



COMPONENT MAINTENANCE MANUAL WITH ILLUSTRATED PARTS LIST

LANDING GEAR ACCESSORY UNIT ASSEMBLY, M338

**PART NUMBER
65-52811-187**

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PUBLISHED BY BOEING COMMERCIAL AIRPLANES GROUP, SEATTLE, WASHINGTON, USA
A DIVISION OF THE BOEING COMPANY
PAGE DATE: Jul 01/2009

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COMPONENT MAINTENANCE MANUAL

Revision No. 9
Jul 01/2009

To: All holders of LANDING GEAR ACCESSORY UNIT ASSEMBLY, M338 32-66-50.

Attached is the current revision to this COMPONENT MAINTENANCE MANUAL

The COMPONENT MAINTENANCE MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

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TRANSMITTAL LETTER

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Location of Change

Description of Change

NO HIGHLIGHTS

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HIGHLIGHTS

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TEMPORARY REVISION AND SERVICE BULLETIN RECORD

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVE	DATE OF INCORPORATION INTO MANUAL
65-52811-32-01		MC3240MK3013	Dec 05/88

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COMPONENT MAINTENANCE MANUAL

INTRODUCTION

1. General

- A. The instructions in this manual supply the data necessary to do the maintenance functions together with the test, fault isolation, repair, and replacement of the defective parts.
- B. This manual is divided into different parts:
 - (1) Title Page
 - (2) Transmittal Letter
 - (3) Highlights
 - (4) List of Effective Pages
 - (5) Table of Contents
 - (6) Temporary Revision & Service Bulletin Record
 - (7) Record of Revisions
 - (8) Record of Temporary Revisions
 - (9) Introduction
 - (10) Procedures & IPL Sections
- C. Refer to the Table of Contents for the page location of the applicable procedures.
- D. All dimensions, measures, quantities and weights included are in English units. When metric equivalents are given they will be in the parentheses that follow the English units.
- E. The introduction to the Illustrated Parts List (IPL) shows how the IPL data is used.
- F. Design changes, optional parts, configuration differences and Service Bulletin modifications may cause different part numbers. These part numbers are identified in the IPL with an alphabetical letter which is added to the end of the basic item number. This new item number is referred to as an alpha-variant. Throughout the manual, IPL basic item number references also apply to alpha-variants unless shown differently.
- G. Verification:

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LANDING GEAR ACCESSORY UNIT ASSEMBLY, M338 - DESCRIPTION AND OPERATION

1. Description

- A. The landing gear accessory unit assembly consists of control and safety relays, solid-state circuits, and related wiring and connectors mounted in a chassis assembly. The accessory unit assembly includes air and ground sensing indicators and test switches.

2. Operation

- A. The landing gear accessory unit assembly receives signals from proximity sensors on the landing gear. These signals are transmitted to solid-state switching circuits in the accessory unit assembly to control the relays. The relays provide the required control and indication of the landing gear. The air and ground sensing indicators and test switches are used to check for malfunction in the accessory unit assembly and to isolate the safety relays for airplane maintenance purposes.
- B. The assembly controls and monitors the following systems.
- (1) Safety Relay System (squat switches)
 - (2) Landing Gear Warning System
 - (3) Automatic Ground Speed Brake System
 - (4) Takeoff Warning System

3. Functional Description (TESTING AND FAULT ISOLATION, Figure 103)

- A. The safety relay system (squat switches) consists of the air safety relays and the ground safety relays.
- (1) The air safety relay system consists of normally open proximity switch A2, relays K3 and K5, test switch S1, test indicator DS1, and an external proximity sensor S6. The air safety relays provide the functions listed in DESCRIPTION AND OPERATION, Table 1 to the ground critical systems.

Table 1: Air Safety Relay Functions

Ground Critical Systems	Air Mode	Ground Mode
1. Drain mast heater.	Switches the heater from 28v to 115v power source to provide higher heating of the drain mast.	Switches the heater from 115 to 28v power source to reduce heating of the drain mast.
2. Stall Warning.	Arms the stall warning system.	Deactivates the stall warning system.
3. Antiskid System	Prevents inboard brake application by actuating the antiskid control valves to the full dump position.	Deactivates the antiskid touchdown protection circuit and allows normal braking application.
4. APU Fire Detection Horn	Deactivates the APU wheel well fire warning horn circuit.	Arms the APU wheel well fire warning horn circuit.
5. Landing Gear Latch	Energizes the lever latch solenoid to enable landing gear retraction without override.	De-energizes the landing gear lever latch solenoid to prevent the landing gear handle from being operated to the up position.

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- (2) Sensor S6 and switch A2 are connected at pins B35 and B36 and form a bridge circuit. S6 appears as an inductance to A2. (See Manufacturer's Overhaul Manual for details.) S6 is located in the right main landing gear wheel well and will actuate A2 when the landing gear oleo is extended. Twenty-eight volt dc circuit power is provided at pin A33. Circuit ground is at pins A17 and A67 (DESCRIPTION AND OPERATION, Figure 1).
- (a) K3 and K5 are energized, when A2 is actuated to provide a ground path for the relay coils. K3 and K5 provide the switching to activate (or deactivate) the circuits indicating in DESCRIPTION AND OPERATION, Table 1.
- (b) The relays can be tested while the airplane is on the ground by pressing S1. This actuates A2 and simulates air mode. DS1 will illuminate while S1 is depressed.
- (3) The ground safety relays system consists of normally open proximity switch A3, relays K1, K2, K4, K6, K7, and K8, test switch S2, test indicator DS2, and an external proximity sensor S3. The ground safety relays provide the functions indicated in DESCRIPTION AND OPERATION, Table 2 and DESCRIPTION AND OPERATION, Table 3 to the air critical systems.

Table 2: Ground Safety Relay Functions, Air Critical System

Air Critical System	Ground Mode	Air Mode
1. Pressurized Control	Deactivates the pressurization control circuit.	Activates the automatic control circuit to maintain cabin pressurization when airplane is in the air.
2. Wing Anti-Ice	Prevents hot air from entering anti-ice duct.	Permits hot air entering anti-ice duct.
3. Stall Warning	Deactivates the stall warning system.	Activates the stall warning system.
4. Turbofans	Opens turbofan valves.	Closes turbofan valves.
5. Flight Recorder	Deactivates flight recorder.	Activates flight recorder.
6. Comparator-NAV (when installed)	Prevents a NAV warning.	Permits a NAV warning.
7. Static Inverter	Prevents automatic operation of the static inverter.	Permits automatic operation of the static inverter.
8. Engine gravel protection	Activates gravel protection valve.	Deactivates gravel protection valve.
9. Thrust Reversal Flap Retraction	Activates thrust reversal flap retract valve Bypass.	Activates thrust reversal flap retract valve Normal.
10. Thrust Reversers	Deactivates thrust reverser disarming circuits.	Activates thrust reverser disarming circuits.

Table 3: Ground Safety Relay Functions, Ground Critical Systems

Ground Critical Systems	Air Mode	Ground Mode
The ground safety relays when activated by the parking brake switch provide the following functions to the air critical systems:		
	Ground Mode and Parking Brake Set	Air Mode or Parking Brake NOT Set

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Table 3: Ground Safety Relay Functions, Ground Critical Systems (Continued)

Ground Critical Systems	Air Mode	Ground Mode
1. Hydraulic Inter- connect Valve	Permits hydraulic system interconnection.	Automatically closes the hydraulic interconnect valve to isolate the A and B hydraulic systems.
2. Voice Recorder	Permits the erasure of recorder tape.	Deactivates the voice recorder erasure circuit.
3. Main Cargo Door Control	Permits cargo door operation.	Deactivates the cargo door control circuit.
4. Antiskid System	Permits antiskid trouble shooting isolation test.	Removes antiskid system tests electrical power.

- (4) Sensor S3 and switch A3 are connected at pins A1 and A2. S3 is in the right main gear wheel well and will actuate A3 when the landing gear oleo is compressed. Twenty-eight volt dc circuit power is provided at pin A33. Circuit ground is at pins A29 and A67. In addition, when the parking brake switch is set, 28v dc is applied at pin B17 (DESCRIPTION AND OPERATION, Figure 2).
- K1, K2, K6, and K8 are energized when A3 is actuated. K4 will energize when the parking brake switch is set and A3 is actuated (K6 energized). K7 will energize when the parking brake switch is set and K3 is not energized.
 - Relays K1, K2, K4, K6, and K8 can be tested while the airplane is on the ground by pressing S2. This deactuates A3 and simulates air mode (or brake switch not set). DS2 will remain lit while S2 is depressed.
- B. The landing gear warning system consists of logic cards A7 and A15, proximity switches A8, A10, A12, A13, A14, and A16 and their associated external proximity sensors, and external indicator lamps and switches. The system provides green lamp indications when the landing gears are down and locked. Also, it provides red lamp indications indicating unsafe conditions (DESCRIPTION AND OPERATION, Figure 3) when:
- The landing gear is in transit.
 - The landing gear position and the landing gear control lever are not in agreement.
 - The engine throttles are retarded to the idle range and the landing gear is not down and locked.
- C. Since the lamp indication circuits are the same, only the right main gear circuit will be explained (DESCRIPTION AND OPERATION, Figure 4). Circuit power (Q1, Q2 base drive) is provided at pin A33 (J15 pin 12). Circuit ground is at pin A30 (J15 pin 2).
- A ground path will be provided at pin A41 to turn on the green lamp when normally-open proximity switch A12 is actuated. A12 is connected to an external proximity sensor. When the landing gear is down and locked, the sensor will actuate A12.
 - A ground path will be provided for the red lamp at pin A42 when either of the following conditions exist:
 - A15Q1 will provide ground when:
 - The landing gear lever is not down (open circuit to pin A35) and:
 - The landing gear is not in the up and locked position (normally-open proximity switch A13 not actuated).

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- (b) A15Q2 will provide ground when the landing gear is not in the down and locked position (normally-open proximity switch A12 is not actuated) and one of the following occur:
 - 1) The landing gear lever is down (ground to pin A35).
 - 2) Engine No. 1 throttle is retarded (ground to pin A52).
 - 3) Engine No. 2 throttle is retarded (ground to pin A51).
- D. The landing gear aural warning system (DESCRIPTION AND OPERATION, Figure 5) consists of logic card A11, normally-open proximity switches and associated landing gear position sensors, and external switches and a horn. The module will provide a ground path for the horn when unsafe conditions exist. Circuit power, +28v dc, is applied at pin A33. (See DESCRIPTION AND OPERATION, Figure 6 for logic diagram.)
 - (1) When one or more of the landing gears are not down and locked (proximity switches not actuated) and the flaps are not up, base voltage is available to A11Q1. A11Q1 will conduct and provide a ground path for the horn when one of the following conditions exist:
 - (a) The flaps are extended beyond 25-handle units (and for airplanes with 25-degree flap takeoff capability, both engine pressure ratios are below 1.55 or the flaps are extended beyond 30 degrees). This provides ground at pin A49 and allows A11Q1 to conduct.
 - (b) Either engine is retarded to idle. This provides a ground at pins A51 and/or A52 and allows A11Q2 or A11Q3 to conduct.
 - 1) In this condition, depressing the horn reset switch provides a positive voltage to the gate of SCRs to turn off A11Q2 and A11Q3 by grounding their base. Advancing either throttle will reset one SCR to again enable the horn circuit.
- E. The automatic ground speed brake system actuates the ground and flight spoilers to aid braking after touchdown (DESCRIPTION AND OPERATION, Figure 7). The system consists of logic card A5, relays K9 thru K13, and external switches, lamps and modules. The landing gear module controls the automatic mode of operation of the spoilers when the system is armed. It will provide voltage to cause the spoilers to be raised (pin B13) or lowered (pin B5) and provide ground to cause indicator lamps L47 (pin A34) or L46 (pin A18) to illuminate. When either lamp is illuminated, the other must be extinguished. Circuit power (system armed) is provided at pin A56. Pins A7 and A67 are circuit grounds.
 - (1) When the speed brake control lever is set to the ARMED position, 28v dc is provided to pin 12 of circuit card A5 thru pin A56. This provides base voltage for Q1 thru R1, for Q2 thru CR11 and CR9/CR7, and for Q3 thru CR5. When Q1 is on, L46 (DO NOT ARM) is illuminated. When Q2 is on, L47 (ARMED) is illuminated, and at the same time Q1 is turned off by shunting of its base voltage to ground. When Q3 is on, base voltage to Q2 received thru CR9 or CR7 is shunted to ground.
 - (2) At the time the speed brake control lever is set to ARMED, if both inboard and outboard antiskid systems are inoperative, Q2 base voltage is shunted to ground through CR8 and CR10. Q2 will be off, Q1 will be on, and the DO NOT ARM indicator will be illuminated.

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- (3) Presuming antiskid systems operative, and control lever set to ARMED, the 28v dc input to pin A56 can be passed through two of relays K9, K10, K11, or K12 provided main landing gear speeds have reached 60 knots. Wheel speed inputs from the antiskid control system energize the wheel speed relays individually. Sixty knots on both outboard wheels, both inboard wheels, or both wheels on one side, is the minimum combination required to energize two relays such that 28v dc is passed through pin B13 to the raise coils of the handle actuator (M359). The handle will be driven to the raise position. The lower limit switch shunts A5-Q3 base voltage (received through R4) to ground. As the handle departs the lower limit, the shunt is removed. However, the combination of relays that provided power to the raise windings also passes 28v dc to pin 4 of card A5. This holds Q2 on, L47 (ARMED) illuminated, even though Q3 is turned on. The combination of K9, K10, K11, and K12 relays also passes 28v dc from pin B46 to the automatic brake control module (M577) autobrake output relay.
 - (4) A ground input to the automatic brake control module (M577) wheel speed relay is provided at pin A55 until all four wheels reach 60 knots (K9, K10, K11, and K12 all energized). When any wheel speed reaches 60 knots (any of the four relays energized) a ground output to the M577 wheel speed relay is provided at B-7. Either outboard, or both inboards, must reach 60 knots to provide the A-7 ground output (K9/K12 in series) (DESCRIPTION AND OPERATION, Figure 7).
 - (5) When either throttle is advanced to the 25-degree position, K13 coil is grounded, K13 is energized, and 28v dc is provided through pin B5 to lower the handle actuator.
 - (6) The following are self-check test circuits that simulate the system operation (control in ARMED position).
 - (a) Test circuit 1 simulates K9 or K10. Twenty-eight volts is applied at pin A58 (J5 pin 3) to remove the ground path at pin A34 (J5 pin 11).
 - (b) Test circuit 2 simulates K11 or K12. J5 pin 5 is grounded through a 150-ohm resistor at pin A60. This removes the ground path at pin A34 (J5 pin 11).
 - (c) Test circuit 3 simulates engine throttle advance. It grounds pin B4 to actuate K13. Also, it applies 28v dc from pin A60, through K13 to J5 pin 6. This removes the ground path at pin A34 (J5 pin 11).
- F. The takeoff aural warning system (DESCRIPTION AND OPERATION, Figure 8 and DESCRIPTION AND OPERATION, Figure 9, (Sheet 1) consists of logic card A7, relay K3, external switches and the M315 aural warning module (which contains the horn). The landing gear module provides a ground path to M315 when an unsafe flight control condition exists prior to takeoff. The intermittent horn will operate and will not turn off until the condition is corrected. 28-volt dc circuit power is applied at pin A33. Circuit ground is at pins A17 and A30. The ground to M315 to operate the horn is available at pin A22 when the following conditions exist.
- (1) Airplane is on ground (K3 de-energized). This removes the ground at pin A17 (A7Q2 base) and:
 - (2) Either engine throttle is in the advanced position. This grounds pin B4 (A7Q1 base) and prevents A7Q1 from conducting, and:
 - (3) Pin A23 is grounded (A7Q2 emitter) due to any of the following conditions:
 - (a) Stabilizer set too high or too low, or
 - (b) Flaps extended too far, or
 - (c) Speed brake lever not in proper position.

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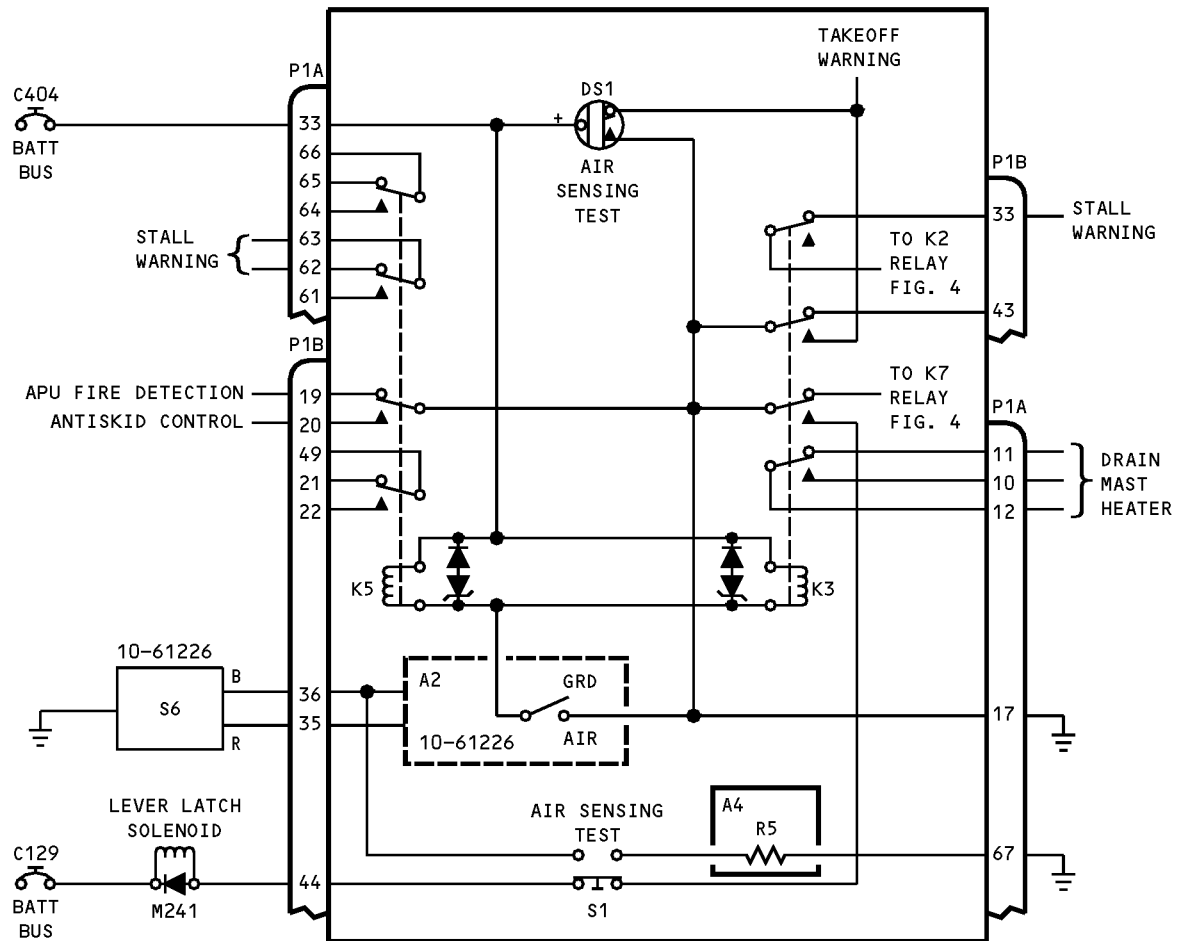
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Air Safety Relays
Figure 1

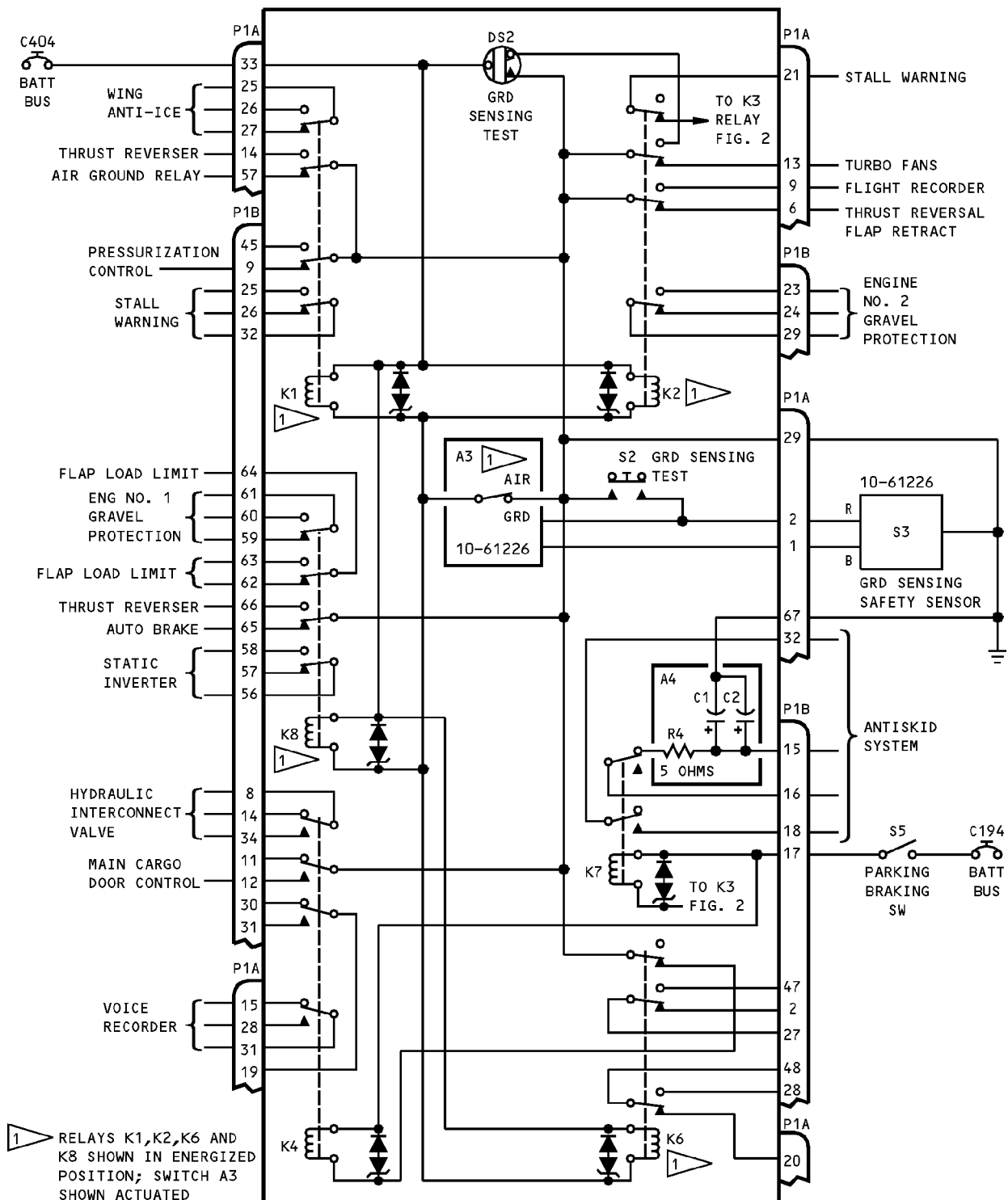
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Ground Safety and Parking Brake Relays
Figure 2

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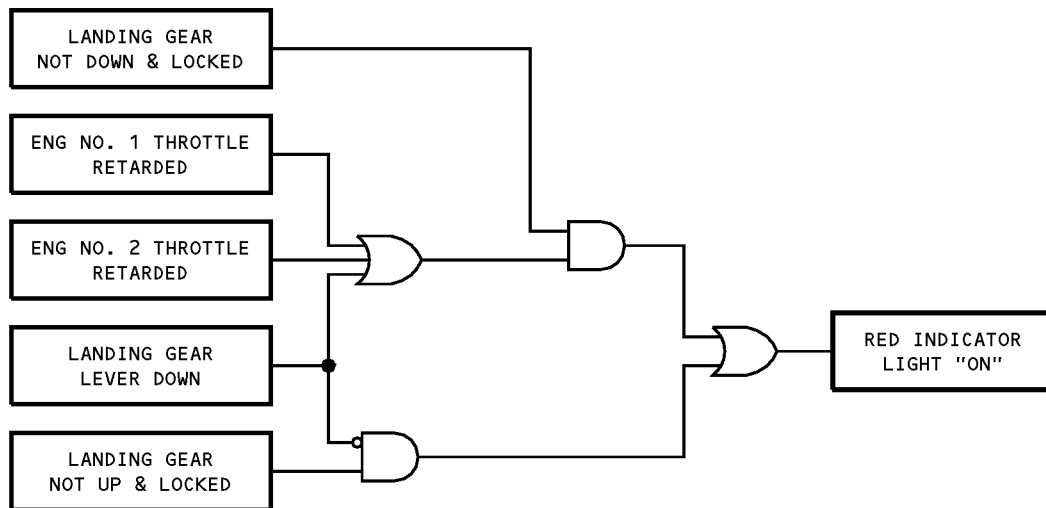
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Red Indicator Lamp "ON" Logic Diagram
Figure 3

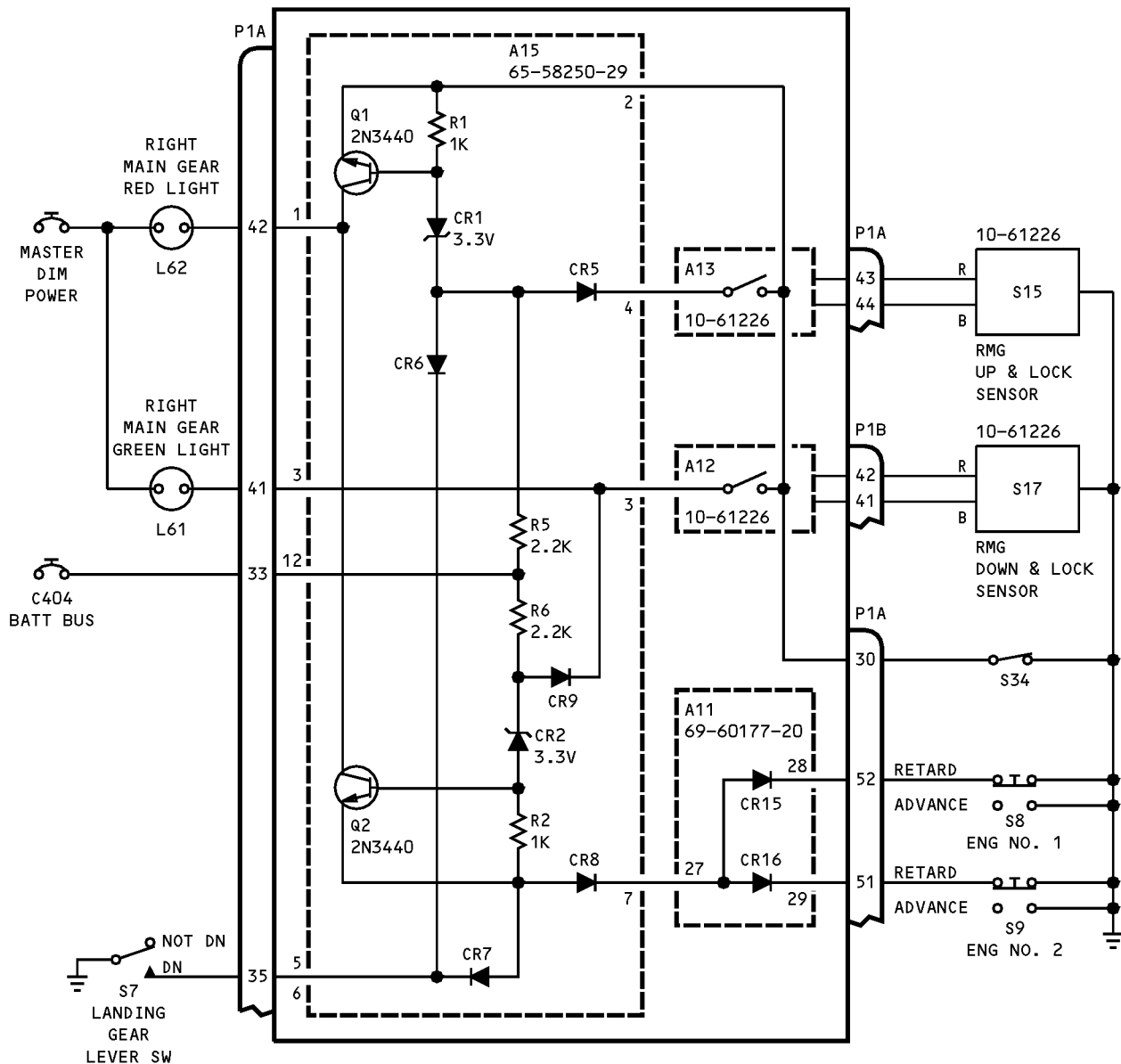
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NOTE: UNLESS OTHERWISE SPECIFIED
ALL RESISTANCES ARE IN OHMS $\pm 5\%$

Right Main Gear Visual Indication
Figure 4

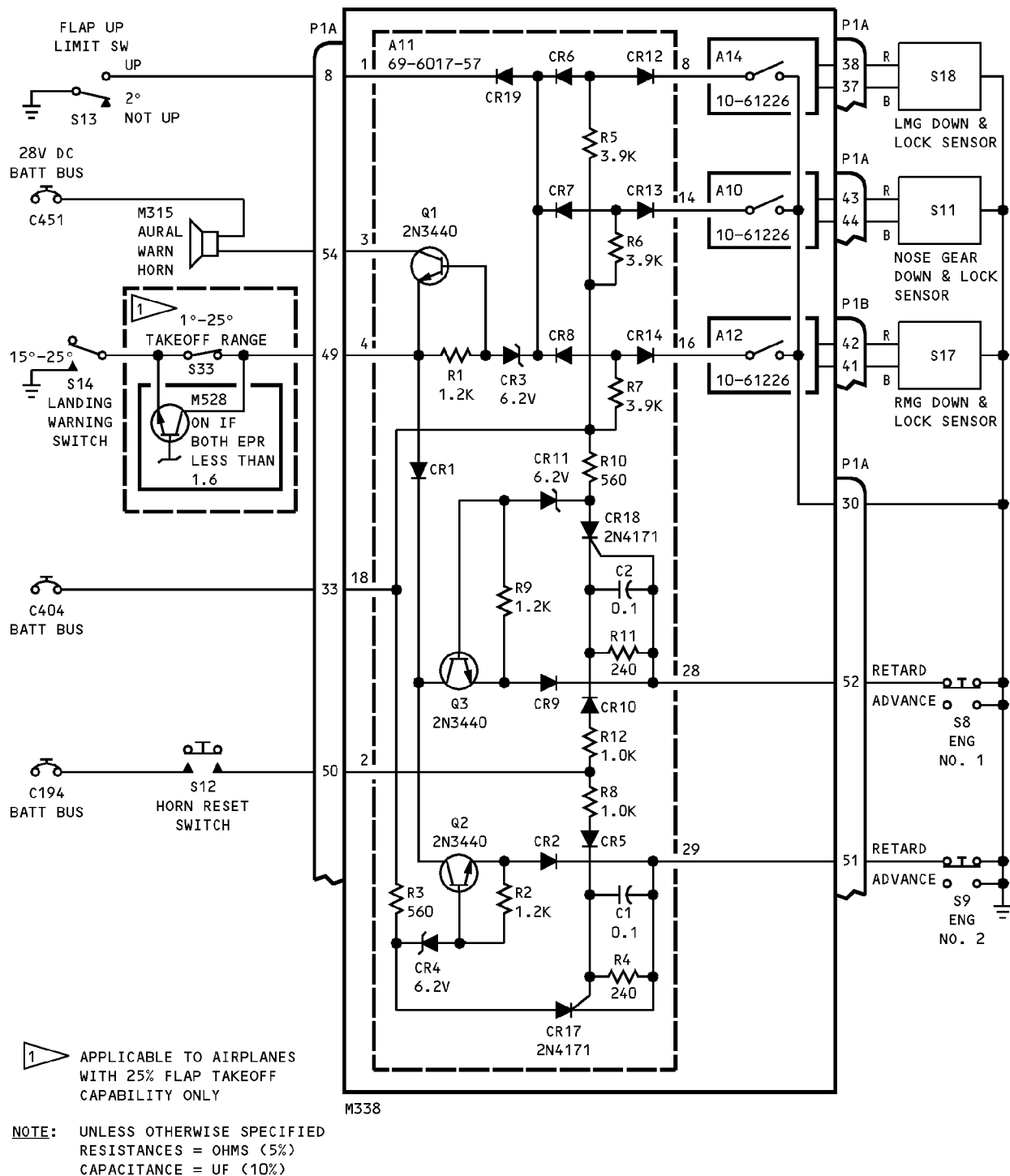
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Landing Gear Aural System
Figure 5

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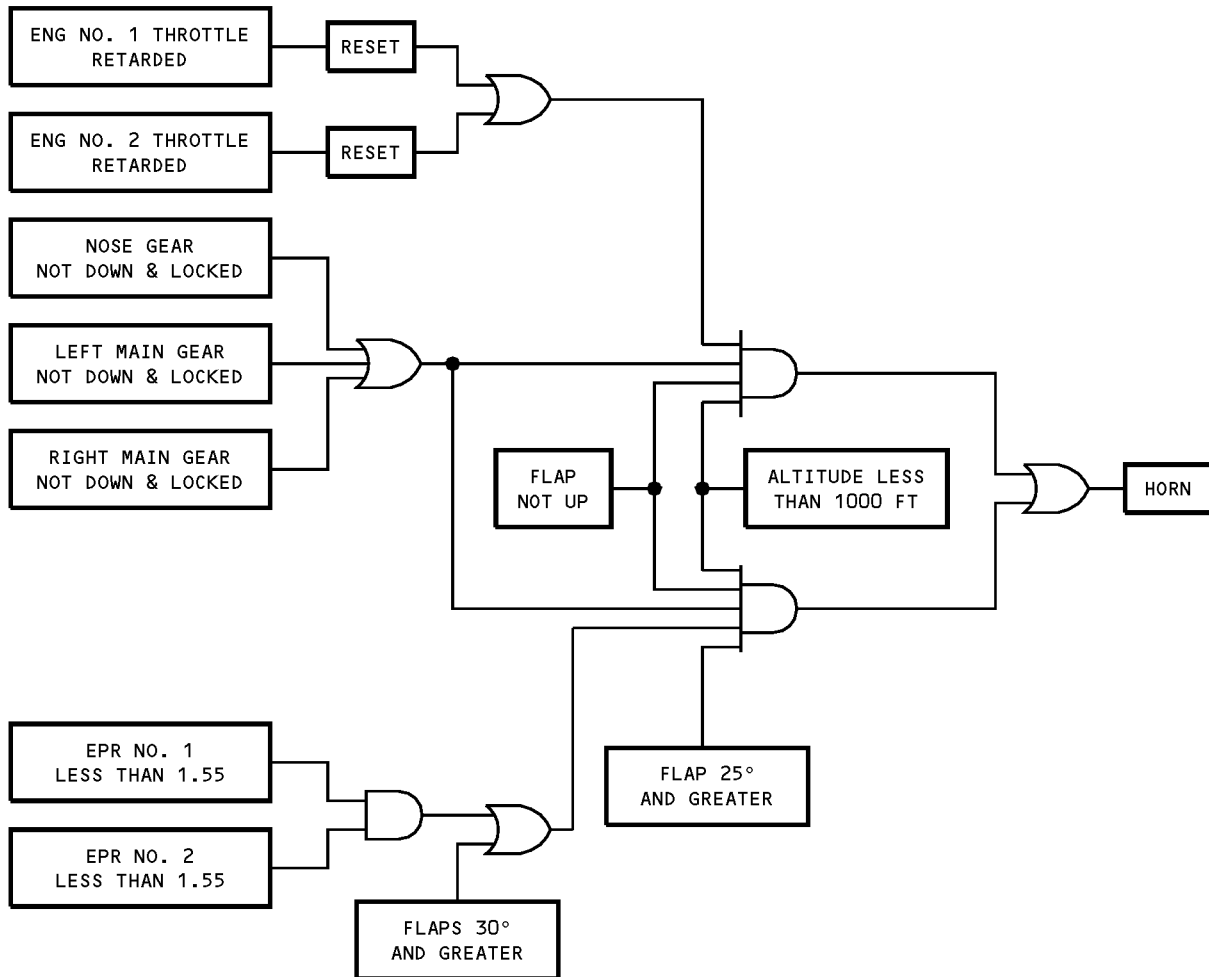
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Landing Gear Aural Warning Logic Diagram
Figure 6

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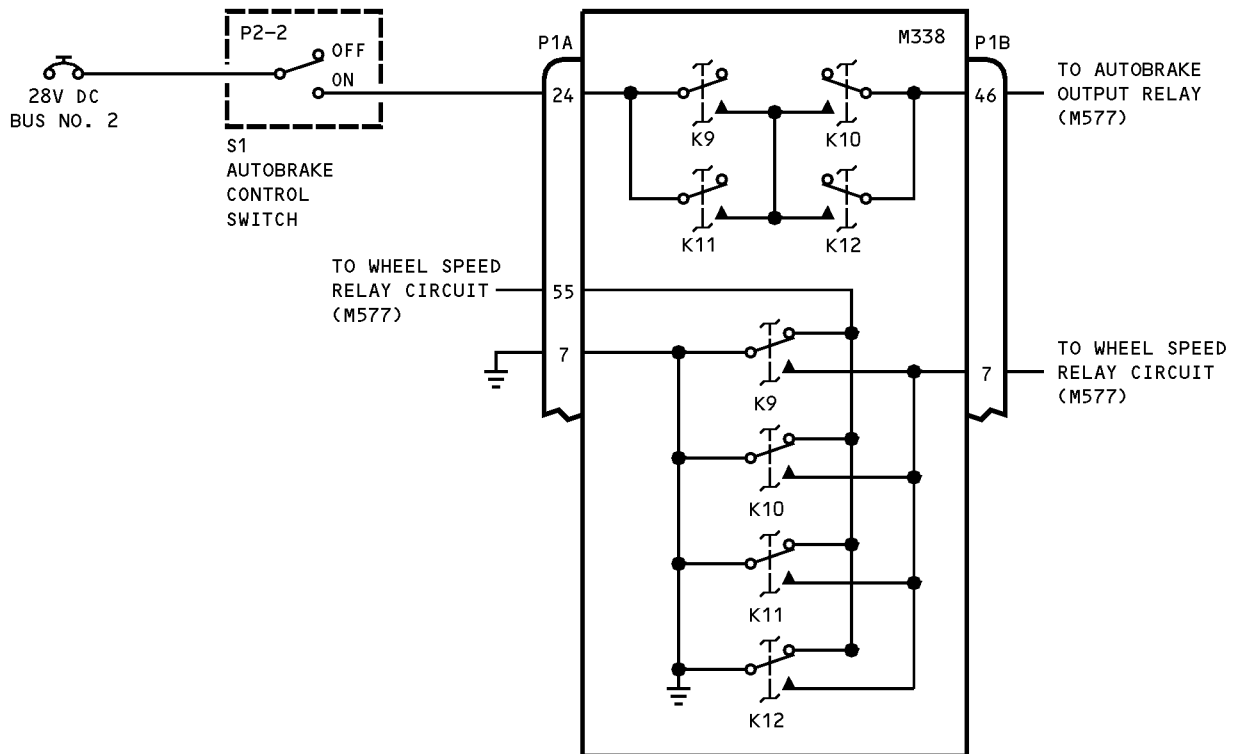
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Automatic Ground Speed Brake System
Figure 7 (Sheet 1 of 2)

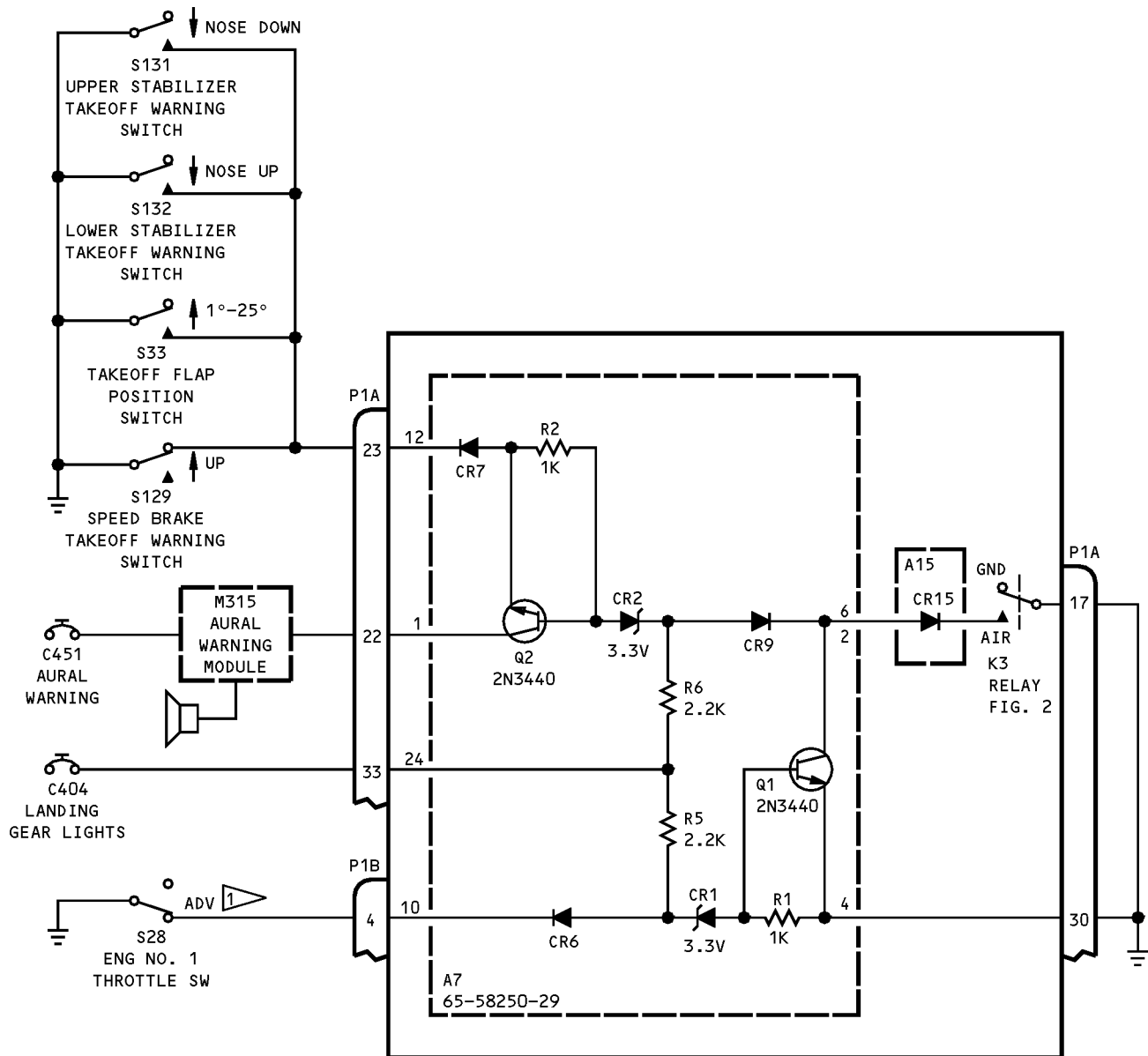
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
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NOTE: UNLESS OTHERWISE SPECIFIED ALL RESISTANCES ARE IN OHMS $\pm 5\%$ DIODES CR6, CR7 AND CR9 ARE 1N4385.

 25 $\pm 2\%$ TO FULL ADVANCE

Takeoff Warning System
Figure 8

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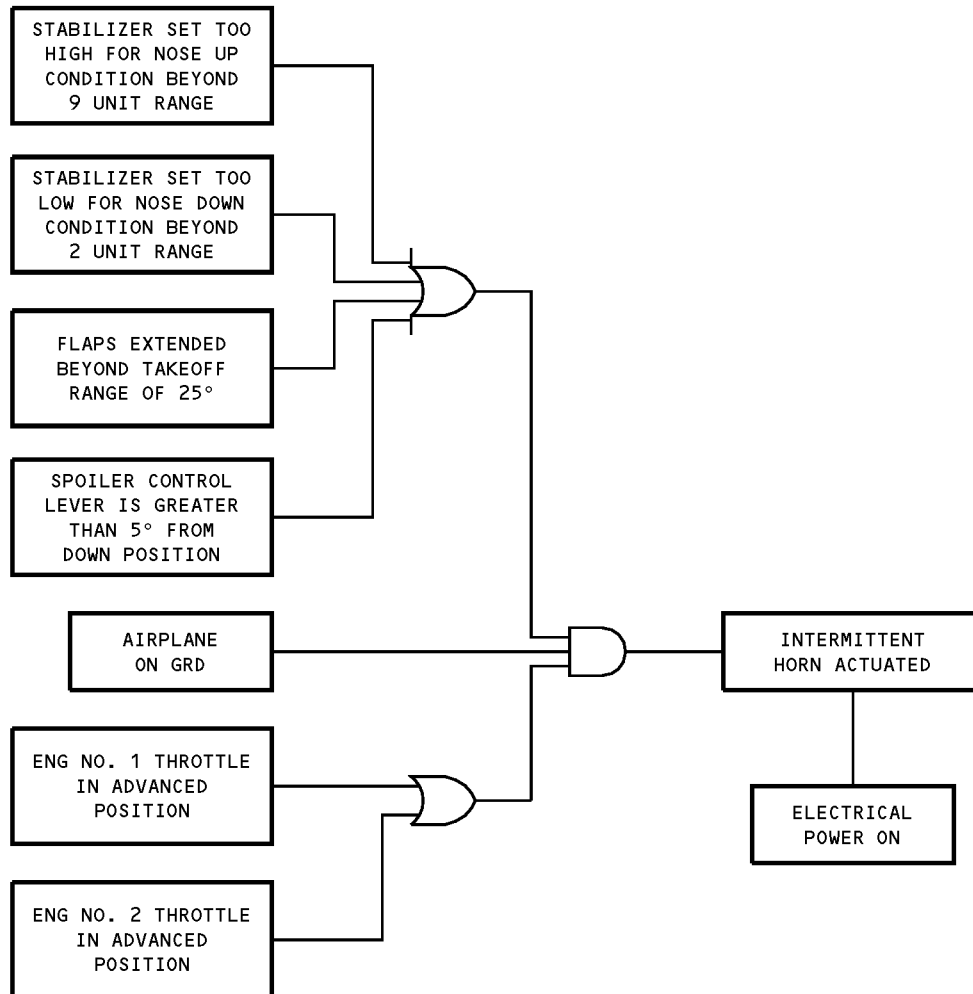
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Takeoff Warning System Logic Diagram
Figure 9

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TESTING AND FAULT ISOLATION

1. Test Equipment

NOTE: Equivalent equipment may be used.

A. Test Box: Landing gear accessory unit test box P/N 69-77897-1 may be used in lieu of test setup.

- (1) Resistors: 470 ohms, 5 PCT, 1/2W (R1, R36, R37, R39, R41, R44, R45, R47) 348 ohms, 1 PCT, 1/2W (R2, R35, R38, R40, R42, R43, R46, R48)
- (2) Switches
 - (a) SPDT (P/N JMT123 (J-B-T Instruments Inc., 575 Grand Ave., PO Box 1818, New Haven, Connecticut 06508-1818)): (S1-S11, S13-S18, S20, S24-S30) 29 required
 - (b) DPDT (P/N MTA206N (Dialight Div., Amperex Electronics Corp., 203 Harrison Place, Brooklyn, New York 11237-1587)): (S19) 1 required
 - (c) SP momentary (P/N 580-1 (Dialight Div., Amperex Electronics Corp., 203 Harrison Place, Brooklyn, New York 11237-1587)): (S12, S21, S22) 3 required
 - (d) DP momentary (P/N 580-2 (Dialight Div., Amperex Electronics Corp., 203 Harrison Place, Brooklyn, New York 11237-1587)): (S23) 1 required
- (3) Test Lamps (Dialight Div., Amperex Electronics Corp., 203 Harrison Place, Brooklyn, New York 11237-1587)
 - (a) 28v dc, 40 ma (P/N 507-3918-1472-600) (29 required) (L1, L3, L5, L7, L8, L10, L12, L14, L16, L18, L20, L22, L23, L25, L27, L29, L31, L34, L35, L37, L39, L41, L43, L47, L49, L55, L59, L61, L64)
 - (b) 28v dc, 40 ma (P/N 507-3918-1473-600) (26 required) (L2, L4, L6, L9, L11, L13, L15, L17, L19, L21, L24, L26, L28, L30, L32, L33, L36, L38, L40, L42, L45, L46, L48, L56, L57, L60)
 - (c) 28v dc, 40 ma (P/N 507-3918-1471-600) (3 required) (L58, L62, L63)
 - (d) 28v dc, 40 ma (P/N 507-3918-1474-600) (4 required) (L50-L53)
 - (e) 28v dc, 40 ma (P/N 507-3918-1475-600) (1 required) (L54)
- (4) Test connector (D658) DPX2MB67S67S33B0058 (ITT Cannon Div of ITT Corp., 10550 Talbert Avenue, PO Box 8040, Fountain Valley, California 92728) (with pigtail lead)

B. Power Supplies:

- electrical power supply (28VDC), STD-1256
- 28 \pm 1v ac, 400 \pm 5 Hz

C. Multimeter - Multimeter, SPL-4524

2. Functional Test

- A. Connect test connector to module assembly.
- B. Connect test setup per TESTING AND FAULT ISOLATION, Figure 101.
- C. Set switches per initial condition listed in TESTING AND FAULT ISOLATION, Table 101.

Table 101: Item Simulated by Test Setup

TEST ITEM	INITIAL CONDITION	AIRCRAFT CIRCUIT FUNCTION
S1	ON	C404
S2	ON	GROUND 3

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Table 101: Item Simulated by Test Setup (Continued)

TEST ITEM	INITIAL CONDITION	AIRCRAFT CIRCUIT FUNCTION
S3	ON (Actuate)	GROUND MODE
S4	ON	GROUND 4
S5	ON	BRAKE SET
S6	OFF (Deactuate)	AIR MODE
S7	ON	GEAR LEVER DOWN
S8	ON	ENGINE NO. 1 THROTTLE
S9	ON	ENGINE NO. 2 THROTTLE
S10	OFF (Deactuate)	NOSE GEAR UP SENSOR
S11	ON (Actuate)	NOSE GEAR DOWN SENSOR
S12	OFF	HORN CUTOUT
S13	ON	FLAPS UP
S14	OFF	FLAPS > 10
S15	OFF (Deactuate)	RIGHT GEAR UP SENSOR
S16	OFF (Deactuate)	LEFT GEAR UP SENSOR
S17	ON (Actuate)	RIGHT GEAR DOWN SENSOR
S18	ON (Actuate)	LEFT GEAR DOWN SENSOR
S19	OFF	SPOILER ARMED BRAKING
S20	OFF	OUTBOARD ANTISKID INOPERATIVE
S21	OFF	BRAKING TEST 1
S22	OFF	BRAKING TEST 2
S23	OFF	BRAKING TEST 3
S24	OFF	RIGHT INBOARD SPIN UP
S25	OFF	LEFT OUTBOARD SPIN UP
S26	OFF	RIGHT OUTBOARD SPIN UP
S27	OFF	LEFT INBOARD SPIN UP
S28	OFF	THROTTLE ADVANCED
S29	OFF	INBOARD ANTISKID INOPERATIVE
S30	ON	LOWER SPEED BRAKE ACTUATOR
S31	ON	GROUND 1
S32	ON	GROUND 2
S33	OFF	NOT T.O. CONFIGURATION
S34	ON	CIRCUIT GROUND

D. Perform continuity test per TESTING AND FAULT ISOLATION, Table 102.

NOTE: Continuity (Con) is less than 3 ohms. Open is more than 50k ohms.

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Table 102: Continuity Test

MEASURE FROM PIN TO PIN		REQUIRED RESULTS	COMPONENT TESTED
A-25	A-26	Con	K1
A-25	A-27	Open	K1
A-29	A-14	Con	K1
A-29	A-57	Open	K1
A-29	B-45	Con	K1
A-29	B-9	Open	K1
B-32	B-25	Con	K1
B-32	B-26	Open	K1
A-29	A-9	Con	K2
A-29	A-6	Open	K2
A-29	A-13	Open	K2
B-29	B-23	Con	K2
B-29	B-24	Open	K2
A-12	A-11	Con	K3
A-12	A-10	Open	K3
A-17	B-43	Con	K3
A-31	A-15	Con	K4
A-31	A-28	Open	K4
A-19	B-30	Con	K4
A-19	B-31	Open	K4
A-29	B-11	Con	K4
A-29	B-12	Open	K4
B-8	B-14	Con	K4
B-8	B-34	Open	K4
A-17	B-19	Con	K5
A-17	B-20	Open	K5
A-63	A-62	Con	K5
A-63	A-61	Open	K5
B-27	B-47	Con	K6
B-27	B-2	Open	K6

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Table 102: Continuity Test (Continued)

MEASURE FROM PIN TO PIN		REQUIRED RESULTS	COMPONENT TESTED
B-48	B-28	Con	K6
B-48	A-20	Open	K6
A-32	B-18	Open	K7
B-64	B-63	Con	K8
B-64	B-62	Open	K8
A-29	B-66	Con	K8
A-29	B-65	Open	K8
B-56	B-58	Con	K8
B-56	B-57	Open	K8
B-61	B-60	Con	K8
B-61	B-59	Open	K8
A-7	A-55	Con	K9-K12
A-7	B-7	Open	K9-K12
B-5	B-3	Open	K13

- E. Turn on power supplies. Perform lamp test per TESTING AND FAULT ISOLATION, Table 103. Confirm all test switches as indicated in TESTING AND FAULT ISOLATION, Table 101.

Table 103: Lamp Test

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
1	Verify indicator lights on AIR/GROUND FUNCTIONS.	L1,L3,L5,L7, L8,L10,L12, L14,L16,L18, L20,L22,L23, L25,L27,L29, L31,L34,L35, L37,L39,L41, L43	L2,L4,L6,L9, L11,L13,L15, L17,L19,L21, L24,L26,L28, L30,L32,L33, L36,L38,L40, L42,L45	A3,K1-K8
2	Verify indicator lights on BRAKING SYSTEM.	L56	L46-L55	A5,K9-K12
3	Verify indicator lights on LANDING GEAR.	L59,L61,L64	L57,L58,L60, L62,L63	A7,A10,A11,A12, A14,A15

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- (1) Perform AIR/GROUND FUNCTIONS test per TESTING AND FAULT ISOLATION, Table 104.
Confirm all test switches as indicated in TESTING AND FAULT ISOLATION, Table 101.

Table 104: AIR/GROUND FUNCTIONS Test

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
1	Set S3 to OFF (Deactuate)	L1,L3,L5,L7,L9, L11,L13,L15, L17,L19,L21, L24,L26,L28, L30,L32,L34, L36,L38,L40, L42,DS2, *[1]	L2,L4,L6,L8, L10,L12,L14, L16,L18,L20, L22,L23,L25, L27,L29,L31, L33,L35,L37, L39,L41,L43, L45	K1-K8, A3,A4,S1 *[1]
2	Set S3 to ON (Actuate).	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1.		
3	Depress and hold S2 *[1].	L1,L3,L5,L7,L9, L11,L13,L15, L17,L19,L21, L24,L26,L28, L30,L32,L34, L36,L38,L40, L42,DS2 *[1]	L2,L4,L6,L8, L10,L12,L14, L16,L18,L20, L22,L23,L25, L27,L29,L31, L33,L35,L37, L39,L41,L43, L45	K1-K8, A3,A4,S1 *[1]S2 *[1]
4	Release S2 *[1].	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1		
5	Set S6 to ON (Actuate).	L2,L4,L6,L8, L10,L12,L14, L16,L18,L20, L22,L23,L25, L27,L29,L31, L33,L35,L37, L39,L41,L45 DS1 *[1]	L1,L3,L5,L7, L9,L11,L13, L15,L17,L19, L21,L24,L26, L28,L30,L32, L34,L36,L38, L40,L42,L43	K1-K8,A2,A3,A4, S1 *[1]
6	Set S6 to OFF (Deactuate)	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1.		
7	Set S4 to OFF.	L15,L17,L19, L24,L28,L30, L32,L33,L38	L1-L14,L16, L18,L20- L23, L25,L26,L27, L29,L31,L34- L37,L39- L43, L45	K1-K8,S1 *[1]
8	Set S4 to ON.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1.		
9	Set S2 to OFF.	L1,L3,L5,L7,L8, L10,L12,L20, L22,L25,L34, L35,L39,L41,L43	L2,L4,L6,L9, L11,L13- L19, L21,L23,L24, L26- L33,L36- L38,L40,L42, L45	K1-K8,A3, S1 *[1]
10	Set S6 to ON (Actuate).			

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Table 104: AIR/GROUND FUNCTIONS Test (Continued)

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
11	Set S3 to OFF (Deactuate)	DS1,DS2,L2,L4, L6,L9,L11,L13, L21,L26,L36,L40 L42,L45	L1,L3,L5,L7, L8,L10,L12,L14 L15-L20,L22- L25,L27-L35, L37-L39,L41, L43	K1-K8,A2,A3
12	Set S2 to ON.	DS1,DS2,L2,L4, L6,L9,L11,L13, L15,L17,L19, L21,L24,L26, L28,L30,L32, L33,L36,L38, L40,L42,L45	L1,L3,L5,L7, L8,L10,L12,L14 L16,L18,L20, L22,L23,L25, L27,L29,L31, L34,L35,L37, L39,L41,L43	K1-K8,A2,A3
13	Set S3 to ON (Actuate).			
14	Set S6 to OFF (Deactuate)	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1.		
15	Set S5 to OFF.	L33,L36,L38, L40,L42	L22,L34,L35, L37,L41	K4,K7
16	Set S5 to ON.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 1.		

*[1] Component located on the M338 Landing Gear Accessory unit

F. Perform BRAKING SYSTEM test per TESTING AND FAULT ISOLATION, Table 105 . Confirm all test switches as indicated in TESTING AND FAULT ISOLATION, Table 101.

Table 105: BRAKING SYSTEM TEST

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
BRAKING SYSTEM-SPIN UP				
1	Set S25 to ON.	L51,L55,L56		K9,K11
2	Set S25 to OFF.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 2.		
3	Set S27 to ON.	L53,L55,L56		K9,K11
4	Set S27 to OFF.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 2.		
5	Set S24 to ON.	L52,L55,L56		K11,K12

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Table 105: BRAKING SYSTEM TEST (Continued)

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
6	Set S24 to OFF.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 2.		
7	Set S26 to ON.	L50,L55,L56		K9,K10
8	Set S27 to ON.	L50,L53-L56		K9,K12
9	Set S19 to ON.	L46,L50,L53, L55,L56	L54	K9-K12,A5
10	Set S19 to OFF.	L50,L53-L56		K9,K12
11	Set S27 to OFF.	L50,L55,L56		K9,K10
12	Set S25 to ON.	L50,L51,L54-L56		K9,K11
13	Set S26 to OFF.	L51,L55,L56		K9,K11
14	Set S24 to ON.	L51,L52,L54-L56		K11,K12
15	Set S26 and S27 to ON.	L50-L55	L56	K9-K12
16	Set S31 to OFF.	L56	L50-L55	K9-K12
17	Set S32 to OFF.		L50-L56	K9-K12
18	Set S24 thru S27 to OFF.			
19	Set S31 and S32 to ON.	All indicators return to the original configuration per TESTING AND FAULT ISOLATION, Table 103, test step 2.		
BRAKING SYSTEM-SPEEDBRAKE				
20	Set S19 to ON.	L47	L46,L48,L49	A5
21	Set S20 and S29 to ON.	L46	L47-L49	A5
22	Set S20 to OFF.	L47	L46,L48,L49	A5
23	Set S29 to OFF.	L47	L46,L48,L49	A5
24	Set S26 to ON.	L46	L47-L49	A5,K10
25	Set S25 to ON.	L47,L48	L46,L49	A5,K10,K11,K13
26	Set S30 to OFF.	L47,L48	L46,L49	A5,K10,K11,K13
27	Set S26 to OFF.	L46	L47-L48	A5,K10,K11,K13
28	Set S30 to ON.	L47	L46,L48,L49	A5,K10,K11,K13
29	Set S27 to ON.	L47,L48	L46,L49	A5,K9,K11,K13
30	Set S25 to OFF.	L46	L47-L49	A5,K9,K11,K13
31	Set S24 to ON.	L47,L48	L46,L49	A5,K9,K12,K13
32	Set S28 to ON.	L46,L49	L47,L48	A5,A7/CR15,K9, K12.K13

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Table 105: BRAKING SYSTEM TEST (Continued)

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
33	Set S24,S27 and S28 to OFF.	L47	L46,L48,L49	A5,A7/CR15,K9, K11-K13
34	Depress and hold S21.	L46	L47-L49	A4/R2,R3,A5
35	Release S21.	L47	L46,L48,L49	A4/R2,R3,A5
36	Depress and hold S22.	L46	L47-L49	A4/R1,A5
37	Release S22.	L47	L46,L48,L49	A4/R1,A5
38	Depress and hold S23	L46,L49	L47,L48	A4,A7/CR15,K13
39	Release S23.	L47	L46,L48,L49	A4,A7/CR15,K13

G. Perform LANDING GEAR test per TESTING AND FAULT ISOLATION, Table 106. Confirm all test switches as indicated in TESTING AND FAULT ISOLATION, Table 101.

Table 106: Landing Gear Test

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
1	Set S7,S8,S9 and S13 to OFF.	L58,L59,L61-L64	L57,L60	A7,A10-A15
2	Set S18 to OFF (Deactuate).	L58,L61-L64	L57,L59,L60	A7,A10-A15
3	Set S11 to OFF (Deactuate).	L58,L61-L63	L57,L59,L60, L64	A7,A10-A15
4	Set S17 to OFF.	L58,L62,L63	L57,L59,L60, L61,L64	A7,A10-A15
5	Set S16 to ON (Actuate).	L62,L63	L57-L61,L64	A7,A10-A15
6	Set S10 to ON (Actuate).	L62	L57-L61,L63, L64	A7,A10-A15
7	Set S15 to ON (Actuate).		L57-L64	A7,A10-A15
8	Set S8 to ON.	L57,L58,L62,L63		A7,A10-A15
9	Momentary depress S12.	L58,L62,L63	L57	A7,A10-A15
10	Set S9 to ON.	L57,L58,L62,L63		A7,A10-A15
11	Momentary depress S12.	L58,L62,L63	L57	A7,A10-A15
12	Set S14 to ON.	L57,L58,L62,L63		A7,A10-A15
13	Momentary depress S12.	L57,L58,L62,L63		A7,A10-A15
14	Set S13 to ON.	L58,L62,L63	L57	A7,A10-A15
15	Set S8 and S9 to OFF.		L57-L64	A7,A10-A15
16	Set S7 to ON.	L58,L62,L63		A7,A10-A15

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Table 106: Landing Gear Test (Continued)

Test Step	Procedure	Test Lamp Indications		Component Tested
		Illuminated	Extinguished	
17	Set S10,S15 and S16 to OFF (Deactuate).	L58,L62,L63		A7,A10-A15
18	Set S18 to ON (Actuate)	L59,L62,L63	L58	A7,A10-A15
19	Set S11 to ON (Actuate)	L59,L62,L64	L58,L63	A7,A10-A15
20	Set S17 to ON (Actuate)	L59,L61,L64	L58,L62,L63	A7,A10-A15
21	Set S34 to OFF.	L58,L62,L63	*[1]	A7,A10-A15
22	Set S34 to ON.	L59,L61,L64	L58,L62,L63	A7,A10-A15
23	Set S28 and S33 to ON.	L59,L60,L61,L64	L58,L62,L63	A7,A10-A15
24	Set S6 to ON (Actuate)	L59,L61,L64	L58,L60,L62, L63	A7,A10-A15,K3
25	Set S6 to OFF (Deactuate)	L59,L60,L61,L64	L58,L62,L63	A7,A10-A15,K3
26	Set S33 to OFF.	L59,L61,L64	L58,L60,L62, L63	A7,A10-A15
27	Set S33 to ON.	L59,L60,L61,L64	L58,L62,L63	A7,A10-A15
28	Set S28 to OFF.	L59,L61,L64	L58,L60,L62, L63	A7,A10-A15

*[1] Lights L59, L61, and L64 grow very dim or extinguished.

H. Turn off power supplies.

I. Disconnect test setup, TESTING AND FAULT ISOLATION, Figure 101.

J. Verify indexing on rear connector per TESTING AND FAULT ISOLATION, Figure 102.

NOTE: Darkened portion indicates extended part of keying post.

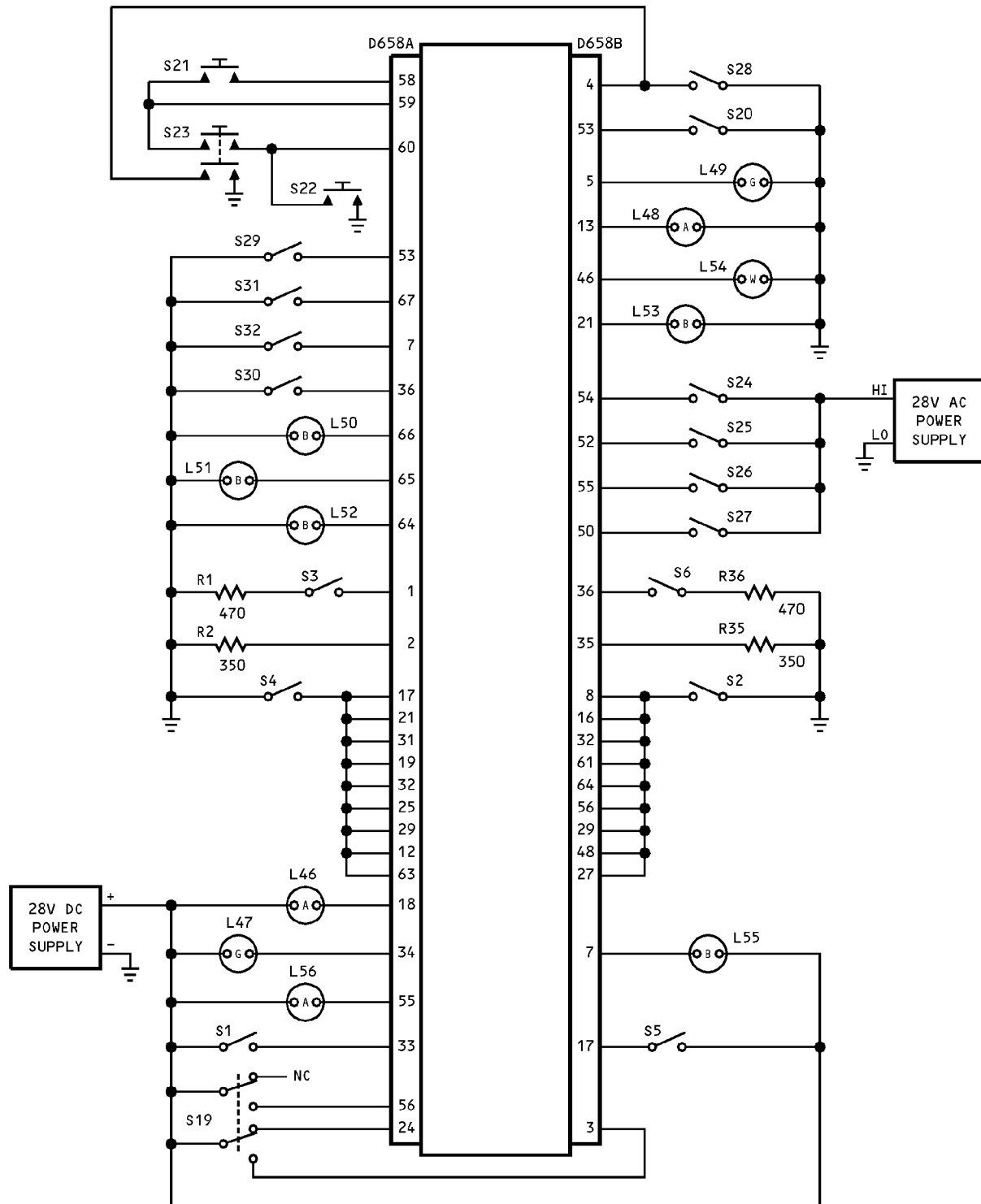
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Test Setup
Figure 101 (Sheet 1 of 4)

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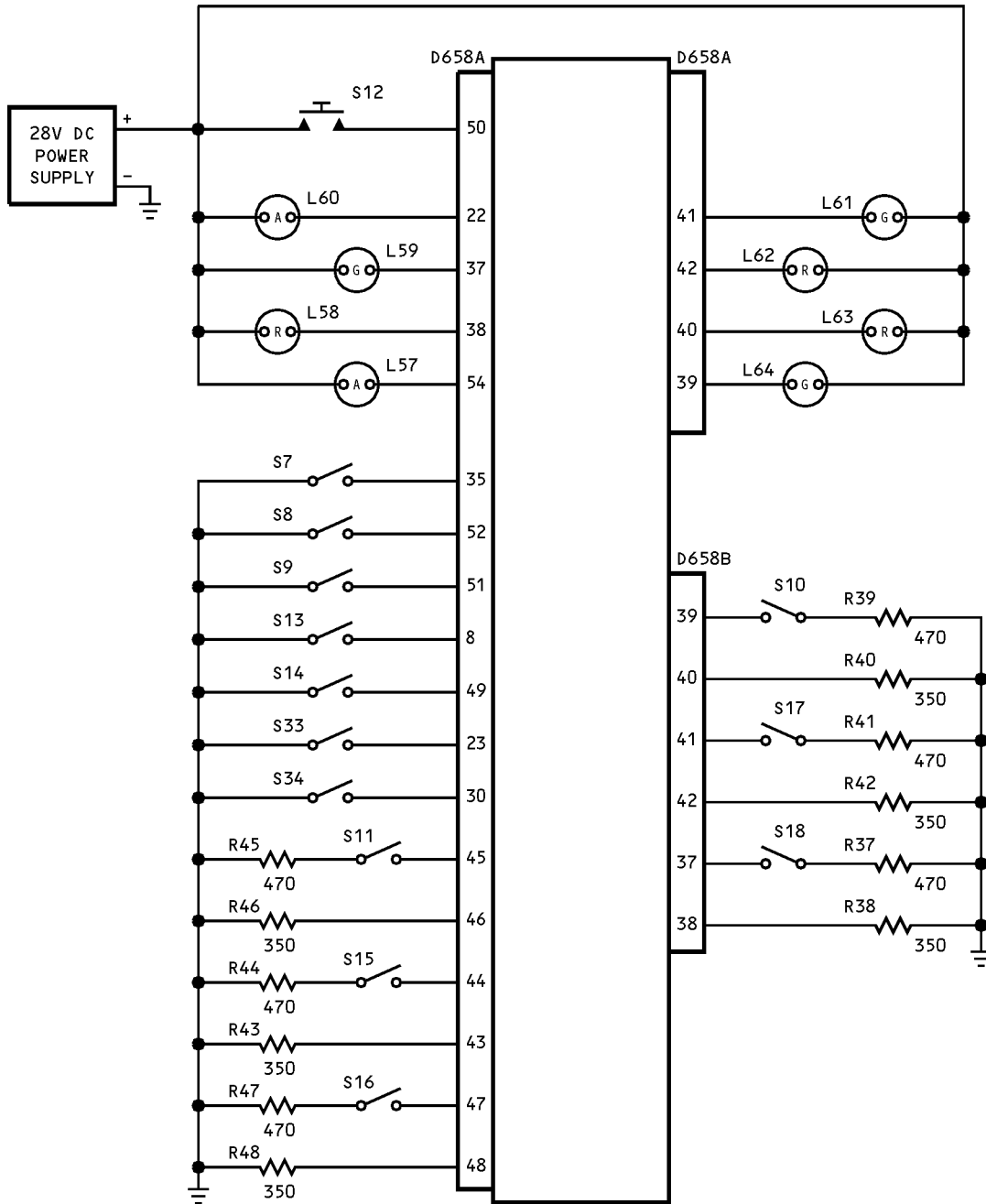
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Test Setup
Figure 101 (Sheet 2 of 4)

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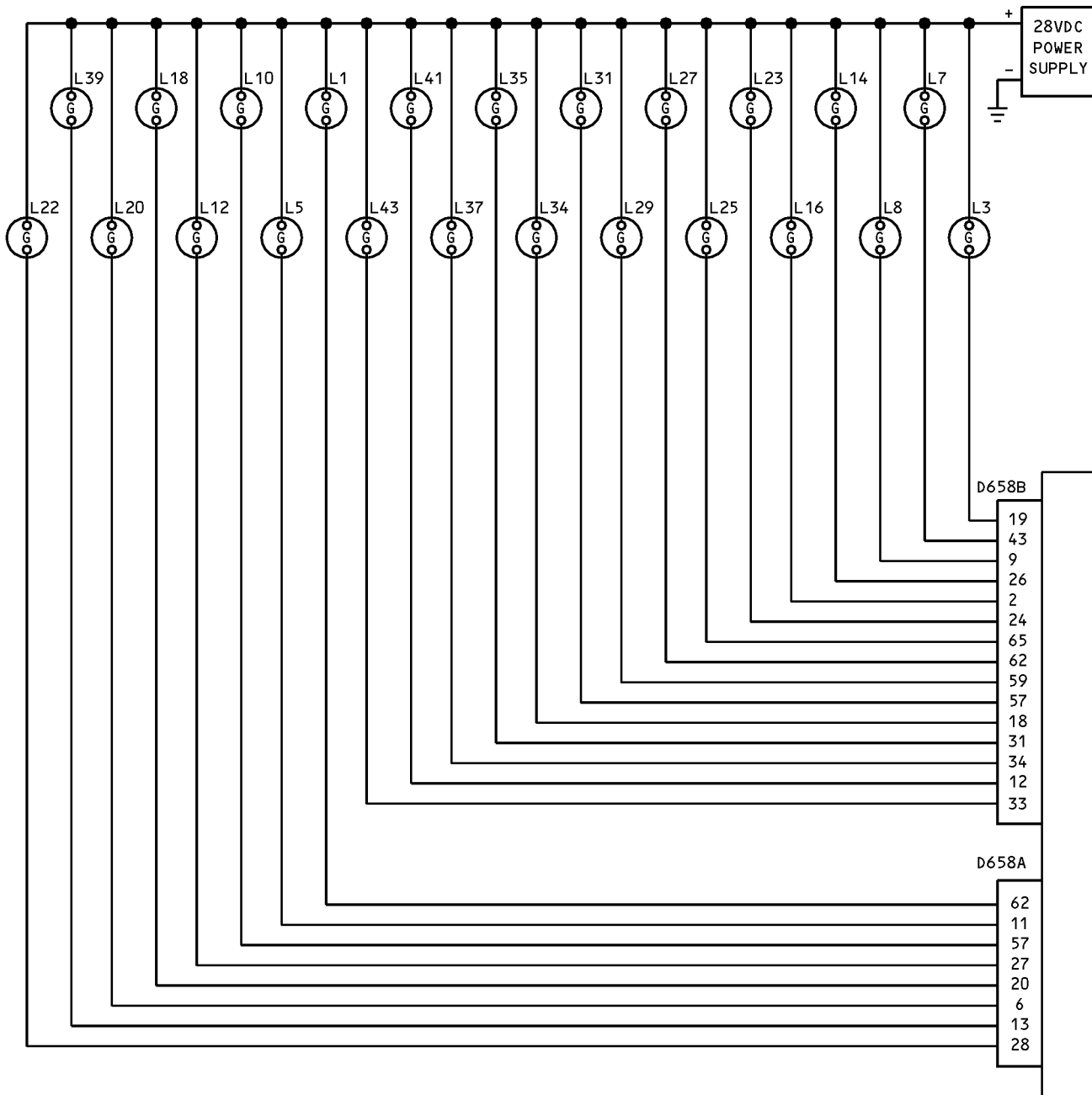
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Test Setup
Figure 101 (Sheet 3 of 4)

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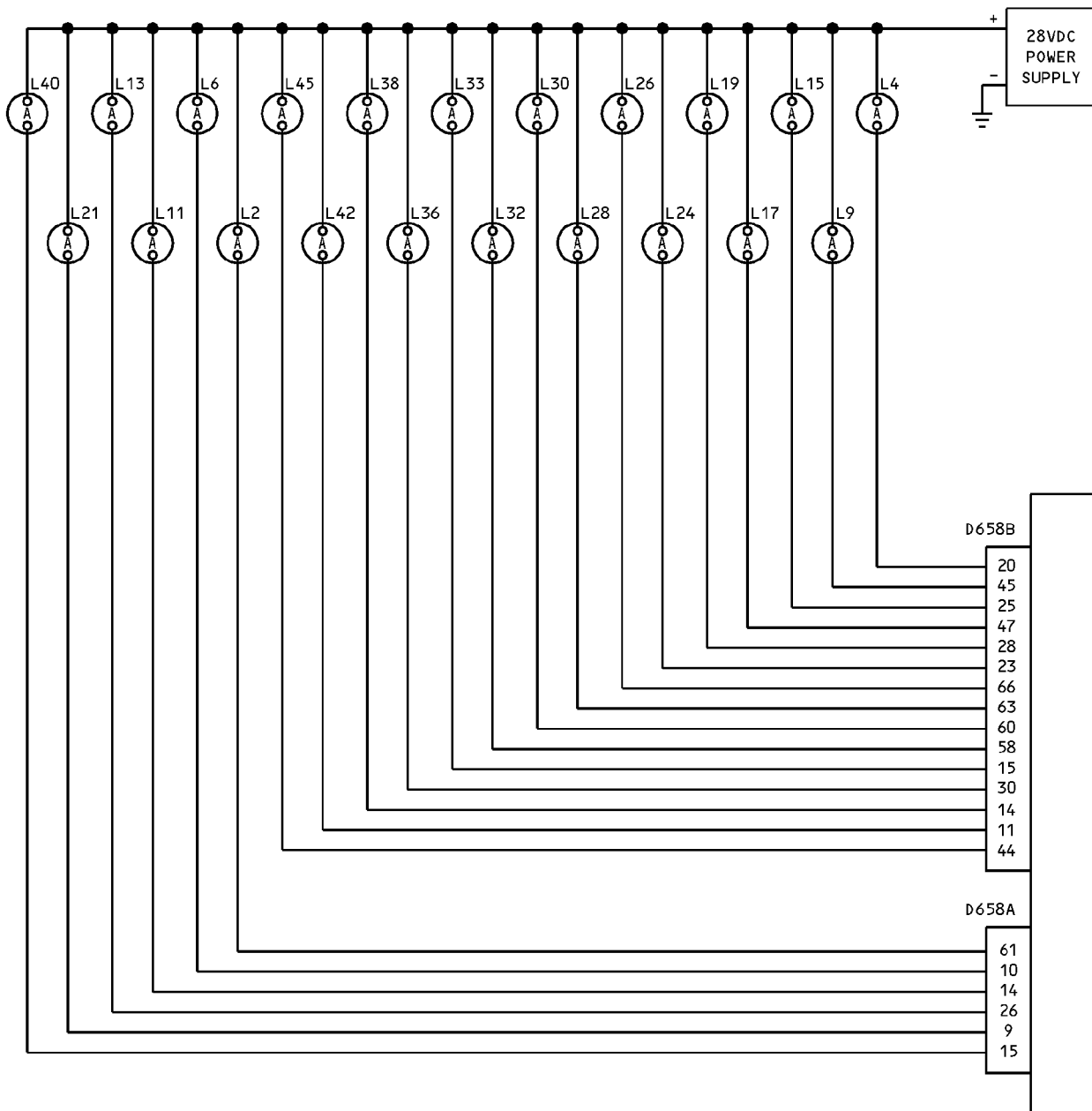
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NOTE: D658B MATES WITH P1B. D658A MATES WITH P1A

Test Setup
Figure 101 (Sheet 4 of 4)

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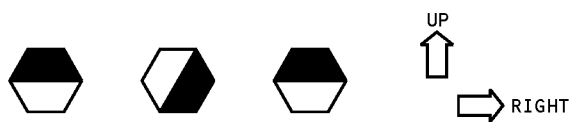
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Connector Indexing
Figure 102

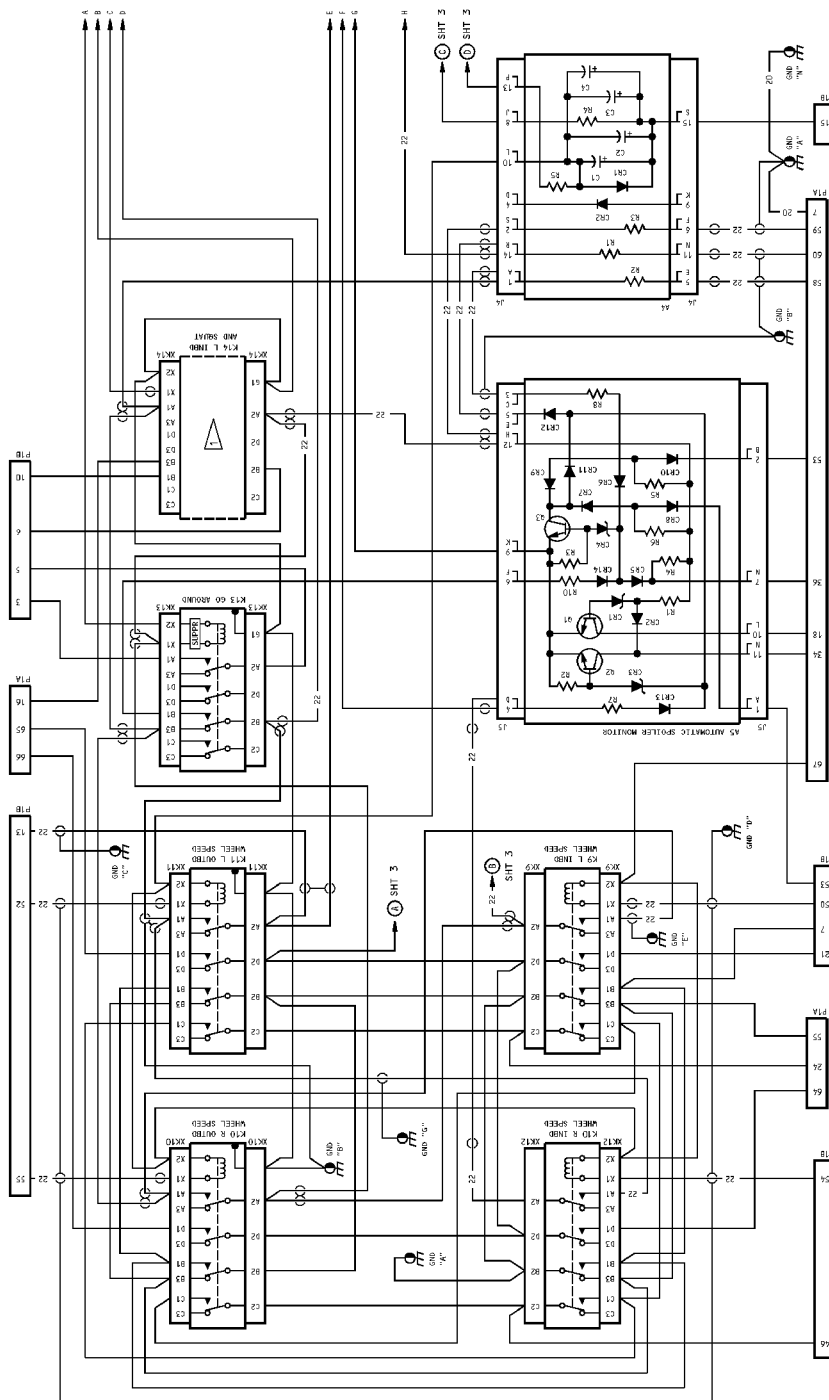
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65-52811-187 Schematic Diagram
Figure 103 (Sheet 1 of 3)

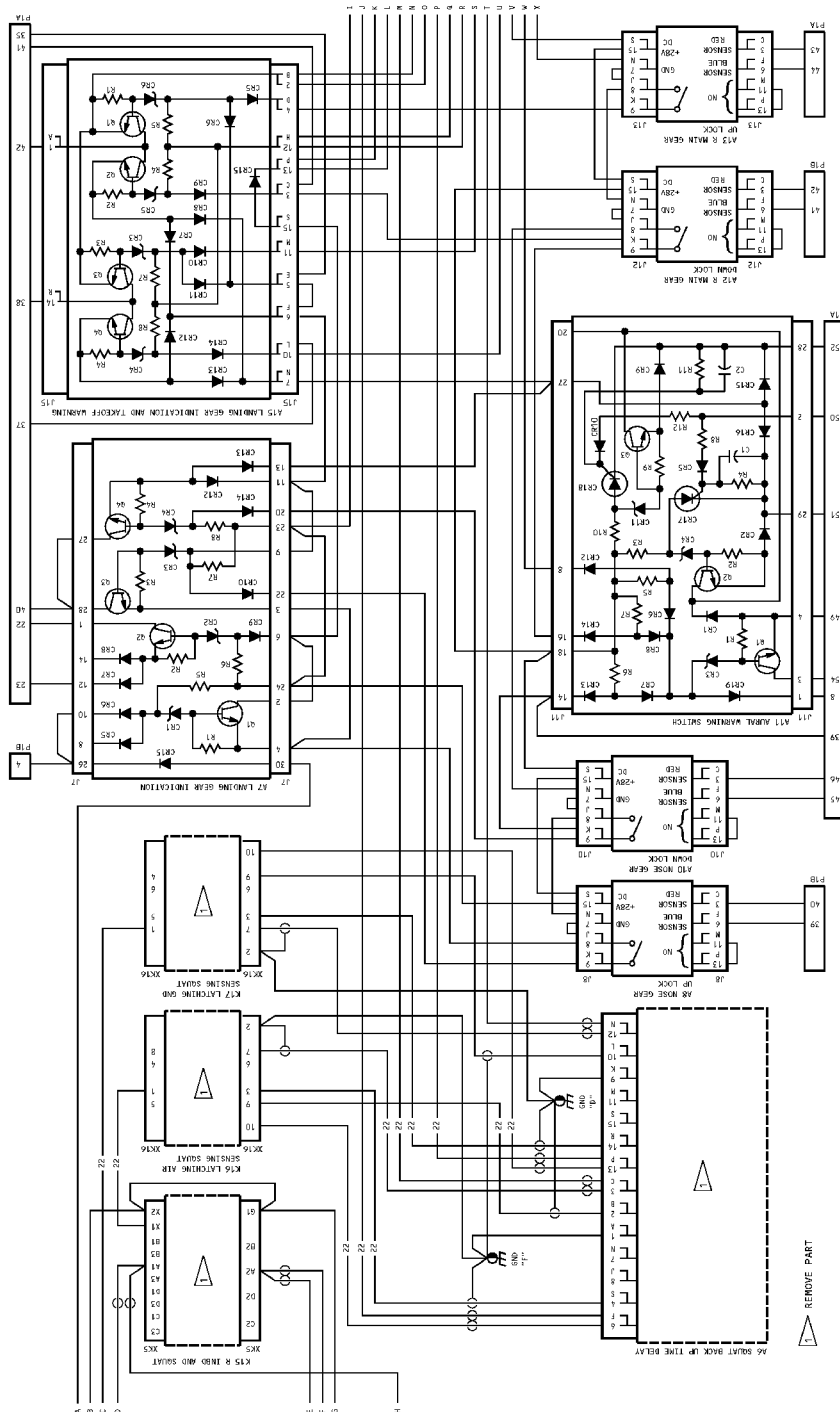
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65-52811-187 Schematic Diagram
Figure 103 (Sheet 2 of 3)

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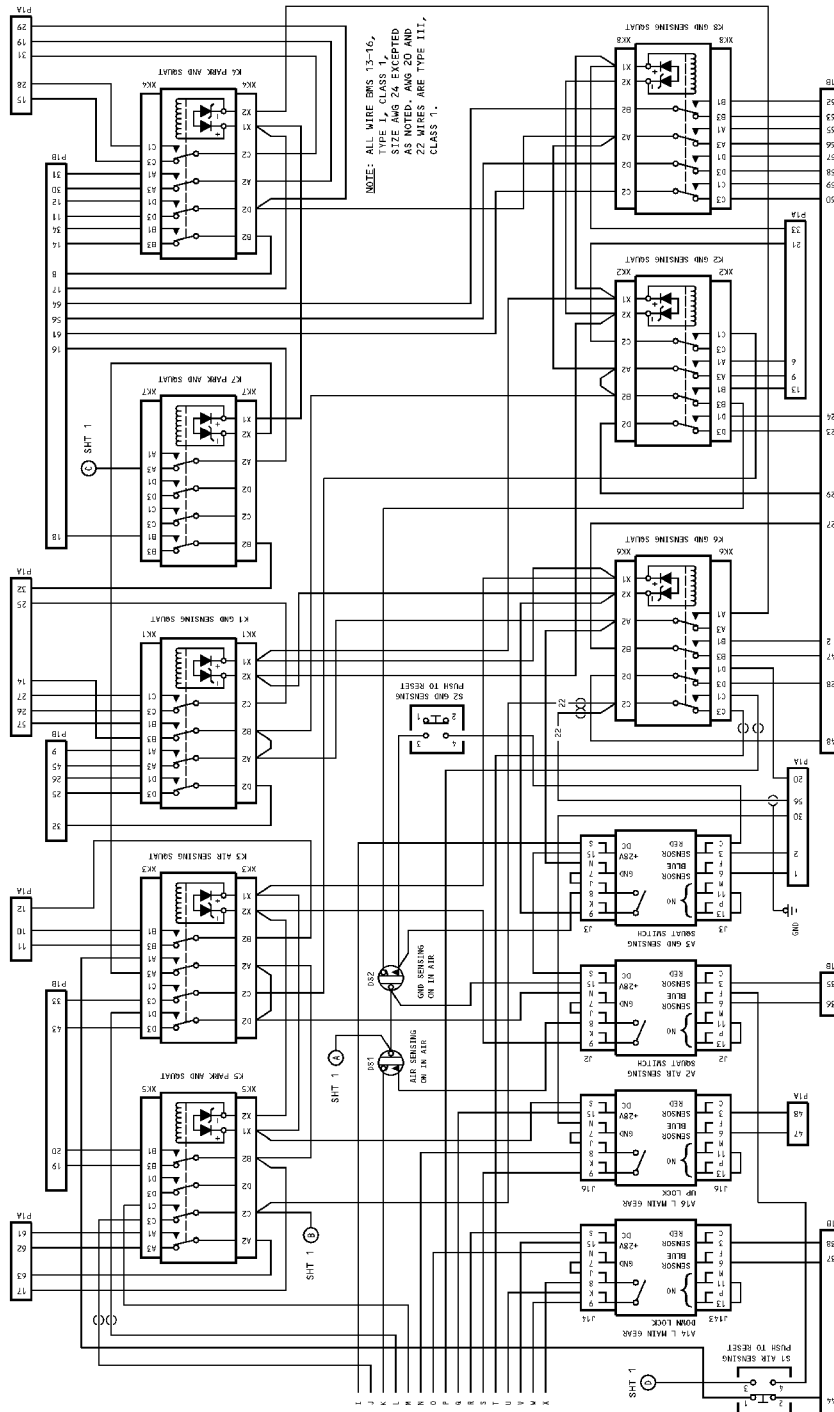
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65-52811-187 Schematic Diagram
Figure 103 (Sheet 3 of 3)

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DISASSEMBLY

(NOT APPLICABLE)

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DISASSEMBLY

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CLEANING

(NOT APPLICABLE)

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CLEANING
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CHECK

(NOT APPLICABLE)

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CHECK

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**COMPONENT MAINTENANCE MANUAL****REPAIR****1. Procedure**

A. All repair can be accomplished with standard industry practices and information contained in SOPM 20-11-04 except as noted in the following:

- (1) If keying plugs (410, IPL Figure 1) require replacement, install in connectors as indicated in REPAIR-GENERAL, Table 601

Table 601: Keying Plug Installation

Connector	Position
J2, J3, J8, J13, J18	10-L
J4	3-C, 12-N
J5	8-J, 13-P
J6	5-E
J7	15-16, 17-18
J10	2-B
J11	23-24, 25-26
J12, J14	2-B
J15	8-J, 9-K

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REPAIR - GENERAL

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ASSEMBLY

(NOT APPLICABLE)

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ASSEMBLY

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FITS AND CLEARANCES

(NOT APPLICABLE)

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FITS AND CLEARANCES

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SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

1. General

A. This section lists the special tools, fixtures, and equipment necessary for maintenance.

NOTE: Equivalent substitutes may be used.

Special Tools

Reference	Description	Part Number	Supplier
SPL-4524	Multimeter	260	55026

Tool Supplier Information

CAGE Code	Supplier Name	Supplier Address
55026	SIMPSON ELECTRIC CO.	853 DUNDEE AVENUE ELGIN, IL 60120-3090 Telephone: (847) 697-2260 Facsimile: (847) 697 - 2272 www.simpsonelectric.com

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SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

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COMPONENT MAINTENANCE MANUAL

ILLUSTRATED PARTS LIST

1. Introduction

- A. The Illustrated Parts List (IPL) contains an illustration and a list of component parts you can repair or replace. The Illustrated Parts Catalog (IPC) shows how to use the Boeing part number system.
- B. This shows how parts are related: The relation of each item to its next higher assembly (NHA) is shown in the NOMENCLATURE column. Use the indenture system that follows:

1	2	3	4	5	6	7
.	Assembly					
.	Attaching parts for assembly					
.	.	Detail parts for assembly				
.	.	Subassembly				
.	.	Attaching parts for subassembly				
.	.	.	Detail parts for subassembly			
.	.	.	Sub-subassembly			
.	.	.	Attaching parts for subassembly			
.	.	.	.	Details parts for sub-subassembly		

Detail Installation Parts (Included only if installation parts may be sent to the shop as part of assembly)

- C. Each top assembly is given one use code letter (A, B, C, etc.) in the USAGE CODE column. All subsequent component parts in the list can have one or more of the use code letters to show effectivity to top assemblies. A component part without a use code applies to all top assemblies.
- D. An alphabetical letter is added after the item number for optional parts, parts changed by a Service Bulletin, configuration differences (except left-handed and right-handed parts), last engineering releases, and parts added between item numbers in a sequence. The alphabetical letter will not be shown on the illustration for equivalent parts of the same part number.
- E. Color-coded parts are identified with a single digit alpha following the dash number or with "SP" suffix. If the "SP" suffix is used, it represents consolidation of all color codes applicable for a given usage which are not separately listed. Orders for color-coded parts should include the registry number of the airplane for which the parts are ordered.
- F. If a part number is 15 characters long but will not fit in the part number column, the part number will be displayed with a "~" at the end of the line and will be continued on the next line. The "~" denotes that the part number continues on the next line.
- G. Parts changed by a Service Bulletin are shown by PRE SB XXXX and POST SB XXXX added to the NOMENCLATURE column.
- (1) When a new top assembly is added by a Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the top assembly level only. The configuration differences at the detail part level are shown by use code letters.
- (2) When the top assembly part number is not changed by the Service Bulletin, PRE SB XXXX and POST SB XXXX will be added at the detail level.
- H. Interchangeable Parts

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ILLUSTRATED PARTS LIST

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Optional (OPT)	The part is optional to and interchangeable with other parts that have the same item number.
Replaces, Replaced by and not interchangeable with (REPLACES, REPLACED BY AND NOT INTCHG/W)	The part replaces and is not interchangeable with the initial part.
Replaces, Replaced by (REPLACES, REPLACED BY)	The part replaces and is interchangeable with, or is an alternative to, the initial part.

VENDOR CODES

Code	Name
00213	MSD INC 700 ORANGE ST DARLINGTON, SOUTH CAROLINA 29532 FORMERLY V01350; FORMERLY 78290; FORMERLY NYTRONICS COMPONENTS GROUP
00779	TYCO ELECTRONICS CORP 2800 FULLING MILL ROAD PO BOX 3608 MIDDLETOWN, PENNSYLVANIA 17057 FORMERLY AMP INC; FORMERLY V04618 FORMERLY GENICOM COMP V01526
05574	VIKING ELECTRONICS INC. 5455 ENDEAVOUR CT MOORPARK, CALIFORNIA 93021 FORMERLY VIKING IND DATACON DIV; VIKING SPECIAL PROD V53156; FORMERLY VIKING CONN SUB OF CRITON CORP; ARIZONA INTEGRATED ELEC V0P9C6; FORMERLY IN CHATSWORTH, CA
08748	CRANE ELDEC CORP 16700 13TH AVE WEST LYNNWOOD, WASHINGTON 98036 FORMERLY VB0043; FORMERLY ELECTRO DEVELOPMENT CORP; FORMERLY ELDEC CORP.

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Code	Name
35344	<p>Replaced: [V35344] LEACH CORP RELAY DIV SEE LEACH CORP CONTROL PROD DIV V58657</p> <p>by Code: Name and Address below</p> <p>58657: LEACH INTERNATIONAL OF NORTH AMERICA</p> <p>6900 ORANGETHORPE AVE PO BOX 5032</p> <p>BUENA PARK, CALIFORNIA 90622-5032</p> <p>FORMERLY LEACH CORP V35344 AND V00614</p> <p>FORMERLY LEACH CORP</p>
71286	<p>ALCOA GLOBAL FASTENERS INC</p> <p>3014 W LOMITA BLVD</p> <p>TORRANCE, CALIFORNIA 90505</p> <p>FORMERLY REXNORD INC SPECIALITY FASTENER DIV IN HASBROUCK HEIGHTS, NEW JERSEY; FORMERLY CAMLOC FASTENER CORP V08733</p>
71468	<p>ITT CANNON DIV OF ITT CORP</p> <p>666 EAST DYER ROAD</p> <p>SANTA ANA, CALIFORNIA 92702</p> <p>FORMERLY CANNON ELECTRIC CO AND ITT CANNON ELECTRIC AND ITT CANNON ELECTRIC DIV OF INTERNATIONAL TELEPHONE CORP FORMERLY IN LOS ANGELES AND FOUNTAIN VALLEY, CALIFORNIA FORMERLY ITT CANNON ELECTRIC SALEM DIV, SALEM, MA V91146</p>
72962	<p>HARVARD INDUSTRIES INC</p> <p>3 WERNER WAY SUITE 210</p> <p>LEBANON, NEW JERSEY 08833</p> <p>FORMERLY ESNA V7A079</p> <p>FORMERLY ELASTIC STOP NUT IN UNION, NJ</p>
73949	<p>GUARDIAN ELECTRIC MFG CO</p> <p>1425 LAKE AVENUE</p> <p>WOODSTOCK, ILLINOIS 60098</p> <p>FORMERLY IN CHICAGO, ILLINOIS</p>

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**COMPONENT MAINTENANCE MANUAL**

Code	Name
81640	EATON CORP AEROSPACE AND COMMERCIAL CONTROLS DIV 2250 WHITFIELD AVENUE EAST SARASOTA, FLORIDA 34243-9703 FORMERLY SINGER CO CONTROLS DIV AND CONTROLS CO OF AMERICA AND CONTROL SWITCH A CUTLER-HAMMER CO AND EATON CORP CUTLER-HAMMER GROUP V97198, V81641 IN FOLCROFT, PENNSYLVANIA INFO FROMVDR THRU M2880 FEB 1987 SWITCHES
89954	BAE SYSTEMS CONTROL 600 MAIN STREET JOHNSON CITY, NEW YORK 13790 FORMERLY MARTIN MARIETTA AIRCRAFT CONTROL SYSTEMS; FORMERLY LOCKHEED MARTIN CONTROL SYSTEMS
94867	CHURCHILL CORPORATION BOX G MELROSE, MASSACHUSETTS 02176 FORMERLY CHURCHILL LIGHTING CORP

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COMPONENT MAINTENANCE MANUAL

NUMERICAL INDEX

PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
000300-0596		1	440	3
000300-0598		1	435	2
10-60450-3		1	365	2
10-61226-211		1	320	5
10-61226-213		1	325	3
108-0022-000		1	555	4
118-0090-000		1	550	4
18-0006-0000		1	425	7
18-0007-0000		1	430	1
22NM107-62		1	475	3
40L2-2		1	145	1
40L2-2A		1	145A	1
52LHA227-40		1	70	1
52LHA227-62		1	40	2
		1	105	1
		1	125	2
		1	160	1
		1	200	4
		1	240	2
52LHTA51M40		1	250	2
52LHTA57M40		1	280	1
		1	300	1
582507-1		1	410	AR
582553-1		1	395	12
582585-1		1	400	2
65-52811-110		1	390	1
65-52811-187		1	1	RF
65-58250-23		1	340	1
65-58250-29		1	345	2
65-73698-64		1	235	1
65-73698-69		1	190	1
65-73698-70		1	195	1
65-73698-74		1	225	1
65-73698-75		1	230	1

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PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
65-80041-10		1	520	1
65-80041-11		1	65	1
65-80041-12		1	60	1
65-80041-13		1	25	1
65-80041-14		1	20	1
65-80041-15		1	5	1
65-80041-4		1	95	1
65-80041-5		1	100	1
65-80041-6		1	135	1
65-80041-7		1	140	1
65-80041-8		1	170	1
65-80041-9		1	175	1
66168-2		1	405	AR
66169-2		1	405A	AR
69-60036-1		1	270	1
69-60036-2		1	290	1
69-60036-3		1	275	1
		1	295	1
69-60177-13		1	330	1
69-60177-19		1	350	1
69-60177-5		1	350A	1
8-060-02		1	320	5
8-060-07		1	325	3
9524-6508		1	365	2
9524-8208		1	370	1
990-0001-063		1	545	4
990-0002-033		1	565	4
990-0004-021		1	540	4
A410-159673-03		1	365	2
A410-159673-06		1	370	1
AN960-4L		1	560	4
AN960D6L		1	465	6
BAC27DEX1843		1	515	1
BAC27DEX3512		1	495	1
BAC27DEX4751		1	570	1

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PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
BAC27DEX975		1	490	1
BACG20ZA1850		1	480	1
BACG20ZA350		1	535	1
BACG20ZA680		1	485	1
BACN10DN40		1	420	26
		1	455	4
		1	530	2
BACN10JK06		1	160A	1
BACN10JP04A		1	250A	2
BACN10KJ06		1	40A	2
		1	110	1
		1	125A	2
		1	200A	4
		1	240A	2
BACR13CF2AB		1	360	1
BACR13CG2AB		1	355	7
BACR15BA2D		1	255	4
		1	285	2
		1	305	2
BACR15BA3D		1	35	18
		1	55	4
		1	115	2
		1	130	4
		1	165	2
		1	185	6
		1	210	12
		1	245	4
BACR15BA4D		1	220	4
BACR15BB3D		1	45	4
		1	75	2
BACS16W1		1	425A	7
BACS16W2		1	505	2
BACS16X1		1	430A	1
BACT12AC		1	470	3
C2006		1	375	2

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PART NUMBER	AIRLINE PART NUMBER	FIGURE	ITEM	UNITS PER ASSEMBLY
DL200-225		1	10	1
DPX2MB67P67P		1	445	1
FCC400-7		1	365	2
FCC400-8		1	370	1
G59673-3		1	365	2
G59673-3A		1	365	2
KAX9E004		1	500	2
MS18209-387		1	385	2
MS25041-6		1	380	2
MS35337-43		1	150	2
NAS1068A04L		1	180	3
		1	205	2
NAS1068AO4L		1	30	9
NAS514P440-5		1	310	2
NAS514P440-6		1	450	4
NAS514P632-6B		1	85	2
		1	215	4
		1	260	2
NAS514P632-XXP		1	460	3
NAS600-5B		1	15	8
		1	80	3
		1	525	2
NAS600-5P		1	315	2
NAS600-9P		1	415	26
NAS601-6B		1	90	2
		1	120	2
NAS601-6P		1	265	2
NAS603-6P		1	155	2
NAS687A06		1	50	2
VB10-1PWC11-43		1	510	2

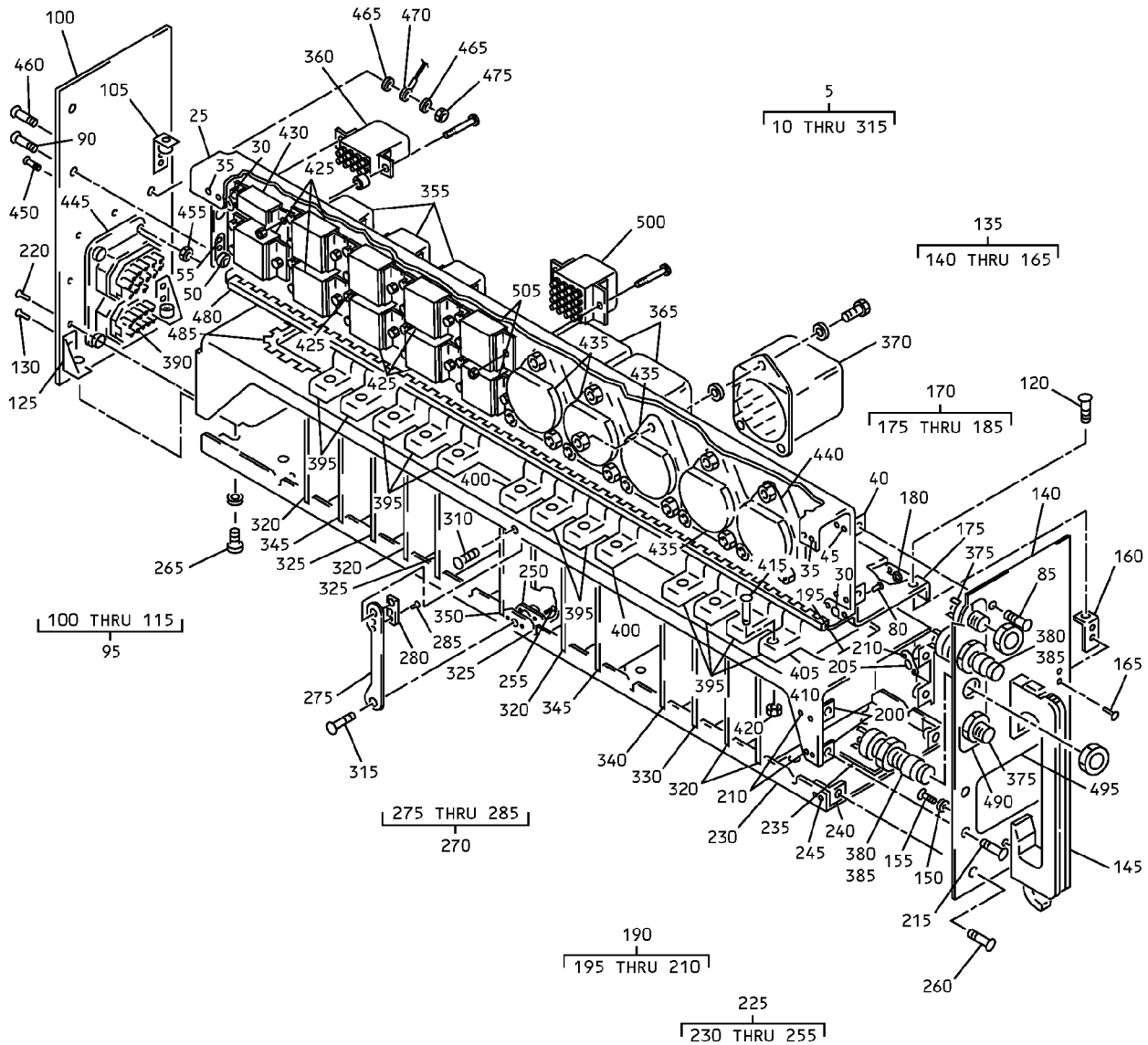
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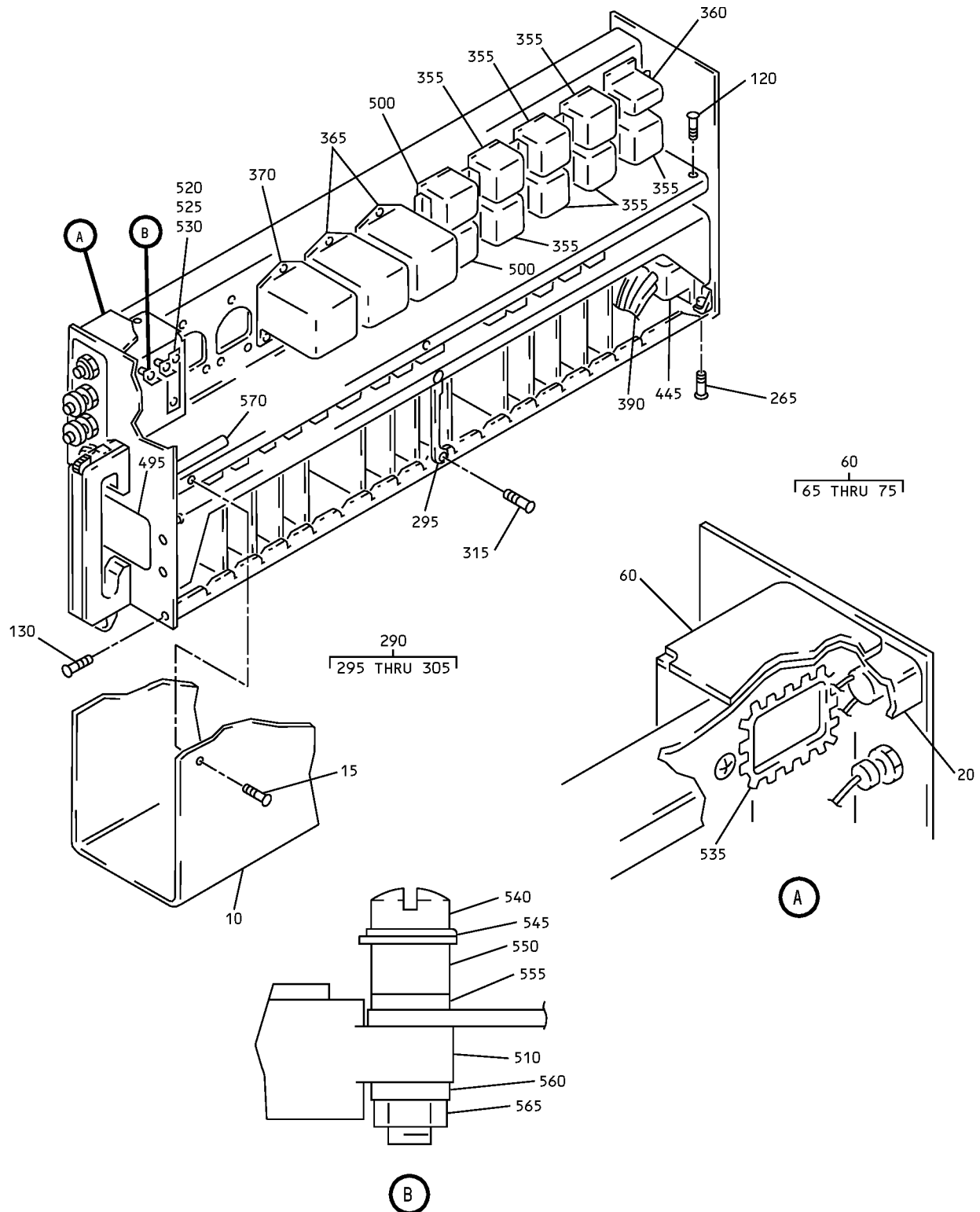
Landing Gear Accessory Unit Assy (M338)
IPL Figure 1 (Sheet 1 of 2)

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Landing Gear Accessory Unit Assy (M338)
IPL Figure 1 (Sheet 2 of 2)

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FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1—					
—1	65-52811-187		LANDING GEAR ACCESSORY UNIT ASSY-(M338) (POST COMPONENT SB 65-52811-32- 01)		RF
5	65-80041-15		. CHASSIS ASSY		1
10	DL200-225		. . DUST COVER (V94867)		1
15	NAS600-5B		. . SCREW		8
20	65-80041-14		. . RELAY BRACKET ASSY		1
25	65-80041-13		. . . RELAY BRACKET		1
30	NAS1068AO4L		. . . NUTPLATE		9
35	BACR15BA3D		. . . RIVET		18
40	52LHA227-62		. . . NUTPLATE (V72962)		2
40A	BACN10KJ06		. . . NUTPLATE (OPT ITEM 40)		2
45	BACR15BB3D		. . . RIVET		4
50	NAS687A06		. . . NUTPLATE		2
55	BACR15BA3D		. . . RIVET		4
60	65-80041-12		. . RELAY BRACKET ASSY		1
65	65-80041-11		. . . RELAY BRACKET		1
70	52LHA227-40		. . . NUTPLATE (V72962)		1
75	BACR15BB3D		. . . RIVET		2
80	NAS600-5B		. . SCREW		3
85	NAS514P632-6B		. . SCREW		2
90	NAS601-6B		. . SCREW		2
95	65-80041-4		. . REAR PLATE ASSY		1
100	65-80041-5		. . . REAR PLATE		1
105	52LHA227-62		. . . NUTPLATE (V72962)		1
110	BACN10KJ06		. . . NUTPLATE (OPT ITEM 105)		1
115	BACR15BA3D		. . . RIVET		2

—Item not Illustrated

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FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1–											
120	NAS601-6B		.	.					SCREW		2
125	52LHA227-62		.	.					NUTPLATE (V72962)		2
125A	BACN10KJ06		.	.					NUTPLATE (OPT ITEM 125)		2
130	BACR15BA3D		.	.					RIVET		4
135	65-80041-6		.	.					FRONT PLATE ASSY		1
140	65-80041-7		.	.	.				FRONT PLATE		1
145	40L2-2		.	.	.				LATCH (V71286)		1
145A	40L2-2A		.	.	.				LATCH (V71286)		1
150	MS35337-43		.	.	.				WASHER		2
155	NAS603-6P		.	.	.				SCREW		2
160	52LHA227-62		.	.	.				NUTPLATE (V71286)		1
160A	BACN10JK06		.	.	.				NUTPLATE (OPT ITEM 160)		1
165	BACR15BA3D		.	.	.				RIVET		2
170	65-80041-8		.	.					BUNDLE COVER ASSY		1
175	65-80041-9		.	.	.				BUNDLE COVER		1
180	NAS1068A04L		.	.	.				NUTPLATE		3
185	BACR15BA3D		.	.	.				RIVET		6
190	65-73698-69		.	.					LOWER SHELF ASSY		1
195	65-73698-70		.	.	.				LOWER SHELF		1
200	52LHA227-62		.	.	.				NUTPLATE (V72962)		4
200A	BACN10KJ06		.	.	.				NUTPLATE (OPT ITEM 200)		4
205	NAS1068A04L		.	.	.				NUTPLATE		2
210	BACR15BA3D		.	.	.				RIVET		12
215	NAS514P632-6B		.	.					SCREW		4
220	BACR15BA4D		.	.					RIVET		4
225	65-73698-74		.	.					BOTTOM COVER ASSY		1

–Item not Illustrated

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FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1–					
230	65-73698-75		. . . BOTTOM COVER		1
235	65-73698-64		. . . PAD		1
240	52LHA227-62		. . . NUTPLATE (V72962)		2
240A	BACN10KJ06		. . . NUTPLATE (OPT ITEM 240)		2
245	BACR15BA3D		. . . RIVET		4
250	52LHTA51M40		. . . NUTPLATE (V72962)		2
250A	BACN10JP04A		. . . NUTPLATE (OPT ITEM 250)		2
255	BACR15BA2D		. . . RIVET		4
260	NAS514P632-6B		. . SCREW		2
265	NAS601-6P		. . SCREW		2
270	69-60036-1		. . STRAP ASSY		1
275	69-60036-3		. . . STRAP		1
280	52LHTA57M40		. . . NUTPLATE (V72962)		1
285	BACR15BA2D		. . . RIVET		2
290	69-60036-2		. . STRAP ASSY		1
295	69-60036-3		. . . STRAP		1
300	52LHTA57M40		. . . NUTPLATE (V72962)		1
305	BACR15BA2D		. . . RIVET		2
310	NAS514P440-5		. . SCREW		2
315	NAS600-5P		. . SCREW		2
320	8-060-02		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH (V08748) (SPEC 10-61226-211)		5
325	8-060-07		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH (V08748) (SPEC 10-61226-213)		3
330	69-60177-13		. PRINTED CIRCUIT ASSY (V89954)		1

–Item not Illustrated

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FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USAGE CODE	UNITS PER ASSY
1-					
340	65-58250-23		. PRINTED CIRCUIT ASSY (V89954)		1
345	65-58250-29		. PRINTED CIRCUIT ASSY (V89954)		2
350	69-60177-19		. PRINTED CIRCUIT ASSY AURAL WARNING LOGIC (V89954)		1
350A	69-60177-5		. PRINTED CIRCUIT ASSY AURAL WARNING LOGIC (V89954) (OPT ITEM 350)		1
355	BACR13CG2AB		. RELAY		7
360	BACR13CF2AB		. RELAY		1
365	A410-159673-03		. RELAY (V73949) (SPEC 10-60450-3) (OPT FCC400-7 (V00213)) (OPT G59673-3 (V73949)) (OPT G59673-3A (V73949)) (OPT 9524-6508 (V35344))		2
370	A410-159673-06		. RELAY (V73949) (SPEC 10-60450-6) (OPT FCC400-8 (V00213)) (OPT 9524-8208 (V35344))		1
375	C2006		. SWITCH, SNAP (V81640)		2
380	MS25041-6		. INDICATOR		2
385	MS18209-387		. LAMP		2
390	65-52811-110		. WIRE BUNDLE (REWORKED BY COMPONENT SB 65-52811-32-01)		1
395	582553-1		. CONNECTOR (V00779)		12
400	582585-1		. CONNECTOR (V00779)		2
405	66168-2		. TAB TERMINAL (V00779)		AR
405A	66169-2		. TAB TERMINAL (V00779)		AR

-Item not Illustrated

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FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1-											
410	582507-1		.	KEYING PLUG							AR
				(V00779)							
415	NAS600-9P		.	SCREW							26
420	BACN10DN40		.	NUT							26
425	18-0006-0000		.	SOCKET RELAY							7
				(V05574)							
425A	BACS16W1		.	SOCKET RELAY							7
				(OPT ITEM 425)							
430	18-0007-0000		.	SOCKET-RELAY							1
				(V05574)							
430A	BACS16X1		.	SOCKET-RELAY							1
				(OPT ITEM 430)							
435	000300-0598		.	SOCKET-RELAY							2
				(V05574)							
440	000300-0596		.	SOCKET-RELAY							3
				(V05574)							
445	DPX2MB67P67P		.	CONNECTOR							1
				(V71468)							
450	NAS514P440-6		.	SCREW							4
455	BACN10DN40		.	NUT							4
460	NAS514P632-XXP		.	SCREW							3
465	AN960D6L		.	WASHER							6
470	BACT12AC		.	TERMINAL LUG							3
475	22NM107-62		.	NUT							3
480	BACG20ZA1850		.	GROMMET							1
485	BACG20ZA680		.	GROMMET							1
490	BAC27DEX975		.	ALUMINUM FOIL MARKER							1
495	BAC27DEX3512		.	MARKER							1
500	KAX9E004		.	RELAY							2
				(V35344)							
505	BACS16W2		.	SOCKET-RELAY							2
510	VB10-1PWC11-43		.	SOCKET-RELAY							2
515	BAC27DEX1843		.	MARKER, AL FOIL							1
520	65-80041-10		.	RELAY PLATE							1

-Item not Illustrated

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COMPONENT MAINTENANCE MANUAL

FIG/ ITEM	PART NUMBER	AIRLINE PART NUMBER	NOMENCLATURE							USAGE CODE	UNITS PER ASSY
			1	2	3	4	5	6	7		
1—											
525	NAS600-5B		.						SCREW		2
530	BACN10DN40		.						NUT		2
535	BACG20ZA350		.						GROMMET		1
540	990-0004-021		.						SCREW (V05574)		4
545	990-0001-063		.						LOCK WASHER (V05574)		4
550	118-0090-000		.						STUD (V05574)		4
555	108-0022-000		.						SPACER (V05574)		4
560	AN960-4L		.						WASHER (V05574)		4
565	990-0002-033		.						NUT (V05574)		4
570	BAC27DEX4751		.						MARKER		1

—Item not Illustrated

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