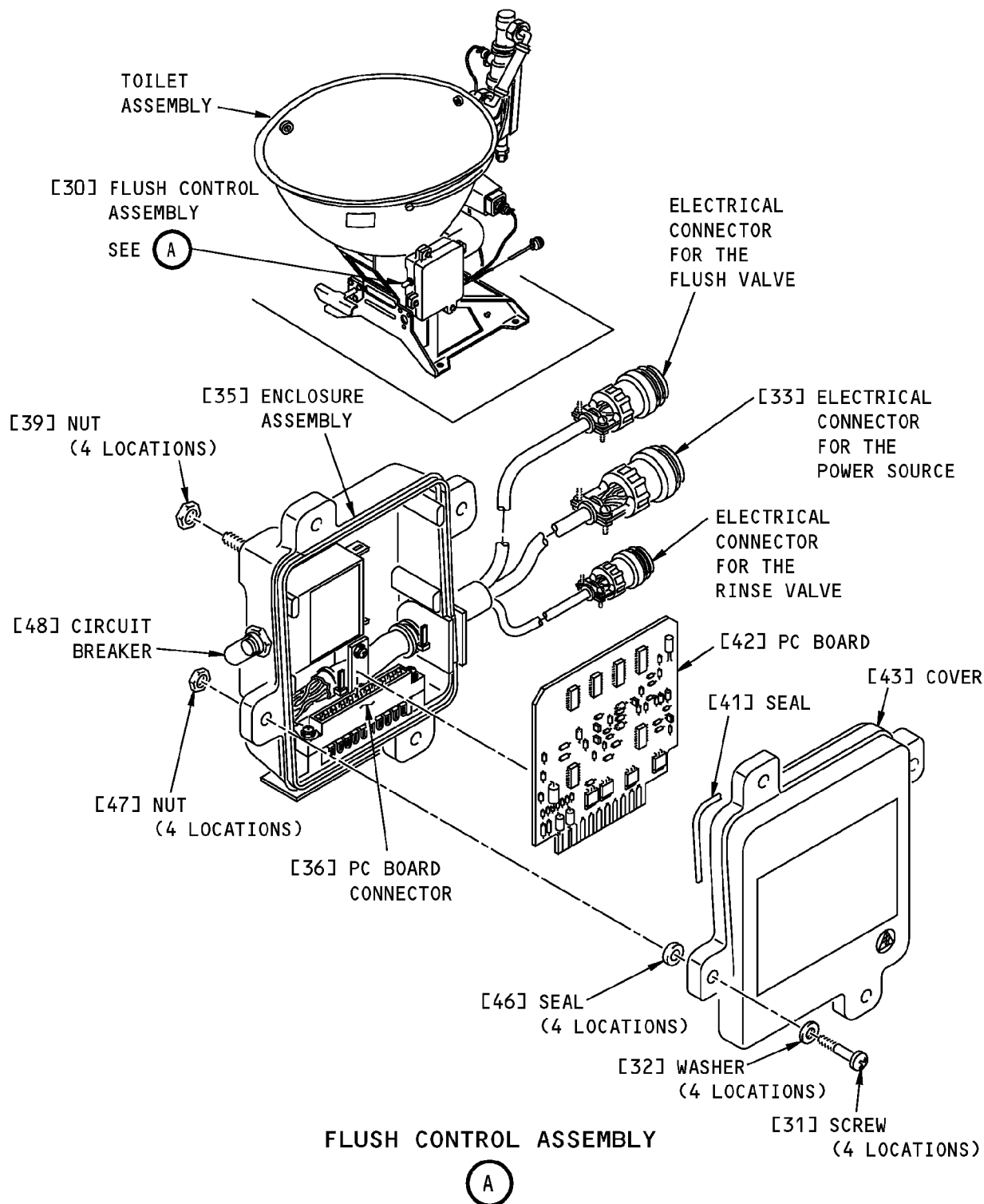
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Flush Control Assembly Installation
Figure 403/38-32-01-990-818-002

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TASK 38-32-01-400-839-002

11. Flush Control Assembly Installation

(Figure 403)

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
20-40-12-400-801	ESDS Handling for Printed Circuit Board Installation (P/B 201)
24-22-00-860-811	Supply Electrical Power (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
30	Control unit	38-32-01-60-031	HAP ALL
41	Seal	38-32-01-61-060	HAP ALL
42	Board assembly	38-32-01-61-185	HAP ALL
43	Cover	38-32-01-61-035	HAP ALL

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Flush Control Assembly Installation

SUBTASK 38-32-01-420-222-002

CAUTION: DO NOT ASSEMBLE THE FLUSH CONTROL ASSEMBLY BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE PC BOARD.

(1) If it is not installed, then do these steps to install the PC board:

- Do this task: ESDS Handling for Printed Circuit Board Installation, TASK 20-40-12-400-801.
- Put the PC board assembly [42] in its position in the enclosure assembly [35] and then connect it to its PC board connector [36].
- Put the seal [41] and cover [43] in their position around the edge of the enclosure assembly [35].
- Install the screws [31], nuts [47], seals [46], and washers [32].

SUBTASK 38-32-01-420-223-002

(2) Put the flush control unit [30] in its position on the toilet assembly.

- Install the nuts [39] that attach the flush control unit [30] to the toilet assembly.

SUBTASK 38-32-01-420-224-002

(3) Connect the electrical connectors for the rinse valve and flush valve to the flush control unit [30].

SUBTASK 38-32-01-420-225-002

(4) Connect the electrical connector [33] for the power supply for the toilet.

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E. Flush Control Assembly Installation Test

SUBTASK 38-32-01-040-046-002

- (1) Remove the safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-075-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-01-860-076-002

- (3) Set the water shutoff valve for the lavatory to the ON position.

SUBTASK 38-32-01-610-008-002

- (4) If the potable water tank is empty, then do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-32-01-860-077-002

- (5) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-32-01-710-028-002

- (6) Flush the toilet a minimum of two times to make sure it operates correctly.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-01-410-040-002

- (1) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

————— **END OF TASK** —————

TASK 38-32-01-000-840-002

12. Flush Valve Removal

(Figure 404)

A. References

<u>Reference</u>	<u>Title</u>
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

<u>Zone</u>	<u>Area</u>
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-32-01-010-172-002

- (1) Get access to the lavatory for the toilet removal.

SUBTASK 38-32-01-040-047-002

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

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SUBTASK 38-32-01-860-078-002

- (3) Set the water shutoff valve for the lavatory to the FAUCET ONLY or OFF position (Figure 402).

SUBTASK 38-32-01-910-024-002

- (4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-01-010-173-002

- (5) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

SUBTASK 38-32-01-010-174-002

- (6) If it is necessary for better access, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

D. Flush Valve Removal

SUBTASK 38-32-01-020-216-002

- (1) Disconnect the vent tube from the elbow fitting [67] on the flush valve assembly [66].

SUBTASK 38-32-01-020-217-002

- (2) Disconnect the electrical connector [82] for the flush valve.

SUBTASK 38-32-01-020-218-002

- (3) Remove the screws [64] that attach the discharge pipe [69] to the flush valve assembly [66].

SUBTASK 38-32-01-020-219-002

- (4) Remove and then discard the packing [70].

SUBTASK 38-32-01-020-220-002

- (5) Remove the screws [61] that attach the toilet elbow [63] to the flush valve assembly [66].

SUBTASK 38-32-01-020-221-002

- (6) Remove and then discard the packing [70].

SUBTASK 38-32-01-020-222-002

- (7) Remove the flush valve assembly [66].

END OF TASK

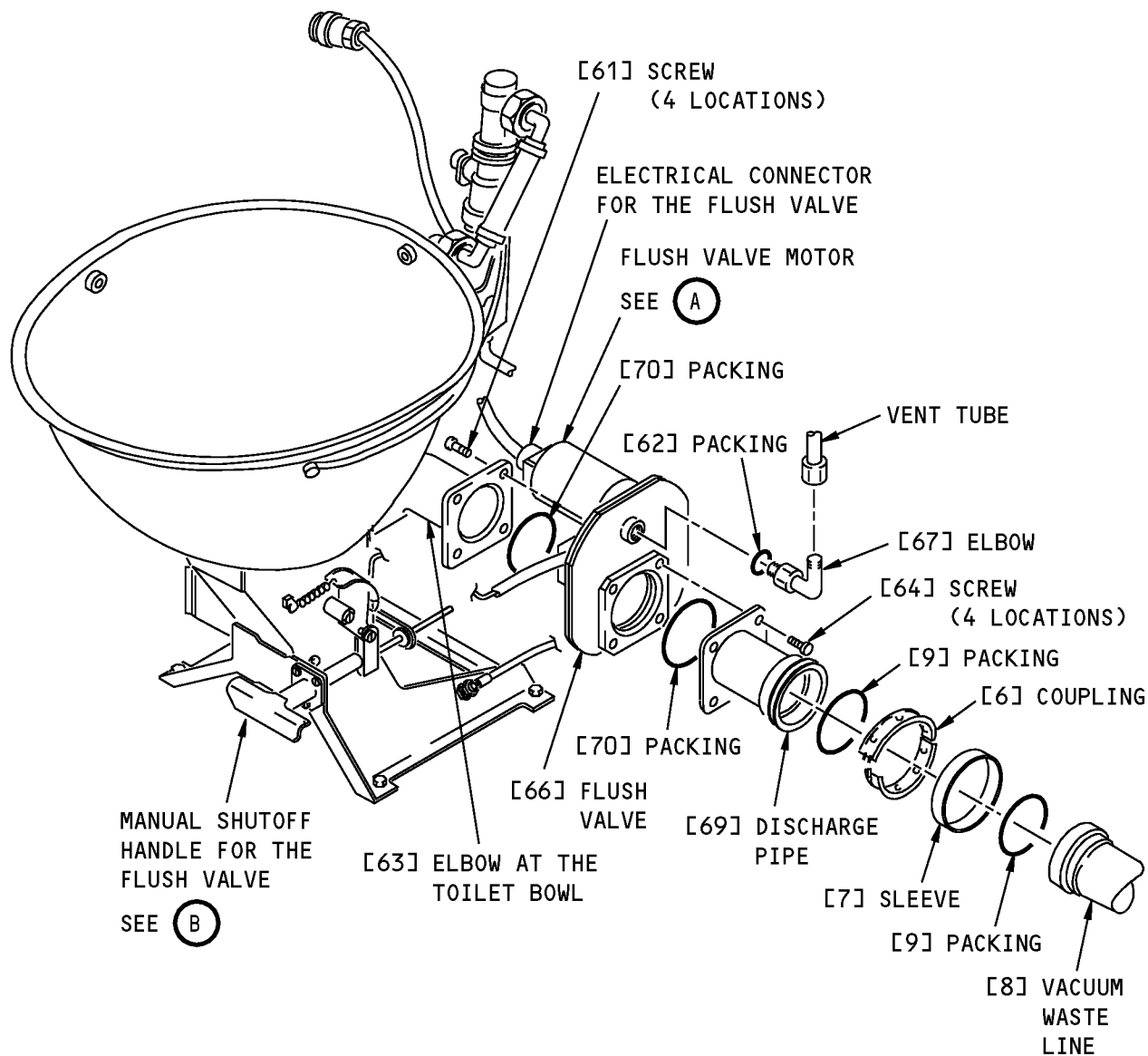
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Toilet Flush Valve and Motor Installation
Figure 404 (Sheet 1 of 2)/38-32-01-990-819-002

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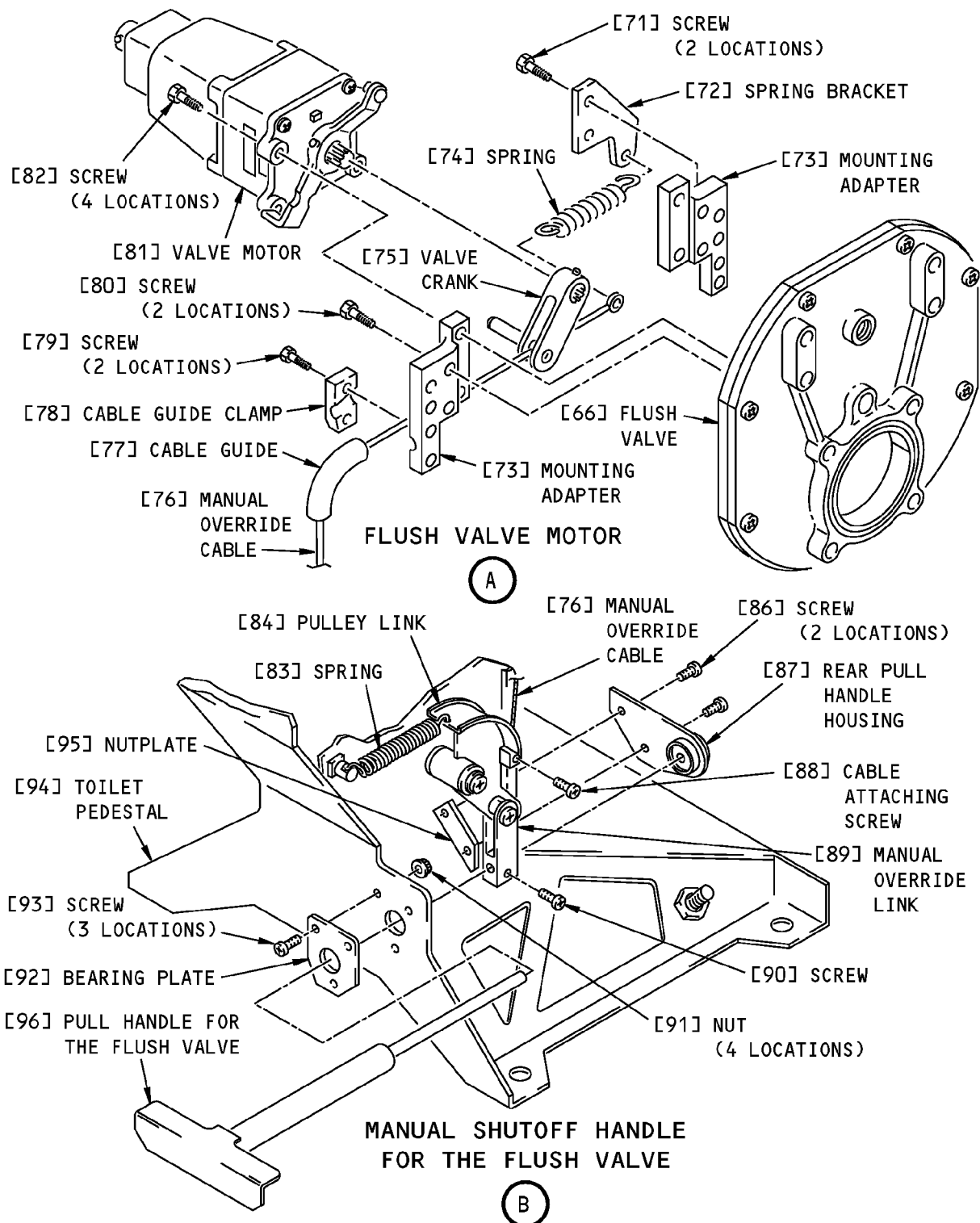
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Toilet Flush Valve and Motor Installation
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TASK 38-32-01-400-840-002

13. Flush Valve Installation

(Figure 404)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
66	Valve assembly	38-32-01-60-125	HAP ALL
70	Packing	38-32-01-60-115	HAP 001-013, 015-026, 028-046, 054, 101-105

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Flush Valve Installation

SUBTASK 38-32-01-420-226-002

(1) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packings [70].

SUBTASK 38-32-01-420-227-002

(2) Install the packing [70] between the flush valve assembly [66] and the toilet elbow [63].

SUBTASK 38-32-01-420-228-002

(3) Put the flush valve assembly [66] in its position on the flange surface of the toilet elbow [63].

SUBTASK 38-32-01-420-229-002

(4) Loosely install the screws [61] that attach the flush valve assembly [66] to the elbow [63].

(a) Do not tighten the screws [61].

SUBTASK 38-32-01-420-230-002

(5) Install the packing [70] between the flush valve assembly [66] and the pipe [69].

SUBTASK 38-32-01-420-231-002

(6) Loosely install the screws [64] that attach the pipe [69] to the flush valve assembly [66].

(a) Do not tighten the screws [64].

SUBTASK 38-32-01-420-232-002

(7) Connect the vent tube to the elbow fitting [67] on the flush valve assembly [66].

SUBTASK 38-32-01-420-233-002

(8) Connect the electrical connector [82] for the flush valve.

SUBTASK 38-32-01-420-234-002

(9) Tighten the screws [61], and screws [64] that connect the flush valve assembly [66] with the flange on the pipe [69] and with the flange on the toilet elbow [63].

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SUBTASK 38-32-01-410-041-002

- (10) If it was necessary to remove the vacuum toilet assembly for better access, do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.

F. Flush Valve Installation Test

SUBTASK 38-32-01-040-048-002

- (1) Remove the safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-079-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-01-860-080-002

- (3) Set the water shutoff valve for the lavatory to the ON position.

SUBTASK 38-32-01-710-029-002

- (4) Flush the toilet a minimum of two times to make sure it operates correctly.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-01-410-042-002

- (1) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

————— **END OF TASK** —————

TASK 38-32-01-000-841-002

14. Flush Valve Motor Removal

(Figure 404)

A. References

<u>Reference</u>	<u>Title</u>
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

<u>Zone</u>	<u>Area</u>
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-32-01-010-175-002

- (1) Get access to the lavatory for the toilet removal.

SUBTASK 38-32-01-040-049-002

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-081-002

- (3) Set the water shutoff valve for the lavatory to the FAUCET ONLY or OFF position (Figure 402).

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SUBTASK 38-32-01-910-025-002

- (4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-01-010-176-002

- (5) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

SUBTASK 38-32-01-010-177-002

- (6) If it is necessary for better access, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

D. Flush Valve Motor Removal

SUBTASK 38-32-01-020-223-002

- (1) Disconnect the electrical connector for the flush valve motor.

SUBTASK 38-32-01-010-178-002

- (2) Remove the screws [82] that attach the flush motor [81] to the flush valve assembly [66].

SUBTASK 38-32-01-020-224-002

- (3) Loosen the set screw in the valve crank to disconnect the flush valve motor [81].

SUBTASK 38-32-01-010-179-002

- (4) Remove the flush valve motor [81] from the mounting adapter [73].

————— END OF TASK —————

TASK 38-32-01-400-841-002

15. Flush Valve Motor Installation

(Figure 404)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
81	Motor	38-32-01-60-145	HAP ALL

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Flush Valve Motor Installation

SUBTASK 38-32-01-420-235-002

- (1) Put the flush valve motor [81] on the mounting adapter [73].

SUBTASK 38-32-01-420-236-002

- (2) Install the screws [82] that attach the flush motor [81] to the flush valve assembly [66].

SUBTASK 38-32-01-420-237-002

- (3) Tighten the set screw that attaches the valve crank to the shaft of the flush motor [81].

SUBTASK 38-32-01-020-225-002

- (4) Connect the electrical connector from the flush control unit to the flush motor [81].

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SUBTASK 38-32-01-410-043-002

- (5) If you removed the vacuum toilet assembly for better access, do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.

E. Flush Valve Motor Installation Test

SUBTASK 38-32-01-040-050-002

- (1) Remove the safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-082-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-01-860-083-002

- (3) Set the water shutoff valve for the lavatory to the ON position.

SUBTASK 38-32-01-710-030-002

- (4) Flush the toilet a minimum of two times to make sure it operates correctly.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-01-410-044-002

- (1) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

————— **END OF TASK** —————

TASK 38-32-01-000-842-002

16. Rinse Valve Removal

(Figure 405)

A. References

<u>Reference</u>	<u>Title</u>
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

<u>Zone</u>	<u>Area</u>
200	Upper Half of Fuselage

C. Prepare for the Removal

SUBTASK 38-32-01-010-180-002

- (1) Get access to the lavatory for the toilet removal.

SUBTASK 38-32-01-040-051-002

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-01-860-084-002

- (3) Set the water shutoff valve for the lavatory to the FAUCET ONLY or OFF position (Figure 402).

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SUBTASK 38-32-01-910-026-002

- (4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-01-010-181-002

- (5) To remove the toilet shroud, do this task: Toilet Shroud Removal, TASK 38-32-01-000-834-002.

SUBTASK 38-32-01-010-182-002

- (6) If it is necessary for better access, do this task: Vacuum Toilet Assembly Removal, TASK 38-32-01-000-838-002.

D. Rinse Valve Removal

SUBTASK 38-32-01-020-226-002

- (1) Disconnect the rinse water supply connection [4] from the rinse valve assembly [110].

SUBTASK 38-32-01-020-227-002

- (2) Disconnect the rinse water hose assembly [115] from the rinse valve assembly [110].

SUBTASK 38-32-01-020-228-002

- (3) Remove the nut [117] and washers [116] to disconnect the bonding jumper cable [118] from the rinse valve assembly [110].

SUBTASK 38-32-01-020-229-002

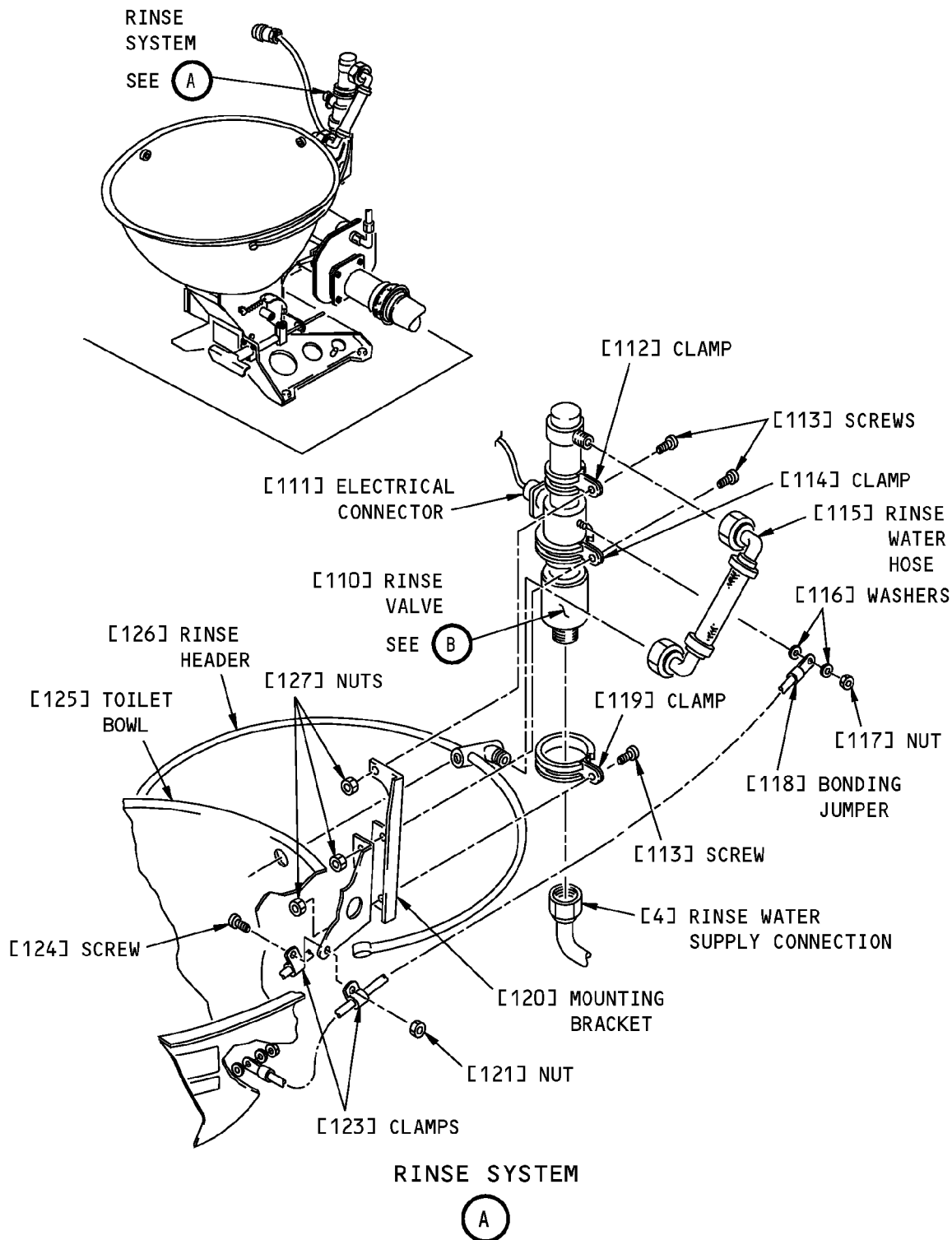
- (4) Remove the screws [113], clamp [112], clamp [114] and clamps [119] that attach the rinse valve assembly [110] to the toilet bowl [125].

————— END OF TASK —————

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Toilet Rinse Valve Installation

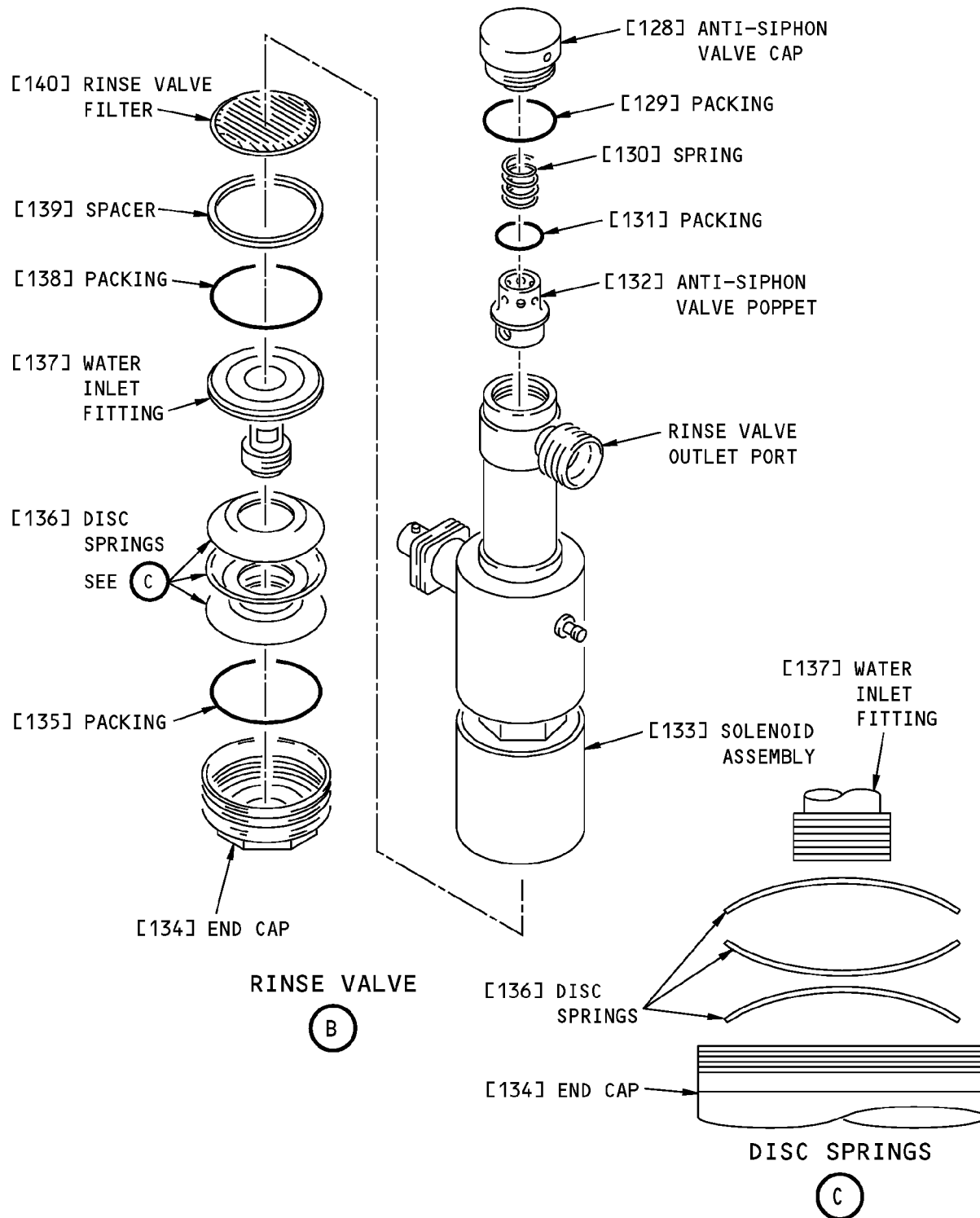
Figure 405 (Sheet 1 of 2)/38-32-01-990-820-002

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Toilet Rinse Valve Installation
Figure 405 (Sheet 2 of 2)/38-32-01-990-820-002

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TASK 38-32-01-400-842-002

17. Rinse Valve Installation

(Figure 405)

A. References

Reference	Title
20-10-44-400-801	Lockwires Installation (P/B 401)
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
110	Valve assembly	38-32-01-60-520	HAP ALL

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Rinse Valve Installation

SUBTASK 38-32-01-420-238-002

- (1) Put the rinse valve assembly [110] in its position on the toilet bowl.

SUBTASK 38-32-01-420-239-002

- (2) Install the screws [113], clamp [112], clamp [114] and clamps [119] that attach the rinse valve assembly [110] to the toilet bowl [125].

SUBTASK 38-32-01-420-240-002

- (3) Install the nut [117] and washers [116] to connect the bonding jumper cable [118] to the rinse valve assembly [110].

SUBTASK 38-32-01-420-241-002

- (4) Connect the rinse hose assemblies [115] to the rinse valve assembly [110].

SUBTASK 38-32-01-110-008-002

- (5) Do this task: Rinse Water Supply Cleaning, TASK 38-32-01-100-804-002.

SUBTASK 38-32-01-420-242-002

- (6) Connect the supply line for the rinse water to the rinse valve valve assembly [110].

- (a) Do this task: Lockwires Installation, TASK 20-10-44-400-801.

SUBTASK 38-32-01-420-243-002

- (7) Connect the electrical connector [111] for the rinse valve assembly [110] to the flush control assembly.

SUBTASK 38-32-01-410-045-002

- (8) If you removed the vacuum toilet assembly for better access, do this task: Vacuum Toilet Assembly Installation, TASK 38-32-01-400-838-002.

E. Rinse Valve Installation Test

SUBTASK 38-32-01-040-052-002

- (1) Remove the safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

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SUBTASK 38-32-01-860-085-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-01-860-086-002

- (3) Set the water shutoff valve for the lavatory to the ON position.

SUBTASK 38-32-01-710-031-002

- (4) Flush the toilet a minimum of two times to make sure it operates correctly.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-01-410-046-002

- (1) To install the toilet shroud, do this task: Toilet Shroud Installation, TASK 38-32-01-400-834-002.

END OF TASK

TASK 38-32-01-100-804-002

18. Rinse Water Supply Cleaning

(Figure 405)

A. General

- (1) Do this task to make sure the potable water system is not contaminated when the vacuum toilet assembly is connected.

B. References

Reference	Title
20-10-44-400-801	Lockwires Installation (P/B 401)

C. Consumable Materials

Reference	Description	Specification
B00637	Acid, Citric	A-A-59147
G00022	Compound - Chlorine Dioxide For Water Purification - Purogene or Oxine	

D. Location Zones

Zone	Area
200	Upper Half of Fuselage

E. Rinse Water Supply Cleaning

SUBTASK 38-32-01-670-010-002

- (1) Make a disinfectant as follows:

- (a) Mix 0.3 fluid ounces (0.008 liter) of chlorine dioxide Purogene or Oxine compound, G00022 and 13.4 ounces (0.4 liter) of citric acid, B00637 per gallon (4 liters) of disinfectant.
- (b) Stop for five minutes.
- (c) Add one gallon (4 liters) of water to complete the disinfectant.

SUBTASK 38-32-01-670-011-002

- (2) Clean the connections on the supply line for the rinse water with the disinfectant.

SUBTASK 38-32-01-670-012-002

- (3) Put approximately one cup (8 fluid ounces) (0.24 liter) of the disinfectant in the supply line.

SUBTASK 38-32-01-420-244-002

- (4) Connect the supply line for the rinse water.

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(a) Do this task: Lockwires Installation, TASK 20-10-44-400-801.

SUBTASK 38-32-01-710-032-002

(5) Flush the toilet a minimum of two times to make sure the disinfectant is out of the supply line.

END OF TASK

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LIQUID SEPARATOR - MAINTENANCE PRACTICES

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the liquid separator.
 - (2) An installation of the liquid separator.
 - (3) A cleaning of the liquid separator and liquid separator filter.

TASK 38-32-02-000-801

2. Liquid Separator Removal

(Figure 201)

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Removal

SUBTASK 38-32-02-610-001

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-02-610-002

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-02-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-02-010-001

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-02-010-002

- (5) To remove the enclosure panels for the waste tanks, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

F. Liquid Separator Removal

SUBTASK 38-32-02-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Loosen the clamp [2] that attach the flexible coupling [7] to the upper cap [1].

SUBTASK 38-32-02-020-002

- (2) Loosen the v-band coupling [6].

SUBTASK 38-32-02-020-003

- (3) Remove the upper cap [1] and packing [4].

- (a) Discard the packing [4].

SUBTASK 38-32-02-020-004

- (4) Remove the lower filter basket [3] for the liquid separator from the waste tank.

SUBTASK 38-32-02-020-005

- (5) Remove the upper filter basket [5] for the liquid separator from the cap [1].

————— **END OF TASK** —————

TASK 38-32-02-400-801

3. Liquid Separator Installation

(Figure 201)

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

<u>Reference</u>	<u>Title</u>
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

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C. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650
D50007	Grease - Silicone-Based, Generic	

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
4	Packing	38-32-02-50-060	HAP ALL

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
822	Aft Cargo Door

G. Liquid Separator Installation

SUBTASK 38-32-02-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the grease, D00463 or silicone-based grease, D50007 or Dow Corning 111 lubricant, D00189 to the packing [4].

SUBTASK 38-32-02-420-001

- (2) Install the lower filter basket [3] for the liquid separator in the waste tank.

SUBTASK 38-32-02-420-002

- (3) Install the upper filter basket [5] for the liquid separator in the upper cap [1].

SUBTASK 38-32-02-420-003

- (4) Install the upper cap [1] and packing [4].

SUBTASK 38-32-02-420-004

- (5) Install the v-band coupling [6].

- (a) Tighten the v-band coupling [6] 90 to 110 pound inches.

SUBTASK 38-32-02-420-005

- (6) Attach the flexible coupling [7] and clamp [2] for the upper cap [1].

H. Liquid Separator Installation Test

SUBTASK 38-32-02-860-002

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (1) Remove the safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-02-860-003

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-02-710-001

- (3) Flush a toilet connected to the waste tank.

SUBTASK 38-32-02-790-001

- (4) Examine the upper cap and the connections for leakage.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-02-610-003

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-02-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-02-410-001

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

TASK 38-32-02-100-801

4. Liquid Separator and Liquid Separator Filter Cleaning

(Figure 201)

A. General

- (1) This task cleans the liquid separator filter canister.

B. Consumable Materials

<u>Reference</u>	<u>Description</u>	<u>Specification</u>
B00541	Cleaner - General Purpose Household Detergent	

C. Location Zones

<u>Zone</u>	<u>Area</u>
141	Aft Cargo Compartment - Left

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D. Liquid Separator Cleaning

SUBTASK 38-32-02-020-006

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Do this task: Liquid Separator Removal, TASK 38-32-02-000-801.

SUBTASK 38-32-02-160-001

- (2) Mix the general purpose household detergent cleaner, B00541 with water in a container.

SUBTASK 38-32-02-160-002

- (3) Soak the two pieces of the liquid separator in the cleaner and water for a minimum of 15 minutes.

SUBTASK 38-32-02-170-001

- (4) Flush the liquid separator with clean water.

SUBTASK 38-32-02-210-001

- (5) Visually check the liquid separator and upper cap to see that they are clean.

- (a) Replace the upper basket [5] and lower basket [3] of the liquid separator if they are not clean.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-02-420-006

- (1) Do this task: Liquid Separator Installation, TASK 38-32-02-400-801.

————— **END OF TASK** —————

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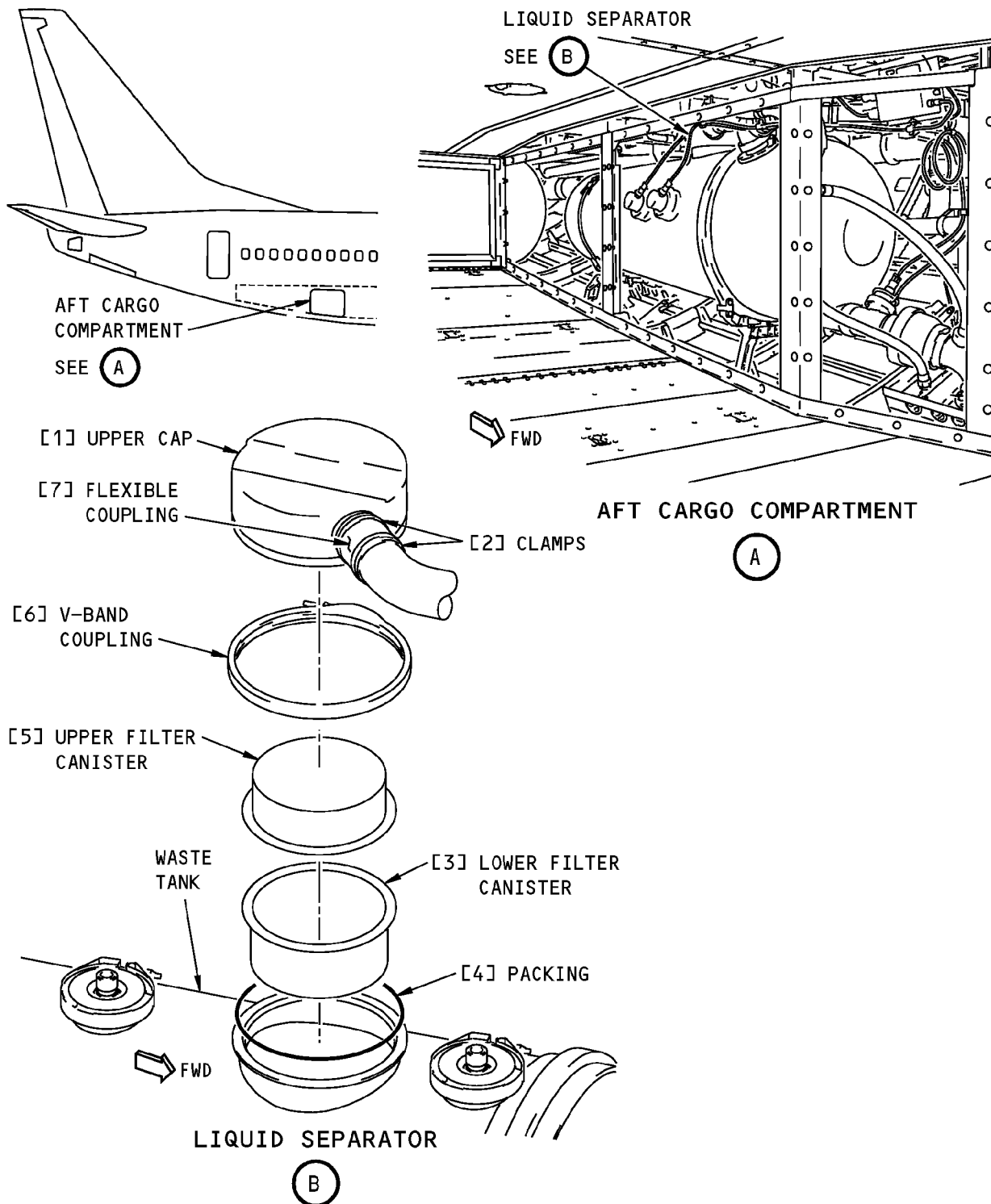
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Liquid Separator Maintenance Practices
Figure 201/38-32-02-990-801

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WASTE DRAIN BALL VALVE AND LINKAGE ASSEMBLY - REMOVAL/INSTALLATION

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the waste drain ball valve.
 - (2) An installation of the waste drain ball valve.
 - (3) A removal of the linkage assembly for the waste drain ball valve.
 - (4) An installation of the linkage assembly for the waste drain ball valve.
 - (5) A removal of the limit switch for the waste drain ball valve.
 - (6) An installation of the limit switch for the waste drain ball valve.
- C. The Waste Drain Ball Valve is referred to as the Ball Valve in this procedure.

TASK 38-32-03-000-801

2. Waste Drain Ball Valve Removal

(Figure 401 or Figure 402, Figure 403)

A. General

- (1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
30-71-03-000-801	Waste Drain Line Heater Removal (P/B 401)

C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Removal

SUBTASK 38-32-03-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to service the waste tank.

SUBTASK 38-32-03-010-001

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-03-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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SUBTASK 38-32-03-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C00233	HEATERS DRAIN

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

F. Ball Valve Removal

HAP 031-054, 101-999

SUBTASK 38-32-03-010-003

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Loosen the clamps [43] and remove the cover [42] from the drain valve.

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SUBTASK 38-32-03-010-015

- (2) Do this task: Waste Drain Line Heater Removal, TASK 30-71-03-000-801.

SUBTASK 38-32-03-020-001

- (3) Disconnect the electrical connector for the limit switch for the ball valve assembly [11].

SUBTASK 38-32-03-020-002

- (4) Remove the the clamp [35], bolt [36], washer [37], and spacer [38] outboard of the ball valve attached to the limit switch cable.

SUBTASK 38-32-03-020-003

- (5) Remove the bolt [14], washer [13], bushing [12], washer [17], and nut [16] to disconnect the linkage assembly [15].

SUBTASK 38-32-03-020-004

- (6) Remove the clamshell [1], sleeve [2] and packings [3] attaching the ball valve assembly [11] to the waste tube.

- (a) Discard the packings [3].

SUBTASK 38-32-03-020-005

- (7) Remove the V-band clamps [4] and gask-O- seals [5] at the service panel and ball valve assembly [11] connections for the drain elbow [18].

- (a) Discard the gask-O- seals [5].

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SUBTASK 38-32-03-020-006

(8) Remove the ball valve assembly [11] and drain elbow [18].

END OF TASK

TASK 38-32-03-400-801

3. Waste Drain Ball Valve Installation

(Figure 401 or Figure 402, Figure 403)

A. General

(1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
30-71-03-400-801	Waste Drain Line Heater Installation (P/B 401)
38-32-03-710-801	Waste Drain Ball Valve and Control Rod - Operational Test (P/B 501)

C. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

D. Consumable Materials

Reference	Description	Specification
D00016	Grease - Aircraft, General Purpose, Wide Temperature Range	MIL-PRF-81322

E. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Packing	38-32-51-04-070	HAP 001-013, 015-026, 028-051, 054, 101-999
5	Seal	38-32-51-04-170	HAP 001-013, 015-026, 028-051, 054, 101-999
11	Valve assembly	38-32-51-04-082	HAP 001-013, 015-026, 028-051, 054, 101-999

F. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left

G. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

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H. Ball Valve Installation

SUBTASK 38-32-03-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the grease, D00016 to the packings [3] and gask-O-seals [5].

SUBTASK 38-32-03-420-001

- (2) Install the gask-O-seals [5] and the packings [3].

SUBTASK 38-32-03-420-002

- (3) Put the ball valve assembly [11] and drain elbow [18] into position.

- (a) Align the hole in the ball valve assembly [11] with the pin on the flange.

- 1) If the ball valve assembly [11] has a pin installed, remove the pin from the ball valve assembly [11].

SUBTASK 38-32-03-420-003

- (4) Install the V-band clamps [4] at the service panel and valve assembly [11] connections for the drain elbow [18].

SUBTASK 38-32-03-420-004

- (5) Tighten the clamps [4] to 60 to 65 pound-inches (6.8-7.3 newton-meters).

SUBTASK 38-32-03-420-005

- (6) Install the sleeve [2] and clamshell [1] to connect the waste tube.

- (a) Make sure that the ends between the waste tube flange and the ball valve assembly [11] flange have a nominal clearance of 0.15 in. (3.81 mm) or minimum clearance of 0.10 in. (2.54 mm) apart.

NOTE: If a minimum clearance of 0.10 in. (2.54 mm) is not obtained damage to the waste tube flange or ball valve may occur. A maximum clearance is limited by the proper installation of the clamshell clamp. The clamp must not bind, or bend when installed. All of the clamp latches must close.

SUBTASK 38-32-03-420-006

- (7) Install the bolt [14], washer [13], bushing [12], washer [17], and nut [16] to connect the linkage assembly [15].

SUBTASK 38-32-03-420-007

- (8) Install the clamp [35], bolt [36], washer [37], and spacer [38] outboard of the ball valve for the limit switch cable.

SUBTASK 38-32-03-420-008

- (9) Connect the electrical connector for the limit switch of the ball valve assembly [11].

I. Ball Valve Installation Test

SUBTASK 38-32-03-860-002

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-03-860-003

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-03-760-001

- (3) Do this task: Waste Drain Ball Valve and Control Rod - Operational Test, TASK 38-32-03-710-801.

SUBTASK 38-32-03-790-001

- (4) To do a leak check of the waste drain ball valve, do these steps:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (b) At the service panel, make sure that the control handles for the drain ball valves are in the closed position.
- (c) Make sure that the cap for the waste drain fitting outlet is closed.
- (d) Connect the water hose from the waste system servicing equipment, STD-1142, to the service panel drain valve assembly.
- (e) Use the pump on the service cart to put about 50 gal (189 l) of water into the waste tank.
- (f) Open the cap and inner door (use the PUSH-TO-OPEN lever) of the service panel drain valve assembly.
- (g) Make sure that the drain ball valve does not have a leak.

NOTE: You must wait for not less than 30 minutes after you put the water in the tanks before you do this step.

- (h) Close the drain cap.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-03-410-011

- (1) Do this task: Waste Drain Line Heater Installation, TASK 30-71-03-400-801.

HAP 031-054, 101-999

SUBTASK 38-32-03-410-009

- (2) Position and snap the cover [42] into place over the valve assembly [11].

NOTE: Route wires from heater blanket beneath cover to exit at aft end of drain valve. Make sure a protective sleeve covers the wires a minimum of 14 inches from start at heater blanket.

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HAP 031-054, 101-999 (Continued)

SUBTASK 38-32-03-410-010

- (3) Install the clamps [43] on the cover [42].

NOTE: Make sure cover does not extend beyond clamp on side of valve or interfere with the linkage assembly.

HAP ALL

SUBTASK 38-32-03-860-004

- (4) Remove safety tag and close this circuit breaker:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	5	C00233	HEATERS DRAIN

SUBTASK 38-32-03-710-001

- (5) Make sure the heater blanket is serviceable.

SUBTASK 38-32-03-610-002

- (6) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-03-410-012

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (7) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-03-410-001

- (8) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

TASK 38-32-03-000-802

4. Linkage Assembly for the Waste Drain Ball Valve Removal

(Figure 401 or Figure 402)

A. General

- (1) The Linkage Assembly has two sub-assemblies, the control rod [15] with the handle [10] and the uniball assembly [9].

B. References

<u>Reference</u>	<u>Title</u>
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

C. Expendables/Parts

<u>AMM Item</u>	<u>Description</u>	<u>AIPC Reference</u>	<u>AIPC Effectivity</u>
9	Uniball assembly	38-32-51-10-065	HAP ALL
10	Handle	38-32-51-04-195	HAP 001-013, 015-026, 028-051, 054, 101-999

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
15	Control rod	38-32-51-04-235	HAP 001-013, 015-026, 028-051, 054, 101-999

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

F. Prepare for the Removal

SUBTASK 38-32-03-010-006

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-03-010-007

- (2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-03-010-008

- (3) Open this access panel:

Number	Name/Location
145AL	Waste Service Door

SUBTASK 38-32-03-860-005

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (4) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

G. Linkage Assembly Removal

SUBTASK 38-32-03-020-007

- (1) Remove the screw [8] and washer [7] at the service panel to disconnect the uniball assembly [9].

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SUBTASK 38-32-03-020-008

- (2) Remove the bolt [14], washer [13], bushing [12], washer [17], and nut [16] to disconnect the control rod [15] from the ball valve assembly [11].

SUBTASK 38-32-03-020-009

- (3) Remove the linkage assembly and uniball assembly [9].

SUBTASK 38-32-03-020-010

- (4) Disconnect the control rod [15] end from the handle [10] to remove the uniball assembly [9].

END OF TASK

TASK 38-32-03-400-802

5. Linkage Assembly for the Waste Drain Ball Valve Installation

(Figure 401 or Figure 402)

A. General

- (1) The Linkage Assembly has two sub-assemblies, the control rod [15] with the handle [10] and the uniball assembly [9].

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-03-710-801	Waste Drain Ball Valve and Control Rod - Operational Test (P/B 501)
38-32-03-820-801	Waste Drain Ball Valve and Control Rod - Adjustment (P/B 501)

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95
D00062	Lubricant - Pneumatic System	SAE AMS-G-4343 (NATO G-392)

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
9	Uniball assembly	38-32-51-10-065	HAP ALL
10	Handle	38-32-51-04-195	HAP 001-013, 015-026, 028-051, 054, 101-999
15	Control rod	38-32-51-04-235	HAP 001-013, 015-026, 028-051, 054, 101-999

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left

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F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

G. Linkage Assembly Installation

SUBTASK 38-32-03-640-002

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the lubricant, D00062 to the internal portion of the uniball assembly [9].

SUBTASK 38-32-03-420-009

- (2) Put the linkage assembly in its position in the uniball assembly [9].

SUBTASK 38-32-03-640-003

- (3) Apply a fay surface seal with sealant, A00247 to the uniball assembly [9] and the service panel.

SUBTASK 38-32-03-420-010

- (4) Put the uniball assembly [9] in its position.

SUBTASK 38-32-03-420-011

- (5) Install the screws [8] and washers [7] to connect the uniball assembly [9] to the service panel.

SUBTASK 38-32-03-420-012

- (6) Install the bolt [14], washer [13], bushing [12], washer [17], and nut [16] to connect the control rod [15] to the ball valve assembly [11].

SUBTASK 38-32-03-820-001

- (7) Do this task: Waste Drain Ball Valve and Control Rod - Adjustment, TASK 38-32-03-820-801.

H. Linkage Assembly Installation Test

SUBTASK 38-32-03-860-006

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-03-860-007

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-03-760-002

- (3) Do this task: Waste Drain Ball Valve and Control Rod - Operational Test, TASK 38-32-03-710-801.

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-03-610-003

(1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-03-410-002

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-03-410-003

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-03-410-004

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

EFFECTIVITY
HAP ALL

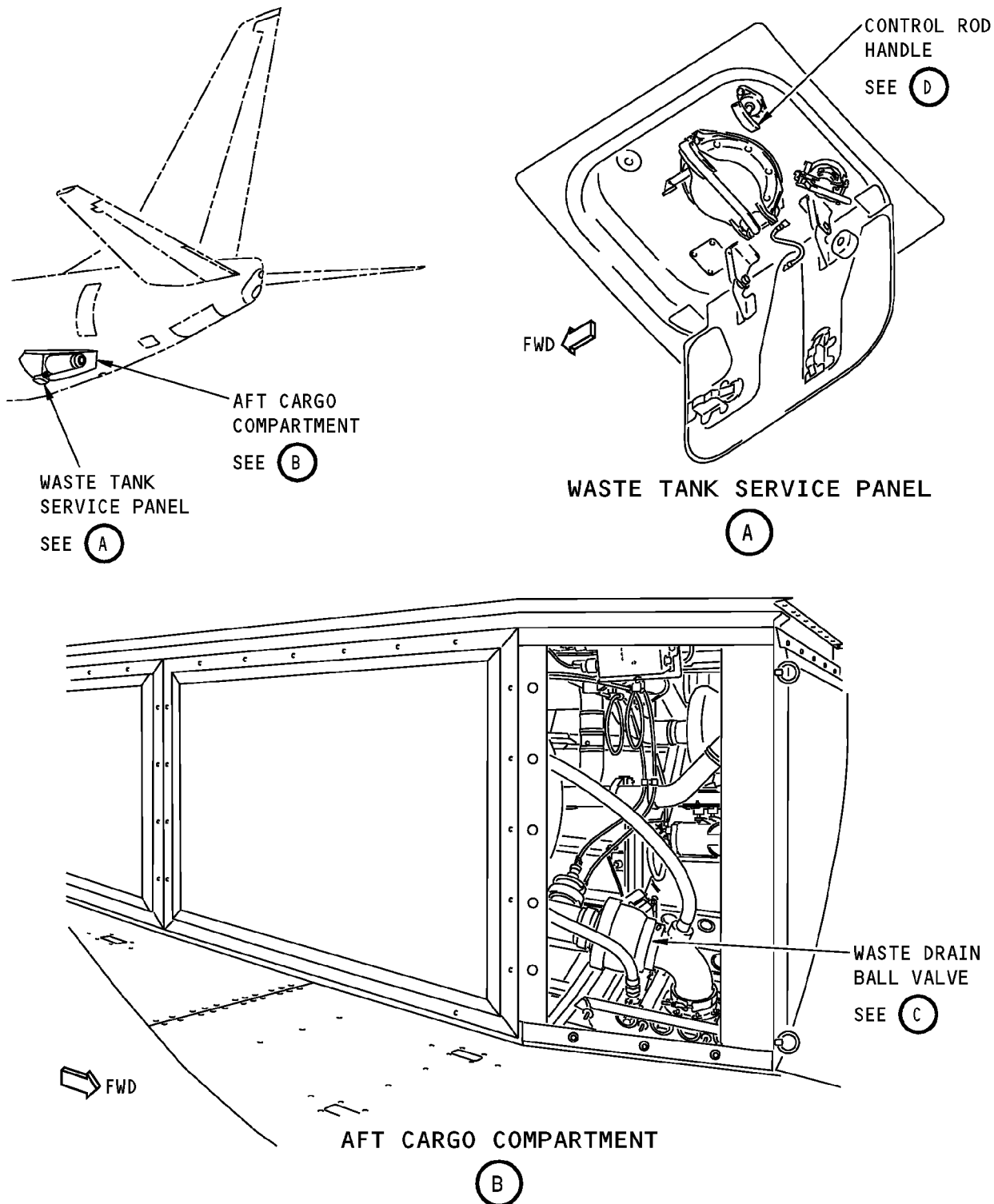
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Waste Drain Ball Valve Installation
Figure 401 (Sheet 1 of 2)/38-32-03-990-801

EFFECTIVITY
HAP 001-013, 015-026, 028-030

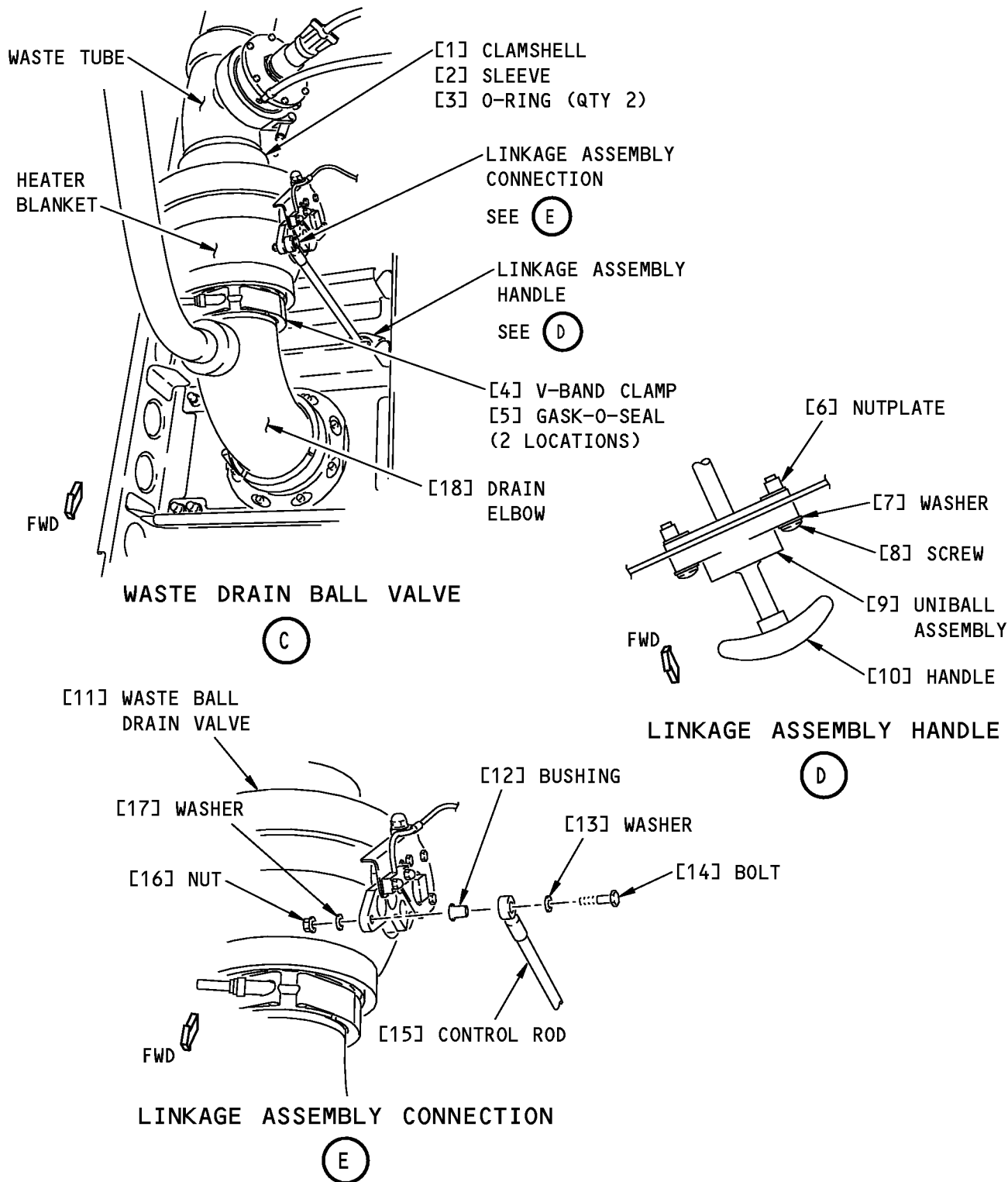
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Waste Drain Ball Valve Installation
Figure 401 (Sheet 2 of 2)/38-32-03-990-801

EFFECTIVITY
HAP 001-013, 015-026, 028-030

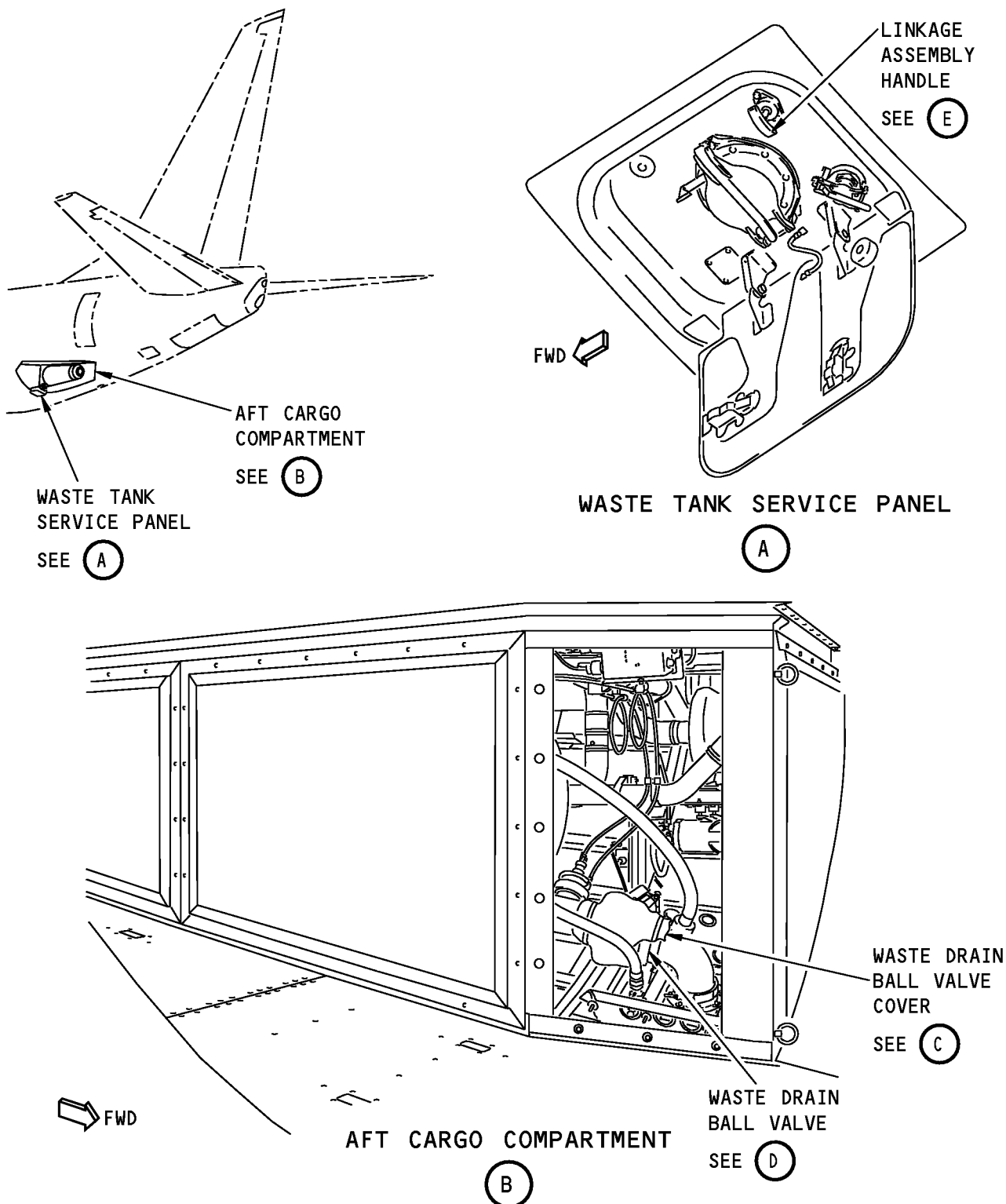
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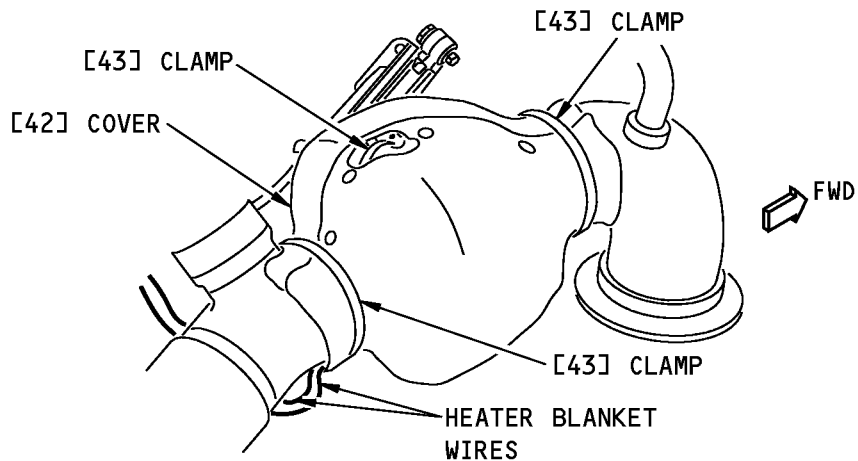
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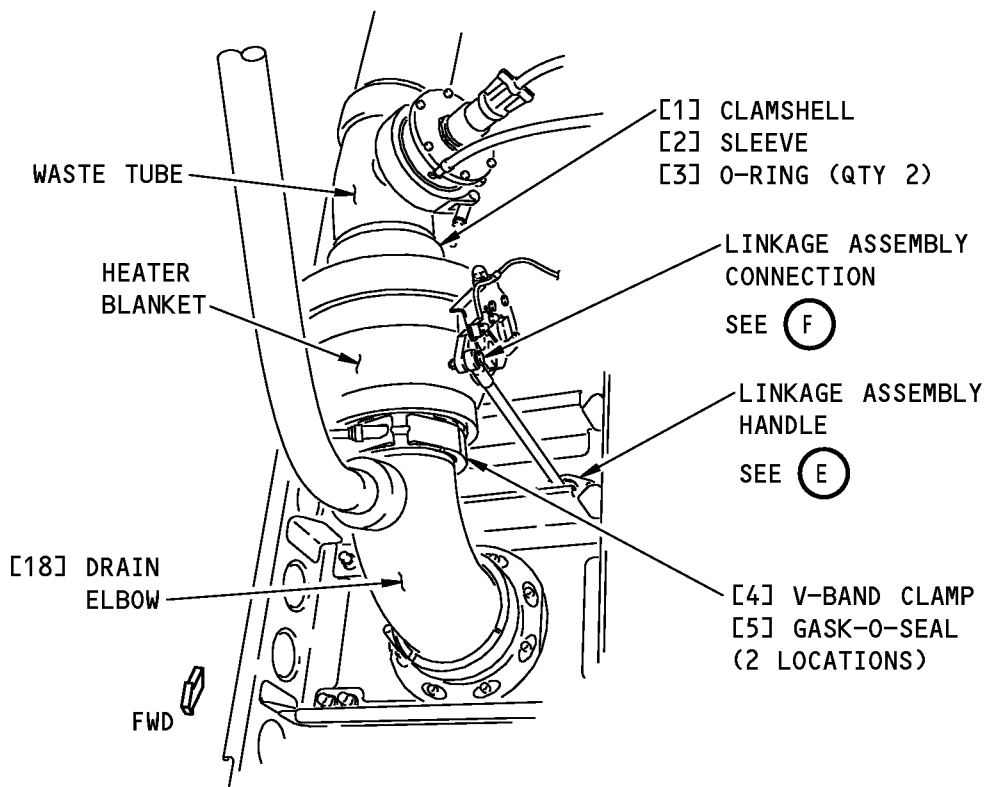
Waste Drain Ball Valve Installation
Figure 402 (Sheet 1 of 3)/38-32-03-990-804

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WASTE DRAIN BALL VALVE COVER

(C)



WASTE DRAIN BALL VALVE

(D)

1381870 S0000251723_V2

Waste Drain Ball Valve Installation
Figure 402 (Sheet 2 of 3)/38-32-03-990-804

EFFECTIVITY
HAP 031-054, 101-999

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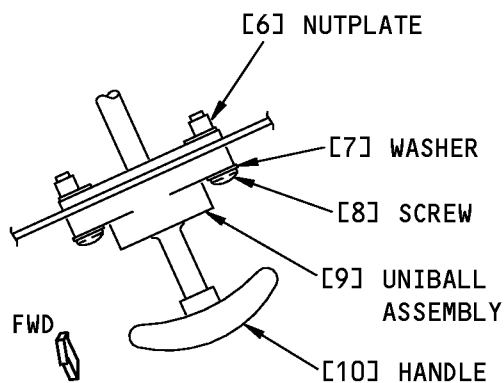
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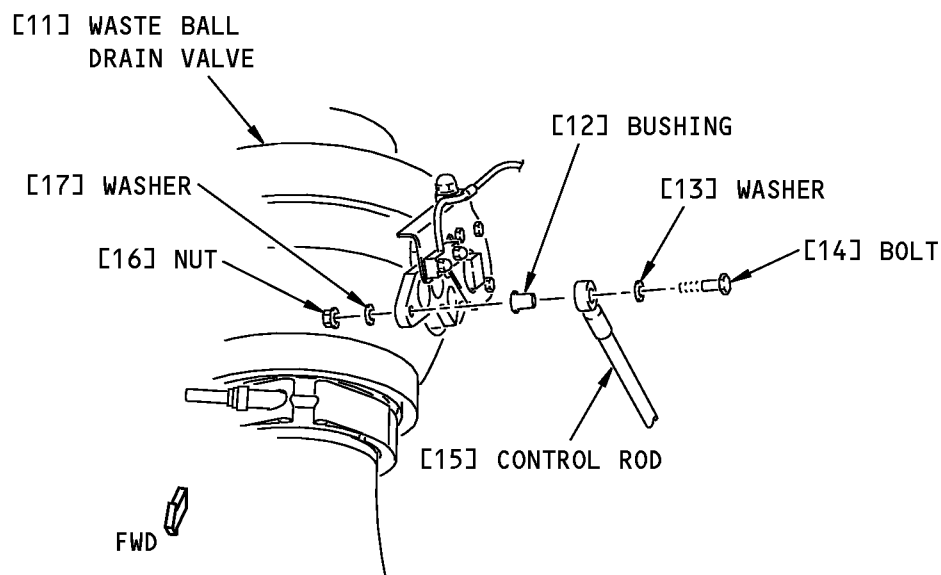


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LINKAGE ASSEMBLY HANDLE

(E)



LINKAGE ASSEMBLY CONNECTION

(F)

Waste Drain Ball Valve Installation
Figure 402 (Sheet 3 of 3)/38-32-03-990-804

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TASK 38-32-03-000-803

6. Waste Drain Ball Valve Limit Switch Removal

(Figure 403)

A. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-03-010-009

- (1) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-03-010-010

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-03-860-008

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

E. Limit Switch Removal

SUBTASK 38-32-03-020-011

- (1) Disconnect the electrical connector D11716 for the limit switch of the ball valve.

SUBTASK 38-32-03-020-012

- (2) Remove the clamp [31], bolt [32], washer [33], and nut [34] on the handle for the ball valve.

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SUBTASK 38-32-03-020-013

- (3) Remove the clamp [35], bolt [36], washer [37], and spacer [38] for the cable from the limit switch.

SUBTASK 38-32-03-020-014

- (4) Remove the screw [39] and nut [40] to disconnect the sensor [41].

————— **END OF TASK** —————

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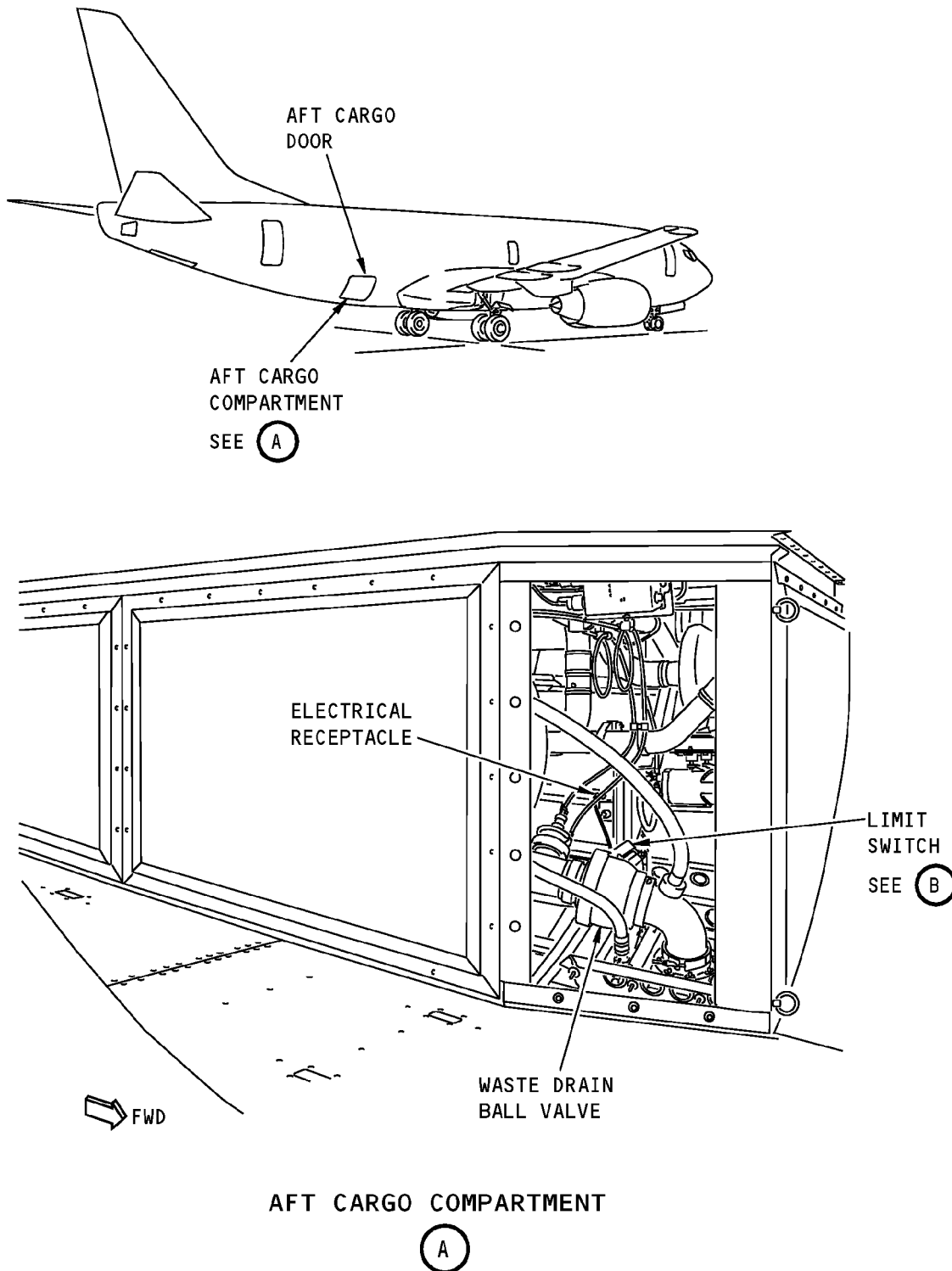
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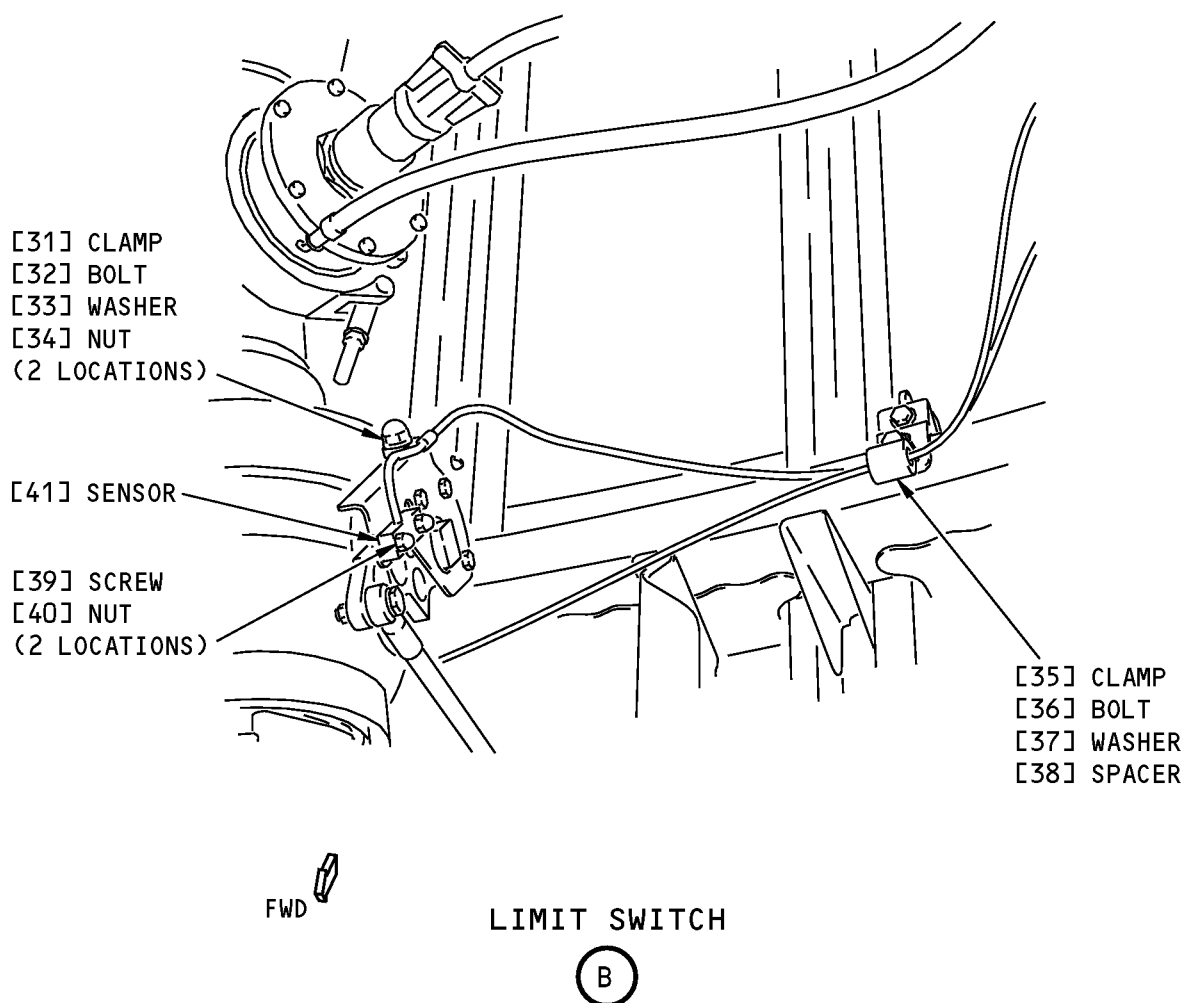
Limit Switch Installation
Figure 403 (Sheet 1 of 2)/38-32-03-990-802

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Limit Switch Installation
Figure 403 (Sheet 2 of 2)/38-32-03-990-802

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TASK 38-32-03-400-803

7. Waste Drain Ball Valve Limit Switch Installation

(Figure 401 or Figure 402)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-03-710-801	Waste Drain Ball Valve and Control Rod - Operational Test (P/B 501)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
143	Area Below Aft Cargo Compartment - Left
822	Aft Cargo Door

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Limit Switch Valve Installation

SUBTASK 38-32-03-420-013

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Put the sensor [41] in its position.

NOTE: See the waste drain ball valve manufactures instructions for further information on the sensor [41].

SUBTASK 38-32-03-420-014

- (2) Install screws [39] and nuts [40].

SUBTASK 38-32-03-420-015

- (3) Install the clamp [31], bolt [32], washer [33], and nut [34] on the ball valve.

SUBTASK 38-32-03-420-016

- (4) Install the clamp [35], bolt [36], washer [37], and spacer [38].

SUBTASK 38-32-03-420-017

- (5) Connect the electrical connector D11716 for the limit switch.

E. Limit Switch Installation Test

SUBTASK 38-32-03-860-009

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-03-860-010

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-03-760-003

- (3) Do this task: Waste Drain Ball Valve and Control Rod - Operational Test, TASK 38-32-03-710-801.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-03-610-004

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-03-010-011

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-03-410-005

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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WASTE DRAIN BALL-VALVE AND CONTROL ROD - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An operational test of the waste drain ball valve and control rod.
- (2) An adjustment of the control rod for the waste drain ball valve.

B. The Waste Drain Ball Valve is referred to as the Ball Valve in this procedure.

TASK 38-32-03-710-801

2. Waste Drain Ball Valve and Control Rod - Operational Test

A. General

(1) This task does these tests at the same time:

- (a) An operational test to measure the necessary force to use the control rod for the ball valve.
- (b) An operational test to make sure the switch on the ball valve operates correctly.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

C. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing
STD-1184	Scale - Spring, 0-100 Lbs, Tension

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left
822	Aft Cargo Door

E. Access Panels

Number	Name/Location
145AL	Waste Service Door

F. Prepare for the Test

SUBTASK 38-32-03-910-001

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-03-010-012

- (2) At the waste service panel, do these steps:

(a) Open this access panel:

Number	Name/Location
145AL	Waste Service Door

- (b) Open the cap on the waste drain valve assembly.

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- (c) Connect the waste drain hose from the toilet service waste system servicing equipment, STD-1142 to the waste drain valve assembly.
- (d) Push the PUSH-TO-OPEN lever on the waste drain valve assembly.

SUBTASK 38-32-03-860-011

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (3) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-03-860-012

- (4) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

G. Operational Test

SUBTASK 38-32-03-480-001

- (1) Connect the spring scale (0-100 Lbs), STD-1184 to the handle for the ball valve.

SUBTASK 38-32-03-710-002

- (2) Do a test of the force that is necessary to open the ball valve as follows:
 - (a) Pull down on the spring scale (0-100 Lbs), STD-1184 until the ball valve is fully open.
 - (b) At the same time, read the maximum force on the spring scale (0-100 Lbs), STD-1184.
 - (c) Make sure the maximum force on the spring scale (0-100 Lbs), STD-1184 is less than 50 pounds.
 - (d) Disconnect the spring scale (0-100 Lbs), STD-1184 from the handle for the ball valve.
 - (e) Push on the handle for the ball valve until the ball valve is closed.

SUBTASK 38-32-03-710-003

- (3) Make sure the switch on the ball valve operates correctly as follows:
 - (a) Pull down on the handle until the ball valve is fully open.
 - (b) Push the flush switch for a toilet.
 - (c) Make sure the vacuum blower does not operate.
 - (d) Push on the handle for the ball valve until the ball valve is closed.
 - (e) Push the flush switch for a toilet.
 - (f) Make sure the forward vacuum blower does operate.
 - 1) If the vacuum blower does not operate, do this task: Waste Drain Ball Valve and Control Rod - Adjustment, TASK 38-32-03-820-801.
 - (g) If the vacuum blower operates, then continue.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-03-610-005

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-32-03-410-006

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

TASK 38-32-03-820-801

3. Waste Drain Ball Valve and Control Rod - Adjustment

(Figure 501)

A. General

(1) Use this procedure to do the adjustment of the control rod on the ball valve.

NOTE: When the ball valve is open, the limit switch stops the operation of the toilets.

B. References

<u>Reference</u>	<u>Title</u>
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Location Zones

<u>Zone</u>	<u>Area</u>
141	Aft Cargo Compartment - Left

D. Access Panels

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door
822	Aft Cargo Door

E. Prepare for the Adjustment

SUBTASK 38-32-03-610-006

(1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-03-010-013

(2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-03-010-014

(3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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SUBTASK 38-32-03-860-013

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (4) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-03-860-014

- (5) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

F. Ball Valve and Control Rod Adjustment

SUBTASK 38-32-03-820-002

- (1) Do the control rod adjustment as follows:

- (a) Disconnect the control rod assembly from the ball valve handle.
- (b) Make sure the ball valve is fully closed.
- (c) Make sure you close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (d) Adjust the length of the control rod to align the hole in the rod end and the ball valve handle.
 - 1) Loosen the jamnut to turn the control rod in the rod end.
- (e) Make sure you can see the threads of the control rod in the witness hole of the rod end.
- (f) Tighten the jamnut for the rod end.
- (g) Connect the control rod assembly to the ball valve handle.

SUBTASK 38-32-03-760-004

- (2) Do this task: Waste Drain Ball Valve and Control Rod - Operational Test, TASK 38-32-03-710-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-03-610-007

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-03-410-007

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

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SUBTASK 38-32-03-410-008

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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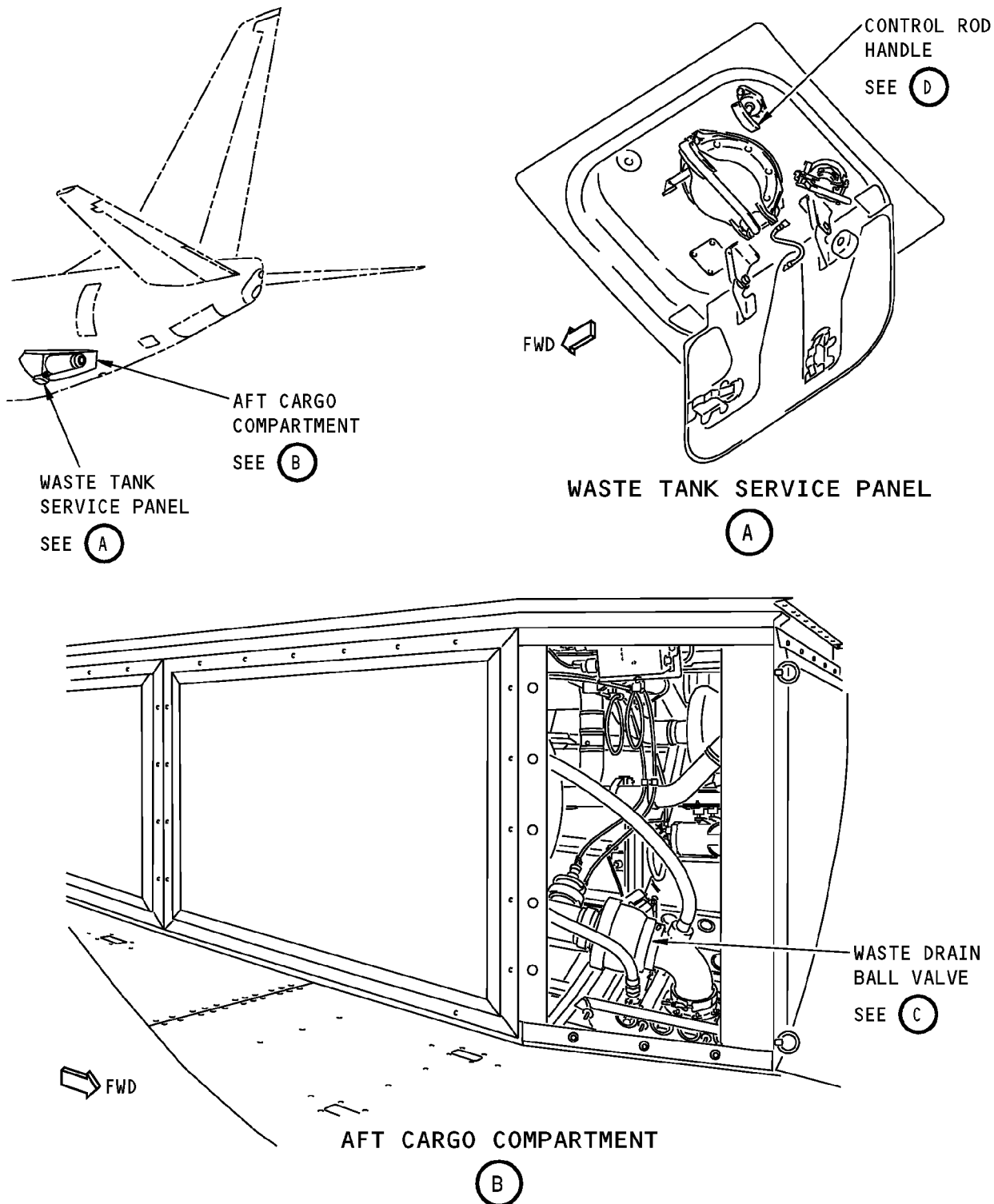
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Waste Drain Ball Valve Adjustment
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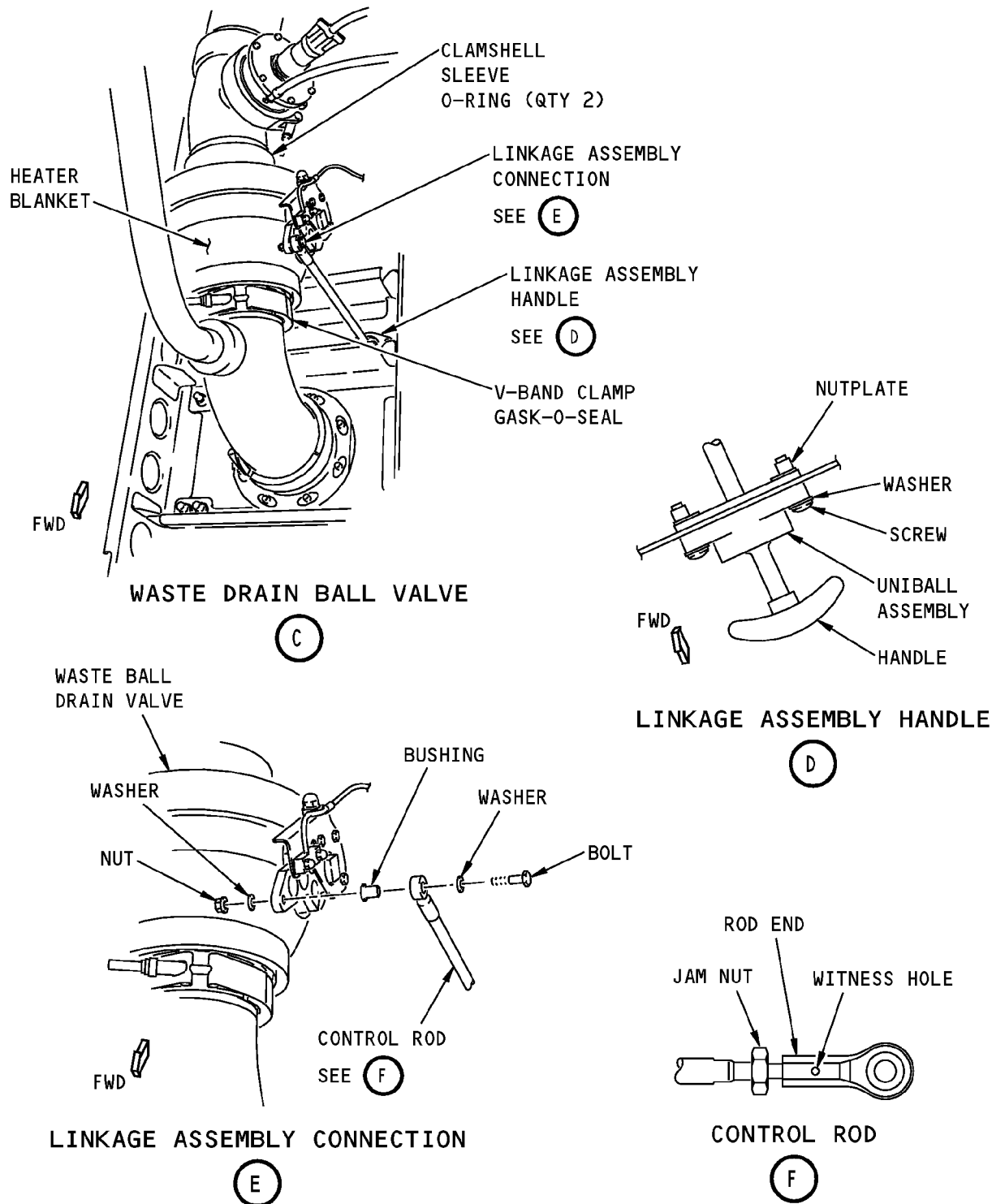
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FLUSH SWITCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the flush switch.
- (2) An installation of the flush switch.

TASK 38-32-04-000-801

2. Flush Switch Removal

(Figure 401)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the Removal

SUBTASK 38-32-04-010-001

- (1) Get access to the lavatory.

SUBTASK 38-32-04-860-001

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

C. Flush Switch Removal

SUBTASK 38-32-04-010-002

- (1) Use an allen wrench to loosen the screws and then remove the escutcheon.

SUBTASK 38-32-04-010-003

- (2) Remove the collar assembly with the flush button hole.

SUBTASK 38-32-04-020-001

- (3) Remove the screws [10] and washers [11] to remove the flush switch assembly [12]

SUBTASK 38-32-04-020-002

- (4) Disconnect the electrical connectors for the switch [3].

SUBTASK 38-32-04-020-003

- (5) Get access to the switch [3] as follows:

- (a) Push the sides of the flush button [6].
- (b) Pull the top of the flush button [6] out and then down.

SUBTASK 38-32-04-020-004

- (6) Remove the screws [1], washers [8] and nuts [7] to remove the switch mounting plate [9].

SUBTASK 38-32-04-020-005

- (7) Remove the screws [2], nuts [5] to remove the clamp plate [4] for the switch [3].

SUBTASK 38-32-04-020-006

- (8) Remove the switch [3].

————— END OF TASK —————

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TASK 38-32-04-400-801

3. Flush Switch Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Switch	38-32-04-01-180	HAP 001-013, 015-026, 028-030
		38-32-04-01L-110	HAP 006, 007
		38-32-04-03-065	HAP 008-013, 015-026, 028-030
		38-32-04-04-025	HAP ALL
		38-32-04-04D-020	HAP ALL
		38-32-04-05-065	HAP 008-013
		38-32-04-06A-110	HAP 015-026, 028-030
		38-32-04-17A-110	HAP 006, 007
12	Switch assembly	38-32-04-01-160	HAP 001-013, 015-026, 028-030
		38-32-04-01L-105	HAP 006, 007
		38-32-04-03-050	HAP 008-013, 015-026, 028-030
		38-32-04-05-050	HAP 008-013
		38-32-04-06A-105	HAP 015-026, 028-030
		38-32-04-17A-105	HAP 006, 007

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Flush Switch Installation

SUBTASK 38-32-04-420-001

(1) Put the switch [3] in its position on the switch mounting plate [9].

SUBTASK 38-32-04-420-002

(2) Install the screws [2], nuts [5] and clamp plate [4] to connect the switch mounting plate [9] to the switch [3].

SUBTASK 38-32-04-420-003

(3) Put the switch mounting plate [9] in its position.

SUBTASK 38-32-04-420-004

(4) Install the screws [1], washers [8] and nuts [7] to connect the switch mounting plate [9].

SUBTASK 38-32-04-420-005

(5) Connect the electrical connectors for the switch [3].

SUBTASK 38-32-04-420-006

(6) Put the flush switch assemblies [12] in its position.

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SUBTASK 38-32-04-420-007

- (7) Install the screws [10] and washers [11] for the flush switch assemblies [12].

SUBTASK 38-32-04-420-008

- (8) Install the flush button [6] as follows:
 - (a) Push the sides of the flush button [6].
 - (b) Push the top of the flush button [6] up and then closed.

E. Flush Switch Installation Test

SUBTASK 38-32-04-860-002

- (1) Remove safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-04-860-003

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-04-710-001

- (3) Push the flush switch to make sure the toilet operates.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-04-410-001

- (1) Install the collar assembly.

SUBTASK 38-32-04-420-009

- (2) Install the flush button escutcheon.

SUBTASK 38-32-04-410-004

- (3) Close the access to the lavatory.

————— **END OF TASK** —————

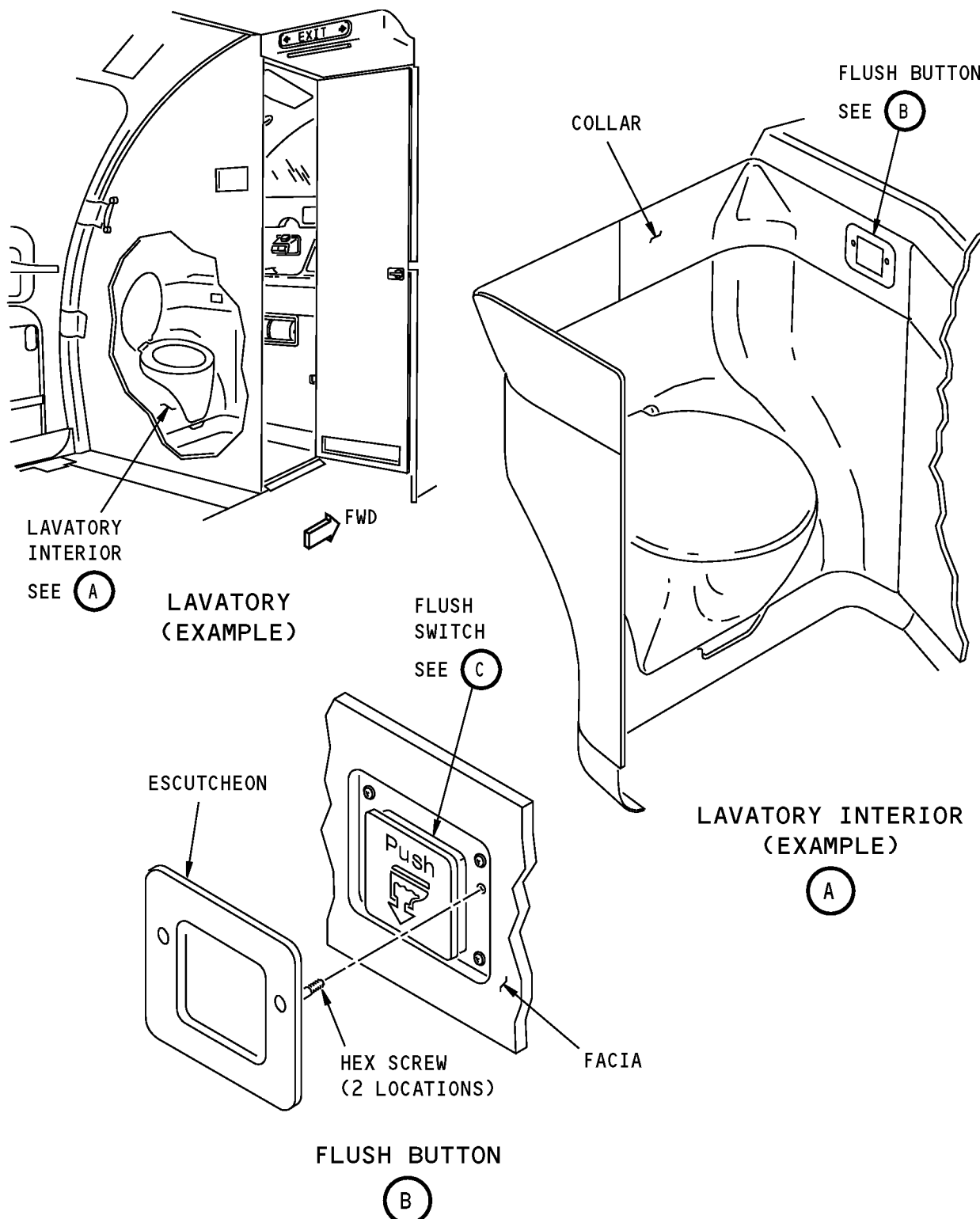
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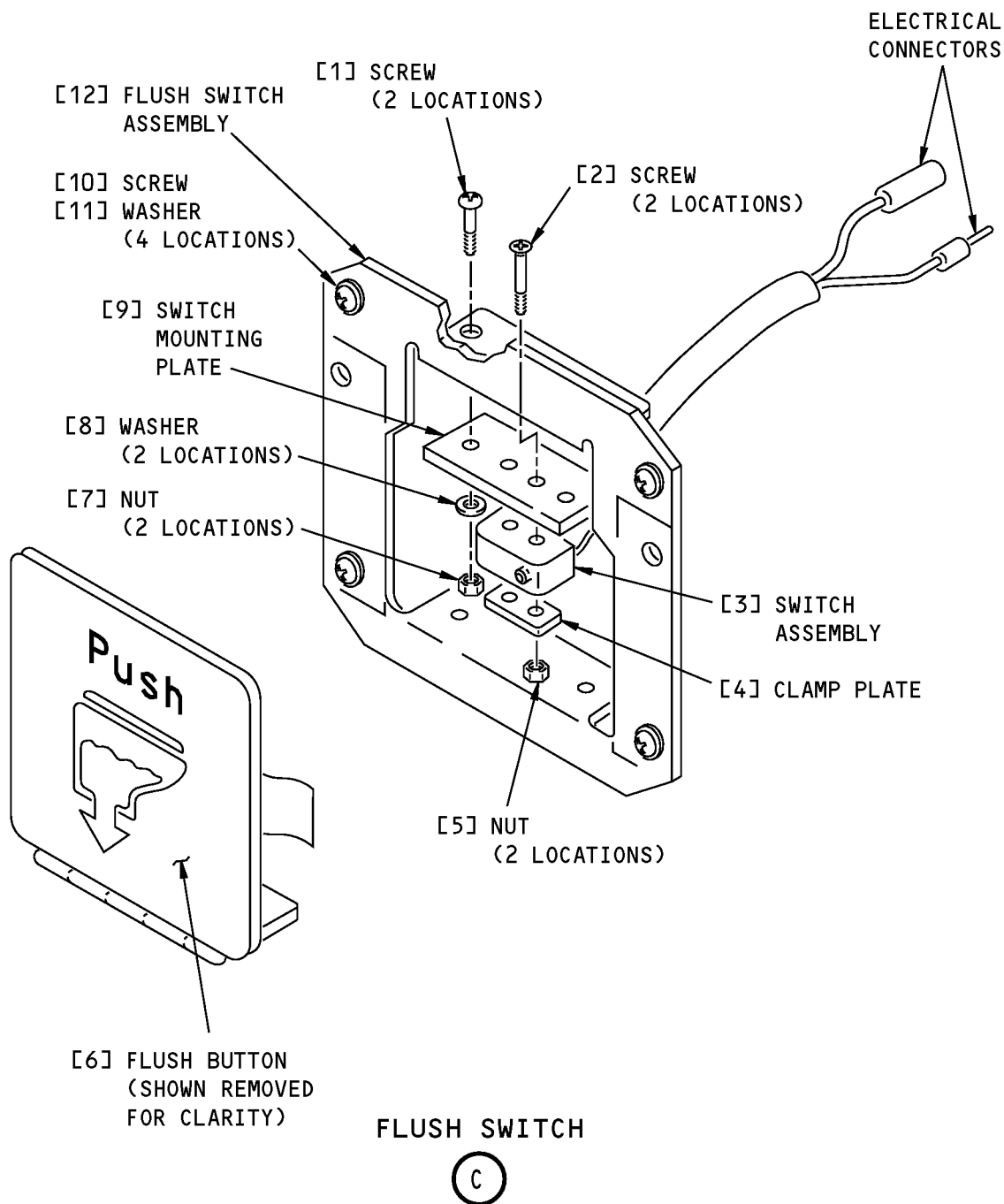
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VACUUM BLOWER - REMOVAL/INSTALLATION

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the vacuum blower.
 - (2) An installation of the vacuum blower.

HAP 001-013, 015-026, 028-030; AIRPLANES WITH VACUUM BLOWERS WITH AN AIR FILTER

- (3) A replacement of the filter for the vacuum blower.
- (4) An improved vacuum blower without filter is available. The vacuum blower without filter is optional with the vacuum blower with filter.

HAP ALL

TASK 38-32-05-000-801

2. Vacuum Blower Removal

(Figure 401)

- A. General
 - (1) This procedure removes the vacuum blower.
- B. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

- C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

- D. Access Panels

Number	Name/Location
822	Aft Cargo Door

- E. Prepare for the Removal

SUBTASK 38-32-05-010-001

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-05-010-002

- (2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-05-040-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-05-910-001

- (4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

F. Vacuum Blower Removal

SUBTASK 38-32-05-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Disconnect the electrical connector [8] from the vacuum blower assembly [2].

SUBTASK 38-32-05-020-002

- (2) To disconnect the vacuum blower assembly [2], do these steps:

- For the outlet piping for the vacuum blower, disconnect the clamps [10] to disconnect the flexible coupling [9].
- For the inlet piping for the vacuum blower, disconnect the clamps [1] to disconnect the flexible coupling [11].

SUBTASK 38-32-05-020-003

- (3) Remove the nut to disconnect the jumper assembly [7] to the vacuum blower assembly [2].

NOTE: Install the nut on the vacuum blower assembly [2].

SUBTASK 38-32-05-020-004

- (4) Remove the bolts [3], countersunk washers [4], washers [5], and nuts [6].

SUBTASK 38-32-05-020-005

- (5) Remove the vacuum blower assembly [2] from its position.

————— **END OF TASK** —————

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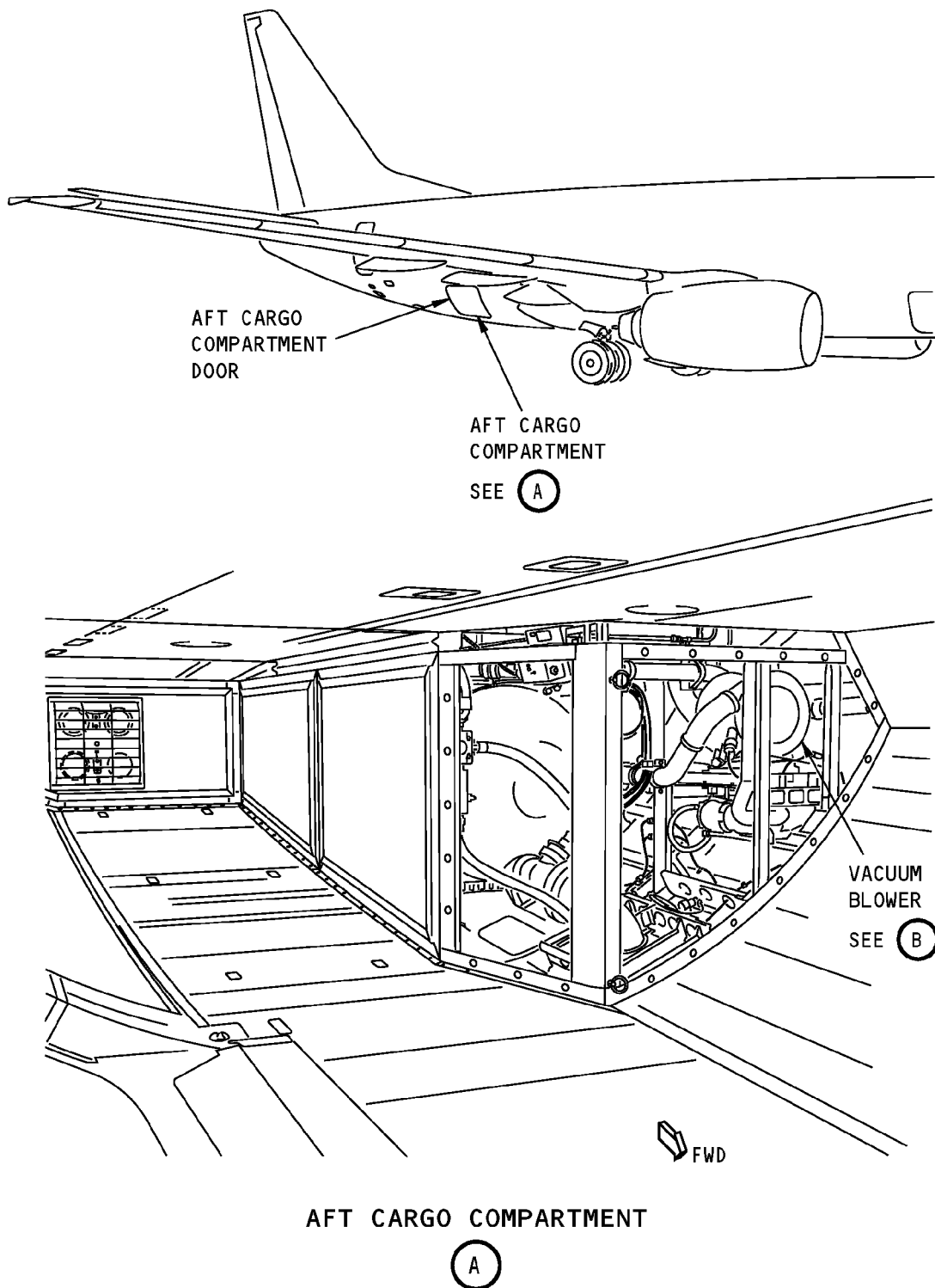
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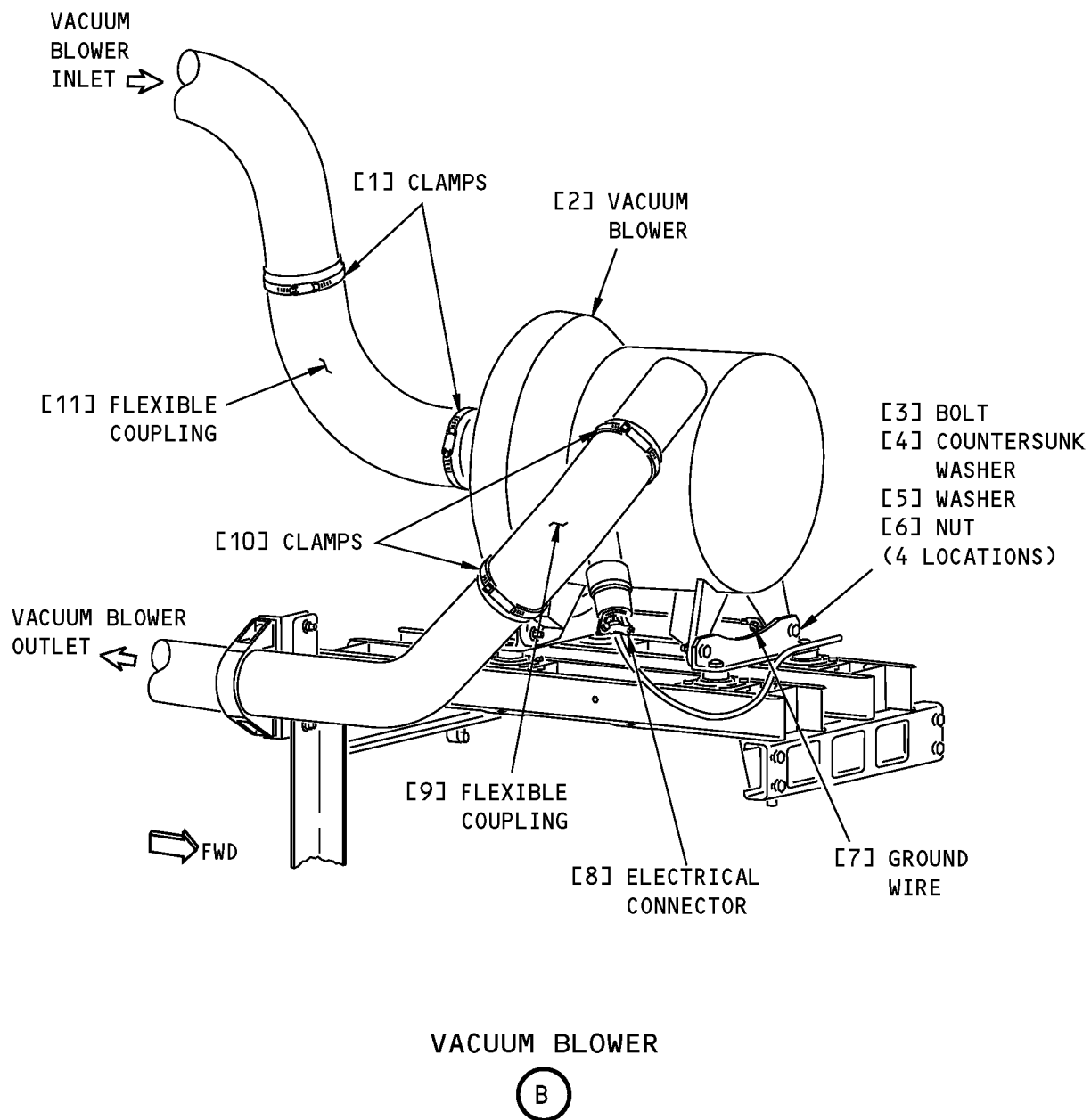
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TASK 38-32-05-400-801

3. Vacuum Blower Installation

(Figure 401)

A. General

- (1) This procedure installs the vacuum blower.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Blower assembly	38-32-05-01-030	HAP ALL
		38-32-05-01-205	HAP ALL

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Vacuum Blower Installation

SUBTASK 38-32-05-420-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Put the vacuum blower assembly [2] in its position.

SUBTASK 38-32-05-420-002

- (2) Install the bolts [3], countersunk washers [4], washers [5], and nuts [6].

NOTE: The installation of the aft bolts [3] is with the head in the aft direction and the forward bolts [3] with the head in the forward direction.

SUBTASK 38-32-05-420-003

- (3) Connect the vacuum blower assembly [2] as follows:

- (a) For the inlet piping, connect the flexible coupling [11] with the clamps [1].
- (b) For the outlet piping, connect the flexible coupling [9] with the clamps [10].

SUBTASK 38-32-05-020-006

- (4) Remove the nut that attaches the jumper assembly from the vacuum blower assembly [2].

NOTE: The nut is on the vacuum blower assembly [2].

SUBTASK 38-32-05-420-004

- (5) Connect the jumper assembly [7] with the nut from the vacuum blower assembly [2].

SUBTASK 38-32-05-420-005

- (6) Connect the electrical connector [8] to the vacuum blower assembly [2].

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G. Vacuum Blower Installation Test

SUBTASK 38-32-05-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-05-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-05-760-001

- (3) Make sure the vacuum blower operates as follows:

- (a) Make sure the vacuum blower starts when you push the flush switch for a toilet.

NOTE: If the vacuum blower operates before you push the flush switch, there is a problem in the control circuits.

- (b) Make sure the vacuum blower stops after approximately 15 seconds.

NOTE: If the vacuum blower continues to operate after approximately 15 seconds, there is a problem in the control circuits.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-05-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE FIRE EXTINGUISHING AGENT OR SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-05-410-001

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

_____ **END OF TASK** _____

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TASK 38-32-05-960-801

4. Vacuum Blower Filter Replacement

(Figure 402)

A. General

- (1) This procedure is a scheduled maintenance task.

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HAP 001-013, 015-026, 028-030; AIRPLANES WITH VACUUM BLOWERS WITH AN AIR FILTER (Continued)

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Tools/Equipment

Reference	Description
STD-1280	Source - Air, Regulated, Dry Filtered, 0-30 PSIG

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
31	Packing	38-32-05-01-055	HAP 001-013, 015-026, 028-030
		38-32-05-01-150	HAP 001-013, 015-026, 028-030
32	Filter assembly	38-32-05-01-060	HAP 001-013, 015-026, 028-030
		38-32-05-01-155	HAP 001-013, 015-026, 028-030

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
822	Aft Cargo Door

G. Prepare for the Removal

NOTE: There are two possible vacuum blowers. The old configuration vacuum blower, part number 606802-2, has a filter. The replacement vacuum blower, part number 645172-(), does not have a filter. The vacuum blower without a filter is optional to the vacuum blower with a filter.

SUBTASK 38-32-05-010-004

(1) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-05-010-005

(2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-05-040-002

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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HAP 001-013, 015-026, 028-030; AIRPLANES WITH VACUUM BLOWERS WITH AN AIR FILTER (Continued)

(WARNING PRECEDES)

- (3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

H. Vacuum Blower Filter Removal

SUBTASK 38-32-05-020-007

- (1) Remove the packings [31] that attach the vacuum blower filter assembly [32] to the vacuum blower.

SUBTASK 38-32-05-020-008

- (2) Remove the vacuum blower filter assembly [32] from the vacuum blower.

I. Vacuum Blower Filter Cleaning

SUBTASK 38-32-05-420-008

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Clean the vacuum blower filter assembly [32] with an 0-30 psig dry filtered regulated air source, STD-1280 in the opposite direction of the usual flow.

SUBTASK 38-32-05-420-009

- (2) Do a check of the vacuum blower filter assembly [32] for damage or signs of worn areas.

- (a) If the vacuum blower filter assembly [32] has damage or signs of worn areas, use a new vacuum blower filter assembly [32].
- (b) If the vacuum blower filter assembly [32] is serviceable, then continue.

J. Vacuum Blower Filter Installation

SUBTASK 38-32-05-420-006

- (1) Put the vacuum blower filter assembly [32] in its position.

SUBTASK 38-32-05-420-007

- (2) Install the packings [31] that attach the vacuum blower filter assembly [32] to the vacuum blower.

K. Vacuum Blower Filter Installation Test

SUBTASK 38-32-05-860-003

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

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HAP 001-013, 015-026, 028-030; AIRPLANES WITH VACUUM BLOWERS WITH AN AIR FILTER (Continued)

SUBTASK 38-32-05-860-004

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-05-760-002

(3) Make sure the vacuum blower operates as follows:

(a) Make sure the vacuum blower starts when you push the flush switch for a toilet.

NOTE: If the vacuum blower operates before you push the flush switch, there is a problem in the control circuits.

(b) Make sure the vacuum blower stops after approximately 15 seconds.

NOTE: If the vacuum blower continues to operate after approximately 15 seconds, there is a problem in the control circuits.

L. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-05-010-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE FIRE EXTINGUISHING AGENT OR SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-05-410-002

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

EFFECTIVITY
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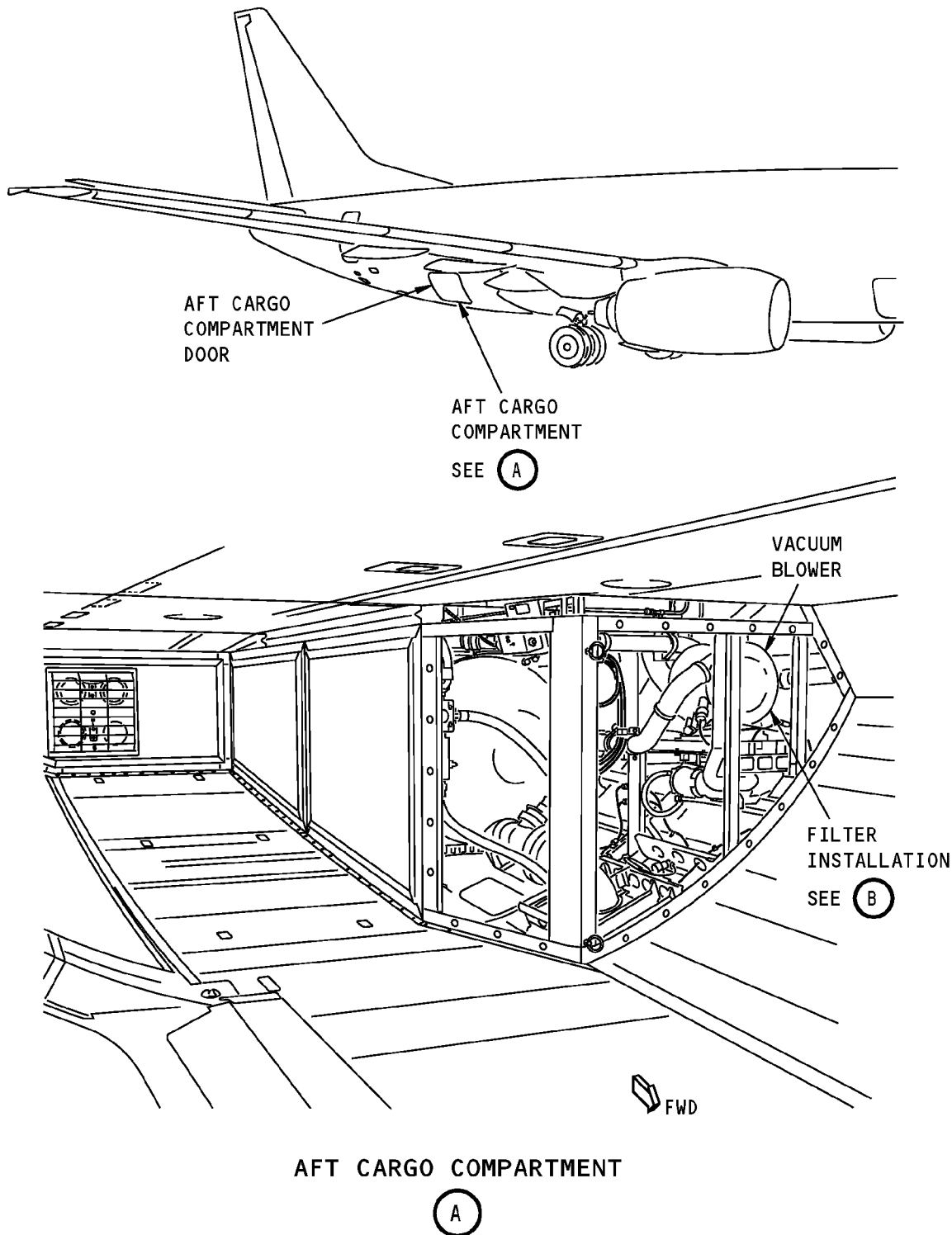
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Vacuum Blower Filter Installation
Figure 402 (Sheet 1 of 2)/38-32-05-990-802

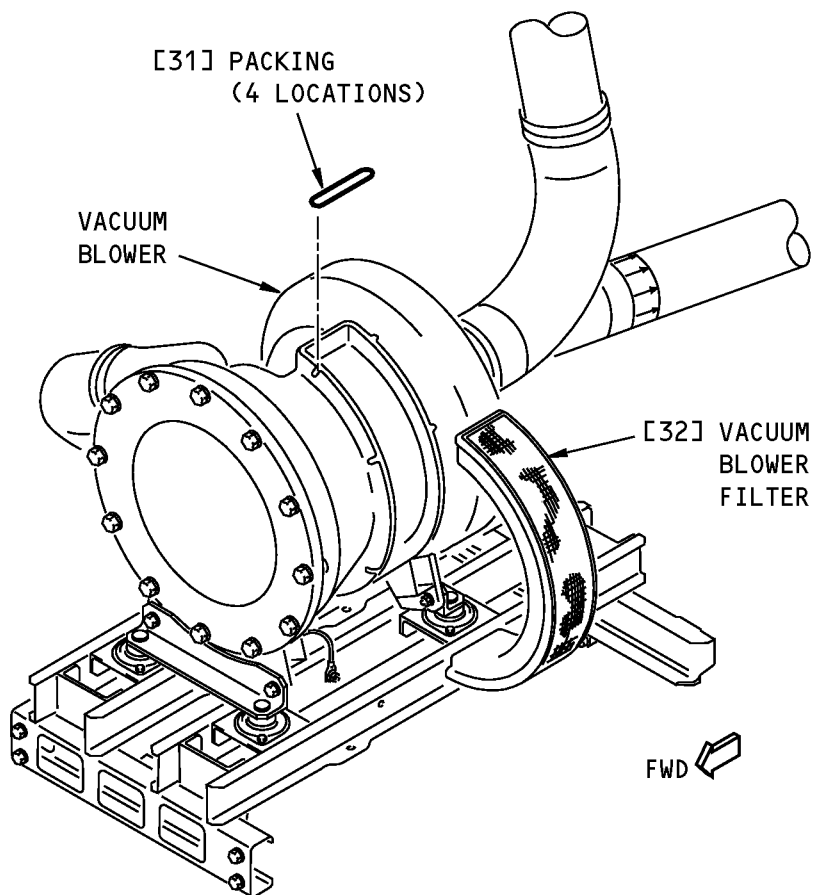
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FILTER INSTALLATION

B

Vacuum Blower Filter Installation
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VACUUM CHECK VALVE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the vacuum check valve.
- (2) An installation of the vacuum check valve.

B. The Vacuum Check Valve is referred to as the Check Valve in this procedure.

TASK 38-32-06-000-801

2. Vacuum Check Valve Removal

(Figure 401)

A. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-06-010-001

(1) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-06-010-002

(2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-06-040-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

(3) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

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SUBTASK 38-32-06-910-001

- (4) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

E. Check Valve Removal

SUBTASK 38-32-06-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Loosen the clamps [2] to disconnect the flexible couplings [1] from the check valve [3].

SUBTASK 38-32-06-020-002

- (2) Remove the check valve [3].

END OF TASK

TASK 38-32-06-400-801

3. Vacuum Check Valve Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Valve	38-32-06-01-280	HAP ALL

C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Check Valve Installation

SUBTASK 38-32-06-420-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Put the check valve [3] in its position with the flow arrow in the down direction.

SUBTASK 38-32-06-420-002

- (2) Connect the flexible couplings [1] with the clamps [2].

SUBTASK 38-32-06-420-003

- (3) Tighten clamps [2] to 45 pound-inches (5.1 newton-meters).

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F. Check Valve Installation Test

SUBTASK 38-32-06-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-06-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-06-710-001

- (3) Flush a toilet in the waste system.

SUBTASK 38-32-06-790-001

- (4) Make sure there is no leakage at the check valve connections.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-06-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-06-410-002

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

EFFECTIVITY
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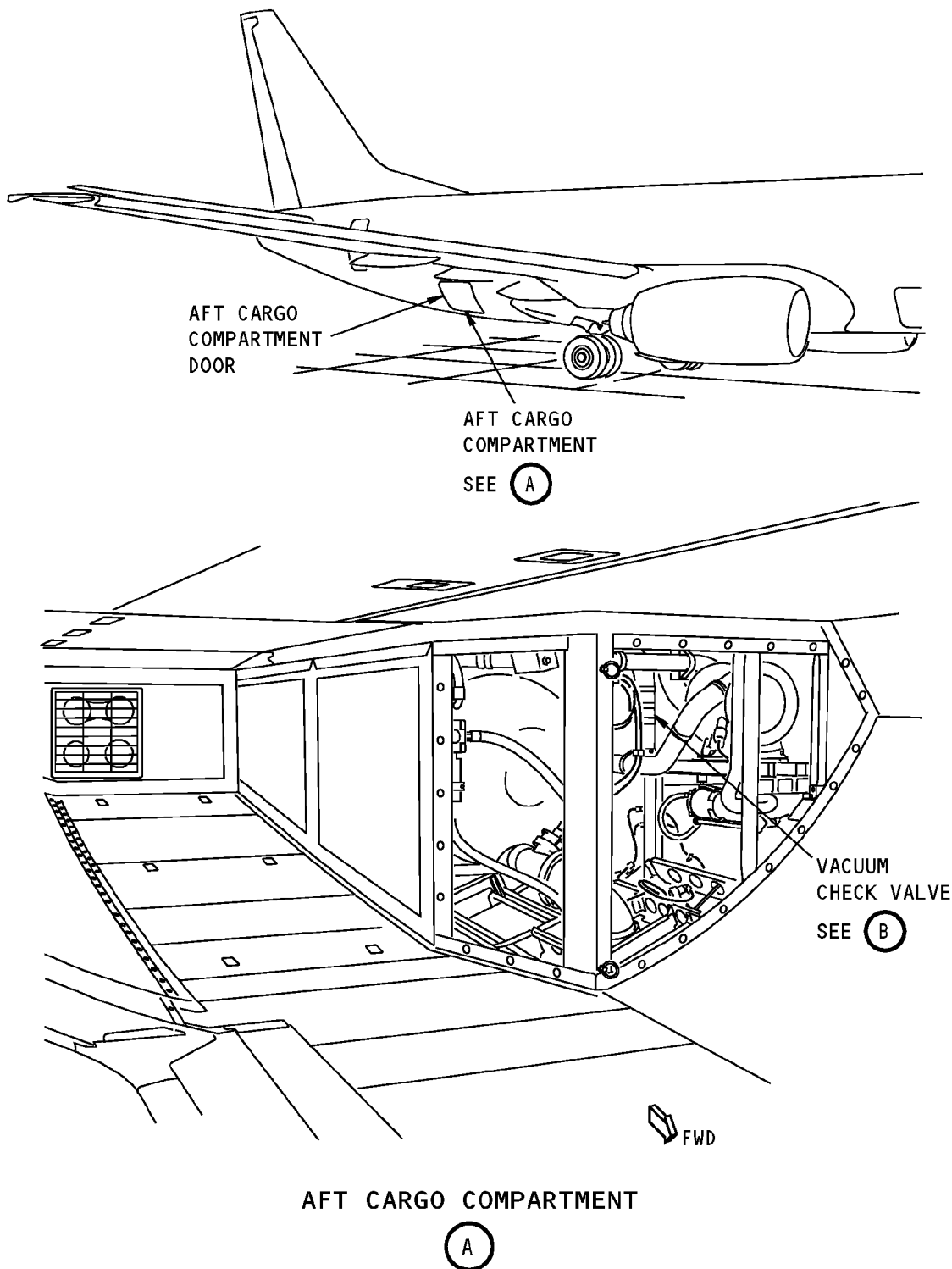
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Vacuum Check Valve Installation
Figure 401 (Sheet 1 of 2)/38-32-06-990-801

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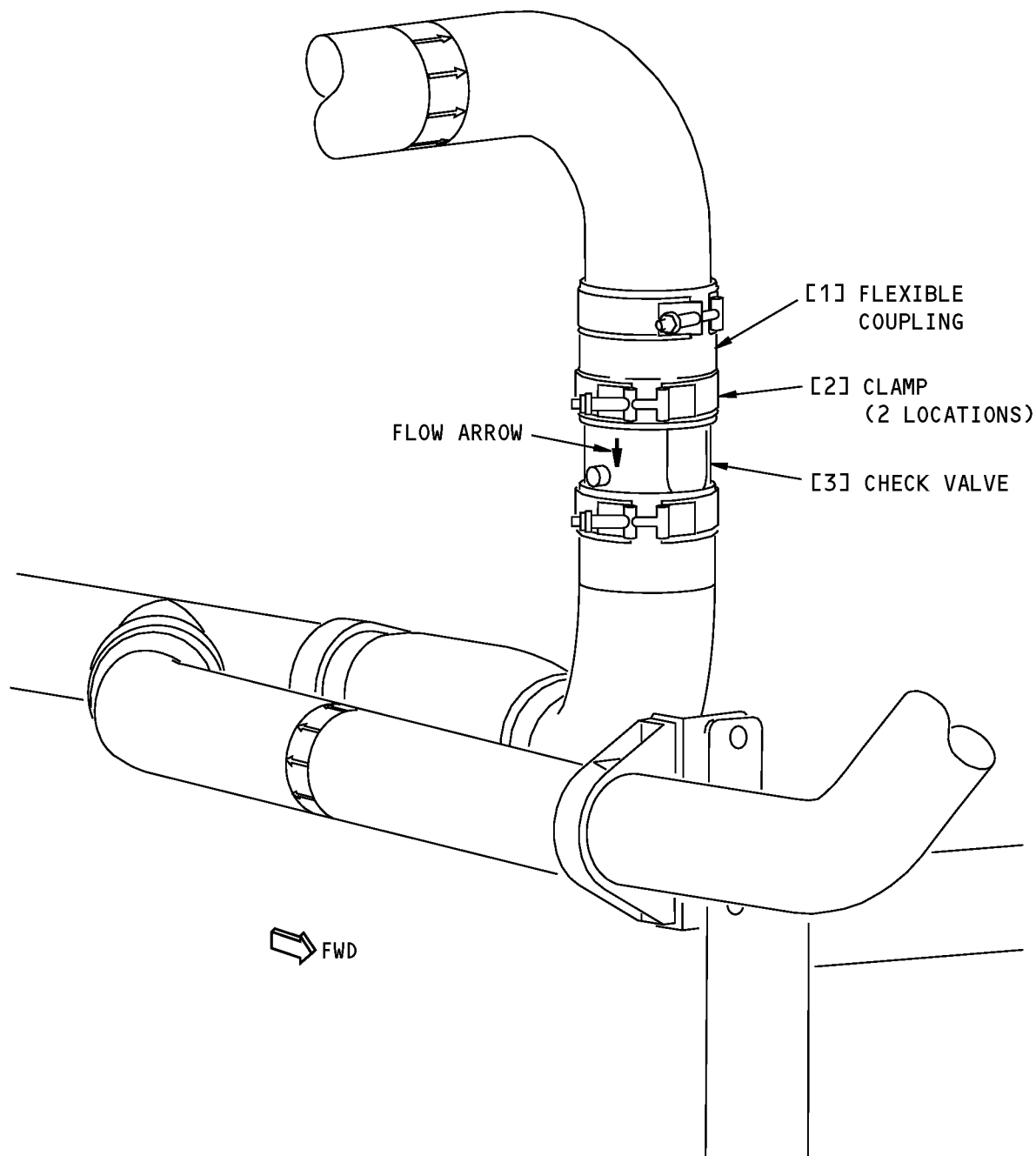
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VACUUM CHECK VALVE

(B)

Vacuum Check Valve Installation
Figure 401 (Sheet 2 of 2)/38-32-06-990-801

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WASTE TANK - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the waste tank.
- (2) An installation of the waste tank.
- (3) A cleaning of the waste tank.

TASK 38-32-07-000-801

2. Waste Tank Removal

(Figure 201)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for Removal

SUBTASK 38-32-07-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-07-010-001

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-07-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-07-010-003

- (4) Remove the pins [11] to disconnect the post [12] for removal access.

SUBTASK 38-32-07-040-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

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(WARNING PRECEDES)

- (5) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-07-910-001

- (6) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

E. Waste Tank Removal

SUBTASK 38-32-07-020-001

- (1) Disconnect the electrical connectors from the point level sensors.

SUBTASK 38-32-07-020-002

WARNING: BE CAREFUL WHEN YOU MOVE THE WASTE TANK. BECAUSE THE WASTE TANK WEIGHS MORE THAN 44 LB (20 KG), INJURIES TO PERSONNEL CAN OCCUR.

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Remove the nuts [6] and washers [7] on the inboard side of the waste tank assembly [28] to disconnect the bonding jumper [5].

SUBTASK 38-32-07-020-003

- (3) Loosen the clamp [13] to disconnect the flexible coupling [14].

SUBTASK 38-32-07-020-004

- (4) Disconnect the rinse hoses from the rinse nozzles.

SUBTASK 38-32-07-020-005

- (5) Remove the clamshells [4], sleeve [3] and packings [29] to disconnect the waste elbows [2] from the waste line.

- (a) Discard the packing [29].

SUBTASK 38-32-07-010-004

- (6) Remove the vent tubes and the waste tubes above the waste tank assembly [28] for removal access.

SUBTASK 38-32-07-020-006

- (7) Remove the clamshell [8], sleeve [9] and packing [10] to disconnect the waste tube from the waste tank outlet on the waste tank assembly [28].

- (a) To remove the sleeve [9] follow the procedure below:

- 1) Obtain a wood or plastic block to allow tapping on the edge of the sleeve [9] with a hammer.
- 2) Tap around the periphery, from forward or aft direction, whichever provides easiest access.
- 3) Once the sleeve [9] has slid off one of the o-rings, remove the sleeve [9] by hand.

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- (b) Discard the seals [10].

SUBTASK 38-32-07-020-007

- (8) Loosen the strap [1] to disconnect the aft end of the waste tank assembly [28].

SUBTASK 38-32-07-020-008

- (9) Remove the bolt [20], washer [21], bushing [22], bushing [25], washer [23] and nut [24] to disconnect the tie rod assembly [26].

SUBTASK 38-32-07-020-010

- (10) Remove the nut [30], washer [31], and bolt [32] to disconnect the bracket [33] from the waste tank assembly [28].

SUBTASK 38-32-07-020-011

WARNING: BE CAREFUL WHEN YOU MOVE THE WASTE TANK. BECAUSE THE WASTE TANK WEIGHS MORE THAN 60 POUNDS (27.2 KILOS), INJURY TO PERSONS CAN OCCUR.

- (11) Remove the waste tank assembly [28] from its position.

END OF TASK

TASK 38-32-07-400-801

3. Waste Tank Installation

(Figure 201)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-33-00-710-801	Auto Zero - Adjustment (P/B 501)
38-33-00-740-802	LCM BITE Test (P/B 501)
51-31-00-390-807	Electrical Fitting Seal Application (P/B 201)

B. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-9123	Clam Shell Clamp - Modified Hydorflow P/N 14C02-56
STD-1142	Equipment - Waste System Servicing

C. Consumable Materials

Reference	Description	Specification
D00504	Grease - Petrolatum	VV-P-236
D50007	Grease - Silicone-Based, Generic	

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
28	Tank assembly	38-32-51-08-170	HAP ALL
29	Packing	38-32-51-08-015	HAP ALL

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E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

G. Waste Tank Installation

SUBTASK 38-32-07-420-002

- (1) Do these steps before tank installation if the bracket [33] has been removed from the tank assembly [28].
 - (a) Install the bolt [17], nut [18], washers [15] and bracket [33] to the tank assembly [28].
 - (b) Install the bolt [16], nut [18] and washers [15] to connect the link [19] to the bracket [33] and tank assembly [28].

SUBTASK 38-32-07-420-001

WARNING: BE CAREFUL WHEN YOU MOVE THE WASTE TANK. BECAUSE THE WASTE TANK WEIGHS MORE THAN 60 POUNDS (27.2 KILOS), INJURY TO PERSONS CAN OCCUR.

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Put the waste tank assembly [28] in its position and loose install nut [30], washer [31], and bolt [32].

SUBTASK 38-32-07-430-001

- (3) Do the following steps to adjust the clearance for the waste tank outlet connection.

- (a) Make sure the waste tube is positioned correctly on the waste tank outlet flange.

NOTE: The center of the continuous sensor mount should be the 36 degrees outboard, + or - 2 degrees, from vertical of the waste tank outlet. Accuracy of the waste tube position affects the clearance dimensions between the waste tube and the ball valve.

- (b) If necessary, loosen the clamshell [8] connection at the forward end of the waste tube, rotate the waste tube to the correct position and tighten the clamshell [8].
- (c) Adjust the tank in a forward or aft direction to obtain a nominal clearance of 0.15 in. (3.81 mm) or minimum clearance of 0.10 in. (2.54 mm) between the ends of the waste tube flange and the waste tank outlet flange.

NOTE: If a minimum clearance of 0.10 in. (2.54 mm) is not obtained damage to the waste tank flange may occur. A maximum clearance is limited by the proper installation of the clamshell clamp. The clamp must not bind, or bend when installed. All of the clamp latches must close.

SUBTASK 38-32-07-430-003

- (4) Tighten the nut [30], washer [31], and bolt [32].

SUBTASK 38-32-07-640-001

- (5) Apply the grease, D00504 or silicone-based grease, D50007 to the packings [10].

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SUBTASK 38-32-07-420-006

- (6) Put the packings [10] in their position to connect the waste tube to the waste tank outlet of the waste tank assembly [28].

SUBTASK 38-32-07-420-007

- (7) Install the clamshell [8] and sleeve [9] to connect the waste outlet.

- (a) To install the sleeve [9] follow the procedure below:

- 1) Slide clam shell clamp, SPL-9123, over the sleeve [9] and lock in place.

NOTE: The clam shell clamp, SPL-9123, is a P/N 14C02-56 clamp with one of the lips machined off to allow the clamp to be slipped on the sleeve while the clamp is closed.

NOTE: Use of the modified clamp tool, SPL-9123, is optional.

- 2) Obtain a wood or a plastic block to allow tapping on the edge of the sleeve [9] with a hammer.
 - 3) Tap around the periphery, from forward or aft direction, whichever provides easiest access, until sleeve [9] slides over the second o-rings.

SUBTASK 38-32-07-420-004

- (8) Install the bolt [20], washer [21], bushing [22], bushing [25], washer [23] and nut [24] to connect the tie rod assembly [26].

SUBTASK 38-32-07-430-002

- (9) Adjust the tie rod assembly [26] as required and lockwire the adjustment nut [34].

SUBTASK 38-32-07-420-005

- (10) Install the strap [1] for the aft end of the waste tank assembly [28].

SUBTASK 38-32-07-640-002

- (11) Apply the grease, D00504 or silicone-based grease, D50007 to the packings [29].

SUBTASK 38-32-07-420-008

- (12) Put the packings [29] in their position to connect the waste elbows [2] to the vacuum waste lines.

SUBTASK 38-32-07-420-009

- (13) Install the sleeves [3] and clamshells [4] to connect the waste elbows [2].

SUBTASK 38-32-07-420-010

- (14) Connect the rinse hoses to the rinse nozzles.

SUBTASK 38-32-07-420-012

- (15) Tighten the clamp [13] to connect the flexible coupling [14].

SUBTASK 38-32-07-420-013

- (16) Install the nuts [6] and washers [7] on the inboard side of the waste tank assembly [28] to connect the bonding jumper [5].

- (a) To apply the sealant to both sides of the bonding jumper connections, do this task:
Electrical Fitting Seal Application, TASK 51-31-00-390-807.

SUBTASK 38-32-07-420-014

- (17) Connect the electrical connectors to the point level sensors.

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H. Waste Tank Installation Test

SUBTASK 38-32-07-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-07-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-32-07-790-002

- (3) To do a leak check of the waste tank drain line connections, do these steps:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (b) At the service panel, make sure that the control handle for the drain ball valve is in the closed position.
- (c) Make sure that the cap for the waste drain fitting outlet is closed.
- (d) Connect the water hose from the waste system servicing equipment, STD-1142, to the service panel drain valve assembly.
- (e) Use the pump on the service cart to put about 50 gal (189 l) of water into the waste tank.
- (f) Make sure that the waste tank drain line connections do not have a leak.

NOTE: You must wait for not less than 30 minutes after you put the water in the tank before you do this step.

SUBTASK 38-32-07-610-003

- (4) Do this task: LCM BITE Test, TASK 38-33-00-740-802.

SUBTASK 38-32-07-610-004

- (5) Do this task: Auto Zero - Adjustment, TASK 38-33-00-710-801.

SUBTASK 38-32-07-610-002

- (6) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-07-610-005

- (7) Flush a toilet attached to the waste tank.

SUBTASK 38-32-07-790-001

- (8) Make sure there are no leaks at the waste tank connections.

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-07-410-001

- (1) Install the pins [11] to connect the post [12].

SUBTASK 38-32-07-410-002

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-07-410-003

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

TASK 38-32-07-100-801

4. Waste Tank Cleaning

A. General

- (1) This task has these methods for cleaning the waste tank:
- (a) Clean the waste tank (in the airplane) with the cleaning tool.
 - (b) Soak the waste tank with HOT water plus a cleaning solution.

B. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-33-01-000-801	Waste Tank Point Level Sensor Removal (P/B 401)
38-33-01-400-801	Waste Tank Point Level Sensor Installation (P/B 401)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description
SPL-1944	Cleaner - Lavatory Waste Tank (Part #: A38009-11, Supplier: 81205, A/P Effectivity: 737-600, -700, -700C, -700ER, -700QC, -800, -900, -900ER, -BBJ)
STD-1088	Source - Cold Water, Regulated, 0-60 PSIG
STD-1142	Equipment - Waste System Servicing

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D. Consumable Materials

Reference	Description	Specification
B00638	Cleaner - Acidic Liquid - Honey Bee 60 (McGean-Rohco)	
B50117	Detergent - General	

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

G. Prepare for Cleaning

SUBTASK 38-32-07-610-006

WARNING: ALWAYS PUT ON RUBBER GLOVES BEFORE YOU DO MAINTENANCE ON THE TOILET SYSTEM, OR TOUCH PARTS THAT TOUCHED WASTE MATERIAL. FULLY CLEAN YOUR HANDS WITH SOAP AND WATER AFTER MAINTENANCE IS COMPLETED. THE TOILET WASTE CAN CAUSE ILLNESS AND INJURIES TO PERSONNEL.

WARNING: DO NOT TOUCH THE POTABLE WATER SYSTEM AFTER YOU DO SERVICING OR MAINTENANCE TO THE WASTE SYSTEM. AT NO TIME LET THE SAME PERSONNEL DO WORK ON THE TWO SYSTEMS AT THE SAME TIME. CHANGE YOUR CLOTHES, AND CLEAN YOUR HANDS FULLY WITH SOAP AND WATER BEFORE YOU TOUCH THE POTABLE WATER SYSTEM. CONTAMINATION OF THE POTABLE WATER SYSTEM CAN CAUSE ILLNESS AND INJURIES TO PERSONS THAT DRINK THE WATER.

WARNING: DO NOT TOUCH THE TOILET COMPONENTS OR MOVE OR SEND THEM TO A DIFFERENT LOCATION UNTIL THEY ARE CLEAN. DIRTY TOILET COMPONENTS CAN CAUSE ILLNESS AND INJURIES TO PERSONNEL.

- (1) Do this task to drain and flush the waste tank, but do not add the chemical precharge fluid: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-07-010-005

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-07-010-006

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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SUBTASK 38-32-07-040-002

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-07-910-002

- (5) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

H. Clean the Waste Tank With the Cleaner Tool

SUBTASK 38-32-07-480-001

- (1) Connect the drain hose as follows:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (b) Open the cap on the waste drain valve assembly.
(c) Connect the waste drain hose from the service waste system servicing equipment, STD-1142 to the waste drain valve assembly.
(d) Open the waste drain valve assembly.
(e) Pull a handle to open the waste drain ball valve.

SUBTASK 38-32-07-480-002

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) To install the tank cleaner at the point level sensor, do these steps:

- (a) Do this task: Waste Tank Point Level Sensor Removal, TASK 38-33-01-000-801.
(b) Install the tank lavatory waste tank cleaner, SPL-1944.

SUBTASK 38-32-07-420-015

CAUTION: USE A CLEANING SOLUTION FROM THE WASTE-TANK TEST SPECIFICATION. OTHER CLEANING SOLUTIONS CAN CAUSE DAMAGE TO THE TANK.

- (3) Connect a water source (0-60 PSIG), STD-1088 to the tank cleaner.

SUBTASK 38-32-07-140-001

- (4) Make sure the water pressure is a minimum of 45 psig (310 kPa) to the tank cleaner tool.

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SUBTASK 38-32-07-140-002

CAUTION: KEEP THE WATER TEMPERATURE AND PRESSURE BELOW THE LIMITS. IF YOU USE WATER AT A HIGHER TEMPERATURE OR PRESSURE, YOU CAN CAUSE DAMAGE TO THE TANK.

- (5) Make sure that water pressure is not more than 60 psig (414 kPa) and that water temperature is not more than 160°F (71°C).

NOTE: Hot water and higher water pressure will clean the waste tank faster.

SUBTASK 38-32-07-170-001

- (6) Operate the tank cleaner as follows:

- (a) Supply water pressure and flow to the tank cleaner tool.

NOTE: It is recommended that you operate the tank cleaner for approximately 60 minutes.

- (b) Operate the tank cleaner for a minimum 15 minutes.
 - (c) Make sure the waste system servicing equipment, STD-1142 has sufficient capacity to contain the waste water.
 - (d) Stop the operation of the tank cleaner.

SUBTASK 38-32-07-080-001

- (7) Disconnect the water supply line from the tank cleaner.

SUBTASK 38-32-07-080-002

- (8) To remove the tank cleaner at the point level sensor; do these steps:

- (a) Remove the tank cleaner.
 - (b) Do a visual check of the inner side of the waste tank to make sure the waste tank is clean.
 - 1) If the inner side of the waste tank is not clean, do this procedure again.
 - (c) If the inner side of the waste tank is clean, do this task: Waste Tank Point Level Sensor Installation, TASK 38-33-01-400-801.

SUBTASK 38-32-07-080-003

- (9) Disconnect the drain line as follows:

- (a) Push the handle to close the waste drain ball valve.
 - (b) Disconnect the waste drain hose from the waste drain valve assembly.
 - (c) Close the waste drain valve assembly.
 - (d) Close the cap on the waste drain valve assembly.
 - (e) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (f) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

- I. Soak the Waste Tank with Hot Water Plus a Cleaning Solution.

SUBTASK 38-32-07-680-001

- (1) Drain the waste system servicing equipment, STD-1142 of all chemical precharge.

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SUBTASK 38-32-07-480-003

(2) Connect the drain hose as follows:

(a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

(b) Open the cap on the waste drain valve assembly.

(c) Connect the waste drain hose from the toilet service cart to the waste drain valve assembly.

(d) Open the waste drain valve assembly.

(e) Make sure the waste drain ball valve is in the closed position.

SUBTASK 38-32-07-480-004

(3) Connect the rinse hose as follows:

(a) Open the cap on the rinse fitting assembly.

(b) Connect a rinse hose from the waste system servicing equipment, STD-1142 to the rinse fitting assembly.

SUBTASK 38-32-07-610-007

CAUTION: USE A CLEANING SOLUTION FROM THE WASTE-TANK TEST SPECIFICATION. OTHER CLEANING SOLUTIONS CAN CAUSE DAMAGE TO THE TANK.

(4) Fill the waste system servicing equipment, STD-1142 with a mixture of water and soap or cleaner solution. Make the cleaner solution using one of the following detergents/cleaners. Dilute the cleaner with water per the manufacturers instructions.

(a) Soap - general detergent, B50117 (commercially available)

NOTE: If you use a soap solution, it must not foam.

(b) Honey Bee 60 cleaner, B00638

SUBTASK 38-32-07-170-002

CAUTION: FILL THE WASTE TANK ONLY TO THE TOP OF THE WASTE TANK. TOO MUCH FLUID IN THE WASTE TANK CAN CAUSE DAMAGE TO THE VACUUM BLOWER.

(5) Fill the waste tank with 60 gallons of the disinfectant solution.

CAUTION: KEEP THE WATER TEMPERATURE AND PRESSURE BELOW THE LIMITS. IF YOU USE WATER AT A HIGHER TEMPERATURE OR PRESSURE, YOU CAN CAUSE DAMAGE TO THE TANK.

(a) Make sure that water pressure is not more than 60 psig (414 kPa) and that water temperature is not more than 160°F (71°C).

(b) Make sure that the water pressure is a minimum of 30 psig (207 kPa).

NOTE: If the water pressure is less than the minimum pressure, the waste tank will not get clean.

SUBTASK 38-32-07-170-003

(6) Let the cleaning solution stay in the waste tank for 30 to 60 minutes.

SUBTASK 38-32-07-610-008

(7) Do this task to drain and flush the waste tank, but do not add the chemical precharge fluid: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-32-07-210-001

- (8) Do a visual check of the inner side of the waste tank to make sure the waste tank is clean.
- (a) If the inner side of the waste tank is not clean, do this procedure again.
 - (b) If the inner side of the waste tank is clean, then continue.

J. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-07-440-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-07-610-009

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-07-410-004

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (3) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-07-410-005

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-07-410-006

- (5) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— **END OF TASK** —————

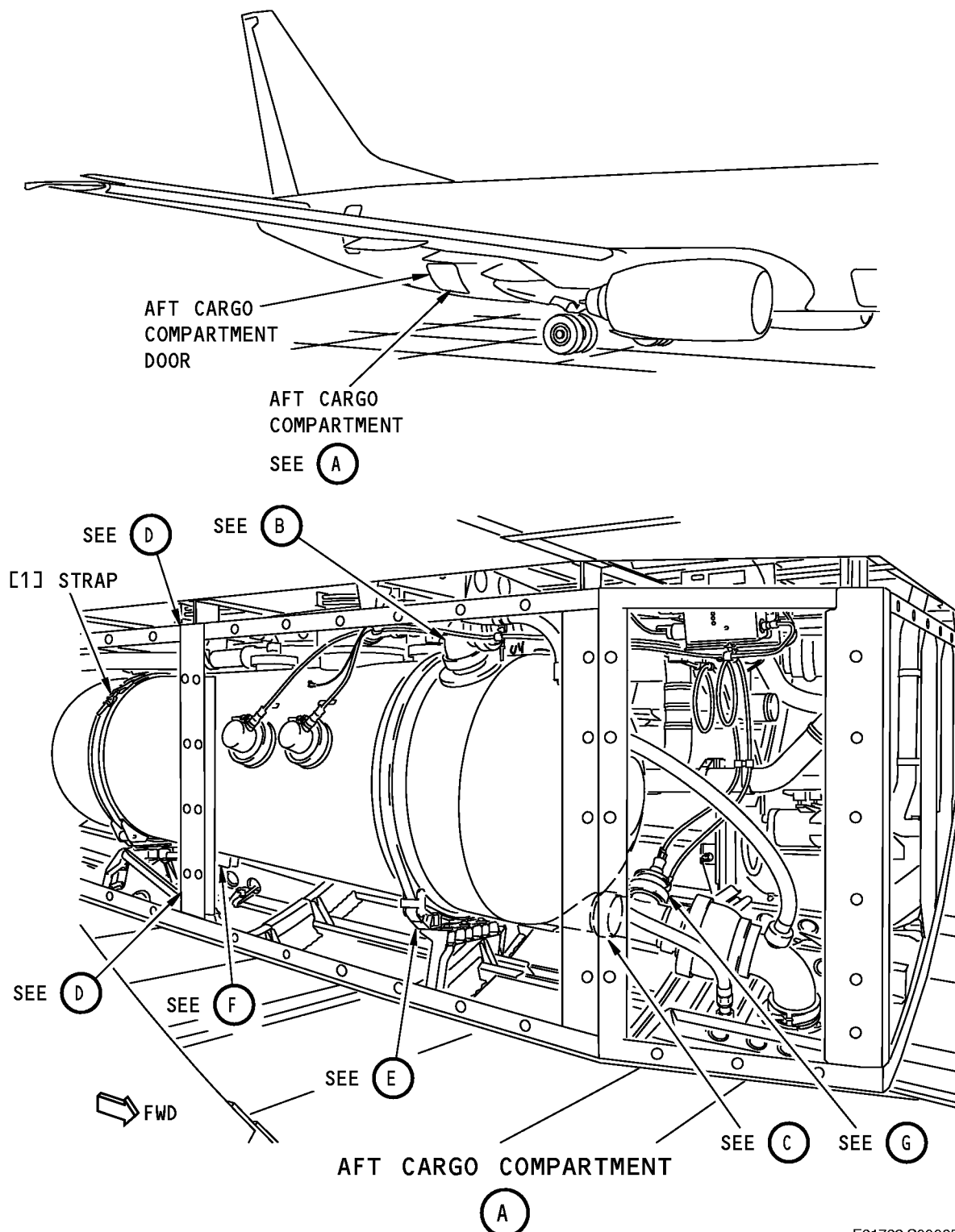
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F81783 S0006578710_V2

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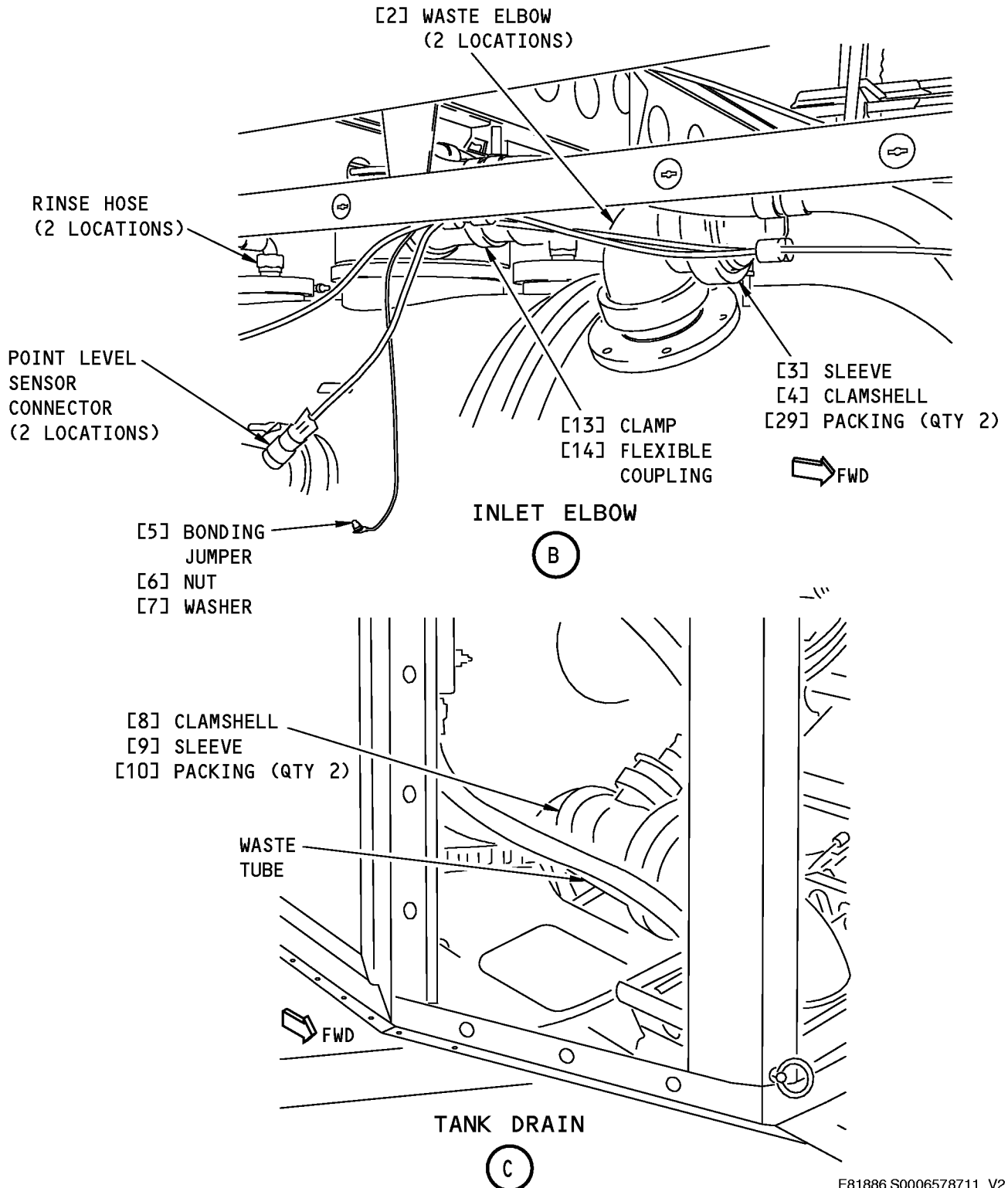
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F81886 S0006578711_V2

Waste Tank Installation
Figure 201 (Sheet 2 of 5)/38-32-07-990-801

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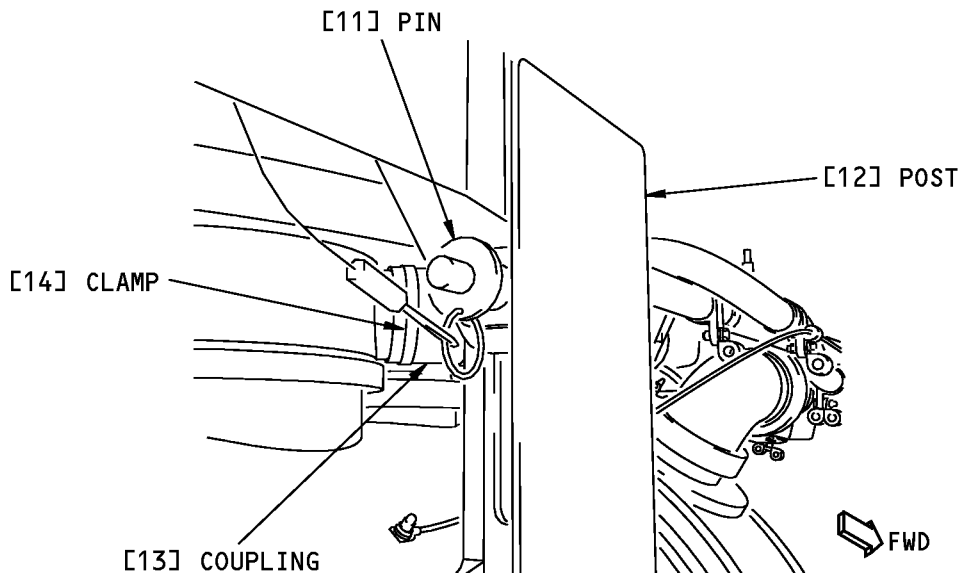
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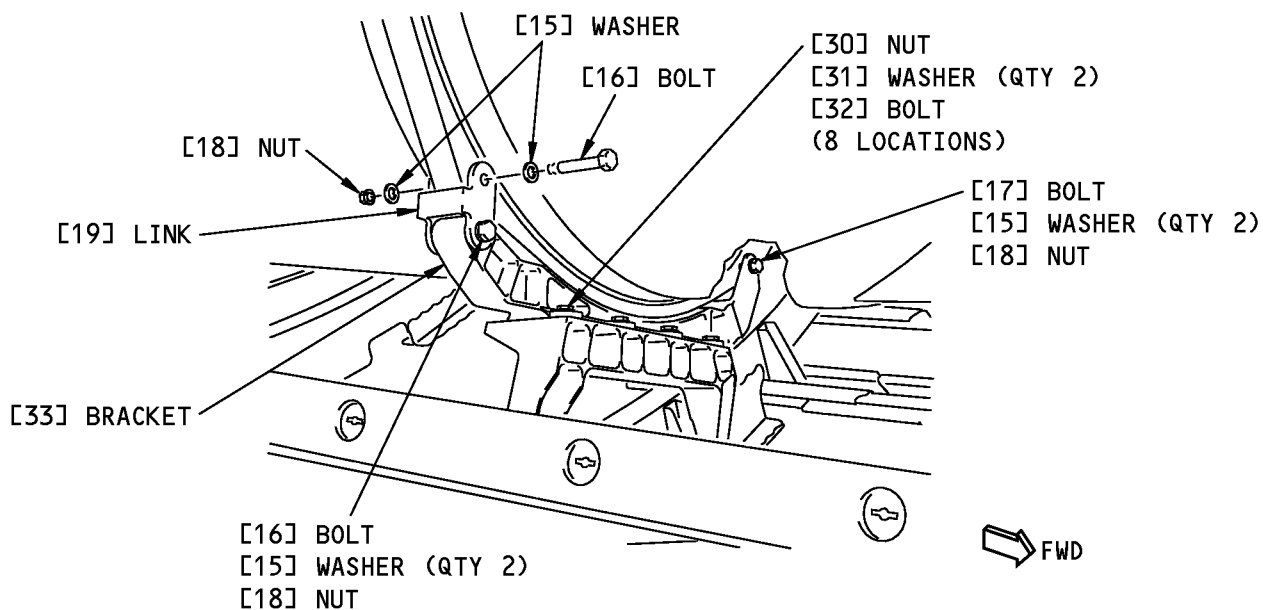
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**POST RELEASE PIN
(EXAMPLE)**

D



FORWARD MOUNT

E

F81895 S0006578712_V2

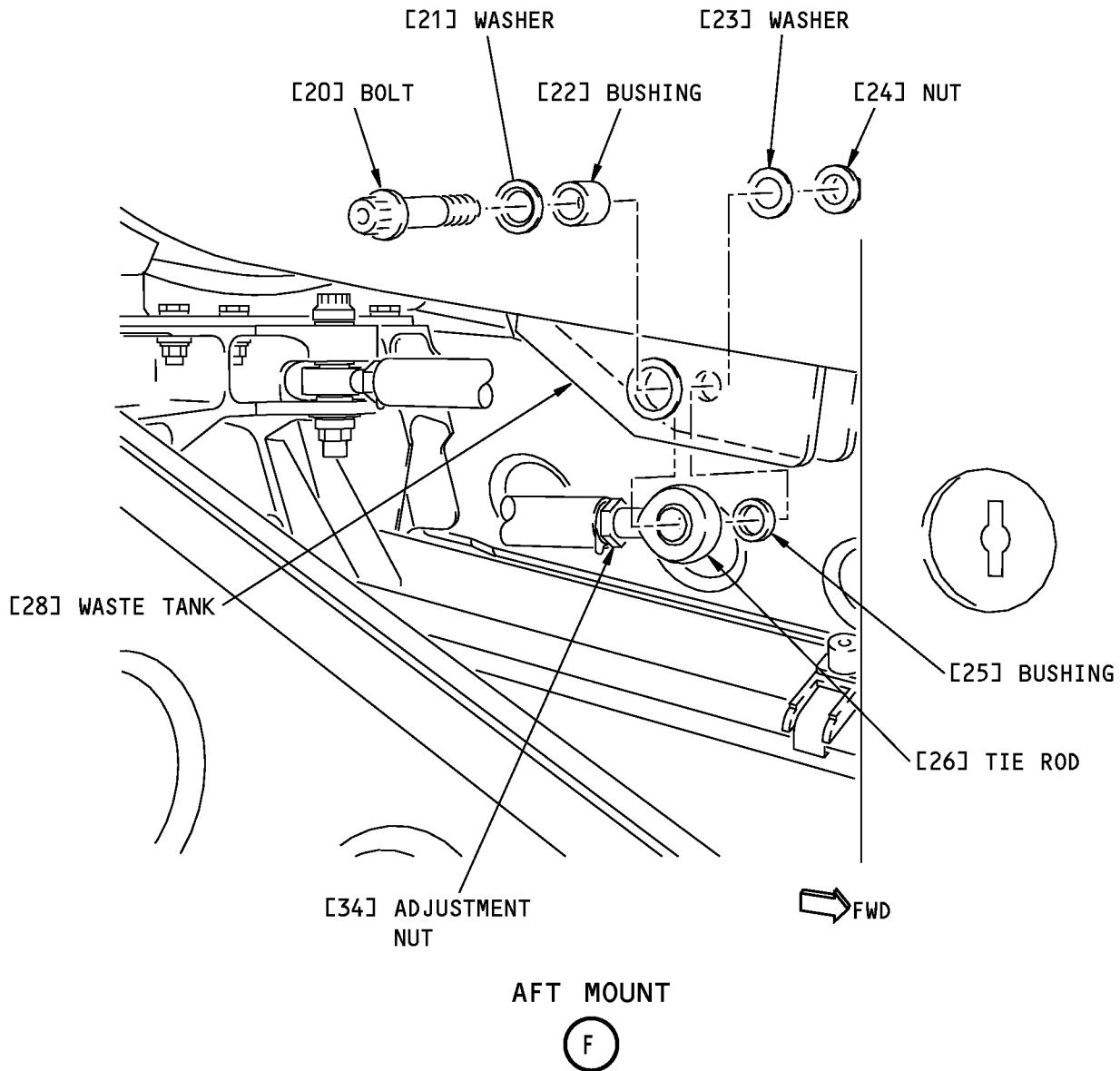
**Waste Tank Installation
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F87260 S0006578714_V2

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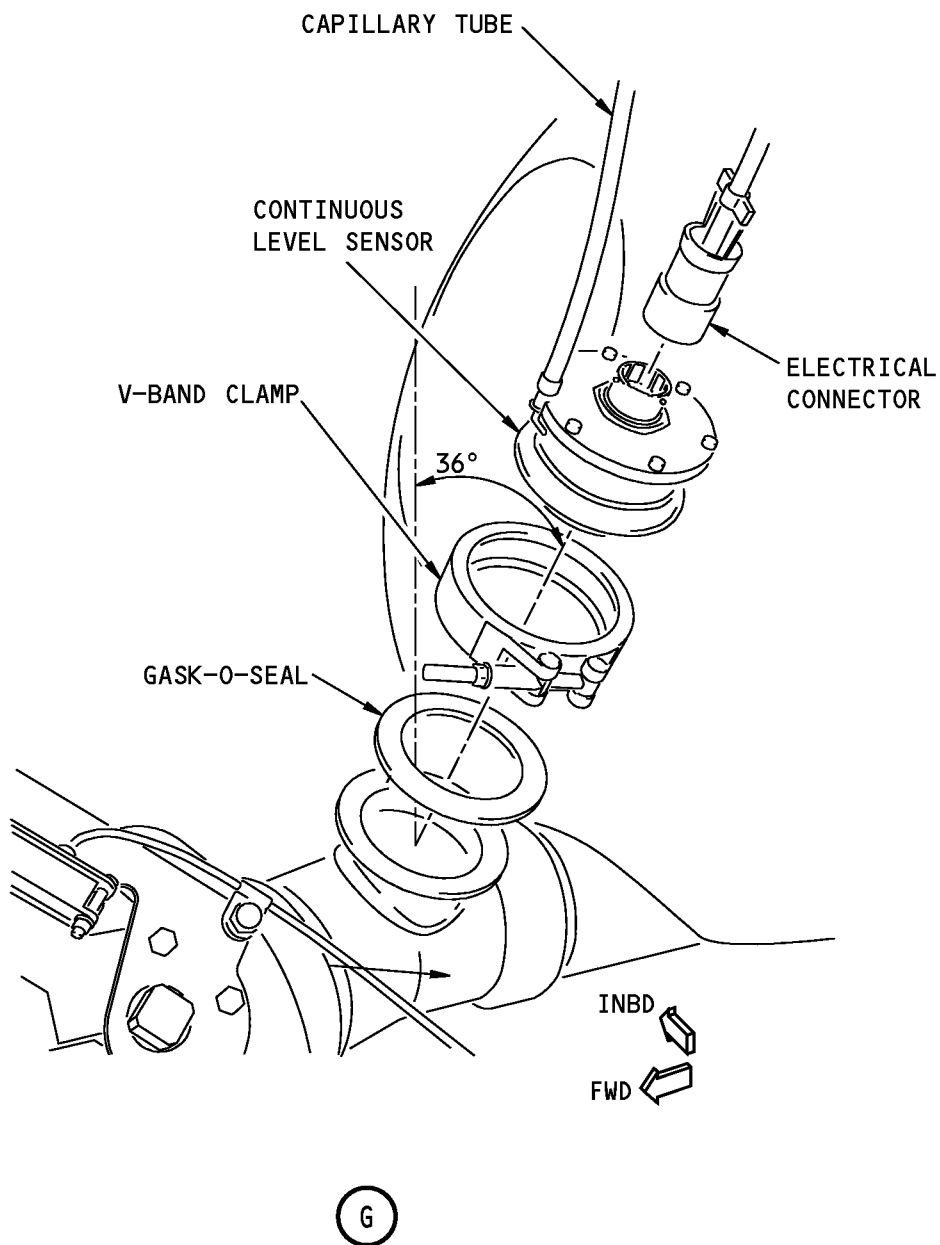
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WASTE DRAIN VALVE ASSEMBLY - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the drain valve
- (2) An installation of the drain valve.

B. The Waste Drain Valve Assembly is referred to as the Drain Valve in this procedure.

TASK 38-32-08-000-801

2. Waste Drain Valve Assembly Removal

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-08-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-08-010-001

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-08-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-08-010-003

- (4) Open this access panel:

Number	Name/Location
146AR	Water Service Door

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E. Waste Drain Valve Assembly Removal

SUBTASK 38-32-08-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

(1) Remove the clamp [4] to disconnect the waste elbow tube [5] from the drain valve [1].

SUBTASK 38-32-08-020-002

(2) Remove the gask-o- seal [6] between the waste elbow tube [5] from the drain valve [1].

SUBTASK 38-32-08-020-003

(3) Remove the bolts [3] from the drain valve [1].

SUBTASK 38-32-08-020-004

(4) Remove the drain valve [1].

SUBTASK 38-32-08-020-005

(5) Remove the toilet drain gasket [2] from the drain valve [1] or the waste tank service panel.

SUBTASK 38-32-08-020-006

(6) If it is damaged, remove the ring assembly [7].

END OF TASK

TASK 38-32-08-400-801

3. Waste Drain Valve Assembly Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Valve	38-32-51-10-090	HAP ALL
2	Gasket	38-32-51-10-010	HAP ALL
6	Seal	38-32-51-04-175	HAP 001-013, 015-026, 028-051, 054, 101-999

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

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F. Access Panels

Number	Name/Location
146AR	Water Service Door
822	Aft Cargo Door

G. Waste Drain Valve Assembly Installation

SUBTASK 38-32-08-420-008

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) If the ring assy [7] was removed, apply a fay surface seal with sealant, A00247 to the waste tank service panel.

SUBTASK 38-32-08-420-009

- (2) If it was removed, put the ring assy [7] in its position.

SUBTASK 38-32-08-390-001

- (3) Apply a fay surface seal with sealant, A00247 to both sides of the toilet drain gasket [2].

SUBTASK 38-32-08-420-003

- (4) Install the toilet drain gasket [2] to the waste tank service panel.

SUBTASK 38-32-08-390-002

- (5) Apply a fay surface seal with sealant, A00247 to the drain valve [1].

SUBTASK 38-32-08-420-004

- (6) Put the drain valve [1] in its position.

SUBTASK 38-32-08-420-005

- (7) Install the bolts [3] for the drain valve [1].

SUBTASK 38-32-08-420-006

- (8) Install the gask-o- seal [6] between the waste elbow tube [5] and the drain valve [1].

SUBTASK 38-32-08-420-007

- (9) Install the clamp [4] to connect the waste elbow tube [5] to the drain valve [1].

H. Waste Drain Valve Assembly Installation Test

SUBTASK 38-32-08-610-003

- (1) Open the cap on the rinse fitting assembly.

SUBTASK 38-32-08-610-004

- (2) Connect a rinse water hose from the service waste system servicing equipment, STD-1142 to the rinse fitting assembly.

SUBTASK 38-32-08-170-001

- (3) Fill the waste tank with 30 gallons to 50 gallons (115-190 liters) of water.

SUBTASK 38-32-08-860-001

- (4) Pull the handle to open the waste drain ball valve for the waste tank.

SUBTASK 38-32-08-860-002

- (5) Open the cap for the drain valve assembly.

SUBTASK 38-32-08-790-001

- (6) Let the water sit on the drain valve for 5 minutes.

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SUBTASK 38-32-08-790-002

- (7) Examine the drain valve and the connections for leakage.

SUBTASK 38-32-08-610-005

- (8) Connect the drain hose from the service truck to the drain valve.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-08-610-006

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-08-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE FIRE EXTINGUISHING AGENT OR SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-08-410-002

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-08-410-003

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
146AR	Water Service Door

————— **END OF TASK** —————

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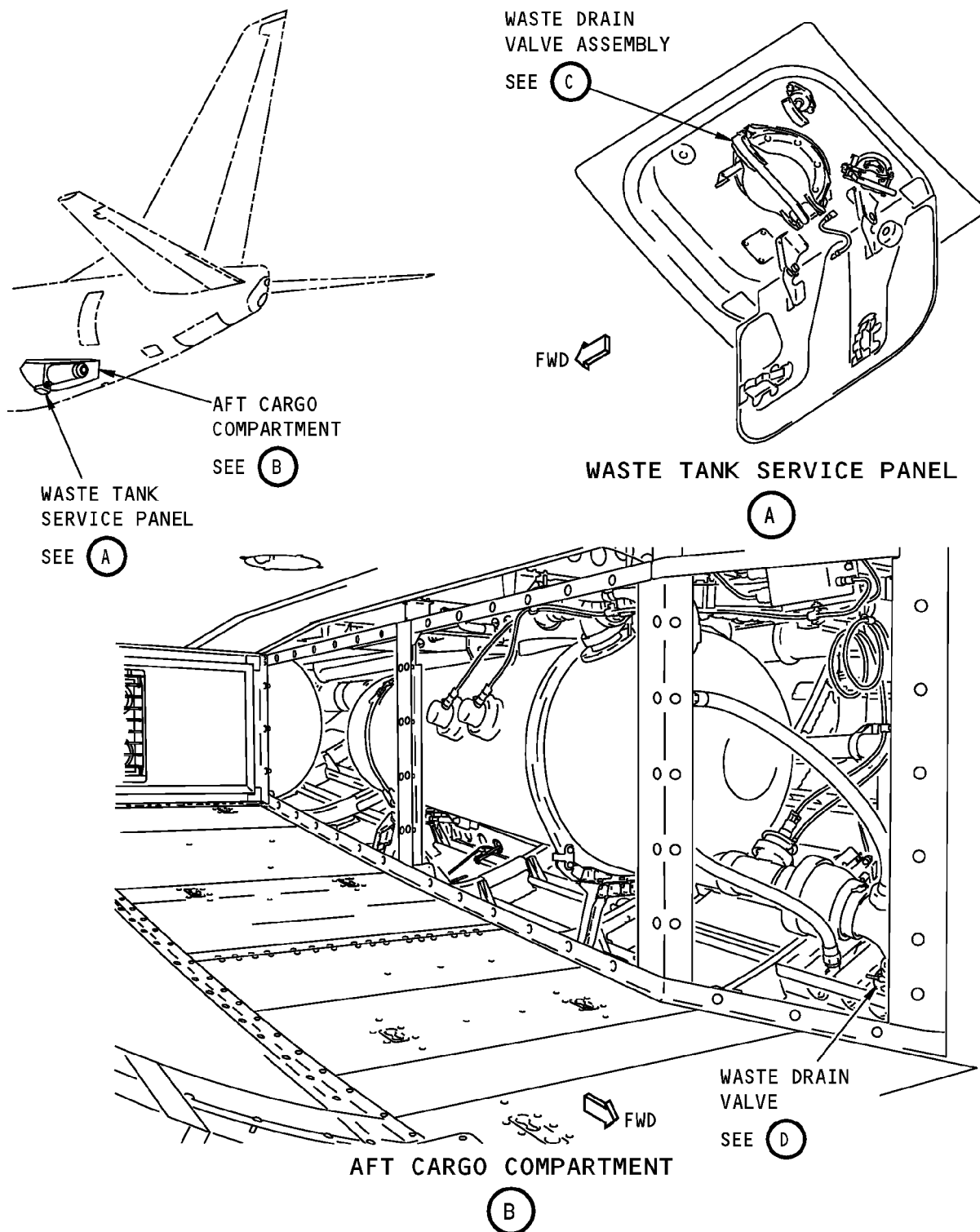
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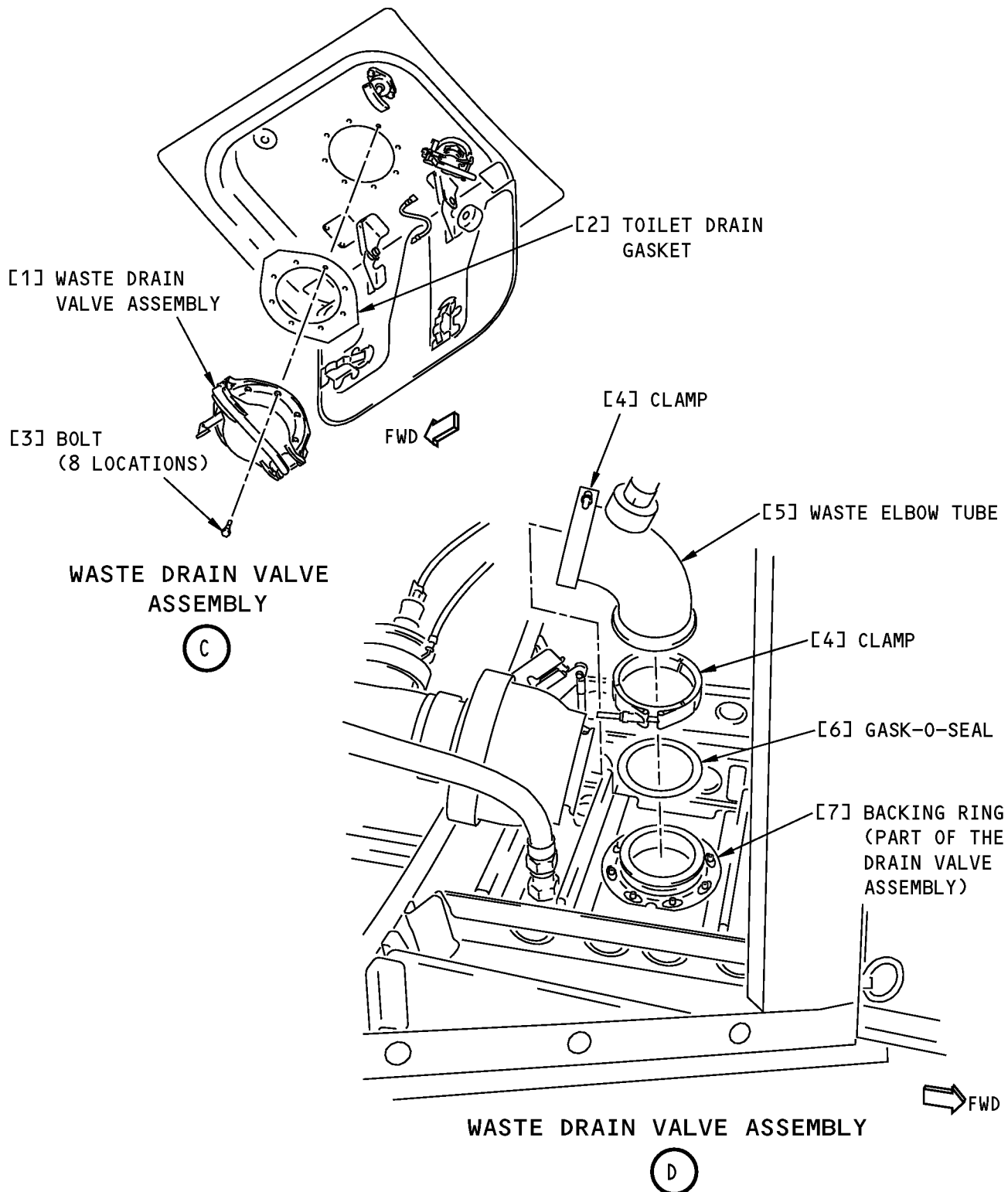
Waste Drain Valve Assembly Installation
Figure 401 (Sheet 1 of 2)/38-32-08-990-801

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Waste Drain Valve Assembly Installation
Figure 401 (Sheet 2 of 2)/38-32-08-990-801

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WASTE TANK RINSE FITTING ASSEMBLY - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the waste tank rinse fitting assembly
- (2) An installation of the waste tank rinse fitting assembly.

TASK 38-32-09-000-801

2. Waste Tank Rinse Fitting Assembly Removal

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
30-71-04-000-801	Waste Tank Rinse Fitting Heater Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-09-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-09-010-001

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-09-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-32-09-010-003

- (4) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

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E. Waste Tank Rinse Fitting Assembly Removal

SUBTASK 38-32-09-020-005

- (1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	18	C01463	WASTE/WTR LINE HEATERS

SUBTASK 38-32-09-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Disconnect the rinse fitting heater M1922 [2], Waste Tank Rinse Fitting Heater Removal, TASK 30-71-04-000-801, and rinse hose [1] from the rinse fitting assembly [3].

SUBTASK 38-32-09-020-003

- (3) Remove the bolts [5] that attaches the rinse fitting assembly [3] to the rinse fitting plate assembly [4].

SUBTASK 38-32-09-020-004

- (4) Remove the rinse fitting assembly [3].

SUBTASK 38-32-09-210-001

- (5) Do a check of the rinse fitting plate assembly [4].
(a) If the rinse fitting plate assembly [4] is not serviceable, then remove the plate assembly [4].

————— **END OF TASK** —————

TASK 38-32-09-400-801

3. Waste Tank Rinse Fitting Assembly Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
30-71-04-400-801	Waste Tank Rinse Fitting Heater Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

C. Consumable Materials

Reference	Description	Specification
A00247	Sealant - Pressure And Environmental - Chromate Type	BMS 5-95

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Fitting assembly	38-32-51-10-125	HAP ALL
4	Plate assembly	38-32-51-10-030	HAP ALL

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E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

G. Waste Tank Rinse Fitting Assembly Installation

SUBTASK 38-32-09-390-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) If the rinse fitting plate assembly [4] is not in its position, apply a fay surface seal with sealant, A00247 to the rinse fitting plate assembly [4].

SUBTASK 38-32-09-420-001

- (2) Put the rinse fitting plate assembly [4] in its position.

SUBTASK 38-32-09-390-002

- (3) Apply a fay surface seal with sealant, A00247 to the rinse fitting assembly [3].

SUBTASK 38-32-09-420-002

- (4) Put the rinse fitting assembly [3] in its position.

SUBTASK 38-32-09-420-003

- (5) Install the bolts [5] for the rinse fitting assembly [3].

SUBTASK 38-32-09-420-004

- (6) Install the rinse hose [1] and rinse hose heater [2], Waste Tank Rinse Fitting Heater Installation, TASK 30-71-04-400-801.

SUBTASK 38-32-09-860-002

- (7) Remove the safety tag and close this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	18	C01463	WASTE/WTR LINE HEATERS

H. Waste Tank Rinse Fitting Assembly Installation Test

SUBTASK 38-32-09-610-002

- (1) Open the cap of the rinse fitting.

SUBTASK 38-32-09-610-003

- (2) Connect a rinse water hose from the service waste system servicing equipment, STD-1142 to the rinse fitting.

SUBTASK 38-32-09-170-001

- (3) Fill the waste tank with 30 gallons to 40 gallons (115-150 liters) of water.

SUBTASK 38-32-09-790-001

- (4) Examine the rinse fitting assembly and the connections for leakage.

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I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-09-610-004

(1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-09-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-09-410-002

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-09-410-003

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

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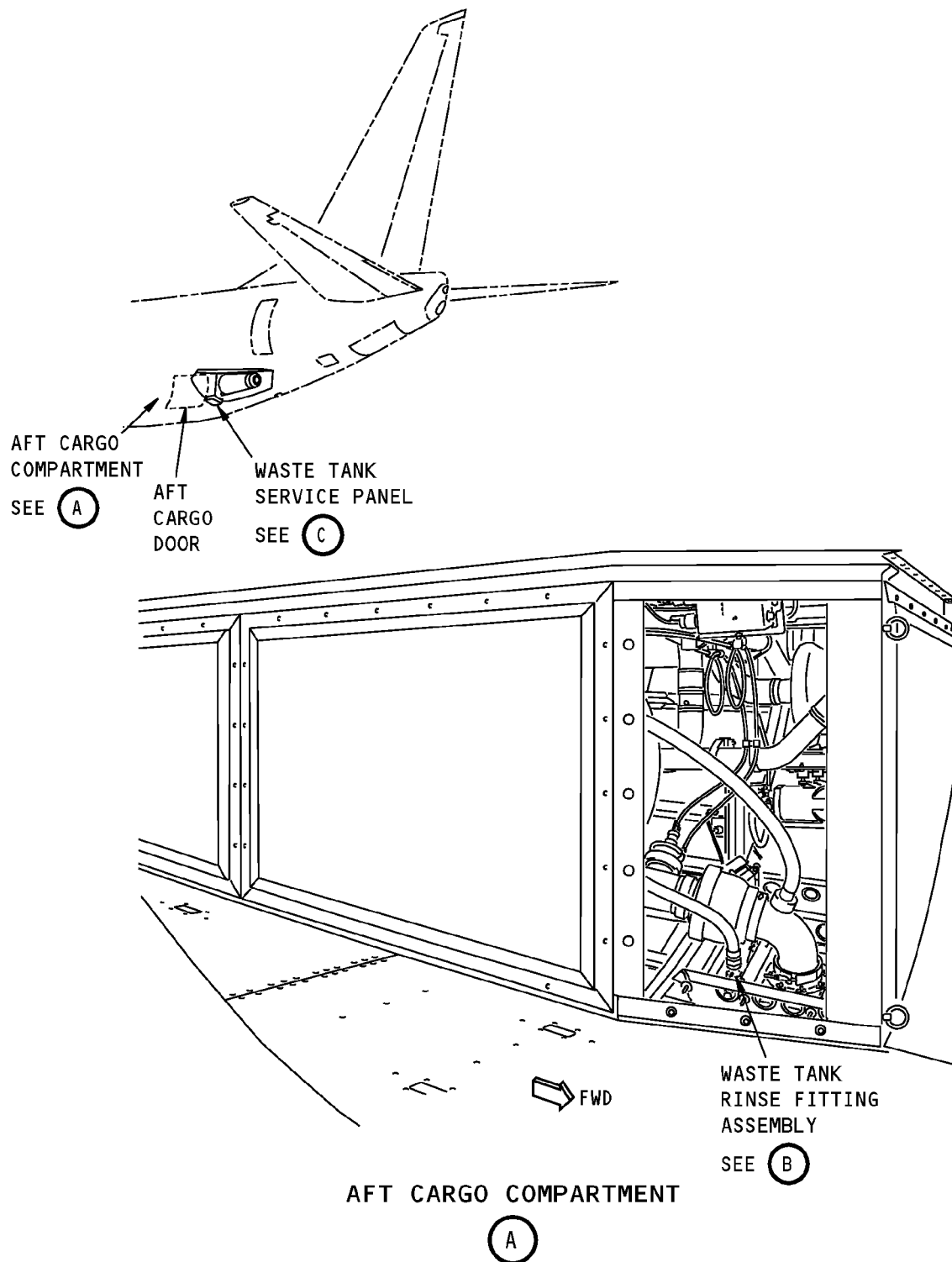
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Waste Tank Rinse Fitting Assembly Installation
Figure 401 (Sheet 1 of 2)/38-32-09-990-801

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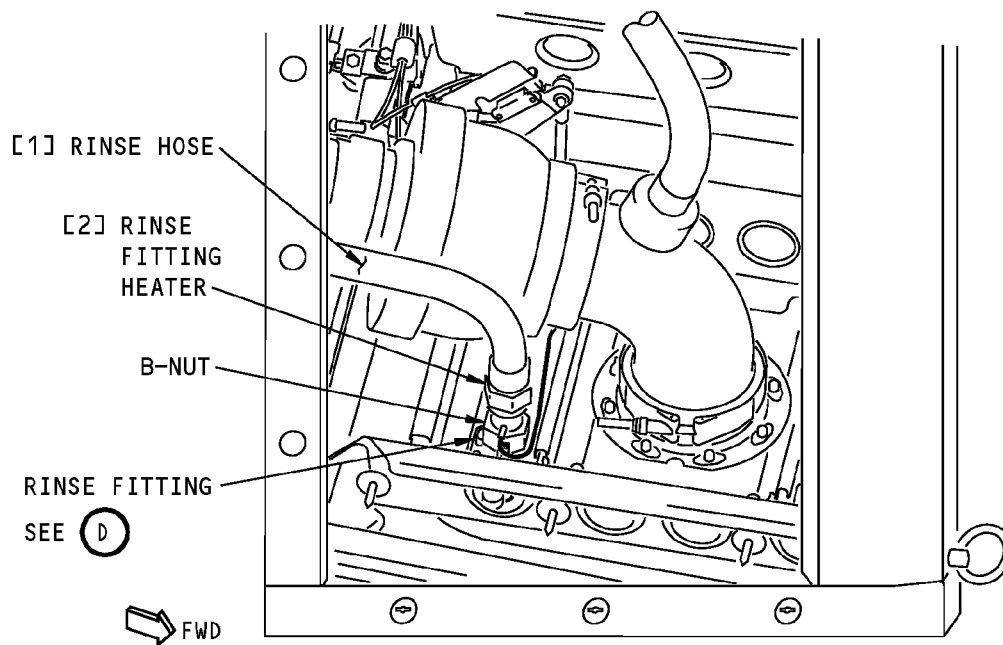
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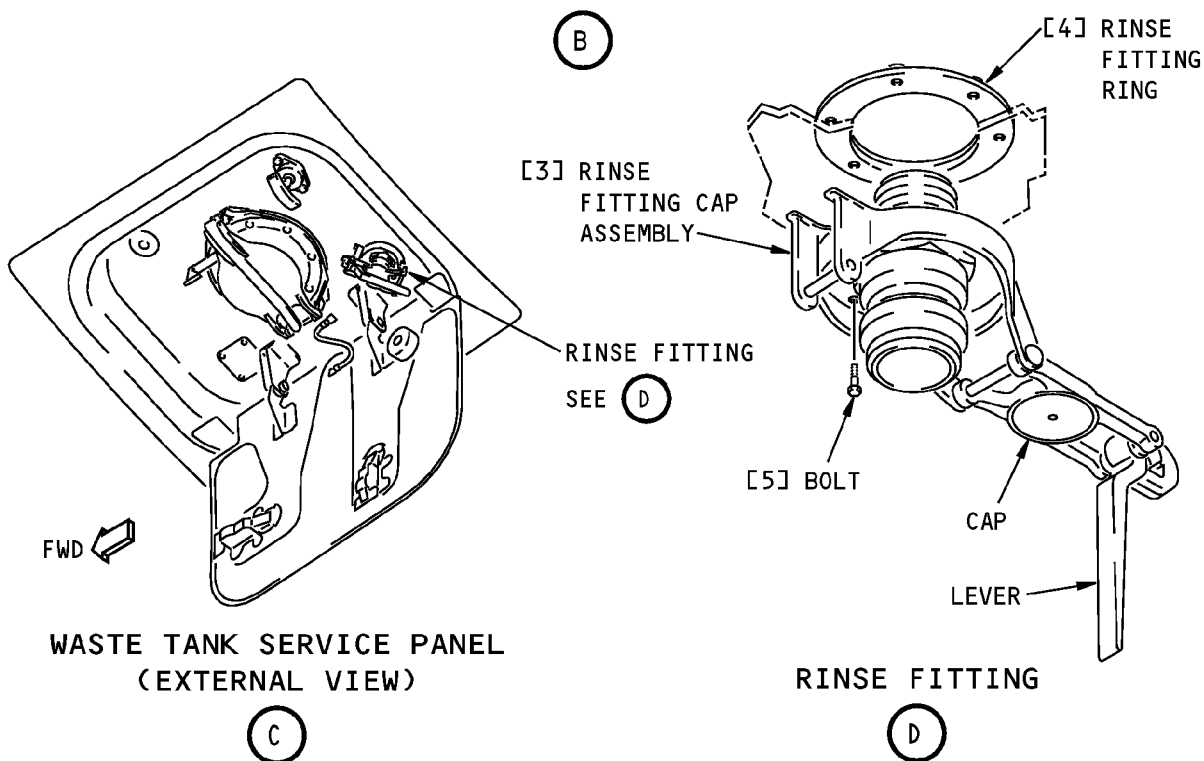
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WASTE TANK RINSE FITTING ASSEMBLY
(INTERNAL VIEW)



Waste Tank Rinse Fitting Assembly Installation
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WASTE TANK RINSE NOZZLE - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the waste tank rinse nozzle.
- (2) An installation of the waste tank rinse nozzle.
- (3) A cleaning of the waste tank rinse nozzle.

B. The Waste Tank Rinse Nozzle is referred to as the Rinse Nozzle in this procedure.

TASK 38-32-10-000-801

2. Waste Tank Rinse Nozzle Removal

(Figure 201)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-10-910-001

- (1) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

SUBTASK 38-32-10-610-001

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-10-010-001

- (3) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-10-010-002

- (4) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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SUBTASK 38-32-10-040-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (5) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

E. Rinse Nozzle Removal

SUBTASK 38-32-10-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Disconnect the rinse hose [3] from the rinse nozzle assembly [2].

SUBTASK 38-32-10-020-002

- (2) Remove the V-band coupling [1].

SUBTASK 38-32-10-020-003

- (3) Remove the rinse nozzle assembly [2] and packing [4] from the mounting flange of the waste tank.

- (a) Discard the packing [4].

SUBTASK 38-32-10-160-001

- (4) Clean all the waste material from the hole in the waste tank for the rinse nozzle.

————— **END OF TASK** —————

TASK 38-32-10-400-801

3. Waste Tank Rinse Nozzle Installation

(Figure 201)

A. References

<u>Reference</u>	<u>Title</u>
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Consumable Materials

<u>Reference</u>	<u>Description</u>	<u>Specification</u>
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

<u>AMM Item</u>	<u>Description</u>	<u>AIPC Reference</u>	<u>AIPC Effectivity</u>
4	Packing	38-32-10-50-085	HAP ALL

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D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Rinse Nozzle Installation

SUBTASK 38-32-10-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 on the packing [4], and the mounting flange of the waste tank.

SUBTASK 38-32-10-420-001

- (2) Install the packing [4] on the rinse nozzle assembly [2].

SUBTASK 38-32-10-420-002

- (3) Put the rinse nozzle assembly [2] in its position.

SUBTASK 38-32-10-420-003

- (4) Install the V-band coupling [1] that attaches the rinse nozzle assembly [2].

SUBTASK 38-32-10-420-004

- (5) Tighten the V-band coupling [1] to 40-50 pound-inches (4.5-5.6 newton-meters).

SUBTASK 38-32-10-420-005

- (6) Connect the rinse hose [3] to the rinse nozzle assembly [2].

G. Rinse Nozzle Installation Test

SUBTASK 38-32-10-860-001

WARNING: BE CAREFUL WHEN YOU ACCESS THE (ROW F) CIRCUIT BREAKERS ON THE INSIDE OF THE P91 AND P92 PANELS. IF POSSIBLE, REMOVE AIRPLANE ELECTRICAL POWER BEFORE YOU ACCESS THE INSIDE OF THE P91 AND P92 PANELS. THE P91 AND P92 PANELS CONTAIN HIGH VOLTAGES AND CURRENTS THAT MAY CAUSE INJURIES TO PERSONS.

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
F	2	C01389	VACUUM WASTE BLOWER

SUBTASK 38-32-10-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-10-610-002

- (3) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-32-10-790-001

- (4) Check the rinse nozzle at the rinse line fitting connection and at the waste tank connection to make sure no leaks occur during the servicing step.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-10-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-10-410-001

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

TASK 38-32-10-100-801

4. Waste Tank Rinse Nozzle Cleaning

(Figure 202)

A. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
22	Nozzle	38-32-10-50-080	HAP ALL
23	Gasket	38-32-10-50-070	HAP ALL

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Procedure

SUBTASK 38-32-10-020-004

- (1) Do this task: Waste Tank Rinse Nozzle Removal, TASK 38-32-10-000-801.

SUBTASK 38-32-10-020-005

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Do these steps to disassemble the rinse nozzle assembly:
 - (a) Remove the nut [25] and washer [24] from the housing [26].
 - (b) Remove the housing [26] and gasket [23] from the rinse mounting flange [21].
 - (c) Remove the rotating rinse nozzle [22] from the housing [26].

SUBTASK 38-32-10-160-002

- (3) Clean the rotating rinse nozzle [22].

SUBTASK 38-32-10-420-006

- (4) Do these steps to assemble the rinse nozzle assembly:

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- (a) Install the rotating rinse nozzle [22] on the housing [26].
- (b) Install the housing [26] and gasket [23] in the rinse mounting flange [21].
- (c) Install the nut [25] and washer [24] to attach the rinse mounting flange [21] to the housing [26].

SUBTASK 38-32-10-710-001

- (5) Make sure the rotating rinse nozzle [22] turns freely.

SUBTASK 38-32-10-210-001

- (6) Make sure the holes in the rotating rinse nozzle [22] are clean.

SUBTASK 38-32-10-420-007

- (7) Do this task: Waste Tank Rinse Nozzle Installation, TASK 38-32-10-400-801.

END OF TASK

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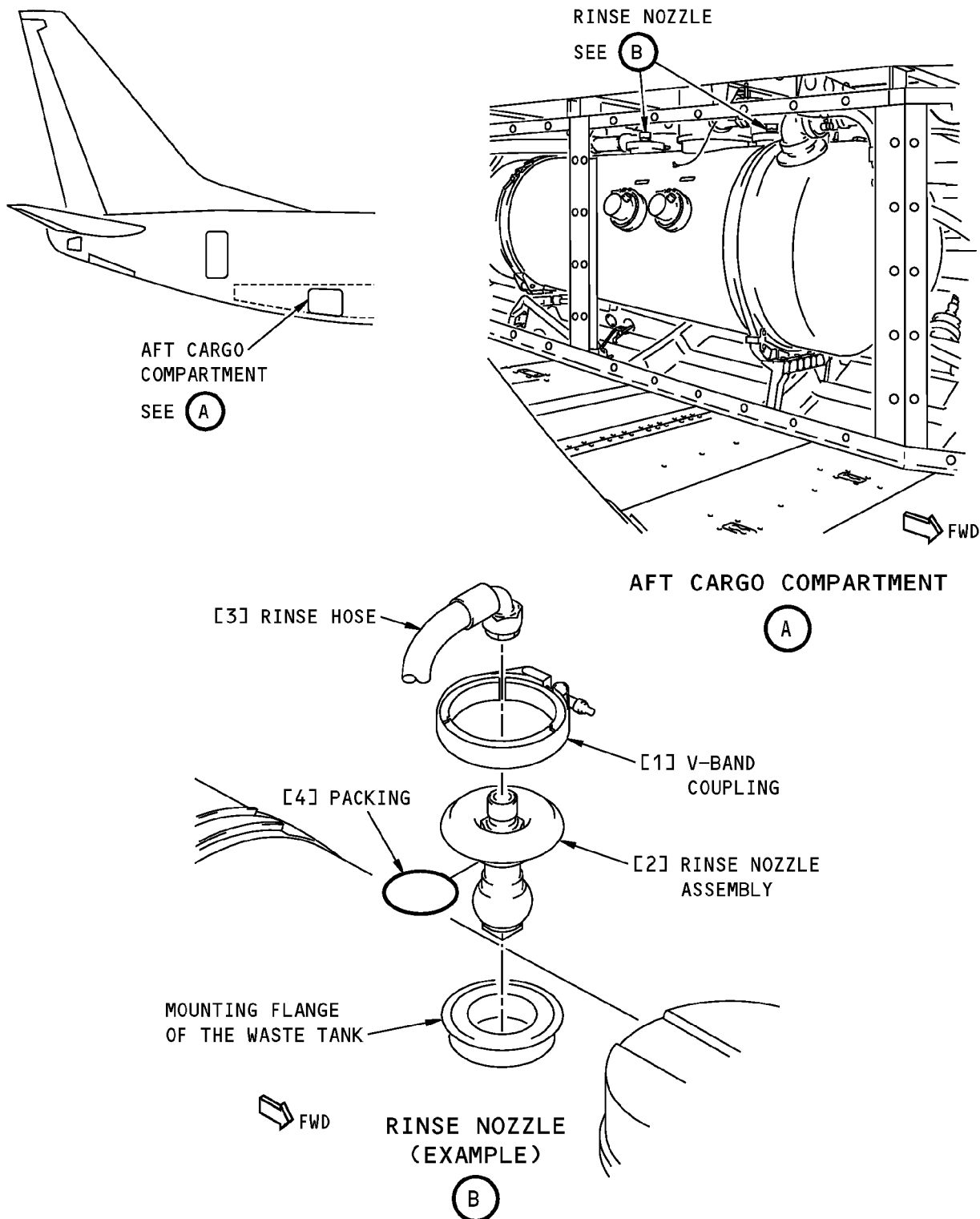
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Waste Tank Rinse Nozzle Installation
Figure 201/38-32-10-990-801

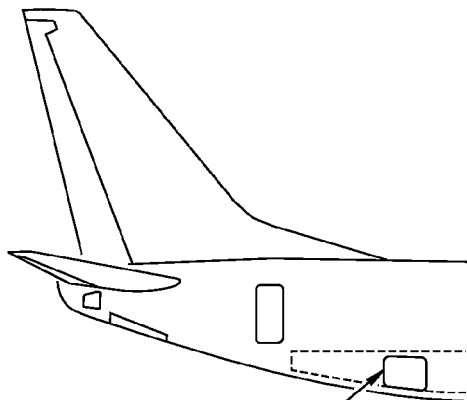
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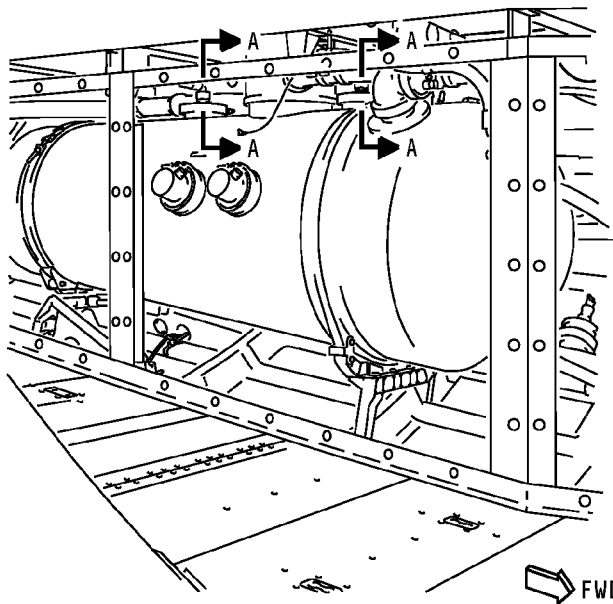
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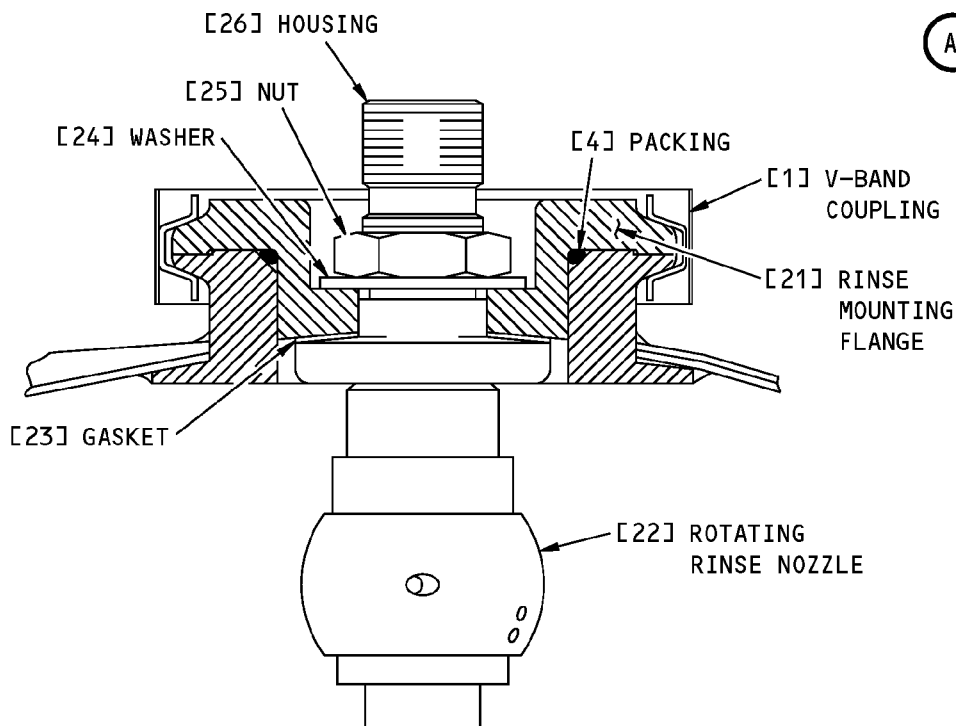
AFT CARGO
COMPARTMENT

SEE (A)



AFT CARGO COMPARTMENT

(A)



RINSE NOZZLE ASSEMBLY
(EXAMPLE)

A-A

Rinse Nozzle Cleaning
Figure 202/38-32-10-990-802

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WASTE TANK RINSE FILTER - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the waste tank rinse filter
- (2) An installation of the waste tank rinse filter.
- (3) A cleaning of the waste tank rinse filter element.

TASK 38-32-11-000-801

2. Waste Tank Rinse Filter Removal

(Figure 201)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-11-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-11-010-001

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-11-010-002

- (3) To remove the enclosure panels for the waste tanks, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

E. Waste Tank Rinse Filter Removal

SUBTASK 38-32-11-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Loosen the B-nut of the rinse hose [5] to disconnect the rinse filter [3].

SUBTASK 38-32-11-020-002

- (2) Loosen the clamp [4].

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SUBTASK 38-32-11-020-003

- (3) Remove the filter [3] and packing [2] from the rinse valve [1].
(a) Discard the packing [2].

————— END OF TASK —————

TASK 38-32-11-400-801

3. Waste Tank Rinse Filter Installation

(Figure 201)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

C. Consumable Materials

Reference	Description	Specification
D00504	Grease - Petrolatum	VV-P-236

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Packing	38-32-00-05A-140	HAP 001-013, 015-026, 028-030
		38-32-13-01-130	HAP 031-054, 101-999
3	Filter	38-32-00-05A-165	HAP 001-013, 015-026, 028-030
		38-32-13-01-150	HAP 031-054, 101-999

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

G. Waste Tank Rinse Filter Installation

SUBTASK 38-32-11-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the grease, D00504 to the packing [2] and the threads of the rinse valve [1].

SUBTASK 38-32-11-420-001

- (2) Install the packing [2] on the rinse valve [1].

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SUBTASK 38-32-11-420-002

- (3) Install the rinse filter [3] on the rinse valve [1].

SUBTASK 38-32-11-420-003

- (4) Tighten the clamp [4] for the rinse filter [3].

SUBTASK 38-32-11-420-004

- (5) Install the rinse hose [5].

H. Waste Tank Rinse Filter Installation Test

SUBTASK 38-32-11-860-001

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

SUBTASK 38-32-11-610-002

- (2) Open the cap on the rinse fitting assembly.

SUBTASK 38-32-11-610-003

- (3) Connect a rinse water hose from the service waste system servicing equipment, STD-1142 to the rinse fitting assembly.

SUBTASK 38-32-11-170-001

- (4) Fill the waste tank with 10 gallons to 20 gallons of water.

SUBTASK 38-32-11-790-001

- (5) Examine the rinse filter and the connections for leakage.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-11-610-004

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-32-11-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-11-410-001

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-11-410-002

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— END OF TASK —————

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TASK 38-32-11-100-801

4. Waste Tank Rinse Filter Element Cleaning

(Figure 201)

A. References

Reference	Title
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Tools/Equipment

Reference	Description
STD-419	Gloves - Rubber, Elbow Length
STD-1136	Mask - Face
STD-1137	Glasses - Safety

C. Consumable Materials

Reference	Description	Specification
B00541	Cleaner - General Purpose Household Detergent	
B50099	Detergent - Concentrated, Anionic	
D00504	Grease - Petrolatum	VV-P-236
G02315	Clothing - Disposable Gown, Gloves For Sewage Handling	
G50321	Air - Clean, Dry	BAC5402, Table I

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
7	Element	38-32-00-05A-185	HAP 001-013, 015-026, 028-030
		38-32-13-01-170	HAP 031-054, 101-999
9	Packing	38-32-00-05A-175	HAP 001-013, 015-026, 028-030
		38-32-13-01-160	HAP 031-054, 101-999

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Waste Tank Rinse Filter Element Cleaning

SUBTASK 38-32-11-160-001

(1) Prepare for the Task:

Make sure you use the protective clothing (Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801).

NOTE: These are items that you can wear to give you protection when it is necessary.

- (a) elbow length rubber gloves, STD-419
- (b) face mask, STD-1136
- (c) safety glasses, STD-1137

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- (d) Disposable clothing, G02315

SUBTASK 38-32-11-020-004

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (2) Do this task: Waste Tank Rinse Filter Removal, TASK 38-32-11-000-801.

SUBTASK 38-32-11-010-004

- (3) Remove the inlet connector [10] and the packing [9] from the filter housing [6].

- (a) Discard the packing [9].

SUBTASK 38-32-11-020-005

- (4) Remove the filter element [7] and the spring [8].

SUBTASK 38-32-11-130-001

- (5) Clean the filter element [7] using Cleaning Method I.

- (a) Soak the filter element [7] in a weak detergent solution. Use the general purpose household detergent cleaner, B00541, or a liquid dishwashing detergent. Mix 4 fl-oz (118 cc) detergent per 1 gal (4 l) warm water.
- (b) Brush each pleat of the filter element [7] with a soft bristle brush.
- (c) Reverse flow flush with warm tap water.
- (d) Blow dry with low pressure air.
- (e) Make sure that the filter element [7] is in a serviceable condition.

SUBTASK 38-32-11-130-002

- (6) Clean the filter element [7] using the alternate (ultrasonic) Cleaning Method II.

- (a) Flush the filter element with a reverse flow of warm water (the opposite direction of normal fluid flow).
Remove as much contamination off the outside of the filter element as possible
- (b) Ultrasonic clean the filter element for 15 minutes in the anionic detergent cleaning solution. Use a solution of 1 fl-oz (30 cc) concentrated, anionic detergent, B50099 per 1 gal (3.8 l) warm water.
- (c) Flush the filter element with a reverse flow of hot water.
- (d) Remove the entrapped water from the filter element with a reverse flow of clean dry air, G50321.
- (e) Dry the filter element in an oven at 250°F (121°C) for 1/2 hour, or air dry the filter element until moisture is not detectable.
- (f) Make sure that the filter element [7] is in a serviceable condition.

SUBTASK 38-32-11-960-001

- (7) If the contamination is not removed, or if the filter element is damaged, use a new filter element [7].

SUBTASK 38-32-11-420-005

- (8) Put the filter housing [6] in a position to assemble the filter [3].

SUBTASK 38-32-11-420-006

- (9) Put the filter element [7] and the spring [8] in the filter housing [6].

SUBTASK 38-32-11-640-002

- (10) Apply the grease, D00504 to the packing [9] and the threads of the connector [10].

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SUBTASK 38-32-11-420-007

(11) Install the inlet connector [10] and the packing [9] in the filter housing [6].

SUBTASK 38-32-11-420-008

(12) Do this task: Waste Tank Rinse Filter Installation, TASK 38-32-11-400-801.

END OF TASK

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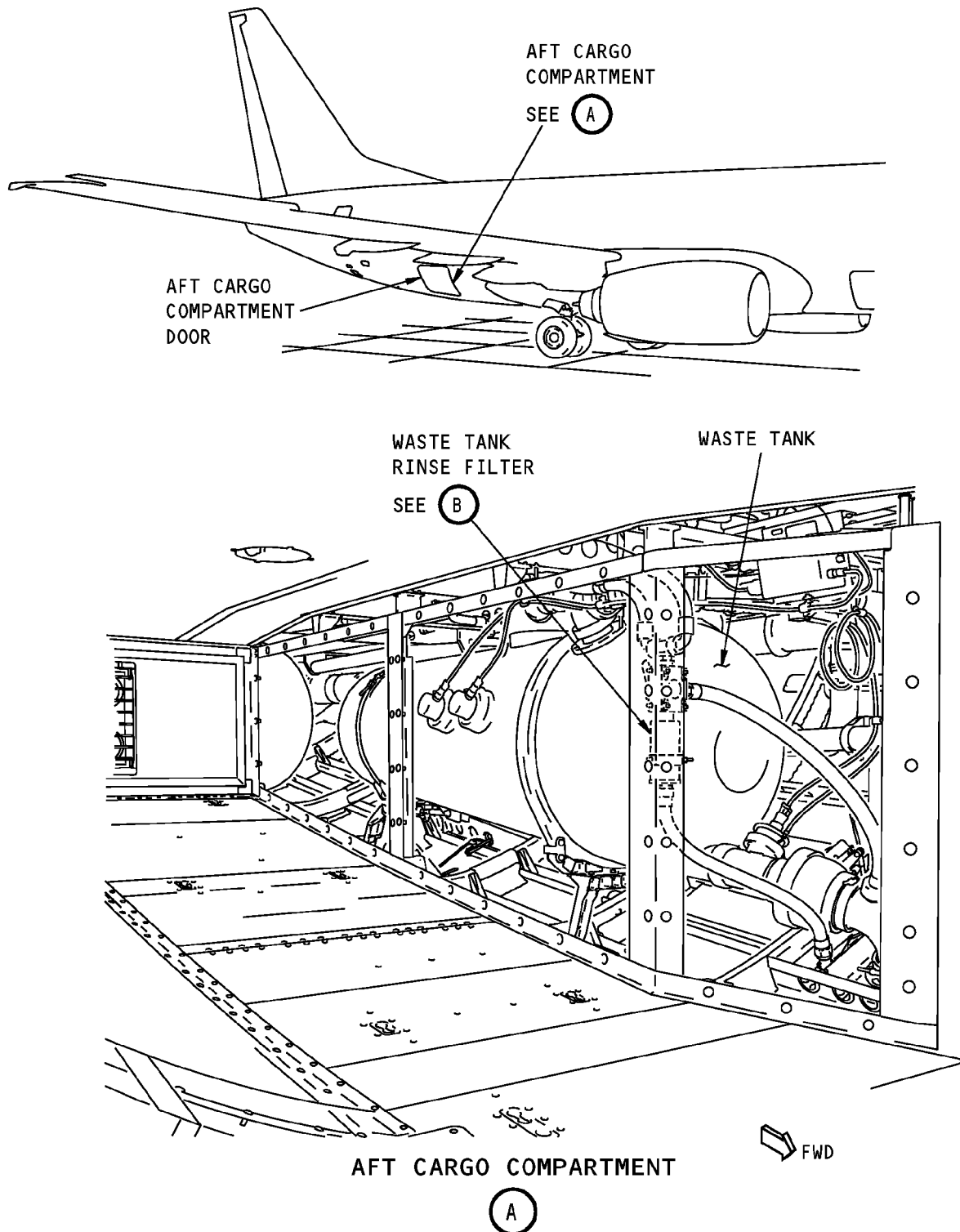
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Waste Tank Rinse Filter Installation
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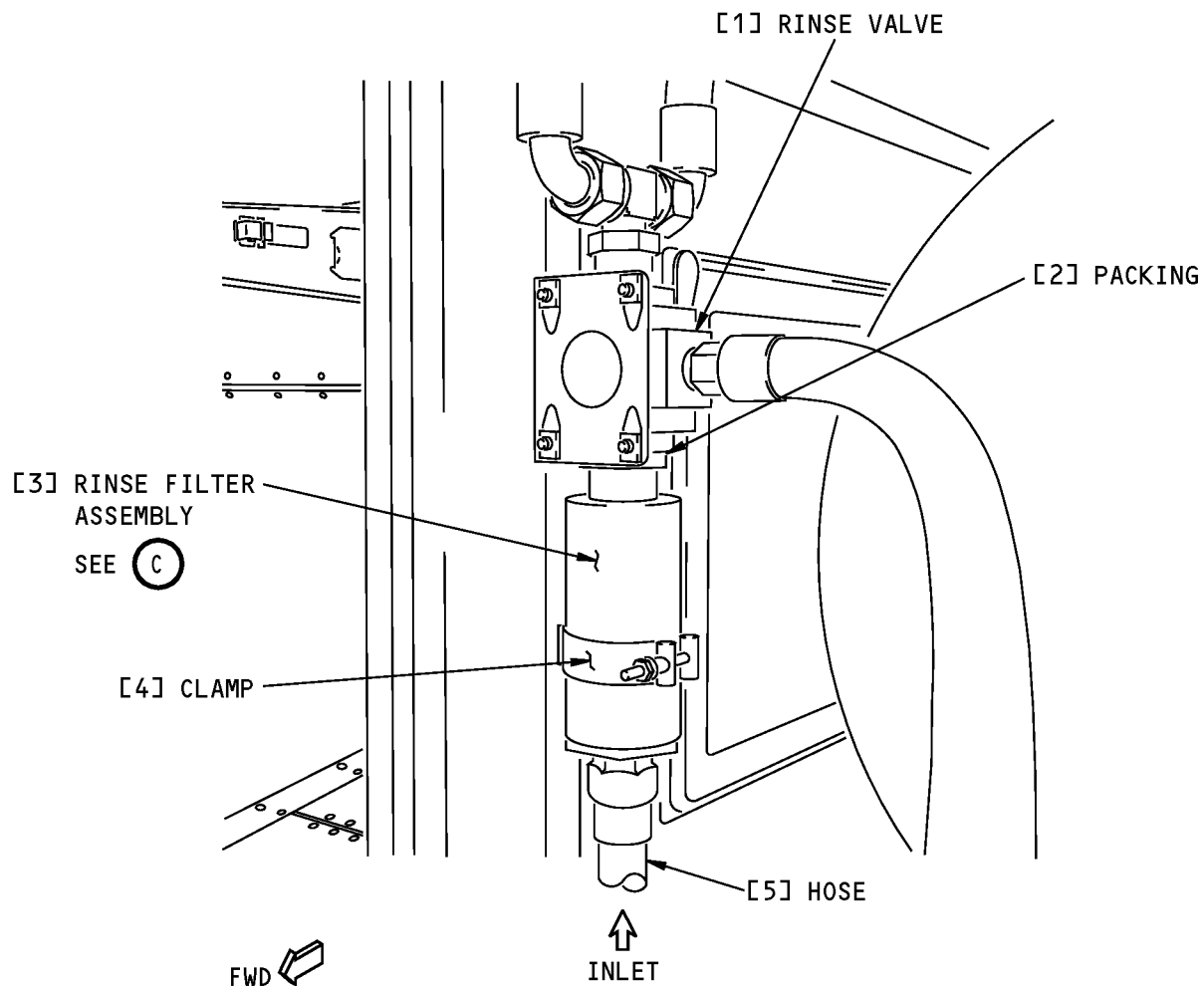
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WASTE TANK RINSE FILTER

(B)

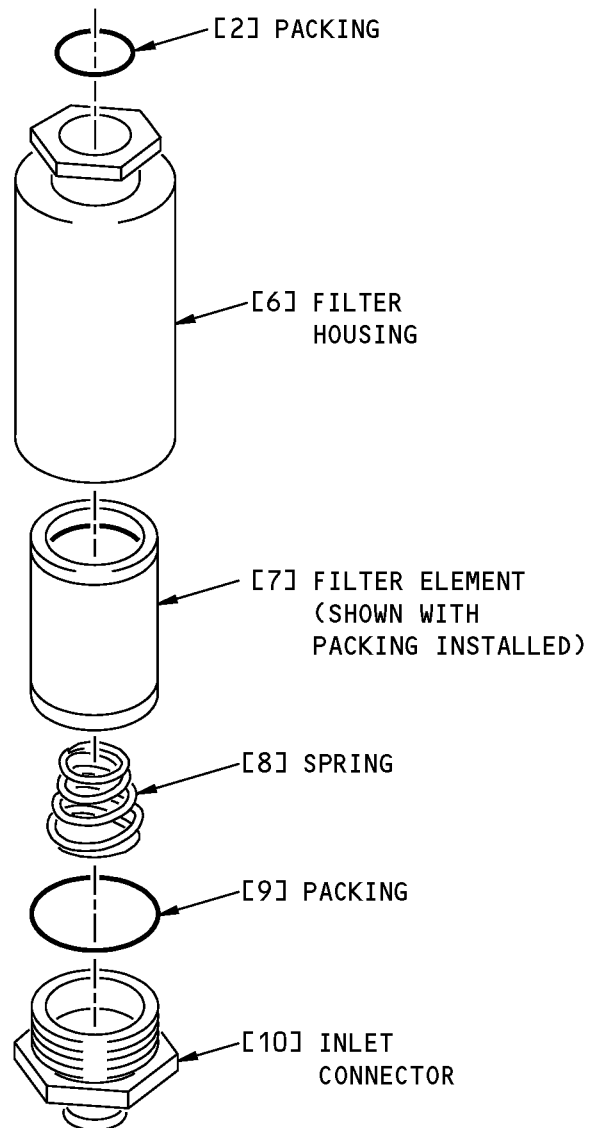
**Waste Tank Rinse Filter Installation
Figure 201 (Sheet 2 of 3)/38-32-11-990-801**

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RINSE FILTER ASSEMBLY



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VACUUM BLOWER BAROMETRIC SWITCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the vacuum blower barometric switch.
- (2) An installation of the vacuum blower barometric switch.

B. The Vacuum Blower Barometric Switch is referred to as the Altitude Switch in this procedure.

- (1) An Altitude Switch controls power to the vacuum blower. When the airplane is climbing, the switch cuts power to the vacuum blower at about 16,000 ft (4877 m). When the airplane is descending, the altitude sensing switch closes at about 12,000 ft (3658 m) providing power to the vacuum blower.

TASK 38-32-12-000-801

2. Vacuum Blower Barometric Switch Removal

(Figure 401)

A. Location Zones

Zone	Area
312	Area Aft of Pressure Bulkhead - Right

B. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

C. Prepare for the Removal

SUBTASK 38-32-12-010-001

- (1) On the stabilizer leading edge,

Open this access panel:

Number	Name/Location
311BL	Stabilizer Trim Access Door

SUBTASK 38-32-12-040-001

- (2) Open this circuit breaker and install safety tag:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

D. Altitude Switch Removal

SUBTASK 38-32-12-020-001

- (1) Disconnect the D11786 electrical connector [1] from the altitude switch [2].

SUBTASK 38-32-12-020-002

- (2) Remove the bolts [3] and washers [4] to remove the altitude switch [2].

————— **END OF TASK** —————

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TASK 38-32-12-400-801

3. Vacuum Blower Barometric Switch Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Switch	38-32-12-01-005	HAP ALL

C. Location Zones

Zone	Area
312	Area Aft of Pressure Bulkhead - Right

D. Access Panels

Number	Name/Location
311BL	Stabilizer Trim Access Door

E. Altitude Switch Installation

SUBTASK 38-32-12-420-001

(1) Put the altitude switch [2] in its position.

SUBTASK 38-32-12-420-002

(2) Install the bolts [3] and washers [4].

SUBTASK 38-32-12-420-003

(3) Connect the D11786 electrical connector [1] to the altitude switch [2].

F. Altitude Switch Installation Test

SUBTASK 38-32-12-860-001

(1) Remove safety tag and close this circuit breaker:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-32-12-860-002

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-32-12-710-001

(3) Flush a toilet to make sure the vacuum blower operates.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-12-010-002

(1) On the stabilizer leading edge,

Close this access panel:

<u>Number</u>	<u>Name/Location</u>
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(Continued)

<u>Number</u>	<u>Name/Location</u>
311BL	Stabilizer Trim Access Door

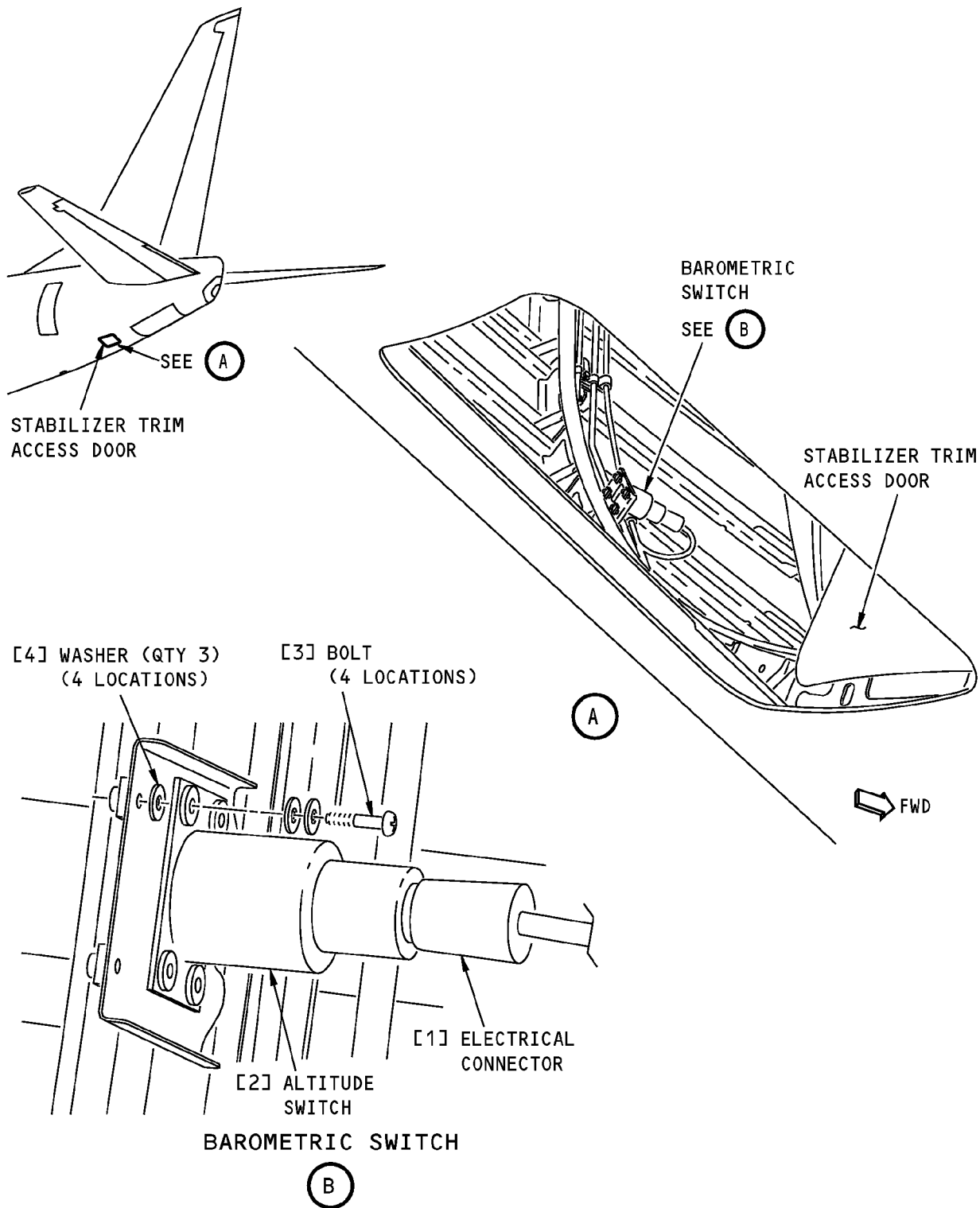
_____ **END OF TASK** _____

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Vacuum Blower Barometric Switch Installation
Figure 401/38-32-12-990-801

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WASTE TANK DRAIN LINE BLOCKAGE REMOVAL VALVE - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the blockage removal valve for the waste tank drain line.
- (2) An installation of the blockage removal valve for the waste tank drain line.

B. The Blockage Removal Valve for the Waste Tank Drain Line is referred to as the valve in this procedure.

TASK 38-32-13-000-801

2. Waste Tank Drain Line Blockage Removal Valve Removal

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-32-13-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-32-13-010-001

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-32-13-010-002

- (3) To remove the enclosure panels for the waste tanks, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

E. Waste Tank Drain Line Blockage Removal Valve Removal

SUBTASK 38-32-13-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Loosen the B-nut of the tee [1] that attaches the rinse hoses to disconnect the outlet of the valve [5].

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SUBTASK 38-32-13-020-002

(2) Disconnect the hose [9] from the outlet of the valve [5].

SUBTASK 38-32-13-020-003

(3) Remove the bolts [2], washers [3], and nuts [4].

SUBTASK 38-32-13-020-004

(4) Loosen the filter [7] to remove the packing [6] from the valve [5].

(a) Discard the packing [6].

————— **END OF TASK** —————

TASK 38-32-13-400-801

3. Waste Tank Drain Line Blockage Removal Valve Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

C. Consumable Materials

Reference	Description	Specification
D00504	Grease - Petrolatum	VV-P-236

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Valve	38-32-00-05A-135	HAP 001-013, 015-026, 028-030
		38-32-13-01-125	HAP 031-054, 101-999
6	Packing	38-32-00-05A-140	HAP 001-013, 015-026, 028-030
		38-32-13-01-130	HAP 031-054, 101-999

E. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

F. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

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G. Waste Tank Drain Line Blockage Removal Valve Installation

SUBTASK 38-32-13-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply the grease, D00504 to the packing [6] and the threads of the valve [5].

SUBTASK 38-32-13-420-001

- (2) Install the packing [6] on the valve [5].

SUBTASK 38-32-13-420-002

- (3) Install the valve [5] in its position on the filter [7].

SUBTASK 38-32-13-420-003

- (4) Install the bolts [2], washers [3], and nuts [4].

SUBTASK 38-32-13-420-004

- (5) Connect the hose [9] to the outlet of the valve [5].

SUBTASK 38-32-13-420-005

- (6) Connect the B-nut of the tee [1] that attaches the rinse hoses to the outlet of the valve [5].

H. Waste Tank Drain Line Blockage Removal Valve Installation Test

SUBTASK 38-32-13-860-001

- (1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

SUBTASK 38-32-13-860-002

- (2) Open the cap on the rinse fitting assembly.

SUBTASK 38-32-13-610-002

- (3) Connect a rinse water hose from the service waste system servicing equipment, STD-1142 to the rinse fitting assembly.

SUBTASK 38-32-13-170-001

- (4) Fill the waste tank with 10 gallons to 20 gallons of water.

SUBTASK 38-32-13-860-003

- (5) Set the valve handle to the blockage removal position.

SUBTASK 38-32-13-860-004

- (6) Pull the handle at the service panel to open the waste drain ball valve.

SUBTASK 38-32-13-170-002

- (7) Fill the waste tank with 10 gallons to 20 gallons of water.

SUBTASK 38-32-13-790-001

- (8) Examine the valve and the connections for leakage.

SUBTASK 38-32-13-860-005

- (9) Set the valve handle to the rinse position.

I. Put the Airplane Back to Its Usual Condition

SUBTASK 38-32-13-610-003

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-32-13-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-32-13-410-001

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-32-13-410-002

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— **END OF TASK** —————

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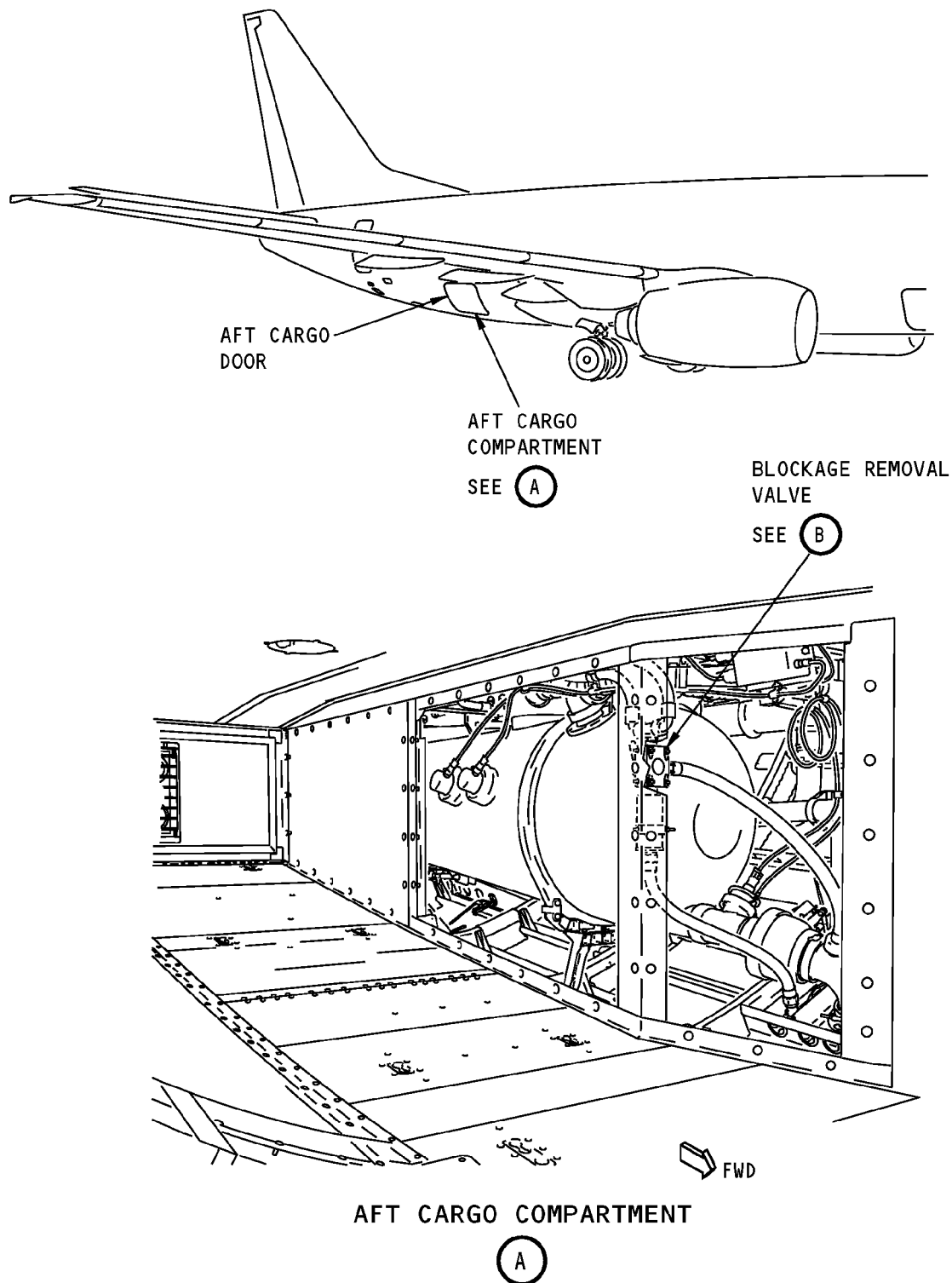
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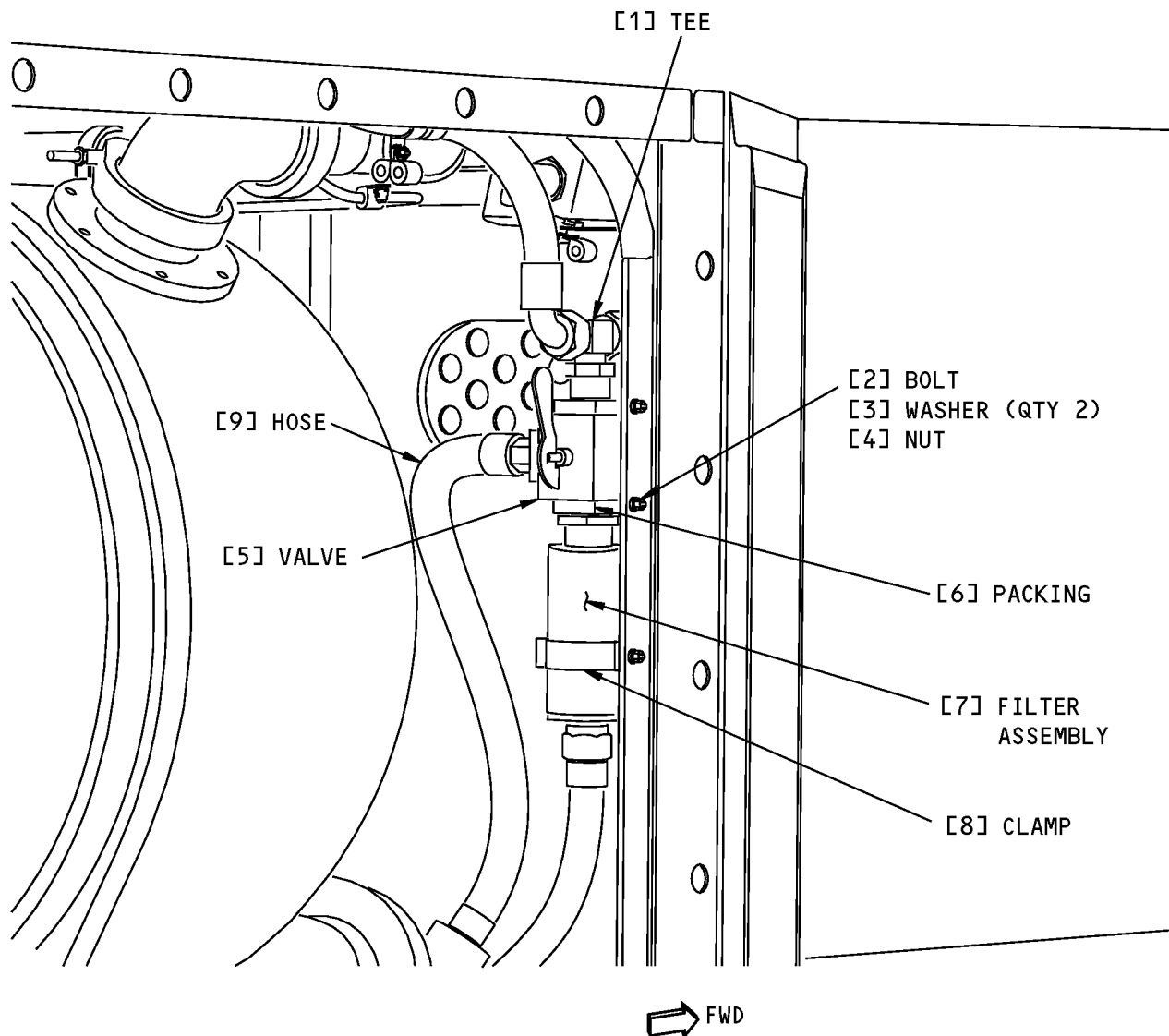
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BLOCKAGE REMOVAL VALVE

(B)

Waste Tank Drain Line Blockage Removal Valve Installation
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WASTE TANK QUANTITY INDICATION - ADJUSTMENT/TEST

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A LAVS INOP BITE Test of the waste indication system from the attendant's panel.
 - (2) A LCM BITE Test of the quantity indication system for the waste tank.
 - (3) An Auto Zero Adjustment of the continuous level sensor (CLS) for the waste tanks.
 - (a) Use the Auto Zero procedure to calibrate the continuous level sensor (CLS). The CLS measures the quantity of waste in the waste tank. When you replace the CLS, you must do the Auto Zero Adjustment. You must also do the Auto Zero Adjustment when you move the CLS diaphragm, the CLS sensor, or the waste tank. The procedure will calibrate the CLS with the LCM to give a more accurate value for the waste quantity indicator.
 - (4) An operational test of the waste quantity indication at the attendant's panel.

TASK 38-33-00-740-801

2. LAVS INOP BITE Test at the Attendant's Panel

(Figure 502)

A. General

- (1) This procedure is a scheduled maintenance task.
- (2) This task is for a test of the waste indication system from the attendant's panel.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Prepare for the test

SUBTASK 38-33-00-860-001

- (1) Make sure that this circuit breaker is closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-00-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-00-010-001

- (3) Get access to the passenger compartment.

E. LAVS INOP BITE Test

SUBTASK 38-33-00-740-001

- (1) Push and then release the LAVS INOP switch.

SUBTASK 38-33-00-740-002

- (2) Make sure the LAVS INOP light is on for approximately 3 seconds and then is off.

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SUBTASK 38-33-00-740-003

- (3) Make sure the waste indicator moves toward a full indication during the 3 second increment.

SUBTASK 38-33-00-740-004

- (4) Make sure the CLEAN/CHECK SENSOR light is off.
 - (a) If the CLEAN/CHECK SENSOR light is on, do this task: LCM BITE Test, TASK 38-33-00-740-802.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-00-410-001

- (1) Close the access to the passenger compartment.

END OF TASK

TASK 38-33-00-740-802

3. LCM BITE Test

(Figure 501)

A. General

- (1) This task is for a full test of the LCM for the waste indication system at the LCM.
- (2) There is a task for a test of the waste indication system from the attendant's panel. The attendant's panel test is equivalent but it is not necessary to remove the panel for the waste enclosure.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the test

SUBTASK 38-33-00-860-005

- (1) Make sure that this circuit breaker is closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-00-860-006

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

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SUBTASK 38-33-00-010-002

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-00-010-003

- (4) To get access to the waste tanks, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

F. LCM BITE Test

SUBTASK 38-33-00-860-007

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Make sure the POWER ON (green) light for the LCM is on.
(a) Make sure the J1, J2, J3, and TANK FULL (red) lights are off.

SUBTASK 38-33-00-760-001

- (2) Move and then hold the switch to the TEST SENSOR position.

SUBTASK 38-33-00-740-005

- (3) Make sure the POWER ON (green), J1, J2, J3, and TANK FULL (red) lights are on for approximately 3 seconds.

NOTE: The lights on the LCM can flash irregularly. If you find a system error, the TANK FULL light will flash at 8 Hz, then go off. You will see this cycle again after 1.6 seconds until you correct the problem.

SUBTASK 38-33-00-760-002

- (4) Release the switch from the TEST SENSOR position.

SUBTASK 38-33-00-740-006

- (5) Make sure the J1, J2, J3, and TANK FULL (red) lights are off.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-00-410-002

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-00-410-003

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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TASK 38-33-00-710-801

4. Auto Zero - Adjustment

(Figure 501)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the test:

SUBTASK 38-33-00-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and then flush the waste tanks.

SUBTASK 38-33-00-860-008

- (2) Make sure that this circuit breaker is closed:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-00-860-009

- (3) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-00-010-004

- (4) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-33-00-010-005

- (5) To get access to the waste tanks, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

E. Auto Zero Adjustment

SUBTASK 38-33-00-860-010

CAUTION: MAKE SURE YOU DRAIN THE WASTE TANK FULLY BEFORE THE AUTO ZERO ADJUSTMENT. IF YOU DO NOT DRAIN THE WASTE TANK FULLY, AN ERROR IN THE QUANTITY INDICATOR CAN OCCUR.

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(CAUTION PRECEDES)

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Make sure the waste tanks are fully drained.

SUBTASK 38-33-00-860-011

- (2) On the LCM, make sure the lights are as follows:

- (a) Make sure the POWER ON (green) light is on.
- (b) Make sure the J1 and J2 (red) lights are off.
- (c) Make sure the J3 and TANK FULL (red) lights are off or flash.

SUBTASK 38-33-00-760-003

- (3) Move and then hold the switch to the TEST LAMPS position.

- (a) Make sure the POWER ON (green), the J1 and J2, and the J3 and TANK FULL (red) lights are on.

SUBTASK 38-33-00-760-004

- (4) Release the switch from the TEST LAMPS position.

- (a) Make sure the J1, J2, J3, and TANK FULL (red) lights are off.

NOTE: During this step the J3 or TANK FULL (red) lights can flash without a problem.

SUBTASK 38-33-00-020-001

- (5) Disconnect the electrical connectors from the SENSOR J1 and SENSOR J2 positions on the LCM.

- (a) After 30 seconds, make sure the J1, J2, and TANK FULL (red) lights are on.

SUBTASK 38-33-00-710-001

- (6) Move and then hold the switch to the TEST LAMPS position.

- (a) After 10 seconds, make sure the J1, J2, J3, and TANK FULL (red) lights are off for 3 seconds.
- (b) Make sure the POWER ON (green) light is on.

SUBTASK 38-33-00-760-005

- (7) Release the switch from the TEST LAMPS position.

- (a) Make sure the POWER ON (green), J1, J2, and TANK FULL (red) lights are on.

SUBTASK 38-33-00-420-001

- (8) Connect the electrical connector for the SENSOR J1 to the LCM.

- (a) Make sure the J1 and TANK FULL (red) lights are off.
- (b) Make sure the POWER ON (green) and J2 (red) lights are on.

SUBTASK 38-33-00-420-002

- (9) Connect the electrical connector for the SENSOR J2 to the LCM.

- (a) Make sure the J1, J2, J3, and TANK FULL (red) lights are off.
- (b) Make sure the POWER ON (green) light is on.

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F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-00-410-004

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-00-410-005

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-00-610-002

(3) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

————— **END OF TASK** —————

TASK 38-33-00-710-802

5. Attendant's Panel Waste Tank Quantity Indication - Operational Test

(Figure 502)

A. References

<u>Reference</u>	<u>Title</u>
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Location Zones

<u>Zone</u>	<u>Area</u>
200	Upper Half of Fuselage

C. Prepare for the test:

SUBTASK 38-33-00-610-003

(1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks. Do not disconnect the rinse water connection from the rinse fitting assembly. Do not disconnect the waste connection from the waste drain valve assembly.

SUBTASK 38-33-00-860-012

(2) Make sure that this circuit breaker is closed:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-00-860-013

(3) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-00-010-006

(4) Get access to the passenger compartment.

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D. Attendant's Panel Waste Tank Quantity Indication - Operational Test

SUBTASK 38-33-00-860-014

- (1) Make sure the waste drain ball valve is closed.

SUBTASK 38-33-00-710-002

- (2) Read the waste tank quantity from the Waste System indicator on the attendant's panel.

- (a) Make sure the Waste System indicator reads E or 1 flow bar.

SUBTASK 38-33-00-610-004

CAUTION: DO NOT ADD MORE THAN 60 GALLONS (227 LITERS) TO THE WASTE TANK. IF YOU ADD MORE THAN 60 GALLONS (227 LITERS) TO THE WASTE TANK, DAMAGE TO THE EQUIPMENT CAN OCCUR.

- (3) Add 30 ± 1 gallons (114 ± 4 liters) of water at the rinse water connection for the waste tank.

SUBTASK 38-33-00-710-003

- (4) Read the waste tank quantity on the Waste System indicator on the attendant's panel.

- (a) Make sure the Waste System indicator reads $1/2 \pm 1$ flow bars.

SUBTASK 38-33-00-610-005

- (5) Pull the handle at the service panel to open the waste drain ball valve for the waste tank.

SUBTASK 38-33-00-710-004

- (6) Read the waste tank quantity on the Waste System indicator on the attendant's panel.

- (a) Make sure the Waste System indicator reads E.

SUBTASK 38-33-00-860-015

- (7) Push the handle at the service panel to close the waste drain ball valve for the waste tank.

E. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-00-410-006

- (1) Close the access to the passenger compartment.

SUBTASK 38-33-00-610-006

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

————— **END OF TASK** —————

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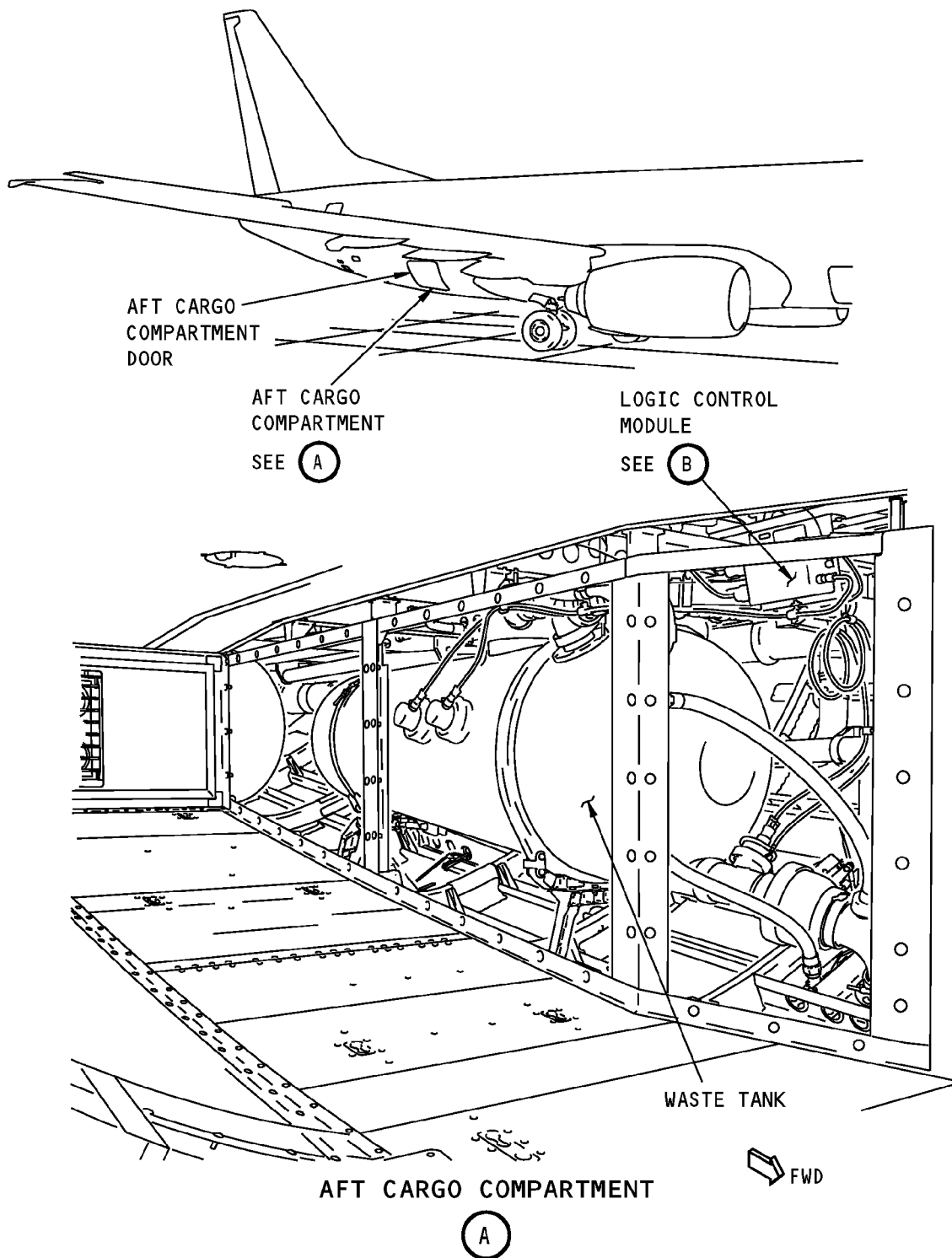
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Logic Control Module Test
Figure 501 (Sheet 1 of 2)/38-33-00-990-801

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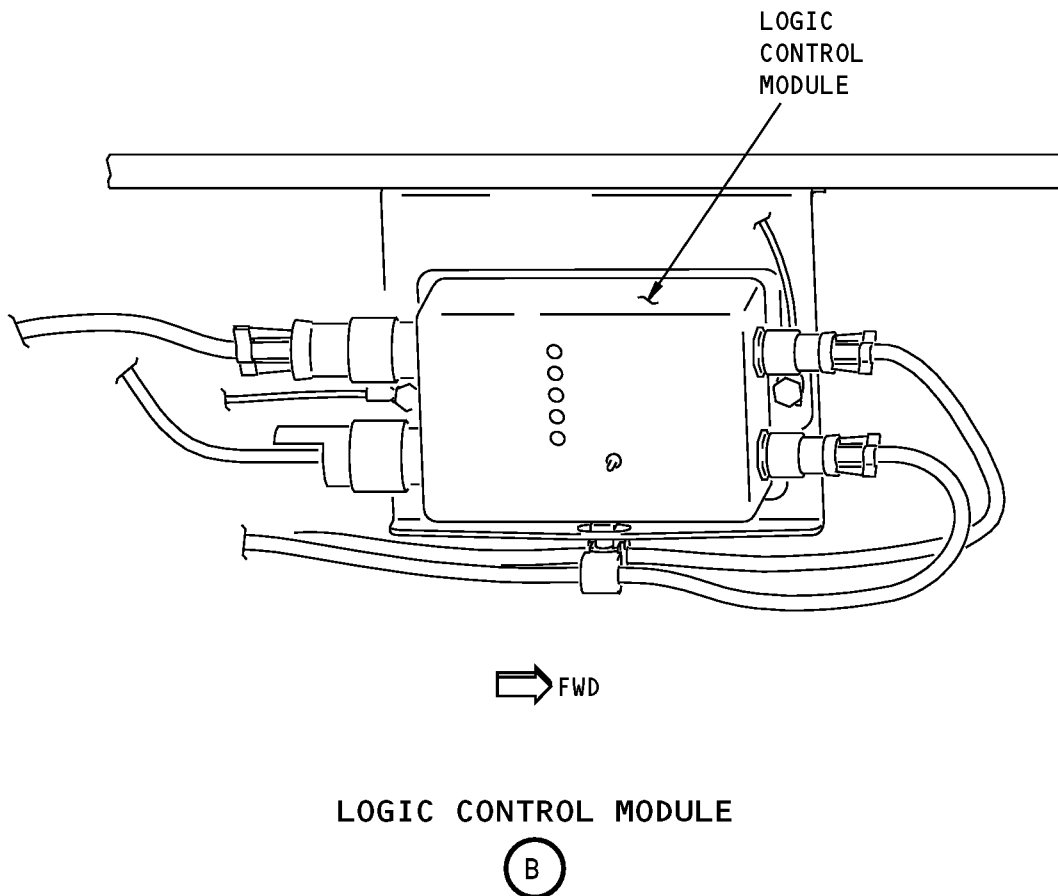
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Logic Control Module Test
Figure 501 (Sheet 2 of 2)/38-33-00-990-801

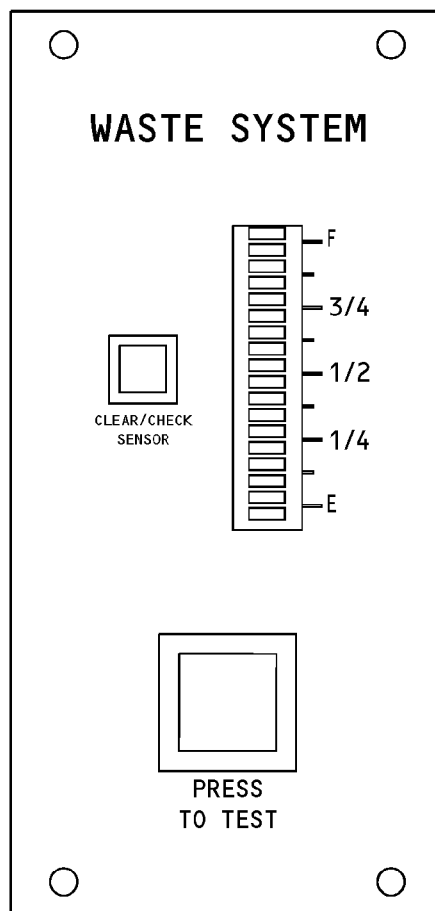
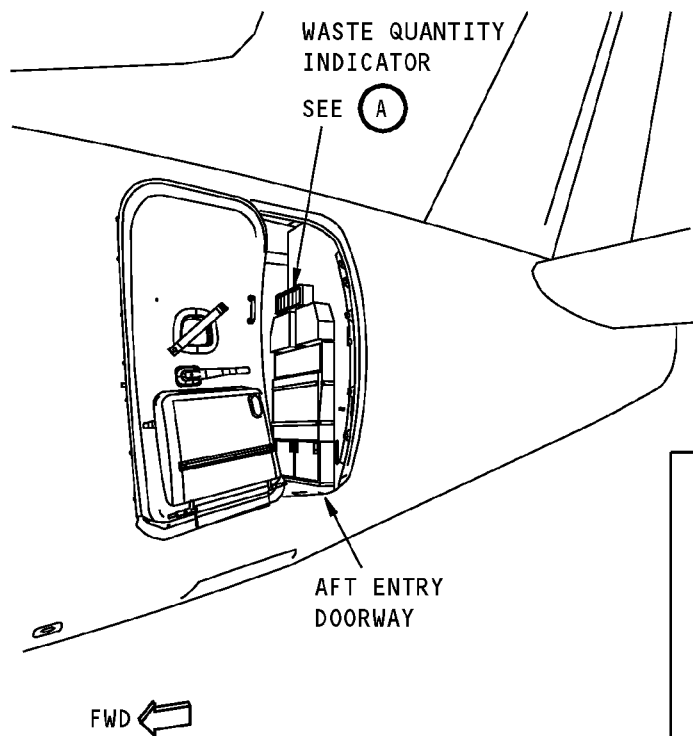
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WASTE QUANTITY INDICATOR

(A)

Attendant's Panel Waste Quantity Indicator Operational Test
Figure 502 (Sheet 1 of 2)/38-33-00-990-802

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HAP 001-013, 015-026, 028-030

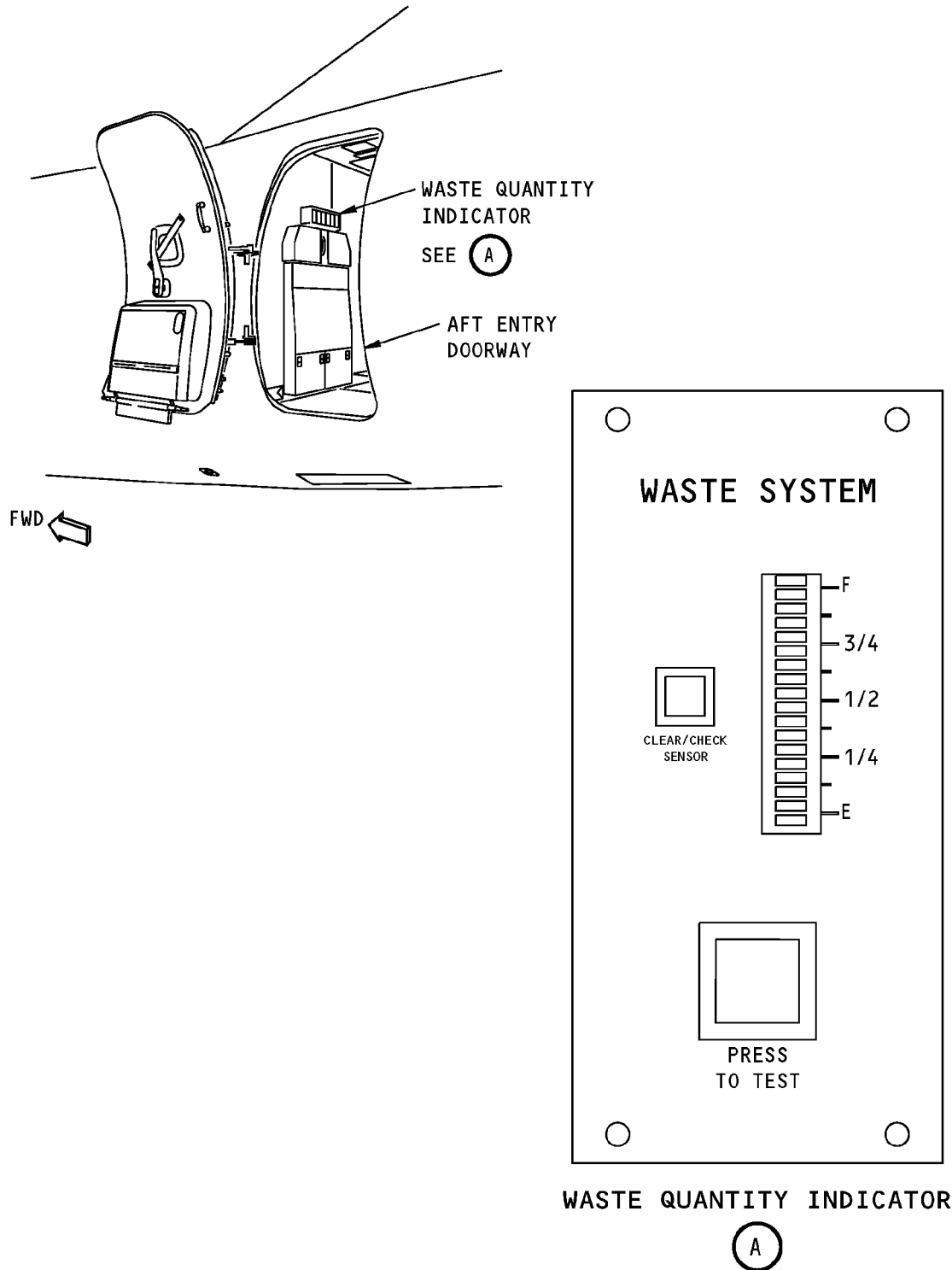
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Attendant's Panel Waste Quantity Indicator Operational Test
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WASTE TANK POINT LEVEL SENSOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the point level sensor for the waste tank.
- (2) An installation of the point level sensor for the waste tank.

TASK 38-33-01-000-801

2. Waste Tank Point Level Sensor Removal

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-33-01-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-33-01-010-001

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-01-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-33-01-040-001

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

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SUBTASK 38-33-01-910-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (5) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

E. Point Level Sensor Removal

SUBTASK 38-33-01-020-001

- (1) Disconnect the electrical connector [2] from the point level sensor assembly [5].

SUBTASK 38-33-01-020-002

- (2) Remove the V-band clamp [1].

SUBTASK 38-33-01-020-003

- (3) Remove the point level sensor assembly [5] and the gask-O- seal [4] from the mounting flange of the waste tank.

- (a) Discard the gask-O- seal [4].

SUBTASK 38-33-01-020-004

- (4) Remove the packing [3] from the point level sensor assembly [5].

- (a) Discard the packing [3].

SUBTASK 38-33-01-160-001

- (5) Clean all the waste material from the hole in the waste tank for the point level sensor.

————— **END OF TASK** —————

TASK 38-33-01-400-801

3. Waste Tank Point Level Sensor Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-33-00-740-802	LCM BITE Test (P/B 501)

B. Consumable Materials

Reference	Description	Specification
D00128	Grease - Silicone	A-A-59173
D00189	Lubricant - Silicone Based - Dow Corning 111	

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Packing	38-33-01-50-070	HAP ALL
4	Seal	38-33-01-50-075	HAP ALL
5	Sensor assembly	38-33-01-50-050	HAP ALL

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D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Point Level Sensor Installation

SUBTASK 38-33-01-640-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Apply grease, D00128 or Dow Corning 111 lubricant, D00189, to the gask-O- seal [4], packing [3], and the mounting flange of the waste tank.

SUBTASK 38-33-01-420-001

- (2) Install the packing [3] on the point level sensor assembly [5].

SUBTASK 38-33-01-420-002

- (3) Install the gask-O- seal [4] on the mounting flange of the waste tank.

SUBTASK 38-33-01-420-003

- (4) Install the point level sensor assembly [5] and V-band clamp [1].

SUBTASK 38-33-01-420-004

- (5) Tighten the V-band clamp [1] to 40-50 pound-inches (4.5-5.6 newton-meters).

SUBTASK 38-33-01-420-005

- (6) Connect the electrical connector [2] to the point level sensor assembly [5].

G. Point Level Sensor Installation Test

SUBTASK 38-33-01-860-001

- (1) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-01-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-01-760-001

- (3) Make sure the Power On light on the LCM is on.

SUBTASK 38-33-01-740-001

- (4) Set and then hold the switch on the LCM to Test Sensors.

SUBTASK 38-33-01-740-002

- (5) Make sure the J1 Sensor, J2 Sensor, J3 Sensor, Tank Full and Power On lights come on.

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SUBTASK 38-33-01-740-003

- (6) Release the switch on the LCM.

SUBTASK 38-33-01-740-004

- (7) Make sure the J1 Sensor, J2 Sensor, J3 Sensor, and Tank Full lights are off.
- (a) If the J1 Sensor light or J2 Sensor light is on, do this task: LCM BITE Test, TASK 38-33-00-740-802.

H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-01-610-002

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-33-01-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-01-410-001

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

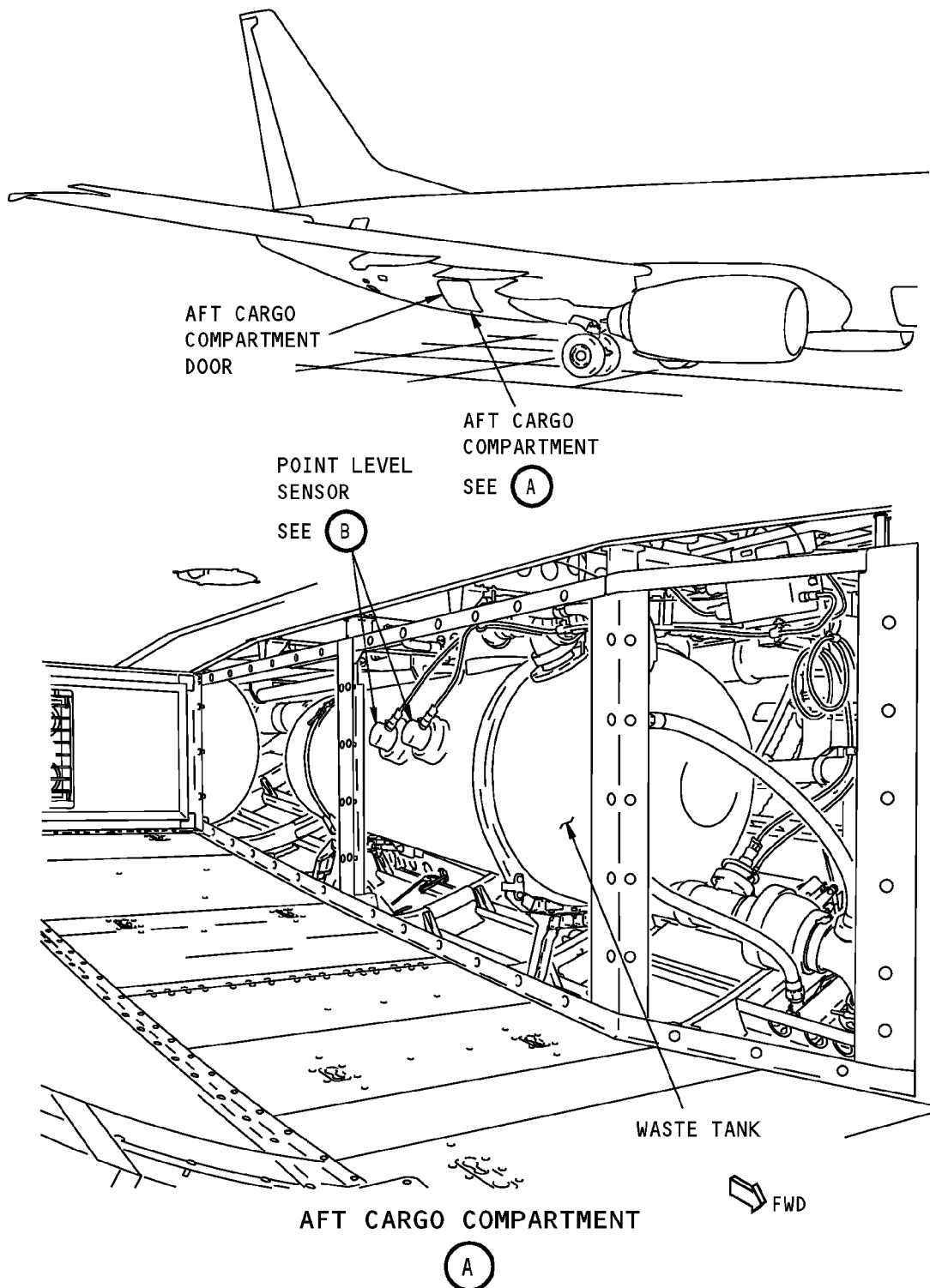
————— **END OF TASK** —————

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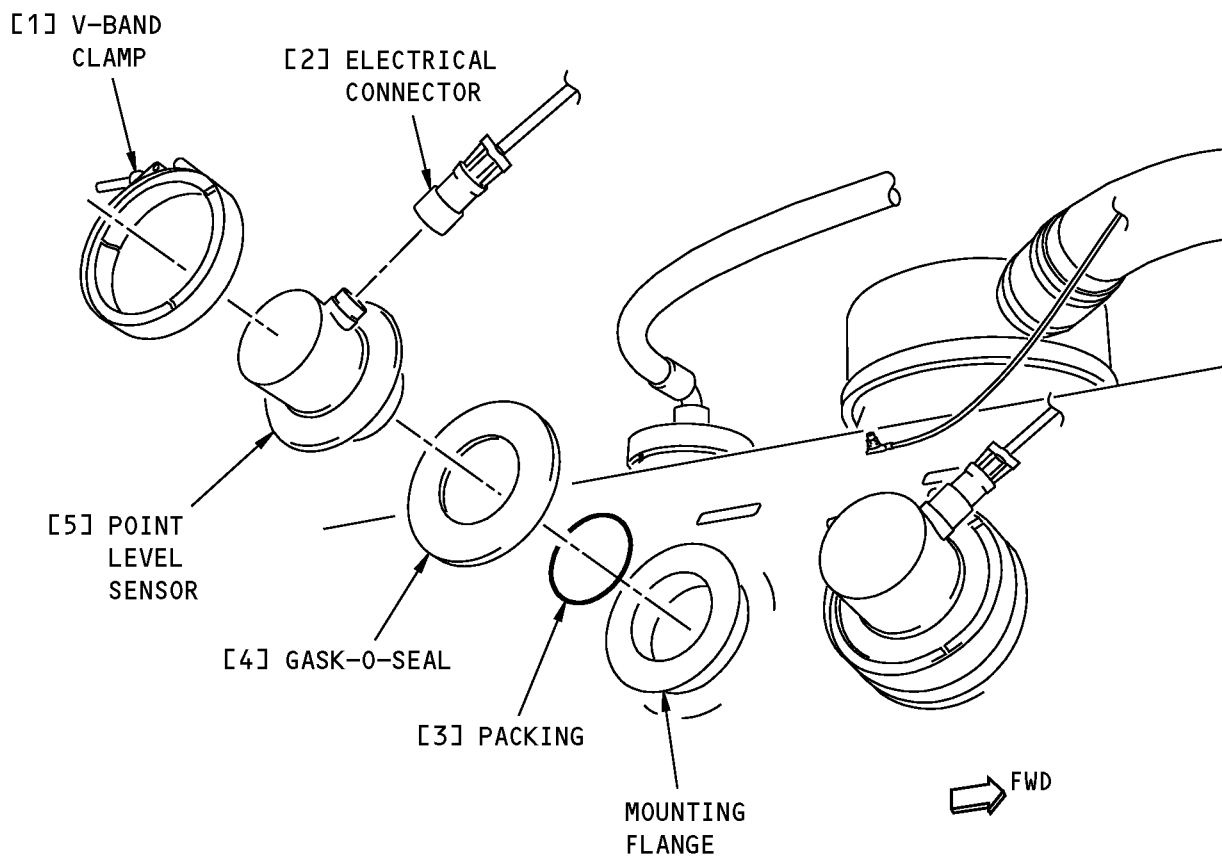
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Waste Tank Point Level Sensor Installation
Figure 401 (Sheet 1 of 2)/38-33-01-990-801

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POINT LEVEL SENSOR

(B)

Waste Tank Point Level Sensor Installation
Figure 401 (Sheet 2 of 2)/38-33-01-990-801

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WASTE TANK POINT LEVEL SENSOR - CLEANING/PAINTING

1. General

A. This procedure has this task:

- (1) A cleaning of the point level sensor for the waste tank.

TASK 38-33-01-100-801

2. Waste Tank Point Level Sensor Cleaning

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-33-01-000-801	Waste Tank Point Level Sensor Removal (P/B 401)
38-33-01-400-801	Waste Tank Point Level Sensor Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle

C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Removal

SUBTASK 38-33-01-610-003

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-33-01-010-004

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-33-01-010-005

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-33-01-040-002

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

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Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-01-910-002

- (5) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

F. Point Level Sensor Cleaning

SUBTASK 38-33-01-020-005

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Do this task: Waste Tank Point Level Sensor Removal, TASK 38-33-01-000-801.

SUBTASK 38-33-01-140-001

- (2) Use a rag to clean the loose material from the face of the point level sensor.

SUBTASK 38-33-01-140-002

CAUTION: USE EXTREME CARE TO AVOID DAMAGE TO THE FACE OF THE POINT LEVEL SENSOR. SCRATCHES OR DAMAGE CAN CAUSE A FAILURE OF THE POINT LEVEL SENSOR.

- (3) Use a soft bristle soft bristle brush, STD-123 and soap to clean the face of the point level sensor.

SUBTASK 38-33-01-140-003

- (4) Dry the point level sensor.

SUBTASK 38-33-01-160-002

- (5) Clean all the waste material from the hole in the waste tank for the point level sensor.

SUBTASK 38-33-01-020-006

- (6) Do this task: Waste Tank Point Level Sensor Installation, TASK 38-33-01-400-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-01-440-001

- (1) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-01-610-004

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

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SUBTASK 38-33-01-010-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(3) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-01-410-002

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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AIRCRAFT MAINTENANCE MANUAL

WASTE TANK CONTINUOUS LEVEL SENSOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the continuous level sensor for the waste tank.
- (2) An installation of the continuous level sensor for the waste tank.

TASK 38-33-02-000-801

2. Waste Tank Continuous Level Sensor Removal

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-33-02-610-001

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-33-02-010-001

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-02-010-002

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-33-02-040-001

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

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SUBTASK 38-33-02-910-001

- (5) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

E. Continuous Level Sensor Removal

SUBTASK 38-33-02-020-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Disconnect the electrical connector from the continuous level sensor [1].

SUBTASK 38-33-02-020-002

- (2) Remove the clamp [17] and clamp [18] adjacent to the waste tank, attached with screw [16], nut [20] and washer [19] to disconnect the capillary tube.

SUBTASK 38-33-02-020-003

- (3) Remove the clamp [8] and clamp [9] outboard of the LCM for the waste tank, with screw [6], nut [10] and washer [7] to disconnect the capillary tube.

SUBTASK 38-33-02-020-004

- (4) Remove the clamp [13] and clamp [14] aft of the LCM for the waste tank, with screw [11], nut [15] and washers [12] to disconnect the capillary tube.

SUBTASK 38-33-02-020-005

- (5) Remove the V-band clamp [4].

SUBTASK 38-33-02-020-006

CAUTION: DO NOT BEND THE CAPILLARY TUBE OF THE CONTINUOUS LEVEL SENSOR TO LESS THAN A 3-INCH (8 CM) RADIUS. SHARP BENDS CAN CAUSE DAMAGE TO THE CAPILLARY TUBE.

- (6) Remove the continuous level sensor [1] and the gask-O- seal [5] from the waste line.
(a) Discard the gask-O- seal [5].

SUBTASK 38-33-02-020-007

- (7) Remove the clamp [2].

SUBTASK 38-33-02-020-008

- (8) Remove the diaphragm half of the continuous level sensor [1] and the gask-O- seal [3].
(a) Discard the gask-O- seal [3].

SUBTASK 38-33-02-160-001

- (9) Clean all the waste material from the holes in the waste lines.

————— **END OF TASK** —————

TASK 38-33-02-400-801

3. Waste Tank Continuous Level Sensor Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

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(Continued)

Reference	Title
38-33-00-710-801	Auto Zero - Adjustment (P/B 501)

B. Tools/Equipment

Reference	Description
STD-1142	Equipment - Waste System Servicing

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Sensor	38-33-02-01-135	HAP 001-013, 015-017, 019
		38-33-02-02-145	HAP 018, 020-026, 028-030
		38-33-02-02A-090	HAP 031-054, 101-999
3	Seal	38-33-02-01-120	HAP 001-013, 015-017, 019
		38-33-02-02-130	HAP 018, 020-026, 028-030
		38-33-02-02A-080	HAP 031-054, 101-999
5	Seal	38-33-02-01-130	HAP 001-013, 015-017, 019
		38-33-02-02-140	HAP 018, 020-026, 028-030
		38-33-02-02A-085	HAP 031-054, 101-999

D. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

E. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

F. Continuous Level Sensor Installation

SUBTASK 38-33-02-420-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

CAUTION: DO NOT BEND THE CAPILLARY TUBE OF THE CONTINUOUS LEVEL SENSOR TO LESS THAN A 3-INCH RADIUS. SHARP BENDS CAN CAUSE DAMAGE TO THE CAPILLARY TUBE.

(1) Install the diaphragm half of the continuous level sensor [1], clamp [2] and gask-O- seal [3].

SUBTASK 38-33-02-420-002

(2) Tighten the clamp [2] to 40 pound-inches (4.5 newton-meters).

SUBTASK 38-33-02-420-003

(3) Install the V-band clamp [4] and gask-O- seal [5] to connect the continuous level sensor [1] in the waste line.

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SUBTASK 38-33-02-420-004

- (4) Tighten the V-band clamp [4] to 45 pound-inches (5.1 newton-meters).

SUBTASK 38-33-02-420-005

- (5) Install the clamp [17], clamp [18], screw [16], nut [20] and washers [19] for the capillary tube adjacent to the waste tank.

SUBTASK 38-33-02-420-006

- (6) Install the clamp [8], clamp [9], screw [6], nut [10] and washers [7] to connect the capillary tube outboard of LCM for the waste tank.

SUBTASK 38-33-02-420-007

- (7) Install the clamp [13], clamp [14], screw [11], nut [15] and washers [12] to connect the capillary tube aft of the LCM for the waste tank.

SUBTASK 38-33-02-420-008

- (8) Connect the electrical connector to the continuous level sensor [1].

G. Continuous Level Sensor Installation Test

SUBTASK 38-33-02-860-001

- (1) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-02-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-02-790-001

- (3) To do a leak check of the continuous level sensor connection, do these steps:

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (b) At the service panel, make sure that the control handles for the drain ball valves are in the closed position.
- (c) Connect the water hose from the waste system servicing equipment, STD-1142, to the service panel drain valve assembly.
- (d) Use the pump on the service cart to put about 50 gal (189 l) of water into the waste tank.
- (e) Make sure that the pressure sensor connection does not have a leak.

NOTE: You must wait for not less than 30 minutes after you put the water in the tanks before you do this step.

SUBTASK 38-33-02-760-001

- (4) Do this task: Auto Zero - Adjustment, TASK 38-33-00-710-801.

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-02-610-002

(1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-33-02-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(2) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-02-410-001

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

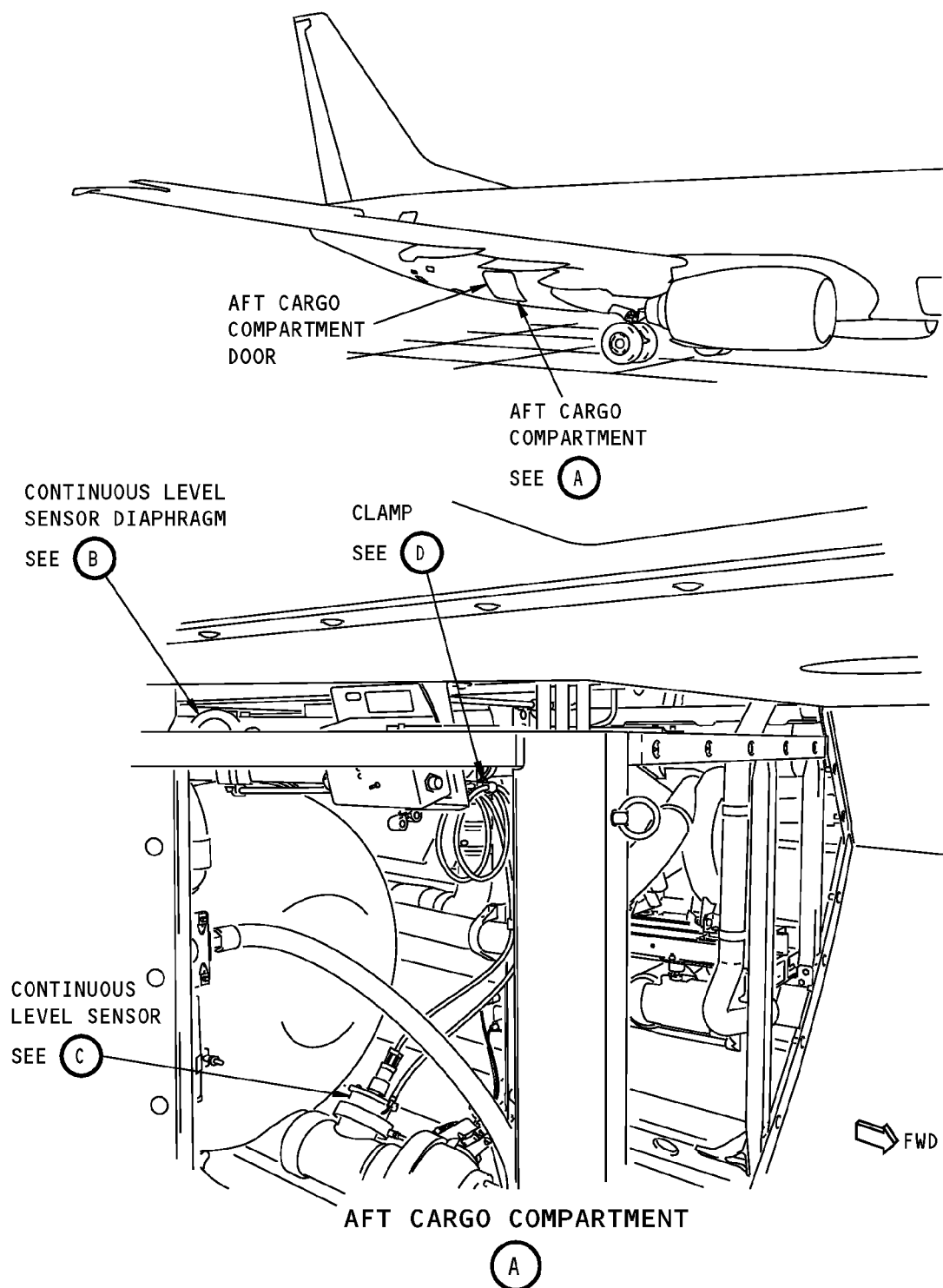
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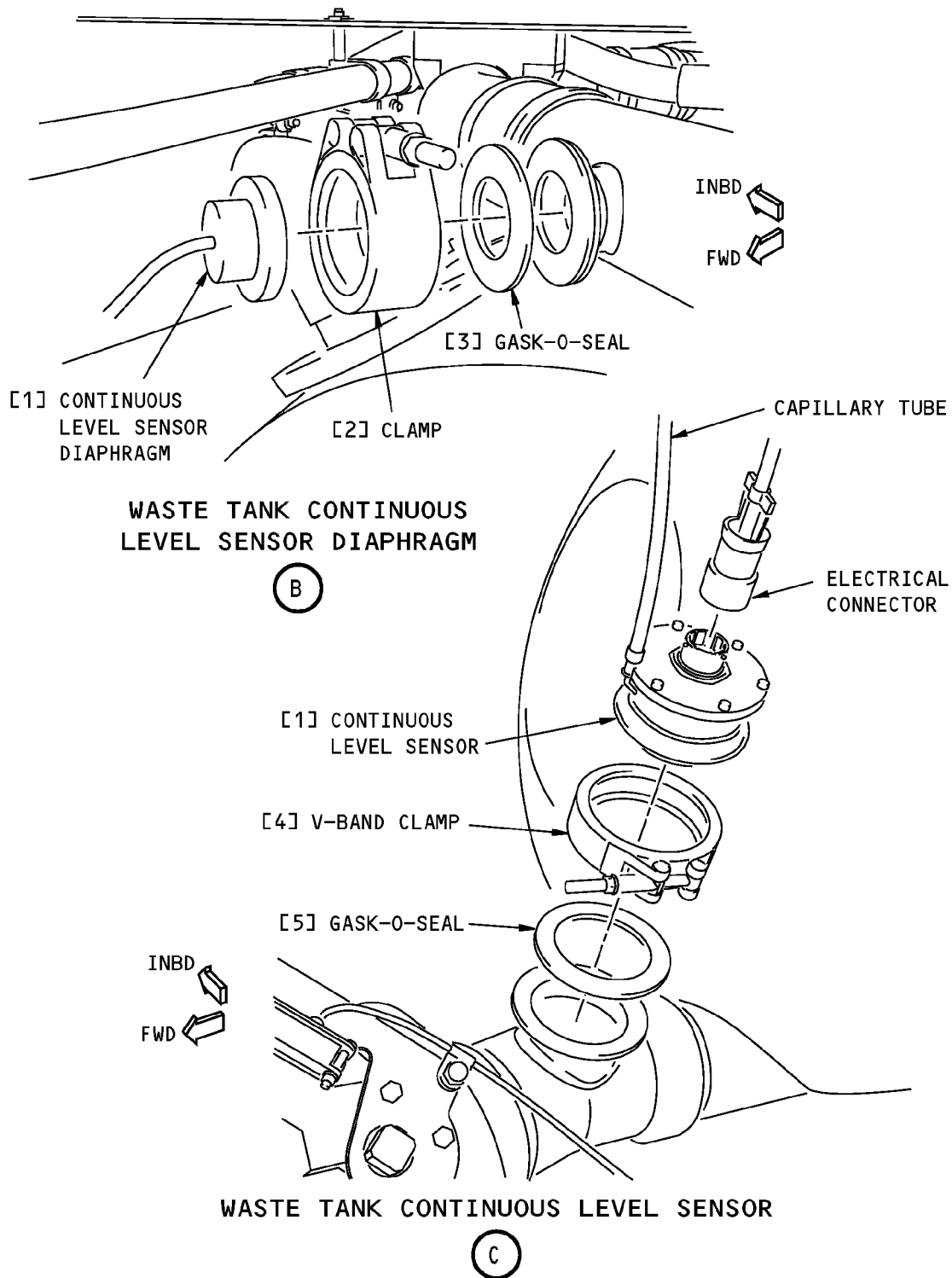
**Waste Tank Continuous Level Sensor Installation
Figure 401 (Sheet 1 of 3)/38-33-02-990-801**

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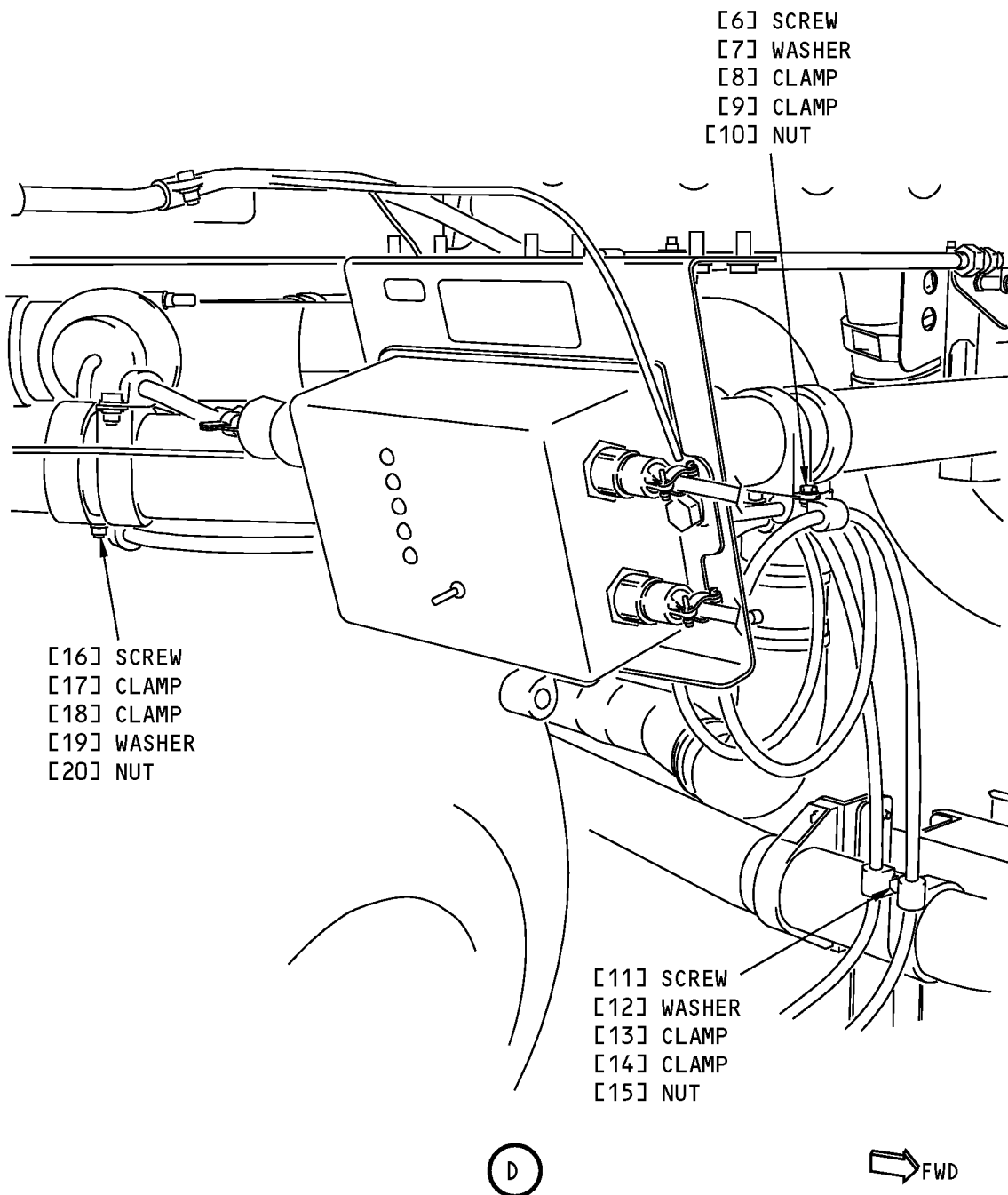
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WASTE TANK CONTINUOUS LEVEL SENSOR - CLEANING/PAINTING

1. General

A. This procedure has this task:

- (1) A cleaning of the continuous level sensor for the waste tank.

TASK 38-33-02-100-801

2. Waste Tank Continuous Level Sensor Cleaning

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-32-00-910-801	Standard Practices for Work with the Toilet Waste and Equipment (P/B 201)
38-33-02-000-801	Waste Tank Continuous Level Sensor Removal (P/B 401)
38-33-02-400-801	Waste Tank Continuous Level Sensor Installation (P/B 401)

B. Tools/Equipment

Reference	Description
STD-123	Brush - Soft Bristle

C. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Removal

SUBTASK 38-33-02-610-003

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not add the chemical precharge after you do the task to drain and flush the waste tanks.

SUBTASK 38-33-02-010-004

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-02-010-005

- (3) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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SUBTASK 38-33-02-040-002

- (4) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-02-910-002

- (5) Do this task: Standard Practices for Work with the Toilet Waste and Equipment, TASK 38-32-00-910-801.

F. Continuous Level Sensor Cleaning

SUBTASK 38-33-02-020-009

- (1) Do this task: Waste Tank Continuous Level Sensor Removal, TASK 38-33-02-000-801.

SUBTASK 38-33-02-140-001

- (2) Use a rag to clean the loose material from the face of the continuous level sensor.

SUBTASK 38-33-02-140-002

CAUTION: USE EXTREME CARE TO AVOID DAMAGE TO THE FACE OF THE CONTINUOUS LEVEL SENSOR. SCRATCHES OR DAMAGE CAN CAUSE A FAILURE OF THE CONTINUOUS LEVEL SENSOR.

- (3) Use a soft bristle soft bristle brush, STD-123 and soap to clean the face of the continuous level sensor.

SUBTASK 38-33-02-140-003

- (4) Dry the continuous level sensor.

SUBTASK 38-33-02-160-002

- (5) Clean all the waste material from the hole in the waste lines for the continuous level sensor.

SUBTASK 38-33-02-020-010

- (6) Do this task: Waste Tank Continuous Level Sensor Installation, TASK 38-33-02-400-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-02-610-004

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

SUBTASK 38-33-02-440-001

- (2) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

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SUBTASK 38-33-02-010-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(3) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-02-410-002

(4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

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LOGIC CONTROL MODULE - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the logic control module for the waste tank.
- (2) An installation of the logic control module for the waste tank.
- (3) An operational test of the logic control module for the waste tank.

B. The Logic Control Module is referred to as the LCM in this procedure.

C. The LCM has four electrical connectors. J1 and J2 are connected to the point level sensors. J3 is connected to the continuous level sensor. J4 is connected to the power and control circuits for the airplane.

TASK 38-33-03-000-801

2. Logic Control Module Removal

(Figure 201)

A. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)

B. Location Zones

Zone	Area
141	Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-33-03-010-001

(1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-03-010-002

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

(2) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

SUBTASK 38-33-03-040-001

(3) Open these circuit breakers and install safety tags:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

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Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

E. LCM Removal

SUBTASK 38-33-03-020-001

(1) Disconnect the J4 electrical connector [7] from the LCM sensor [4].

SUBTASK 38-33-03-020-002

(2) Disconnect the J3 electrical connector [1] from the LCM sensor [4].

SUBTASK 38-33-03-020-003

(3) Remove the J1 and J2 electrical connectors [5], [6] from the LCM sensor [4].

SUBTASK 38-33-03-020-004

(4) Remove the bolts [2] and washers [3] to disconnect the jumper assemblies [8] and to remove the LCM sensor [4].

END OF TASK

TASK 38-33-03-400-801

3. Logic Control Module Installation

(Figure 201)

A. References

<u>Reference</u>	<u>Title</u>
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-33-00-710-801	Auto Zero - Adjustment (P/B 501)
38-33-00-740-802	LCM BITE Test (P/B 501)

B. Expendables/Parts

<u>AMM Item</u>	<u>Description</u>	<u>AIPC Reference</u>	<u>AIPC Effectivity</u>
4	Sensor	38-33-03-01-135	HAP 001-013, 015-017, 019
		38-33-03-02-135	HAP 018, 020-026, 028-030
		38-33-03-02A-105	HAP 031-054, 101-999

C. Location Zones

<u>Zone</u>	<u>Area</u>
141	Aft Cargo Compartment - Left

D. Access Panels

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

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E. LCM Installation

SUBTASK 38-33-03-420-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Install the bolts [2] and washers [3] to connect the jumper assemblies [8] and install the LCM sensor [4].

SUBTASK 38-33-03-420-002

- (2) Connect the J1 and J2 electrical connectors [5], [6] to the LCM sensor [4].

NOTE: You can connect the J1 connector to the J2 receptacle or the J2 connector to the J1 receptacle. Make sure you install the J1 and J2 electrical connectors in the correct location on the LCM.

SUBTASK 38-33-03-420-003

- (3) Connect the J3 electrical connector [1] to the LCM sensor [4].

SUBTASK 38-33-03-420-004

- (4) Install the J4 electrical connector [7] to the LCM sensor [4].

F. LCM Installation Test

SUBTASK 38-33-03-860-001

- (1) Remove safety tags and close these circuit breakers:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-03-860-002

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-03-760-001

- (3) Do this task: LCM BITE Test, TASK 38-33-00-740-802.

SUBTASK 38-33-03-760-002

- (4) Do this task: Auto Zero - Adjustment, TASK 38-33-00-710-801.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-03-010-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

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SUBTASK 38-33-03-410-001

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

TASK 38-33-03-710-801

4. LCM Operational Test

A. References

<u>Reference</u>	<u>Title</u>
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)

B. Location Zones

<u>Zone</u>	<u>Area</u>
141	Aft Cargo Compartment - Left

C. Access Panels

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

D. Prepare for the test:

SUBTASK 38-33-03-860-003

(1) Make sure that these circuit breakers are closed:

CAPT Electrical System Panel, P18-3

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
D	19	C01423	VACUUM WASTE

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
C	11	C01388	VACUUM WASTE CONT

SUBTASK 38-33-03-860-004

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811

SUBTASK 38-33-03-010-004

(3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-33-03-010-005

(4) Do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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E. LCM Operational Test

SUBTASK 38-33-03-710-001

CAUTION: USE TOOLS CAREFULLY BECAUSE THE WASTE TANKS HAVE A COMPOSITE SKIN. IT IS EASILY DAMAGED. IF YOU HIT THE TANK OR LET IT FALL, THIS CAN CAUSE DAMAGE THAT YOU CANNOT SEE.

- (1) Make sure the POWER ON light for the LCM is on.

SUBTASK 38-33-03-710-002

- (2) Move and then release the switch to the TEST SENSOR position.

SUBTASK 38-33-03-710-003

- (3) Make sure the POWER ON, J1 SENSOR, J2 SENSOR, J3 SENSOR, and TANK FULL lights are on for approximately 3 seconds.

NOTE: The lights on the LCM can flash irregularly. If you find a system error, the TANK FULL light will flash at 8 Hz, then go off. You will see this cycle again after 1.6 seconds until you correct the defect.

SUBTASK 38-33-03-710-004

- (4) Make sure the J1 SENSOR, J2 SENSOR, J3 SENSOR, and TANK FULL lights are off.

F. Put the Airplane Back to Its Usual Condition

SUBTASK 38-33-03-410-002

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-33-03-410-003

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

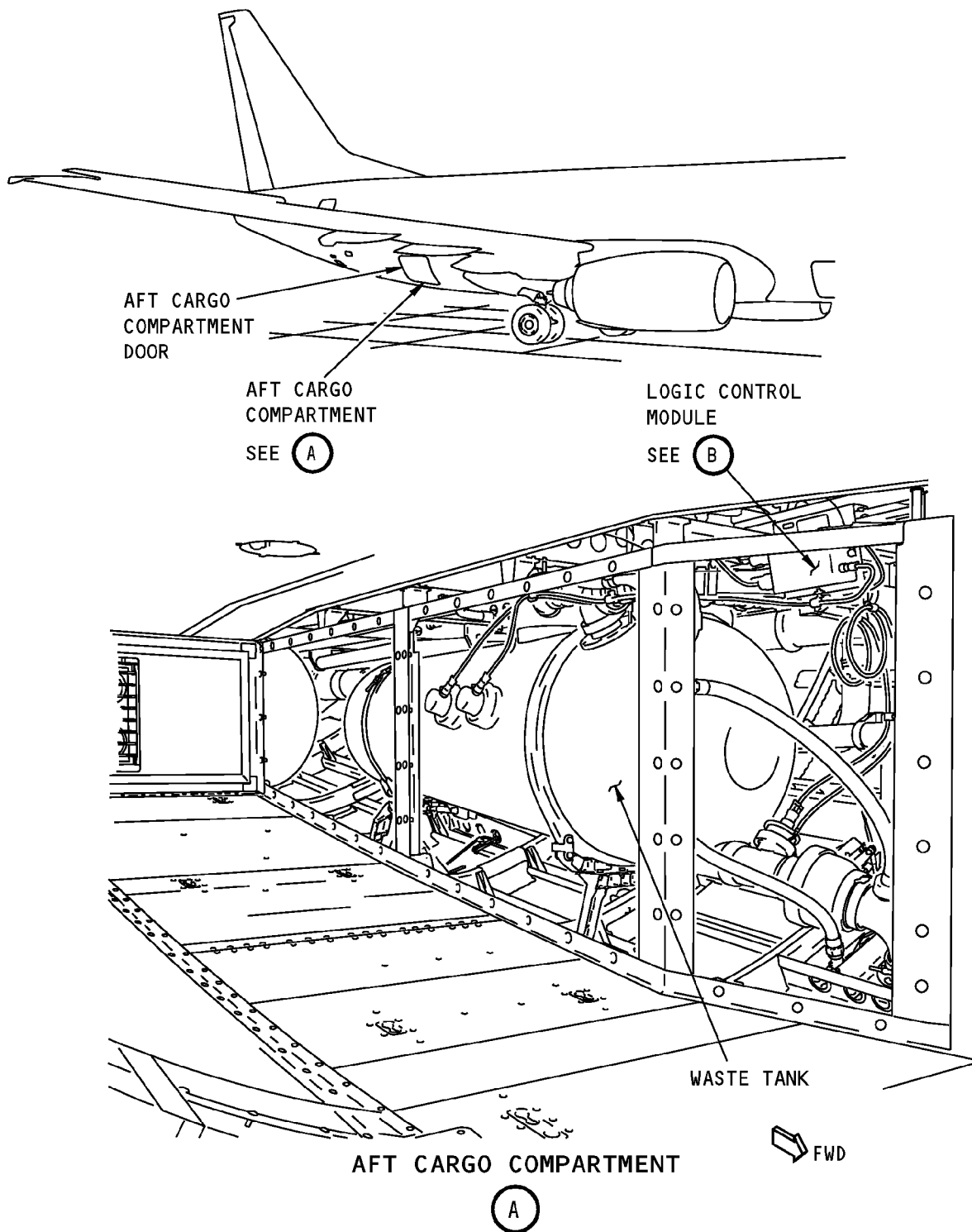
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Logic Control Module Installation
Figure 201 (Sheet 1 of 2)/38-33-03-990-801

EFFECTIVITY
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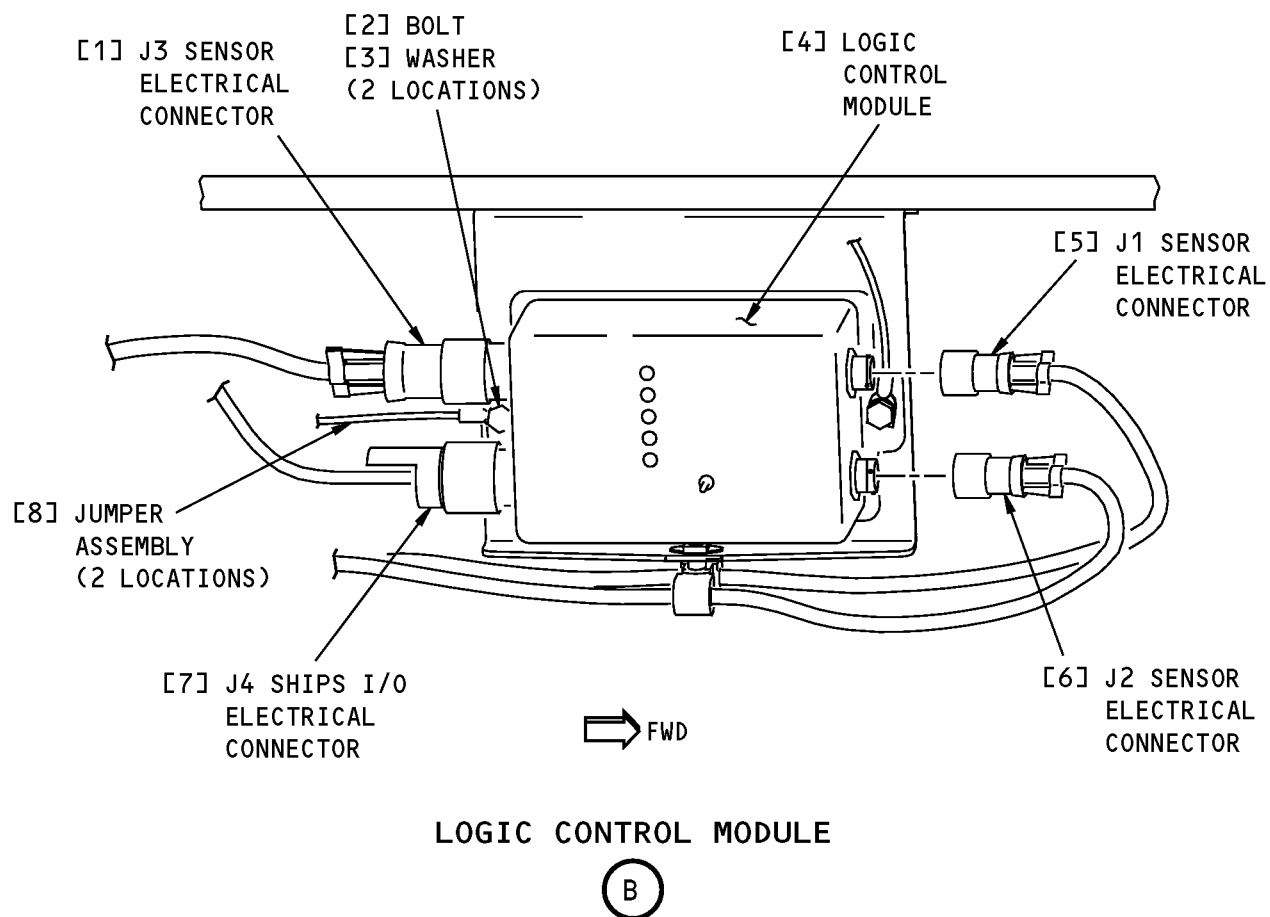
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AIRCRAFT MAINTENANCE MANUAL



Logic Control Module Installation
Figure 201 (Sheet 2 of 2)/38-33-03-990-801

EFFECTIVITY
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AIRCRAFT MAINTENANCE MANUAL

ATTENDANT'S PANEL WASTE QUANTITY INDICATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the waste quantity indicator on the attendant's panel.
- (2) An installation of the waste quantity indicator on the attendant's panel.

TASK 38-33-04-000-801

2. Attendant's Panel Waste Quantity Indicator Removal

(Figure 401)

A. Location Zones

Zone	Area
200	Upper Half of Fuselage

B. Prepare for the Removal

SUBTASK 38-33-04-860-001

- (1) Open this circuit breaker and install safety tag:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-04-860-002

- (2) Get access to the aft attendant's panel.

C. Waste Quantity Indicator Removal

SUBTASK 38-33-04-020-001

- (1) Remove the screws [2] that attach the shroud [1] to the attendant's panel.

SUBTASK 38-33-04-020-002

- (2) Remove the shroud [1].

NOTE: The shroud [1] is held in its position by spring clips. You must pull on the shroud [1] to release the spring clips.

SUBTASK 38-33-04-020-003

- (3) Remove the screws [3] and washers [4] from the attendant's panel.

SUBTASK 38-33-04-020-004

- (4) Remove the waste quantity module assembly [5].

————— **END OF TASK** —————

TASK 38-33-04-400-801

3. Attendant's Panel Waste Quantity Indicator Installation

(Figure 401)

A. References

Reference	Title
12-17-01-610-801	Waste Tank Servicing (P/B 301)

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B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Module assembly	31-15-21-03-125	HAP 001-013, 015-026, 028-030
		31-15-21-03A-055	HAP 031-054, 101-999
		38-33-04-01-005	HAP 031-054, 101-999

C. Location Zones

Zone	Area
200	Upper Half of Fuselage

D. Waste Quantity Indicator Installation

SUBTASK 38-33-04-420-001

- (1) Put the waste quantity module assembly [5] into its position.

SUBTASK 38-33-04-420-002

- (2) Install the screws [3] and washers [4].

SUBTASK 38-33-04-420-003

- (3) Put the shroud [1] in its position.

SUBTASK 38-33-04-420-004

- (4) Install the screws [2].

E. Waste Quantity Indicator Installation Test

SUBTASK 38-33-04-860-003

- (1) Remove safety tag and close this circuit breaker:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

SUBTASK 38-33-04-610-001

- (2) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

NOTE: Do not disconnect the rinse hose until the testing is completed.

- (a) Make sure the waste tank indicator show between 2 and 4 bars on the indicator.

SUBTASK 38-33-04-610-002

- (3) Add additional fluid to the waste tank until the LAV INOP light on the attendant's panel illuminates.

NOTE: Do not overfill the waste tank. The total liquid amount is approximately 60 gallons (230 liters).

SUBTASK 38-33-04-710-001

- (4) Make sure the waste quantity indicator shows F.

F. Put the Airplane Back to its Usual Condition

SUBTASK 38-33-04-610-003

- (1) Do this task: Waste Tank Servicing, TASK 12-17-01-610-801.

END OF TASK

EFFECTIVITY
HAP ALL

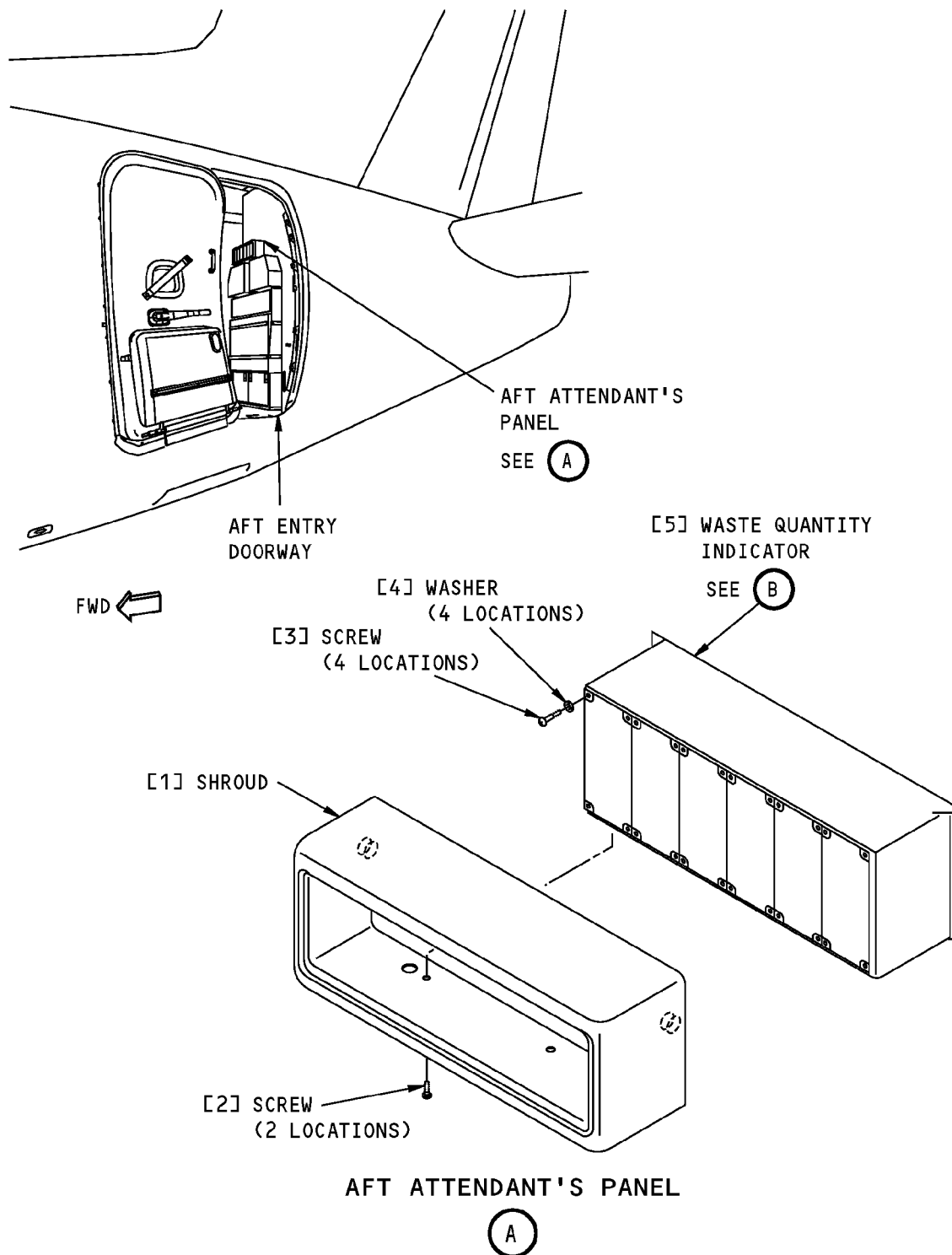
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Attendant's Panel Waste Quantity Indicator Installation
Figure 401 (Sheet 1 of 3)/38-33-04-990-801

EFFECTIVITY
HAP 001-013, 015-026, 028-030

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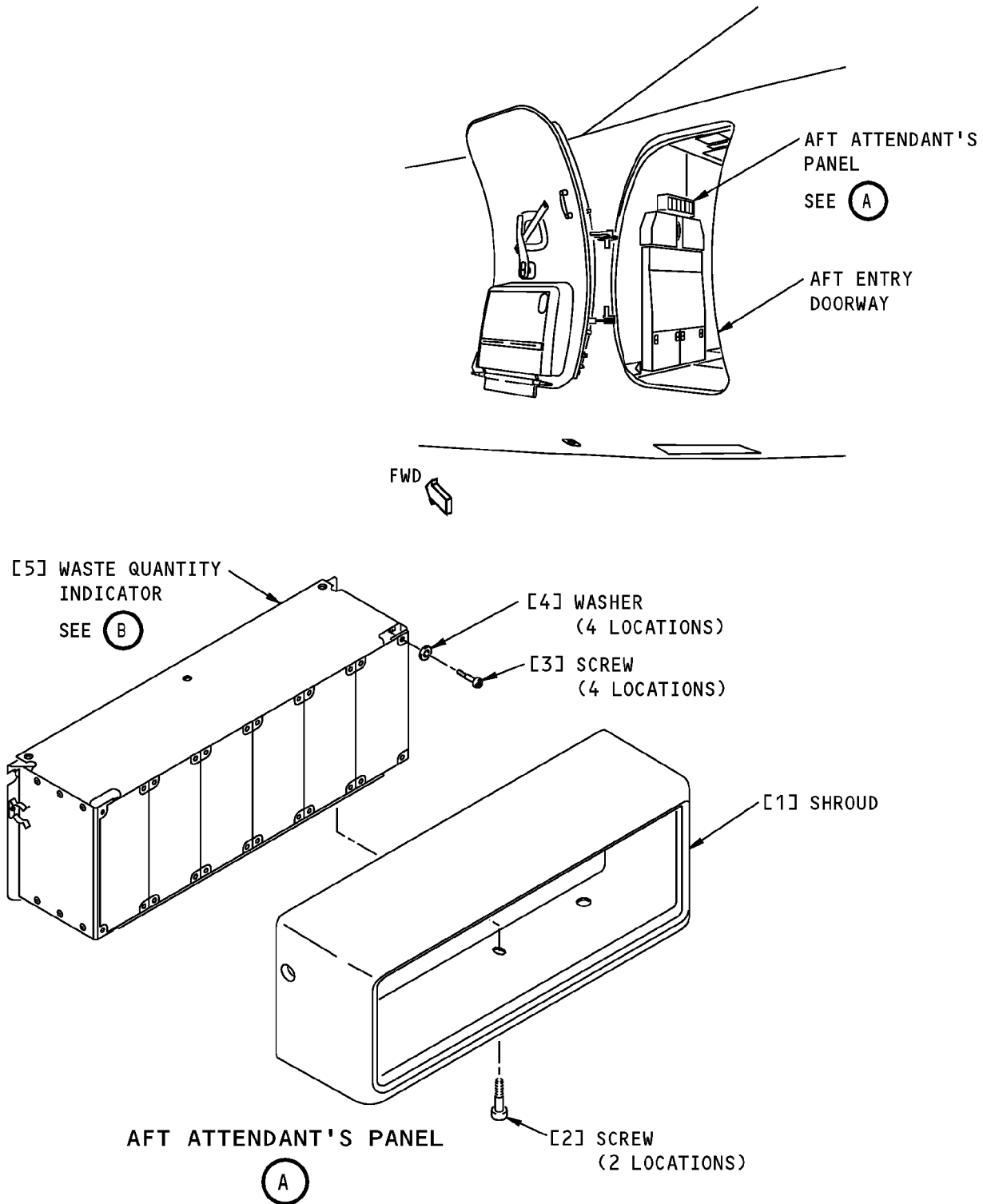
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Attendant's Panel Waste Quantity Indicator Installation
Figure 401 (Sheet 2 of 3)/38-33-04-990-801

EFFECTIVITY
HAP 031-054, 101-999

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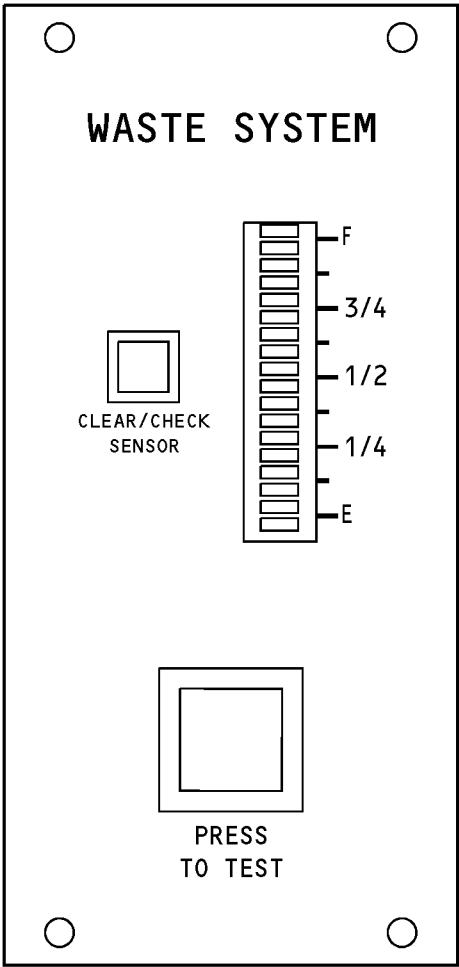
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WASTE QUANTITY INDICATOR



Attendant's Panel Waste Quantity Indicator Installation
Figure 401 (Sheet 3 of 3)/38-33-04-990-801



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AIRCRAFT MAINTENANCE MANUAL

WATER TANK PRESSURIZATION - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A task to release the pressure from the water system.
- (2) A task to pressurize the water system.

TASK 38-42-00-800-801

2. Potable Water System - Pressure Release

A. References

Reference	Title
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)

B. Access Panels

Number	Name/Location
146AR	Water Service Door

C. Release Pressure from the Potable Water System

SUBTASK 38-42-00-860-001

- (1) Do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

SUBTASK 38-42-00-860-002

- (2) Open these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-00-860-003

- (3) To turn the handle of the fill/overflow valve to open,

Open this access panel:

Number	Name/Location
146AR	Water Service Door

NOTE: The air compressor for the potable water system will not operate with the Water Service Door, 146AR, in the open position.

SUBTASK 38-42-00-710-001

- (4) When no more air comes out of the overflow port, close the fill/overflow valve.

————— **END OF TASK** —————

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TASK 38-42-00-800-802

3. Potable Water System - Pressurization

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)

B. Access Panels

Number	Name/Location
146AR	Water Service Door

C. Pressurize the Potable Water System

NOTE: Electrical power is necessary to pressurize the potable water system.

SUBTASK 38-42-00-610-001

- (1) If the potable water tank does not have water in it, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-42-00-860-004

- (2) To make sure the fill/overflow valve is closed,
Open this access panel:

Number	Name/Location
146AR	Water Service Door

NOTE: The air compressor for the potable water system will not operate with the Water Service Door, 146AR, in the open position.

SUBTASK 38-42-00-860-005

- (3) Close this access panel:

Number	Name/Location
146AR	Water Service Door

SUBTASK 38-42-00-860-006

- (4) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-00-860-007

- (5) Make sure that these circuit breakers are closed:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

END OF TASK

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AIRCRAFT MAINTENANCE MANUAL

WATER TANK PRESSURIZATION - ADJUSTMENT/TEST

1. General

A. This procedure has these tasks:

- (1) An operational test of the water tank pressurization system.
- (2) An operational test the pressure regulator.

TASK 38-42-00-800-803

2. Water Tank Pressurization System - Operational Test

A. References

Reference	Title
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
38-10-00-790-801	Potable Water System - Leak Test (P/B 201)

B. Access Panels

Number	Name/Location
146AR	Water Service Door

C. Release Pressure from the Potable Water System

SUBTASK 38-42-00-860-008

- (1) Do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

SUBTASK 38-42-00-860-009

- (2) Open these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR

HAP ALL

SUBTASK 38-42-00-860-010

- (3) To turn the handle of the fill/overflow valve to open,
Open this access panel:

Number	Name/Location
146AR	Water Service Door

SUBTASK 38-42-00-860-011

- (4) When no more air comes out of the overflow port, close the fill/overflow valve.

SUBTASK 38-42-00-860-012

- (5) Close this access panel:

Number	Name/Location
146AR	Water Service Door

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SUBTASK 38-42-00-860-013

- (6) Close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

SUBTASK 38-42-00-710-002

- (7) Make sure the air compressor comes on and the air compressor shuts off.

SUBTASK 38-42-00-710-003

- (8) If the air compressor shuts off after approximately 10 minutes, the system operation is satisfactory.
- (a) If the air compressor does not shut off after approximately 10 minutes, do this task: Potable Water System - Leak Test, TASK 38-10-00-790-801.

END OF TASK

TASK 38-42-00-800-804

3. Pressure Regulator - Operational Test

A. References

<u>Reference</u>	<u>Title</u>
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-802	Supply Pressure to the Pneumatic System with an External Ground Air Source (P/B 201)
38-42-08-000-801	Pressure Regulator Removal (P/B 401)
38-42-08-400-801	Pressure Regulator Installation (P/B 401)

B. Tools/Equipment

<u>Reference</u>	<u>Description</u>
STD-1091	Gauge - Air Pressure, 0-100 PSIG (0-690 KPa)

C. Pressure Regulator Operational Test

SUBTASK 38-42-00-020-001

- (1) Do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

SUBTASK 38-42-00-020-002

- (2) Remove the cap from the tee of the potable water line.

SUBTASK 38-42-00-480-001

- (3) Connect the pressure gauge (0-100 PSIG) (0-690 KPa), STD-1091 to the tee fitting.

SUBTASK 38-42-00-610-002

- (4) If the potable water tank is not full, do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

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SUBTASK 38-42-00-610-003

- (5) To pressurize the pneumatic system with at least 40 psig, do this task: Supply Pressure to the Pneumatic System with an External Ground Air Source, TASK 36-00-00-860-802.

SUBTASK 38-42-00-860-014

- (6) Do a check of the pressure on the pneumatic manifold to make sure the pneumatic pressure is not less than 40 psig.

SUBTASK 38-42-00-860-015

- (7) Read the pressure gauge (0-100 PSIG) (0-690 KPa), STD-1091 in the potable water system.

- (a) Make sure the pressure is 33 to 37 psig.
- (b) If the pressure is not 33 to 37 psig, replace the regulator.

These are the tasks:

Pressure Regulator Removal, TASK 38-42-08-000-801,

Pressure Regulator Installation, TASK 38-42-08-400-801.

D. Put the Airplane Back to Its Usual Condition

SUBTASK 38-42-00-860-016

- (1) Disconnect the pressure gauge (0-100 PSIG) (0-690 KPa), STD-1091 from the tee fitting.

SUBTASK 38-42-00-860-017

- (2) Install the cap on the tee of the potable water line.

SUBTASK 38-42-00-020-003

- (3) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

————— **END OF TASK** —————

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AIRCRAFT MAINTENANCE MANUAL

AIR COMPRESSOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the air compressor.
- (2) An installation of the air compressor.

TASK 38-42-01-000-801

2. Air Compressor Removal

(Figure 401)

A. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-01-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-01-860-002

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-01-010-001

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-42-01-010-002

- (4) To remove the waste tank enclosure lining, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

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E. Air Compressor Removal

SUBTASK 38-42-01-020-001

- (1) Disconnect the electrical connector [10] from the air compressor assembly [7].

SUBTASK 38-42-01-020-002

- (2) Disconnect the hose [8] from the union [1] on the outlet of the air compressor assembly [7].

SUBTASK 38-42-01-020-003

- (3) Disconnect the clamp [5], hose [6] and adapter [9] attached to the inlet of the air compressor assembly [7].

SUBTASK 38-42-01-020-004

- (4) Remove the screws [3] and washers [4] to disconnect the air compressor assembly [7] from the structure.

SUBTASK 38-42-01-020-005

- (5) Remove the air compressor assembly [7].

SUBTASK 38-42-01-020-006

- (6) Put a cap on the hose [8] to keep out contamination.

SUBTASK 38-42-01-020-007

- (7) Remove the union [1] and packing [2] from the air compressor assembly [7].

- (a) Discard the packing [2].

END OF TASK

TASK 38-42-01-400-801

3. Air Compressor Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)
38-42-09-400-802	Compressor Check Valve Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5
G00091	Compound - Oxygen System Leak Detection - Snoop Leak Detector	MIL-PRF-25567
G50321	Air - Clean, Dry	BAC5402, Table I
G50322	Nitrogen - Gaseous (Auxiliary pressure source alternate)	MIL-P-27401, Type 1

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Packing	38-42-01-01-010	HAP ALL

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(Continued)

AMM Item	Description	AIPC Reference	AIPC Effectivity
7	Compressor assembly	38-42-01-01-265	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Air Compressor Installation

SUBTASK 38-42-01-640-001

- (1) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [2] and threads of the union [1].

SUBTASK 38-42-01-617-001

- (2) Clear the hose and line assembly, between the air compressor and the check valve, of any contamination. Use clean dry air, G50321 or nitrogen, G50322

NOTE: To clean the hose and line assembly, use 40 psig (3 kg/cm²) to 100 psig (7 kg/cm²) clean, dry shop air, or nitrogen, applied at the check valve end of the hose, for 1 to 2 minutes.

SUBTASK 38-42-01-420-001

- (3) Install a new packing [2] on the union [1].

SUBTASK 38-42-01-420-002

- (4) Install the union [1] with the packing [2] in the air compressor assembly [7].

SUBTASK 38-42-01-420-003

- (5) Put the air compressor assembly [7] in its position on the mounting plate.

SUBTASK 38-42-01-420-004

- (6) Install the washers [4] and screws [3] for the air compressor assembly [7] to the structure.

SUBTASK 38-42-01-020-008

- (7) Remove the cap on the hose [8].

SUBTASK 38-42-01-420-005

- (8) Connect the hose [8] to the union [1] in the outlet of the air compressor assembly [7].

SUBTASK 38-42-01-420-006

- (9) Put the adapter [9] in its position on the air compressor assemblies [7].

SUBTASK 38-42-01-420-007

- (10) Connect the hose [6] and clamps [5] to the adapter [9].

SUBTASK 38-42-01-420-008

- (11) Connect the electrical connector [10] to the air compressor assembly [7].

SUBTASK 38-42-01-420-009

- (12) Install a serviceable air compressor check valve, do this task: Compressor Check Valve Installation, TASK 38-42-09-400-802.

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SUBTASK 38-42-01-860-003

(13) Close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-01-860-004

(14) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-01-860-005

(15) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-01-790-001

(16) Make sure there are no air leaks at the connections to the air compressor assembly [7].

(a) Apply the Snoop Leak Detector compound, G00091 to all the fittings and connections.

1) Look for bubbles to find any leaks.

2) If you find leaks, tighten the fittings and connections.

(b) Remove the Snoop Leak Detector compound, G00091 with a clean cotton wiper, G00034 immediately after the check.

1) Make sure the fittings and connections are dry.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-42-01-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-42-01-410-002

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
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822	Aft Cargo Door
-----	----------------

————— **END OF TASK** —————

EFFECTIVITY
HAP ALL

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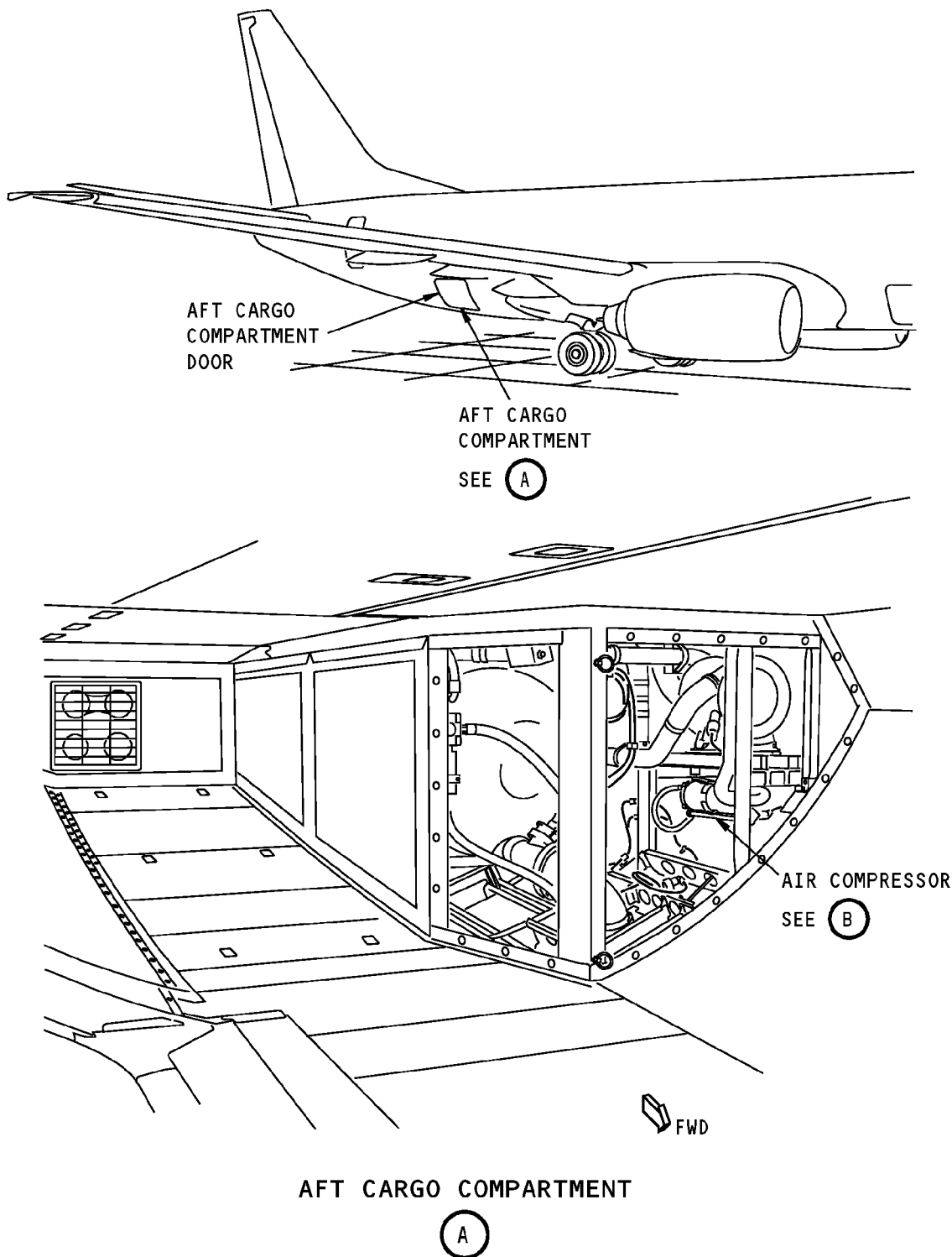
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AIRCRAFT MAINTENANCE MANUAL



Air Compressor Installation
Figure 401 (Sheet 1 of 2)/38-42-01-990-801

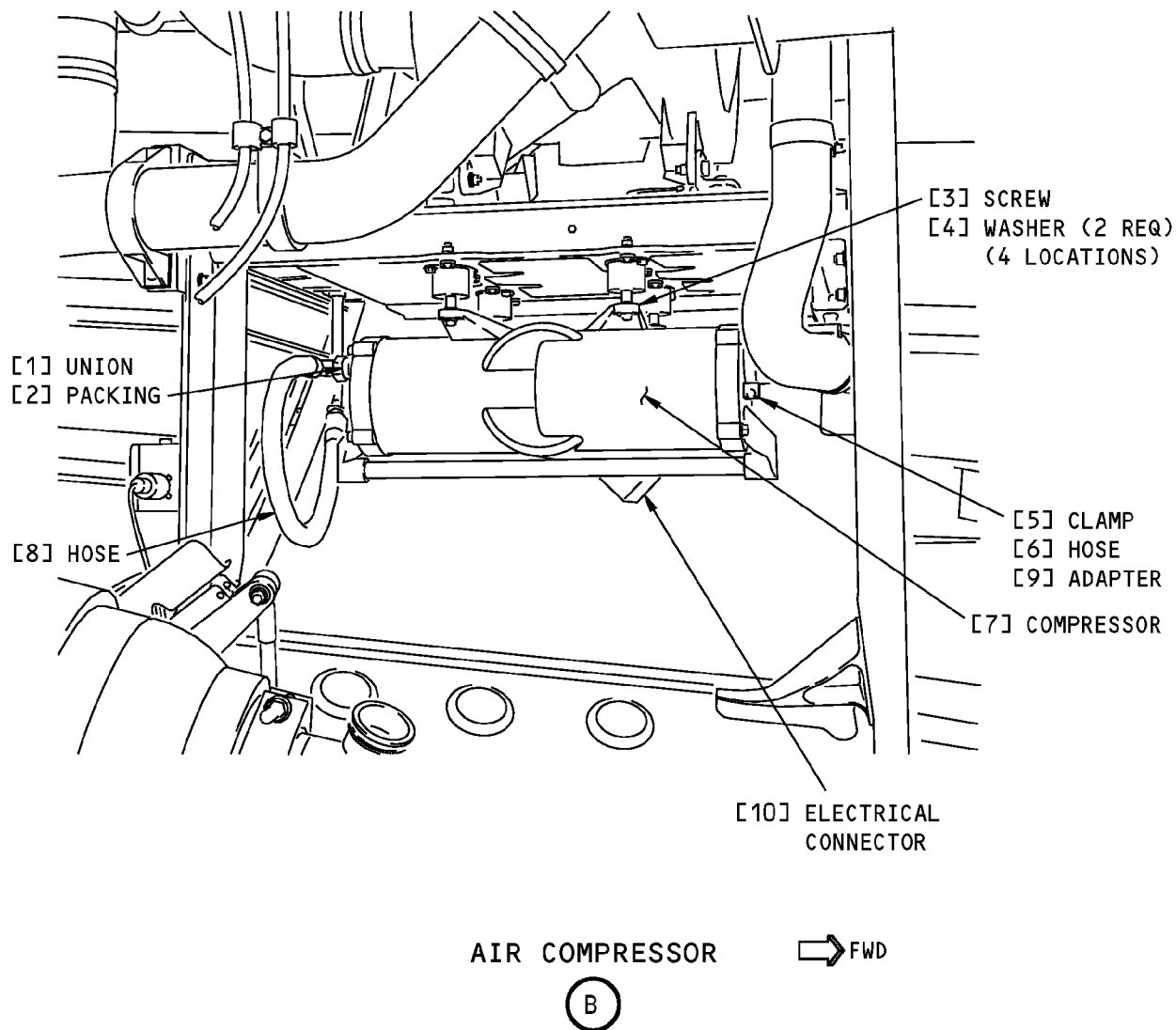
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Air Compressor Installation
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AIRCRAFT MAINTENANCE MANUAL

COMPRESSOR INLET AIR FILTER - REMOVAL/INSTALLATION

1. General

- A. This procedure contains scheduled maintenance task data.
- B. The air compressor has a built-in air filter assembly on its forward side.

NOTE: The air filter assembly has a filter element that you can remove.

- C. This procedure has these tasks:
 - (1) A removal of the element from the air filter assembly.
 - (2) An installation of the element in the air filter assembly.

NOTE: You can replace the used filter assembly with a new filter assembly.

TASK 38-42-02-000-801

2. Air Filter Element Removal

(Figure 401)

A. References

Reference	Title
25-52-20-000-801	Waste Tank Enclosure Panel Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-02-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-02-860-002

- (2) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-02-010-001

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

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SUBTASK 38-42-02-010-002

- (4) To remove the waste tank enclosure panels, do this task: Waste Tank Enclosure Panel Removal, TASK 25-52-20-000-801.

E. Air Filter Element Removal

SUBTASK 38-42-02-020-001

- (1) Loosen the clamp [1] to disconnect the hose [2] from the air compressor [4].

SUBTASK 38-42-02-020-002

- (2) Remove the adapter [3].

SUBTASK 38-42-02-020-003

- (3) Remove the air filter assembly [5].

SUBTASK 38-42-02-020-004

- (4) Remove the retainer ring [8] from the air filter assembly [5].

NOTE: The retainer ring [8] will be used again in the installation task.

SUBTASK 38-42-02-020-005

- (5) Remove the screen [7] from the filter assembly [5].

SUBTASK 38-42-02-020-006

- (6) Remove and then discard the packing [6].

SUBTASK 38-42-02-020-007

- (7) Remove the filter [10].

SUBTASK 38-42-02-020-008

- (8) Remove and then discard the packing [6].

————— **END OF TASK** —————

TASK 38-42-02-400-801

3. Air Filter Element Installation

(Figure 401)

A. References

Reference	Title
25-52-20-400-801	Waste Tank Enclosure Panel Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
5	Filter assembly	38-42-01-01-305	HAP ALL
6	Packing	38-42-01-01-310	HAP ALL
8	Ring	38-42-01-01-315	HAP ALL
10	Filter	38-42-01-01-330	HAP ALL
11	Packing	38-42-01-01-325	HAP ALL

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

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D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Air Filter Element Installation

SUBTASK 38-42-02-420-001

- (1) Make sure the deflector [9] is in its position in the filter assembly [5].

SUBTASK 38-42-02-420-002

- (2) Put a new or serviceable filter [10] into the air filter assembly [5].
 - (a) To make the inlet filter [10] serviceable, clean as follows:
 - 1) Soak the filter element in a suitable solvent (such as aliphatic naphtha).
 - 2) Reverse flow blow dry with low air pressure.
 - 3) Make sure the filter is in serviceable condition.

SUBTASK 38-42-02-420-003

- (3) Put a new packing [6] into the air filter assembly [5].

SUBTASK 38-42-02-420-004

- (4) Put the screen [7] into its position.

SUBTASK 38-42-02-420-005

- (5) Install the retaining ring [8].

SUBTASK 38-42-02-420-006

- (6) Install a new packing [11] on the air filter assembly [5].

SUBTASK 38-42-02-420-007

- (7) Install the air filter assembly [5] into the air compressor [4].

SUBTASK 38-42-02-420-008

- (8) Install the adapter [3] on the air filter assembly [5].

SUBTASK 38-42-02-420-009

- (9) Put the hose [2] in its position and then install the clamp [1].

F. Air Filter Element Installation Test

SUBTASK 38-42-02-860-003

- (1) Close these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-02-860-004

- (2) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-02-710-001

- (3) Make sure the air compressor operates without leakage.

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G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-42-02-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Waste Tank Enclosure Panel Installation, TASK 25-52-20-400-801.

SUBTASK 38-42-02-410-002

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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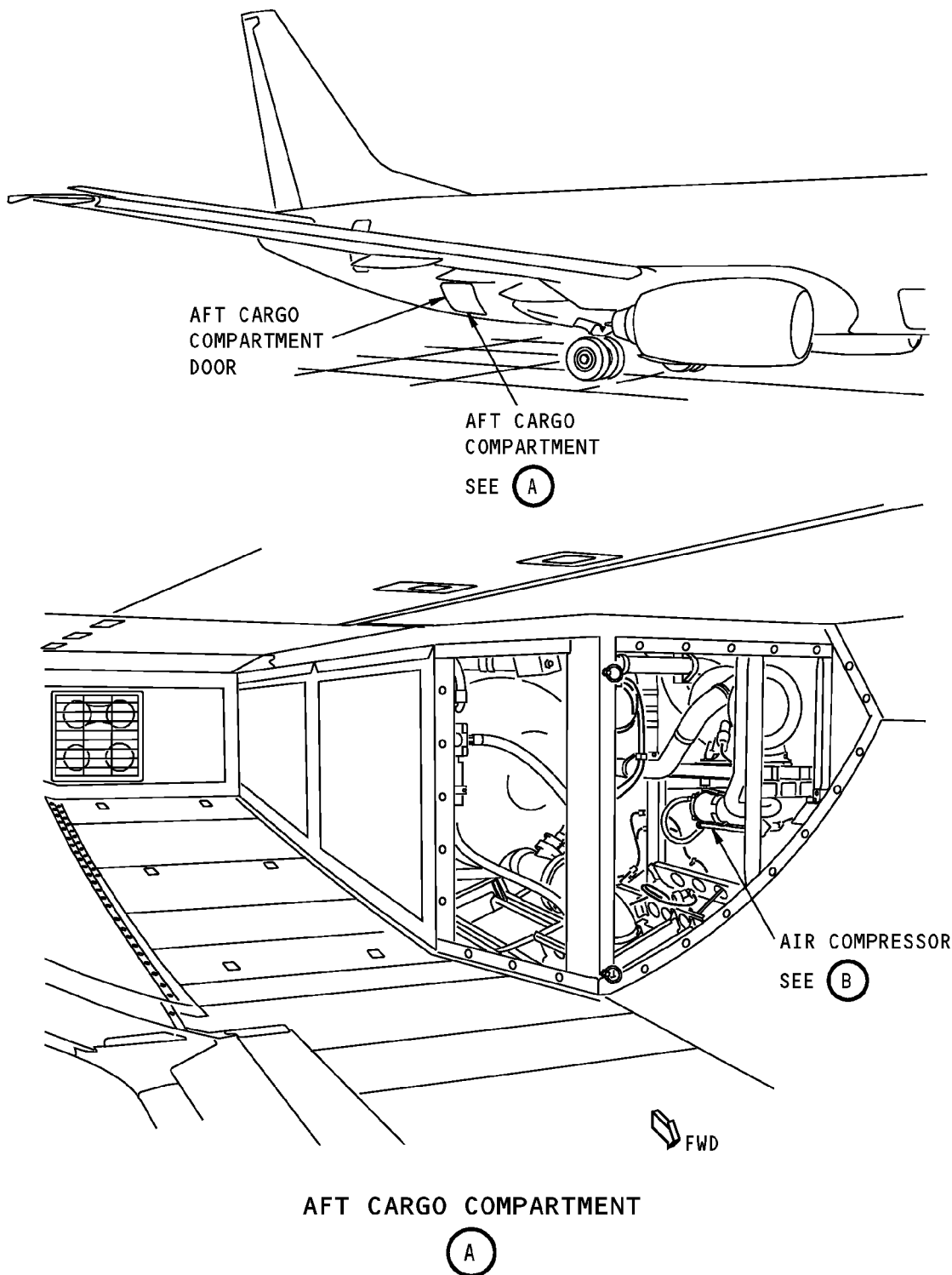
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Compressor Inlet Air Filter Installation
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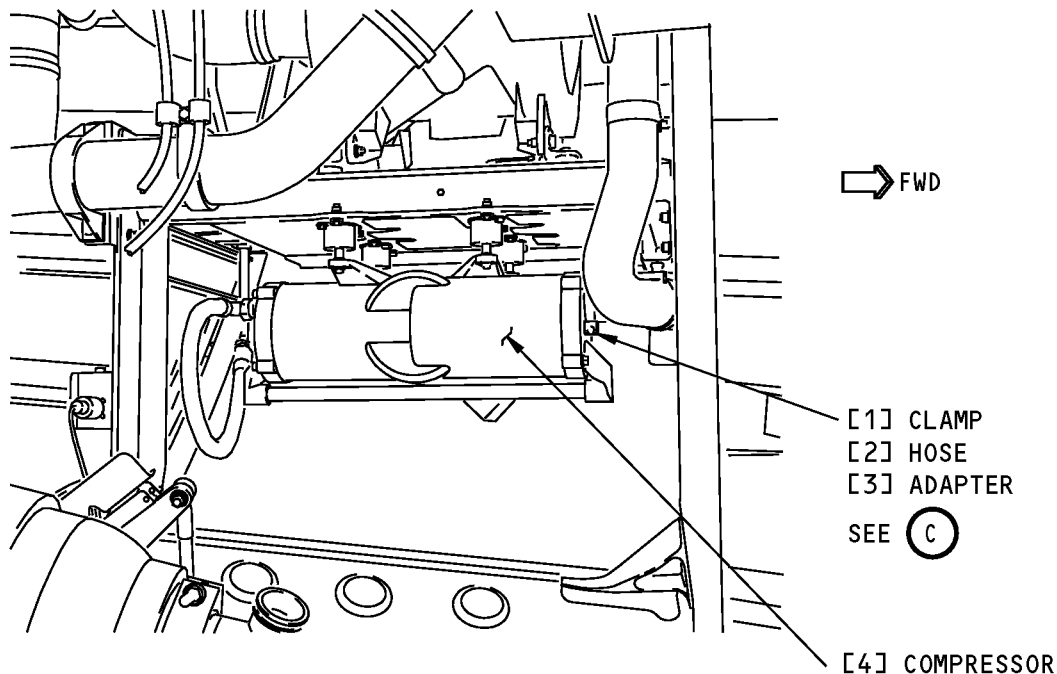
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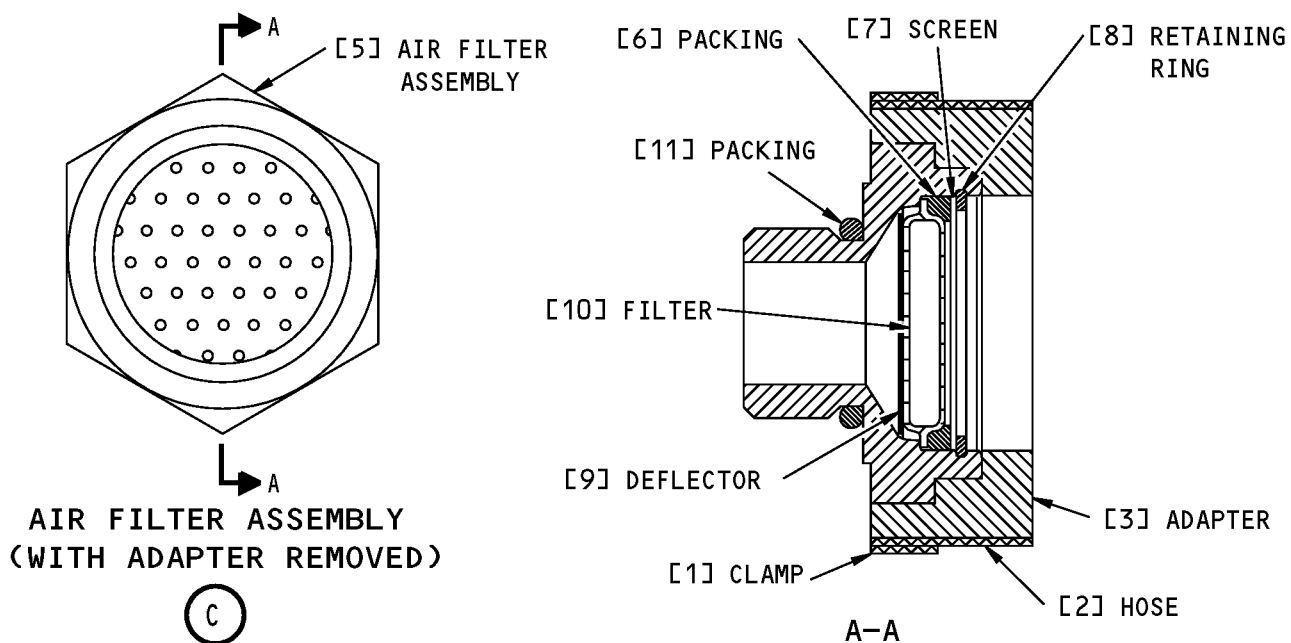
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AIR COMPRESSOR

(B)



Compressor Inlet Air Filter Installation
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AIRCRAFT MAINTENANCE MANUAL

COMPRESSOR CUT-OUT SWITCH - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the compressor cut-out switch.
- (2) An installation of the compressor cut-out switch.

TASK 38-42-03-000-801

2. Compressor Cut-Out Switch Removal

(Figure 401)

A. References

Reference	Title
25-52-10-000-801	Cargo Floor Panel Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
143	Area Below Aft Cargo Compartment - Left

C. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-03-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-03-860-002

- (2) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-03-010-001

- (3) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-42-03-010-002

- (4) To remove the floor panel above the water service panel, do this task: Cargo Floor Panel Removal, TASK 25-52-10-000-801.

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SUBTASK 38-42-03-010-003

- (5) Open this access panel:

Number	Name/Location
145AL	Waste Service Door

E. Compressor Cut-Out Switch Removal

SUBTASK 38-42-03-020-001

- (1) Remove the screw [3] and washers [5] to disconnect the actuator [4] from the bracket on the water service panel.

SUBTASK 38-42-03-020-002

- (2) Disconnect the electrical connector for the sensor [1].

SUBTASK 38-42-03-020-003

- (3) Remove the grommet [6] with the sealant for the electrical wires.

SUBTASK 38-42-03-020-004

- (4) Remove the screws [2] to disconnect the sensor [1].

END OF TASK

TASK 38-42-03-400-801

3. Compressor Cut-Out Switch Installation

(Figure 401)

A. References

Reference	Title
25-52-10-400-801	Cargo Floor Panel Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Consumable Materials

Reference	Description	Specification
A00436	Sealant - Fuel Tank	BMS5-45 (Supersedes BMS 5-26)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Sensor	38-10-51-09-025	HAP ALL
4	Actuator	38-10-51-09-060	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
145AL	Waste Service Door
822	Aft Cargo Door

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F. Compressor Cut-Out Switch Installation

SUBTASK 38-42-03-420-001

- (1) Put a new sensor [1] in its position.

SUBTASK 38-42-03-420-002

- (2) Install the screws [2].

SUBTASK 38-42-03-420-003

- (3) Put the electrical wires through the hole in the water service panel.

SUBTASK 38-42-03-420-004

- (4) Apply the sealant, A00436 to the electrical wires and then install the grommet [6].

SUBTASK 38-42-03-420-005

- (5) Install the electrical connector for the sensor [1].

SUBTASK 38-42-03-420-006

- (6) Put the actuator [4] in its position.

SUBTASK 38-42-03-420-007

- (7) Install the screws [3].

NOTE: Use washers [5] to decrease the distance between the sensor [1] and actuator [2] if the distance is more than 0.21 inches (5.33 mm).

G. Compressor Cut-Out Switch Installation Test

SUBTASK 38-42-03-860-003

- (1) Close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR

HAP ALL

SUBTASK 38-42-03-860-004

- (2) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-03-710-001

- (3) Make sure the air compressor operates when you close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

SUBTASK 38-42-03-710-002

- (4) Make sure the air compressor stops when you open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

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H. Put the Airplane Back to Its Usual Condition

SUBTASK 38-42-03-410-006

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Cargo Floor Panel Installation, TASK 25-52-10-400-801.

SUBTASK 38-42-03-410-002

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-42-03-410-003

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

————— **END OF TASK** —————

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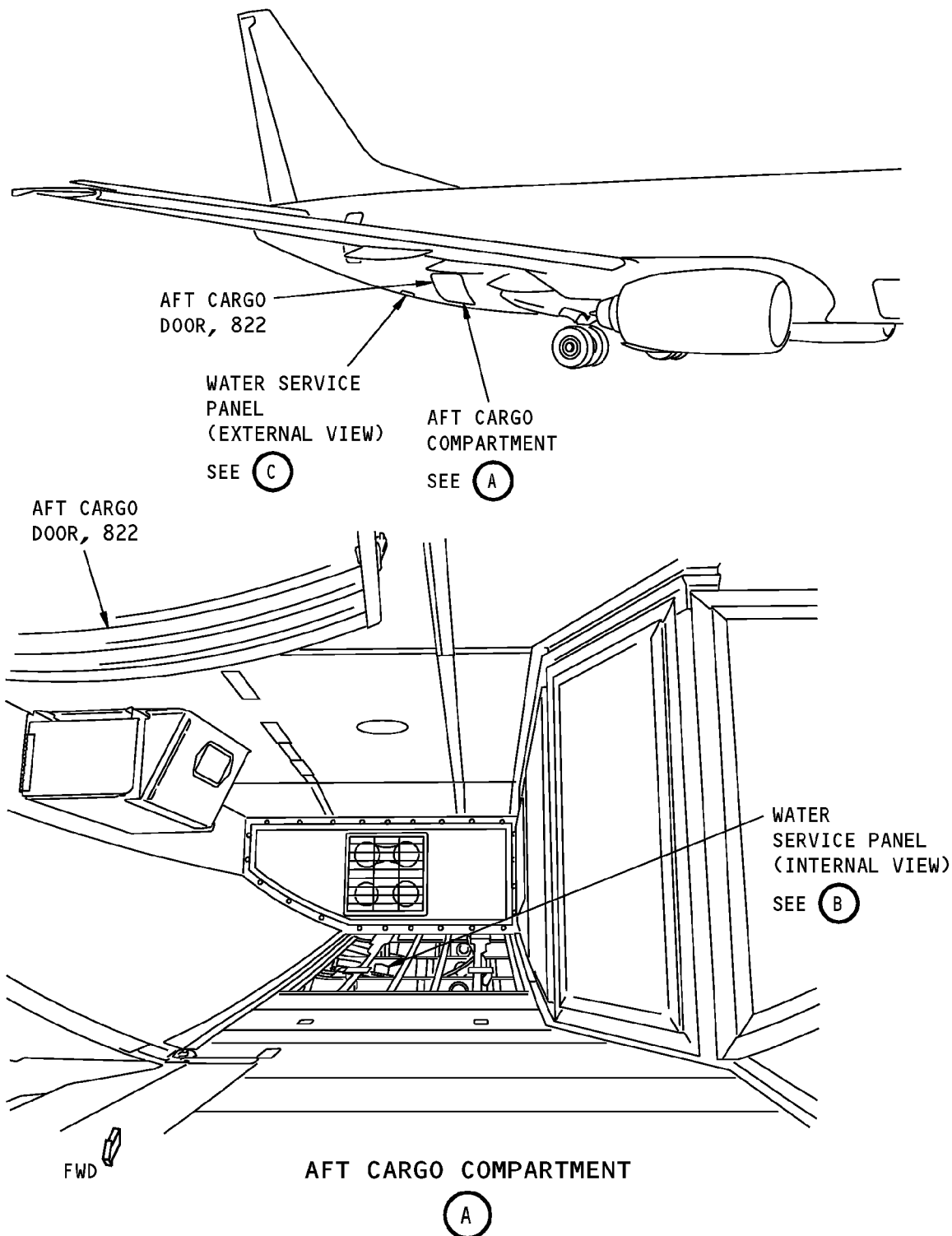
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Compressor Cut-Out Switch Installation
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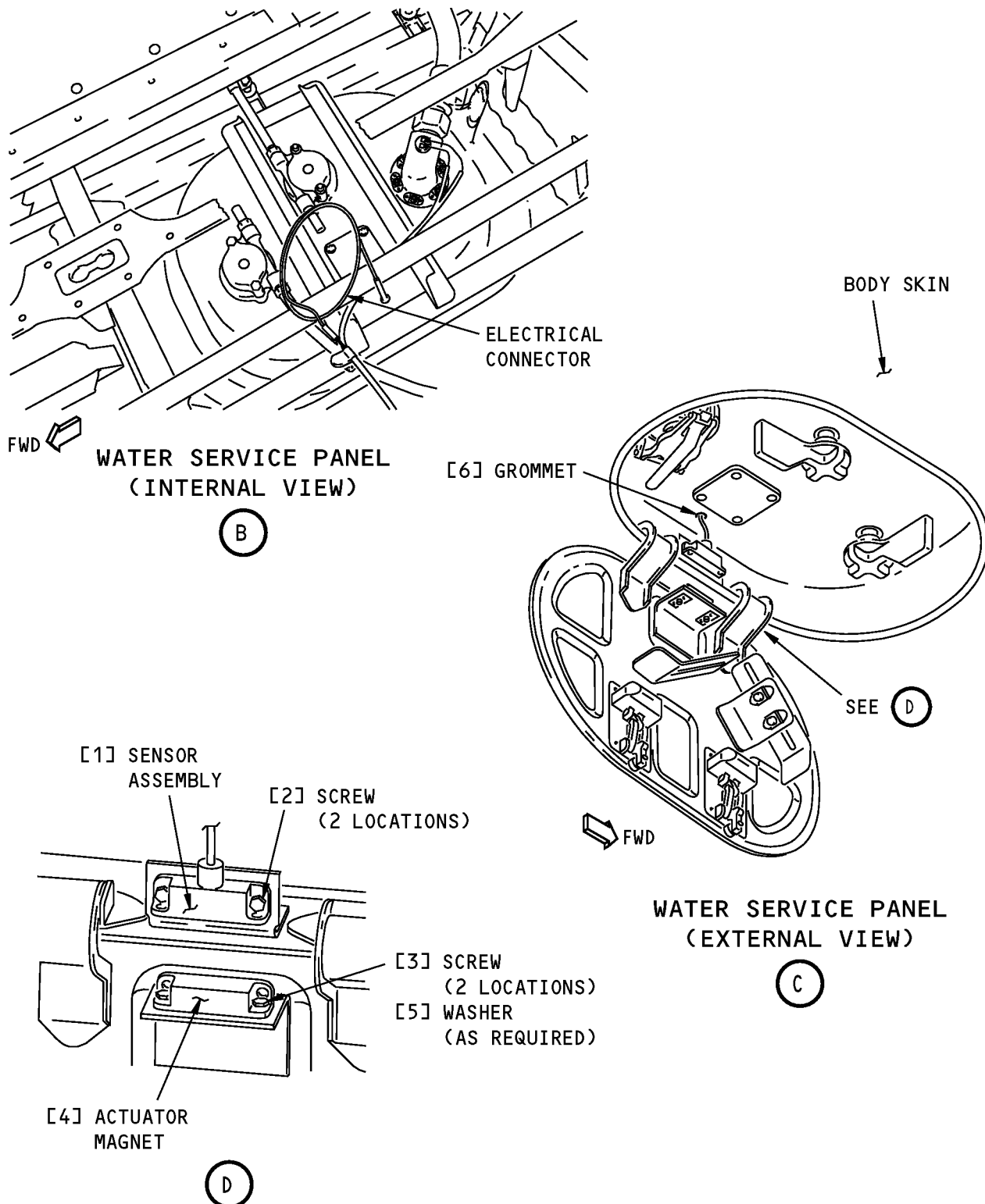
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Compressor Cut-Out Switch Installation
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AIRCRAFT MAINTENANCE MANUAL

PRESSURE RELIEF VALVE - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the pressure relief valve.
- (2) An installation of the pressure relief valve.
- (3) An operational test of the pressure relief valve.

TASK 38-42-06-000-801

2. Pressure Relief Valve Removal

(Figure 201)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare to Remove the Pressure Relief Valve

SUBTASK 38-42-06-860-001

(1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-06-860-002

(2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-06-010-001

(3) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-42-06-010-002

(4) To remove the ceiling panel of the aft cargo compartment forward of the aft bulkhead, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

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E. Pressure Relief Valve Removal

SUBTASK 38-42-06-020-001

WARNING: DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE RELIEF VALVE DOES NOT RELEASE AT THE CORRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT CAN OCCUR.

- (1) Remove the pressure relief valve [2].

SUBTASK 38-42-06-020-002

- (2) Remove and then discard the packing [1] for the pressure relief valve [2].

SUBTASK 38-42-06-910-001

- (3) Put a plug in the fitting to keep contamination out of the potable water system.

END OF TASK

TASK 38-42-06-400-801

3. Pressure Relief Valve Installation

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Packing	38-42-08-01-170	HAP ALL
2	Valve	38-42-08-01-180	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Install the Pressure Relief Valve

SUBTASK 38-42-06-420-001

- (1) Remove the plug from the fitting.

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SUBTASK 38-42-06-640-001

- (2) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [1] and threads of the pressure relief valve [2].

SUBTASK 38-42-06-420-002

- (3) Install new packing [1] for the pressure relief valve [2].

SUBTASK 38-42-06-420-003

WARNING: DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE RELIEF VALVE DOES NOT RELEASE AT THE CORRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO THE EQUIPMENT CAN OCCUR.

- (4) Install the pressure relief valve [2].

SUBTASK 38-42-06-860-003

- (5) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

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SUBTASK 38-42-06-860-004

- (6) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-06-860-005

- (7) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-06-710-001

- (8) Make sure there are no air leaks at the pressure relief valve.

G. Put Airplane Back in the Usual Condition.

SUBTASK 38-42-06-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (1) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-06-410-002

- (2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

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TASK 38-42-06-700-801

4. Pressure Relief Valve - Operational Test

(Figure 202)

A. General

- (1) The test of the pressure relief valve is an off airplane task.

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Operational Test

SUBTASK 38-42-06-020-003

- (1) Do this task: Pressure Relief Valve Removal, TASK 38-42-06-000-801.

SUBTASK 38-42-06-780-001

- (2) Do a test the relief valve as follows:

- (a) With the initial pressure at zero psig, slowly increase the pressure to the relief valve.
- (b) Keep a record of the initial pressure when you find the airflow through the pressure relief valve.

NOTE: The pressure must be less than 75 psig.

- 1) If the initial pressure is less than 53 psig or more than 75 psig, you must replace the pressure relief valve.
- (c) If the initial pressure is satisfactory, then continue.
- (d) With the pressure at relief pressure, slowly decrease the pressure to the relief valve.
- (e) Keep a record of the reset pressure when you find that the airflow stops through the pressure relief valve.

NOTE: The pressure must be more than 53 psig.

- 1) If the reset pressure is less than 53 psig, you must replace the pressure relief valve.
- (f) If the reset pressure is satisfactory, then continue.
- (g) Decrease the pressure to zero psig.
- (h) With the pressure at zero psig, slowly increase the pressure to the relief valve.
- (i) Keep a record of the subsequent pressure when you find the airflow through the pressure relief valve.

NOTE: The pressure must be between 57 to 63 psig.

- 1) If the subsequent pressure is less than 57 psig or more than 63 psig, you must replace the pressure relief valve.
- (j) If the subsequent pressure is satisfactory, then the test is completed.

SUBTASK 38-42-06-420-004

- (3) Do this task: Pressure Relief Valve Installation, TASK 38-42-06-400-801.

END OF TASK

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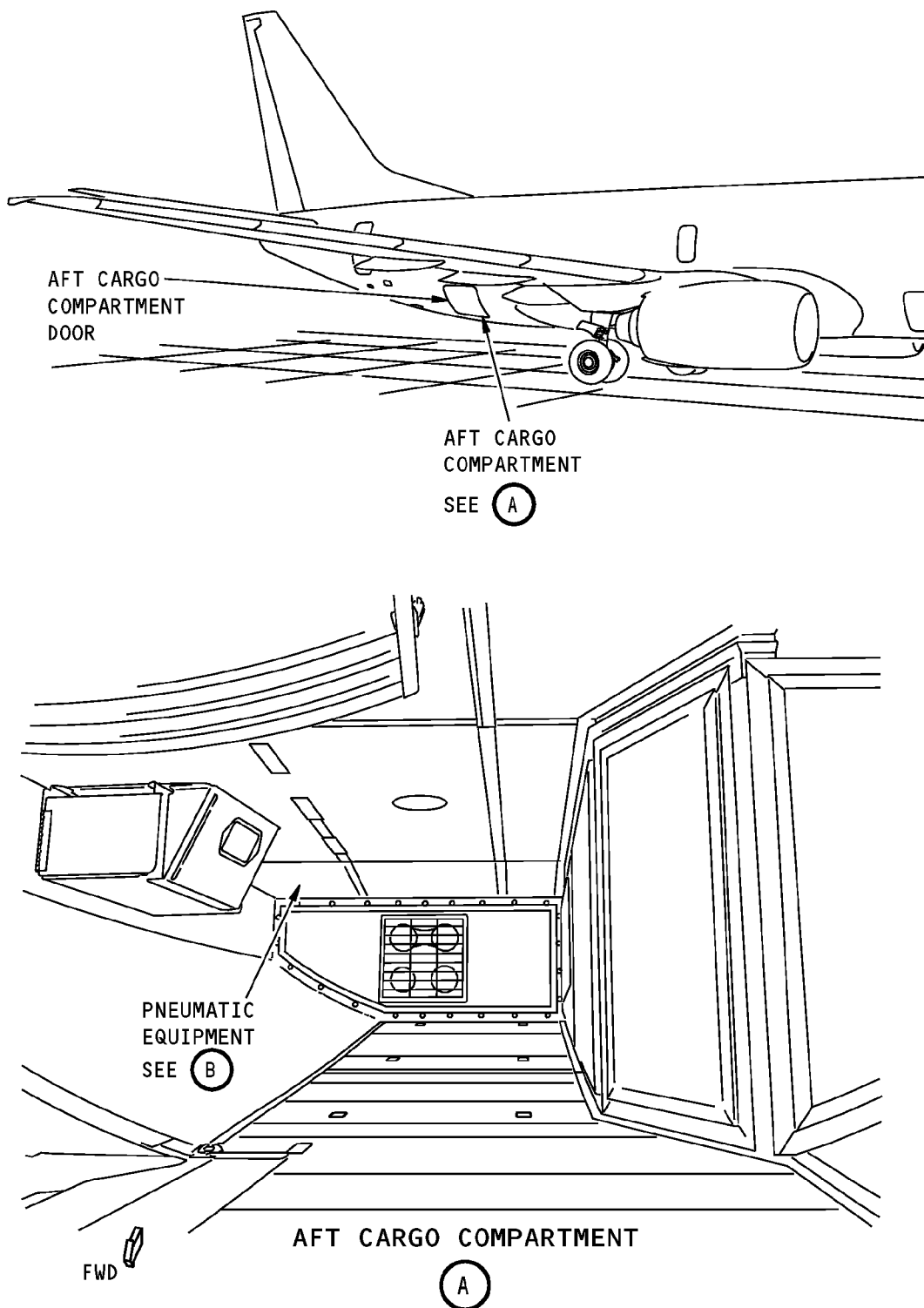
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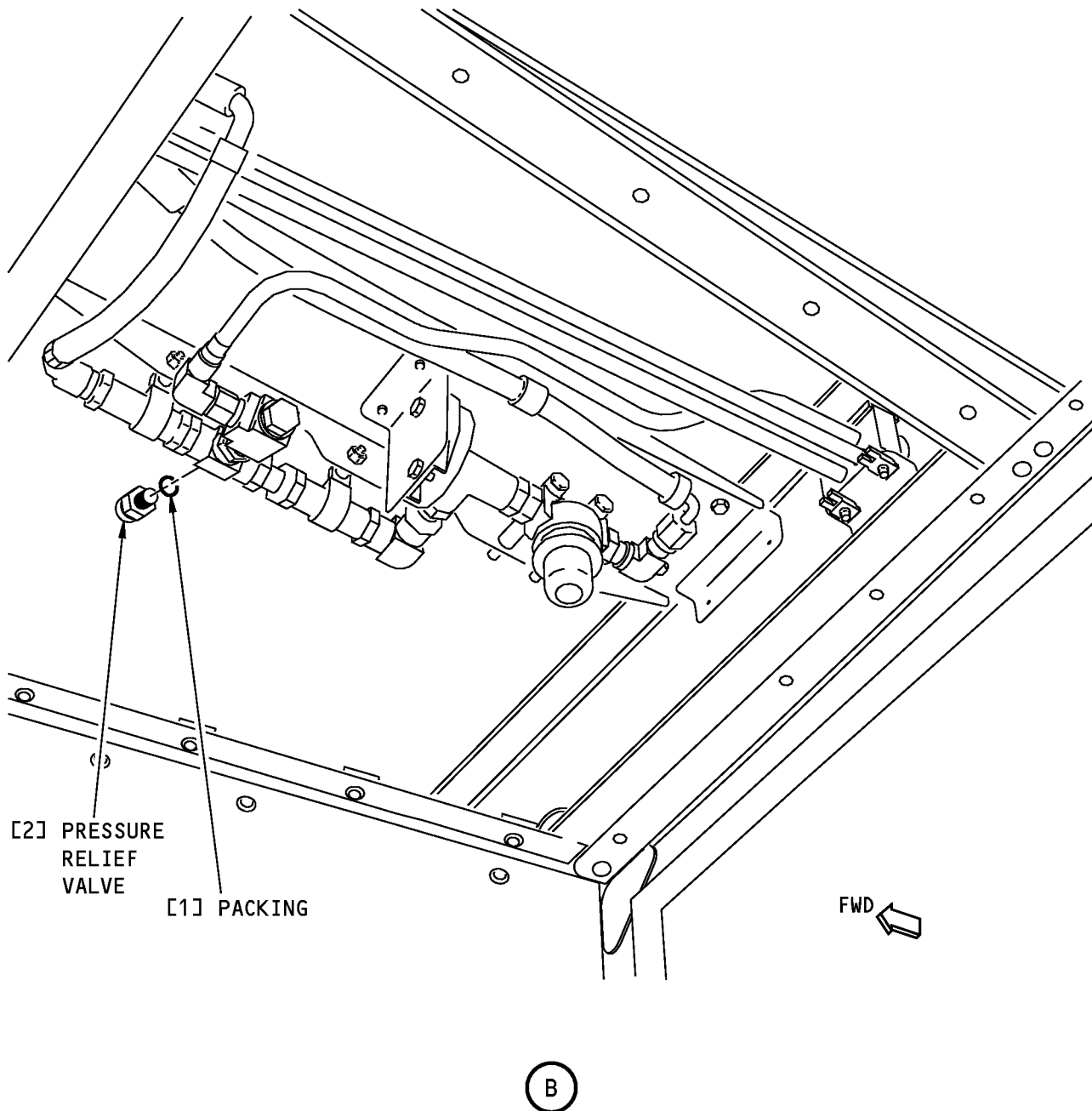
Pressure Relief Valve Installation
Figure 201 (Sheet 1 of 2)/38-42-06-990-801

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F94891 S0006578858_V2

**Pressure Relief Valve Installation
Figure 201 (Sheet 2 of 2)/38-42-06-990-801**

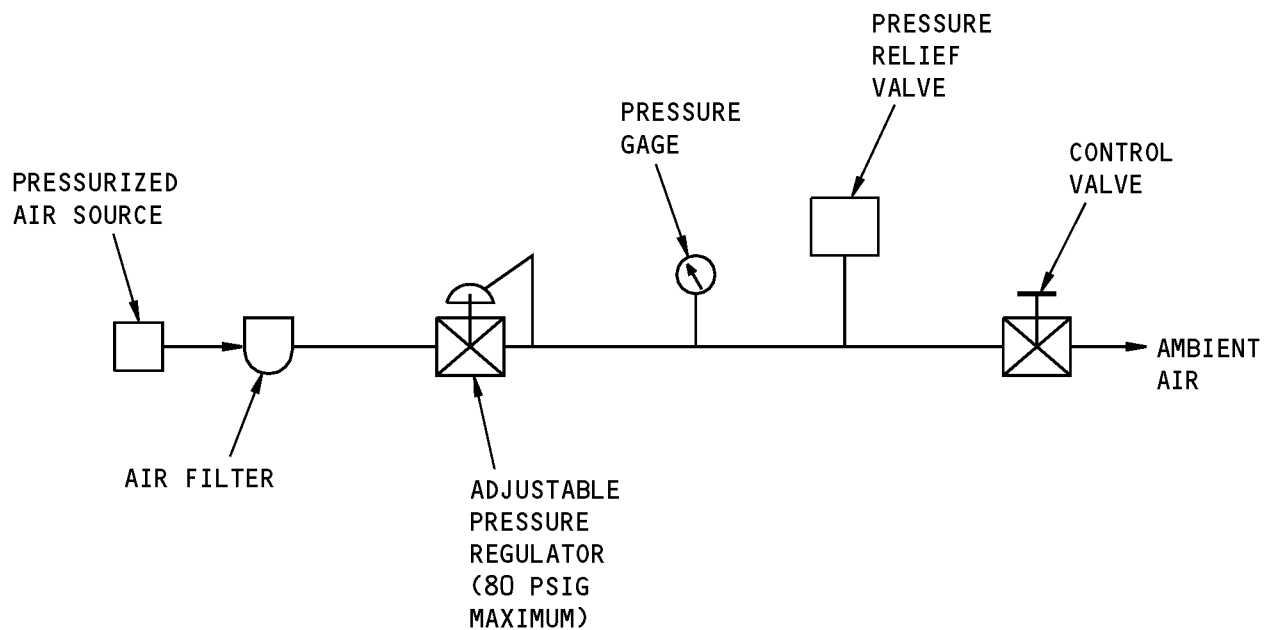
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AIRCRAFT MAINTENANCE MANUAL



Pressure Relief Valve Test
Figure 202/38-42-06-990-802

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AIRCRAFT MAINTENANCE MANUAL

PRESSURE LIMIT SWITCH - MAINTENANCE PRACTICES

1. General

A. This procedure has these tasks:

- (1) A removal of the pressure limit switch.
- (2) An installation of the pressure limit switch.
- (3) An operational test of the pressure switch.

NOTE: This task is to make sure the air compressor starts and stops at the correct pressure.

TASK 38-42-07-000-801

2. Pressure Limit Switch Removal

(Figure 201)

A. References

Reference	Title
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-07-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 001-013, 015-026, 028-036			
A	18	C00873	POT WATER COMPRESSOR
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR
HAP ALL			

SUBTASK 38-42-07-860-002

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-07-010-001

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-42-07-010-002

- (4) To remove the end wall of the aft cargo compartment, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

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AIRCRAFT MAINTENANCE MANUAL

E. Pressure Limit Switch Removal

SUBTASK 38-42-07-020-001

- (1) Disconnect the electrical connector [2] from the pressure limit switch [3].

SUBTASK 38-42-07-020-002

- (2) Remove the pressure limit switch [3] from the water tank.

SUBTASK 38-42-07-020-003

- (3) Remove and then discard the packing [1] for the pressure limit switch [3].

SUBTASK 38-42-07-020-004

- (4) Put a plug in the water tank to keep the contamination out of the potable water system.

END OF TASK

TASK 38-42-07-400-801

3. Pressure Limit Switch Installation

(Figure 201)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-19-400-801	Aft Cargo Compartment Aft Bulkhead Liner Installation (P/B 401)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
1	Packing	38-11-01-12-030 38-11-01-12-265	HAP ALL HAP ALL
3	Switch	38-11-01-12-020	HAP ALL

D. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Pressure Limit Switch Installation

SUBTASK 38-42-07-420-001

- (1) Remove the plug from the water tank.

SUBTASK 38-42-07-640-001

- (2) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [1] and threads of the pressure limit switch [3].

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SUBTASK 38-42-07-420-002

(3) Install new packing [1] for the pressure limit switch [3].

SUBTASK 38-42-07-420-003

(4) Install the pressure limit switch [3] on the water tank.

SUBTASK 38-42-07-420-004

(5) Connect the electrical connector [2] to the pressure limit switch [3].

SUBTASK 38-42-07-860-003

(6) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-07-860-004

(7) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-07-860-005

(8) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-07-710-001

(9) Make sure the air compressor operates to supply the water tank with air pressure.

SUBTASK 38-42-07-710-002

(10) Make sure there are no air leaks at the pressure limit switch [3].

G. Put the Airplane Back in the Usual Condition

SUBTASK 38-42-07-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, TASK 25-52-19-400-801.

SUBTASK 38-42-07-410-002

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

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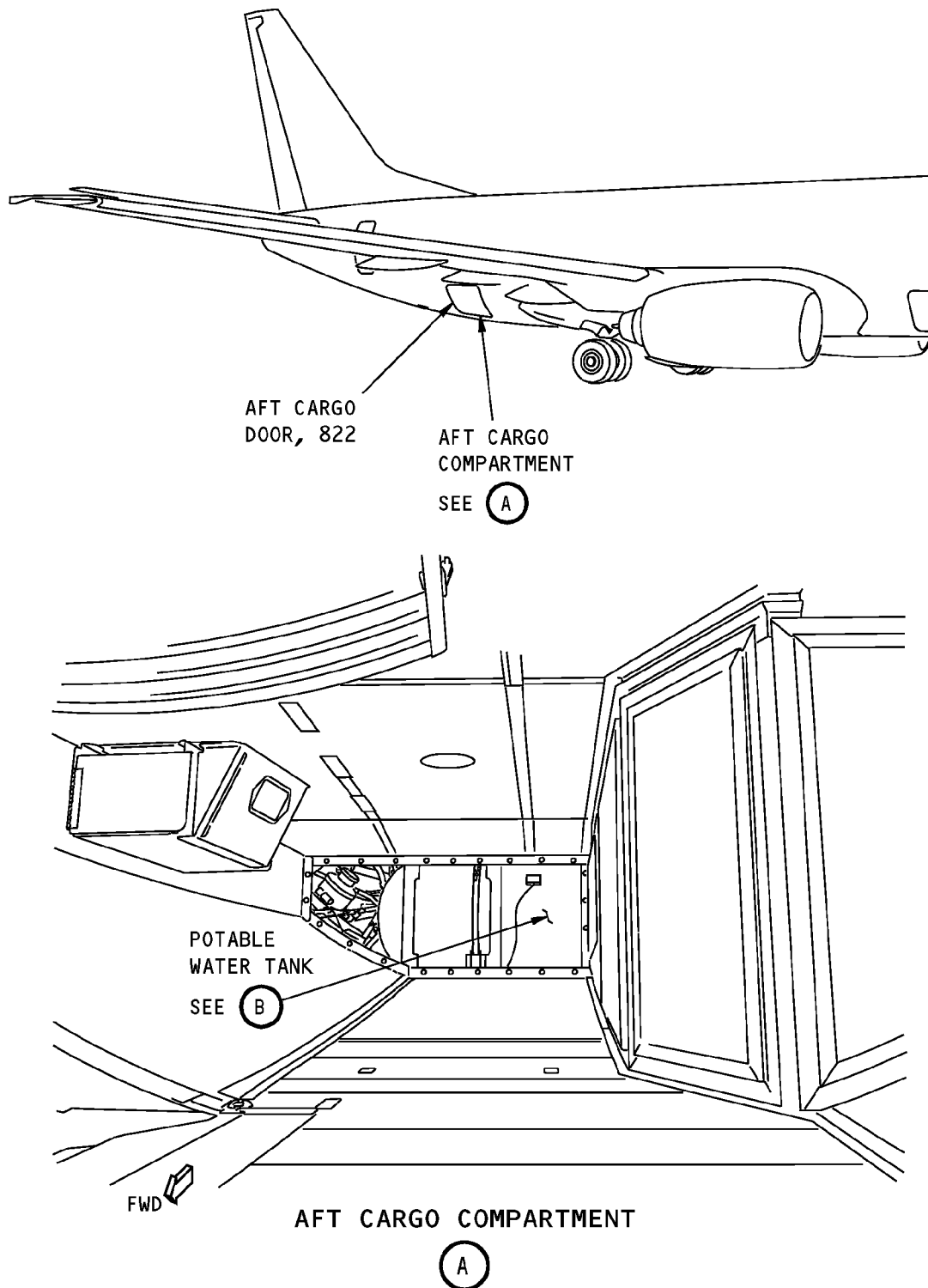
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AIRCRAFT MAINTENANCE MANUAL



Pressure Limit Switch Installation
Figure 201 (Sheet 1 of 2)/38-42-07-990-805

EFFECTIVITY
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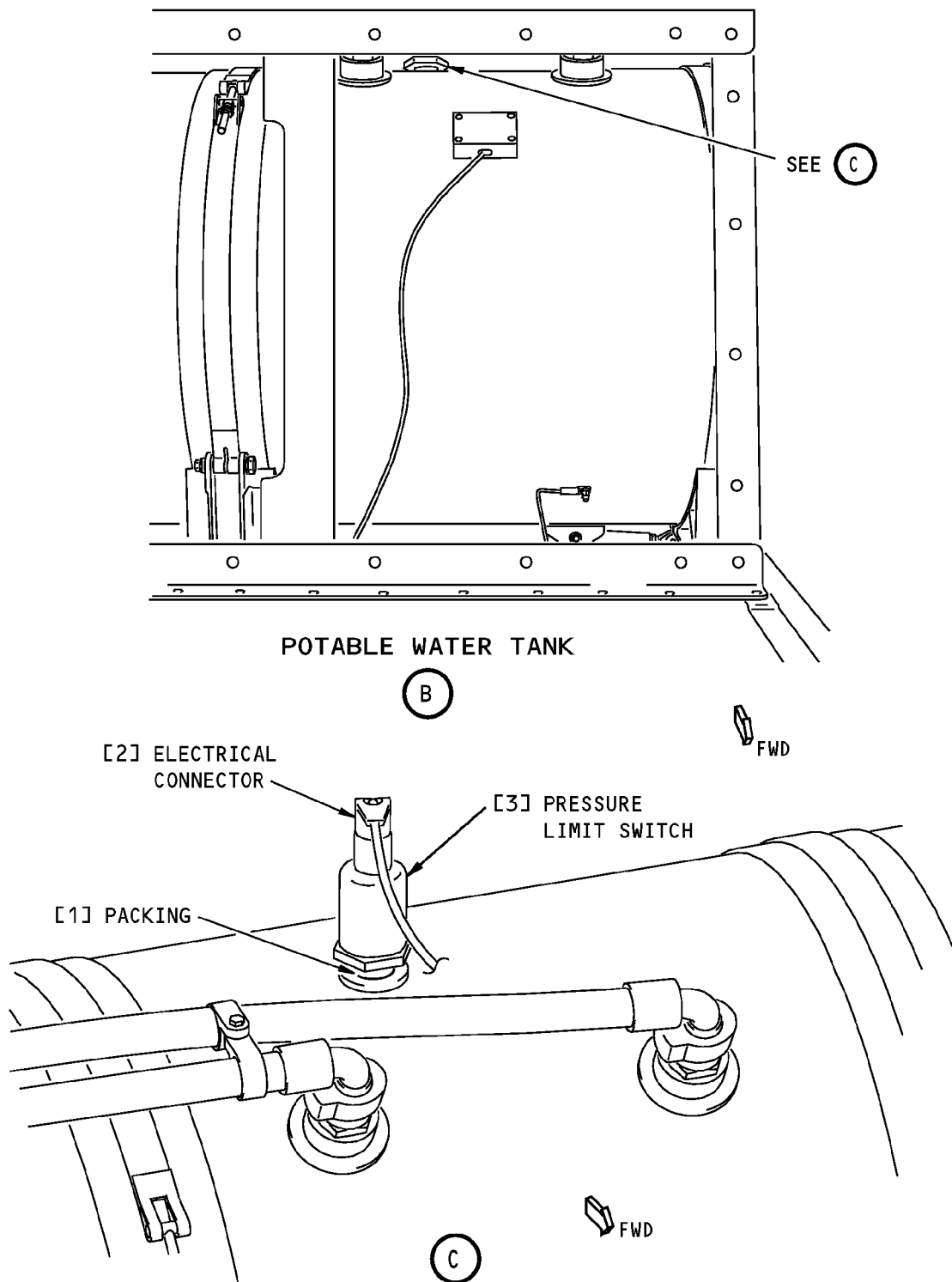
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AIRCRAFT MAINTENANCE MANUAL



Pressure Limit Switch Installation
Figure 201 (Sheet 2 of 2)/38-42-07-990-805

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AIRCRAFT MAINTENANCE MANUAL

TASK 38-42-07-700-801

4. Pressure Limit Switch - Operational Test

(Figure 202)

A. References

Reference	Title
12-14-01-600-802	Potable Water Tank - Fill (P/B 301)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
25-52-19-000-801	Aft Cargo Compartment Aft Bulkhead Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1201	Gauge - Pressure, 0-75 PSIG (0-518 KPa)

C. Location Zones

Zone	Area
146	Aft Cargo Compartment Equipment Bay - Right

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Procedure

SUBTASK 38-42-07-860-006

(1) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-07-860-007

(2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-07-610-001

(3) Do this task: Potable Water Tank - Fill, TASK 12-14-01-600-802.

SUBTASK 38-42-07-010-003

(4) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-42-07-010-004

(5) To remove the ceiling panel in the aft cargo compartment, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

SUBTASK 38-42-07-010-009

(6) To remove the end wall of the aft cargo compartment, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, TASK 25-52-19-000-801.

SUBTASK 38-42-07-010-005

(7) Remove the plug [22] and packing [23] from the tee [21] in the pressurization line for the potable water system.

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SUBTASK 38-42-07-480-001

- (8) Connect the pressure pressure gauge, STD-1201 to the tee in the potable water line.

SUBTASK 38-42-07-780-001

- (9) With the airplane compressor, do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

- (a) Make sure the air compressor stops when the pressure gets to 40 ± 1.0 psig.

- 1) If the air compressor does not stop when the pressure gets to 40 ± 1.0 psig, then replace the pressure switch.

- (b) If the air compressor stops when the pressure gets to 40 ± 1.0 psig, then continue.

SUBTASK 38-42-07-780-002

- (10) Turn the handle at the aft service panel to slowly bleed the air from the potable water system.

- (a) Make sure the air compressor starts when the pressure gets to 30 ± 1.0 psig.

- 1) If the air compressor does not start when the pressure gets to 30 ± 1.0 psig, then replace the pressure switch.

- (b) If the air compressor starts when the pressure gets to 30 ± 1.0 psig, the test is completed.

F. Put the Airplane Back in the Usual Condition

SUBTASK 38-42-07-860-008

- (1) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-07-080-001

- (2) Disconnect the pressure gauge, STD-1201 from the tee.

SUBTASK 38-42-07-420-005

- (3) Install the plug [22] and packing [23] on the tee [21] in the pressurization line for the potable water system.

SUBTASK 38-42-07-860-009

- (4) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-07-710-003

- (5) Make sure there are no air leaks at the cap.

SUBTASK 38-42-07-410-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (6) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-07-410-004

- (7) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

EFFECTIVITY
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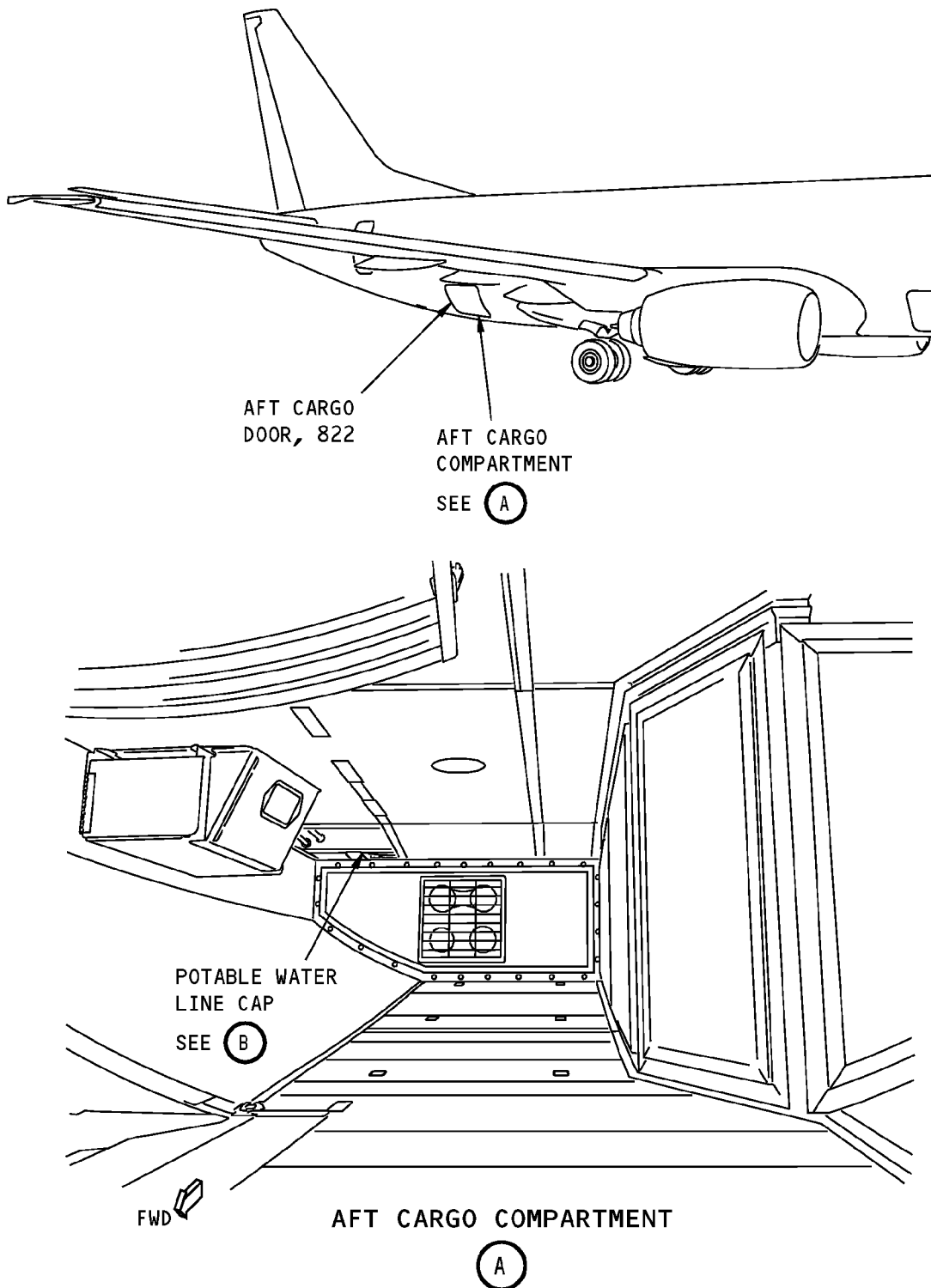
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Pressure Limit Switch Operational Test
Figure 202 (Sheet 1 of 2)/38-42-07-990-804

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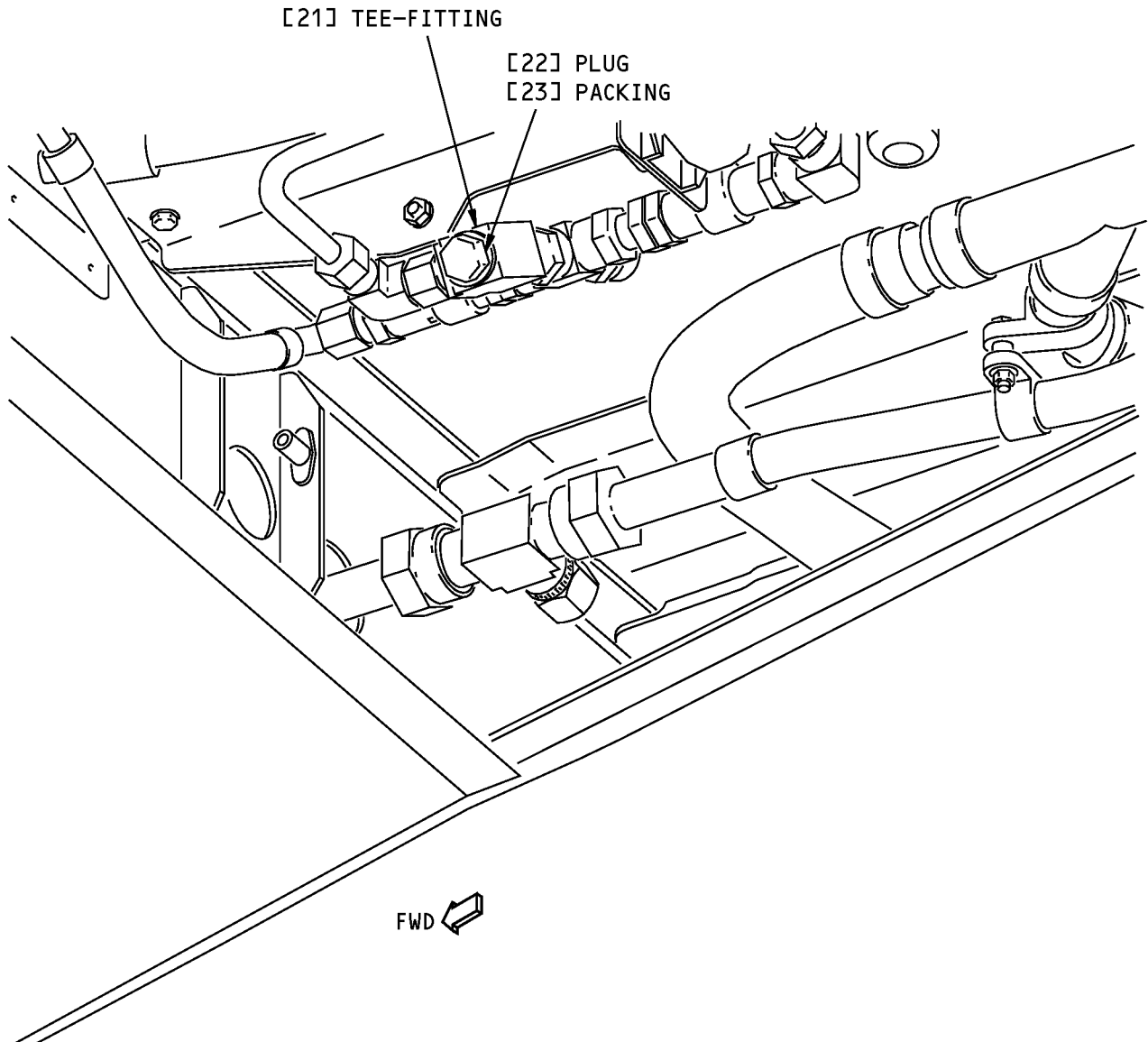
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POTABLE WATER LINE CAP

(B)

Pressure Limit Switch Operational Test
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AIRCRAFT MAINTENANCE MANUAL

PRESSURE REGULATOR - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the pressure regulator.
- (2) An installation of the pressure regulator.

TASK 38-42-08-000-801

2. Pressure Regulator Removal

(Figure 401)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-10-000-801	Bleed Air Filter Assembly Removal (P/B 401)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-08-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-08-860-002

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-08-010-001

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-42-08-010-002

- (4) To remove the ceiling liner forward of the potable water tank, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

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E. Pressure Regulator Removal

SUBTASK 38-42-08-020-001

(1) Do this task: Bleed Air Filter Assembly Removal, TASK 38-42-10-000-801.

SUBTASK 38-42-08-020-002

(2) Loosen the nut [5] that attaches the union [4] to the pressure regulator [6].

SUBTASK 38-42-08-020-003

(3) Remove the bolts [1] and washers [2] from the forward side of the mounting bracket.

SUBTASK 38-42-08-020-004

(4) Remove the pressure regulator [6] from the mounting bracket.

SUBTASK 38-42-08-020-005

(5) Turn the pressure regulator [6] to loosen the union [8] that attaches the elbow [9].

SUBTASK 38-42-08-020-006

(6) Remove the union [8] from the pressure regulator [6].

(a) Discard the packing [7] from the union [8].

(b) Discard the packing [3] from the union [4].

SUBTASK 38-42-08-020-007

(7) Put a cap on each of the air tubes to keep the contamination out of the potable water system.

————— **END OF TASK** —————

TASK 38-42-08-400-801

3. Pressure Regulator Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-801	Supply Pressure to the Pneumatic System (Selection) (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)
38-42-10-400-801	Bleed Air Filter Assembly Installation (P/B 401)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
3	Packing	38-42-08-01-170	HAP ALL
6	Regulator	38-42-08-01-185	HAP ALL
7	Packing	38-42-08-01-170	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

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E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Pressure Regulator Installation

SUBTASK 38-42-08-640-001

- (1) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [3] and packing [7] and the threads of the union [4] and union [8].

SUBTASK 38-42-08-420-001

- (2) Install a new packing [3] on the union [4].

NOTE: Make sure the nut [5] is in its position in the union [4].

SUBTASK 38-42-08-420-002

- (3) Install a new packing [7] on the union [8].

SUBTASK 38-42-08-420-003

- (4) Install the union [8] with the new packing [7] in the pressure regulator [6].

SUBTASK 38-42-08-020-008

- (5) Remove the caps from air tubes.

SUBTASK 38-42-08-420-004

- (6) Connect the elbow [9] to the union [8] to the pressure regulator [6].

SUBTASK 38-42-08-420-005

- (7) Put the pressure regulator [6] in its position on the mounting bracket.

SUBTASK 38-42-08-420-006

- (8) Install the bolts [1] and washers [2] for the pressure regulator [6].

SUBTASK 38-42-08-420-007

- (9) Do this task: Bleed Air Filter Assembly Installation, TASK 38-42-10-400-801.

SUBTASK 38-42-08-420-008

- (10) Tighten the nut [5] on the union [4].

SUBTASK 38-42-08-860-003

- (11) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-08-860-004

- (12) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-08-860-005

- (13) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

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AIRCRAFT MAINTENANCE MANUAL

SUBTASK 38-42-08-860-006

- (14) To pressurize the Pneumatic System, do this task: Supply Pressure to the Pneumatic System (Selection), TASK 36-00-00-860-801.

SUBTASK 38-42-08-710-001

- (15) Make sure the air compressor operates to pressurize the potable water tank.

SUBTASK 38-42-08-780-001

- (16) Make sure there are no air leaks at the connections to the pressure regulator [6] or the piping connections.

G. Put the Airplane Back to Its Usual Condition

SUBTASK 38-42-08-860-007

- (1) To remove pressurization from the Pneumatic System, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

SUBTASK 38-42-08-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-08-410-002

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

EFFECTIVITY
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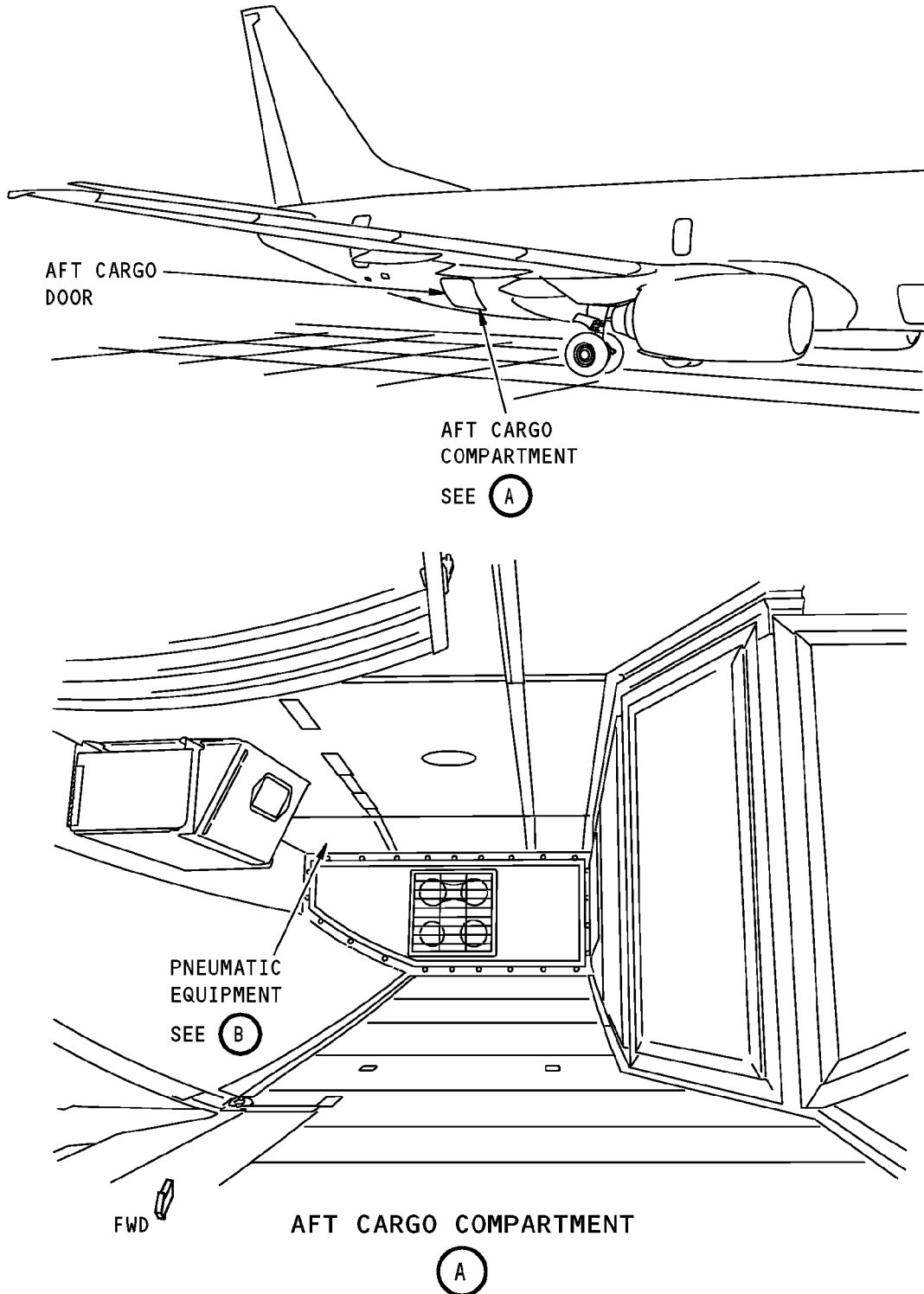
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Pressure Regulator Installation
Figure 401 (Sheet 1 of 2)/38-42-08-990-801

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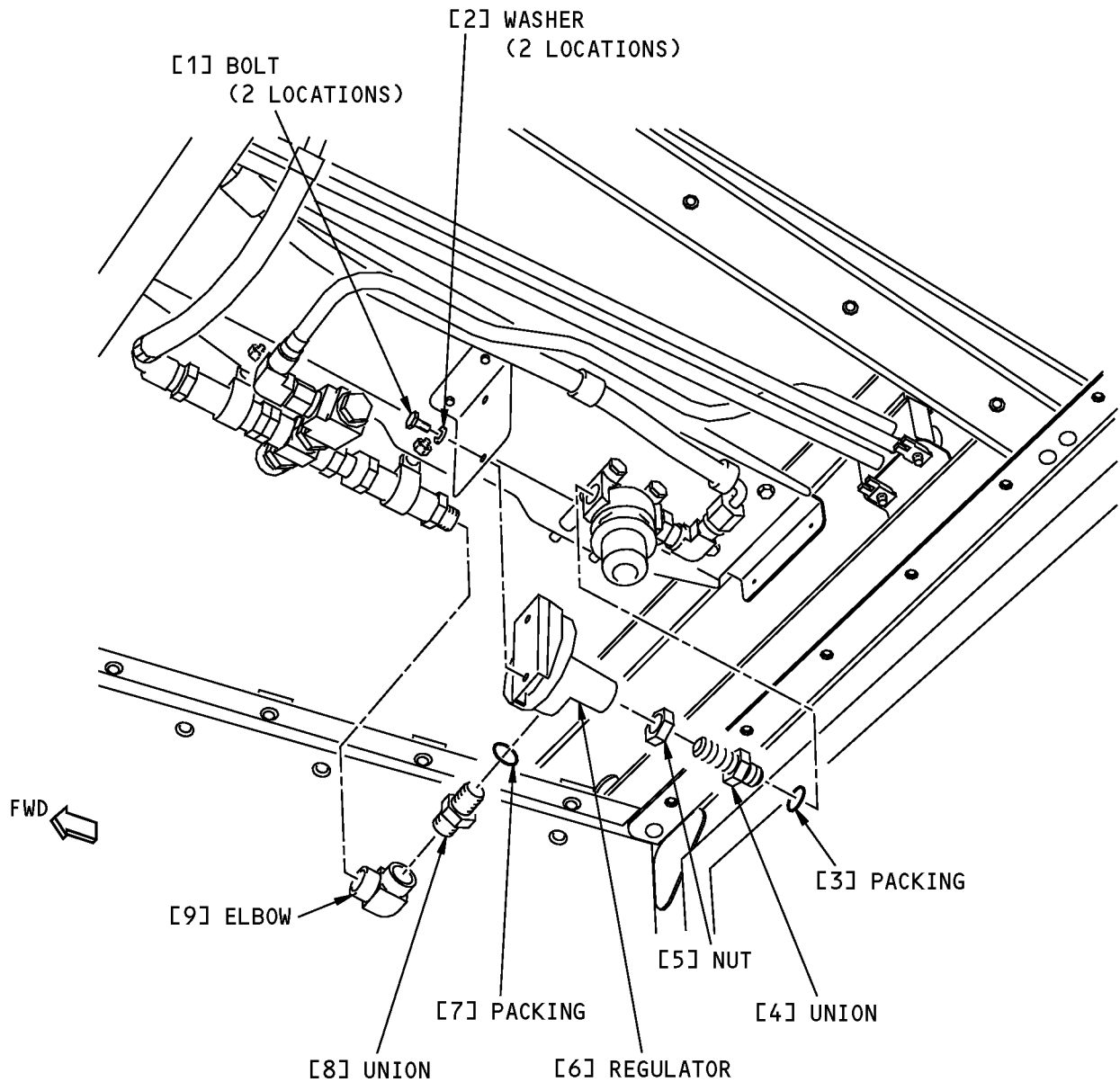
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PNEUMATIC EQUIPMENT



Pressure Regulator Installation
Figure 401 (Sheet 2 of 2)/38-42-08-990-801

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AIRCRAFT MAINTENANCE MANUAL

CHECK VALVES - REMOVAL/INSTALLATION

1. General

A. This procedure has these tasks:

- (1) A removal of the Air Compressor Supply Check Valve.
- (2) An installation of the Air Compressor Supply Check Valve.
- (3) A removal of the aircraft Pneumatic Supply Check Valve.
- (4) An installation of the aircraft Pneumatic Supply Check Valve.

B. The Air Compressor Supply Check Valve is between the air compressor and the common manifold assembly for the potable water tank pressurization air. The Air Compressor Supply Check Valve is referred to as the Compressor Check Valve in this procedure. The Compressor Check Valve connecting fittings must be removed before the Pneumatic Supply Check Valve can be removed.

C. The Pneumatic Supply Check Valve is between the pressure regulator and the common manifold assembly for the potable water tank pressurization air. The Pneumatic Supply Check Valve is referred to as the Pneumatic Check Valve in this procedure.

TASK 38-42-09-020-801

2. Compressor Check Valve Removal

(Figure 401)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1130	Cap - Protective, Aluminum, Flareless Tube, BACC14AG
STD-1131	Plug - Protective, Aluminum, Flareless Tube, BACP20BG

C. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

D. Access Panels

Number	Name/Location
822	Aft Cargo Door

E. Prepare for the Removal

SUBTASK 38-42-09-860-001

(1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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EFFECTIVITY
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HAP 001-013, 015-026, 028-036 (Continued)

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR

HAP ALL

SUBTASK 38-42-09-860-002

WARNING: MAKE SURE THAT YOU REMOVE PRESSURE FROM THE PNEUMATIC MANIFOLD. IF YOU DO NOT REMOVE PRESSURE, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-09-010-001

(3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

SUBTASK 38-42-09-010-002

(4) To remove the ceiling panels for access forward of the water tank, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

F. Check Valve Removal

SUBTASK 38-42-09-020-001

(1) Disconnect the hose [6] from the air compressor to the compressor check valve [10].

SUBTASK 38-42-09-020-002

(2) Loosen the nut [1], washers [2], spacer [3], screw [4], and clamp [5] on the compressor check valve.

SUBTASK 38-42-09-020-003

(3) Disconnect and remove the compressor check valve [10] from the cross fitting union [11].

(a) Discard the packing [12].

SUBTASK 38-42-09-430-022

(4) Install a tube cap, STD-1130 or tube plug, STD-1131 on all open hoses, tubes, and fittings.

————— **END OF TASK** —————

TASK 38-42-09-400-802

3. Compressor Check Valve Installation

(Figure 401)

A. References

<u>Reference</u>	<u>Title</u>
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-801	Supply Pressure to the Pneumatic System (Selection) (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

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B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5
G00091	Compound - Oxygen System Leak Detection - Snoop Leak Detector	MIL-PRF-25567
G50321	Air - Clean, Dry	BAC5402, Table I
G50322	Nitrogen - Gaseous (Auxiliary pressure source alternate)	MIL-P-27401, Type 1

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
12	Packing	38-42-08-01-170	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Install the Compressor Check Valve.

SUBTASK 38-42-09-171-001

- (1) Clear the hose [6] and tube assembly, between the air compressor and the check compressor check valve [10], of any contamination. Use clean dry air, G50321 or nitrogen, G50322

NOTE: To clean the hose and tube assembly, use 40 psig (3 kg/cm²) to 100 psig (7 kg/cm²) clean, dry shop air, or nitrogen, applied at the compressor check valve hose [6] fitting, for 1 to 2 minutes.

SUBTASK 38-42-09-640-001

- (2) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the new packing [12], the threads of the compressor check valve [10] and the threads of the union [11].

SUBTASK 38-42-09-420-001

- (3) Install a new packing [12] on the union [11].

SUBTASK 38-42-09-420-002

- (4) Install the compressor check valve [10] on the union [11].

NOTE: The flow arrow on the check valve must point to the union and cross fitting, as shown in the figure.

SUBTASK 38-42-09-420-003

- (5) Install the nut [1], washers [2], spacer [3], screw [4], and clamp [5] for the compressor check valve.

SUBTASK 38-42-09-420-004

- (6) Install the air compressor hose [6] on the compressor check valve.

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G. Check Valve Installation Test

SUBTASK 38-42-09-860-003

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-09-860-004

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-09-860-005

- (3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-09-860-007

- (4) To pressurize the Pneumatic System, do this task: Supply Pressure to the Pneumatic System (Selection), TASK 36-00-00-860-801.

SUBTASK 38-42-09-790-001

- (5) Make sure there are no air leaks at the check valves or air connections.
- (a) Apply the Snoop Leak Detector compound, G00091 to all the fittings and connections.
- 1) Look for bubbles to find any leaks.
 - 2) If you find leaks, tighten the fittings and connections.
- (b) Remove the Snoop Leak Detector compound, G00091 with a clean cotton wiper, G00034 immediately after the check.
- 1) Make sure the fittings and connections are dry.

H. Put the Airplane Back to its Usual Condition

SUBTASK 38-42-09-860-006

- (1) To remove pressurization from the Pneumatic System, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

SUBTASK 38-42-09-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-09-410-002

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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HAP ALL

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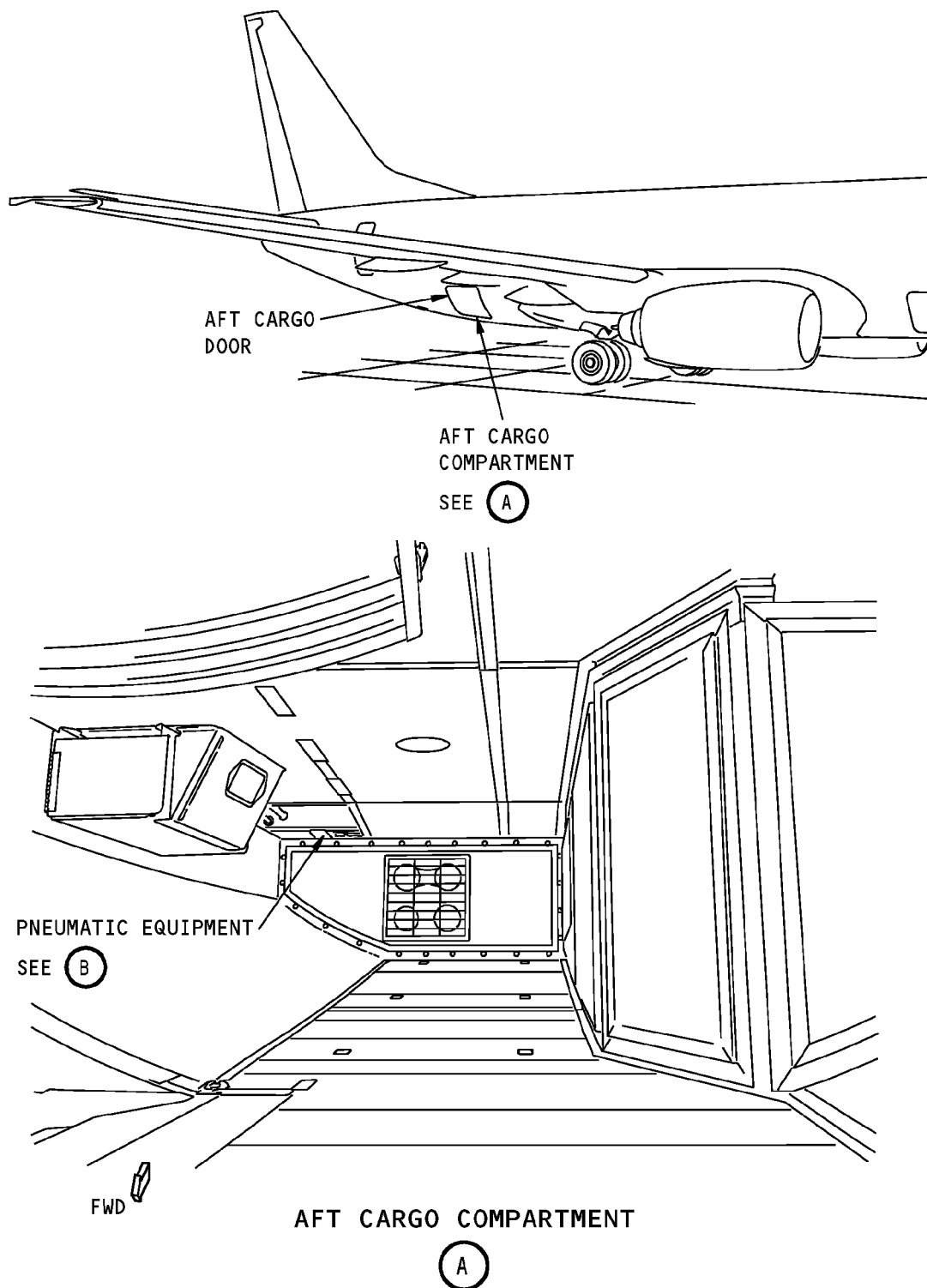
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Check Valve Installation
Figure 401 (Sheet 1 of 2)/38-42-09-990-801

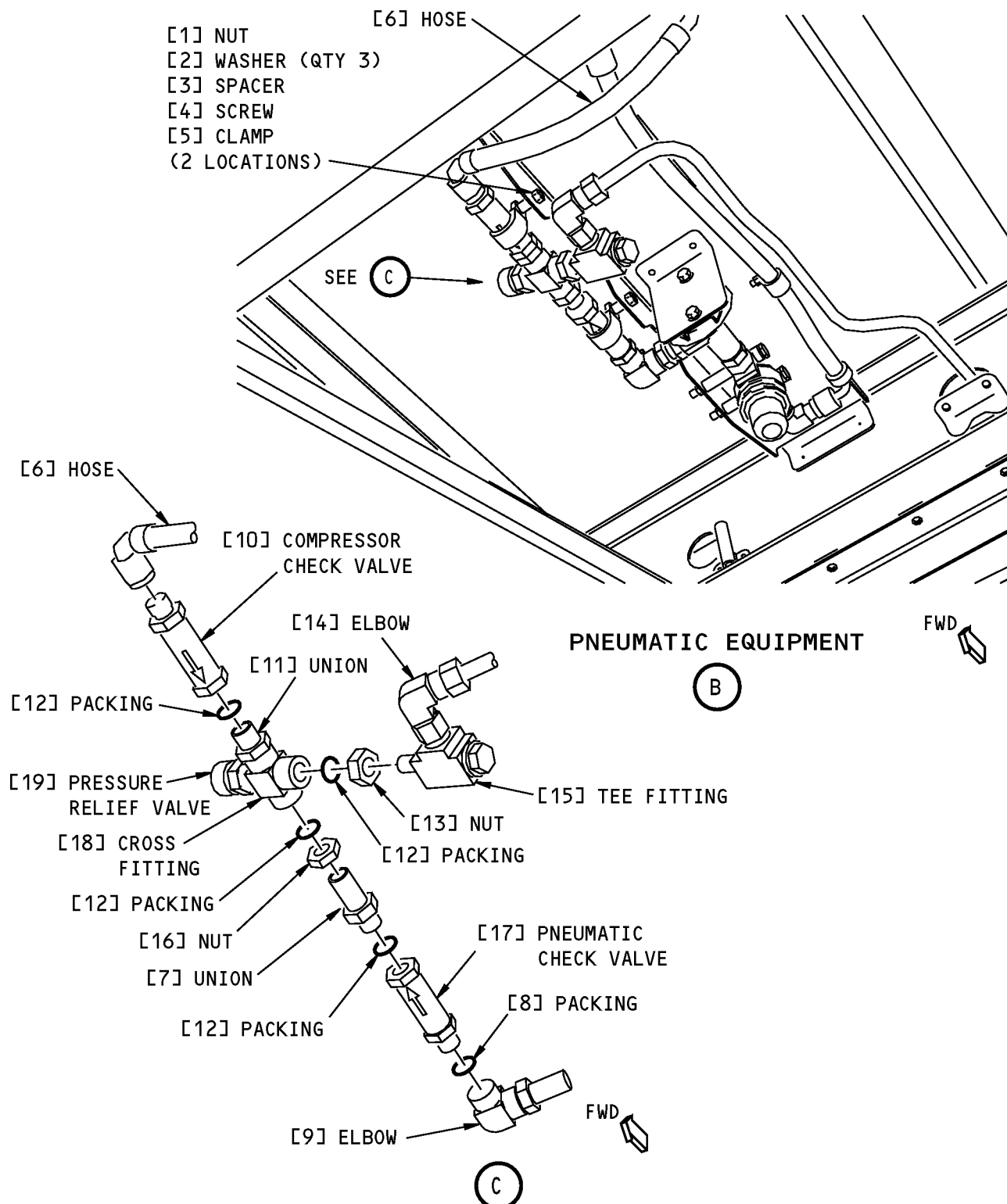
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Check Valve Installation
Figure 401 (Sheet 2 of 2)/38-42-09-990-801

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TASK 38-42-09-020-802

4. Pneumatic Supply Check Valve Removal

(Figure 401)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1130	Cap - Protective, Aluminum, Flareless Tube, BACC14AG
STD-1131	Plug - Protective, Aluminum, Flareless Tube, BACP20BG

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
17	Pneumatic check valve	38-42-08-01-175	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Prepare for the Removal

SUBTASK 38-42-09-862-001

(1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-09-864-001

WARNING: MAKE SURE THAT YOU REMOVE PRESSURE FROM THE PNEUMATIC MANIFOLD. IF YOU DO NOT REMOVE PRESSURE, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-09-010-004

(3) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

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SUBTASK 38-42-09-010-006

- (4) To remove the ceiling panels for access forward of the water tank, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

G. Pneumatic Supply Check Valve Removal (Method I)

SUBTASK 38-42-09-030-006

- (1) Disconnect the hose [6] from the air compressor to the compressor check valve [10].

SUBTASK 38-42-09-030-007

- (2) Remove the nut [1], washers [2], spacer [3], screw [4], and clamp [5] on the compressor check valve.

SUBTASK 38-42-09-030-008

- (3) Disconnect the elbow [14] from the tee fitting [15].

SUBTASK 38-42-09-030-009

- (4) Loosen the nut [13] and remove the tee fitting [15], If necessary, for clearance to remove the cross fitting [18].

- (a) Discard the tee fitting packing [12], if you removed the tee fitting.

SUBTASK 38-42-09-030-010

- (5) Loosen the nut [16], and remove the compressor check valve [10], cross fitting [18], union [11], and pressure relief valve [19] as an assembly.

SUBTASK 38-42-09-030-012

- (6) Loosen the nut [1], washers [2], spacer [3], screw [4], and clamp [5] on the pneumatic check valve [17].

SUBTASK 38-42-09-020-007

- (7) Remove the pneumatic check valve and the union [11] from the elbow [9].

- (a) Discard the packing [12].

SUBTASK 38-42-09-030-011

- (8) Hold the pneumatic check valve with a wrench, and remove the union [7] from the valve.

- (a) Discard the packing [12].

- (b) Keep the union [7] and nut [16] for use on reinstallation of the pneumatic check valve.

SUBTASK 38-42-09-430-014

- (9) Install a tube cap, STD-1130 or tube plug, STD-1131 on all open hoses, tubes, and fittings.

H. Pneumatic Supply Check Valve Removal (Method II).

NOTE: You may find it faster to remove the check valves, pressure relief valve and fittings as one assembly. Then remove the pneumatic supply check valve from the assembly.

SUBTASK 38-42-09-030-014

- (1) Disconnect the hose [6] from the compressor check valve [10].

SUBTASK 38-42-09-030-015

- (2) Disconnect the elbow [14] from the tee fitting [15].

SUBTASK 38-42-09-030-016

- (3) Disconnect the elbow [9] from the pneumatic check valve [17].

SUBTASK 38-42-09-030-017

- (4) Remove the nut [1], washers [2], spacer [3], screw [4], and clamp [5] on the pneumatic check valve [17] and the compressor check valve [10].

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SUBTASK 38-42-09-020-008

(5) Remove the check valves, pressure relief valve, fittings, and unions as one assembly.

SUBTASK 38-42-09-020-009

(6) Hold the union [7] with a wrench, and remove the pneumatic check valve [17]. Discard the packing [8].

SUBTASK 38-42-09-430-015

(7) Install a tube cap, STD-1130 or tube plug, STD-1131 on all open hoses, tubes, and fittings.

END OF TASK

TASK 38-42-09-400-803

5. Pneumatic Supply Check Valve Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-801	Supply Pressure to the Pneumatic System (Selection) (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Tools/Equipment

Reference	Description
STD-1130	Cap - Protective, Aluminum, Flareless Tube, BACC14AG
STD-1131	Plug - Protective, Aluminum, Flareless Tube, BACP20BG

C. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650
G00034	Cotton Wiper - Process Cleaning Absorbent Wiper (Cheesecloth, Gauze)	BMS15-5
G00091	Compound - Oxygen System Leak Detection - Snoop Leak Detector	MIL-PRF-25567
G50321	Air - Clean, Dry	BAC5402, Table I
G50322	Nitrogen - Gaseous (Auxiliary pressure source alternate)	MIL-P-27401, Type 1

D. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
8	Packing	38-42-08-01-170	HAP ALL
		38-42-08-01-230	HAP ALL
		38-42-08-01-235	HAP ALL
12	Packing	38-42-08-01-170	HAP ALL
17	Pneumatic check valve	38-42-08-01-175	HAP ALL

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E. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

F. Access Panels

Number	Name/Location
822	Aft Cargo Door

G. Install the Pneumatic Supply Check Valve (Method I).

NOTE: Use Method I to install the pneumatic check valve, if you used Method I to remove the pneumatic check valve.

SUBTASK 38-42-09-170-001

- (1) Clear the hose [6] and tube assembly, between the air compressor and the compressor check valve [10], of any contamination. Use clean dry air, G50321 or nitrogen, G50322

NOTE: To clean the hose and tube assembly, use 40 psig (3 kg/cm²) to 100 psig (7 kg/cm²) clean, dry shop air, or nitrogen, applied at the check valve hose [6] fitting for 1 to 2 minutes.

SUBTASK 38-42-09-030-018

- (2) Remove the tube cap, STD-1130 or tube plug, STD-1131 on all hoses, tubes, and fittings.

SUBTASK 38-42-09-640-002

- (3) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the new packings [12], the threads of the pneumatic check valve [17], compressor check valve [10], and the unions and fittings.

SUBTASK 38-42-09-430-004

- (4) Install a new packing [12] on the pneumatic check valve [17].

SUBTASK 38-42-09-420-010

- (5) Install the pneumatic check valve [17] on the elbow [9].

NOTE: The flow arrow on the check valve must point to the union and cross fitting, as shown in the figure.

SUBTASK 38-42-09-430-005

- (6) Install the nut [1], washers [2], spacer [3], screw [4], and clamp [5] for the pneumatic check valve.

SUBTASK 38-42-09-430-006

- (7) Position the nut [16] on the union [7], and install new packings [12] on the union.

SUBTASK 38-42-09-430-007

- (8) Install the union [7] on the pneumatic check valve [17].

SUBTASK 38-42-09-420-011

- (9) Install the assembled cross fitting [18], union [11], pressure relief valve [19], and compressor check valve [10] on the union [7]. Tighten the nut [16].

NOTE: The flow arrow on the check valve must point to the union and cross fitting, as shown in the figure.

SUBTASK 38-42-09-430-008

- (10) Position the nut [13], and install a new packing [12] on the tee fitting [15]. Install the tee fitting on the cross fitting [18] and tighten the nut [13], if these parts were removed for clearance.

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SUBTASK 38-42-09-430-009

- (11) Install the elbow [14] on the tee fitting [15].

SUBTASK 38-42-09-430-012

- (12) Install the nut [1], washers [2], spacer [3], screw [4], and clamp [5] for the compressor check valve [10].

SUBTASK 38-42-09-430-013

- (13) Connect the hose [6] to the compressor check valve [10].

H. Install the Pneumatic Supply Check Valve, (Method II)

NOTE: Use the Method II, if you are installing the check valves, pressure relief valve, fittings, and unions, as one assembly. Use Method II installation, if you used Method II removal.

SUBTASK 38-42-09-170-002

- (1) Clear the hose [6] and tube assembly, between the air compressor and the compressor check valve [10], of any contamination. Use clean dry air, G50321 or nitrogen, G50322

NOTE: To clean the hose and tube assembly, use 40 psig (3 kg/cm²) to 100 psig (7 kg/cm²) clean, dry shop air, or nitrogen, applied at the check valve hose [6] fitting for 1 to 2 minutes.

SUBTASK 38-42-09-030-019

- (2) Remove the tube cap, STD-1130 or tube plug, STD-1131 on all hoses, tubes, and fittings.

SUBTASK 38-42-09-640-003

- (3) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189, to the new packings [12], the threads of the pneumatic check valve [17], compressor check valve [10], and the unions and fittings.

SUBTASK 38-42-09-430-016

- (4) Install a new packing [12] on the union [7] and install a new packing [8] on the pneumatic check valve [17].

SUBTASK 38-42-09-430-017

- (5) Hold the union [7] with a wrench, and install the pneumatic check valve [17] on the union.

NOTE: The flow arrow on the check valve must point to the union and cross fitting, as shown in the figure.

SUBTASK 38-42-09-420-012

- (6) Put the check valves, pressure relief valve, fittings, and unions, as one assembly, in position.

SUBTASK 38-42-09-430-018

- (7) Install the nut [1], washers [2], spacer [3], screw [4], and clamp [5] for the compressor check valve [10] and the pneumatic check valve [17].

SUBTASK 38-42-09-430-019

- (8) Install the elbow [9] on the pneumatic check valve [17].

SUBTASK 38-42-09-430-020

- (9) Install the hose [6] on the compressor check valve [10].

SUBTASK 38-42-09-430-021

- (10) Install the elbow [14] on the tee fitting [15].

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I. Check Valve Installation Test

SUBTASK 38-42-09-865-001

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
------------	------------	---------------	-------------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-09-861-001

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-09-863-001

- (3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-09-863-002

- (4) To pressurize the Pneumatic System, do this task: Supply Pressure to the Pneumatic System (Selection), TASK 36-00-00-860-801.

SUBTASK 38-42-09-790-002

- (5) Make sure there are no air leaks at the check valves or air connections.
- (a) Apply the Snoop Leak Detector compound, G00091 to all the fittings and connections.
- 1) Look for bubbles to find any leaks.
 - 2) If you find leaks, tighten the fittings and connections.
- (b) Remove the Snoop Leak Detector compound, G00091 with a clean cotton wiper, G00034 immediately after the check.
- 1) Make sure the fittings and connections are dry.

J. Put the Airplane Back to its Usual Condition

SUBTASK 38-42-09-860-008

- (1) To remove pressurization from the Pneumatic System, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

SUBTASK 38-42-09-410-004

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

- (2) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-09-410-006

- (3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

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BLEED AIR FILTER - REMOVAL/INSTALLATION

1. General

- A. This procedure contains scheduled maintenance task data.
- B. This procedure has these tasks:
 - (1) A removal of the bleed air filter assembly.
 - (2) An installation of the bleed air filter assembly.

TASK 38-42-10-000-801

2. Bleed Air Filter Assembly Removal

(Figure 401)

A. References

Reference	Title
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)

B. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

C. Access Panels

Number	Name/Location
822	Aft Cargo Door

D. Prepare for the Removal

SUBTASK 38-42-10-860-001

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
-----	-----	--------	------

HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-10-860-002

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-10-010-001

- (3) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

SUBTASK 38-42-10-010-002

- (4) To remove the ceiling panel adjacent to the potable water tank, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

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E. Bleed Air Filter Assembly Removal

SUBTASK 38-42-10-020-001

- (1) Loosen the B-nut at the elbow [5].

SUBTASK 38-42-10-020-002

- (2) Remove the elbow [5], nut [6] and packing [7] from the bleed air filter assembly [2].

- (a) Discard the packing [7].

SUBTASK 38-42-10-020-003

- (3) Remove the bolts [3], washers [4], spacers [8], washers [9], washers [1] and nuts [13].

SUBTASK 38-42-10-020-004

- (4) Loosen the nut [12] for the union [11] to remove the bleed air filter assembly [2] and packing [10] from the pressure regulator.

- (a) Discard the packing [10].

SUBTASK 38-42-10-020-005

- (5) Remove the bleed air filter assembly [2].

SUBTASK 38-42-10-020-006

- (6) Put a cap on the end of the air tube to keep contamination out of the potable water system.

————— END OF TASK —————

TASK 38-42-10-400-801

3. Bleed Air Filter Assembly Installation

(Figure 401)

A. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-801	Supply Pressure to the Pneumatic System (Selection) (P/B 201)
36-00-00-860-806	Remove Pressure from the Pneumatic System (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

B. Consumable Materials

Reference	Description	Specification
D00189	Lubricant - Silicone Based - Dow Corning 111	
D00463	Grease - Food Processing Equipment	DOD-G-24650

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
2	Filter assembly	38-42-08-01-215	HAP ALL
7	Packing	38-42-08-01-170	HAP ALL
10	Packing	38-42-08-01-170	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

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E. Access Panels

Number	Name/Location
822	Aft Cargo Door

F. Bleed Air Filter Assembly Installation

SUBTASK 38-42-10-420-001

- (1) Remove the caps from the air tube.

SUBTASK 38-42-10-640-001

- (2) Apply the grease, D00463 or Dow Corning 111 lubricant, D00189 to the packing [7], packing [10] and threads of the bleed air filter assembly [2].

SUBTASK 38-42-10-420-002

- (3) Install the union [11], nut [12] and packing [10] on the bleed air filter assembly [2].

SUBTASK 38-42-10-420-003

- (4) Install the bleed air filter assembly [2] on the pressure regulator.

SUBTASK 38-42-10-420-004

- (5) Install the bolts [3], washers [4], spacers [8], washers [9], washers [1] and nuts [13].

SUBTASK 38-42-10-420-005

- (6) Install the elbow [5], nut [6] and packing [7] on the bleed air filter assembly.

SUBTASK 38-42-10-420-006

- (7) Connect the B-nut to the elbow [5].

G. Bleed Air Filter Assembly Installation Test

SUBTASK 38-42-10-860-003

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
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HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
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HAP ALL

SUBTASK 38-42-10-860-004

- (2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-10-860-005

- (3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-10-860-011

- (4) To pressurize the Pneumatic System, do this task: Supply Pressure to the Pneumatic System (Selection), TASK 36-00-00-860-801.

SUBTASK 38-42-10-790-001

- (5) Make sure there are no air leaks at the air filter.

H. Put the Airplane Back to its Usual Condition

SUBTASK 38-42-10-860-012

- (1) To remove pressurization from the Pneumatic System, do this task: Remove Pressure from the Pneumatic System, TASK 36-00-00-860-806.

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SUBTASK 38-42-10-410-001

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(2) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-10-410-002

(3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— **END OF TASK** —————

TASK 38-42-10-960-801

4. Bleed Air Filter Element Replacement

(Figure 401)

A. General

(1) This procedure is a scheduled maintenance task.

B. References

Reference	Title
20-10-44-400-801	Lockwires Installation (P/B 401)
24-22-00-860-811	Supply Electrical Power (P/B 201)
25-52-09-000-801	Cargo Compartment Ceiling Liner Removal (P/B 401)
25-52-09-400-801	Cargo Compartment Ceiling Liner - Installation (P/B 401)
36-00-00-860-801	Supply Pressure to the Pneumatic System (Selection) (P/B 201)
38-42-00-800-801	Potable Water System - Pressure Release (P/B 201)
38-42-00-800-802	Potable Water System - Pressurization (P/B 201)

C. Expendables/Parts

AMM Item	Description	AIPC Reference	AIPC Effectivity
14	Packing	38-42-08-01-230	HAP ALL
15	Element assembly	38-42-08-01-225	HAP ALL
17	Packing	38-42-08-01-235	HAP ALL

D. Location Zones

Zone	Area
142	Aft Cargo Compartment - Right

E. Access Panels

Number	Name/Location
822	Aft Cargo Door

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F. Prepare for the Removal

SUBTASK 38-42-10-860-006

- (1) Open these circuit breakers and install safety tags:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
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HAP 037-054, 101-999

D	11	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

HAP ALL

SUBTASK 38-42-10-860-007

- (2) Do this task: Potable Water System - Pressure Release, TASK 38-42-00-800-801.

SUBTASK 38-42-10-010-003

- (3) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
---------------	----------------------

822	Aft Cargo Door
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SUBTASK 38-42-10-010-004

- (4) To remove the ceiling panel adjacent to the potable water tank, do this task: Cargo Compartment Ceiling Liner Removal, TASK 25-52-09-000-801.

G. Bleed Air Filter Element Replacement

SUBTASK 38-42-10-020-007

- (1) Remove the lockwire and then loosen the filter bowl [16] and packing [14].

SUBTASK 38-42-10-020-008

- (2) Remove and then discard the bleed air filter element assembly [15] and packing [17].

SUBTASK 38-42-10-420-007

- (3) Install the new bleed air filter element assembly [15] and packing [17].

NOTE: There is a packing in the filter element assembly [15] that must be in its position before installation.

SUBTASK 38-42-10-420-008

- (4) Put the packing [14] on the filter bowl [16] and then put the filter bowl in its position.

SUBTASK 38-42-10-420-009

- (5) To install the lockwire, do this task: Lockwires Installation, TASK 20-10-44-400-801.

H. Bleed Air Filter Element Installation Test

SUBTASK 38-42-10-860-008

- (1) Remove safety tags and close these circuit breakers:

Power Distribution Panel Number 1, P91

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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HAP 001-013, 015-026, 028-036

A	18	C00873	POT WATER COMPRESSOR
---	----	--------	----------------------

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HAP 001-013, 015-026, 028-036 (Continued)

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
HAP 037-054, 101-999			
D	11	C00873	POT WATER COMPRESSOR

HAP ALL

SUBTASK 38-42-10-860-009

(2) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

SUBTASK 38-42-10-860-010

(3) Do this task: Potable Water System - Pressurization, TASK 38-42-00-800-802.

SUBTASK 38-42-10-860-013

(4) To pressurize the Pneumatic System, do this task: Supply Pressure to the Pneumatic System (Selection), TASK 36-00-00-860-801.

SUBTASK 38-42-10-790-002

(5) Make sure there are no air leaks at the air filter.

I. Put the Airplane Back to its Usual Condition

SUBTASK 38-42-10-410-003

WARNING: SEAL THE CARGO COMPARTMENT WITH THE LINING. OBEY THE INSTRUCTIONS IN THE SPECIFIED PROCEDURE WHEN YOU INSTALL THE LINING. IF YOU INSTALL THE LINING INCORRECTLY, THE SMOKE CAN GET INTO THE PASSENGER COMPARTMENT DURING A FIRE.

(1) Do this task: Cargo Compartment Ceiling Liner - Installation, TASK 25-52-09-400-801.

SUBTASK 38-42-10-410-004

(2) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door

————— END OF TASK —————

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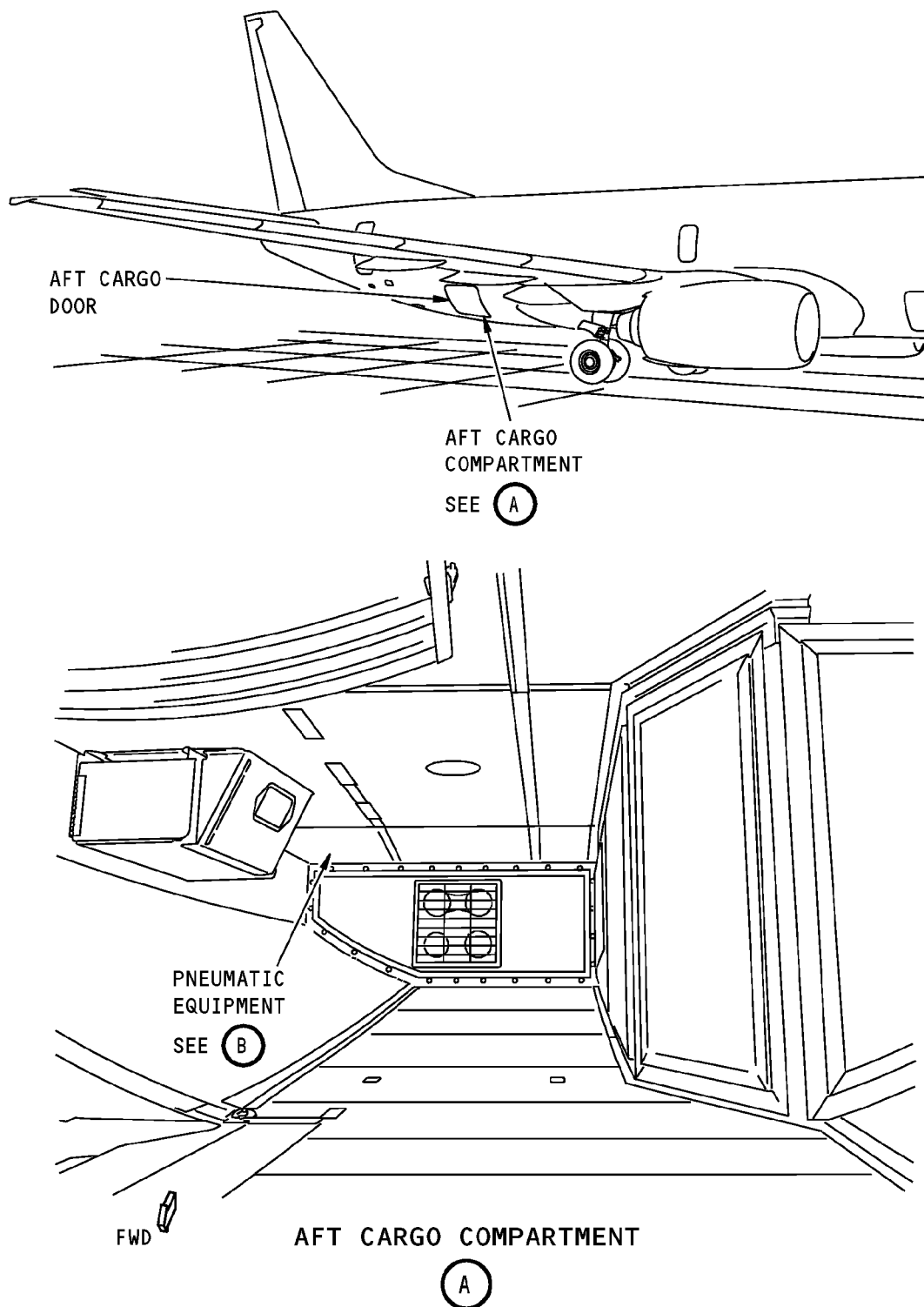
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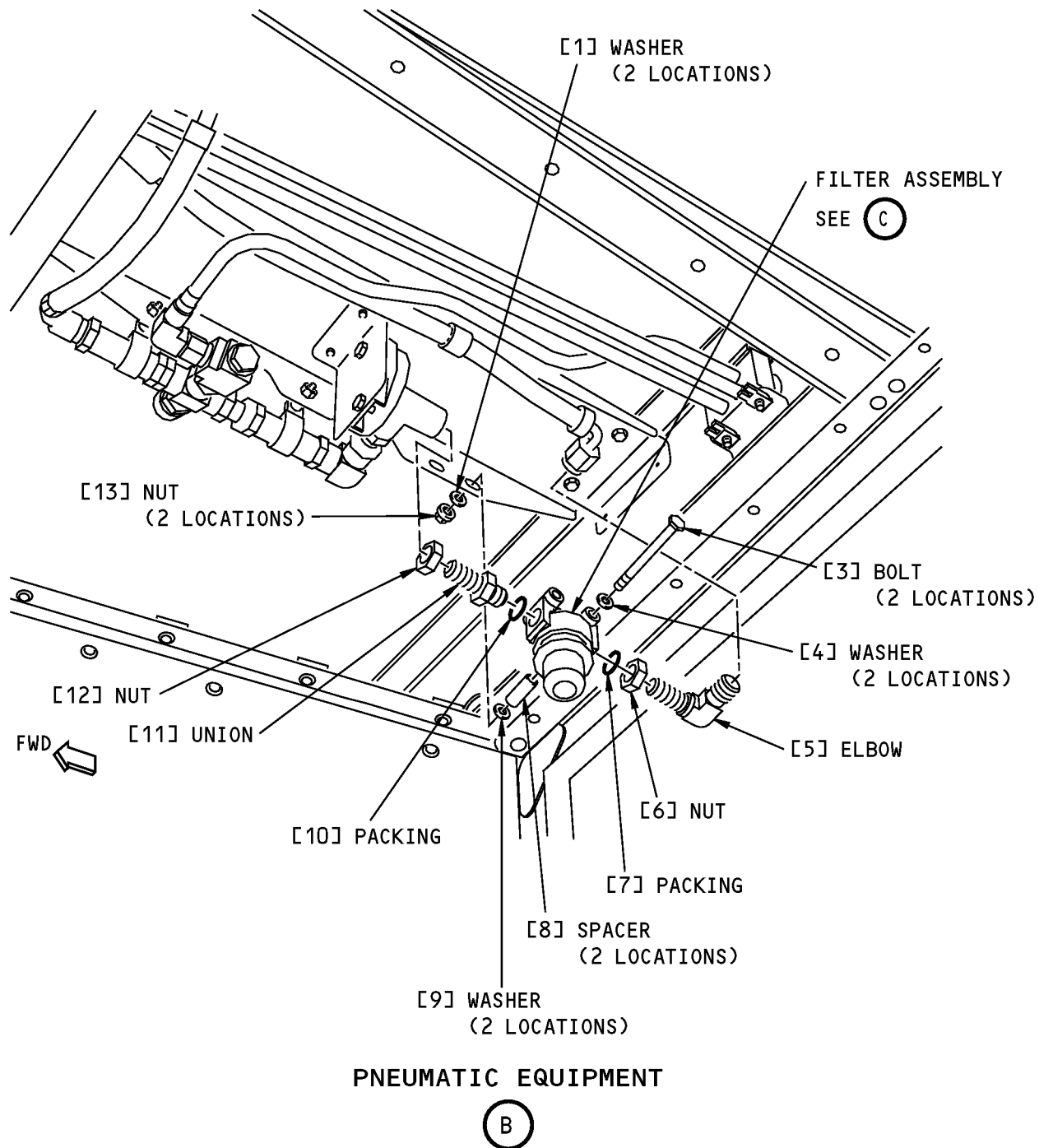
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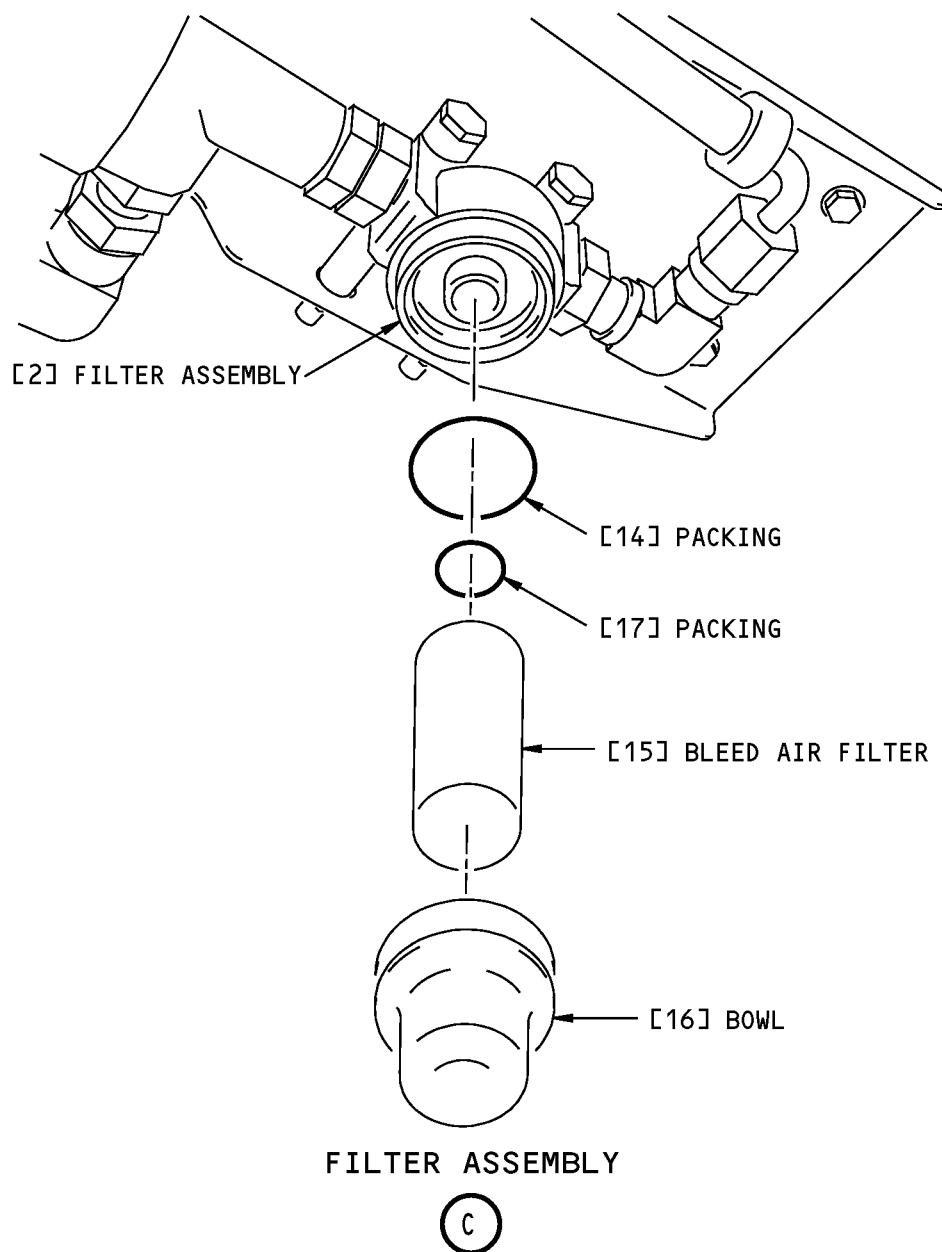
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