

**CHAPTER**

**38**

**WATER/WASTE**


  
**737-600/700/800/900**
  
**FAULT ISOLATION MANUAL**

**CHAPTER 38**
  
**WATER/WASTE**

Page	Date	COC	Page	Date	COC	Page	Date	COC
EFFECTIVE PAGES			38-10 TASKS (cont)			38-30 TASKS (cont)		
1	Jun 15/2009		222	BLANK		227	Feb 15/2008	
2	BLANK		38-10 TASK SUPPORT			228	Feb 15/2008	
38-HOW TO USE THE FIM			301	Oct 10/2005		229	Feb 15/2008	
1	Feb 10/2005		302	Oct 10/2005		230	Feb 15/2008	
2	Feb 10/2005		303	Oct 10/2005		231	Feb 15/2008	
3	Jun 10/2006		304	Oct 10/2005		232	Feb 15/2009	
4	Oct 10/2006		305	Oct 10/2005		233	Feb 15/2009	
5	Feb 10/2005		306	Oct 10/2005		234	Feb 15/2008	
6	Feb 10/2005		307	Jun 10/2007		235	Feb 15/2008	
38-FAULT CODE INDEX			308	Feb 15/2009		236	Feb 15/2008	
101	Feb 10/2005		309	Oct 10/2005		237	Feb 15/2008	
102	BLANK		310	Oct 10/2005		238	Feb 15/2008	
38-MAINT MSG INDEX			38-30 TASKS			239	Feb 15/2008	
R 101	Jun 15/2009		201	Feb 10/2005		240	Feb 15/2008	
O 102	Jun 15/2009		202	Feb 10/2005		241	Feb 15/2008	
103	Feb 10/2005		203	Oct 10/2005		242	BLANK	
104	BLANK		204	Oct 10/2005		38-30 TASK SUPPORT		
38-10 TASKS			205	Feb 10/2005		301	Oct 10/2005	
201	Feb 15/2009		206	Jun 10/2007		302	Oct 10/2005	
202	Feb 15/2008		207	Feb 15/2009		303	Oct 10/2005	
203	Feb 15/2008		208	Oct 10/2005		304	Oct 10/2005	
204	Feb 15/2009		209	Oct 10/2007		305	Oct 10/2005	
205	Feb 15/2009		210	Oct 10/2007		306	Oct 10/2005	
206	Feb 15/2008		211	Oct 10/2007		307	Oct 10/2005	
207	Feb 15/2008		212	Oct 10/2007		308	Oct 10/2005	
208	Feb 15/2008		213	Oct 10/2007		309	Oct 10/2007	
209	Feb 15/2008		214	Oct 10/2007		310	Oct 10/2005	
210	Feb 15/2008		215	Oct 10/2007				
211	Feb 15/2008		216	Oct 10/2007				
212	Feb 15/2008		217	Oct 10/2007				
213	Feb 15/2008		218	Feb 15/2008				
214	Jun 15/2008		219	Feb 15/2008				
215	Feb 15/2008		220	Feb 15/2008				
216	Feb 10/2007		221	Feb 15/2008				
217	Feb 15/2009		222	Feb 15/2008				
218	Feb 15/2009		223	Feb 15/2008				
219	Jun 15/2008		224	Feb 15/2008				
220	Feb 15/2008		225	Feb 15/2008				
221	Feb 15/2008		226	Feb 15/2008				

A = Added, R = Revised, D = Deleted, O = Overflow, C = Customer Originated

**38-EFFECTIVE PAGES**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

YOU FIND A FAULT WITH  
AN AIRPLANE SYSTEM

These are the possible types  
of faults:

1. Observed Fault
2. Cabin Fault



USE BITE TO GET  
MORE INFORMATION

If you did a BITE test already,  
then you can go directly to the  
fault isolation procedure for  
the maintenance message.

For details, see Figure 2 →



GO TO THE  
FAULT ISOLATION  
TASK IN THE FIM

Use the fault code or description  
to find the task in the FIM. There  
is a numerical list of fault codes  
in each chapter. There are lists  
of fault descriptions at the front  
of the FIM.

For details, see Figure 3 →



FOLLOW THE STEPS OF THE  
FAULT ISOLATION TASK

The fault isolation task explains  
how to find the cause of the fault.  
When the task says "You corrected  
the fault" you know that the fault  
is gone.

For details, see Figure 4 →

Basic Fault Isolation Process  
Figure 1

EFFECTIVITY  
HAP ALL

## 38-HOW TO USE THE FIM

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

Some airplane systems have built-in test equipment (BITE). IF the system finds a fault when you do a BITE test, it will give you a maintenance message.

A maintenance message can be any of these:

- a code
- a text message
- a light
- an indication.

To find the fault isolation task for a maintenance message, go to the Maintenance Message Index in the chapter for the applicable system.

If you do not know which chapter is the correct one, look at the list at the front of any Maintenance Message Index. For each system or component (LRU) that has BITE, this list gives the chapter number where you can find the Index that you need.

Find the maintenance message for the applicable LRU or system in the Index. Then find the task number on the same line as the maintenance message. Go to the task in the FIM and do the steps of the task (see Figure 4).

Getting Fault Information from BITE  
Figure 2

EFFECTIVITY  
HAP ALL

## 38-HOW TO USE THE FIM

IF YOU HAVE:

THEN DO THIS TO FIND THE TASK IN THE FIM:

FAULT CODE

1. The first two digits of the fault code are the FIM chapter that you need. Go to the Fault Code Index in that chapter and find the fault code. If the fault code starts with a letter, then go to the Cabin Fault Code Index at the front of the FIM.
2. Find the task number on the same line as the fault code. Go to the task in the FIM and do the steps in the task (see Figure 4).

OBSERVED FAULT DESCRIPTION

1. Go to the Observed Fault List at the front of the FIM and find the best description for the fault.
2. Find the task number on the same line as the fault description. Go to the task in the FIM and do the steps of the task (see Figure 4).

CABIN FAULT DESCRIPTION

1. Go to the Cabin Fault List at the front of the FIM and find the best description for the fault.
2. Find the task number on the same line as the fault description. Go to the task in the FIM and do the steps of the task (see Figure 4).

MAINTENANCE MESSAGE (FROM BITE)

1. Go to the Maintenance Message Index in the chapter for the LRU (the front of each Index gives you the chapter number for all LRUs). Find the maintenance message in the Index.
2. Find the task number on the same line as the maintenance message. Go to the task in the FIM and do the steps in the task (see Figure 4).

Finding the Fault Isolation Task in the FIM  
Figure 3

EFFECTIVITY  
HAP ALL

## 38-HOW TO USE THE FIM

**ASSUMED CONDITIONS AT START OF TASK**

- External electrical power is ON
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- No equipment in the system is deactivated

**POSSIBLE CAUSES**

- The list of possible causes has the most likely cause first and the least likely cause last.
- You can use the maintenance records of your airline to determine if the fault occurred before. Compare the list of possible causes to the past maintenance actions. This will help prevent repetition of the same maintenance actions.

**INITIAL EVALUATION PARAGRAPH**

- The primary purpose of the Initial Evaluation paragraph at the start of the task is to help you find out if you can detect the fault right now:
  - If you cannot detect the fault right now, then the task cannot isolate the fault and the Initial Evaluation paragraph will say that there was an intermittent fault.
  - If you have an intermittent fault, you must use your judgement (and follow your airline's policy) to decide which maintenance action to take. Then monitor the airplane to see if the fault happens again on subsequent flights.
- The Initial Evaluation paragraph can also help you find out which Fault Isolation Procedure to use to isolate and correct the fault.

**FAULT ISOLATION STEPS**

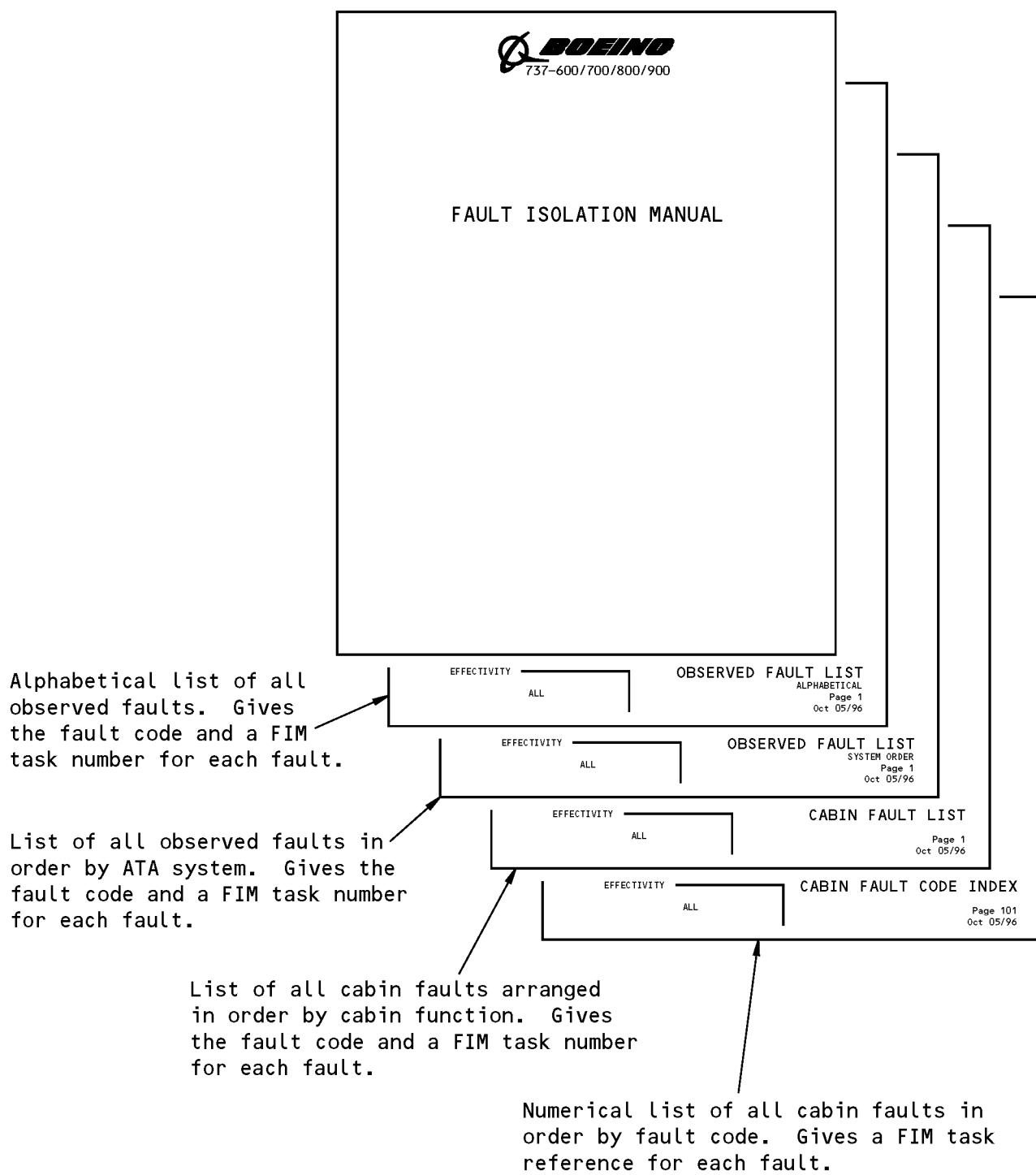
- Do the steps of the task in the specified order. The "If ... then" statements that you see will guide you along the correct path.
- When you are at the endpoint of the path, the step says "...you corrected the fault." Complete the step and exit the procedure.

Doing the Fault Isolation Task  
Figure 4

EFFECTIVITY  
HAP ALL

**38-HOW TO USE THE FIM**

 **BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



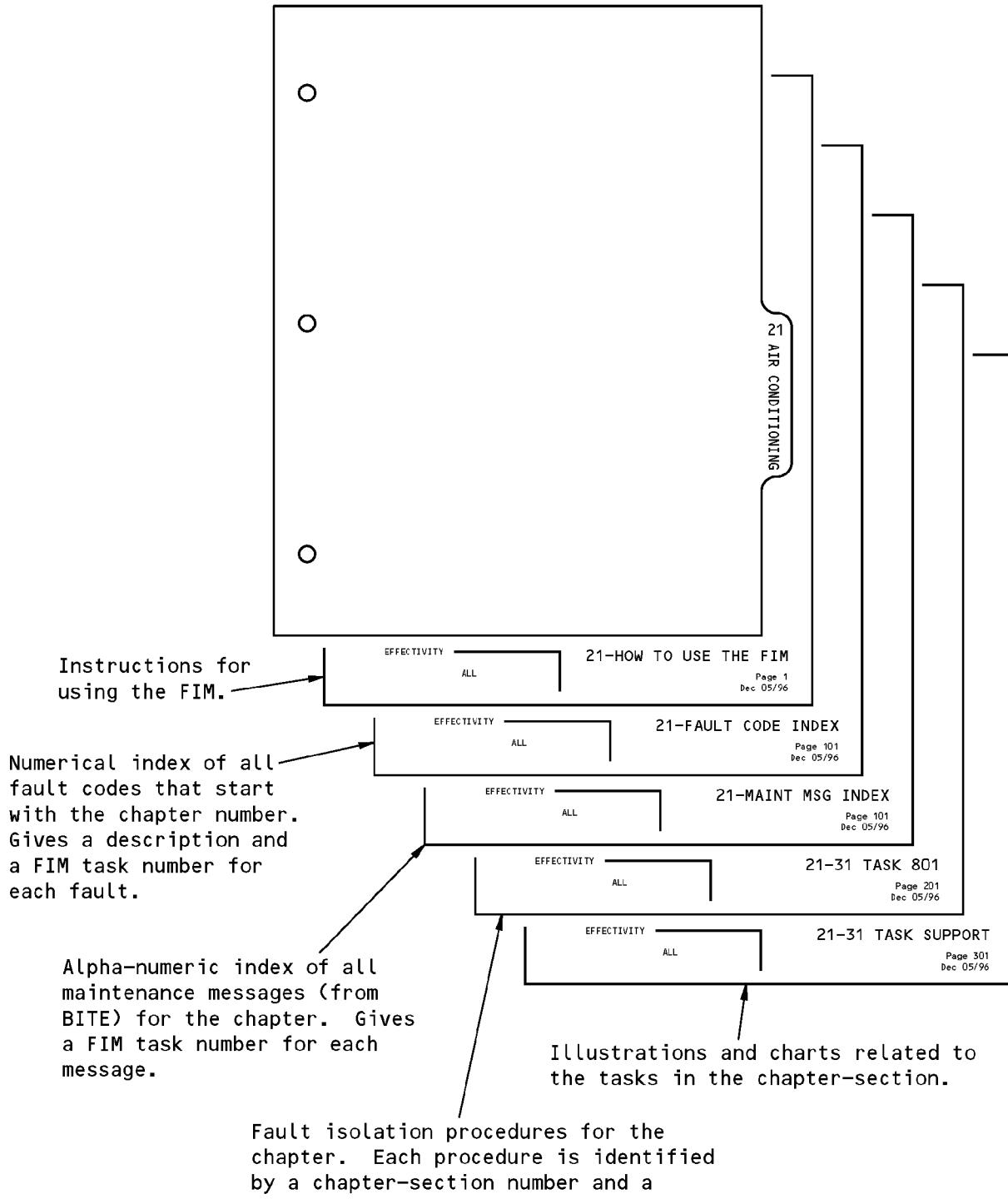
Subjects at Front of FIM  
Figure 5



## 38-HOW TO USE THE FIM

Page 5  
Feb 10/2005

 **BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



Subjects in Each FIM Chapter  
Figure 6



## 38-HOW TO USE THE FIM



737-600/700/800/900

## FAULT ISOLATION MANUAL

FAULT CODE	FAULT DESCRIPTION	GO TO FIM TASK
381 020 00	Potable water: system does not pressurize.	38-10 TASK 803
381 030 00	Potable water: tank does not fill.	38-10 TASK 801
381 040 00	Potable water: tank leaks.	38-10 TASK 802
381 041 00	Potable water: main tank (60-gallon) leaks.	25-99 TASK 801
381 042 00	Potable water: auxiliary tank (40-gallon) leaks.	25-99 TASK 801
381 045 00	Galley faucet leaks or faucet damaged.	25-99 TASK 801
381 050 44	Water leakage - forward cargo compartment ceiling.	38-10 TASK 804
381 050 45	Water leakage - aft cargo compartment ceiling.	38-10 TASK 804
383 020 00	Waste tank: does not precharge.	38-30 TASK 812
383 030 00	Waste tank drain valve handle: does not drain tank when pulled.	38-30 TASK 813
383 040 00	Waste quantity indicator: shows tank is full when tank is not full - attendant's panel.	38-30 TASK 810
383 050 00	Waste quantity indicator: shows tank is empty when tank is full - attendant's panel.	38-30 TASK 810





737-600/700/800/900

## FAULT ISOLATION MANUAL

<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
Air Data Inertial Reference System	ADIRS	34
Air Traffic Controller Transponder - 1 (Left)	ATC XPDR - 1 (L)	34
Air Traffic Controller Transponder - 2 (Right)	ATC XPDR - 2 (R)	34
Airborne Vibration Monitor System Signal Conditioner	AVM SIG COND	77
Antiskid Control Unit	ANTISKID	32
Automatic Direction Finder Receiver - 1	ADF RECVR - 1	34
Autothrottle System	A/T	22
Auxiliary Power Unit	APU	49
Auxiliary Power Unit Generator Control Unit	APU GCU	24
Bus Power Control Unit	BPCU	24
Cabin Pressure Controller	CAB PRESS CON	21
Cabin Temperature Controller	CAB TEMP CONT	21
Cargo Electronic Unit - Forward	CEU - FWD	26
Cargo Electronic Unit - Lower	CEU - LOWER	26
Cargo Electronic Unit - Main Aft	CEU - MAIN AFT	26
Cargo Electronic Unit - Main Forward	CEU - MAIN FWD	26
Common Display System	CDS	31
Compartment Overheat Detection Control Module	WING/BODY OHT	26
Digital Flight Control System	DFCS	22
Distance Measurement Equipment Interrogator	DME INTRROGTR	34
Electrical Meters, Battery, and Galley Power Module	P5-13	24
Electronic Engine Controller - 1	ENGINE - 1	73
Electronic Engine Controller - 2	ENGINE - 2	73
Emergency Locator Transmitter	ELT	23
Engine Accessory Unit	ENG ACCY UNIT	78
Engine and Auxiliary Power Unit Fire Detection Control Module	ENG/APU FIRE	26
Flap/Slat Electronics Unit	FSEU	27
Flight Data Acquisition Unit	FDAU	31
Flight Management Computer System	FMCS	34
Fuel Quantity Indicating System	FQIS	28
Generator Control Unit - 1	GCU - 1	24
Generator Control Unit - 2	GCU - 2	24
Ground Proximity Computer	GROUND PROX	34
Head Up Display	HUD	34

EFFECTIVITY  
HAP ALL

38-MAINT MSG INDEX



737-600/700/800/900

## FAULT ISOLATION MANUAL

<u>LRU/SYSTEM</u>	<u>SHORT NAME</u>	<u>CHAPTER</u>
High Frequency Transceiver	HF XCVR	23
Low Limit (35 Degree F) Controller - Left	35 DEG CONT L	21
Low Limit (35 Degree F) Controller - Right	35 DEG CONT R	21
Multi-Mode Receiver	MMR	34
Pack/Zone Temperature Controller - Left	PACK/ZN CON - L	21
Pack/Zone Temperature Controller - Right	PACK/ZN CON - R	21
Proximity Switch Electronics Unit	PSEU	32
Radio Altimeter Receiver/Transmitter	RADIO ALTIMTR	34
Stall Management Yaw Damper Computer - 1	SMYD - 1	27
Stall Management Yaw Damper Computer - 2	SMYD - 2	27
Traffic Alert and Collision Avoidance System Computer	TCAS COMPUTER	34
VHF Omnidirectional Ranging Marker Beacon Receiver	VOR/MKR RCVR	34
Very High Frequency Transceiver	VHF XCVR	23
Waste Tank Logic Control Module	WASTE TANK	38
Weather Radar Receiver/Transmitter	WEATHER RADAR	34
Window Heat Control Unit - Left Forward	WHCU - L FWD	30
Window Heat Control Unit - Left Side	WHCU - L SIDE	30
Window Heat Control Unit - Right Forward	WHCU - R FWD	30
Window Heat Control Unit - Right Side	WHCU - R SIDE	30





737-600/700/800/900

## FAULT ISOLATION MANUAL

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
WASTE TANK	SENSOR J1	38-30 TASK 803
WASTE TANK	SENSOR J2	38-30 TASK 803
WASTE TANK	SENSOR J3	38-30 TASK 808
WASTE TANK	TANK FULL	38-30 TASK 809



## 38-MAINT MSG INDEX

**FAULT ISOLATION MANUAL****801. Potable Water Tank Does Not Fill - Fault Isolation****A. Description**

- (1) (SDS SUBJECT 38-10-00)

**B. Possible Causes**

- (1) Broken fill/overflow valve control cable
- (2) Inoperative fill/overflow valve
- (3) Frozen lines

**C. Circuit Breakers**

- (1) These are the primary circuit breakers related to the fault:

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>
------------	------------	---------------	-------------

**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**

**D. Related Data**

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)
- (3) (SSM 38-41-13)
- (4) (SSM 30-71-11)

**E. Initial Evaluation**

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

- (a) If you can fill the water tank, then there was an intermittent fault.

NOTE: It is possible that the water lines were frozen.

- (b) If you cannot fill the water tank, then do the Fault Isolation Procedure below.

**F. Fault Isolation Procedure**

- (1) Do this check of the fill/overflow valve at the potable water tank:

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

- (b) Pull the handle for the fill/overflow valve at the service panel.

- (c) Look at the fill/overflow valve to see if it is open.

- (d) If the fill/overflow valve is not open, then do these steps:

- 1) Look at the control cable for the fill/overflow valve to see if it is connected.

- 2) If the control cable is not connected, then do these steps:

**38-10 TASK 801**

**FAULT ISOLATION MANUAL**

- a) Replace the control cable for the fill/overflow valve. These are the tasks:
  - Fill/Overflow Valve Control Cable Removal, AMM TASK 38-11-03-000-802
  - Fill/Overflow Valve Control Cable Installation, AMM TASK 38-11-03-400-802
- b) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
- c) If the water tank fills, then you corrected the fault.
- d) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
- 3) If the control cable is connected, then do these steps:
  - a) Replace the fill/overflow valve. These are the tasks:
    - Fill/Overflow Valve Removal, AMM TASK 38-11-03-000-801
    - Fill/Overflow Valve Installation, AMM TASK 38-11-03-400-801
  - b) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
  - c) If the water tank fills, then you corrected the fault.
  - d) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
- (e) If the fill/overflow valve is open, then continue.

(2) Do this check for a blockage of the water lines:

- (a) Feel the fill and overflow water lines at the potable water tanks.
- (b) If the lines are frozen, then do these steps:
  - 1) Do this task: Water and Drain Heater Tests, AMM TASK 30-71-00-720-802.
  - 2) Replace the water line heater that is not serviceable. These are the tasks:
    - Portable Water Fill Fitting Heater Removal, AMM TASK 30-71-01-000-801
    - Portable Water Fill Fitting Heater Installation, AMM TASK 30-71-01-400-801
  - 3) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
  - 4) If you can fill the water tank, then you corrected the fault.
    - a) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
- (c) If the lines are not frozen, then do these steps:
  - 1) Replace the water hose that is not serviceable.
  - 2) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
  - 3) If you can fill the water tank, then you corrected the fault.
    - a) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.

---

**END OF TASK**

---

**802. Potable Water Tank Leak - Fault Isolation****A. Description**

- (1) (SDS SUBJECT 38-10-00)

**B. Possible Causes**

- (1) Broken water tank
- (2) Broken line/fitting on the potable water tank

**38-10 TASKS 801-802**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### C. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)

### D. Fault Isolation Procedure

- (1) Examine the potable water tank for leaks.

**NOTE:** It is necessary to remove the insulation blanket to fully examine the potable water tank.  
Carefully loosen the insulation blanket to find the leakage point.

- (2) If you find a leak at the end cap of the water tank, then do these steps:

- (a) To depressurize the potable water system, do this task: Potable Water System - Pressure Release, AMM TASK 38-42-00-800-801.
- (b) Remove the end cap.
- (c) Examine the end cap and seal area for damage.
- (d) If the end cap is damaged, then do these steps:
  - 1) Install a new end cap (use a new O-ring).
  - 2) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
  - 3) If the potable water tank does not leak, then you corrected the fault.
- (e) If the seal area of the potable water tank is damaged, then do these steps:
  - 1) Replace the potable water tank. These are the tasks:
    - Water Tank Removal, AMM TASK 38-11-01-000-801
    - Water Tank Installation, AMM TASK 38-11-01-400-801
  - 2) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
  - 3) If the potable water tank does not leak, then you corrected the fault.
- (f) If a potable water tank does not leak at the end cap, then continue.

- (3) If the leak is at one of the connections to the water tank, then do these steps:

- (a) To depressurize the potable water system, do this task: Potable Water System - Pressure Release, AMM TASK 38-42-00-800-801.
- (b) Remove the fitting that has a leak.
- (c) Examine the component and seal area for damage.
- (d) If the fitting is damaged, then do these steps:
  - 1) Install a new fitting (use a new O-ring if one is installed).
  - 2) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
  - 3) If the potable water tank does not leak, you corrected the fault.
- (e) If the seal area is damaged, then do these steps:
  - 1) Replace the potable water tank. These are the tasks:
    - Water Tank Removal, AMM TASK 38-11-01-000-801
    - Water Tank Installation, AMM TASK 38-11-01-400-801
  - 2) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.



## FAULT ISOLATION MANUAL

- 3) If the potable water tank does not leak, then you corrected the fault.

————— END OF TASK —————

### **803. Potable Water System Does not Pressurize - Fault Isolation**

#### A. Description

- (1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

- (1) Low water Level
- (2) Low pressure in the potable water system
- (3) Frozen lines
- (4) Cut-out switch on the water service panel
- (5) Pressure relief valve
- (6) Pressure limit switch
- (7) Inlet filter of the air compressor
- (8) Bleed air check valve
- (9) Air compressor

**HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-24-1147**

- (10) The CABIN/UTIL switch is in the OFF position.

**HAP ALL**

- (11) Wiring problem

#### C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

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**

#### D. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)
- (3) (SSM 38-41-11)
- (4) (SSM 38-41-13)



**38-10 TASKS 802-803**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### E. Initial Evaluation

- (1) Open a faucet for 10 seconds.
  - (a) If the flow is satisfactory, then there was an intermittent fault.
  - (b) If the flow is not satisfactory, then do the Fault Isolation Procedure below:

### F. Fault Isolation Procedure

#### **HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-24-1147**

- (1) Make sure the CABIN/UTIL switch is in the ON position.

#### **HAP ALL**

- (2) Do a check of the level of the water in the water tanks.
  - (a) If the level of the water is low, then do these steps:
    - 1) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
    - 2) Open the faucet for 10 seconds.
    - 3) If the water flow is satisfactory, then you corrected the fault.
  - (b) If the level of the water is not low, then continue.
- (3) Do this check for a blockage of the water lines:
  - (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door
  - (b) To remove the endwall panel of the bulk cargo compartment, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, AMM TASK 25-52-19-000-801.
  - (c) Feel the inlet and outlet water lines at the potable water tanks.
  - (d) If the lines are frozen, then do these steps:
    - 1) Replace the water line heater that is not serviceable. These are the tasks:
      - Heated Potable Water Hose Removal, AMM TASK 30-71-06-000-801
      - Heated Potable Water Hose Installation, AMM TASK 30-71-06-400-801
    - 2) Open the faucet for 10 seconds.
    - 3) If the water flow is satisfactory, then you corrected the fault.
    - 4) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
  - (e) If the lines are not frozen, then continue.
- (4) Do these checks for the pressure of the potable water system:
  - (a) Do this check of the cut-out switch at the water service panel:
    - 1) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door
    - 2) Put a magnet on the cut-out switch on the door of the water service panel.
    - 3) Open the faucet for 10 seconds.
      - a) If the water flow is satisfactory, remove the magnet and then replace the cut-out switch. These are the tasks:





737-600/700/800/900

## FAULT ISOLATION MANUAL

- Compressor Cut-Out Switch Removal, AMM TASK 38-42-03-000-801
- Compressor Cut-Out Switch Installation, AMM TASK 38-42-03-400-801

- b) Open the faucet for 10 seconds.
- c) If water flow is satisfactory, then you corrected the fault.

- 4) If the water flow is not satisfactory, remove the magnet, close the

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

then continue.

- (b) Make sure the fill/overflow valve is fully closed, then do these steps to make sure the air compressor is serviceable:
  - 1) Open the fill/overflow valve for approximately 20 seconds.
  - 2) Close the fill/overflow valve after 20 seconds.
  - 3) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- a) Open the faucet for 10 seconds.
- b) If the water flow is satisfactory, then the fill/overflow valve was not fully closed and you corrected the fault.
- c) If there is no water flow, then continue.

- (5) Listen for the air compressor (go to the aft cargo compartment to hear it).

- (a) If the air compressor operates, then do these steps:
  - 1) Feel for air flow at the pressure relief valve.
  - 2) If there is air flow, then do these steps:
    - a) Replace the pressure relief valve. These are the tasks:
      - Pressure Relief Valve Removal, AMM TASK 38-42-06-000-801
      - Pressure Relief Valve Installation, AMM TASK 38-42-06-400-801
    - b) Open the faucet for ten seconds.
    - c) If the water flow is satisfactory, then you corrected the fault.
  - 3) If there is not air flow, then continue.
  - 4) Do this task: Air Filter Element Removal, AMM TASK 38-42-02-000-801.
  - 5) If the air compressor pressurizes the system, then do these steps:
    - a) Install a new inlet filter for the air compressor. To install it, do this task: Air Filter Element Installation, AMM TASK 38-42-02-400-801.
    - b) Open the faucet for ten seconds.
    - c) If the water flow is satisfactory, then you corrected the fault.
  - 6) If the air compressor does not pressurize the system, then do these steps:
    - a) Re-install the inlet filter for the air compressor, do this task: Air Filter Element Installation, AMM TASK 38-42-02-400-801.
    - b) Replace the bleed air check valve. These are the tasks:
      - Compressor Check Valve Removal, AMM TASK 38-42-09-020-801
      - Compressor Check Valve Installation, AMM TASK 38-42-09-400-802





737-600/700/800/900

## FAULT ISOLATION MANUAL

- c) Open the faucet for ten seconds.
- d) If the water flow is satisfactory, then you corrected the fault.
- (b) If the air compressor does not operate, then continue.
- (6) Do this check for 115 VAC at the air compressor:
  - (a) To access the air compressor, do this task: Waste Tank Enclosure Panel Removal, AMM TASK 25-52-20-000-801.
  - (b) Disconnect the electrical connector D1986 at the air compressor, M753 (WDM 38-41-13):
  - (c) Do a check for 3-phase 115 VAC between pin 5, pins 1, 2, and 3 of connector D1986.
    - 1) If there is 115 VAC at the pins 1, 2, and 3 of the connector D1986, then do these steps:
      - a) Replace the air compressor. These are the tasks:
        - Air Compressor Removal, AMM TASK 38-42-01-000-801
        - Air Compressor Installation, AMM TASK 38-42-01-400-801
      - b) Open the faucet for ten seconds.
      - c) If the water flow is satisfactory, then you corrected the fault.
      - d) Do this task: Waste Tank Enclosure Panel Installation, AMM TASK 25-52-20-400-801.
    - (d) If there is not 115 VAC at the pins 1, 2, and 3 of connector D1986, then continue:
  - (7) Do this check of the pressure limit switch:
    - (a) Re-connect connector D1986.
    - (b) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, AMM TASK 25-52-19-000-801.
    - (c) Disconnect connector D1990 at the pressure limit switch for the water system, S692 (WDM 38-41-13).
    - (d) Connect a jumper between pin 2 and pin 3 of D1990 for 5 seconds.
    - (e) If the air compressor operates when you connect the jumper, then replace the pressure limit switch. These are the tasks:
      - Pressure Limit Switch Removal, AMM TASK 38-42-07-000-801
      - Pressure Limit Switch Installation, AMM TASK 38-42-07-400-801
      - 1) Do a check to make sure the air compressor operates after you replace the pressure limit switch, then do these steps:
        - a) Open the faucet for ten seconds.
        - b) If the water flow is satisfactory, then you corrected the fault.
        - c) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
    - (f) If the air compressor does not operate after you install the jumper for pin 2 and pin 3 at the pressure limit switch, then do these steps:
      - 1) Re-connect connector D1990.
      - 2) Put a magnet on the cut-out switch on the door of the water service panel, then do these steps:
        - a) Open the faucet for 10 seconds.
        - b) If the water flow is satisfactory, remove the magnet and then replace the cut-out switch. These are the tasks:
          - Compressor Cut-Out Switch Removal, AMM TASK 38-42-03-000-801

EFFECTIVITY  
HAP ALL

38-10 TASK 803



737-600/700/800/900

## FAULT ISOLATION MANUAL

- Compressor Cut-Out Switch Installation, AMM TASK 38-42-03-400-801
- c) Open the faucet for 10 seconds.
- d) If the water flow is satisfactory, you corrected the fault.
- e) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.

3) If the compressor does not operate, then continue.

(8) Do this check of the wiring.

- (a) If the compressor does not operate, do a wiring check between the pins of connector D1990 at the pressure limit switch and the P91 panel, (WDM 38-41-13).

<b>D1990</b>	<b>D11432</b>
pin 2	-----
	pin 19

- 1) If you find a problem with the wiring, then do these steps:
  - a) Repair the wiring.
  - b) Re-connect connector D1990 and connector D11432
  - c) Open the faucet for ten seconds.
  - d) If the water flow is satisfactory, you corrected the fault.
  - e) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
- (b) If there is no problems in the wiring between connector D1990 and the P91 panel, then do these steps:
  - 1) Replace the relay for the compressor control, R184 (WDM 38-41-13).
  - 2) Re-connect connector D1990.
  - 3) If the air compressor operates after you replace the relay, then do these steps:
    - a) Open the faucet for ten seconds.
    - b) If the water flow is satisfactory, you corrected the fault.
    - c) To complete this task, do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
  - 4) If the air compressor does not operate after you replace the relay, then continue.
  - 5) Do a wiring check between the pins of connector D11432 and circuit breaker C873 in the P91 panel (WDM 38-41-13).

<b>D11432</b>	<b>CB 873</b>
pin 19	-----
	pin C1

- 6) If you find a problem with the wiring, then do these steps:
  - a) Repair the wiring.
  - b) Re-connect connector D11432.
  - c) Open the faucet for ten seconds.
  - d) If the water flow is satisfactory, then you corrected the fault.
  - e) Do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.

———— END OF TASK ————



**38-10 TASK 803**

## FAULT ISOLATION MANUAL

### 804. Ceiling Panel Wet - Fault Isolation

#### A. Description

- (1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

- (1) Broken line/fitting
- (2) Condensation

#### C. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)

#### D. Initial Evaluation

- (1) Identify the area that the leakage is in from these areas:

- (a) The passenger cabin
- (b) Aft of the aft cargo compartment
- (c) The forward cargo compartment
- (d) The aft cargo compartment

- (2) If you isolate the leakage area to an area above, then do the Fault Isolation Procedure below:

#### E. Fault Isolation Procedure

- (1) If the wet ceiling panel is in a lavatory or galley, then do these steps:

- (a) Close the water shutoff valve for the applicable lavatory or galley.
- (b) If the leak stops, then examine the plumbing downstream of the valve for signs of a leak.
  - 1) Repair or replace the component that has a leak.
  - 2) Open the water shutoff valve that you closed.
  - 3) If there is no leakage, then you corrected the fault.

- (2) If the leakage is in the passenger compartment (not in a lavatory or galley), then do these steps:

- (a) To get access to the overhead supply line at the aft sidewall, do this task: Sidewall Panel Removal, AMM TASK 25-21-46-000-801.
- (b) To get access to the overhead supply line above the ceiling panels, do this task: Sculptured Ceiling Panel Removal, AMM TASK 25-21-45-000-801.
- (c) Examine the water line and fittings for signs of a leak.
  - 1) Repair or replace the component that has a leak.
  - 2) To pressurize the water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
  - 3) If there is no leakage, then you corrected the fault.
- (d) If you removed the sidewall panels, do this task: Sidewall Panel Installation, AMM TASK 25-21-46-400-801
- (e) If you removed the ceiling panels, do this task: Sculptured Ceiling Panel Installation, AMM TASK 25-21-45-400-801.
- (f) If there is no sign of water system leakage, then it is possible that condensation in the cabin caused the wet ceiling panel.



**38-10 TASK 804**



737-600/700/800/900

## FAULT ISOLATION MANUAL

- (3) If the wet panel is in the forward cargo compartment, then do these steps:
  - (a) To remove the sidewall panels in the forward cargo compartment, do this task: Remove the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-000-801.
  - (b) Examine the gray water drain lines for a sign of a leak.
    - 1) Repair or replace the component that has a leak.
    - 2) To fill the gray water system, do this task: Gray Water/Drain System - Maintenance Practice, AMM TASK 38-31-00-910-801.
    - 3) If there is no leakage, then you corrected the fault.
    - 4) To complete this task, do these steps:
      - a) Do this task: Install the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-400-801.
  - (c) If there is no sign of gray water system leakage, then it is possible that condensation in the cabin caused the wet panel.
- (4) If the wet panel is aft cargo compartment, then do these steps:
  - (a) To remove the sidewall panels in the aft cargo compartment, do this task: Remove the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-000-801.
  - (b) Examine the gray water drain and water supply lines for signs of a leak.
    - 1) Repair or replace the component that has a leak.
    - 2) To pressurize the water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
    - 3) To fill the gray water system, do this task: Gray Water/Drain System - Maintenance Practice, AMM TASK 38-31-00-910-801.
    - 4) If there is no leakage, then you corrected the fault.
    - 5) To complete this task, do this task: Install the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-400-801.
  - (c) If there is no sign of gray water drain or water system leakage, then it is possible that condensation in the cabin caused the wet panel.
- (5) If the leak is aft the aft cargo lining, then do these steps:
  - (a) To remove the aft cargo bulkhead, do this task: Aft Cargo Compartment Aft Bulkhead Liner Removal, AMM TASK 25-52-19-000-801.
  - (b) To depressurize the potable water system, do this task: Potable Water System - Pressure Release, AMM TASK 38-42-00-800-801.
  - (c) Examine the plumbing aft of the aft cargo bulkhead for signs of a leak.
    - 1) Repair or replace the component that has a leak.
    - 2) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.
    - 3) To fill the gray water system, do this task: Gray Water/Drain System - Maintenance Practice, AMM TASK 38-31-00-910-801.
    - 4) To complete this task: do this task: Aft Cargo Compartment Aft Bulkhead Liner Installation, AMM TASK 25-52-19-400-801.
  - (d) To pressurize the potable water system, do this task: Potable Water System - Pressurization, AMM TASK 38-42-00-800-802.



## FAULT ISOLATION MANUAL

(e) If there is no sign of gray water drain or water system leakage, then it is possible that condensation in the cabin caused the wet panel.

————— END OF TASK —————

### **805. Galley Faucet Leak - Fault Isolation**

#### A. Description

(1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

(1) Broken galley faucet

#### C. Related Data

(1) Simplified Schematic (Figure 303)

(2) Component Location (Figure 301)

#### D. Initial Evaluation

(1) Open the faucet for 10 seconds and then close the faucet.

(a) If there is no leakage, then there was an intermittent fault.

(b) If the faucet leaks, then do the Fault Isolation Procedure below:

#### E. Fault Isolation Procedure

(1) Close the water shutoff valve for the galley.

(2) Replace or adjust the applicable galley faucet(s).

NOTE: Refer to the component maintenance manual from the vendor of the applicable galley to replace or adjust the faucet.

(3) Open the water shutoff valve for the galley.

(a) If the leak stops, then you corrected the fault.

————— END OF TASK —————

### **806. Faucet Water Flow not Sufficient - Fault Isolation**

#### A. Description

(1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

(1) Low water level

(2) Isolation valve closed

(3) Frozen water line

(4) Faucet does not open

(5) Water filter clogged

#### C. Related Data

(1) Simplified Schematic (Figure 302)

(2) Component Location (Figure 301)



**38-10 TASKS 804-806**

Page 211

Feb 15/2008



737-600/700/800/900

## FAULT ISOLATION MANUAL

### D. Initial Evaluation

- (1) Open the faucet for 10 seconds.

- (a) If the flow is satisfactory, then there was an intermittent fault.
  - (b) If the flow is not satisfactory, then do these steps:

NOTE: Make sure that all applicable water shutoff valves are open before you start.

- 1) Go to one of the other lavatories and then open the faucet for 10 seconds.
  - 2) If the water flow from the second faucet is not satisfactory, then, do this task: Potable Water System Does not Pressurize - Fault Isolation, 38-10 TASK 803.
  - 3) If the water flow is satisfactory, then do the Fault Isolation Procedure below.

### E. Fault Isolation Procedure

- (1) Do a check of the level of the water in the water tanks.

- (a) If the level of the water is low, then do these steps:
    - 1) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
    - 2) Open the faucet for 10 seconds.
    - 3) If the water flow is satisfactory, then you corrected the fault.
  - (b) If the level of the water is not low, then continue.

- (2) Do a check of the shutoff valve for the water supply.

- (a) If the shutoff valve is closed, then open the valve.
    - (b) If the shutoff valve is open without water flow, then replace the shutoff valve. These are the tasks:
      - Shutoff Valve Removal, AMM TASK 38-11-07-000-801
      - Shutoff Valve Installation, AMM TASK 38-11-07-400-801
      - 1) Open the faucet for 10 seconds.
      - 2) If the water flow is satisfactory, then you corrected the fault.
    - (c) If the shutoff valve is open, then continue.

- (3) Do this check for a blockage of the water lines:

- (a) Feel the water lines at the potable water tanks.
    - (b) If the lines are frozen, then do these steps:
      - 1) Replace the water line heater that is not serviceable. These are the tasks:
        - Heated Potable Water Hose Removal, AMM TASK 30-71-06-000-801
        - Heated Potable Water Hose Installation, AMM TASK 30-71-06-400-801
      - 2) Open the faucet for 10 seconds.
      - 3) If the water flow is satisfactory, then you corrected the fault.
    - (c) If the lines are not frozen, then continue:

- (4) Do a check of the faucet for the correct operation.

- (a) If the faucet does not operate correctly, then replace the water faucet. These are the tasks:
      - Faucet Assembly Removal, AMM TASK 38-11-05-000-801 or Faucet Assembly Removal, AMM TASK 38-11-05-000-805
      - Faucet Assembly Installation, AMM TASK 38-11-05-400-801 or Faucet Assembly Installation, AMM TASK 38-11-05-400-805
      - 1) Open the faucet for 10 seconds.



**38-10 TASK 806**



737-600/700/800/900

## FAULT ISOLATION MANUAL

- 2) If the water flow is satisfactory, then you corrected the fault.

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

- (b) If the faucet operates correctly, but water flow is not satisfactory, then continue.
- (5) Do this check of the filter:
  - (a) To remove the filter element from the water filter, do this task: Water Filter Replacement, AMM TASK 38-11-04-960-801.
  - (b) Install the filter cover without the filter element.
  - (c) Open the faucet for 10 seconds.
  - (d) If the water flow is satisfactory, then do these steps:
    - 1) Do this task: Water Filter Replacement, AMM TASK 38-11-04-960-801.
    - 2) Open the faucet for 10 seconds.
    - 3) If the water flow is satisfactory, then you corrected the fault.

————— END OF TASK —————

### HAP ALL

#### 807. Lavatory Faucet Leak - Fault Isolation

##### A. Description

- (1) (SDS SUBJECT 38-10-00)

##### B. Possible Causes

- (1) Broken water faucet

- (2) Water faucet adjustment

##### C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

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

##### D. Related Data

- (1) Simplified Schematic (Figure 303)

- (2) Component Location (Figure 301)

##### E. Initial Evaluation

- (1) Open the faucet for 10 seconds and then close the faucet.

- (a) If there is no leakage, then there was an intermittent fault.

- (b) If the faucet leaks, then do the Fault Isolation Procedure below:

##### F. Fault Isolation Procedure

- (1) Do this check of the water from the faucet.

- (a) Feel the water that comes from the faucet.



## FAULT ISOLATION MANUAL

- (b) If the water is hot, then do these steps to replace or adjust the hot water cartridge:
  - 1) To replace the lavatory faucet cartridge, do this task: Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-801 or Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-803.
  - 2) To adjust the lavatory faucet cartridge, do this task: Water Faucet Adjustment, AMM TASK 38-11-05-820-801 or Water Faucet Adjustment, AMM TASK 38-11-05-820-805.
    - a) Open the faucet for 10 seconds and then close the faucet.
    - b) If the leak stops, then you corrected the fault.
    - c) If the leak does not stop, then continue.
- (c) If the leaking water is cold, then do these steps to replace or adjust the cold water cartridge.
  - 1) To replace the lavatory faucet cartridge, do this task: Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-801 or Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-803.
  - 2) To adjust the lavatory faucet cartridge, do this task: Water Faucet Adjustment, AMM TASK 38-11-05-820-801 or Water Faucet Adjustment, AMM TASK 38-11-05-820-805.
    - a) Open the faucet for 10 seconds and then close the faucet.
    - b) If the leak stops, then you corrected the fault.
    - c) If the leak does not stop, then continue.
- (d) If the leaking water is warm, then do these steps to replace or adjust the hot and cold water faucet cartridges.
  - 1) To replace the applicable lavatory faucet cartridge(s), do this task: Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-801 or Cartridge Valve Assembly Replacement, AMM TASK 38-11-05-960-803.
  - 2) To adjust the applicable lavatory faucet cartridge(s), do this task: Water Faucet Adjustment, AMM TASK 38-11-05-820-801 or Water Faucet Adjustment, AMM TASK 38-11-05-820-805.
    - a) Open the faucet for 10 seconds and then close the faucet.
    - b) If the leak stops, then you corrected the fault.
    - c) If the leak does not stop, then continue.

(2) Replace the faucet. These are the tasks:

- Faucet Assembly Removal, AMM TASK 38-11-05-000-801 or Faucet Assembly Removal, AMM TASK 38-11-05-000-805
- Faucet Assembly Installation, AMM TASK 38-11-05-400-801 or Faucet Assembly Installation, AMM TASK 38-11-05-400-805
  - (a) Open the faucet for 10 seconds and then close the faucet.
  - (b) If the leak stops, then you corrected the fault.

---



---

**808. Faucet Water Too Hot - Fault Isolation**

## A. Description

- (1) (SDS SUBJECT 38-10-00)

## B. Possible Causes

- (1) Temperature switch set too high

**38-10 TASKS 807-808**

**FAULT ISOLATION MANUAL**

(2) Hot water heater

**C. Circuit Breakers**

(1) These are the primary circuit breakers related to the fault:

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

**D. Related Data**

(1) Simplified Schematic (Figure 303)  
 (2) Component Location (Figure 301)

**E. Initial Evaluation**

(1) Open the hot faucet for 10 seconds and then do a check of the water temperature.  
 (a) If the water temperature is not too hot, then there was an intermittent fault.  
 (b) If the water temperature is too hot, then do the Fault Isolation Procedure below:

**F. Fault Isolation Procedure**

(1) Look at the temperature control switch on the bottom of the hot water heater.

NOTE: The temperature control switch has 3 positions. LOW is for 105°F water, MEDIUM is for 115°F water, and HIGH is for 125°F water.

NOTE: If the problem is at a galley faucet, then refer to the component maintenance manual from the vendor of the applicable galley for detail of the water heater (if installed).

(a) If the temperature switch is not set to the correct position, then do these steps.

- 1) Set the switch is to the correct position.
- 2) Open the hot water faucet for 10 seconds.
- 3) If the water temperature is satisfactory, then you corrected the fault.

(b) If the temperature switch is set to the correct position, then continue.

(2) Replace the hot water heater. These are the tasks:

- Water Heater Removal, AMM TASK 38-13-01-000-801
- Water Heater Installation, AMM TASK 38-13-01-400-801

- (a) Open the hot water faucet for 10 seconds.
- (b) If the water temperature is satisfactory, then you corrected the fault.

————— END OF TASK —————

**809. Faucet Water Pressure Too High - Fault Isolation****A. Description**

(1) (SDS SUBJECT 38-10-00)

**B. Possible Causes**

(1) Pressure limit switch, S692  
 (2) Pressure relief valve

**38-10 TASKS 808-809**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

C. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)

D. Initial Evaluation

- (1) Do a check of the level of the water in the water tanks.
  - (a) If the level of the water is low, then do these steps:
    - 1) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
    - 2) Open the water faucet for 10 seconds.
    - 3) If the water pressure is satisfactory, then you corrected the fault.
    - 4) If the water pressure is not satisfactory, then continue.
  - (b) If the level of the water is not low, then continue.

E. Fault Isolation Procedure

- (1) To do a check of the pressure limit switch, S692, do this task: Pressure Limit Switch - Operational Test, AMM TASK 38-42-07-700-801.
  - (a) If the compressor start pressure is too high, then replace the water pressure limit switch, S692. These are the tasks:
    - Pressure Limit Switch Removal, AMM TASK 38-42-07-000-801
    - Pressure Limit Switch Installation, AMM TASK 38-42-07-400-801
  - (b) Open the water faucet for 10 seconds.
  - (c) If the water pressure is satisfactory, then you corrected the fault.
  - (d) If the water pressure is not satisfactory, then continue.
- (2) Replace the water pressure relief valve for the air compressor. These are the tasks:
  - Pressure Relief Valve Removal, AMM TASK 38-42-06-000-801
  - Pressure Relief Valve Installation, AMM TASK 38-42-06-400-801
  - (a) Open the water faucet for 10 seconds.
  - (b) If the water pressure is satisfactory, then you corrected the fault.

————— END OF TASK —————

**810. Potable Water is Contaminated - Fault Isolation**

A. Description

- (1) (SDS SUBJECT 38-10-00)

B. Possible Causes

- (1) Contamination of the water system

C. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)

D. Initial Evaluation

- (1) Open the faucet for 10 seconds and then do a check of the water quality.
  - (a) If there is no bad smell or poor water quality, then there was an intermittent fault.



**38-10 TASKS 809-810**

D633A103-HAP

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

## FAULT ISOLATION MANUAL

(b) If there is bad smell or poor water quality, then do the Fault Isolation Procedure below:

### E. Fault Isolation Procedure

- (1) Do this task: Potable Water System - Drain, AMM TASK 12-14-01-600-801.
- (2) Do this task: Potable Water System - Disinfectant, AMM TASK 38-10-00-600-801.
- (3) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
- (4) Open the faucet for 10 seconds and then do a check of the water quality.
  - (a) If there is no bad smell or poor water quality, then you corrected the fault.
  - (b) If there is bad smell or poor water quality, then do this task again.

————— END OF TASK —————

### **811. No Hot Water at Faucet - Fault Isolation**

#### A. Description

- (1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

**HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-24-1147**

- (1) The CABIN/UTIL switch is in the OFF position.

**HAP ALL**

- (2) Heater switch set to OFF
- (3) Temperature switch set too low
- (4) Overtemperature switch needs reset
- (5) Hot water heater

#### C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

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

#### D. Related Data

- (1) Simplified Schematic (Figure 303)
- (2) Component Location (Figure 301)

#### E. Initial Evaluation

- (1) Open the hot faucet for 10 seconds and then do a check of the water temperature.
  - (a) If the water temperature is hot, then there was an intermittent fault.
  - (b) If the water temperature is not hot, then do the Fault Isolation Procedure below:

#### F. Fault Isolation Procedure



**38-10 TASKS 810-811**



737-600/700/800/900

## FAULT ISOLATION MANUAL

HAP 031-054, 101-999; HAP 001-013, 015-026, 028-030 POST SB 737-24-1147

- (1) Make sure the CABIN/UTIL switch is in the ON position.

### HAP ALL

- (2) Look at the power control switch for the hot water heater:

- (a) If the heater control switch is OFF, then set it to ON.

NOTE: If the problem is at a galley faucet, then refer to the component maintenance manual from the vendor of the applicable galley for detail of the water heater (if installed).

- 1) Open the hot water faucet for 10 seconds.

- 2) If the water is hot, then you corrected the fault.

- (b) If the power control switch is ON, then continue.

- (3) Look at the temperature control switch on the bottom of the hot water heater.

NOTE: The temperature control switch has 3 positions. LOW is for 105°F water, MEDIUM is for 115°F water, and HIGH is for 125°F water.

NOTE: If the problem is at a galley faucet, then refer to the component maintenance manual from the vendor of the applicable galley for detail of the water heater (if installed).

- (a) If the temperature switch is not set to the correct position, then do these steps.

- 1) Set the switch to the correct position.

- 2) Open the hot water faucet for 10 seconds.

- 3) If the water temperature is satisfactory, then you corrected the fault.

- (b) If the temperature switch is set to the correct position, then continue.

- (4) Push the overheat switch in the top cover of the hot water heater.

- (a) Open the hot water faucet for 10 seconds.

- (b) If the water is hot, then you corrected the fault.

- (c) If the water is not hot, then continue.

- (5) Replace the hot water heater. These are the tasks:

- Water Heater Removal, AMM TASK 38-13-01-000-801
- Water Heater Installation, AMM TASK 38-13-01-400-801

- (a) Open the hot water faucet for 10 seconds.

- (b) If the water is hot, then you corrected the fault.

————— END OF TASK —————

### **812. Potable Water Level Not Accurate at Attendants Panel - Fault Isolation**

#### A. Description

- (1) (SDS SUBJECT 38-10-00)

#### B. Probable Causes

- (1) These are the probable causes:

- Low water level
- Water quantity transmitter adjustment
- Tank Sensor



**FAULT ISOLATION MANUAL**

- Water quantity indicator
- Wiring problem

**C. Circuit Breakers**

- (1) This is the primary circuit breaker related to the fault:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	9	C00138	WATER QTY IND

**D. Related Data**

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-41-11)

**E. Initial Evaluation**

- (1) Drain the potable water tank.
- (2) Do this task: Potable Water Tank - Fill, AMM TASK 12-14-01-600-802.
  - (a) Read the water quantity at the attendants panel.
  - (b) If the attendant panel shows a full potable water tank(s), you corrected the fault.
  - (c) If the attendant panel does not show full potable water tank(s), then continue the procedure.

**F. Fault Isolation Procedure**

- (1) If the water quantity indicator does not read full, do this task: Water Quantity Transmitter Adjustment, AMM TASK 38-14-01-800-801.
  - (a) Read the water quantity at the attendants panel.

NOTE: It is possible for one stud connection to produce correct capacitance values and the other stud connection to produce incorrect capacitance values. Only one correctly functioning stud is required to get satisfactory water quantity readings.
  - (b) If the water quantity is satisfactory, you corrected the fault.
  - (c) If the water quantity is not satisfactory, then continue.
- (2) If the water quantity indicator does not read full when the tank is full or empty when the tank is empty, then do the capacitance test that follows:
  - (a) Remove the coaxial wire that runs from the sensor output to the input of the water quantity transmitter.
  - (b) Use a LCR meter (Inductance, Capacitance, Resistance), COM-1741, or equivalent, to do a check of the capacitance of the water tank quantity sensor.
    - 1) Use either of the two transmitter connection studs for one of the meter connection points.
    - 2) Use either of the metal portion of the drain fitting below the tank as the other meter connection point.
  - (c) Compare the capacitance levels to those in the (Table 201)tables below.

**38-10 TASK 812**



737-600/700/800/900

## FAULT ISOLATION MANUAL

Table 201 GRAPHITE POTABLE WATER TANK WITH PETG LINER

Standpipe/Tank Configuration	Capacitance Levels-Empty	Capacitance Levels-Full	Mating Adapter Cable
20 GAL/40 GAL	2500 $\pm$ 300 pf	4600 $\pm$ 450 pf	-11
40 GAL/60 GAL	2500 $\pm$ 300 pf	5300 $\pm$ 500 pf	-12
30 GAL/40 GAL	2500 $\pm$ 300 pf	5650 $\pm$ 520 pf	-13
50 GAL/60 GAL	2500 $\pm$ 300 pf	6000 $\pm$ 550 pf	-14
FULL (40 GAL OR 60 GAL)	2500 $\pm$ 300 pf	6700 $\pm$ 600 pf	-15

Table 202 FIBERGLASS POTABLE WATER TANK WITH ABS LINER

Standpipe/Tank Configuration	Capacitance Levels-Empty	Capacitance Levels-Full	Mating Adapter Cable
20 GAL/40 GAL	0	2250 $\pm$ 450 pf	-11
40 GAL/60 GAL	0	3158 $\pm$ 632 pf	-12
30 GAL/40 GAL	0	3375 $\pm$ 675 pf	-13
50 GAL/60 GAL	0	3947 $\pm$ 789 pf	-14
FULL	0	4500 $\pm$ 900 pf	-15

(d) If the capacitance output of the water level sensor does not agree with the tables above, then replace the potable water tank. These are the tasks:

- Water Tank Removal, AMM TASK 38-11-01-000-801
- Water Tank Installation, AMM TASK 38-11-01-400-801

- 1) Retest the water quantity transmitter, do this task: Water Quantity Transmitter Adjustment, AMM TASK 38-14-01-800-801.
- 2) Read the water quantity at the attendants panel.
- 3) If the attendant panel indicator shows the correct water quantity, you corrected the fault.

(e) If the water quantity is not satisfactory, then replace the transmitter. These are the tasks:

- Water Quantity Transmitter Removal, AMM TASK 38-14-01-000-801
- Water Quantity Transmitter Installation, AMM TASK 38-14-01-400-801

- 1) Retest the water quantity transmitter, do this task: Water Quantity Transmitter Adjustment, AMM TASK 38-14-01-800-801.
- 2) Read the water quantity at the attendants panel.
- 3) If the attendant panel indicator shows the correct water quantity, you corrected the fault.
- 4) If the attendant panel indicator does not show the correct water quantity, continue the procedure.

(3) If the water quantity indicator does not read full, disconnect P1 from the potable water module M1887 (WDM 38-41-11).

- (a) Do a check for -10 VDC between these pins 44 and 47 of the connector P1.
  - 1) If the voltage is -10 VDC, replace the water quantity indicator. These are the tasks:



## 38-10 TASK 812



737-600/700/800/900

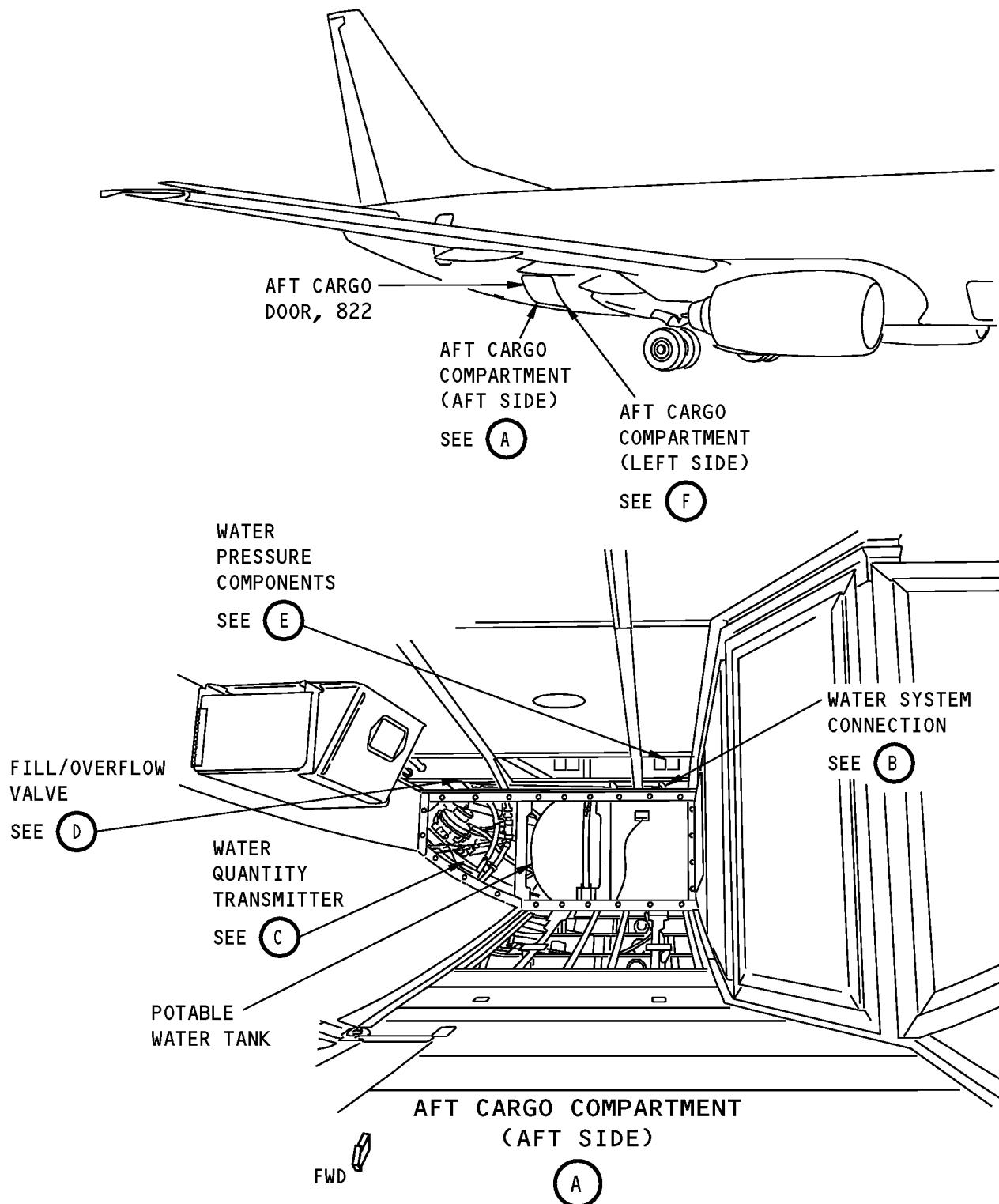
## FAULT ISOLATION MANUAL

- Attendant's Panel Water Quantity Indicator Removal, AMM  
TASK 38-14-02-000-801
- Attendant's Panel Water Quantity Indicator Installation, AMM  
TASK 38-14-02-400-801
  - a) Read the water quantity at the attendants panel.
  - b) If the water quantity is satisfactory, you corrected the fault.
- 2) If there is not -10 VDC between pins 44 and 47 of connector P1, repair the wiring between P1 and the water quantity transmitter.
  - a) Read the water quantity at the attendants panel.
  - b) If the attendant panel indicator shows the correct water quantity, you corrected the fault.

————— END OF TASK —————




**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

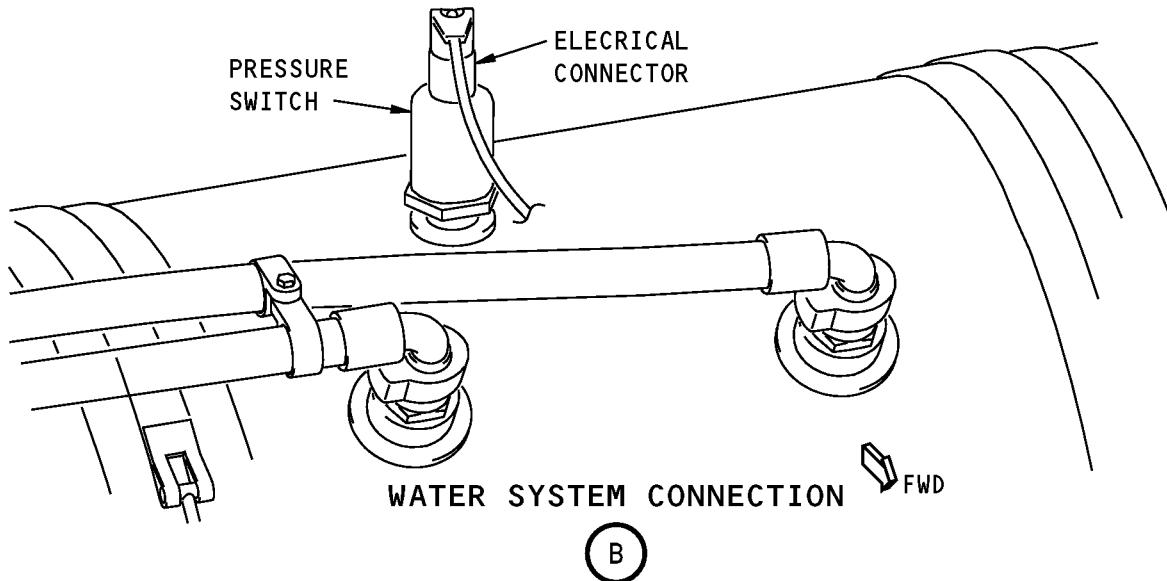


Potable Water Component Location  
 Figure 301 (Sheet 1 of 8) / 38-10-00-990-801

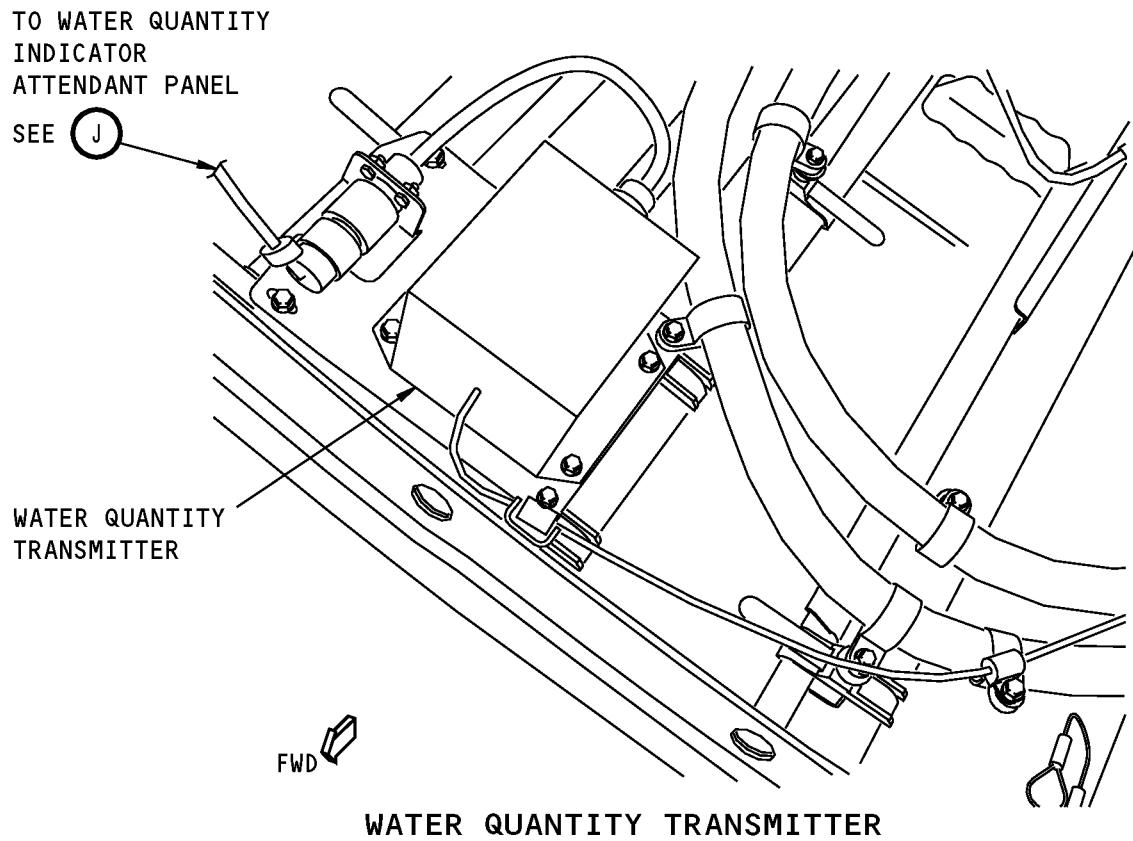
EFFECTIVITY  
 HAP ALL

**38-10 TASK SUPPORT**

**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



(B)



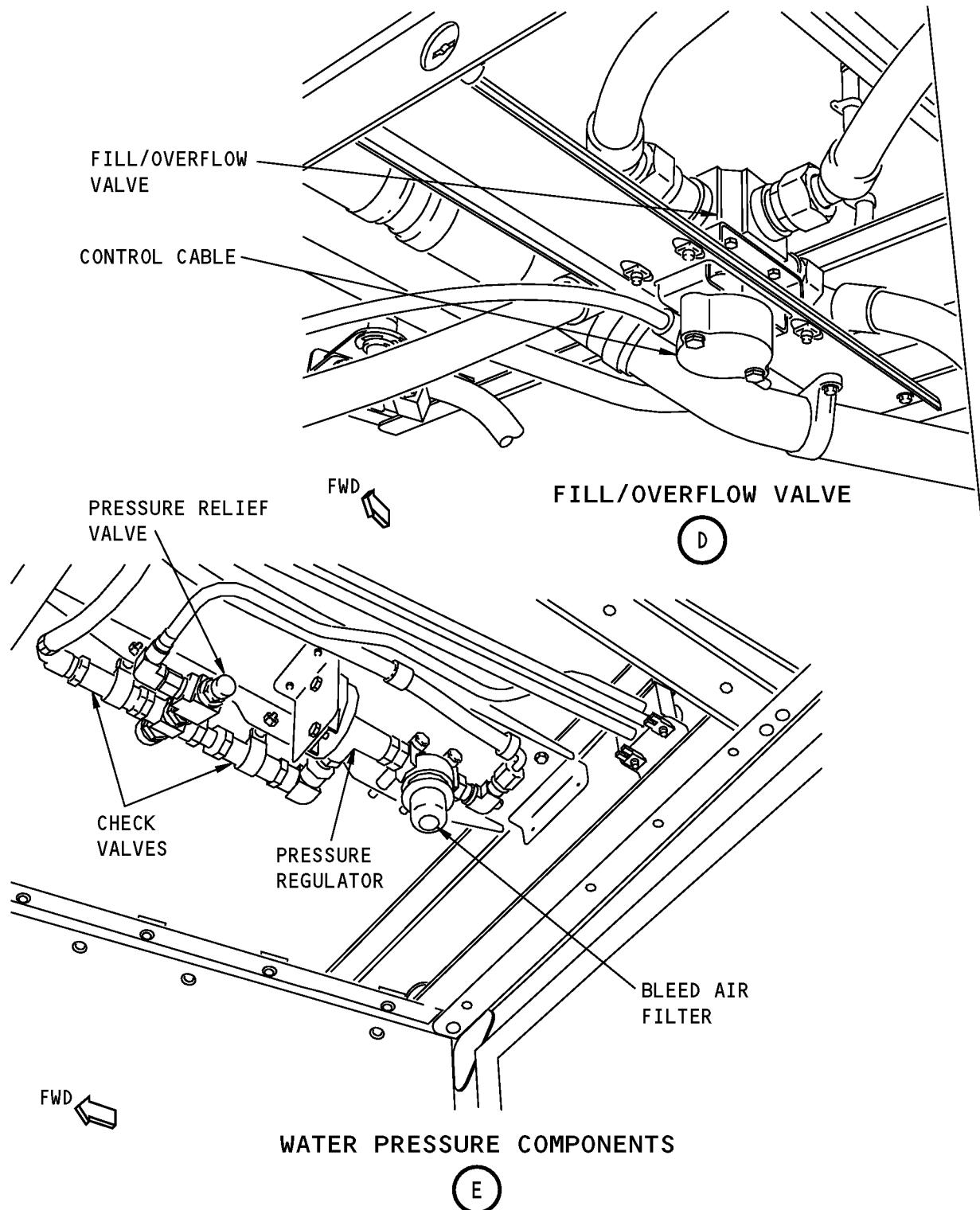
(C)

Potable Water Component Location  
 Figure 301 (Sheet 2 of 8) / 38-10-00-990-801

EFFECTIVITY  
 HAP ALL

**38-10 TASK SUPPORT**


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

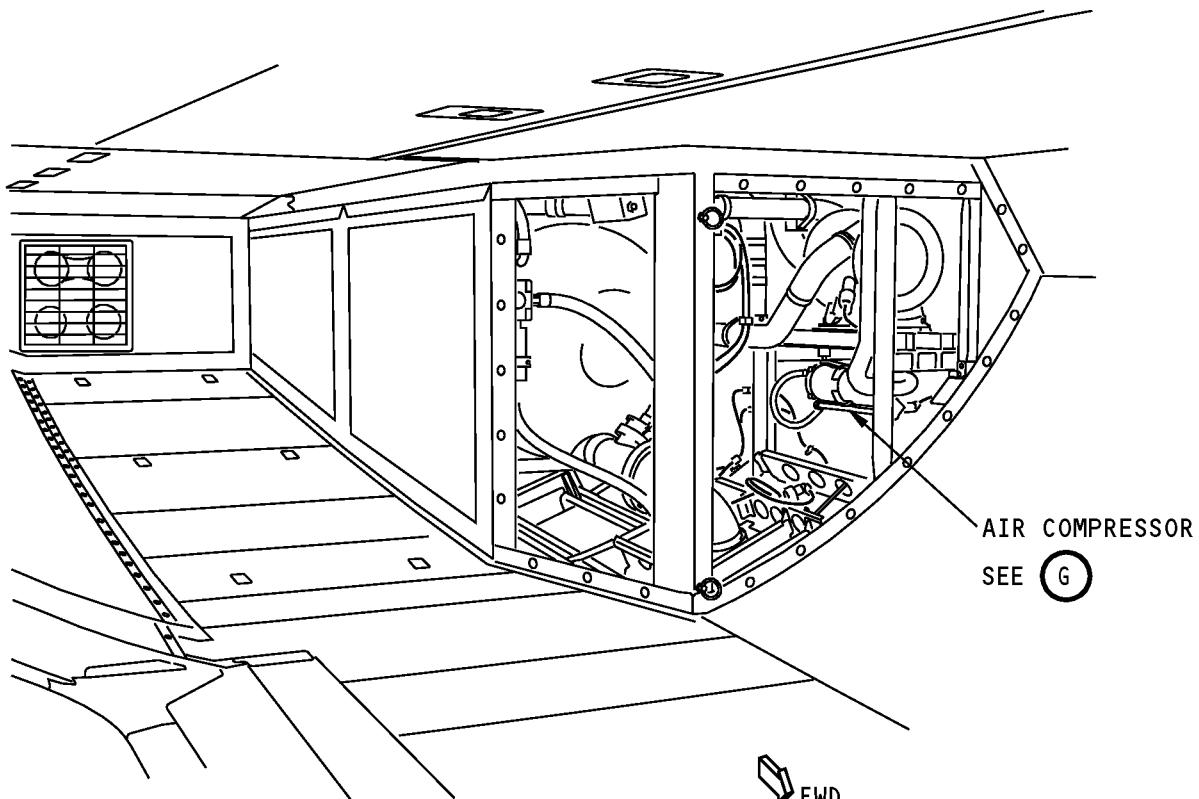


Potable Water Component Location  
 Figure 301 (Sheet 3 of 8) / 38-10-00-990-801

EFFECTIVITY  
 HAP ALL

**38-10 TASK SUPPORT**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



**AFT CARGO COMPARTMENT  
(LEFT SIDE)**

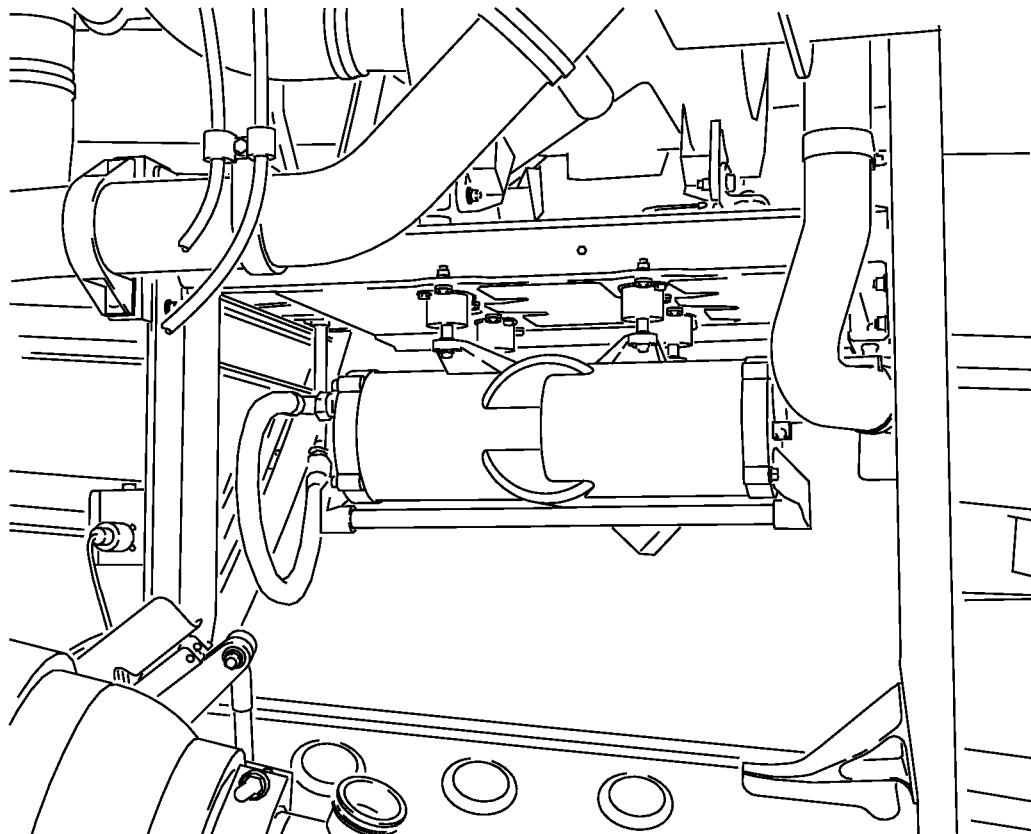
(F)

Potable Water Component Location  
Figure 301 (Sheet 4 of 8) / 38-10-00-990-801

EFFECTIVITY  
HAP ALL

**38-10 TASK SUPPORT**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



→ FWD

AIR COMPRESSOR

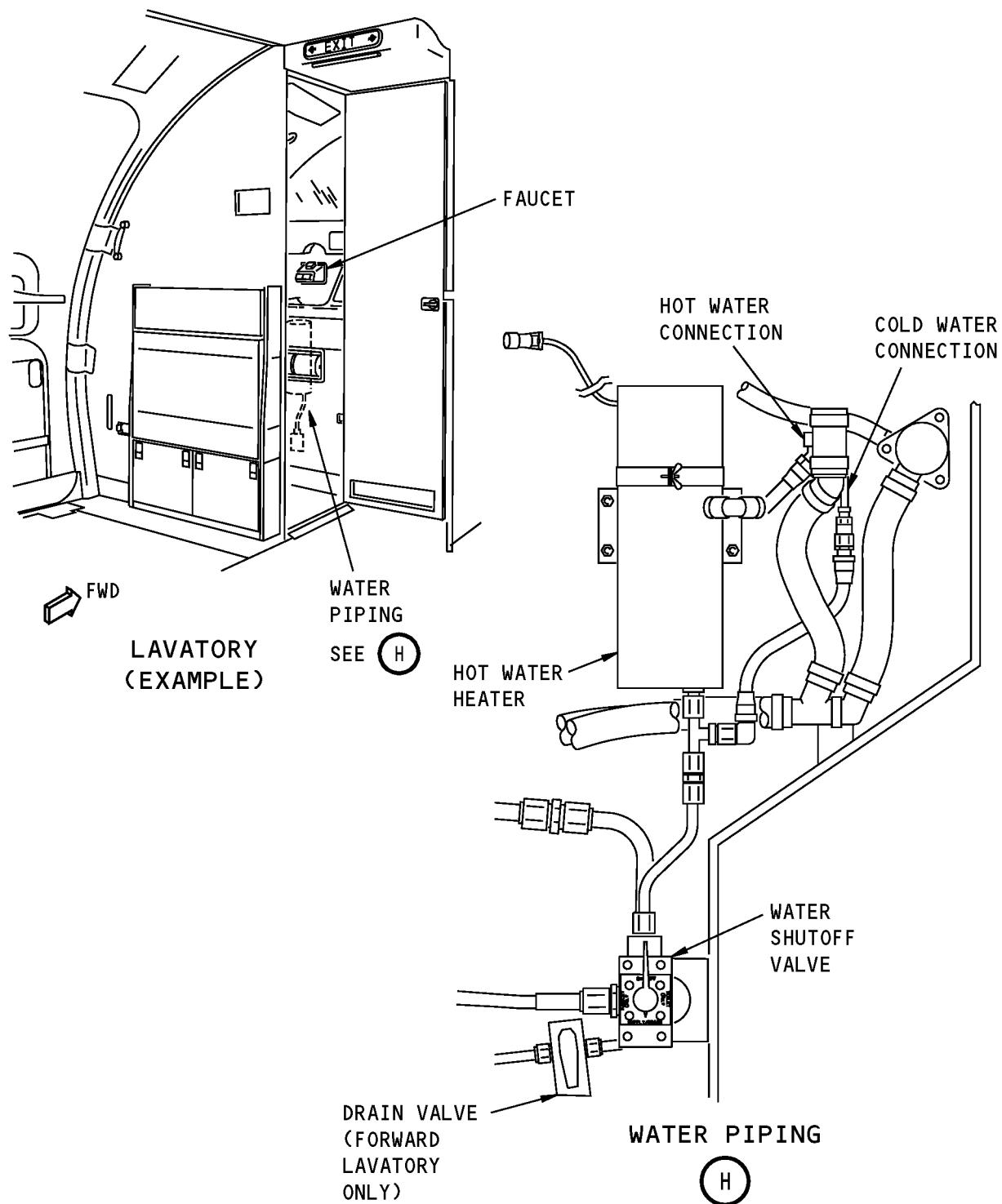


Potable Water Component Location  
Figure 301 (Sheet 5 of 8) / 38-10-00-990-801

EFFECTIVITY  
HAP ALL

**38-10 TASK SUPPORT**


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



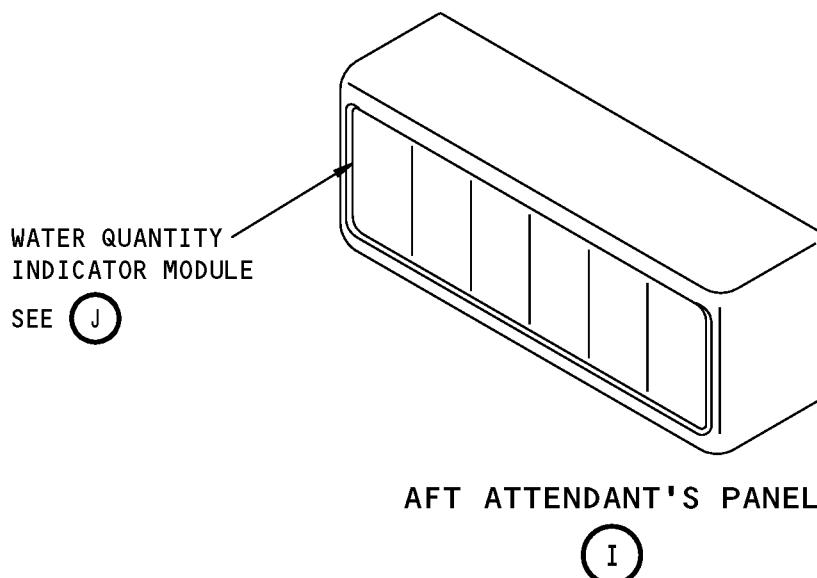
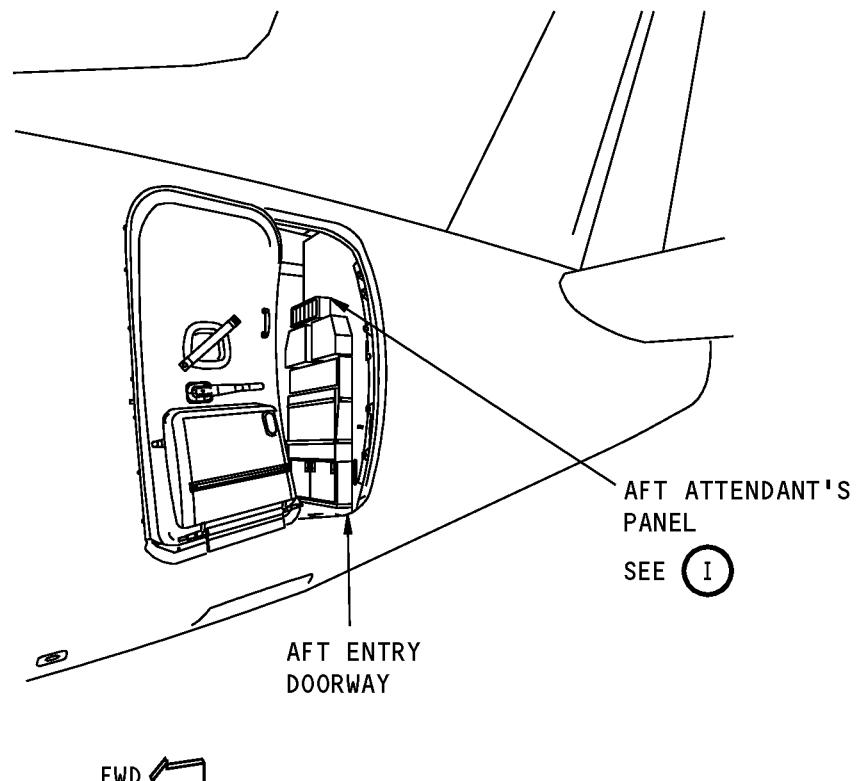
Potable Water Component Location  
 Figure 301 (Sheet 6 of 8) / 38-10-00-990-801

EFFECTIVITY  
 HAP ALL

## 38-10 TASK SUPPORT

Page 306  
 Oct 10/2005

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

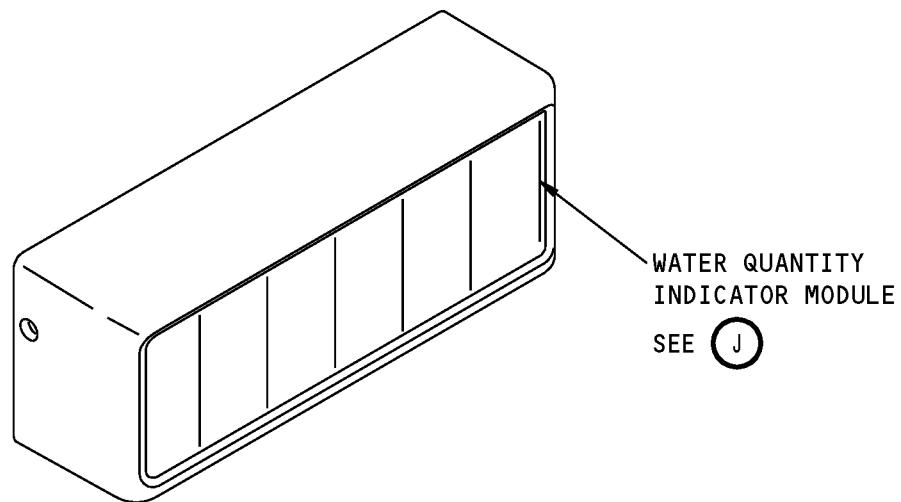
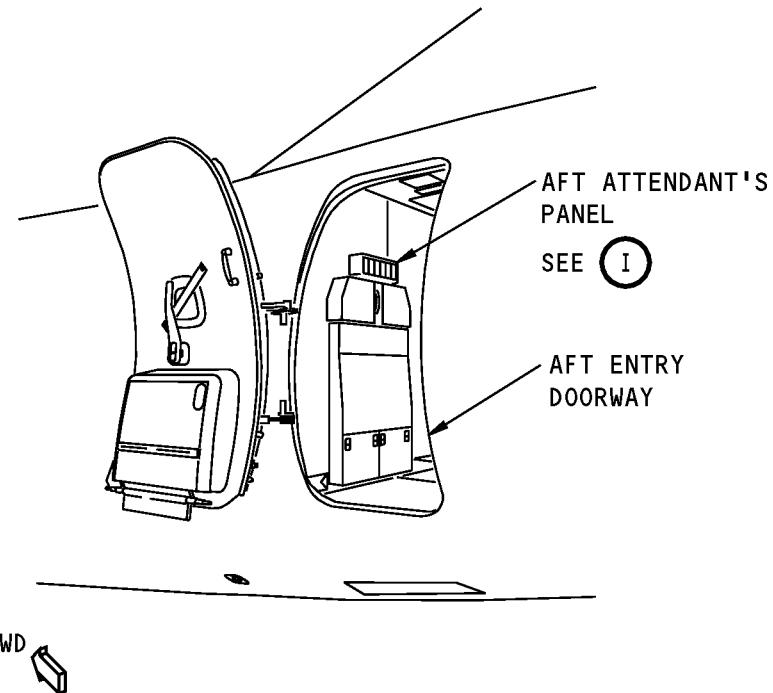


Potable Water Component Location  
Figure 301 (Sheet 7 of 8) / 38-10-00-990-801

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

**38-10 TASK SUPPORT**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



**AFT ATTENDANT'S PANEL**

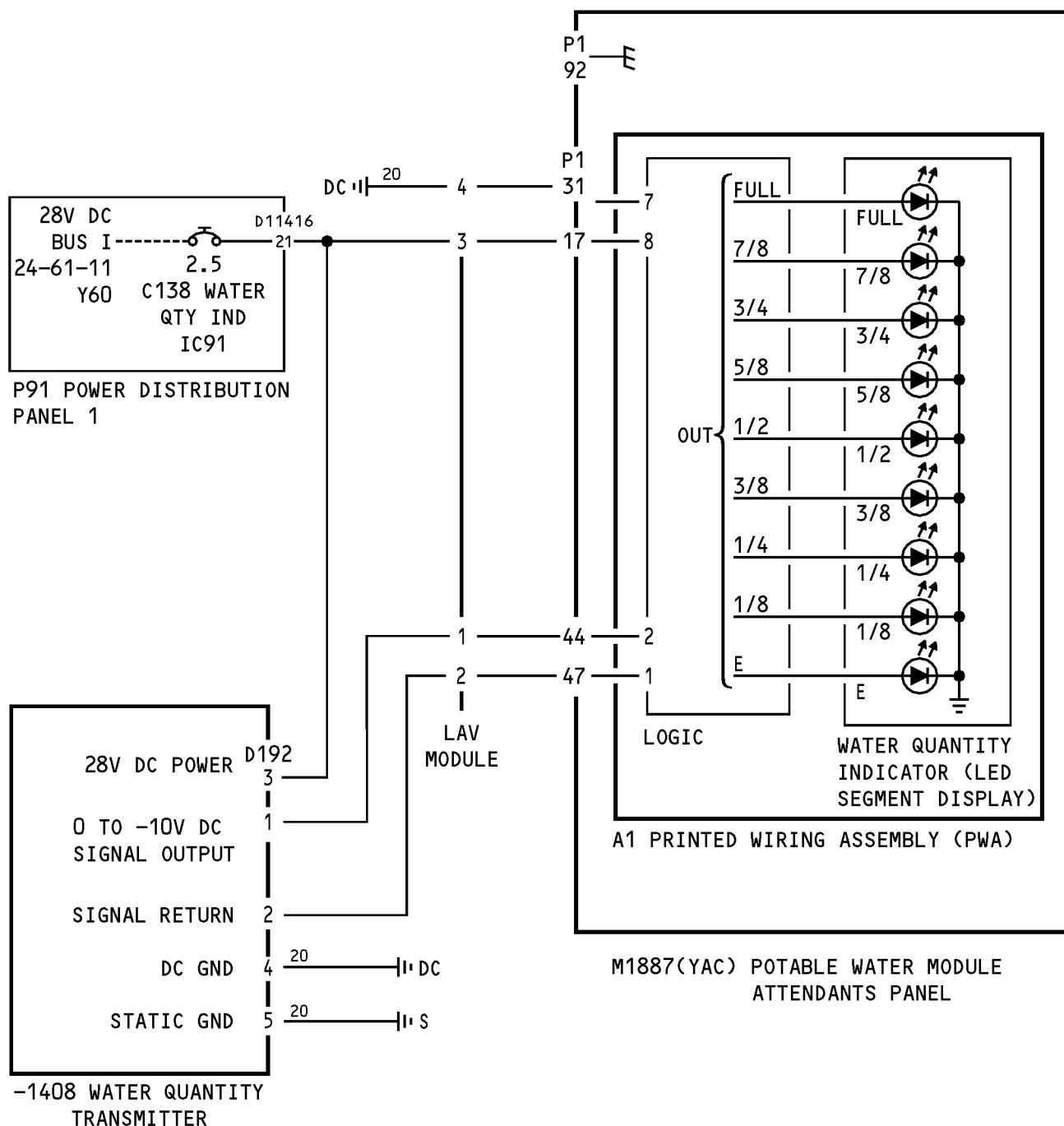
**I**

Potable Water Component Location  
Figure 301 (Sheet 8 of 8) / 38-10-00-990-801

EFFECTIVITY  
HAP 031-054, 101-999

**38-10 TASK SUPPORT**


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

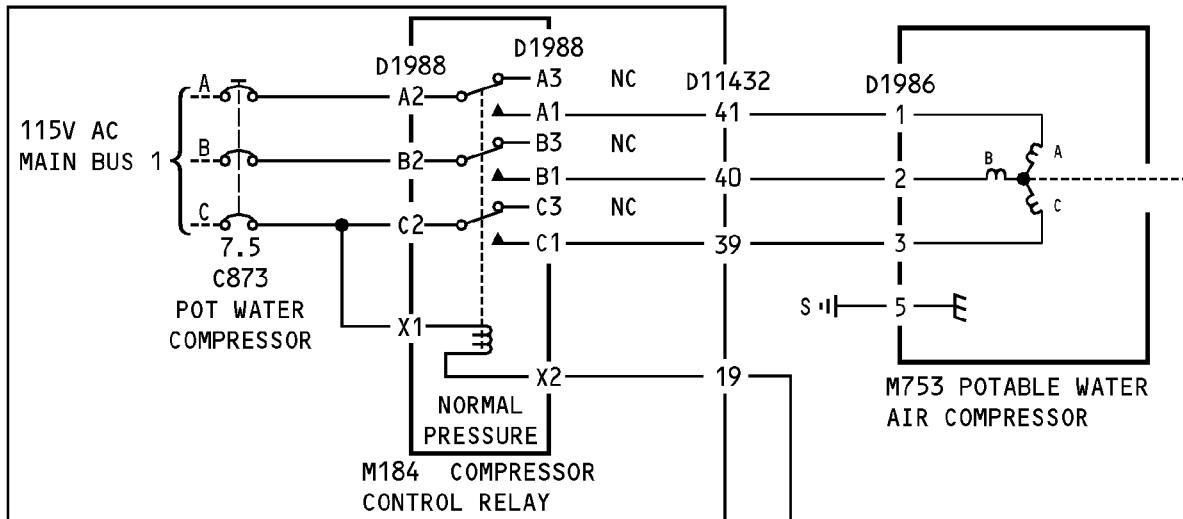


Water Indication System Simplified Schematic  
Figure 302 / 38-10-00-990-802

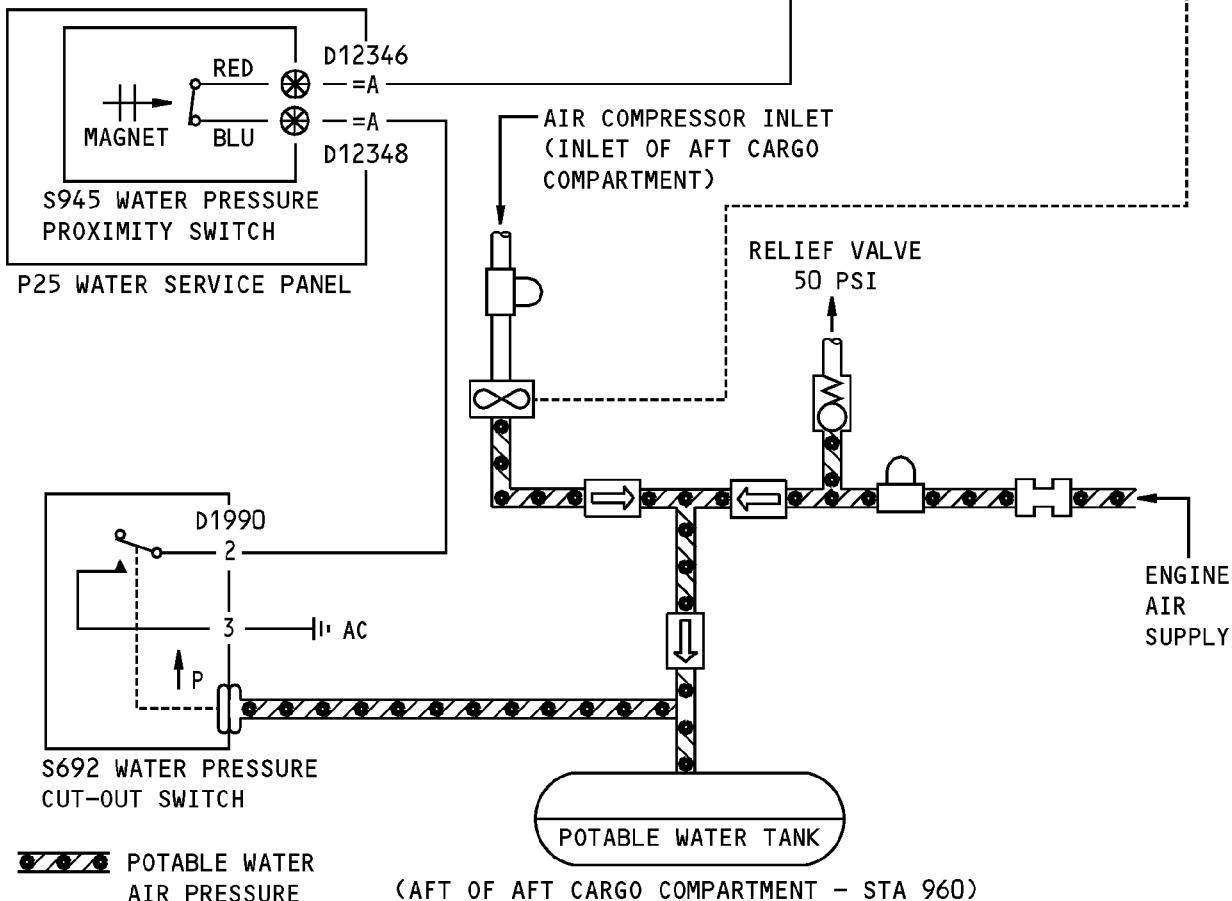
EFFECTIVITY  
HAP ALL

**38-10 TASK SUPPORT**

## FAULT ISOLATION MANUAL



P91 POWER DISTRIBUTION PANEL 1



## Water Pressurization System Simplified Schematic Figure 303 / 38-10-00-990-803

## EFFECTIVITY HAP ALI

## 38-10 TASK SUPPORT

## FAULT ISOLATION MANUAL

### 801. LCM BITE Procedure (Figure 201)

#### 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. Prepare for the Test

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

- (2) Open this access panel:

Number	Name/Location
822	Aft Cargo Door

- (3) To get access to the waste tanks, do this task: Waste Tank Enclosure Panel Removal, AMM TASK 25-52-20-000-801.

#### C. LCM BITE Test

- (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.
- (2) Move and then hold the switch to the TEST LAMPS position.
- (3) Make sure the POWER ON (green) light and the J1, J2, J3, and TANK FULL (red) lights for the LCM are on.
- (4) Move and then release the switch to the TEST SENSOR position.
- (5) 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.

- (6) Make sure the J1, J2, J3, and TANK FULL (red) lights are off.
- (7) Refer to the table at the end of this task to find the fault isolation task for the applicable maintenance message for the fault indicated by the fault light on the LCM.

#### D. Put the Airplane Back to Its Usual Condition

**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, AMM TASK 25-52-20-400-801.
- (2) Close this access panel:



## 38-30 TASK 801



737-600/700/800/900

## FAULT ISOLATION MANUAL

Number  
822

Name/Location  
Aft Cargo Door

————— END OF TASK —————

LRU/SYSTEM	MAINTENANCE MESSAGE	GO TO FIM TASK
WASTE TANK	SENSOR J1	38-30 TASK 803
WASTE TANK	SENSOR J2	38-30 TASK 803
WASTE TANK	SENSOR J3	38-30 TASK 808
WASTE TANK	TANK FULL	38-30 TASK 809

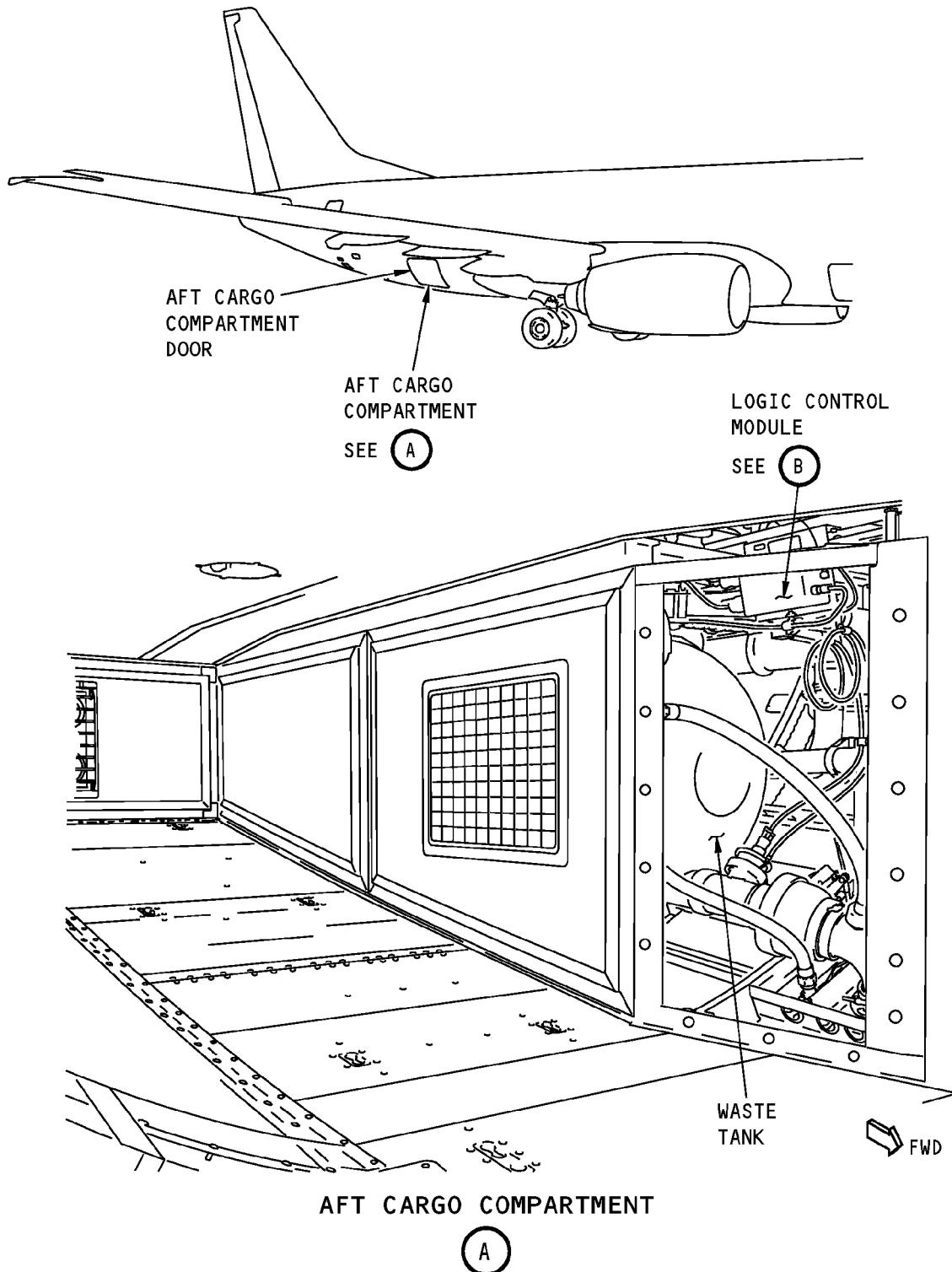


BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

**38-30 TASK 801**

Page 202  
Feb 10/2005


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



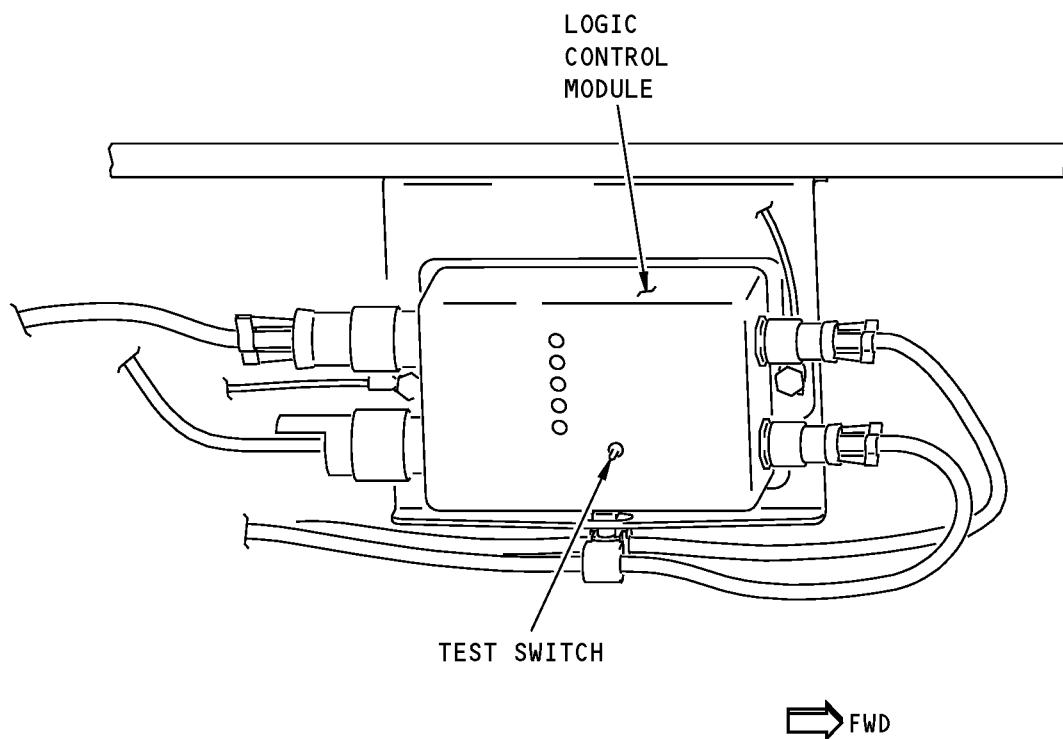
Logic Control Module BITE Test  
 Figure 201 (Sheet 1 of 2)/ 38-30-00-990-807

EFFECTIVITY  
 HAP ALL

**38-30 TASK 801**

Page 203  
 Oct 10/2005

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



**LOGIC CONTROL MODULE**

(B)

Logic Control Module BITE Test  
Figure 201 (Sheet 2 of 2)/ 38-30-00-990-807

EFFECTIVITY  
HAP ALL

**38-30 TASK 801**

Page 204  
Oct 10/2005

D633A103-HAP



737-600/700/800/900

## FAULT ISOLATION MANUAL

### 802. LAVS INOP BITE Test at the Attendant's Panel (Figure 202)

#### A. General

- (1) This task is for a test of the waste indication system from the attendant's panel.
- (2) There is a task for a test of the waste indication system from the LCM. The LCM BITE test is equivalent but it is necessary to remove the panel for the waste enclosure. The LCM BITE test also gives the necessary data to find the component that is not serviceable.

#### B. Prepare for the test

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

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

#### C. LAVS INOP BITE Test

- (1) Push and then release the LAVS INOP switch.
- (2) Make sure the LAVS INOP light is on for approximately 3 seconds and then is off.
- (3) Make sure the waste indicator moves toward a full indication during the 3 second increment.
- (4) Make sure the CLEAN/CHECK SENSOR light is off.
  - (a) If the CLEAN/CHECK SENSOR light is on, do this task: LCM BITE Procedure, 38-30 TASK 801.

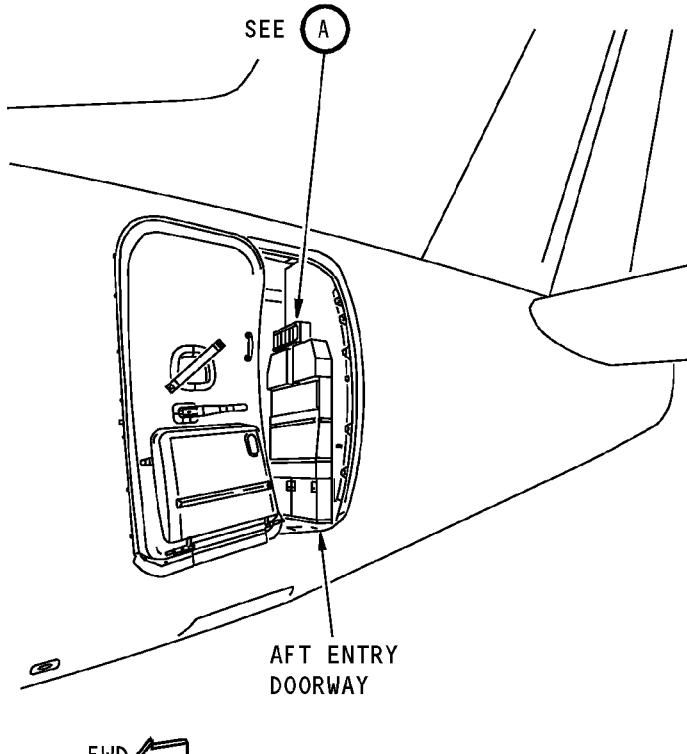
————— END OF TASK —————



**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

WASTE QUANTITY  
INDICATOR

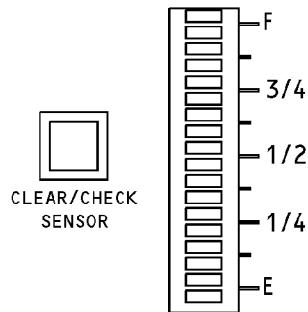
SEE **A**



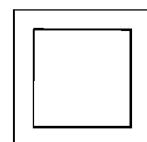
AFT ENTRY  
DOORWAY

FWD

**WASTE SYSTEM**



CLEAR/CHECK  
SENSOR



PRESS  
TO TEST

**WASTE QUANTITY INDICATOR**

**A**

Attendant's Panel Waste Quantity Indicator BITE Test  
 Figure 202 (Sheet 1 of 2)/ 38-30-00-990-806

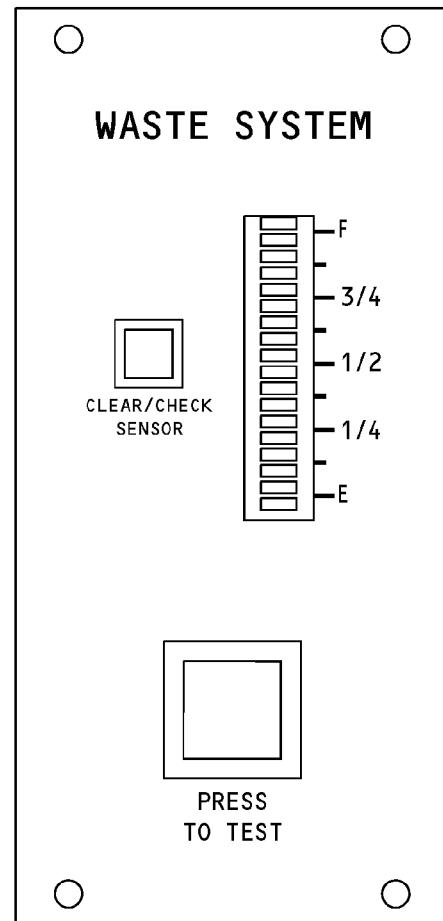
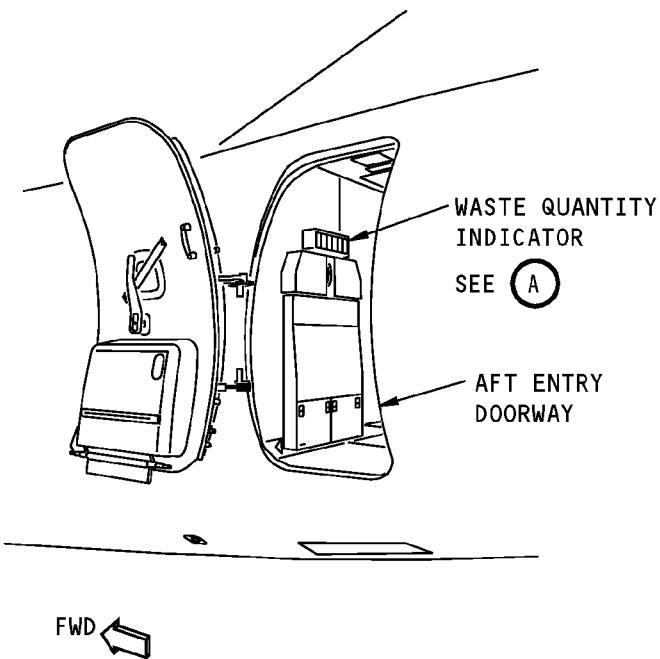
EFFECTIVITY  
 HAP 001-013, 015-026, 028-030

**38-30 TASK 802**

Page 206  
 Jun 10/2007

D633A103-HAP


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



**WASTE QUANTITY INDICATOR**



Attendant's Panel Waste Quantity Indicator BITE Test  
 Figure 202 (Sheet 2 of 2)/ 38-30-00-990-806



**38-30 TASK 802**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### 803. Waste Tank - Sensor J1/J2 - Fault Isolation

#### A. Description

- (1) This task is for these maintenance messages:
  - (a) SENSOR J1
  - (b) SENSOR J2
- (2) (SDS SUBJECT 38-32-00)
- (3) (SDS SUBJECT 38-33-00)

#### B. Possible Causes

- (1) Fouled point level sensor
- (2) Failed point level sensor
- (3) Failed LCM
- (4) Faulty wiring between LCM and point level sensor

#### C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

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

#### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 201)
- (3) (SSM 38-32-13)

#### E. Initial Evaluation

- (1) Do a check of the waste indicator at the attendant's panel.
  - (a) If the waste indicator reads full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (b) Do a check of the waste system at the attendant's panel, (Figure 202).
    - 1) If the CLEAN/CHECK SENSOR light is off, then you corrected the fault.
  - (c) If the CLEAN/CHECK SENSOR light is on, then do the Fault Isolation Procedure below.

#### F. Fault Isolation Procedure

- (1) If the CLEAN/CHECK SENSOR light is on, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
  - (a) If the Sensor J1 (J2) lights flash after you do the LCM BITE Test, do this task: Waste Tank Cleaning, AMM TASK 38-32-07-100-801



**38-30 TASK 803**

## FAULT ISOLATION MANUAL

or, do this task: Waste Tank Point Level Sensor Cleaning, AMM TASK 38-33-01-100-801.

**NOTE:** The procedure to clean the waste tank can be done from the waste service panel. This procedure is not as effective as cleaning the point level sensor but it is not necessary to open the waste tank. To clean the point level sensor it is necessary to remove the point level sensor.

- 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
- 2) If the Sensor J1 (J2) lights do not flash after the LCM BITE Test, then you corrected the fault.
  - (b) If the Sensor J1 (J2) lights are on and do not flash, then continue.
- (2) If the Sensor J1 (J2) and the TANK FULL lights are on and do not flash after you do the LCM BITE Test, replace the LCM. These are the tasks:
  - Logic Control Module Removal, AMM TASK 38-33-03-000-801
  - Logic Control Module Installation, AMM TASK 38-33-03-400-801
  - (a) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the Sensor J1 (J2) lights do not show a fault indication after the LCM BITE Test, then you corrected the fault.
  - (b) If the Sensor J1 (J2) lights are on and do not flash, then continue.
- (3) If the Sensor J1 (J2) lights are on and do not flash after you do the LCM BITE Test, disconnect both point level sensors and then connect to the opposite point level sensor.
  - (a) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the Sensor J1 (J2) lights show the opposite fault indication after the LCM BITE Test, then replace the point level sensor(s). These are the tasks:
      - Waste Tank Point Level Sensor Removal, AMM TASK 38-33-01-000-801
      - Waste Tank Point Level Sensor Installation, AMM TASK 38-33-01-400-801
  - 2) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - a) If the Sensor J1 (J2) lights do not show a fault indication after the LCM BITE Test, then you corrected the fault.
  - (b) If the Sensor J1 (J2) lights are on and do not flash, then continue.
- (4) Do these steps to check the electrical harness wiring.
  - (a) Disconnect the J1 connector from the T504 point level sensor
  - (b) Disconnect the J2 connector from the T505 point level sensor.
  - (c) Disconnect the D13428 and D13430 connectors from the M1722 logic control unit.
  - (d) Do a check of the electrical harness wires between the T504 connector J1 and the D13428 connector. Do a check of the electrical harness between the T505 connector J2 and the D13430 connector (WDM 38-32-12).



## 38-30 TASK 803

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

**D13428**

<b>D13428</b>	<b>J1</b>
<b>D13428</b>	<b>J1</b>
A	A
C	C
D	D
E	E
F	F

**D13430**

<b>D13430</b>	<b>J2</b>
<b>D13430</b>	<b>J2</b>
A	A
C	C
D	D
E	E
F	F

- (e) If you find a problem with the wiring, then do these steps:
  - 1) Repair the wiring.
  - (f) Connect the J1 connector to the T504 point level sensor
  - (g) Connect the J2 connector to the T505 point level sensor
  - (h) Connect the D13428 and D13430 connectors to the M1772 logic control unit.
  - (i) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
  - (j) If the Sensor J1 (J2) lights do not show a fault indication after the LCM BITE Test, then you corrected the fault.

————— END OF TASK —————

**808. Waste Tank - Sensor J3 - Fault Isolation**

A. Description

- (1) This task is for this maintenance message:
  - (a) SENSOR J3
  - (2) (SDS SUBJECT 38-32-00)
  - (3) (SDS SUBJECT 38-33-00)

B. Possible Causes

- (1) Dirty continuous level sensor
- (2) Failed continuous level sensor
- (3) Failed LCM
- (4) Faulty wiring between LCM and continuous level sensor



**38-30 TASKS 803-808**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### C. Circuit Breakers

(1) These are the primary circuit breakers related to the fault:

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

### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 201)
- (3) (SSM 38-32-13)

### E. Initial Evaluation

- (1) Do a check of the waste indicator at the attendant's panel.
  - (a) If the waste indicator reads full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (b) Do a check of the waste system at the attendant's panel.
    - 1) If the waste indicator reads empty, and the CLEAN/CHECK SENSOR and LAV INOP lights are off, then do the Fault Isolation Procedure below.

### F. Fault Isolation Procedure

- (1) Do this task: LCM BITE Procedure, 38-30 TASK 801.
  - (a) If the Sensor J3 light flashes after you do the LCM BITE Test, do this task: Auto Zero - Adjustment, AMM TASK 38-33-00-710-801.
    - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 2) If the Sensor J3 light does not flash after the LCM BITE Test, then you corrected the fault.
  - (b) If the Sensor J3 light flashes after you do the LCM BITE Test, do this task: Waste Tank Continuous Level Sensor Cleaning, AMM TASK 38-33-02-100-801.
    - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 2) If the Sensor J3 light does not flash after the LCM BITE Test, then you corrected the fault.
  - (c) If the Sensor J3 light flashes after you do the LCM BITE Test, these are the tasks:
    - Waste Tank Continuous Level Sensor Removal, AMM TASK 38-33-02-000-801
    - Waste Tank Continuous Level Sensor Installation, AMM TASK 38-33-02-400-801
    - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 2) If the Sensor J3 light does not flash after the LCM BITE Test, then you corrected the fault.
  - (d) If the Sensor J3 light flashes after you do the LCM BITE Test, these are the tasks:



**38-30 TASK 808**



737-600/700/800/900

## FAULT ISOLATION MANUAL

- Logic Control Module Removal, AMM TASK 38-33-03-000-801
- Logic Control Module Installation, AMM TASK 38-33-03-400-801

- 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
- 2) If the Sensor J3 light does not flash after the LCM BITE Test, then you corrected the fault.
  - (e) If the Sensor J3 light is on and does not flash, then continue.

- (2) If the Sensor J3 and TANK FULL lights are on and do not flash after you do the LCM BITE Test, replace the LCM. These are the tasks:
  - Logic Control Module Removal, AMM TASK 38-33-03-000-801
  - Logic Control Module Installation, AMM TASK 38-33-03-400-801
  - (a) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LCM BITE Procedure, 38-30 TASK 801.
    - 1) If the Sensor J3 does not show a fault indication after the LCM BITE Test, then you corrected the fault.
  - (b) If only the Sensor J3 light is on and does not flash, then continue.
- (3) If the Sensor J3 light is on and does not flash after you do the LCM BITE Test, do this task: Auto Zero - Adjustment, AMM TASK 38-33-00-710-801.
  - (a) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the Sensor J3 light does not show a fault indication after the LCM BITE Test, then you corrected the fault.
  - (b) If the Sensor J3 light is on after you do the LCM BITE Test, these are the tasks:
    - Waste Tank Continuous Level Sensor Removal, AMM TASK 38-33-02-000-801
    - Waste Tank Continuous Level Sensor Installation, AMM TASK 38-33-02-400-801
    - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 2) If the Sensor J3 light is off after the LCM BITE Test, then you corrected the fault.
  - (c) If the Sensor J3 light is on after you do the LCM BITE Test, these are the tasks:
    - Logic Control Module Removal, AMM TASK 38-33-03-000-801
    - Logic Control Module Installation, AMM TASK 38-33-03-400-801
    - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 2) If the Sensor J3 light is off after the LCM BITE Test, then you corrected the fault.
  - (d) If the Sensor J3 light is on and does not flash, then continue.
- (4) Do these steps to check the electrical harness.
  - (a) Disconnect the J3 connector from the T506 continuous level sensor.
  - (b) Disconnect the D13452/J3 connector from the M1772 vacuum waste logic control unit.
  - (c) Do a check of the electrical wire harness, between the T506 continuous level sensor connector J3 and the logic control unit connector D13452/J3. (WDM 38-32-12)



 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

**D13452**

<b>D13452</b>	<b>J3</b>
<b>D13452</b>	<b>J3</b>
A -----	A
Z -----	Z

(d) If you find a problem with the wiring, then do these steps:

- 1) Repair the wiring.
- 2) Connect the J3 connector to the T506 sensor.
- 3) Connect the D13452/J3 connector to the logic control unit.
- 4) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801.
- 5) If the Sensor J3 light does not show a fault indication after the LCM BITE Test, then you corrected the fault.

————— END OF TASK —————

**809. Waste Tank - Tank Full Indication - Fault Isolation**

A. Description

- (1) This task is for this maintenance message:
  - (a) TANK FULL
- (2) (SDS SUBJECT 38-32-00)
- (3) (SDS SUBJECT 38-33-00)

B. Possible Causes

- (1) Blocked Tank Drain Outlet
- (2) Failed Continuous Level Sensor
- (3) Failed LCM

C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

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

D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 201)
- (3) (SSM 38-32-13)

E. Initial Evaluation

- (1) Do a check of the waste indicator at the attendant's panel.



**38-30 TASKS 808-809**

## FAULT ISOLATION MANUAL

- (a) If the waste indicator reads full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
- (b) Do a check of the waste system at the attendant's panel.
  - 1) If the waste indicator reads empty, and the CLEAN/CHECK SENSOR and LAV INOP lights are off, then you corrected the fault.
- (c) If the CLEAN/CHECK SENSOR or LAV INOP light is on, then do the Fault Isolation Procedure below.

### F. Fault Isolation Procedure

- (1) If the CLEAN/CHECK SENSOR or LAV INOP light is on, do this task: LCM BITE Procedure, 38-30 TASK 801.
  - (a) If the TANK FULL light flashes after you do the LCM BITE Test, replace the continuous level sensor. These are the tasks:
    - Waste Tank Continuous Level Sensor Removal, AMM TASK 38-33-02-000-801
    - Waste Tank Continuous Level Sensor Installation, AMM TASK 38-33-02-400-801
  - 1) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
  - 2) If the TANK FULL light does not flash after the LCM BITE Test, then you corrected the fault.
- (b) If the TANK FULL light is on and does not flash, then continue.
- (2) If the TANK FULL light is on and does not flash after you do the LCM BITE Test, do a check to make sure the waste tank is empty.
  - (a) Do this task: Waste Tank Drain Line Blockage Removal, AMM TASK 38-32-00-160-803.
  - (b) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801.
    - 1) If the TANK FULL does not show a fault indication after the LCM BITE Test, then you corrected the fault.
- (3) If the TANK FULL light is on and does not flash after you do the LCM BITE Test, replace the LCM. These are the tasks:
  - Logic Control Module Removal, AMM TASK 38-33-03-000-801
  - Logic Control Module Installation, AMM TASK 38-33-03-400-801
  - (a) To do LCM BITE Test again, do this task: LCM BITE Procedure, 38-30 TASK 801 or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the TANK FULL does not show a fault indication after the LCM BITE Test, then you corrected the fault.

**END OF TASK**

### **810. Waste System Display - Shows Fault Indication - Fault Isolation**

#### A. Description

- (1) (SDS SUBJECT 38-33-00)

#### B. Possible Causes

- (1) The waste system full
- (2) Point level sensors on the waste tank are dirty
- (3) A point level sensor is not serviceable



**38-30 TASKS 809-810**



737-600/700/800/900

## FAULT ISOLATION MANUAL

(4) A continuous level sensor is not serviceable

(5) A flush valve does not close completely

### C. Circuit Breakers

(1) This is the primary circuit breaker related to the fault:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE

### D. Related Data

(1) Simplified Schematic (Figure 302)

(2) Component Location (Figure 201)

(3) (SSM 38-32-13)

### E. Initial Evaluation

(1) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.

(2) If the waste quantity indicator is continuously erratic, do these checks:

NOTE: A flush valve that does not close correctly will effect the waste system air pressure. The waste system air pressure is sensed by the continuous level sensor J3. The continuous level sensor provides input to the waste quantity indicator. You can identify leaky flush valve by an air noise in the toilet.

(a) Do this quick check to find a leaking flush valve:

- 1) Pour approximately one gallon (4 liters) of water in each toilet bowl.
- 2) If the water drains out of the toilet bowl before you flush the toilet, you have a flush valve that is leaking.

(a) Replace the flush valve. These are the tasks:

Flush Valve Removal, AMM TASK 38-32-01-000-840-002

Flush Valve Installation, AMM TASK 38-32-01-400-840-002

(b) If the flush valve is not leaking, then continue.

(3) Do this task:

Waste Tank - Sensor J3 - Fault Isolation, 38-30 TASK 808 or

LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.

- (a) If the waste quantity indicator is operating correctly, the fault was intermittent or you have corrected the fault.
- (b) If the waste quantity indicator is not operating correctly, then do the Fault Isolation Procedure below.
- (c) If the CLEAN/CHECK SENSOR or LAV INOP lights are not on, then you corrected the fault.
- (d) If the CLEAN/CHECK SENSOR or LAV INOP lights are on, then do the Fault Isolation Procedure below.

### F. Fault Isolation Procedure

(1) Do this task: LCM BITE Procedure, 38-30 TASK 801.



**38-30 TASK 810**

Page 215

Oct 10/2007

## FAULT ISOLATION MANUAL

- (a) If the LCM BITE Test shows a Sensor J1 (J2) fault, do this task: Waste Tank - Sensor J1/J2 - Fault Isolation, 38-30 TASK 803.
  - 1) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - a) If the CLEAN/CHECK SENSOR and LAV INOP lights are off, then you corrected the fault.
  - (b) If the CLEAN/CHECK SENSOR or LAV INOP lights are on, then continue.
- (2) If the LCM BITE Test show a Sensor J3 fault, do this task: Waste Tank - Sensor J3 - Fault Isolation, 38-30 TASK 808.
  - (a) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the CLEAN/CHECK SENSOR and LAV INOP lights are off, then you corrected the fault.
  - (b) If the CLEAN/CHECK SENSOR or LAV INOP lights are on, then continue.
- (3) If the LCM BITE Test show a TANK FULL fault, do this task: Waste Tank - Tank Full Indication - Fault Isolation, 38-30 TASK 809.
  - (a) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the CLEAN/CHECK SENSOR and LAV INOP lights are off, then you corrected the fault.
  - (b) If the CLEAN/CHECK SENSOR or LAV INOP lights are on, then continue.
- (4) If the LAV INOP light is on, replace the waste quantity indicator. these are the tasks:
  - Attendant's Panel Waste Quantity Indicator Removal, AMM TASK 38-33-04-000-801
  - Attendant's Panel Waste Quantity Indicator Installation, AMM TASK 38-33-04-400-801
  - (a) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the LAV INOP light is off, then you corrected the fault.
- (5) If the CLEAN/CHECK SENSOR is on, do this task: Waste Tank Point Level Sensor Cleaning, AMM TASK 38-33-01-100-801.
  - (a) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the CLEAN/CHECK SENSOR light is off, then you corrected the fault.
- (6) If the waste tank indicator continues to show FULL, do this task: Waste Tank Continuous Level Sensor Cleaning, AMM TASK 38-33-02-100-801  
and then, do this task: Waste Tank Cleaning, AMM TASK 38-32-07-100-801.
  - (a) Do a check of the attendant's panel again, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
    - 1) If the waste tank indicator shows empty, then you corrected the fault.

————— END OF TASK —————

### **811. Toilet Flush System - All Toilets Do Not Flush - Fault Isolation**

#### A. Description

- (1) (SDS SUBJECT 38-32-00)



**38-30 TASKS 810-811**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### B. Possible Causes

- (1) Waste tank full
- (2) Clogged vacuum lines between toilet and the waste tank
- (3) Inoperative vacuum blower
- (4) Failed LCM

### C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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

### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

### E. Initial Evaluation

- (1) Do a check of the waste indicator at the attendant's panel.
  - (a) If the waste indicator reads full, do this task:  
Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (b) Push the flush switch for each toilet that has a fault.
  - (c) If the toilet operation is satisfactory, you corrected the fault.
  - (d) If the toilet operation is not satisfactory, then continue.
- (2) Push the flush switch for each toilet on the airplane.
  - (a) If all the toilets operate satisfactorily, then there was an intermittent fault.

### F. Fault Isolation Procedure

- (1) Push the flush switch for each toilet on the airplane. If a different toilet operates satisfactorily, there is defect at the individual toilet(s).
  - (a) Do this task for the toilet(s) with a defect: Single Toilet Inoperative - Fault Isolation, 38-30 TASK 820
  - (b) If all the toilets do not operate satisfactorily, then continue.



**38-30 TASK 811**



737-600/700/800/900

## FAULT ISOLATION MANUAL

- (2) Do this task: LCM BITE Procedure, 38-30 TASK 801. or, do this task: LAVS INOP BITE Test at the Attendant's Panel, 38-30 TASK 802.
  - (a) If the LCM BITE test does not show a fault, then continue.
- (3) Push the flush switch for each toilet on the airplane, and make sure the vacuum blower operates.
  - (a) If the vacuum pressure at the toilets is not satisfactory, do a check of the waste tank water separators (Figure 301). If necessary, clean the water separators. These are the tasks:  
AMM TASK 38-32-02-000-801  
AMM TASK 38-32-02-100-801  
AMM TASK 38-32-02-400-801
    - 1) Push the flush switch on all the toilets.
    - 2) If the operation of the toilets is satisfactory, then you corrected the fault.
    - 3) If the operation of the toilets is not satisfactory, continue the procedure.
  - (b) If the vacuum blower does not operate at all the toilets, do this task:  
Vacuum Blower Inoperative - Fault Isolation, 38-30 TASK 821:
  - (c) If the vacuum blower does not operate at the individual toilet (s), and does operate at a different toilet or toilets, do this task:  
Single Toilet Inoperative - Fault Isolation, 38-30 TASK 820
- (4) Make sure the waste system does not have a blockage.
  - (a) Do this task: Toilet - Operational Test, AMM TASK 38-32-00-700-802.
    - 1) If you find a waste system blockage, do this task: Waste Drain Line Blockage Removal, AMM TASK 38-32-00-160-804.
      - a) Push the flush switch on the toilet.
      - b) If the operation of the toilet is satisfactory, then you corrected the fault.

————— END OF TASK —————

### 812. Waste Tank does not Precharge - Fault Isolation

#### A. Description

- (1) (SDS SUBJECT 38-32-00)

#### B. Possible Causes

- (1) Frozen lines
- (2) Clogged rinse line filter
- (3) Blockage removal valve in the blockage removal position
- (4) Clogged rinse nozzle

#### C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	18	C01463	WASTE/WTR LINE HEATERS
D	19	C01423	VACUUM WASTE

EFFECTIVITY	_____
HAP ALL	

**38-30 TASKS 811-812**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**

**D. Related Data**

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

**E. Initial Evaluation**

- (1) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (a) Read the waste quantity on the attendant's panel.
    - 1) If the waste quantity is between empty and the second bar, there was an intermittent fault.

NOTE: The line could have been frozen and become warm. A check of the heater for the rinse line is recommended to prevent continued problems.
  - (b) If the waste quantity is empty, then do the Fault Isolation Procedure below.

**F. Fault Isolation Procedure**

- (1) Do this check of the rinse line for the waste tank to make sure it is not frozen:
  - (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door
  - (b) To get access to the rinse fitting heater, do this task: Waste Tank Enclosure Panel Removal, AMM TASK 25-52-20-000-801.
  - (c) Feel the rinse fitting heater.
  - (d) If the rinse line for the waste tank is frozen, replace the rinse fitting heater. These are the tasks:
    - Waste Tank Rinse Fitting Heater Removal, AMM TASK 30-71-04-000-801
    - Waste Tank Rinse Fitting Heater Installation, AMM TASK 30-71-04-400-801
    - 1) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
      - a) Make sure the water flows freely to the waste tank.
    - 2) If the water flows freely, do these steps to complete the task:
      - a) Do this task: Waste Tank Enclosure Panel Installation, AMM TASK 25-52-20-400-801.
      - b) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
822	Aft Cargo Door
  - (e) If the rinse line is not frozen, then continue.
- (2) Make sure the rinse filter for the waste tank is not clogged.
  - (a) If the rinse filter is clogged, do one of these steps:
    - 1) To clean the rinse filter, do this task: Waste Tank Rinse Filter Element Cleaning, AMM TASK 38-32-11-100-801.
    - 2) Replace the rinse filter. These are the tasks:
      - Waste Tank Rinse Filter Removal, AMM TASK 38-32-11-000-801



**FAULT ISOLATION MANUAL**

- Waste Tank Rinse Filter Installation, AMM TASK 38-32-11-400-801
- 3) To complete this task, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - a) Make sure the water flows freely to the waste tank.
  - b) If the water flows freely to the waste tank, then you corrected the fault.
- (b) If the rinse filter is not clogged, then continue.
- (3) Make sure the rinse nozzles for the waste tank is not clogged.
  - (a) Do this task: Waste Tank Rinse Nozzle Removal, AMM TASK 38-32-10-000-801.
  - (b) Examine the rinse nozzles to see if it is clogged.
  - (c) If the rinse nozzle is clogged, do this task: Waste Tank Rinse Nozzle Cleaning, AMM TASK 38-32-10-100-801.
    - 1) To complete this task, do this task: Waste Tank Rinse Nozzle Installation, AMM TASK 38-32-10-400-801.
      - a) Do this task: Waste Tank Enclosure Panel Installation, AMM TASK 25-52-20-400-801.
      - b) Make sure the water flows freely to the waste tank.
      - c) If the water flows freely to the waste tank, then you corrected the fault.
    - (d) If the water does not flow freely to the waste tank, then continue.
    - 1) Replace the clogged rinse line.
      - a) To complete this task, do this task: Waste Tank Enclosure Panel Installation, AMM TASK 25-52-20-400-801.
      - b) Make sure the water flows freely to the waste tank.
      - c) If the water flows freely to the waste tank, then you corrected the fault.

---

**END OF TASK**

---

**813. Waste Tank - Does Not Drain - Fault Isolation****A. Description**

- (1) (SDS SUBJECT 38-32-00)

**B. Possible Causes**

- (1) Frozen lines
- (2) Clogged drain port at the waste tank
- (3) Broken waste drain ball valve control rod
- (4) Inoperative waste drain ball valve
- (5) Inoperative waste drain valve assembly at the service panel

**C. Circuit Breakers**

- (1) These are the primary circuit breakers related to the fault:

CAPT Electrical System Panel, P18-3

Row	Col	Number	Name
D	19	C01423	VACUUM WASTE
E	5	C00233	HEATERS DRAIN

**38-30 TASKS 812-813**



737-600/700/800/900

## FAULT ISOLATION MANUAL

### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

### E. Initial Evaluation

- (1) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.

- (a) Read the waste quantity on the attendant's panel.

- 1) If the waste quantity is empty, there was an intermittent fault.

NOTE: The line could have been frozen and become warm. A check of the heater blanket for the ball valve is recommended to prevent continued problems.

- (b) If the waste quantity is not empty, then do the Fault Isolation Procedure below.

### F. Fault Isolation Procedure

- (1) Do this check of the waste drain line for the waste tank to make sure it is not frozen:

- (a) Open this access panel:

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

- (b) To access the waste drain, do this task: Waste Tank Enclosure Panel Removal, AMM TASK 25-52-20-000-801.

- (c) Feel the waste drain line heater on the ball valve.

- (d) If the waste drain line is frozen, replace the waste drain line heater. These are the tasks:

- Waste Drain Line Heater Removal, AMM TASK 30-71-03-000-801
- Waste Drain Line Heater Installation, AMM TASK 30-71-03-400-801

- 1) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.

- 2) If the waste tank drains, then you corrected the fault.

- (e) If the waste drain line is not frozen, then continue.

- (2) Examine the waste drain ball valve to make sure it is open.

- (a) If the waste drain ball valve is not open, make sure the control rod is connected to the ball valve.

- 1) If the control rod for the waste drain ball valve is not connected, then replace the control rod. These are the tasks:

- Linkage Assembly for the Waste Drain Ball Valve Removal, AMM TASK 38-32-03-000-802
- Linkage Assembly for the Waste Drain Ball Valve Installation, AMM TASK 38-32-03-400-802

- a) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.

- b) If the waste tank drains, then you corrected the fault.

- 2) If the control rod for the waste drain ball valve is connected and the ball valve is not open, then replace the ball valve. These are the tasks:

- Waste Drain Ball Valve Removal, AMM TASK 38-32-03-000-801
- Waste Drain Ball Valve Installation, AMM TASK 38-32-03-400-801



38-30 TASK 813

**FAULT ISOLATION MANUAL**

- a) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
- b) If the waste tank drains, then you corrected the fault.
- (b) If the waste drain ball valve is open, then continue.
- (3) Do this task: Waste Tank Drain Line Blockage Removal, AMM TASK 38-32-00-160-803.
  - (a) Do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (b) If the waste tank drains, then you corrected the fault.
  - (c) If the waste tank does not drain, manually remove the contents of the waste tank.

**END OF TASK****814. Toilet Bowl - Overflows - Fault Isolation**

## A. Description

- (1) (SDS SUBJECT 38-32-00)

## B. Possible Causes

- (1) These are the probable causes:
  - (a) Toilet bowl outlet is blocked.
  - (b) Inoperative rinse valve
  - (c) Inoperative flush control assembly
  - (d) Inoperative flush valve
  - (e) Waste tank water separator is blocked or saturated
  - (f) Clogged vacuum lines between toilet and the waste tank

## C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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

## D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)



**38-30 TASKS 813-814**

## FAULT ISOLATION MANUAL

## E. Initial Evaluation

- (1) Push the flush switch for the toilet that has a problem.
  - (a) If the toilet operation is not satisfactory, then push the flush switch of another toilet.
  - (b) If the other toilet operation is satisfactory; open, then after approximately 5 seconds, close the applicable circuit breaker (WDM 38-32-12):
    - 1) This is the circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT
  - (c) If the other toilet operation is not satisfactory, then make sure the waste tank is not full.
    - 1) If the waste tank is full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
    - 2) If the waste tank is not full, then make sure the waste system does not have a blockage.
      - a) Do this task: Vacuum Line Blockage Inspection, AMM TASK 38-32-00-280-801.
      - b) If you find a waste system blockage, do this task: Vacuum Waste Line Blockage Removal, AMM TASK 38-32-00-160-802.
      - c) Push the flush switch on the first toilet.
      - d) If the operation of the first toilet is satisfactory, then you corrected the fault.
    - (d) Push the flush switch on the first toilet.
    - (e) If the toilet does not overflow, then there was an intermittent fault.
    - (f) If the system operation is satisfactory but does not include the first toilet, then do the Fault Isolation Procedure below.

## F. Fault Isolation Procedure

- (1) Push the flush switch for each toilet on the airplane, and make sure the vacuum pressure is satisfactory.
  - (a) If the vacuum pressure at the toilets is not satisfactory, do a check of the waste tank water separators (Figure 301). If necessary, clean the water separators. These are the tasks:
 

AMM TASK 38-32-02-000-801

AMM TASK 38-32-02-100-801

AMM TASK 38-32-02-400-801

    - 1) Push the flush switch on all the toilets.
    - 2) If the operation of the toilets is satisfactory, then you corrected the fault.
    - 3) If the operation of the toilets is not satisfactory, continue the procedure.
- (2) Do this check for a blockage of the toilet:
  - (a) To remove the toilet shroud, do this task: Toilet Shroud Removal, AMM TASK 38-32-01-000-834-002.
  - (b) Push the flush switch for the toilet.
  - (c) Make sure the flush valve opens for approximately 4 seconds and then closes.
    - 1) Manually open the flush valve and try to remove a blockage.
    - 2) If the toilet has a blockage, do this task: Toilet Blockage Removal, AMM TASK 38-32-00-160-801.



38-30 TASK 814



737-600/700/800/900

## FAULT ISOLATION MANUAL

- 3) Push the flush switch for the toilet.
- 4) If the operation of the toilet is satisfactory, then you corrected the fault.

(3) Do this check for a flow of rinse water.

- (a) If there is a continuous flow of rinse water, open and then after approximately 5 seconds close the applicable circuit breaker for the lavatory:
- (a) This is the circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

- 1) If the flow of rinse water stops, then do these steps:
  - a) Push the flush switch for the toilet.
  - b) Make sure the flow of rinse water stops after approximately 1.7 seconds.
  - c) If the flow of rinse water fully stops after approximately 1.7 seconds, then there was an intermittent fault.
- 2) If the flow of rinse water does not stop, then continue.

(4) Do a check of the flush control assembly.

- (a) Disconnect the rinse valve connector from the flush control assembly.
- (b) Do a check for 28 volts dc between pin B and pin C of the flush control assembly.
  - 1) If there is 28 volts dc between pin B and pin C of the flush control assembly, replace the flush control assembly. These are the tasks:
    - Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
    - Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002
  - a) Push the flush switch for the toilet.
  - b) If the flow of rinse water stops after approximately 1.7 seconds, then you corrected the fault.
- (c) If the there is not 28 volts dc between pin B and pin C of the flush control assembly, then continue.

(5) Do a check of the rinse valve.

- (a) Disconnect the rinse valve connector from the flush control assembly.
  - 1) If there is flow of water, replace the rinse valve. These are the tasks:
    - Rinse Valve Removal, AMM TASK 38-32-01-000-842-002
    - Rinse Valve Installation, AMM TASK 38-32-01-400-842-002
  - 2) Push the flush switch for the toilet.
  - 3) If the flow of rinse water stops after approximately 1.7 seconds, then you corrected the fault.

END OF TASK

### 815. Toilet Bowl - Plugged - Fault Isolation

#### A. Description

- (1) (SDS SUBJECT 38-32-00)



38-30 TASKS 814-815

## FAULT ISOLATION MANUAL

## B. Possible Causes

- (1) These are the probable causes:
  - (a) Plugged toilet bowl outlet
  - (b) Inoperative flush valve
  - (c) Blocked or saturated waste tank water separator
  - (d) Clogged vacuum lines between toilet and the waste tank

## C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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

## D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

## E. Initial Evaluation

- (1) Push the flush switch for the toilet that has a problem.
  - (a) If the toilet operation is not satisfactory, push the flush switch on a toilet that attaches to the same waste tank.
  - (b) If the other toilet operation is satisfactory, open then after approximately 5 seconds close the applicable circuit breaker for the first toilet (WDM 38-32-12):
    - 1) This is the circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

- (c) If the other toilet operation is not satisfactory, make sure the waste tank is not full.
  - 1) If the waste tank is full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - 2) If the waste tank is not full, make sure the waste system does not have a blockage.
    - a) Do this task: Vacuum Line Blockage Inspection, AMM TASK 38-32-00-280-801.



## 38-30 TASK 815



737-600/700/800/900

## FAULT ISOLATION MANUAL

- b) If you find a waste system blockage, do this task: Vacuum Waste Line Blockage Removal, AMM TASK 38-32-00-160-802.
- c) Push the flush switch on the first toilet.
- d) If the operation of the first toilet is satisfactory, then you corrected the fault.
- (d) Push the flush switch on the first toilet.
- (e) If the toilet operation is satisfactory, then there was an intermittent fault.
- (f) If the system operation is satisfactory but does not include the first toilet, then continue.

### F. Fault Isolation Procedure

- (1) Push the flush switch for each toilet on the airplane, and make sure the vacuum pressure is satisfactory.
  - (a) If the vacuum pressure at the toilets is not satisfactory, do a check of the waste tank water separators (Figure 301). If necessary, clean the water separators. These are the tasks:  
AMM TASK 38-32-02-000-801  
AMM TASK 38-32-02-100-801  
AMM TASK 38-32-02-400-801
    - 1) Push the flush switch on all the toilets.
    - 2) If the operation of the toilets is satisfactory, then you corrected the fault.
    - 3) If the operation of the toilets is not satisfactory, continue the procedure.
- (2) Do this check for a blockage of the toilet.
  - (a) To remove the toilet shroud, do this task: Toilet Shroud Removal, AMM TASK 38-32-01-000-834-002.
  - (b) Push the flush switch for the toilet.
  - (c) Make sure the flush valve opens for approximately 4 seconds and then closes.
    - 1) Manually open the flush valve and try to remove a blockage.
    - 2) If the toilet has a blockage, do this task: Toilet Blockage Removal, AMM TASK 38-32-00-160-801.
    - 3) Push the flush switch for the toilet.
    - 4) If the operation of the toilet is satisfactory, then you corrected the fault.
  - (d) If the flush valve does not open, then continue.
- (3) Go to the Observed Faults List at the front of the FIM.
  - (a) Find the fault description for the problems with the toilet flush system that does not flush.
  - (b) Do the specified task for the fault description.

---

### END OF TASK

---

#### **816. Toilet Flush System - Does Not Turn Off - Fault Isolation**

##### A. Description

- (1) (SDS SUBJECT 38-32-00)

##### B. Possible Causes

- (1) Inoperative flush valve
- (2) Inoperative flush control assembly





737-600/700/800/900

## FAULT ISOLATION MANUAL

### C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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

### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

### E. Fault Isolation Procedure

- (1) Do this check for a flow of rinse water.

- (a) If there is a continuous flow of rinse water, open and then after approximately 5 seconds close these circuit breaker for the applicable lavatory:
    - 1) This is the circuit breaker:

Power Distribution Panel Number 1, P91

Row	Col	Number	Name
C	11	C01388	VACUUM WASTE CONT

- (b) If the flow of rinse water stops, then do these steps:
    - 1) Push the flush switch for the toilet.
    - 2) Make sure the majority of the flow of rinse water stops after approximately 1.7 seconds.
    - 3) If the flow of rinse water decreases after approximately 1.7 seconds, then there was an intermittent fault.
- (c) If the flow of rinse water does not stop, then do these steps:
    - 1) Replace the rinse valve. These are the tasks:
      - Rinse Valve Removal, AMM TASK 38-32-01-000-842-002
      - Rinse Valve Installation, AMM TASK 38-32-01-400-842-002
    - 2) Push the flush switch for the toilet.
    - 3) Make sure the majority of the flow of rinse water stops after approximately 1.7 seconds.
    - 4) If the flow of rinse water decreases after approximately 1.7 seconds, then you corrected the fault.
- (d) If the flow of rinse water does not stop, then do these steps:



38-30 TASK 816



737-600/700/800/900

## FAULT ISOLATION MANUAL

- 1) Replace the flush control assembly. These are the tasks:
  - Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
  - Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002
- 2) Push the flush switch for the toilet.
- 3) Make sure the majority of the flow of rinse water stops after approximately 1.7 seconds.
- 4) If the flow of rinse water decreases after approximately 1.7 seconds, then you corrected the fault.
  - (e) If there is not a continuous flow of rinse water, then continue.

(2) Do this check for an unusual air noise at the toilet.

- (a) If you have an unusual air noise, then do these steps:
  - 1) Do a check for a blockage in the flush valve.
    - a) To open the flush valve and try to remove a blockage, manually open the flush valve.
    - b) If there is a blockage in the toilet, do this task: Toilet Blockage Removal, AMM TASK 38-32-00-160-801.
    - c) Push the flush switch for the toilet.
    - d) Make sure the air noise starts after approximately 2 seconds and then stops after approximately 4 more seconds.
    - e) If you do not have air noise after approximately 6 total seconds, then you corrected the fault.
  - 2) If there is not a blockage in the flush valve, then continue.

(b) Do a check to see if the flush valve is open.

  - 1) If the flush valve is open, replace the flush valve. These are the tasks:
    - Flush Valve Removal, AMM TASK 38-32-01-000-840-002
    - Flush Valve Installation, AMM TASK 38-32-01-400-840-002
    - a) Push the flush switch for the toilet.
    - b) Make sure the air noise starts after approximately 2 seconds and stops after approximately 4 more seconds.
    - c) If you do not have air noise after approximately 6 total seconds, then you corrected the fault.
  - 2) If you continue to have air noise after approximately 6 seconds, then do these steps:
    - a) Replace the flush control assembly. These are the tasks:
      - Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
      - Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002
    - b) Push the flush switch for the toilet.
    - c) Make sure the air noise starts after approximately 2 seconds and stops after approximately 4 more seconds.
    - d) If you do not have air noise after approximately 4 seconds, then you corrected the fault.

— END OF TASK —

EFFECTIVITY  
HAP ALL

38-30 TASK 816



737-600/700/800/900

## FAULT ISOLATION MANUAL

### 817. Toilet Flush System - Plugged/Blocked - Fault Isolation

#### A. Description

- (1) (SDS SUBJECT 38-32-00)

#### B. Possible Causes

- (1) These are the probable:
  - (a) Clogged vacuum lines between toilet and the waste tank
  - (b) Saturated or blocked waste tank water separator.

#### C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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

#### D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

#### E. Initial Evaluation

- (1) Push the flush switch for the nearest toilet to the waste tank in the system that has a problem.
  - (a) If the toilet operation is not satisfactory, push the flush switch on another toilet.
  - (b) If the other toilet operation is not satisfactory, make sure the waste tank is not full.
    - 1) If the waste tank is full, do this task: Waste Tank Servicing, AMM TASK 12-17-01-610-801.
    - 2) Push the flush switch on the first toilet.
    - 3) If the toilet operation is satisfactory, then there was an intermittent fault.
  - (c) If the waste tank is not full, then continue.

#### F. Fault Isolation Procedure

- (1) Push the flush switch for each toilet on the airplane, and make sure the vacuum pressure is satisfactory.
  - (a) If the vacuum pressure at the toilets is not satisfactory, do a check of the waste tank water separators (Figure 301). If necessary, clean the water separators. These are the tasks:



**38-30 TASK 817**

## FAULT ISOLATION MANUAL

AMM TASK 38-32-02-000-801

AMM TASK 38-32-02-100-801

AMM TASK 38-32-02-400-801

- 1) Push the flush switch on all the toilets.
- 2) If the operation of the toilets is satisfactory, then you corrected the fault.
- 3) If the operation of the toilets is not satisfactory, continue the procedure.

(2) Do this check for a blockage of the toilet waste system:

- (a) Do this task: Vacuum Line Blockage Inspection, AMM TASK 38-32-00-280-801.
- (b) If you find a waste system blockage, do this task: Vacuum Waste Line Blockage Removal, AMM TASK 38-32-00-160-802.
- (c) Push the flush switch on the first toilet.
- (d) If the operation of the first toilet is satisfactory, then you corrected the fault.

————— END OF TASK —————

### 818. Lavatory Sink Drain Stopper Inoperative - Fault Isolation

#### A. Description

- (1) (SDS SUBJECT 38-10-00)

#### B. Possible Causes

- (1) Inoperative drain valve

#### C. Related Data

- (1) Component Location (Figure 301)

- (2) (SSM 38-32-12)

#### D. Initial Evaluation

- (1) Do a check of the operation for the drain valve assembly.

- (a) Push the button on the faucet to operate the drain valve assembly.

- (b) Make sure the drain valve assembly operates.

- (c) If the operation of the drain valve assembly is satisfactory, then there was an intermittent fault.

#### E. Fault Isolation Procedure

- (1) If the drain valve assembly does not open, replace the drain valve assembly. These are the tasks:

- Drain Valve Assembly Removal, AMM TASK 38-11-05-000-802 or Drain Valve Assembly Removal, AMM TASK 38-11-05-000-806
- Drain Valve Assembly Installation, AMM TASK 38-11-05-400-802 or Drain Valve Assembly Installation, AMM TASK 38-11-05-400-806

- (a) Push the button on the faucet to operate the drain valve assembly.

- (b) Make sure the drain valve assembly operates.

- (c) If the operation of the drain valve assembly is satisfactory, then you corrected the fault.

- (2) If the operation of the drain valve assembly is possible but is not satisfactory, do this task: Drain Valve Adjustment, AMM TASK 38-11-05-820-802 or Drain Valve Adjustment, AMM TASK 38-11-05-820-806.



**38-30 TASKS 817-818**

Page 230

Feb 15/2008

D633A103-HAP

**FAULT ISOLATION MANUAL**

(a) Push the button on the faucet to operate the drain valve assembly.

- 1) If the drain valve assembly does not close, then replace the drain valve assembly. These are the tasks:
  - Drain Valve Assembly Removal, AMM TASK 38-11-05-000-802 or Drain Valve Assembly Removal, AMM TASK 38-11-05-000-806
  - Drain Valve Assembly Installation, AMM TASK 38-11-05-400-802 or Drain Valve Assembly Installation, AMM TASK 38-11-05-400-806

(b) If the operation of the drain valve assembly is satisfactory, then you corrected the fault.

**END OF TASK****819. Sink Drain Plugged - Fault Isolation**

## A. Description

(1) (SDS SUBJECT 38-10-00)

## B. Possible Causes

- (1) Clogged galley sink drain line strainer.
- (2) Inoperative drain line heater
- (3) Inoperative drain mast heater
- (4) Clogged drain line
- (5) Clogged drain mast

## C. Related Data

- (1) Component Location (Figure 301)
- (2) (SSM 38-32-12)

## D. Initial Evaluation

- (1) Examine the sink outlet for unwanted material.
  - (a) If the sink outlet is clogged, then clean the area of the unwanted material.
    - 1) Make sure the water flows freely from the drain line.
    - 2) If the water flows freely from the drain line, then you corrected the fault.
  - (b) If the sink outlet is clean, then do the fault isolation procedure below.

## E. Fault Isolation Procedure

- (1) Do a check of the galley sink drain line strainer. If the strainer is clogged then clean the strainer. This is the task:

- AMM TASK 38-31-00-100-801

NOTE: The galley sink drain lines strainers are found below the galley sinks.

- (a) Make sure that the water flows freely from the drain line.
- (b) If the water flows freely from the drain line, then you corrected the fault.

- (2) Do this check of the drain line to make sure it is not frozen:

- (a) Open this access panel:

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

EFFECTIVITY  
HAP ALL

**38-30 TASKS 818-819**



737-600/700/800/900

## FAULT ISOLATION MANUAL

- (b) To get access to the drain line(s), do the applicable steps that follow:
  - 1) Do this task: Remove the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-000-801.
  - 2) Do this task: Cargo Compartment Ceiling Liner Removal, AMM TASK 25-52-09-000-801.
  - 3) Do this task: Cargo Floor Panel Removal, AMM TASK 25-52-10-000-801.
- (c) Feel the drain line heater.
- (d) If the drain line is frozen, then replace the drain line heater. These are the tasks:
  - Potable Water Fill Fitting Heater Removal, AMM TASK 30-71-01-000-801
  - Potable Water Fill Fitting Heater Installation, AMM TASK 30-71-01-400-801
  - 1) Make sure the water flows freely from the drain line.
  - 2) If the water flows freely from the drain line, then you corrected the fault.
- (e) Do these applicable steps to complete the task:
  - 1) Do this task: Install the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-400-801.
  - 2) Do this task: Cargo Compartment Ceiling Liner - Installation, AMM TASK 25-52-09-400-801.
  - 3) Do this task: Cargo Floor Panel Installation, AMM TASK 25-52-10-400-801.
- (f) If the drain line is not frozen, then continue.

(3) Look for the clogged drain line or drain mast.

- (a) If a drain line is clogged, then do these steps:
  - 1) Clean the clogged drain line with a liquid cleaner.
    - a) Make sure the water flows freely from the drain line.
    - b) If the water flows freely from the drain line, then you corrected the fault.
    - c) If the water does not flow freely from the drain line, then continue.
  - 2) Remove the clogged drain line.
  - 3) Clean the clogged drain line with a plumbing snake.
  - 4) Install the clogged drain line.
    - a) Make sure the water flows freely from the drain line.
    - b) If the water flows freely from the drain line, then you corrected the fault.
    - c) If the water does not flow freely from the drain line, replace the drain line.
- (b) If the forward drain mast is clogged, then replace the forward drain mast. These are the tasks:
  - Forward Drain Mast Removal, AMM TASK 38-31-01-000-801
  - Forward Drain Mast Installation, AMM TASK 38-31-01-400-801
  - 1) Make sure the water flows freely from the drain mast.
  - 2) If the water flows freely from the drain mast, then you corrected the fault.
- (c) If the aft drain mast is clogged, then replace the aft drain mast. These are the tasks:
  - Aft Drain Mast Removal, AMM TASK 38-31-01-000-802
  - Aft Drain Mast Installation, AMM TASK 38-31-01-400-802
  - 1) Make sure the water flows freely from the drain mast.
  - 2) If the water flows freely from the drain mast, then you corrected the fault.



**FAULT ISOLATION MANUAL**

(d) Do the applicable steps to complete the task:

- 1) Do this task: Install the Sidewall Lining for the Cargo Compartment, AMM TASK 25-52-06-400-801.
- 2) Do this task: Cargo Compartment Ceiling Liner - Installation, AMM TASK 25-52-09-400-801.
- 3) Do this task: Cargo Floor Panel Installation, AMM TASK 25-52-10-400-801.
- 4) Close this access panel:

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

**END OF TASK****820. Single Toilet Inoperative - Fault Isolation****A. Description**

- (1) (SDS SUBJECT 38-32-00)

**B. Possible Causes**

- (1) The Toilet flush switch is defective.
- (2) The Toilet flush control unit is defective.
- (3) The Toilet flush valve is obstructed.
- (4) The Toilet assembly, or a toilet subassembly, is defective.
- (5) The vacuum waste branch tube for the individual toilet is blocked.
- (6) The wire bundle is defective.

**C. Related Data**

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

**D. Circuit Breakers**

**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) These are the primary circuit breakers related to the fault:

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
F	2	C01389	VACUUM WASTE BLOWER

**E. Related Data**

- (1) Simplified Schematic (Figure 302)



**38-30 TASKS 819-820**

**FAULT ISOLATION MANUAL**

(2) (SSM 38-32-12)

**F. Initial Evaluation**

- (1) Push the flush switch for the toilet that has a defect.
  - (a) If the toilet operation is satisfactory, then there was an intermittent fault.
  - (b) If the toilet operation is not satisfactory, then push the flush switch for each toilet in the airplane.
    - 1) If the operation of all the toilets is not satisfactory, there is a waste system defect. Do this task: Toilet Flush System - All Toilets Do Not Flush - Fault Isolation, 38-30 TASK 811.
  - (c) If a different toilet operates satisfactorily, do the fault isolation procedure for the toilet(s) that does not operate .
- (2) Push the flush switch of the defective toilet, then do these checks:
  - (a) Do a check for water flow into the toilet.
    - 1) If there is water flow into the toilet there is not a defect in the rinse valve.
    - 2) If the flush valve and the vacuum blower operate satisfactorily, and there is NOT water flow into the toilet, there is a defect at the rinse valve. Go to the subtask that does a test of the rinse valve.
  - (b) Make sure that the flush valve opens and then closes.
    - 1) If the flush valve opens then closes after approximately 15 seconds, there is not a defect at the flush valve.
    - 2) If the rinse valve and the vacuum blower operate satisfactorily, and the flush valve does not operate, there is a defect at the flush valve. Go to subtask that does a test of the flush valve.
  - (c) Make sure that the vacuum blower operates for approximately 15 seconds.
    - 1) If the rinse and flush valves operate satisfactorily and the vacuum blower does not operate, one of these is defective:
      - The flush control module
      - The vacuum waste tube (blocked)
      - The wire bundle

NOTE: If the operation of a different toilet is satisfactory, the vacuum blower is operable, and there is a defect at the individual toilet.
  - (d) If there is no water flow into the toilet, the flush valve does not open and close, or the vacuum blower does not operate, then continue.

**G. Fault Isolation Procedure**

- (1) If the rinse valve, the flush valve, and the vacuum blower do not operate, then do this test of the flush switch.
  - (a) Use an hexagonal wrench to loosen the screws and then remove the escutcheon.
  - (b) Remove the collar assembly with the flush button hole.
  - (c) Disconnect the electrical connectors for the flush switch.
  - (d) Install a jumper across the electrical connectors for the flush switch.
  - (e) If the toilet operation is satisfactory, then do these steps:
    - 1) Replace the flush switch. These are the tasks:

**38-30 TASK 820**

**FAULT ISOLATION MANUAL**

- Flush Switch Removal, AMM TASK 38-32-04-000-801
- Flush Switch Installation, AMM TASK 38-32-04-400-801

- 2) Push the flush switch for the toilet.
- 3) If the toilet operation is satisfactory, then you corrected the fault.

(f) If the toilet operation is satisfactory, then do these steps to complete the task:

- 1) Install the collar assembly.

(g) If the toilet operation is not satisfactory continue the procedure. .

(2) Do this check for a blockage of the toilet waste system:

- (a) Do a check of the waste tank water separators.

NOTE: A blocked or saturated waste tank water separator causes almost the same faults as a bad vacuum blower, or a blocked vacuum waste tube.

- 1) If necessary, clean the water separators(Figure 301). These are the tasks:
  - AMM TASK 38-32-02-000-801
  - AMM TASK 38-32-02-100-801
  - AMM TASK 38-32-02-400-801
- 2) Push the flush switch on all the toilets.
- 3) If the operation of the toilets is satisfactory, then you corrected the fault.
- 4) If the operation of the toilets is not satisfactory, continue the procedure.

(b) Do this task: Vacuum Line Blockage Inspection, AMM TASK 38-32-00-280-801.

(c) If you find a waste system blockage, then do this task: Vacuum Waste Line Blockage Removal, AMM TASK 38-32-00-160-802.

- 1) Push the flush switch on the first toilet.
- 2) If the operation of the first toilet is satisfactory, then you corrected the fault.  
Restore the airplane to its usual condition.

(d) If you do not find a waste blockage, then continue.

(3) Do this Task to remove the toilet shroud: AMM TASK 38-32-01-000-834-002

(4) Do a visual check of the flush control unit (FCU) circuit breaker. If the FCU circuit breaker is open, close the circuit breaker.

- (a) Push the flush button for the toilet.
  - 1) If the toilet operation is satisfactory, push the toilet flush button again. If the toilet operation is satisfactory, you corrected the fault. Restore the airplane to its usual condition.
  - 2) If the toilet operation is not satisfactory, continue the procedure.

(5) Do this check for 28 VDC at the flush control module:

- (a) Disconnect the connector D37XX from the flush control module (WDM 38-32-12).
- (b) Do a check for 28 VDC at pin 15 and at pin 31 of the D37XX connector.

NOTE: The toilet flush control module has two isolated circuits. The D37XX pin 43 supplies electricity to the blower control circuit. The D37XX the pin 31 supplies electricity to the toilet flush circuit.

- 1) If there is not 28 VDC at the D37XX pin 43., repair the wire. (WDM 38-32-12).
- 2) If there is not 28 VDC at the D37XX pin 31, repair the wire (WDM 38-32-12).



## FAULT ISOLATION MANUAL

- (c) Do a continuity check between the D37XX pin 15 and ground.
  - 1) If the check shows that the circuit is open, repair the wire .
- (d) Do a continuity check between the D37XX pin 30 and ground.
  - 1) If the check shows that the circuit is open, repair the wire.
- (e) Connect the D37XX connector to the flush control module.
- (f) Push the flush switch for the toilet. If the toilet operation is satisfactory, you corrected the fault. Restore the airplane to its usual condition.
- (g) If the toilet operation is not satisfactory, continue.

(6) Push the toilet flush switch. Do a check of the rinse valve, the flush valve, and the vacuum blower.

- (a) If the rinse and flush valves operate satisfactorily, and the vacuum blower does not operate, replace the flush control unit. These are the Tasks:

NOTE: You can hear the vacuum noise, if the vacuum blower operates.

NOTE: The toilet flush control module has two isolated circuits, the blower control circuit and the flush control circuit.

- Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
- Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002

- (b) Push the toilet flush switch. If the toilet operates satisfactorily, you corrected the fault. Restore the airplane to its usual condition.
- (c) If the toilet operation is not satisfactory, continue the procedure.

(7) Do this test of the rinse valve:

- (a) Push and hold the flush switch for the toilet.
- (b) Do a check for rinse water in the toilet bowl.
- (c) If there is no rinse water, then do these steps:

NOTE: Make sure the manual shutoff valve for the rinse water supply line is open.

- 1) Disconnect the rinse valve connector J1 from the flush control unit.
- 2) Push and hold the flush switch for the toilet.
- 3) Do a check for 28 VDC at the pin B and C of connector J1 on the flush control module.

NOTE: Voltage is only at the connector for approximately 1 second per flush cycle.

- 4) If there is not 28 VDC at pin B and C, then do these steps.
- a) Replace the flush control module. These are the tasks:

- Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
- Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002

- 5) If there is 28 VDC at the pin B, then do these steps:
- a) Replace the rinse valve. These are the tasks:

- Rinse Valve Removal, AMM TASK 38-32-01-000-842-002
- Rinse Valve Installation, AMM TASK 38-32-01-400-842-002

- 6) Connect the connector J1.
- 7) Push the flush switch for the toilet.
- 8) If the toilet operation is satisfactory, then you corrected the fault. Restore the airplane to its usual condition.

## FAULT ISOLATION MANUAL

(d) If the toilet operation is not satisfactory, continue the procedure.

(8) Do this test of the flush valve:

- Push the flush switch for the toilet.
- Do a visual check of the flush valve operation. If the flush valve opens and does not fully close, there is an obstruction in the flush valve, or the flush valve limit switches are defective. These are the applicable Tasks:

**NOTE:** If a flush valve jam occurs, the normal flush cycle is followed by a dry flush cycle. During the dry flush cycle, only the flush valve opens or closes. No rinse water is used.

AMM TASK 38-32-01-000-840-002  
AMM TASK 38-32-01-400-840-002
- Push the flush switch for the toilet. Do a visual check of the flush valve operation. If the flush valve does not open, then do these steps:
  - Disconnect the connector J2, for the flush motor power, from the flush control module.
  - Push and hold the flush switch for the toilet.
  - Do a check for 28 VDC at the pins B and C of connector J2 on the flush control module.
    - If there is not 28 VDC at pin B and C, replace the flush control module. These are the tasks:
      - Flush Control Assembly Removal, AMM TASK 38-32-01-000-839-002
      - Flush Control Assembly Installation, AMM TASK 38-32-01-400-839-002
    - If there is 28 VDC at the pin B, replace the flush valve. These are the tasks:
      - Flush Valve Removal, AMM TASK 38-32-01-000-840-002
      - Flush Valve Installation, AMM TASK 38-32-01-400-840-002
  - Connect the connector J2.
  - Push the flush switch for the toilet.
  - If the toilet operation is satisfactory, then you corrected the fault. Restore the airplane to its usual condition.

H. Restore the airplane to its usual condition.

- Do this task: Toilet Shroud Installation, AMM TASK 38-32-01-400-834-002.
- Do this task to remove the electrical power, if it is no longer necessary. AMM TASK 24-22-00-860-812

————— END OF TASK —————

### **821. Vacuum Blower Inoperative - Fault Isolation**

#### A. Description

- (SDS SUBJECT 38-32-00)

#### B. Possible Causes

- These are the probable causes:
  - The waste tank is full.
  - Inoperative limit switch on the waste drain ball valve.
  - Inoperative altitude pressure switch
  - Inoperative vacuum blower relay



**38-30 TASKS 820-821**

## FAULT ISOLATION MANUAL

- (e) Inoperative vacuum blower
- (f) Blocked or saturated waste tank water separator
- (g) Clogged vacuum lines between the toilets and the waste tank
- (h) Wiring problem

## C. Circuit Breakers

**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) These are the primary circuit breakers related to the fault:

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
F	2	C01389	VACUUM WASTE BLOWER

## D. Related Data

- (1) Simplified Schematic (Figure 302)
- (2) Component Location (Figure 301)
- (3) (SSM 38-32-12)

## E. Initial Evaluation

- (1) Do a check of the waste indicator at the attendant panel.
  - (a) If the waste indicator reads full, do this task:  
Waste Tank Servicing, AMM TASK 12-17-01-610-801.
  - (b) Push the flush switch for each toilet that has a fault.
  - (c) If the toilet operation is satisfactory, you corrected the fault.
  - (d) If the toilet operation is not satisfactory, then continue.

- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (3) Push the waste drain valve control handle in to the stop. Make sure that the waste drain valve is closed.

- (4) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
145AL	Waste Service Door

- (5) Push the flush switch for each toilet that has a fault.



**38-30 TASK 821**

**FAULT ISOLATION MANUAL**

- (a) If the toilet operation is satisfactory, then you corrected the fault.
- (b) If the toilet operation is not satisfactory, continue the procedure.

(6) Push the flush switch in each toilet on the airplane, and do a check of the vacuum blower. Make sure the vacuum blower operates.

NOTE: You can hear the air vacuum operation, when you flush the toilet. However, if the vacuum waste line for all the toilets is blocked, you must access the vacuum blower to make sure that it operates. A vacuum tube blockage between the aft most toilet(s) and the waste tank can cause a loss of vacuum at all the toilets.

NOTE: A blocked or saturated waste tank water separator causes almost the same faults as an inoperative vacuum blower, or a blocked vacuum waste tube.

- (a) If the vacuum blower operates, and the vacuum pressure is not satisfactory, do a check of the waste tank water separators.
  - 1) If necessary, clean the water separators(Figure 301). These are the tasks:  
AMM TASK 38-32-02-000-801  
AMM TASK 38-32-02-100-801  
AMM TASK 38-32-02-400-801
  - 2) Push the flush switch on all the toilets.
  - 3) If the operation of the toilets is satisfactory, then you corrected the fault.
  - 4) If the operation of the toilets is not satisfactory, continue the procedure.
- (b) If the vacuum blower operates in some toilets and does not operate at a different toilet(s), do the applicable task for the bad Toilet(s).
  - Single Toilet Inoperative - Fault Isolation, 38-30 TASK 820
  - Toilet Flush System - Plugged/Blocked - Fault Isolation, 38-30 TASK 817
- (c) If the vacuum blower does not operate at all of the toilets, continue

**F. Fault Isolation Procedure**

(1) Get access to the Waste Drain Ball Valve. Disconnect the connector D11716 connector from the valve. (WDM 38-32-12):

- (a) Do a check for 28 VDC at the D11716 connector pin 1.
- (b) If there is 28 VDC at the D11716 connector pin 1, then do these steps:
  - 1) Install a jumper from the D11716 connector pin 1 to an accessible airplane electrical ground terminal.
 

NOTE: This will remove the lavatory modules from the electrical circuit, and supply 115VAC to the vacuum blower. If the S1033 switch, the R581 relay, and the electrical wires do not have a fault.
  - 2) Do a check of the vacuum blower. If the vacuum operates, remove the ground jumper, and adjust or replace the S1034 Drain valve switch. These are the Tasks:  
AMM TASK 38-32-03-000-803  
AMM TASK 38-32-03-400-803  
AMM TASK 38-32-03-820-801  
AMM TASK 38-32-03-820-801
- (c) Push the flush switch for any toilet.
  - 1) If the toilet operation is satisfactory, the you corrected the fault.

**38-30 TASK 821**

## FAULT ISOLATION MANUAL

- 2) If the toilet operation is not satisfactory, continue.

(2) Get access to the Waste Drain Ball Valve and the Vacuum Blower.

- (a) Disconnect the D11716 connector at the Waste Drain Ball Valve switch (S1034) (WDM 38-32-12). Install a ground jumper from the D11716 connector pin 1 to an accessible electrical ground terminal.
- (b) Disconnect the D11718 connector from the vacuum blower (WDM 38-32-12) .
  - 1) Do a continuity check from the D11718 connector pin 6 to ground.
    - a) If the continuity check from the D11718 connector pin 6 to ground shows an open circuit, replace the S1033 altitude pressure switch. These are the Tasks: AMM TASK 38-32-12-000-801, AMM TASK 38-32-12-400-801
    - b) Do a continuity check from the D11718 connector pin 6 to ground again. If the continuity check continues to show an open circuit, there is a fault in the wires. Repair the electrical wires.
  - 2) Remove the ground jumper from the D11716 connector pin 1.
  - 3) Connect the D11716 connector to the Waste Drain Ball Valve switch (S1034).
  - 4) Connect the D11718 connector to the vacuum blower
- (c) Push the flush switch for any toilet. If the toilet operation is satisfactory, then you corrected the fault. Restore the airplane to its usual condition.
- (d) If the toilet operation is not satisfactory, continue.

(3) Get access to the vacuum blower. Disconnect the D11718 connector from the vacuum blower.

- (a) Do a check for continuity from the D11718 connector pin 7 to ground.
  - 1) If the continuity check shows an open circuit, repair the wire.
- (b) Do a check for 28 VDC at the D11718 connector pin 5.
  - 1) If there is 28 VDC at the D11718 connector pin 5, replace the vacuum blower. These are the Tasks: AMM TASK 38-32-05-000-801 AMM TASK 38-32-05-400-801
  - 2) If there is not 28 VDC at the D11718 connector pin 5, replace the R581 Vacuum Blower Relay, at the P91 power distribution panel (WDM 38-32-12).
- (c) Do a continuity check between pin sockets 5 and 6 at the vacuum blower electrical connector.
  - 1) If the continuity check shows an open circuit, replace the vacuum blower. These are the Tasks: AMM TASK 38-32-05-000-801 AMM TASK 38-32-05-400-801
- (d) Connect the D11718 connector to the vacuum blower.
- (e) Push the flush switch for any toilet.
  - 1) If the toilet operation is satisfactory, the you corrected the fault. Restore the airplane to its usual condition.
  - 2) If the toilet operation is not satisfactory, continue.

(4) Get access to the P91 power distribution panel 1.

- (a) Disconnect the D11434 connector (WDM 38-32-12).
- (b) Do a check for 28 VDC at the D11434 receptacle pins 23, on the P91 power distribution panel 1 (WDM 38-32-12).
- (c) If there is 28 VDC at the D11434 receptacle pin 23, do these steps:
  - 1) Do a continuity check between connector D11434 pin 23 and D11718 pin 5.
  - 2) If the circuit shows an open, repair the electrical wiring (WDM 38-32-12)..





737-600/700/800/900

## FAULT ISOLATION MANUAL

- (d) Reconnect the D11434 connector to the P91 power distribution panel
- (5) Push the flush switch for any toilet. If the toilet operation is satisfactory, then you corrected the fault. Restore the airplane to its usual condition.
- (6) If the vacuum blower fault persists, continue the procedure.
- (7) Do these steps to check the vacuum blower system wiring (WDM 38-32-12).
  - (a) Do a check of the wires between the Waste Drain Valve connector D11716 and the Lavatory modules. Repair the electrical wires as necessary.
  - (b) Do a check of the wires between the C1389 Vacuum Waste Blower circuit breaker and the R581 relay. Repair the electrical wires, if necessary.
  - (c) Do a check of the wires between the D11428 electrical connector at the P91 Power distribution Panel 1, and the D11718 connector at the Vacuum Waste Blower . Repair the electrical wires, if necessary.
  - (d) Do a check of the wires between the C1388 Vacuum Waste Control circuit breaker and the lavatory modules. Repair the electrical wires, if necessary.
  - (e) Push the flush switch for a toilet.
    - 1) If the toilet operation is satisfactory, then you corrected the fault. Restore the airplane to its usual condition.

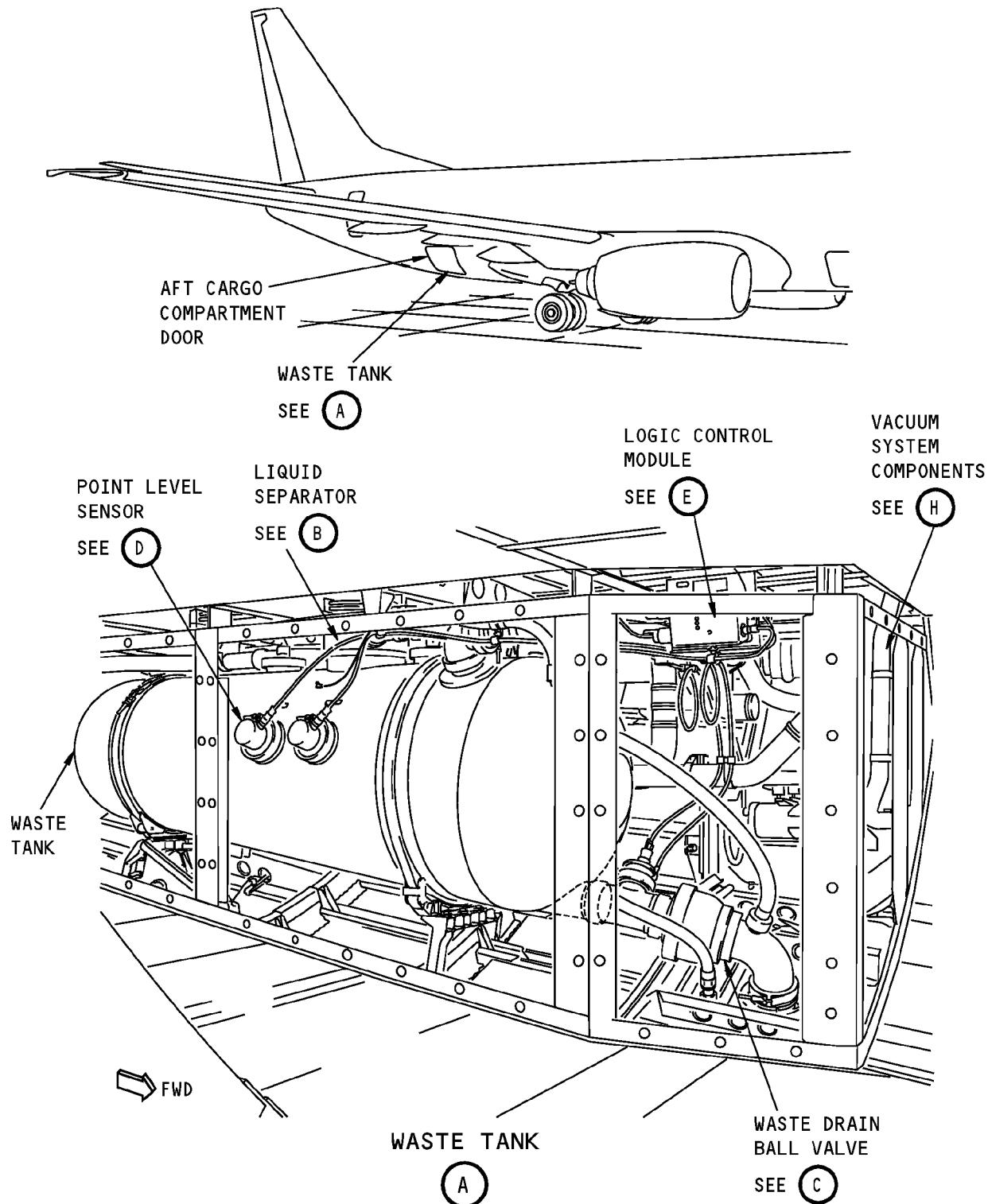
————— END OF TASK —————



**38-30 TASK 821**

Page 241  
Feb 15/2008


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



Waste System Component Location  
 Figure 301 (Sheet 1 of 8) / 38-30-00-990-801

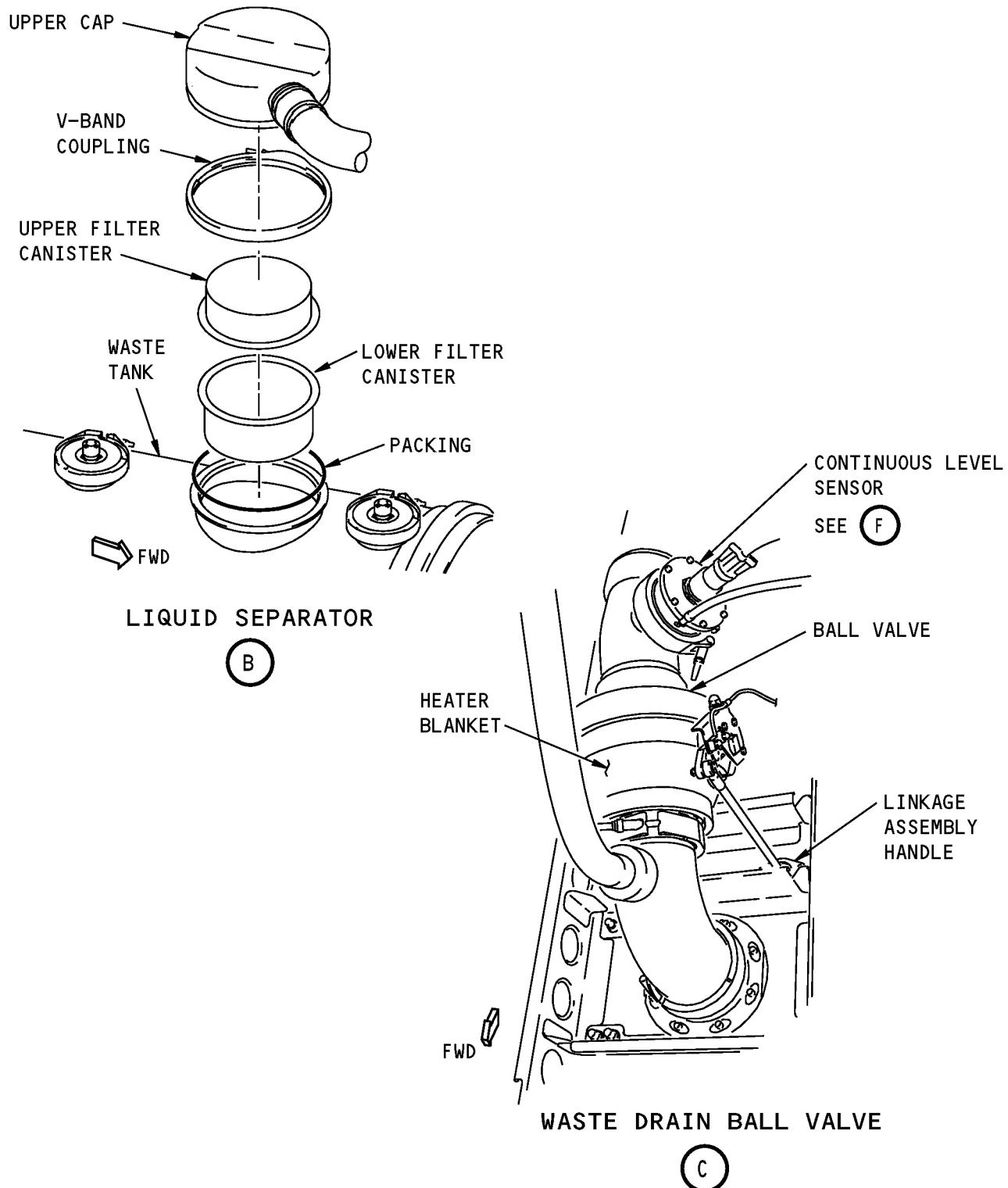
EFFECTIVITY  
 HAP ALL

**38-30 TASK SUPPORT**

Page 301  
 Oct 10/2005

D633A103-HAP


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

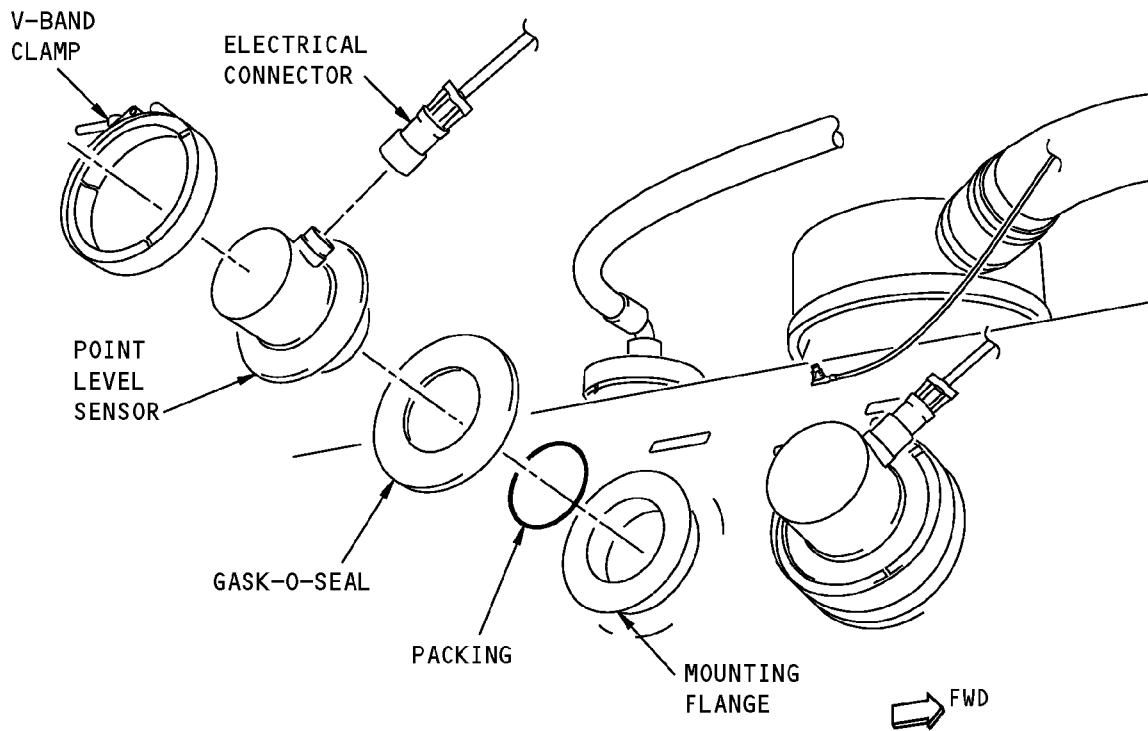


Waste System Component Location  
Figure 301 (Sheet 2 of 8)/ 38-30-00-990-801

EFFECTIVITY  
HAP ALL

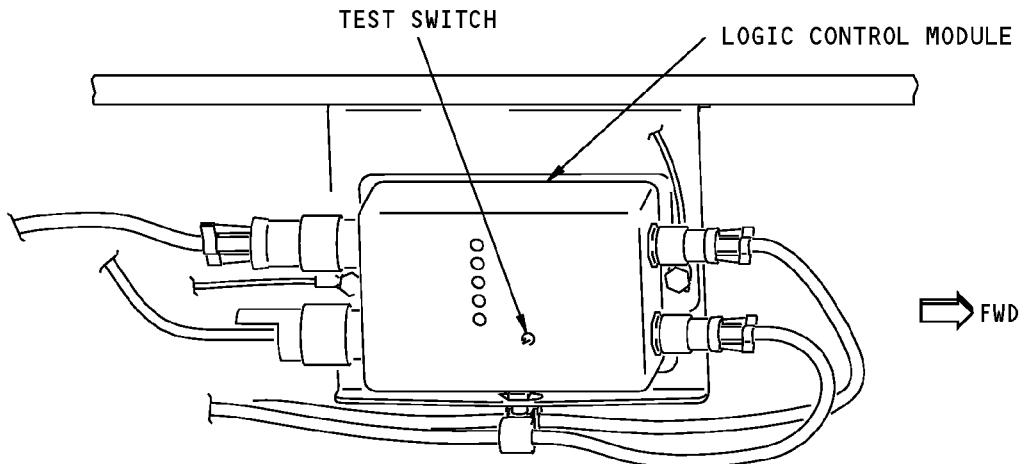
## 38-30 TASK SUPPORT


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



**POINT LEVEL SENSOR**

(D)



**LOGIC CONTROL MODULE**

(E)

Waste System Component Location  
 Figure 301 (Sheet 3 of 8) / 38-30-00-990-801

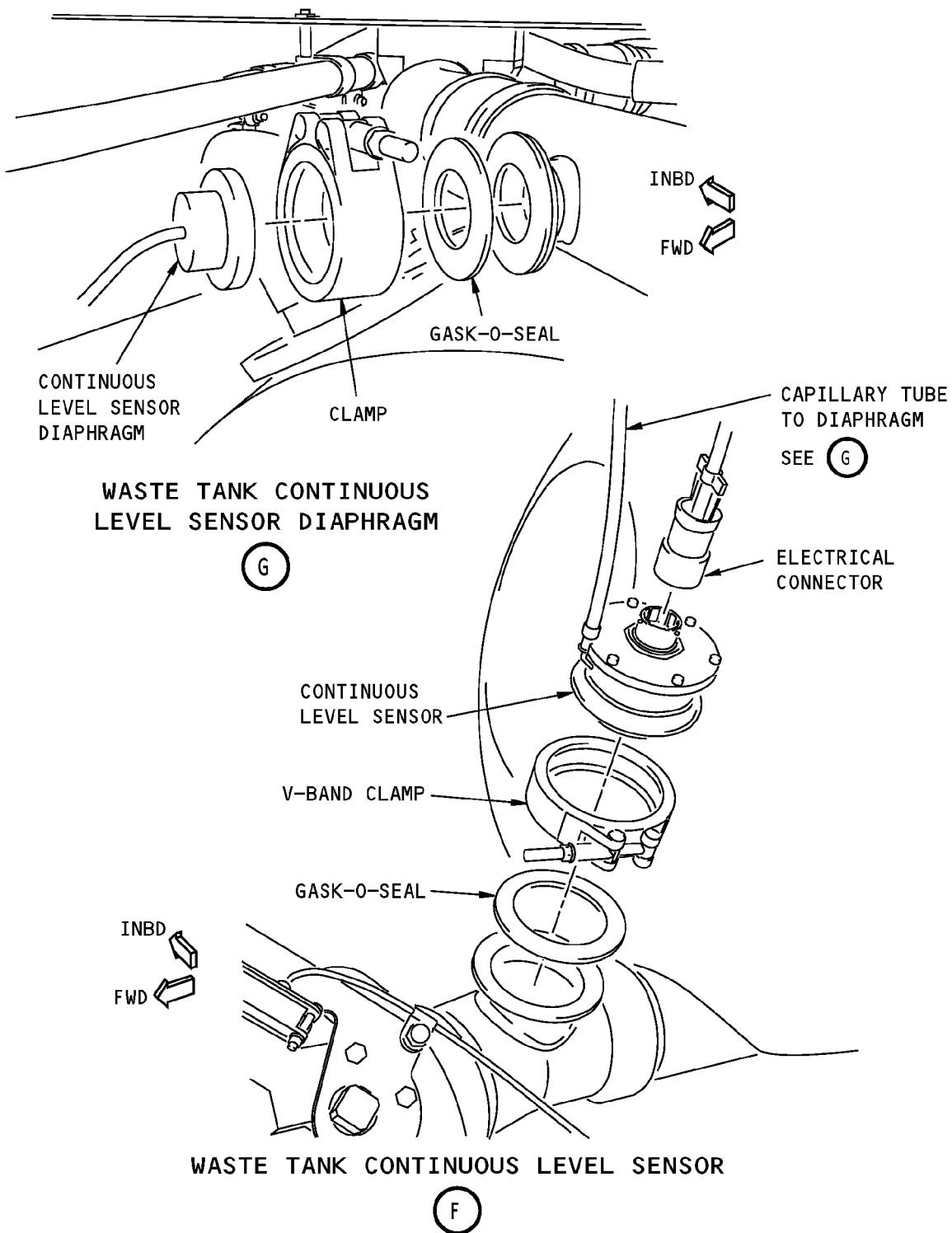


## 38-30 TASK SUPPORT

Page 303  
 Oct 10/2005

D633A103-HAP


**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

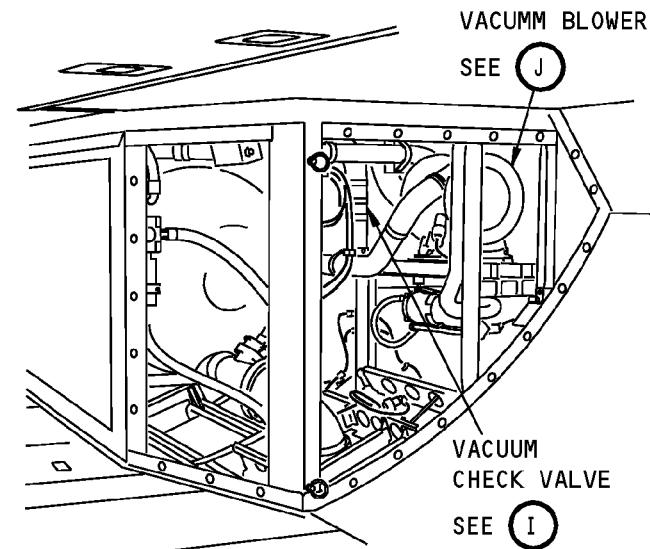


Waste System Component Location  
 Figure 301 (Sheet 4 of 8) / 38-30-00-990-801

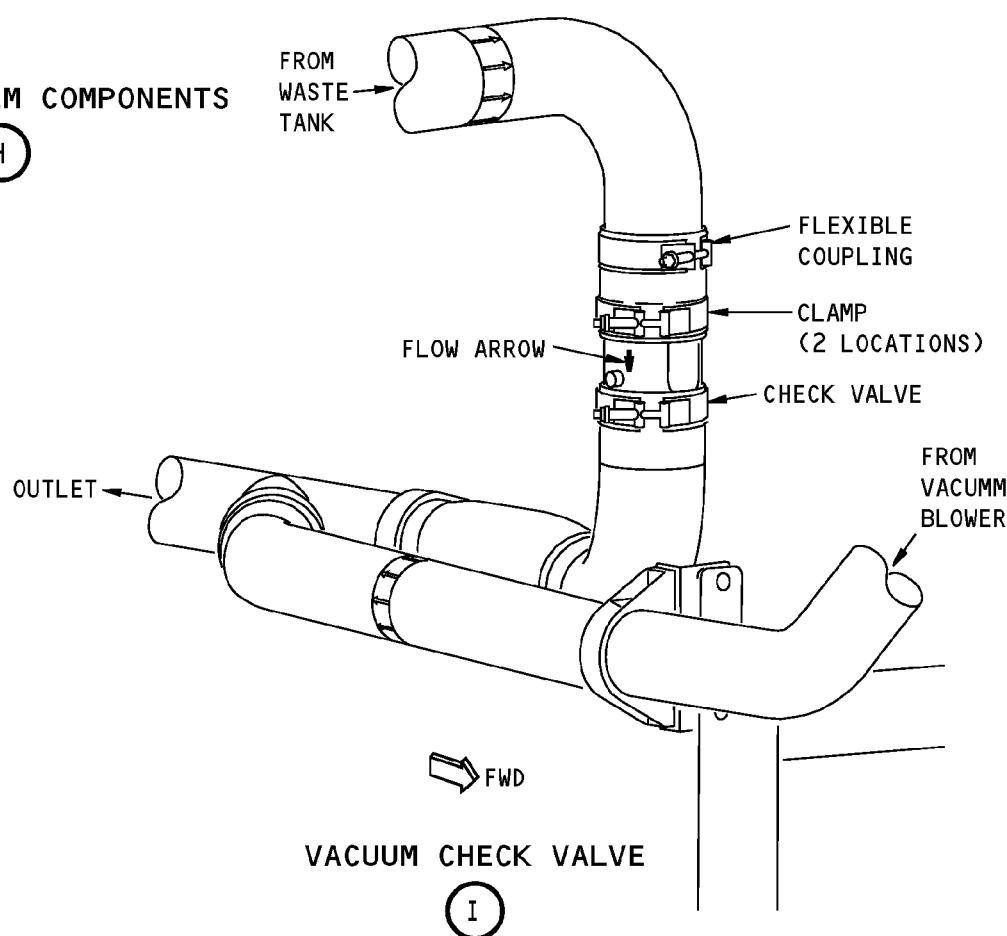
EFFECTIVITY  
 HAP ALL

**38-30 TASK SUPPORT**

**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



**VACUUM SYSTEM COMPONENTS**  
H

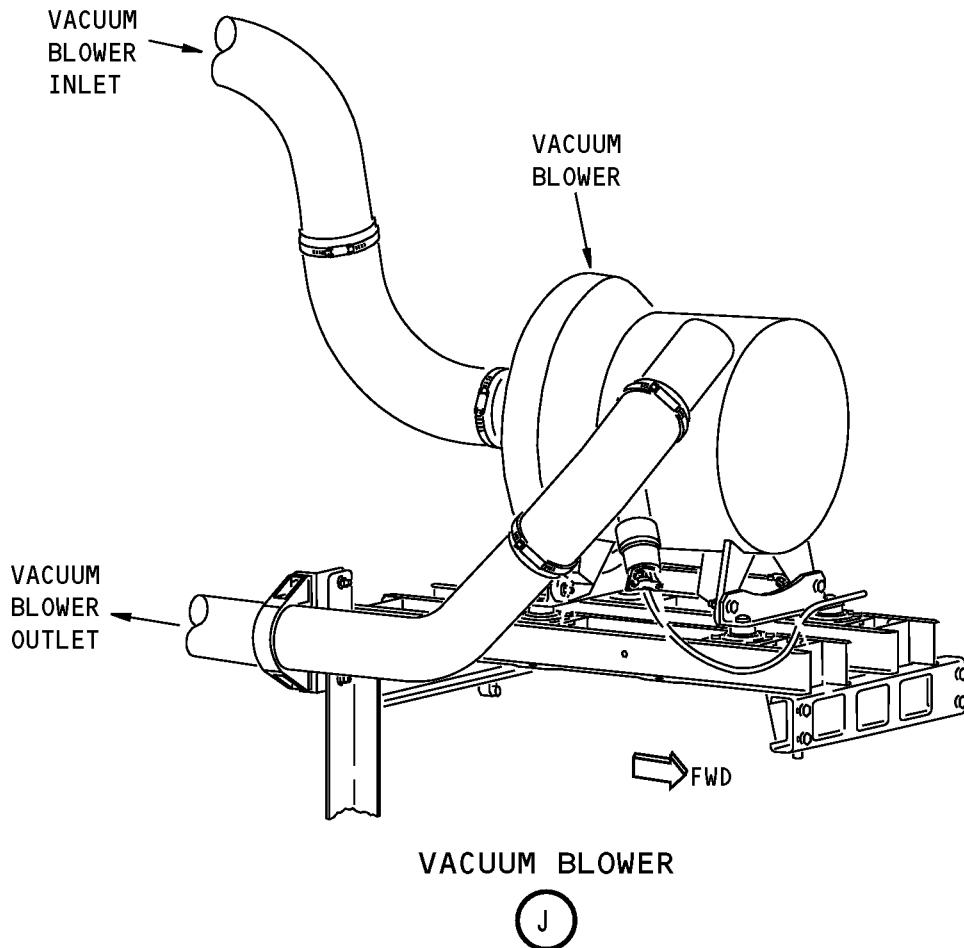


Waste System Component Location  
Figure 301 (Sheet 5 of 8)/ 38-30-00-990-801

EFFECTIVITY  
HAP ALL

**38-30 TASK SUPPORT**

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



Waste System Component Location  
Figure 301 (Sheet 6 of 8) / 38-30-00-990-801

EFFECTIVITY  
HAP ALL

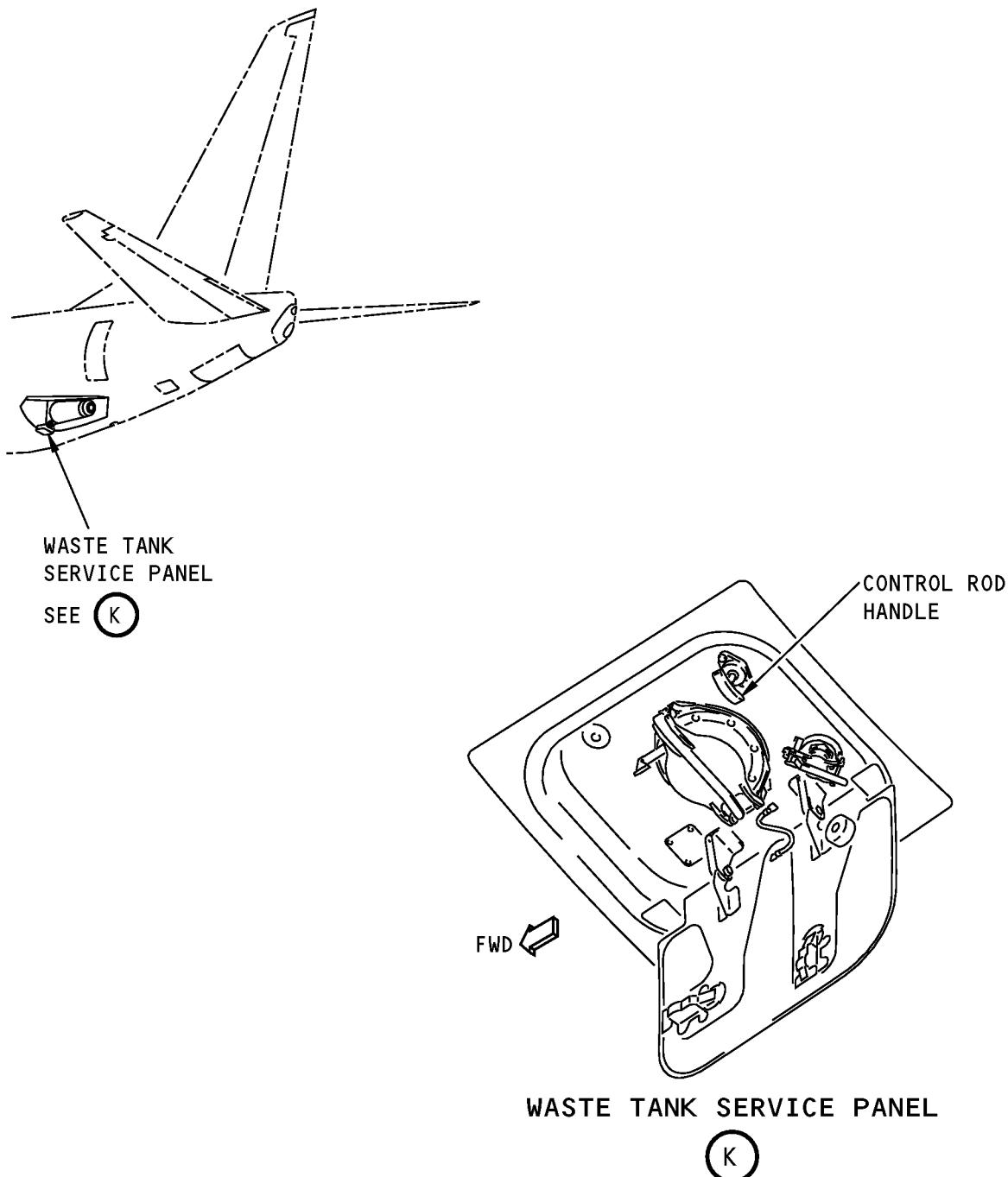
**38-30 TASK SUPPORT**

D633A103-HAP

BOEING PROPRIETARY - Copyright © Unpublished Work - See title page for details

Page 306  
Oct 10/2005

 **BOEING®**  
737-600/700/800/900  
**FAULT ISOLATION MANUAL**



Waste System Component Location  
Figure 301 (Sheet 7 of 8)/ 38-30-00-990-801

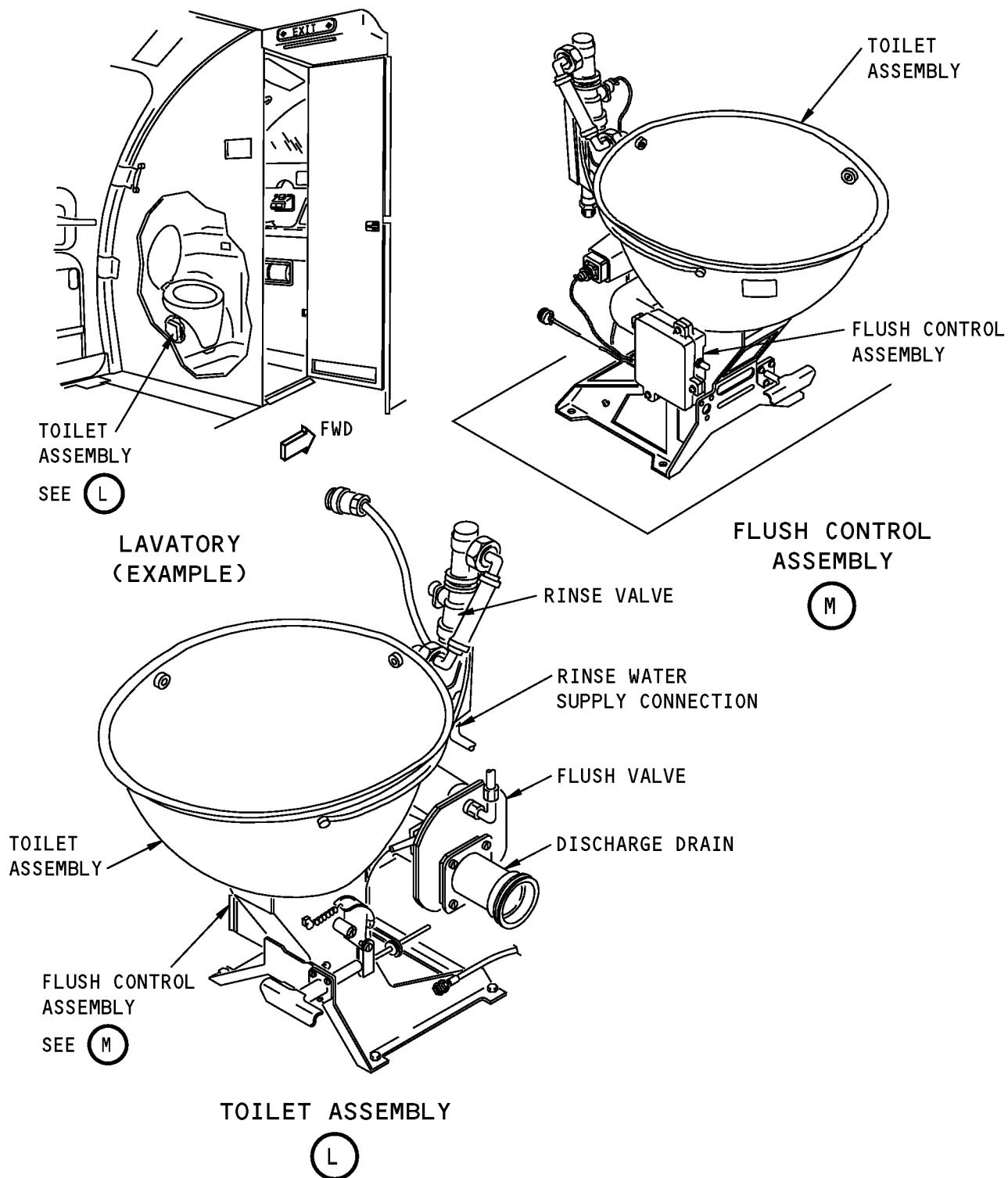


## 38-30 TASK SUPPORT

Page 307  
Oct 10/2005

D633A103-HAP

**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**

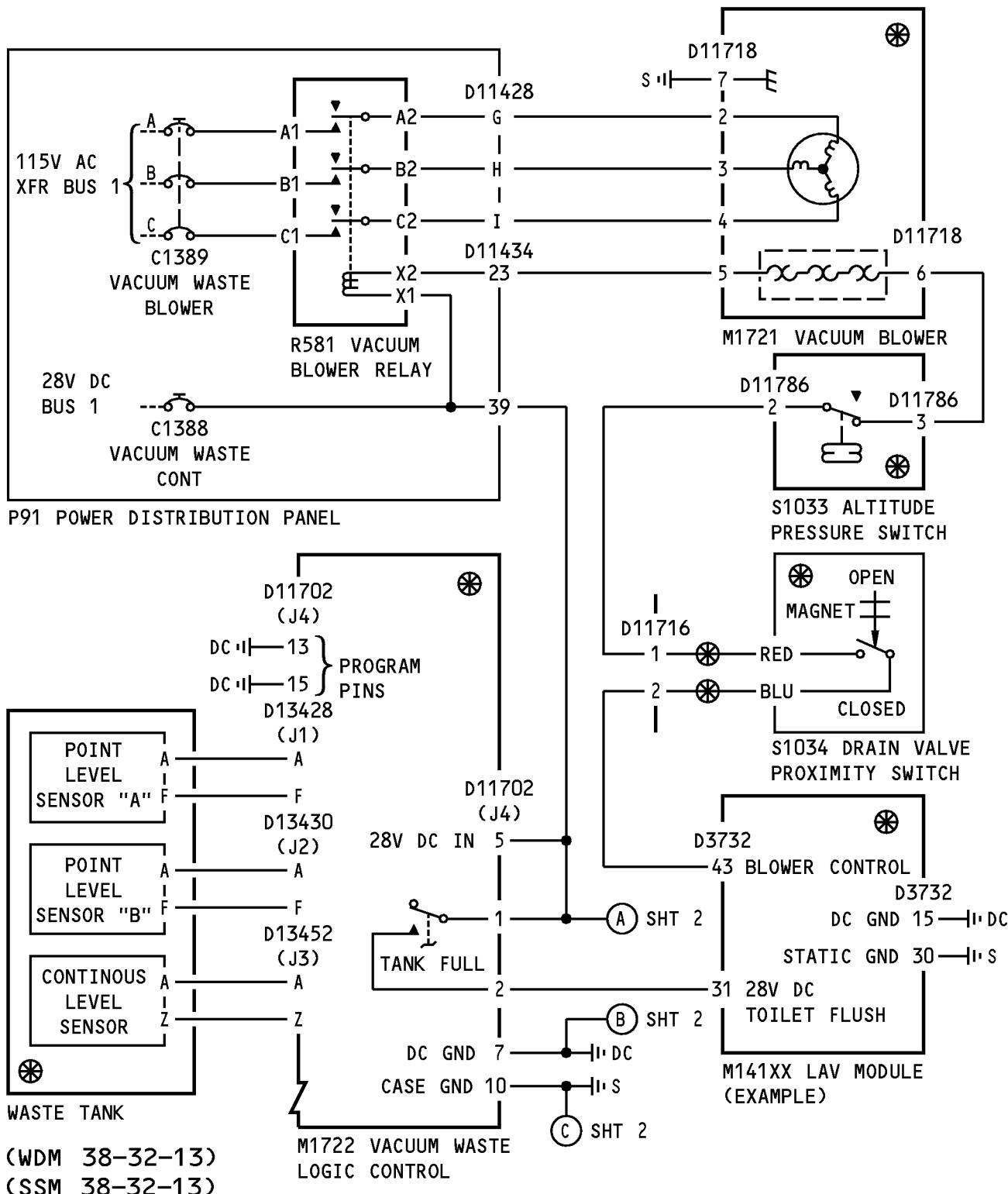


Waste System Component Location  
 Figure 301 (Sheet 8 of 8) / 38-30-00-990-801

EFFECTIVITY  
 HAP ALL

**38-30 TASK SUPPORT**

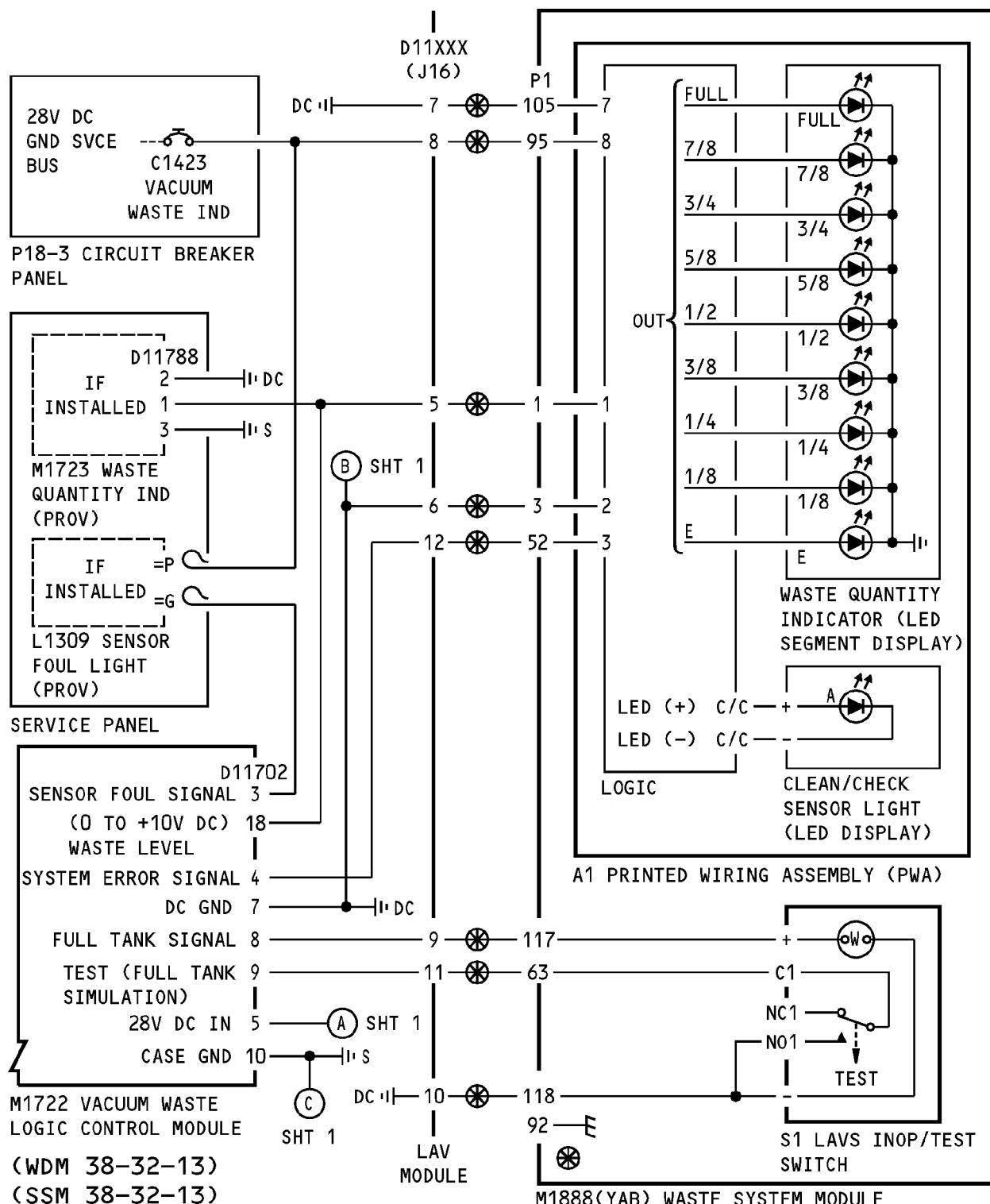
**BOEING®**  
**737-600/700/800/900**  
**FAULT ISOLATION MANUAL**



Vacuum Waste System Control Simplified Schematic  
 Figure 302 (Sheet 1 of 2)/ 38-30-00-990-802



**38-30 TASK SUPPORT**



Vacuum Waste System Control Simplified Schematic  
Figure 302 (Sheet 2 of 2)/ 38-30-00-990-802

EFFECTIVITY  
HAP ALL

**38-30 TASK SUPPORT**