

TO: ALL HOLDERS OF LANDING GEAR ACCESSORY UNIT ASSEMBLY M338 OVERHAUL
MANUAL, 32-66-44

REVISION NO. 36, DATED JUL 1/05

HIGHLIGHTS

DESCRIPTION OF CHANGE	TOPICS AFFECTED											
	D & O	D / A s s y	C l e a n i n g	I n s p / C h k	R e p a i r	A s s y	F / C	T e s t	T / S h o o t i n g	S / T o o l s	S t o r a g e	L / O v e r h a u l
Changed the load of 28 vdc power supply to read 2.0 Amp instead of 1.0 Amp								X				

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HIGHLIGHTS
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OVERHAUL MANUAL

LANDING GEAR ACCESSORY UNIT ASSEMBLY M338

32-66-44

BOEING P/N 65-52811-32, -34, -40, -42, -49, -58, -60, -62, -64, -66, -78
-82, -83, -89, -96, -109, -111, -113, -115, -122, -123,
-126, -127, -133, -140, -149, -155, -162, -175, -176,
-183, -184

AIRLINE P/N

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT
		PRR 31928	Sep 10/70
		PRR 31977	Jul 10/71
		PRR 32045	Jun 10/71
27-1049			Dec 25/75
32-1085		PRR 32596	Jul 5/76
		PRR 32636	Jan 5/77
32-1093R2		PRR 32675	Dec 5/83
27-1114R2		PRR 33143	Dec 5/83
27-1114R4		PRR 33143	Jun 5/91

LIST OF EFFECTIVE PAGES

- * Indicates pages revised, added or deleted in latest revision
F Indicates foldout pages - print one side only

PAGE	DATE	PAGE	DATE	PAGE	DATE
32-66-44		711	Jun 1/94	830	BLANK
T-1	Jun 5/91	712	Jun 1/94	F 830A	Jan 5/82
T-2	BLANK	713	Jun 1/94	830B	BLANK
* LEP-1	Jul 1/05	714	Jun 5/91	831	BLANK
LEP-2	BLANK	715	Jun 5/91	F 832	Jun 5/91
T/C-1	Dec 25/75	716	Mar 1/99	F 833	Sep 1/95
T/C-2	BLANK	717	Jun 5/91	834	BLANK
1	Dec 25/75	718	Jun 5/91	1101	Jul 5/79
2	Dec 25/75	719	Jun 5/91	1102	Mar 5/88
3	Sep 10/70	720	BLANK	1103	Jul 1/98
4	Sep 10/70	801	Dec 5/83	1104	Jun 5/91
5	Sep 10/70	802	Dec 5/83	1104A	Jun 5/91
6	Sep 10/70	803	BLANK	1104B	BLANK
7	Sep 10/70	804	BLANK	1105	Mar 5/88
8	Sep 10/70	805	BLANK	1106	Jul 1/98
9	Jan 5/80	F 806	Dec 5/83	1107	Jul 1/98
10	Sep 10/70	F 807	Dec 5/83	1108	Jul 1/98
11	Sep 10/70	808	BLANK	1109	Mar 5/88
12	Sep 10/70	809	BLANK	1110	Jul 1/98
13	Dec 5/83	F 810	Dec 5/83	1111	Dec 5/83
14	Jun 5/91	F 811	Dec 5/83	1112	Jun 5/91
F 15	Dec 5/83	812	BLANK	1113	Jun 5/91
16	BLANK	813	Jun 5/91	1114	Dec 5/83
F 16A	Jun 5/91	814	BLANK	1115	Jun 5/84
16B	BLANK	814A	Jun 5/91	1116	Jul 1/98
17	Jan 5/80	814B	BLANK	1117	Jul 1/98
18	Jan 5/77	815	BLANK	1118	Dec 5/83
19	Jun 10/71	F 816	Dec 5/85	1119	Jun 5/91
20	Jun 10/71	816A	BLANK	1120	Jul 1/98
401	Jun 5/91	F 816B	Jun 5/91	1121	Dec 5/83
402	BLANK	F 817	Sep 1/95	1122	Dec 1/96
* 701	Jul 1/05	818	BLANK		
702	Dec 1/96	819	BLANK		
702A	Dec 5/83	F 820	Jun 5/91		
702B	Jun 5/91	F 821	Sep 1/95		
703	Dec 5/83	822	BLANK		
704	Dec 5/83	F 823	Jan 5/77		
705	Jun 5/91	824	BLANK		
706	Jun 5/91	F 824A	Dec 5/83		
707	Dec 1/94	824B	BLANK		
708	Dec 5/83	825	BLANK		
708A	Jun 5/91	F 826	Mar 5/89		
708B	BLANK	F 827	Dec 5/83		
709	Jun 5/91	828	BLANK		
710	Jun 1/94	F 829	Jan 5/77		

Jul 1/05

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Page LEP-1

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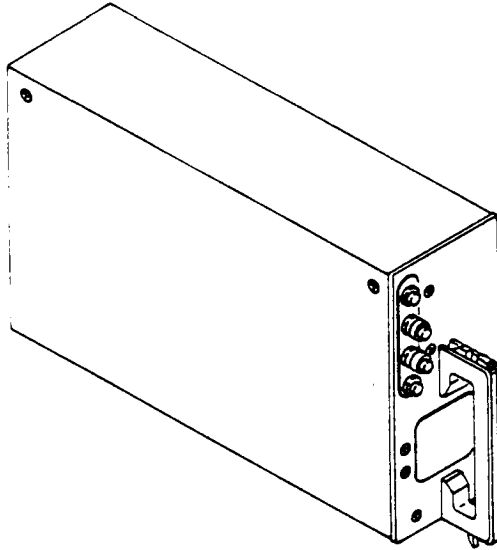
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*[1] Use applicable procedures in 20-11-04 and standard industry practices.

*[2] Special instructions not required.

LANDING GEAR ACCESSORY UNIT ASSEMBLY (M338)



Landing Gear Accessory Unit Assembly (M338)
Figure 1

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.

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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 (See Schematic Diagram.)

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 I1, and an external proximity sensor S106. The air safety relays provide the functions listed in figure 2 to the ground critical systems.

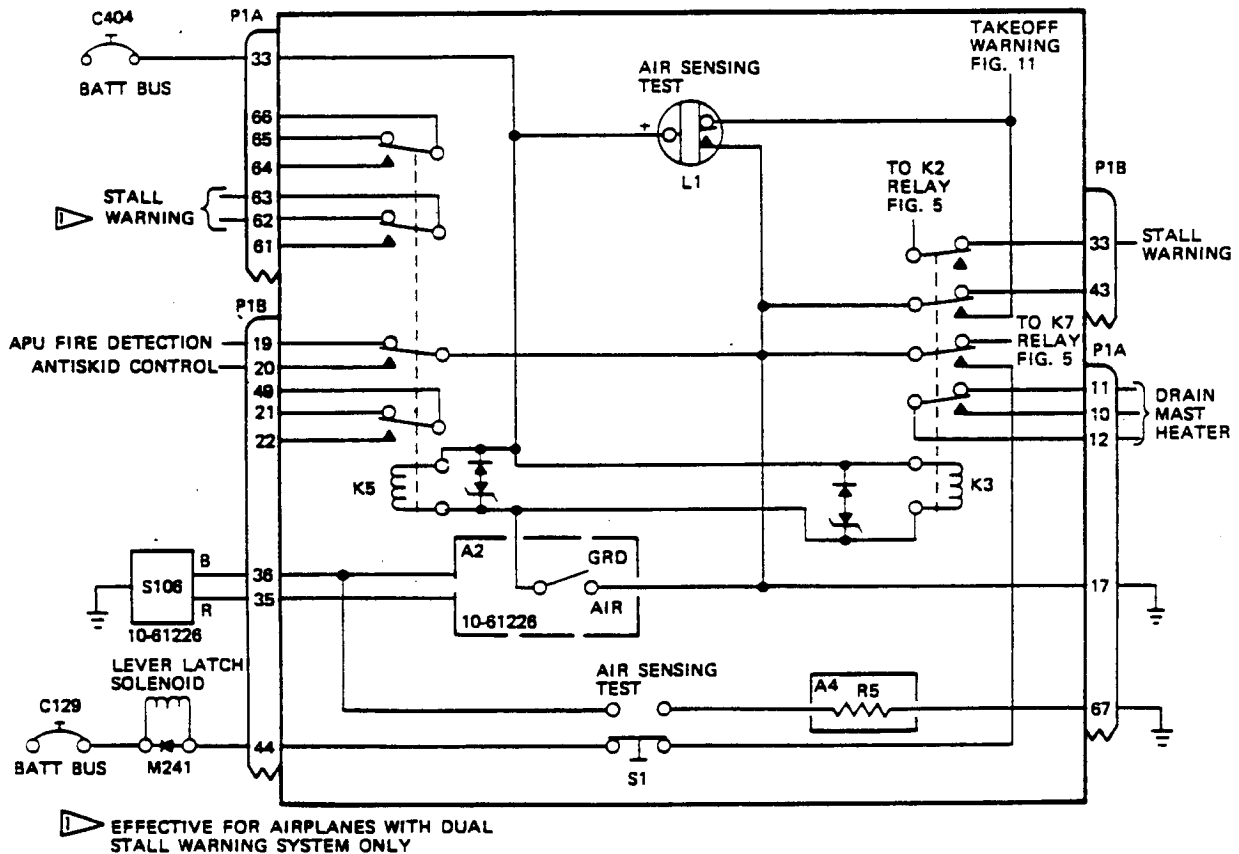
Ground Critical Systems	Air Mode	Ground Mode
1. Drain mast heater	Switches the heater from 28-volt to 115-volt power source to provide higher heating of the drain mast.	Switches the heater from 115-volt to 28-volt power source to reduce heating of the drain mast.
2. Stall Warning	Arms the stall warning 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.

Air Safety Relay Functions
Figure 2

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Sensor S106 and switch A2 are connected at pins B35 and B36 and form a bridge circuit. S106 appears as an inductance to A2. (See Manufacturer's Overhaul Manual for details.) S106 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. (See figure 3.)



Air Safety Relays
Figure 3

- (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 indicated in figure 2.

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- (b) The relays can be tested while the airplane is on the ground by pressing S1. This actuates A2 and simulates air mode. L1 will illuminate while S1 is depressed.
- (2) 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 I2, and an external proximity sensor (S105). The ground safety relays provide the functions indicated in figure 4 to the air critical systems.

Air Critical System	Ground Mode	Air Mode
1. Pressurization 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

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Air Critical System	Ground Mode	Air Mode
10. Thrust Reversers	Deactivates thrust reverser disarming circuits	Activates thrust reverser disarming circuits.
The ground safety relays when activated by the parking brake switch provide the following functions to the air critical systems:		
	<u>Ground Mode and Parking Brake Set</u>	<u>Air Mode or Parking Brake NOT Set</u>
1. Hydraulic Interconnect 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.

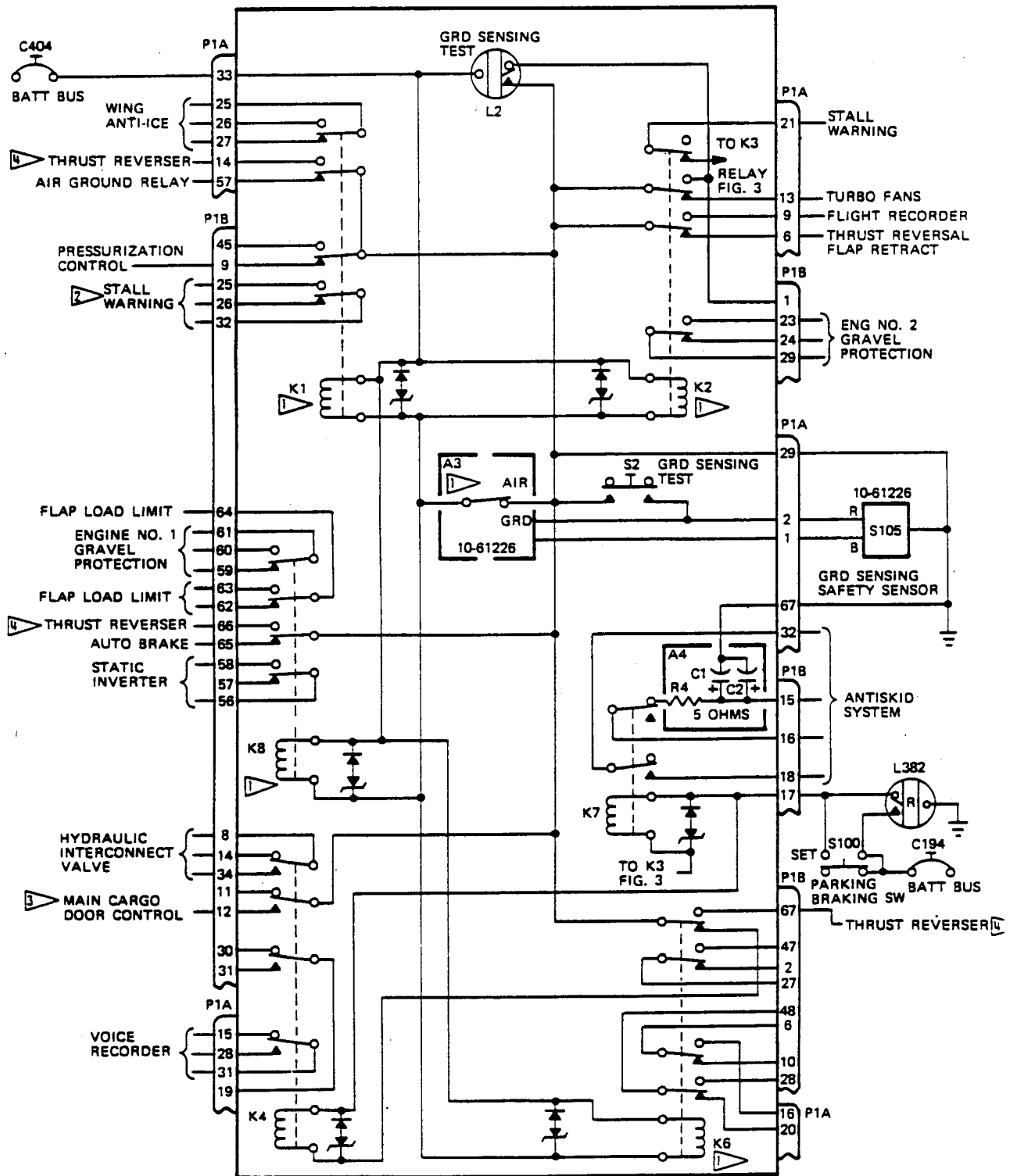
Ground Safety Relay Functions
Figure 4 (Sheet 2)

Sensor S105 and switch A3 are connected at pins A1 and A2. S105 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, 28 volts dc is applied at pin B17. (See figure 5.)

- (a) 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.
- (b) 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). I2 will remain lit while S2 is depressed.

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1 ▷ RELAYS K1, K2, K6, AND K8 SHOWN IN ENERGIZED POSITION:
SWITCH A3 SHOWN ACTUATED

2 ▷ EFFECTIVE FOR AIRPLANES WITH DUAL STALL WARNING
SYSTEM ONLY

3 ▷ EFFECTIVE FOR CARGO AIRPLANES ONLY

4 ▷ EFFECTIVE FOR TARGET-TYPE ONLY

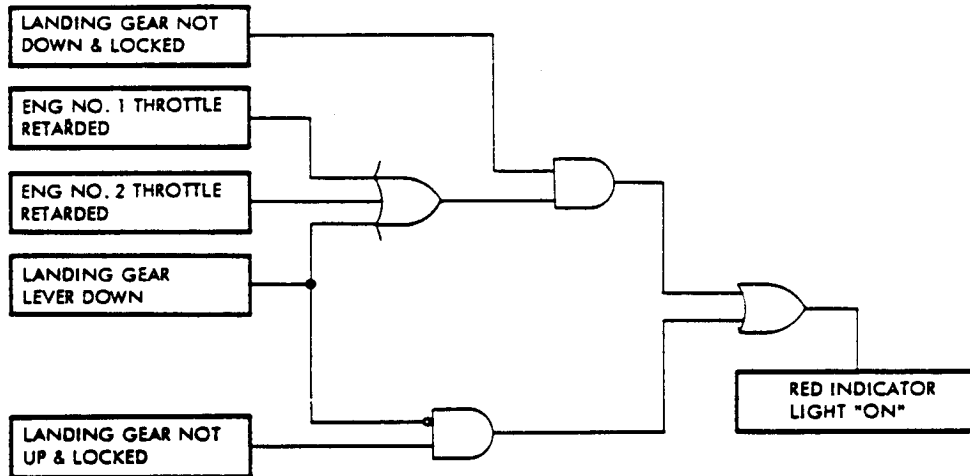
Ground Safety and Parking Brake Relays
Figure 5

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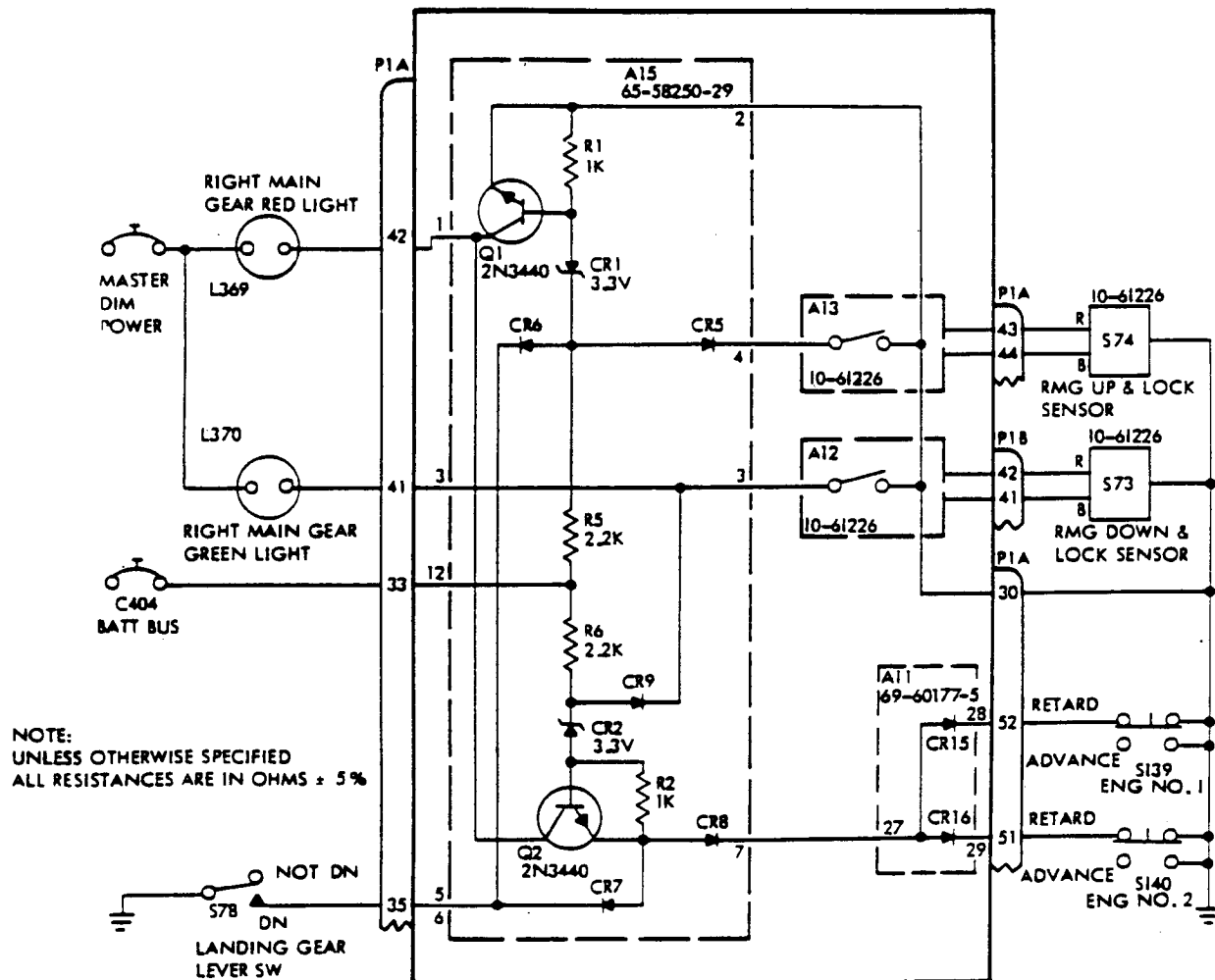
- B. The landing gear warning system consists of logic cards A7 and A15, proximity switches A8, A10, A12, A13, A14, and A16 and their associated external proximity sensors, and external indicator lamps and switches. The system provides green lamp indications when the landing gears are down and locked. Also, it provides red lamp indications indicating unsafe conditions (figure 6) when:
- (1) The landing gear is in transit.
 - (2) The landing gear position and the landing gear control lever are not in agreement.
 - (3) 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. (See figure 7.) Circuit power (Q1, Q2 base drive) is provided at pin A33 (J15 pin 12). Circuit ground is at pin A30 (J15 pin 2).
- (1) 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.
 - (2) A ground path will be provided for the red lamp at pin A42 when either of the following conditions exist:
 - (a) A15Q1 will provide ground when:
 - 1) The landing gear lever is not down (open circuit to pin A35) and:
 - 2) The landing gear is not in the up and locked position (normally-open proximity switch A13 not actuated).
 - (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).

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Red Indicator Lamp ON Logic Diagram
Figure 6



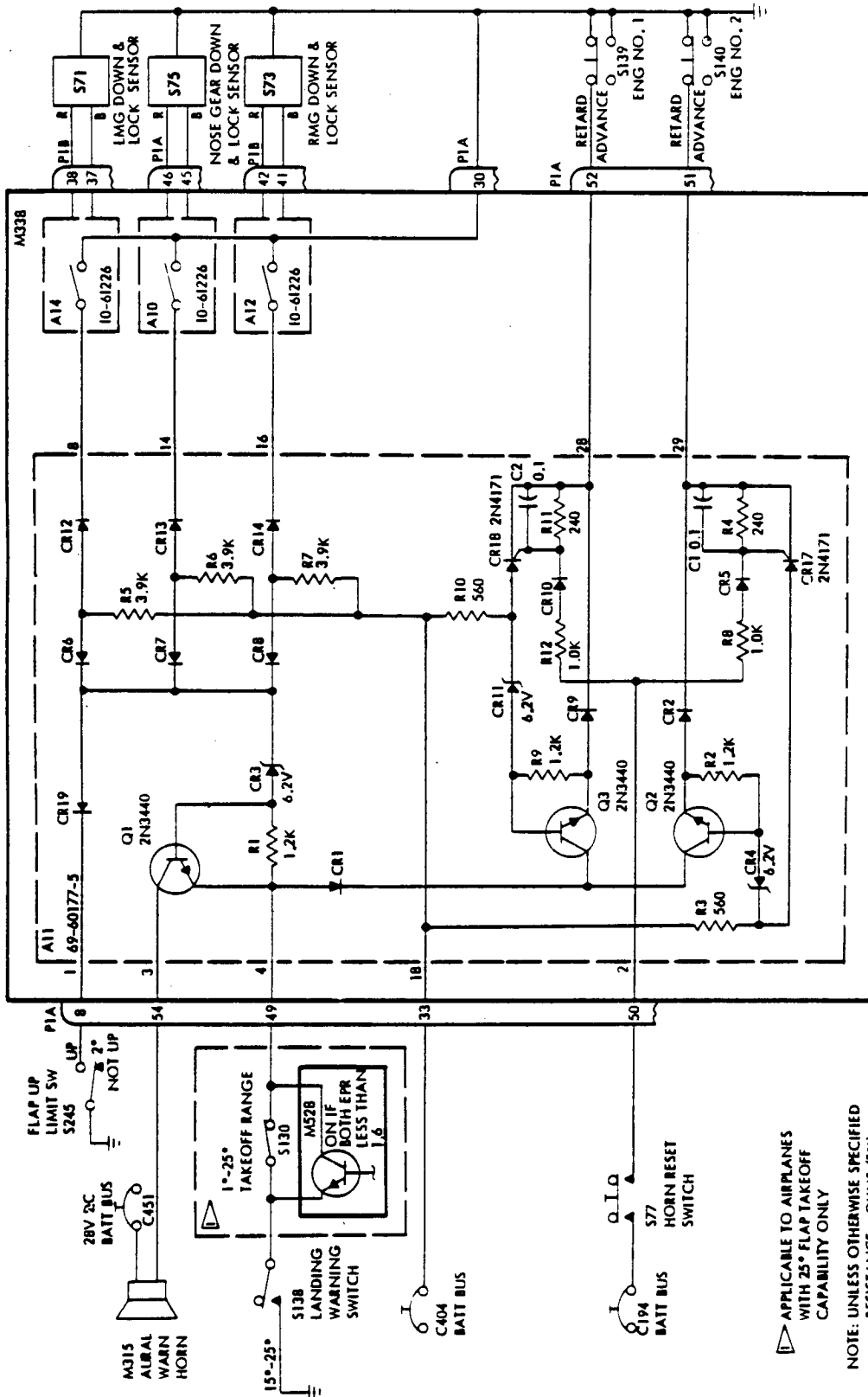
Right Main Gear Visual Indication
Figure 7

D. The landing gear aural warning system consists of logic card All, normally-open proximity switches and associated landing gear position sensors, and external switches and a horn. Figure 8, sheet 1, illustrates aural warning circuitry, FAA certified. Figure 8, sheet 2, illustrates aural warning circuitry, ARB certified. The module will provide a ground path for the horn when unsafe conditions exist. Circuit power, +28 volts dc, is applied at pin A33 (pin B51 for ARB certified). (See figure 9 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 AllQ1. AllQ1 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 AllQ1 to conduct.
 - (b) Either engine is retarded to idle. This provides a ground at pins A51 and/or A52 and allows AllQ2 or AllQ3 to conduct.
- 1) In this condition, depressing the horn reset switch provides a positive voltage to the gate of SCR's to turn off AllQ2 and AllQ3 by grounding their base. Advancing either throttle will reset one SCR to again enable the horn circuit.

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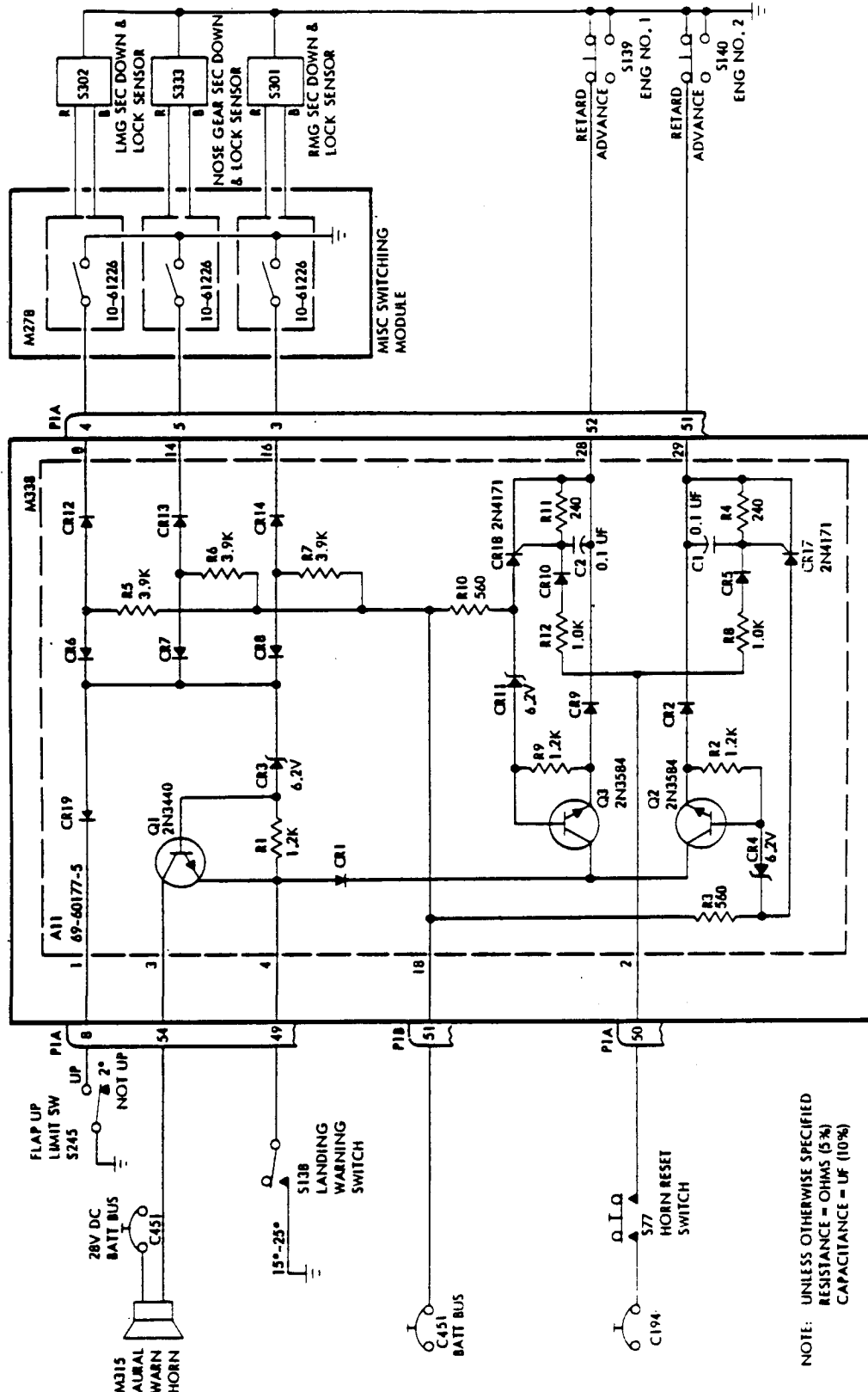


APPLICABLE TO AIRPLANES
WITH 25° FLAP TAKEOFF
CAPABILITY ONLY
NOTE: UNLESS OTHERWISE SPECIFIED
RESISTANCE = OHMS (5%)
CAPACITANCE = UF (10%)

Landing Gear Aural System (FAA Certified Only)
Figure 8 (Sheet 1)

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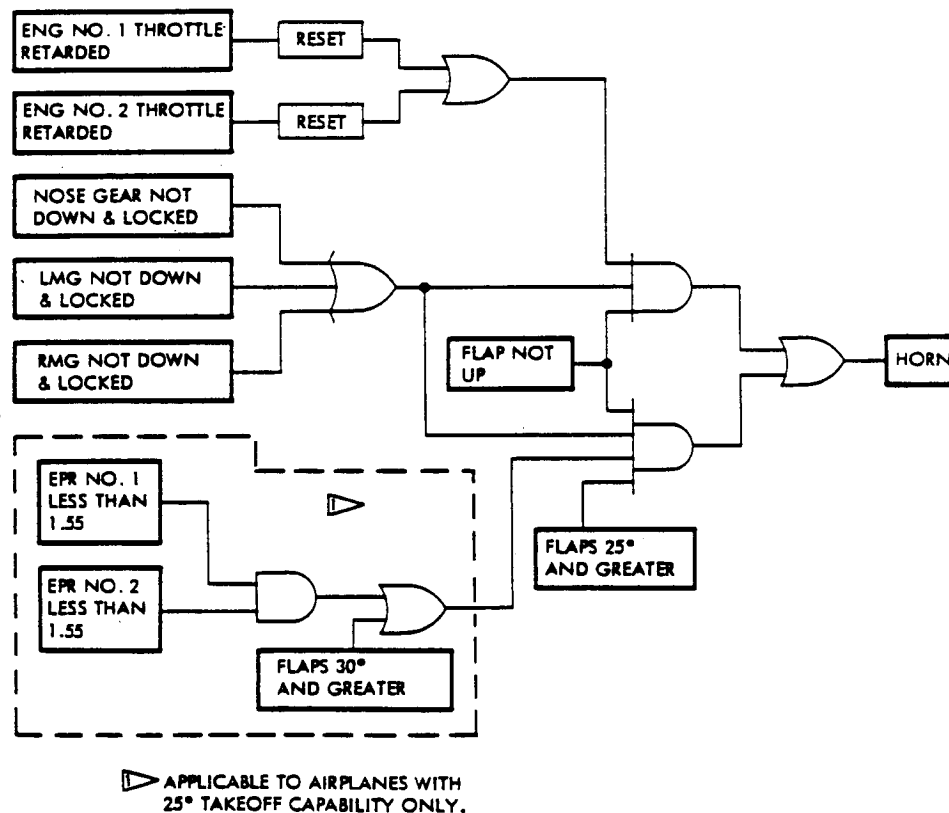
Landing Gear Aural System (ARB Certified Only)
Figure 8 (Sheet 2)

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Landing Gear Aural Warning Logic Diagram
Figure 9

E. The automatic ground speed brake system actuates the ground and flight spoilers to aid braking after touchdown. (See figure 10.) The system consists of logic card A5, relays K9 through 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 L441 (pin A34) or L442 (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, 28 volts dc is provided to pin 12 of circuit card A5 through pin A56. This provides base voltage for Q1 through R1, for Q2 through CR11 and CR9/CR7, and for Q3 through CR5. When Q1 is on, L442 (DO NOT ARM) is illuminated. When Q2 is on, L441 (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 through CR9 or CR7 is shunted to ground.

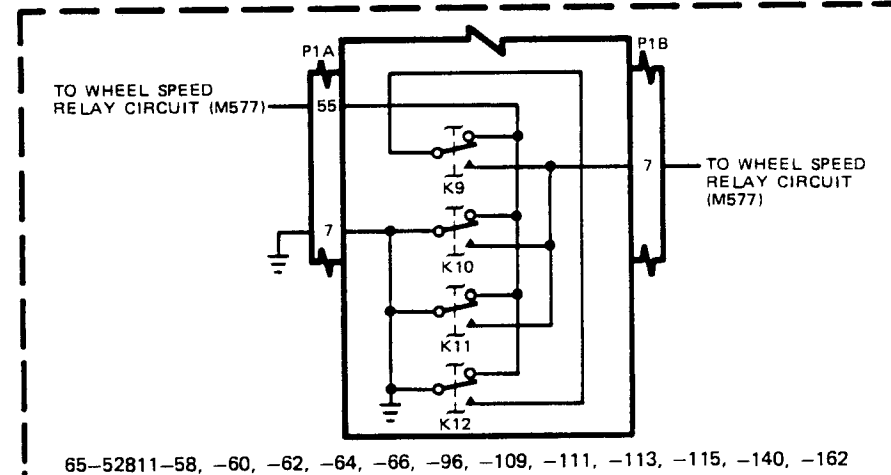
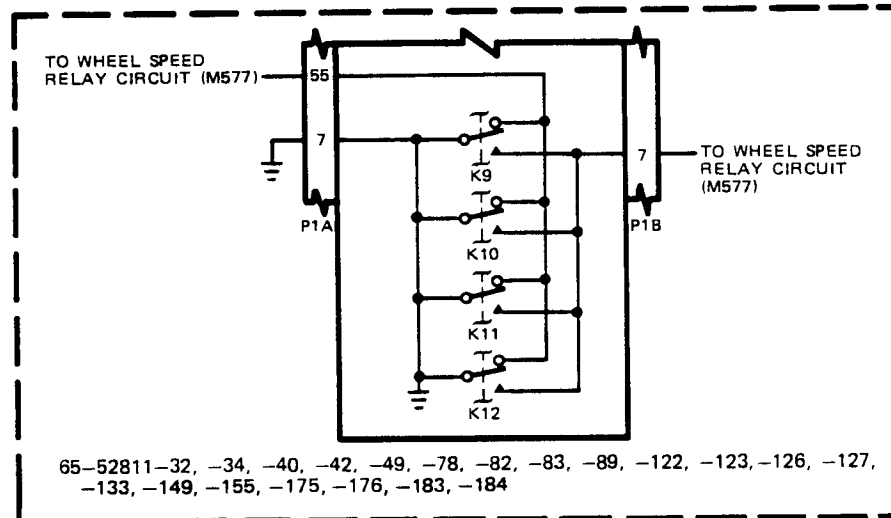
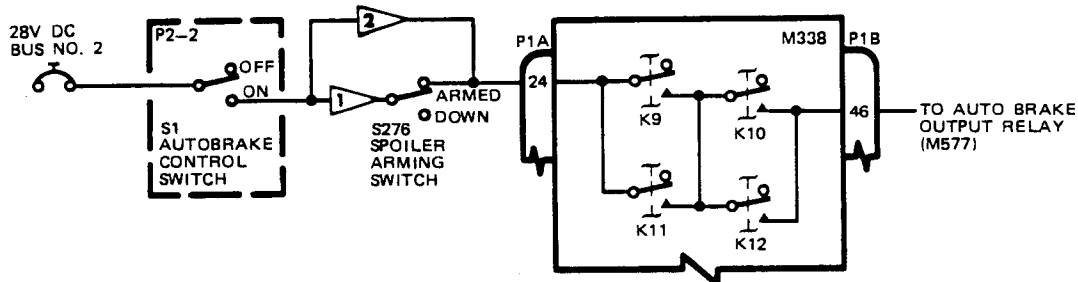


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- (2) At the time the speed brake control lever is set to ARMED, if both inboard and outboard antiskid systems are inoperative, Q2 base voltage is shunted to ground through CR8 and CR10. Q2 will be off, Q1 will be on, and the DO NOT ARM indicator will be illuminated.
- (3) Presuming antiskid systems operative, and control lever set to ARMED, the 28-volt 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 28 volts 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 28 volts dc to pin 4 of card A5. This holds Q2 on, L441 (ARMED) illuminated, even though Q3 is turned on. The combination of K9, K10, K11, and K12 relays also passes 28 volts 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. On 65-52811-58, -60, -62, -64, -66 -96, -109, -111, -113, -115, -140, -162 only, either outboard, or both inboards, must reach 60 knots to provide the A-7 ground output (K9/K12 in series) (Fig. 10).
- (5) When either throttle is advanced to the 25-degree position, K13 coil is grounded, K13 is energized, and 28 volts 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).

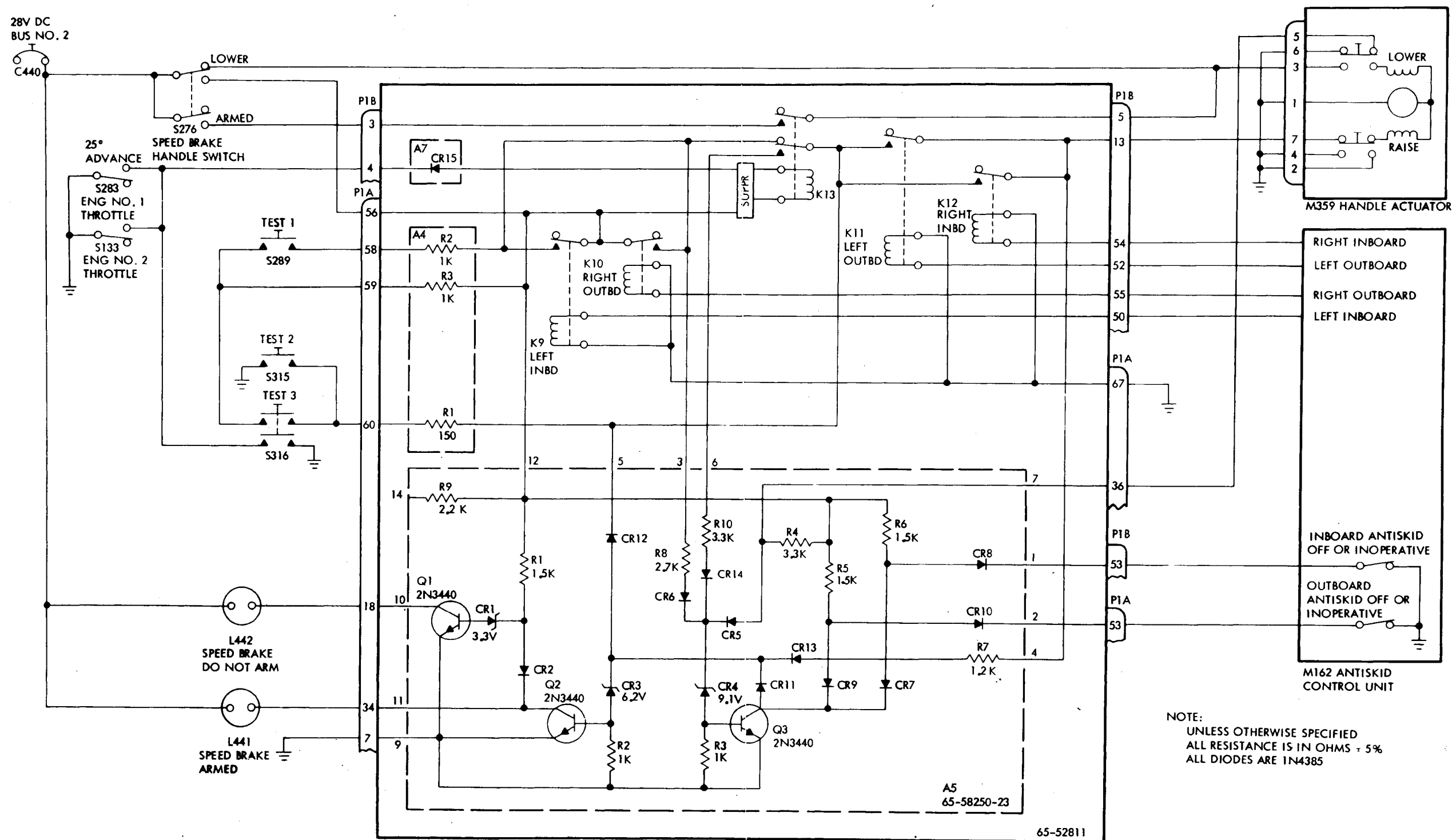
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(c) Test circuit 3 simulates engine throttle advance. It grounds pin B4 to actuate K13. Also, it applies 28 volts dc from pin A60, through K13 to J5 pin 6. This removes the ground path at pin A34 (J5 pin 11).



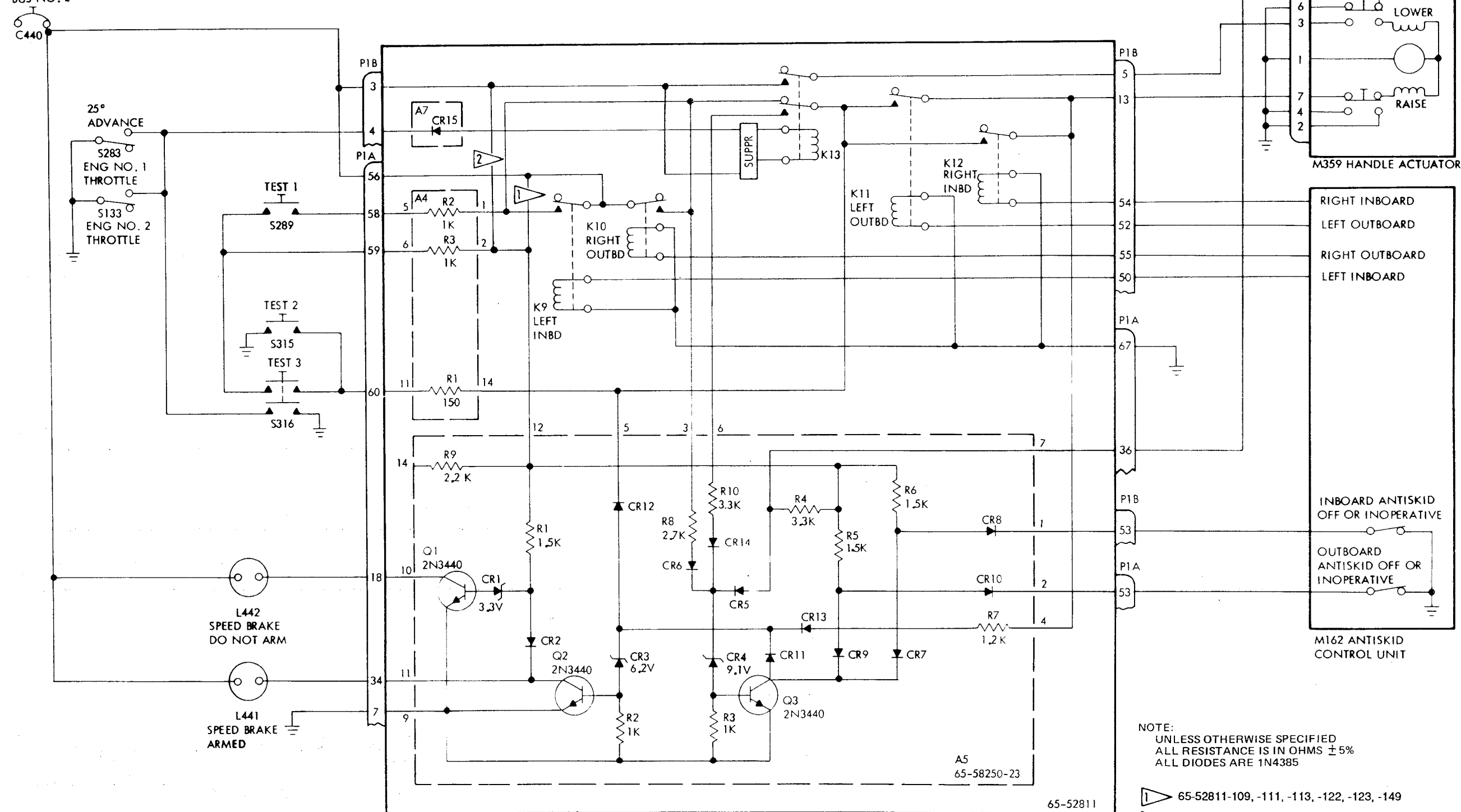
1 65-52811-32, -34, -40, -42, -49, -58, -60, -62, -64, -66, -78, -82, -83, -89, -96

2 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -162, -175, -176



65-52811-32, -34, -40, -42, -49, -58, -60, -62, -64, -66, -78, -82, -83, -89, -96

28V DC
BUS NO. 2



65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -175, -176, -183, -184

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F. The takeoff aural warning system (Fig. 11 and 12) 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.

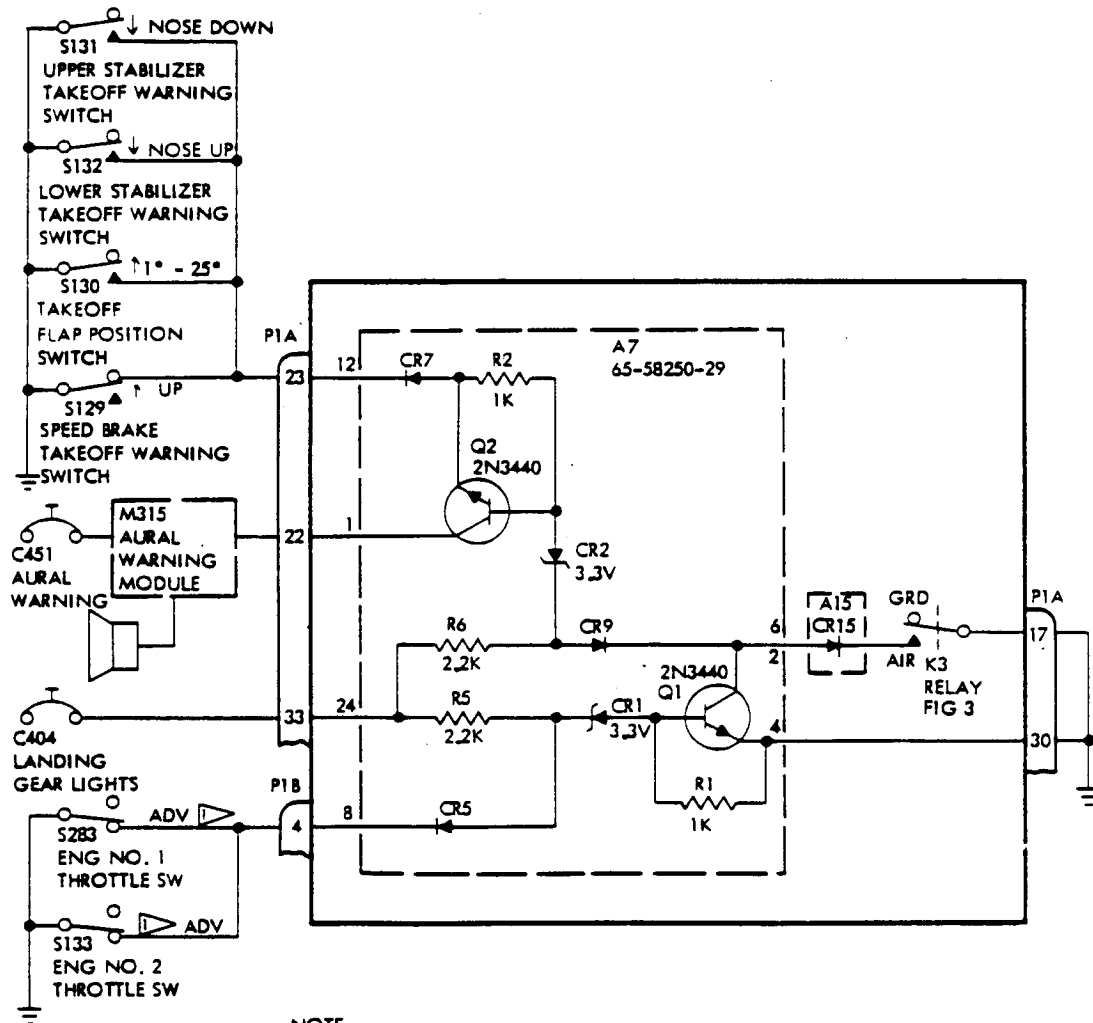
G. A squat backup time delay circuit (A6 card) is used on most assemblies. Printed circuit assembly A6 provides suppression and isolation diodes and time delay switching circuitry for operation of the latching relays K16 and K17. See Fig. 13 for simplified diagram. Power to the relays is provided by contacts on the air and ground safety relays, K5 and K6, controlled by proximity switches A2 and A3 respectively. With A2 actuated, K5 provides power from pin A56 to reset K16. With A2 deactuated, power at pin A56 will energize relay K15 for a period of 2.5 to 6.5 seconds controlled by a time delay circuit on A6 before K16 becomes energized and opens the circuit to K15. Similarly K14 is energized for a period of 2.5 to 6.5 seconds when A3 is actuated and power is provided at pin A56. Normally open contacts on K14 and K15 are used in relay logic circuitry for operation of the air speed brake (spoiler) actuator (Fig. 14). This is an advanced configuration of the automatic ground speed brake system shown in Fig. 10, sheet 2.

4. Leading Particulars

Length -- 22 inches (approx)
Height -- 8 inches (approx)
Width -- 4 inches (approx)
Weight -- 12 pounds (approx)
Operating Voltage -- 28 volts ac, rms, 400 Hz
 -- 28 volts dc

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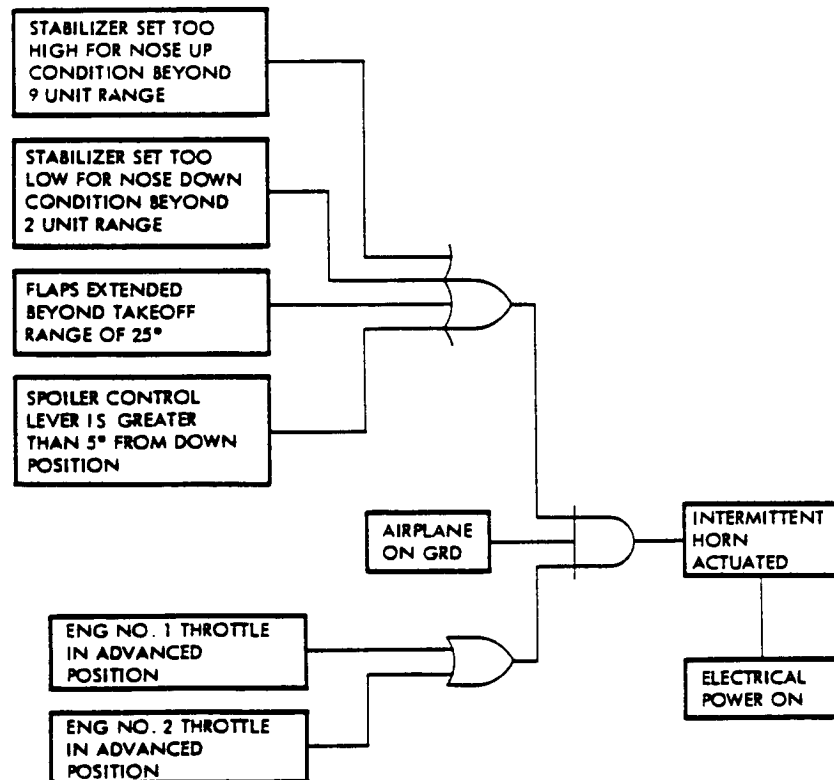
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▷ 25 ± 2% TO FULL
ADVANCE

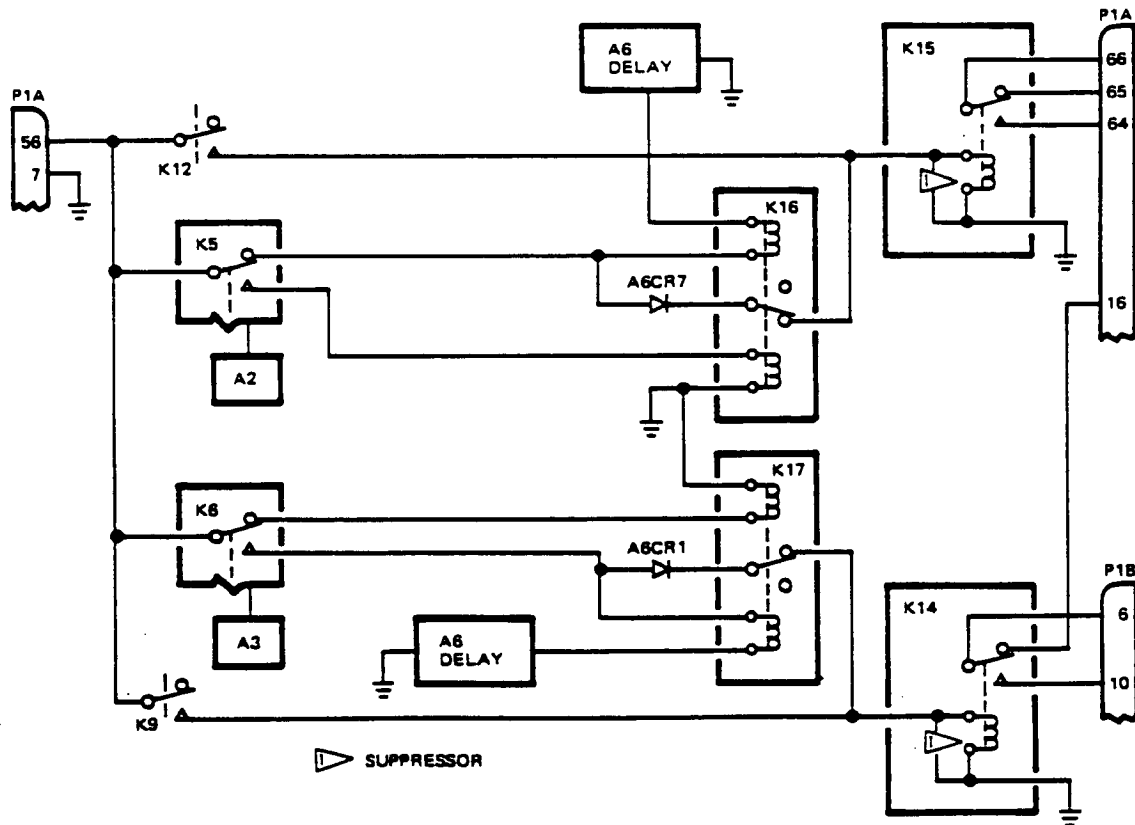
NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTANCES ARE IN OHMS ± 5%
DIODES CR5, CR7 AND CR9 ARE 1N4385

Takeoff Warning System
Figure 11

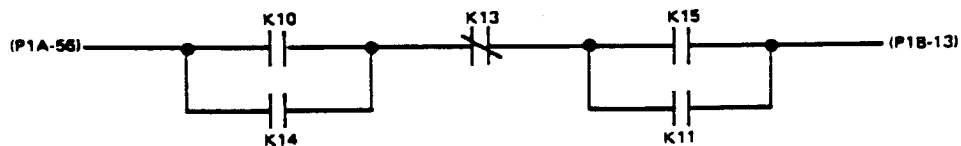


BOEING
COMMERCIAL JET
OVERHAUL MANUAL

65-52811
 DASH NUMBERS LIMITED
 (SEE PAGE 1)



Simplified Squat Backup Time Delay Circuit
 Figure 13



LINE DIAGRAM

Airspeed Brake (Spoiler) Circuit
 Figure 14

OVERHAUL MANUAL

REPAIR

1. All repair can be accomplished with standard industry practices and information contained in 20-11-04 except as noted in the following:
 - A. If keying plugs (76, Fig. 1101 or 400, Fig. 1102) require replacement, install in connectors as indicated in Fig. 401.

Connector	Position
J2, J3, J8, J13, J16	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 *[1]	10-L
J12, J14 *[2]	2-B
J15	8-J, 9-K

- *[1] 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140 -183, -184
- *[2] 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176

Keying Plug Installation
Figure 401

- B. When replacing relays K16 and K17 (96, Fig. 1101 or 360, Fig. 1102) (not installed in 65-52811-32, -34, -78, -122, -123, -149) insert with contrasting bead matching pin 2 of socket.

TESTING

1. Test Equipment

A. Power Supplies:

- (1) 28 $\pm$ 1 vdc, 2 amp
- (2) 28 $\pm$ 1 vac, 400 $\pm$ 5 Hz

B. Multimeter:

- (1) Simpson 260P or equivalent

C. Oscilloscope:

- (1) Tektronix 475 or equivalent

D. Test Lamps:

- (1) 28 vdc, 100 ma (1820 or equivalent) (8 required) (L2-L7, L10, L11)
- (2) 28 vdc, 40 ma (327,387,1819 or equivalent) (2 required) (L8, L9)
- (3) 28 vdc, 500 ma (three 313 or 1821 lamps in parallel or equivalent) (L12)

E. Switches:

- (1) SPST
 - (a) 26 required (S1-S10, S12-S16, S18, S20, S23, S71-S76, S105, S106)
 - (b) 1 required (S11) (65-52811-62, -64, -109, -111)
 - (c) 1 required (S24) (65-52811-34, -42, -60, -64, -83, -96, -111, -123, -127, -140, -162, -176, -184)
 - (d) 1 required (S25) (65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -162, -175, -176, -183, -184)
- (2) SPDT 3-position (2 required) (S17, S22)
- (3) Pushbutton, normally open (S21)

F. Banana Jacks and Plugs:

- (1) Jacks
 - (a) Dual (8 required) J71-J76, J105, J106
 - (b) Single (J23)
- (2) Plugs (used with centerpoint sensor)
 - (a) Dual
 - (b) Single

G. Resistors:

- (1) 1K, 10PCT, 1W (R1)
- (2) 8.2K, 10PCT, 1W (8 required) (R2-R9)
- (3) 50 ohms, 5PCT, 10W (R10)

H. Diode: 1N4385 or equivalent

I. Calibration Test (Dial) Stand (including 1.2" x 0.5" x 0.05" target and dial indicator):

- (1) ELDEC P/N 3-455-16 *[1]

J. Centerpoint Sensor Kit (including 1-899-15CP02 centerpoint sensor):

- (1) ELDEC P/N 1-899-15CP01 *[1]

K. Test Connector (with pigtail lead):

- (1) DPX2MB67S67S33B0000 *[2]

*[1] ELDEC Corp., 16700 13th Ave. West, P.O. Box 100, Lynnwood, Washington 98036

*[2] International Telephone and Telegraph Corp., ITT Cannon Electric Div., 10550 Talbert Ave., P.O. Box 8040, Fountain Valley, California 92708

2. Functional Test

- A. Verify continuity between pin-pairs listed in Fig. 701. Use positive lead of multimeter on pin listed in From Pin column.

OVERHAUL MANUAL

Component Tested	From Pin (+)	To Pin (-)
Wiring	A-7	Chasis
K1	A-26	A-25
	A-29	A-14
	A-29	B-45
	B-25	B-32
K2	A-29	A-9
	A-29	B-1 *[1]
	B-23	B-29
K3	B-43	A-17
	A-11	A-12
K4	A-31	A-15
	A-19	B-30
	B-11	A-29
	B-8	B-14
K9-K12	A-7	A-55

Component Tested	From Pin (+)	To Pin (-)
K5	A-62	A-63
	A-65	A-66*[2]
	B-19	A-17
	B-21	B-49
K7/A4R4	B-16	B-15*[3]
K6	B-27	B-47
	B-48	B-28
	B-67	A-29
K8	B-66	A-29
	B-61	B-60
	B-64	B-63
	B-58	B-56
K6*[2]	A-16	B-6
K14*[4]	A-16	B-6
K15*[4]	A-65	A-66

*[1] All except 65-52811-62, -64, -109, -111

*[2] 65-52811-32, -34, -78, -122, -123, -149

*[3] 4 to 6 ohms

*[4] All except 65-52811-32, -34, -78, -122, -123, -149

Continuity Tests
Figure 701

- B. Verify non continuity (50K minimum) between pin-pairs listed in Fig. 702. Use positive lead of multimeter on pin listed in From Pin column.

OVERHAUL MANUAL

Component Tested	From Pin (+)	To Pin (-)	Component Tested	From Pin (+)	To Pin (-)
K1	A-27	A-25	K6	B-2	B-27
	B-26	B-32	K7	B-18	A-32
	A-57	A-29	K8	B-57	B-56
	B-9	A-29		B-59	B-61
K2	A-6	A-29		B-62	B-64
	A-13	A-29		B-65	A-29
	B-24	B-29	K9-K12	B-7	A-7
K2/K3	B-33	A-21		A-24	B-46
K3/S1	B-44	A-17	K13	B-3	B-5
K3	A-10	A-12	K14*[3]	B-10	B-6
K4	A-28	A-31	K15*[3]	A-64	A-66
	B-12	A-29	Wiring	A-3	A-8*[4]
	B-31	A-19		A-3	A-39*[4]
	B-34	B-8		A-4	A-8*[4]
K5	B-22	B-49		A-4	A-37*[4]
	B-20	A-17		A-5	A-8*[4]
	A-61	A-63		A-5	A-41*[4]
	A-64	A-66*[1]		B-51	A-33*[4]
K6	A-20	B-48	A7/A11	A-35	A-51
	B-10	B-6*[1]		A-51	A-35
A5	B-53	A-56	A11	A-51	A-50
	A-53	A-56		A-52	A-50
A7*[2]	B-1	A-33	A7/K13*[5]	B-4	A-56
			A7/K13*[6]	B-4	B-3

- *[1] 65-52811-32, -34, -78, -122, -123, -149
- *[2] 65-52811-62, -64, -109, -111
- *[3] All except 65-52811-32, -34, -78, -122, -123, -149
- *[4] 65-52811-34, -42, -60, -64, -83, -96, -111, -123, -127, -140, -162, -176, -184
- *[5] 65-52811-32, -34, -40, -42, -49, -58, -60, -62, -64, -66, -78, -82, -83, -89, -96
- *[6] 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -162, -175, -176, -183, -184

Non Continuity Tests
Figure 702

OVERHAUL MANUAL

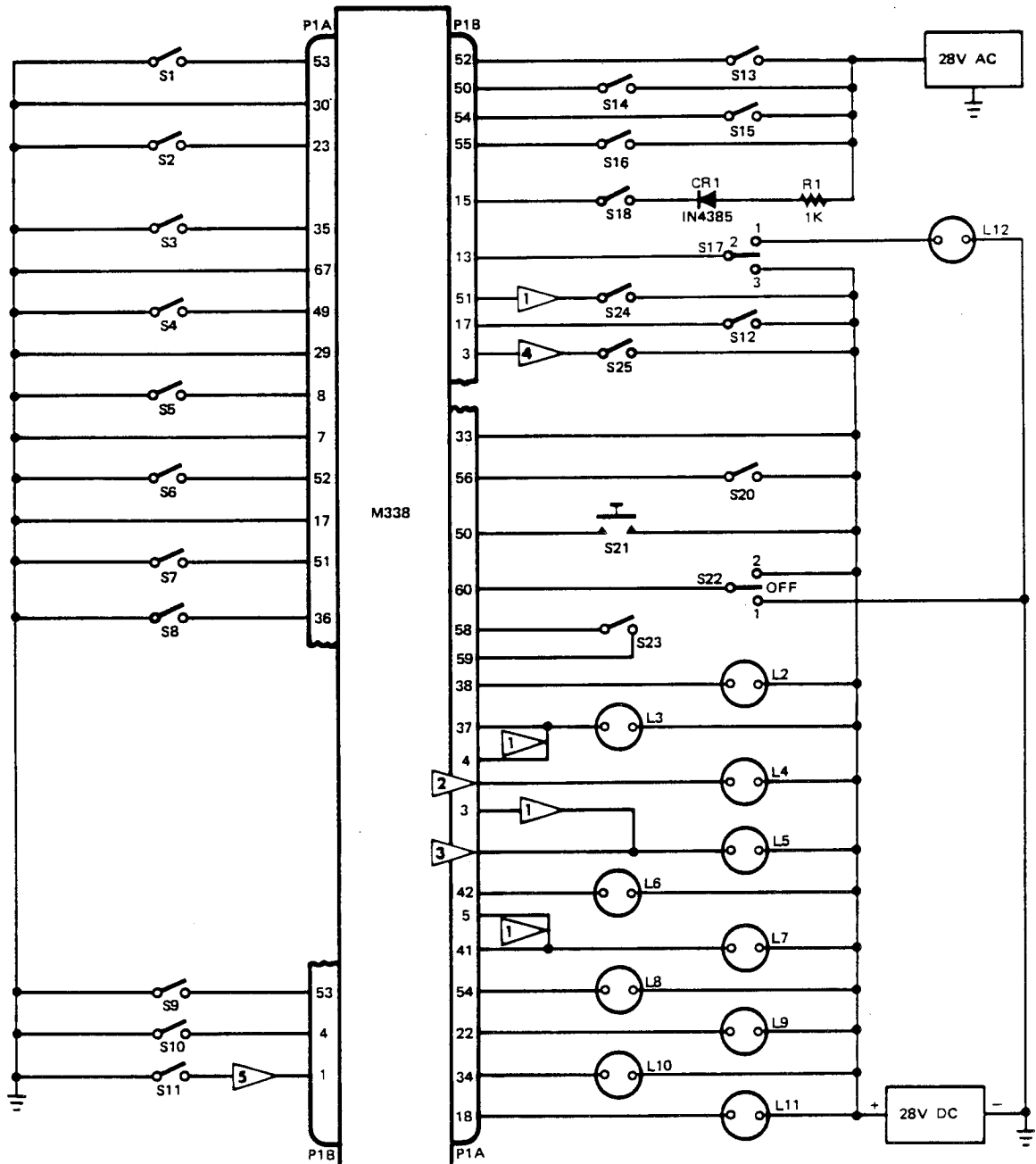
- C. Verify continuity between pin A-7 and the case of relays K10, K11 and K13.
- (1) (65-52811-32, -34, -78, -122, -123, -149). Verify continuity between pin A-7 and the case of relays K9 and K12.
- (2) (All except 65-52811-32, -34, -78, -122, -123, -149). Verify continuity between pin A-7 and the case of relays K14 and K15.
- D. Verify 1150 $\pm 10\%$ between pins A-58 and A-60.
- E. Verify 1000 $\pm 25\%$ between pins A-59 and A-56.
- F. Connect test setup per Fig. 703. Turn on both power supplies.

NOTE: The centerpoint sensor leads are terminated in banana plugs. The red and blue leads are terminated in a dual banana plug such that they are inserted and removed as a pair. The yellow lead is terminated in a single banana plug which is inserted into the Y jack (J23) of the test setup, Fig. 703. It is important that the red lead connects to the red banana jack and that the blue lead connects to the blue banana jack throughout the entire test.

Figure 704 lists the functions simulated by the test setup. The reference designators are the same as the airplane reference designators for that function. The M reference designators are for the module within which a function occurs.

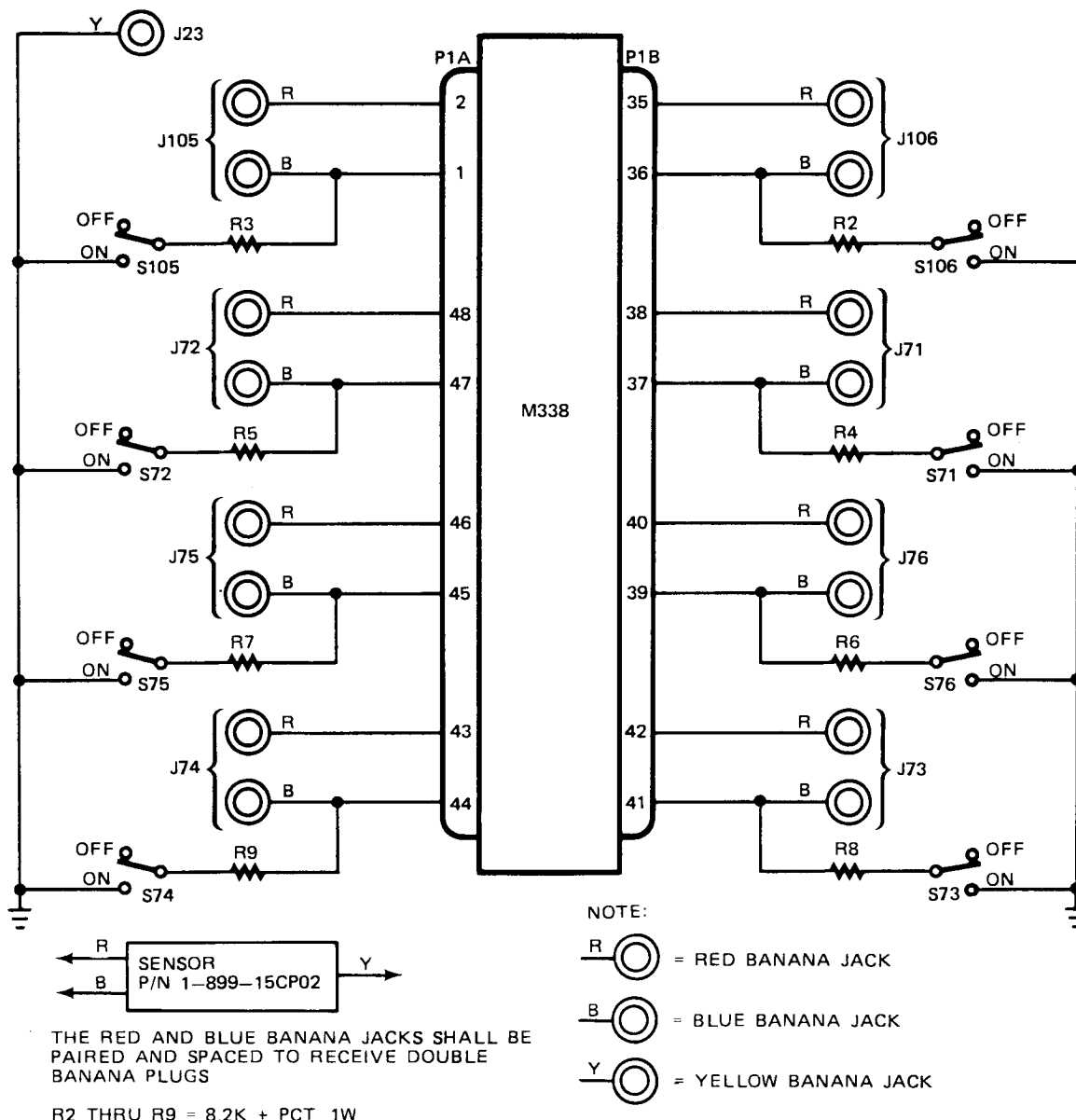
The test setup and module both have switches S1 and S2. Consider all switches as part of test setup unless module switches are specifically listed.

OVERHAUL MANUAL



Test Setup
Figure 703 (Sheet 1)

OVERHAUL MANUAL



- 1 65-52811-34, -42, -60, -64, -83, -96, -111, -123, -127, -240, -162, -176, -184
- 2 PIN 39 FOR 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184
PIN 40 FOR 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
- 3 PIN 40 FOR 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184
PIN 39 FOR 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
- 4 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140
-149, -155, -162, -175, -176, -183, -184
- 5 65-52811-62, -64, -109, -111

OVERHAUL MANUAL

Test Item	Initial Condition	Aircraft Circuit Function	Aircraft Ref Desig.
S1	On	Simulates Inboard Antiskid Inoperative	M162F
S2	On (Beyond 25°)	Flap Position Warning Switch	S130
S3	Off (Not Down)	Landing Gear Lever Switch	S78
S4	On (Down)	Landing Warning Switch	S138
S5	On (Up)	Flap Up Limit Switch	S245
S6	Off (Advanced)	Engine No. 1 Throttle	S139
S7	Off (Advanced)	Engine No. 2 Throttle	S140
S8	On	Simulates Speed Brake Handle Actuator	M359B
S9	On	Simulates Outboard Antiskid Inoperative	M162E
S10	Off (Retard)	Engine Throttle Switch	S133
S11*[1]	Off	Simulates Thrust Reverse	M528
S12	Off (Not Park)	Park Brake Switch	S100
S13	Off	Simulates Left Outboard Wheelspeed	M162C
S14	Off	Simulates Left Inboard Wheelspeed	M162A
S15	Off	Simulates Right Inboard Wheelspeed	M162D
S16	Off	Simulates Right Outboard Wheelspeed	M162B
S17	Position 2	Simulates Speed Brake Handle Actuator	M359A
S18	Off	Simulates Anti-Skid AC	SV11
S20	Off (Not Armed)	Speed Brake Handle	S276
S21	Off	Throttle Horn Reset	S77
S22	Off	Ground Spoiler Test Switch No. 2	S315
S23	Off	Ground Spoiler Test Switch No. 1	S289
S24*[2]	On	Simulates ARB Configuration	M278A
S25*[3]	On (Armed)	Speed Brake Arming Warning Switch	S276
S106,J106	Deactuated (Off)	Air Sensing Sensor	S106,J106
S105,J105	Deactuated (Off)	Ground Sensing Sensor	S105,J105
S71,J71	Deactuated (Off)	Left Main Gear Downlock Sensor	S71,J71
S72,J72	Deactuated (Off)	Left Main Gear Uplock Sensor	S72,J72
S76,J76	Deactuated (Off)	Nose Gear Uplock Sensor	S76,J76
S75,J75	Deactuated (Off)	Nose Gear Downlock Sensor	S75,J75
S73,J73	Deactuated (Off)	Right Main Gear Downlock Sensor	S73,J73
S74,J74	Deactuated (Off)	Right Main Gear Uplock Sensor	S74,J74
L2	Illuminated	Left Main Gear (Red)	L367
L3	Not Illuminated	Left Main Gear Downlock (Green)	L368
L4	Illuminated	Nose Gear (Red)	L365
L5	Not Illuminated	Nose Gear Downlock (Green)	L366
L6	Illuminated	Right Main Gear (Red)	L369
L7	Not Illuminated	Right Main Gear Downlock (Green)	L370
L8	Not Illuminated	Simulates Continuous Horn	M315B
L9	Not Illuminated	Simulates Interrupted Horn	M315A
L10	Not Illuminated	Speed Brake Armed (Green)	L441
L11	Not Illuminated	Speed Brake Do Not Arm (Amber)	L442
L12	Not Illuminated	Simulates Speed Brake Handle Actuator	M359

*[1] 65-52811-62, -64, -109, -111 only

*[2] 65-52811-34, -42, -60, -64, -83, -96, -111, -123, -127, -140, -162, -176, -184

*[3] 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -162, -175, -176, -183, -184

Items Simulated by Test Setup

Figure 704

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- G. Set switches per initial conditions listed in Fig. 704. Verify that initial condition for L2 thru L12.
- H. Verify module lamp DS1 is extinguished and module lamp DS2 is illuminated.
- I. Perform functional test per Fig. 705.

NOTE: Indicators DS1 and DS2 respond to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches from the actuation point.

Step	Procedure	Required Results
	<u>Air Sensing Squat Switch</u>	
1	Measure resistance between:	
	(K1, K2) A-9 and B-45	Con
	(K7, A4R4) B-15 and B-16	4 to 6 ohms
	(K3, K5) B-19 and B-43	Con
	(K4) B-30 and A-19	Con
2	Set S12 to ON	
3	Measure resistance between:	
	(K7) B-18 and A-32	Con
	(K7) B-15 and B-16	No Con
	(K4) B-30 and A-19	Con
4	Connect deactuated sensor to test jack J106	
5	Press module switch S1, hold	DS1 on
6	Measure resistance between:	
	(K3, S1) B-44 and A-17	No Con
7	Release module switch S1	DS1 off
8	Actuate sensor	DS1 on
9	Measure resistance between:	
	(K1, K2) A-9 and A-14	Con
	(K3) A-10 and A-12	Con
	(K5) A-61 and A-63	Con
	(K7, A4R4) B-15 and B-16	4 to 6 ohms
	(K5) B-20 and A-17	Con
	(K5) B-22 and B-49	Con

Functional Tests
Figure 705 (Sheet 1)

OVERHAUL MANUAL

Step	Procedure	Required Results
	(K4) B-30 and A-19	Con
	(K3, S1) B-44 and A-17	Con
10	Verify both DS1 and DS2 are illuminated	
11	Measure resistance between:	
	(K3) A-11 and A-12	No Con
	(K5) A-17 and B-19	No Con
	(K3) A-17 and B-43	No Con
	(K5) A-62 and A-63	No Con
	(K5) B-21 and B-49	No Con
12	Deactuate sensor	DS1 off
13	Disconnect sensor from test jack J106	
	<u>Take-Off Warning</u>	
14	Set S10 to ON	*[1] L9 on
15	Set S11 *[2] to ON	*[2] L9 on
16	Set S106 to ON	L9 off, DS1 on
17	Set S106 to OFF	L9 on, DS1 off
18	Measure voltage between:	
	(A7) A-22 and GND	1 vdc max
19	Set S2 to OFF	L9 off
	<u>Ground Sensing Squat Switch</u>	
20	Connect deactuated sensor to test jack J105	
21	Actuate sensor	DS2 off
22	Measure resistance between:	
	(K2) A-6 and A-29	Con
	(K2) A-13 and A-29	Con
	(K6) A-20 and B-48	Con
	(K2, K3) A-21 and B-33	Con
	(K1) A-27 and A-25	Con
	(K4) A-28 and A-31	Con
	(K1) A-57 and A-29	Con
	(K4) B-12 and A-29	Con
	(K1) B-9 and A-29	Con
	(K6) B-2 and B-27	Con
	(K7) B-18 and A-32	Con
	(K2) B-24 and B-29	Con
	(K1) B-26 and B-32	Con
	(K4) B-31 and A-19	Con
	(K4) B-34 and B-8	Con
	(K8) B-57 and B-56	Con
	(K8) B-59 and B-61	Con

Functional Tests
Figure 705 (Sheet 2)

OVERHAUL MANUAL

Step	Procedure	Required Results
	(K8) B-62 and B-64	Con
	(K8) B-65 and A-29	Con
23	Measure voltage between:	
	(K2) *[1] B-1 and A-29	26 to 28 vdc
24	Measure resistance between:	
	(K2) A-9 and A-29	No Con
	(K1) A-14 and A-29	No Con
	(K4) A-15 and A-31	No Con
	(K1) A-26 and A-25	No Con
	(K4) B-11 and A-29	No Con
	(K4) B-14 and B-8	No Con
	(K2) B-23 and B-29	No Con
	(K1) B-25 and B-32	No Con
	(K4) B-30 and A-19	No Con
	(K1) B-45 and A-29	No Con
	(K8) B-58 and B-56	No Con
	(K8) B-60 and B-61	No Con
	(K8) B-63 and B-64	No Con
	(K8) B-66 and A-29	No Con
	(K6) B-48 and B-28	No Con
	(K6) B-47 and B-27	No Con
25	Set S12 to OFF	
26	Measure resistance between:	
	(K7,A4R4) B-15 and B-16	4 to 6 ohms
	(K4) B-30 and A-19	Con
	(K1,K2) A-57 and A-13	Con
27	Press module switch S2, release	DS2 on while pressed
28	Press-to-test DS1 and DS2	DS1, DS2 on while pressed
29	Set S106 to ON	DS1 on
30	Measure resistance between:	
	(K2, K3) B-33 and A-21	No Con
31	Deactuate sensor	DS2 on
32	Disconnect sensor from test jack J105	
<u>Squat Switch Time Delays (All except 65-52811-32, -34, -78, -122, -123, -149)</u>		
33	Set S25 *[4] to ON	L11 off
33A	Set S20 to ON	L11 on
34	Set S17 to position 1	No lamps change state
35	Set S106 to OFF	DS1 off
36	Measure resistance between:	
	(K15) A-66 and A-64	Con *[3]
	(K15) A-66 and A-65	No Con *[3]

Step	Procedure	Required Results
37	Set S105 to ON	DS2 off
38	Measure resistance between: (K14) B-6 and B-10 (K14) B-6 and A-16	Con *[3] No Con *[3]
39	Set S105 to OFF	DS2 on
40	Set S106 to ON	DS1 on
41	Set S10, S11 *[2] to OFF	
42	Simultaneously set S106 to OFF and S105 to ON	L10 and L12 illuminated momentarily and L11 extinguished momentarily (6.5 sec max) DS1 and DS2 off
43	Set S20 and (S25 *[4]) to OFF	L11 off
44	Set S106 to ON	DS1 on
45	Measure resistance between: (A6) A-7(+) and A-56	25 ohms max
46	Set S106 to OFF	DS1 off
47	Set S105 to OFF	DS2 on
48	Measure resistance between: (A6) A-7(+) and A-56	25 ohms max

*[1] ALL EXCEPT 65-52811-62, -64, -109, -111

*[2] 65-52811-62, -64, -109, -111

*[3] Momentarily for more than 2.5 sec but less than 6.5 sec

*[4] 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140,
-149, -155, -162, -175, -176, -183, -184

Functional Tests
Figure 705 (Sheet 4)

J. Left Main Gear Indication

- (1) Verify all test switches and lamps are in the initial conditions listed in Fig. 704.
- (2) Perform left main gear indication circuitry tests per Fig. 706.

Step	Procedure	Required Results
	<u>NOTE:</u> Indicator L2 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches from the actuation point.	
1	Connect deactuated sensor to test jack J72	
2	Actuate sensor	L2 off
3	Deactuate sensor	L2 on
4	Disconnect sensor from test jack J72	
	<u>NOTE:</u> Indicator L3 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches *[1] from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches *[2] from the actuation point.	
5	Connect deactuated sensor to test jack J71	
6	Actuate sensor	L3 on
7	Measure voltage between: A-38 and GND	1 vdc max
8	Deactuate sensor	L3 off
9	Disconnect sensor from test jack J71	
	<u>NOTE:</u> L4 and L6 must remain illuminated. L5 and L7 thru L12 must remain extinguished.	

Left Main Gear Indication Circuitry Tests
Figure 706 (Sheet 1)

Step	Procedure	Required Results
10	Set S3, S71 to ON	L2 off, L3 on
11	Set S71 to OFF	L2 on, L3 off
12	Set S3 to OFF	L2 on, L3 off
13	Set S72 to ON	L2 off, L3 off
14	Set S6 to ON	L2 on, L3 off
15	Set S6 to OFF	L2 off, L3 off
16	Set S7 to ON	L2 on, L3 off
17	Measure voltage between: A-38 and GND	2.5 vdc max

- *[1] 0.290 to 0.315 inches for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
0.132 to 0.158 inches for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184
- *[2] 0.005 to 0.025 inches for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
0.005 to 0.020 inches for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184

Left Main Gear Indication Circuitry Tests
Figure 706 (Sheet 2)

K. Right Main Gear Indication

- (1) Verify all test switches and lamps are in the initial conditions listed in Fig. 704.
- (2) Perform right main gear indication circuitry tests per Fig. 707.

Step	Procedure	Required Results
	NOTE: Indicator L6 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches from the actuation point.	
1	Connect deactuated sensor to test jack J74	
2	Actuate sensor	L6 off
3	Deactuate sensor	L6 on
4	Disconnect sensor from test jack J74	

Right Main Gear Indication Circuitry Tests
Figure 707 (Sheet 1)

Step	Procedure	Required Results
	<u>NOTE:</u> Indicator L7 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches *[1] from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches *[2] from the actuation point.	
5	Connect deactuated sensor to test jack J73	
6	Actuate sensor	L7 on
7	Measure voltage between: A-42 and GND	1 vdc max
8	Deactuate sensor	L7 off
9	Disconnect sensor from test jack J73	
	<u>NOTE:</u> L2 and L4 must remain illuminated. L3 and L8 thru L12 must remain extinguished.	
10	Set S3, S73 to ON	L6 off, L7 on
11	Set S73 to OFF	L6 on, L7 off
12	Set S3 to OFF	L6 on, L7 off
13	Set S74 to ON	L6 off, L7 off
14	Set S6 to ON	L6 on, L7 off
15	Set S6 to OFF	L6 off, L7 off
16	Set S7 to ON	L6 on, L7 off
17	Measure voltage between: A-42 and GND	2.5 vdc max

- *[1] 0.290 to 0.315 inches for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
0.132 to 0.158 inches for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184
- *[2] 0.005 to 0.025 inches for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
0.005 to 0.020 inches for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184

Right Main Gear Indication Circuitry Tests
Figure 707 (Sheet 2)

L. Nose Gear Indication

- (1) Verify all test switches and lamps are in the initial conditions listed in Fig. 704.
- (2) Perform right main gear indication circuitry tests per Fig. 708.

Step	Procedure	Required Results
	<u>NOTE:</u> Indicator L4 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.290 to 0.315 inches from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.025 inches from the actuation point.	
1	Connect deactuated sensor to test jack J76	
2	Actuate sensor	L4 off
3	Deactuate sensor	L4 on
4	Disconnect sensor from test jack J76	
	<u>NOTE:</u> Indicator L5 responds to the test centerpoint sensor as actuation is accomplished. Actuation shall occur as the target bar is brought within 0.132 to 0.158 inches from the sensor. The proximity switch card shall remain actuated as the gap is decreased to zero. Deactuation shall occur as the bar is moved away from the sensor 0.005 to 0.020 inches from the actuation point.	
5	Connect deactuated sensor to test jack J75	
6	Actuate sensor	L5 on
7	Measure voltage between: *[1] A-40 and GND	1 vdc max
8	Deactuate sensor	L5 off
9	Disconnect sensor from test jack J75	
	<u>NOTE:</u> L2 and L6 must remain illuminated. L3 and L7 thru L12 must remain extinguished.	

Nose Gear Indication Circuitry Tests
Figure 708 (Sheet 1)

Step	Procedure	Required Results
10	Set S3, S75 to ON	L4 off, L5 on
11	Set S75 to OFF	L4 on, L5 off
12	Set S3 to OFF	L4 on, L5 off
13	Set S76 to ON	L4 off, L5 off
14	Set S6 to ON	L4 on, L5 off
15	Set S6 to OFF	L4 off, L5 off
16	Set S7 to ON	L4 on, L5 off
17	Measure voltage between: *[1] A-40 and GND	2.5 vdc max

*[1] Pin A-40 for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
Pin A-39 for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184

Nose Gear Indication Circuitry Tests
Figure 708 (Sheet 2)

M. Aural Warning

- (1) Verify all test switches and lamps are in the initial conditions listed Fig. 704.
- (2) Perform aural warning circuitry test per Fig. 709

NOTE: L2, L4 and L6 must remain illuminated. L9 thru L12 must remain extinguished.

Step	Procedure	Test Lamp Indications	
		Illuminated	Extinguished
1	Set S5 to OFF	L8	L3, L5, L7
2	Set S4 to OFF		L3, L5, L7, L8
3	Set S6 to ON	L8	L3, L5, L7
4	Press and release S21		L3, L5, L7, L8
5	Set S7 to ON	L8	L3, L5, L7
6	Press and release S21		L3, L5, L7, L8
7	Set S6 to OFF		L3, L5, L7, L8
8	Set S6 to ON	L8	L3, L5, L7
9	Press and release S21		L3, L5, L7, L8
10	Set S7 to OFF		L3, L5, L7, L8
11	Set S7 to ON	L8	L3, L5, L7
12	Press and release S21		L3, L5, L7, L8

Step	Procedure	Test Lamp Indications	
		Illuminated	Extinguished
13	Set S4 to ON	L8	L3, L5, L7
14	Set S71 to ON	L3, L8	L5, L7
15	Set S73 to ON	L3, L7, L8	L5
16	Set S75 to ON	L3, L5, L7	L8
17	Set S73 to OFF	L3, L5, L8	L7
18	Set S73 to ON	L3, L5, L7	L8
19	Set S71 to OFF	L5, L7, L8	L3
20	*[1] Set S24 to OFF	L5, L7	L3, L8
21	*[1] Set S24 to ON	L5, L7, L8	L3
22	Set S71 to ON	L3, L5, L7	L8
23	Measure voltage between: *[2] A-39 and GND A-37 and GND A-41 and GND	1 vdc max 1 vdc max 1 vdc max	

*[1] 65-52811-34, -42, -60, -64, -83, -96, -111, -123, -127, -140, -162, -176, -184

*[2] Pin A-39 for 65-52811-32, -34, -40, -42, -49, -58, -60, -115, -122, -123, -126, -127, -133, -140
Pin A-40 for 65-52811-62, -64, -66, -78, -82, -83, -89, -96, -109, -111, -113, -149, -155, -162, -175, -176, -183, -184

Aural Warning Circuitry Tests
Figure 709 (Sheet 2)

N. Automatic Ground Spoiler

- (1) Verify all test switches and lamps are in the initial conditions listed in Fig. 704.
- (2) Perform automatic ground spoiler circuitry tests per Fig. 710.

NOTE: L2, L4 and L6 must remain illuminated. L3, L5, L7 and L8 must remain extinguished.

Step	Procedure	Test Lamp Indications	
		Illuminated	Extinguished
1	*[1] Set S25 to ON		
2	Set S20 to ON	L11	L9, L10, L12
3	Set S17 to position 3	L10	L9, L11, L12
4	Set S17 to position 2	L11	L9, L10, L12
5	Set S1 to OFF	L10	L9, L11, L12
6	Set S1 to ON	L11	L9, L10, L12
7	Set S9 to OFF	L10	L9, L11, L12
8	Set S1 to OFF	L10	L9, L11, L12
9	Set S8 to OFF	L11	L9, L10, L12
10	Set S8 to ON	L10	L9, L11, L12
11	Set S22 to position 1	L11	L9, L10, L12
12	Set S22 to OFF	L10	L9, L11, L12
13	Set S23 to ON	L11	L9, L10, L12
14	Set S23 to OFF	L10	L9, L11, L12
15	Set S22 to position 2	L11	L9, L10, L12
16	Set S10 to ON	L9*[2],L11	L10, L12
17	Measure between pins: A-18 and GND *[3] B-3 and B-5 *[1] B-5(+) and B-4	1 vdc max 2 ohms max 26 to 28 vdc	
	Speedbrake Test		
18	Confirm all test switches and lamps are in the initial condition listed in Fig. 704		
19	*[1] Set S25 to ON		
20	Set S20 to ON	L11	L9, L10, L12
21	Set S15 to ON	L11	L9, L10, L12
22	Set S16 to ON	L10	L9, L11, L12
23	Set S17 to position 1	L10, L12	L9, L11
24	Set S10 to ON	L9*[2],L11	L10, L12
25	Set S10 to OFF	L10, L12	L9, L11
26	Set S16 to OFF	L11	L9, L10, L12

Automatic Ground Spoiler Circuitry Tests
Figure 710 (Sheet 1)

OVERHAUL MANUAL

Step	Procedure	Test Lamp Indications	
		Illuminated	Extinguished
27	Set S14 to ON	L10, L12	L9, L11
28	Set S10 to ON	L9*[2],L11	L10, L12
29	Set S10 to OFF	L10, L12	L9, L11
30	Set S15 to OFF	L11	L9, L10, L12
31	Set S13 to ON	L10, L12	L9, L11
32	Set S10 to ON	L9*[2],L11	L10, L12
33	Set S10 to OFF	L10, L12	L9, L11
34	Set S14 to OFF	L11	L9, L10, L12
35	Set S16 to ON	L10, L12	L9, L11
36	Set S10 to ON	L9*[2],L11	L10, L12
37	Set S10 to OFF	L10, L12	L9, L11
38	Set S16 to OFF	L11	L9, L10, L12
39	Set S15 to ON	L11	L9, L10, L12
40	Set S14, S16 to ON	L10, L12	L9, L11
41	Set S13, S15 to OFF	L11	L9, L10, L12
42	Set S13, S15 to ON	L10, L12	L9, L11
43	Set S10 to ON	L9*[2],L11	L10, L12
44	Set S10 to OFF	L10, L12	L9, L11
45	Measure voltage between: A-34 and GND	1 vdc max	

- [1] 65-52811-109, -111, -113, -115, -122, -123, -126, -127, -133, -140, -149, -155, -162, -175, -176, -183, -184
- [2] L9 remains extinguished for 65-52811-62, -64, -109, -111
- [3] 65-52811-32, -34, -40, -42, -49, -58, -60, -62, -64, -66, -78, -82, -83, -89, -96

Automatic Ground Spoiler Circuitry Test
Figure 710 (Sheet 2)

OVERHAUL MANUAL

O. Automatic Brakes

(1) Verify all test switches and lamps are in the initial conditions listed in Fig. 704.

(2) Perform automatic brake circuitry tests per Fig. 711.

NOTE: Test lamps must not change state during test.

Test Step	Procedure	Verify Continuity or No Continuity		
		From Pin A-7 To Pin B-7	From Pin A-7 To Pin A-55	From Pin A-24 To Pin B-46
1	Set S13 thru S16 to OFF	No Con	Con	No Con
2	Set S13 to ON	Con	Con	No Con
3	Set S16 to ON	Con	Con	Con
4	Set S13 to OFF	Con	Con	No Con
5	Set S14 to ON	Con	Con	Con
6	Set S16 to OFF	Con *[1]	Con	No Con
7	Set S15 to ON	Con	Con	Con
8	Set S14 to OFF	Con *[1]	Con	No Con
9	Set S16 to ON	Con	Con	No Con
10	Set S13 to ON	Con	Con	Con
11	Set S14 to ON	Con	No Con	Con
12	Set S15 to OFF	Con	Con	Con
13	Set S15 to ON	Con	No Con	Con
14	Set S13 to OFF	Con	Con	Con
15	Set S13 to ON	Con	No Con	Con
16	Set S16 to OFF	Con	Con	Con
17	Set S16 to ON	Con	No Con	Con
18	Set S14 to OFF	Con	Con	Con
19	Set S14 to ON	Con	No Con	Con
20	Set S13 thru S16 to OFF	No Con	Con	No Con

*[1] No Con for 65-52811-58, -60, -62, -64, -66, -96, -109, -111, -113, -115, -140, -162

Automatic Brake Circuitry Tests
Figure 711

OVERHAUL MANUAL

P. Anti-Skid

- (1) Connect oscilloscope between pins B-15 and A-67 (-).
- (2) Set S18 to ON.
- (3) Verify voltage shall be between 28 and 50 volts dc with a ripple content of less than 5 volts peak-to-peak.
- (4) Set S18 to OFF.
- (5) Connect pin B-15 through 50 -ohm resistor (R10) to ground (A-67) for minimum of 5 seconds.
- (6) Disconnect R10 and pin B-15 from ground.

Q. Turn off both power supplies.

R. Disconnect test setup, Fig. 703.

S. Verify indexing on rear connector as follows:

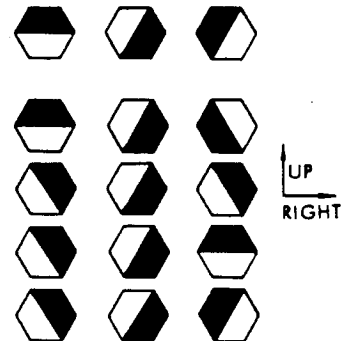
65-52811-32, -40, -49, -58, -115, -122, -126,
-133, -183

65-52811-34, -42, -60, -123, -127, -140, -184

65-52811-62, -109

65-52811-64, -83, -96, -111, -162, -176

65-52811-66, -78, -82, -89, -113, -149, -155,
-175



NOTE: Darkened portion indicates extended part of keying post.

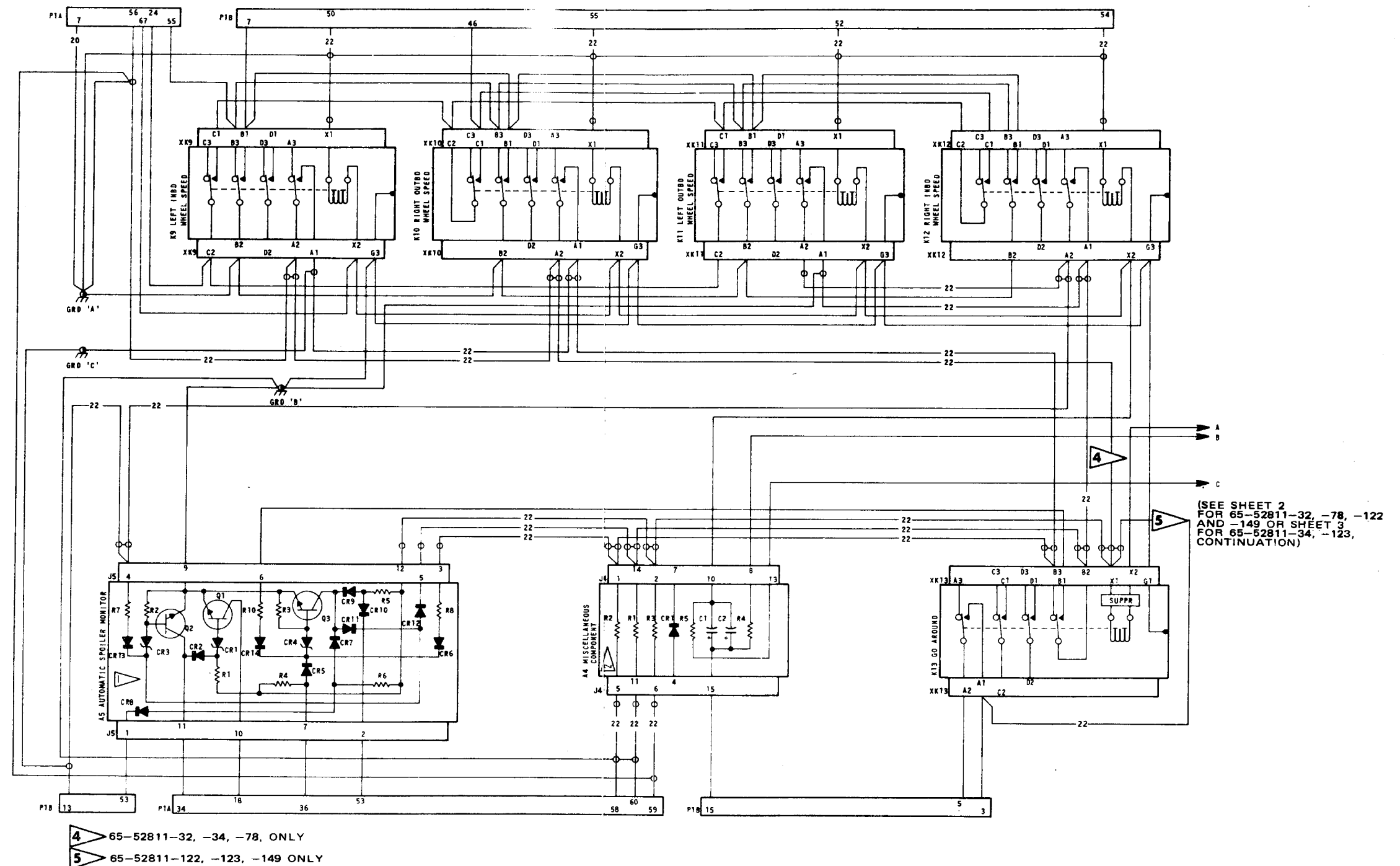
OVERHAUL MANUAL

TROUBLE SHOOTING

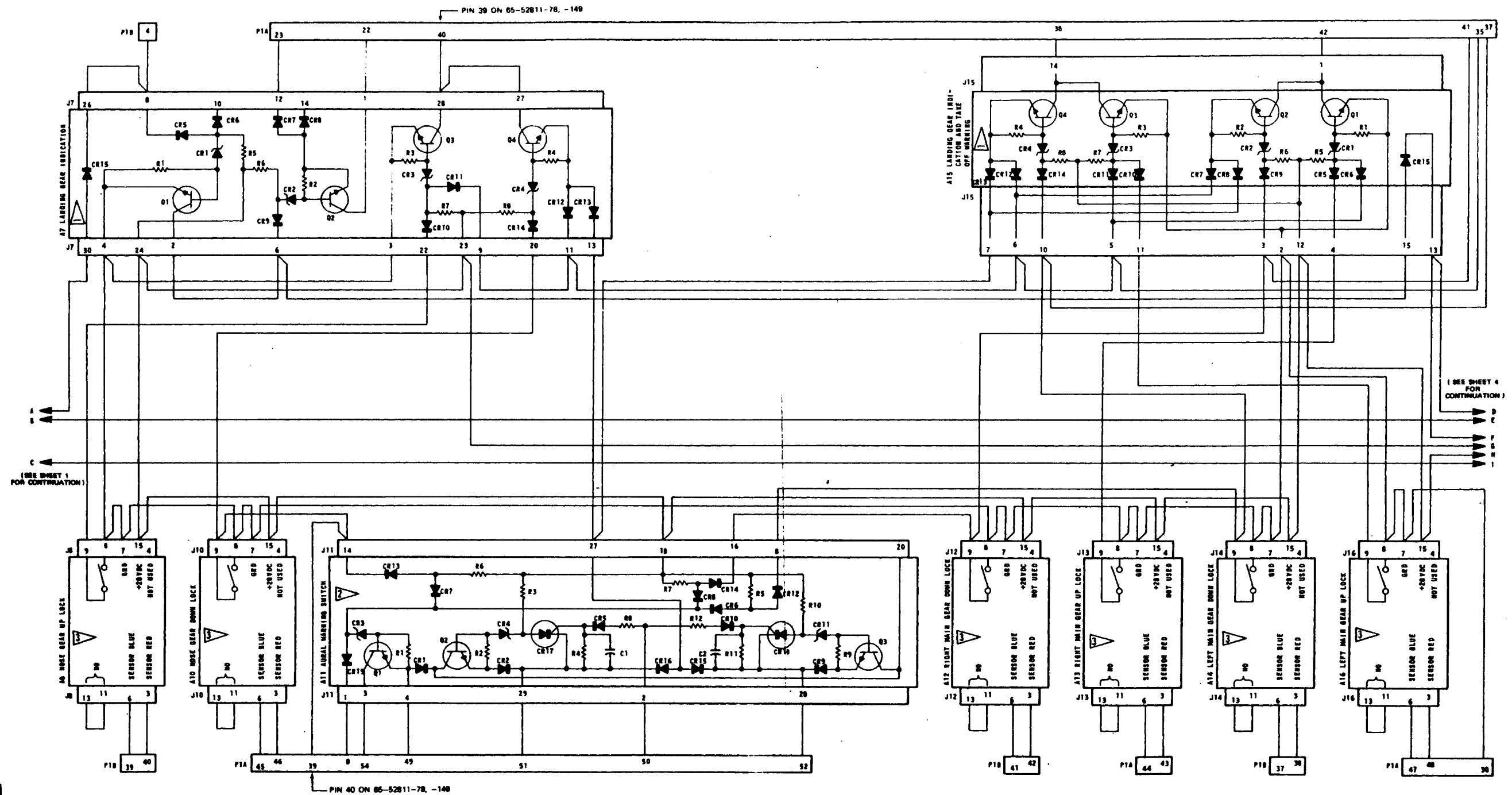
1. Trouble shooting is keyed to steps of the test procedures. Paragraph and step references are to that portion of TESTING wherein the fault specified could occur. The presumption is made that when a fault indication is encountered, the results of all previous steps were normal.

<u>Trouble</u>	<u>Possible Cause and Corrective Action</u>
Figure 701, 702	Listed component
Par. 2.C.	Wiring
Par. 2.D.	A4R1/R2
Par. 2.E.	A4R3
Figure 705	
Steps 1, 3, 9, 11, 22-26, 36, 38	Listed component
Steps 4-8, 10, 12	
Continuity fault	S1, K3
DS1 fault	A2, DS1
Steps 14-19	A7, DS1
Steps 21, 22	A3, DS2
Steps 27-30	DS1, DS2, S1, S2
Steps 33-48	*[1] A6, K14 thru K17
Figure 706	
Steps 1-4	A16
Steps 5-9	A14
Steps 10-17	A11, A15
Figure 707	
Steps 1-4	A13
Steps 5-9	A12
Steps 10-17	A11, A15
Figure 708	
Steps 1-4	A8
Steps 5-9	A10
Steps 10-11	A7, A11
Figure 709	
Steps 1-23	A11
Figure 710	
Steps 1-17	A4, A5, A7, K13 and *[1] K14, K15
Steps 19-45	K9 thru K12

<u>Trouble</u>	<u>Possible Cause and Corrective Action</u>
Figure 711 Steps 1 - 20	K9 - K12
Par. 2.P.	A4C1, A4C2, and *[1] A4C3 and A4C4
*[1] All except 65-52811-32, -34, -78, -122, -123, -149	



65-52811-32, -34, -78, -122, -123, -149

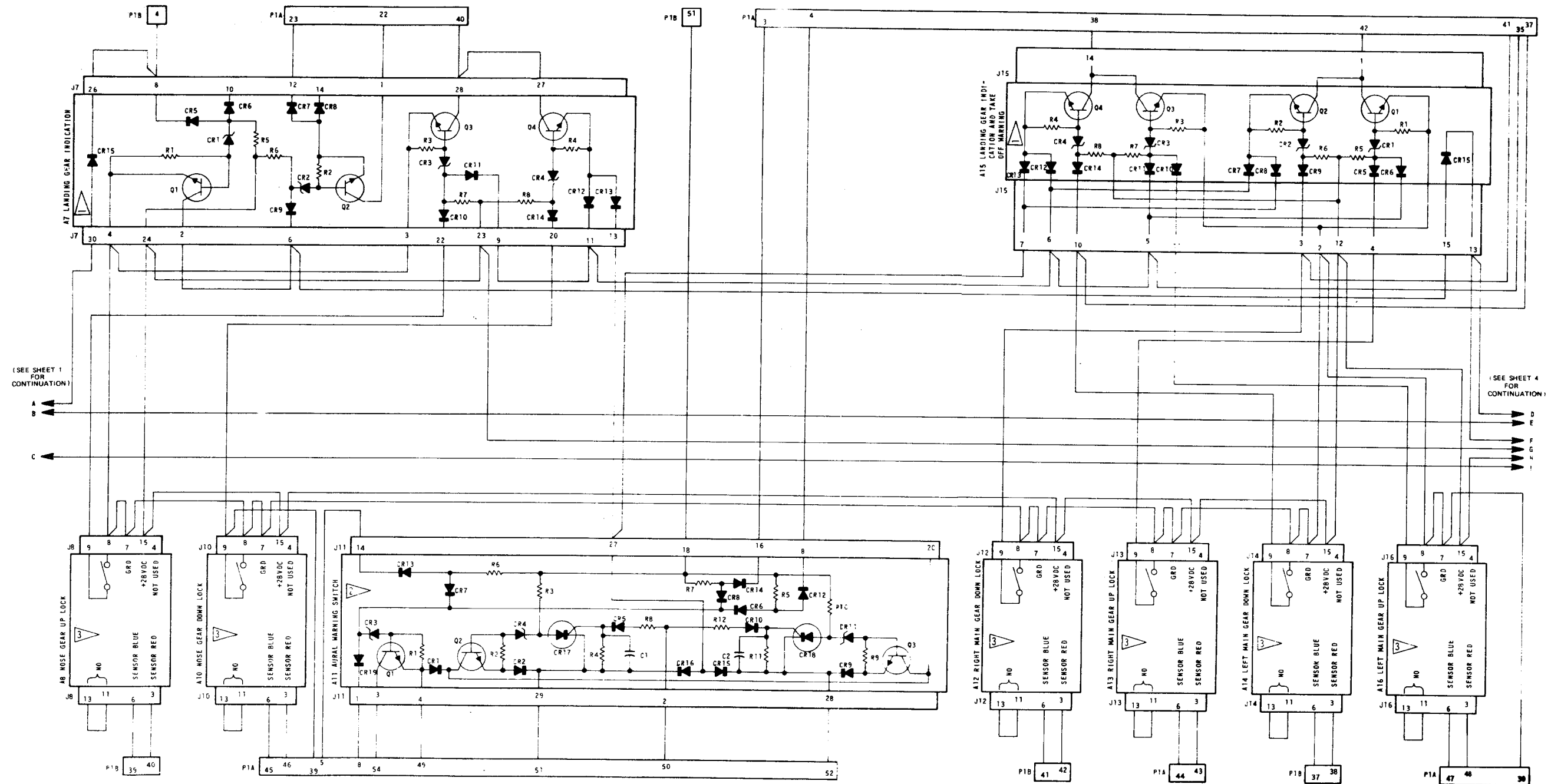


65-52811-32, -78, -122, -149

Schematic Diagram
Figure 801 (Sheet 2)

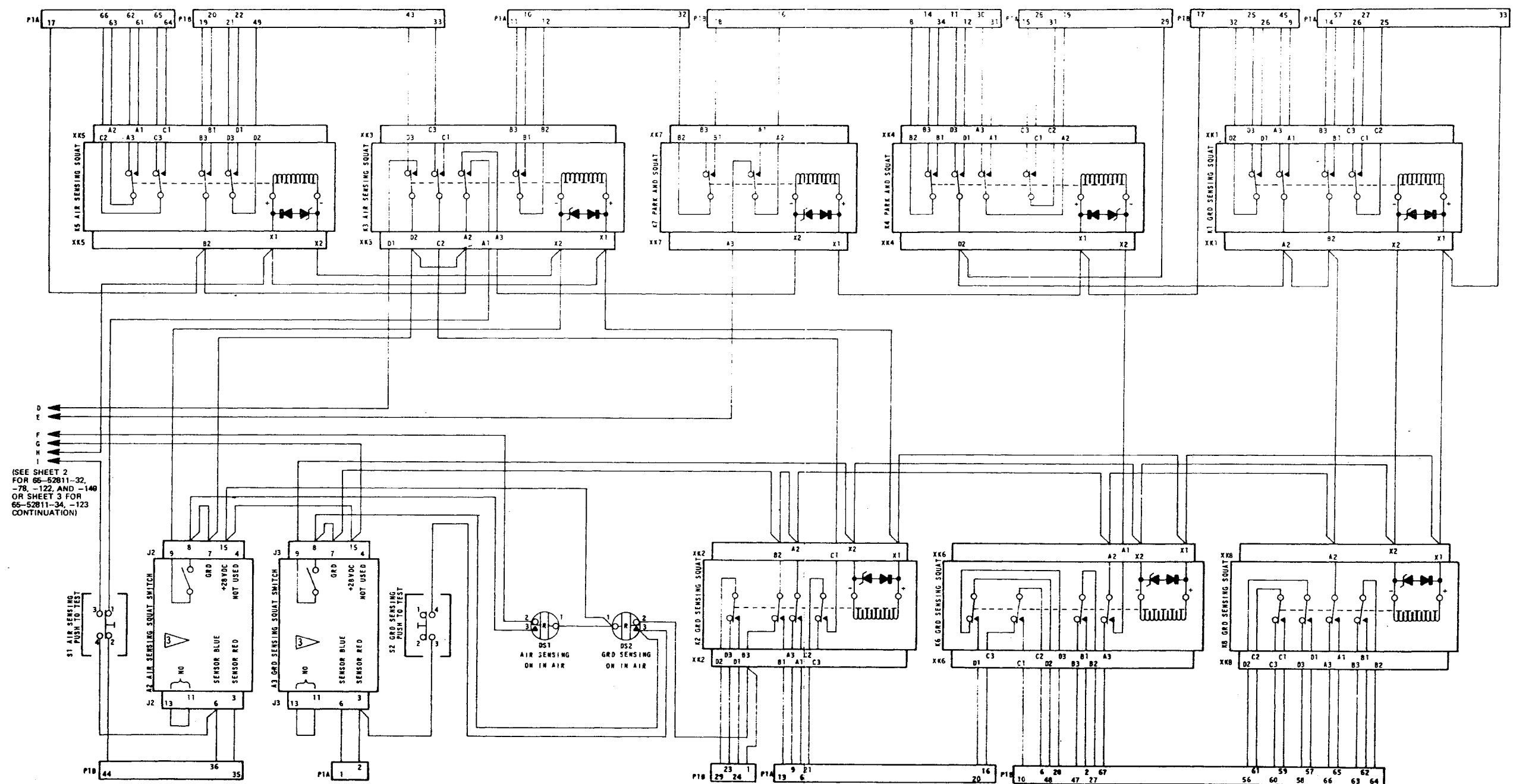
Dec 5/83

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Page 807



65-52811-34, -123

Schematic Diagram
Figure 801 (Sheet 3)

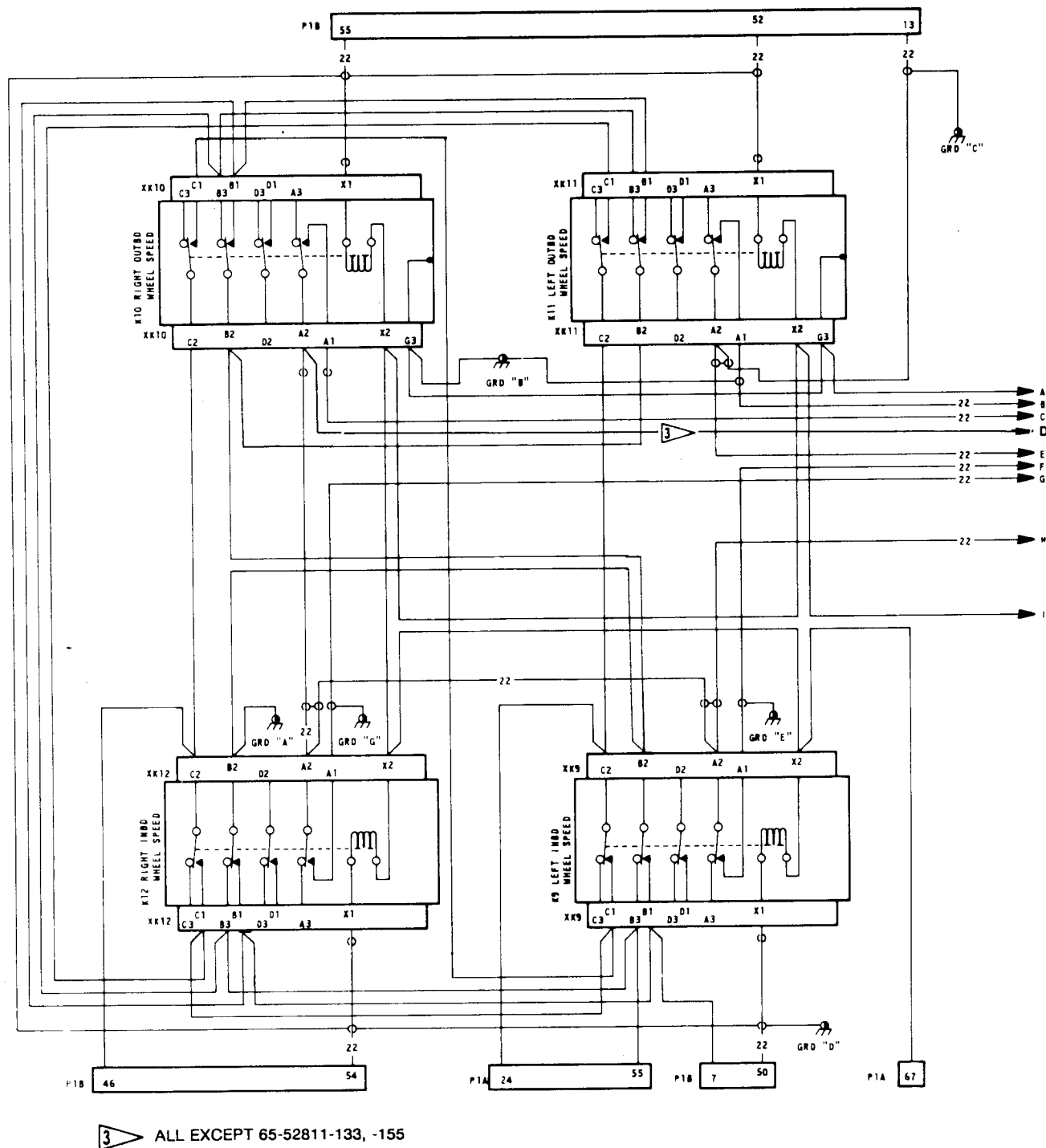


65-52811-32, -34, -78, -122, -123, -149

Schematic Diagram
Figure 801 (Sheet 4)

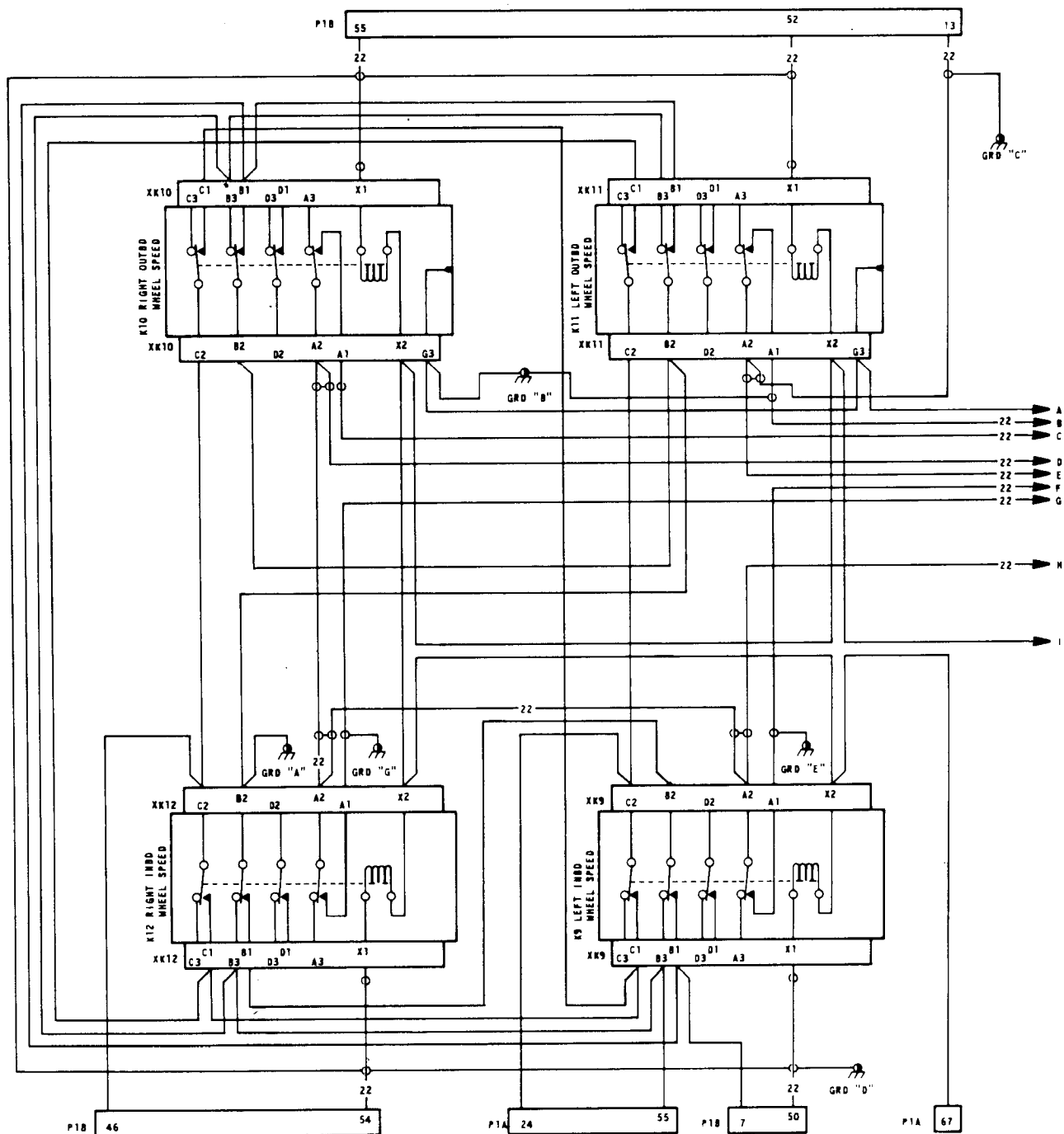
Dec 5/83

32-66-44
Page 811

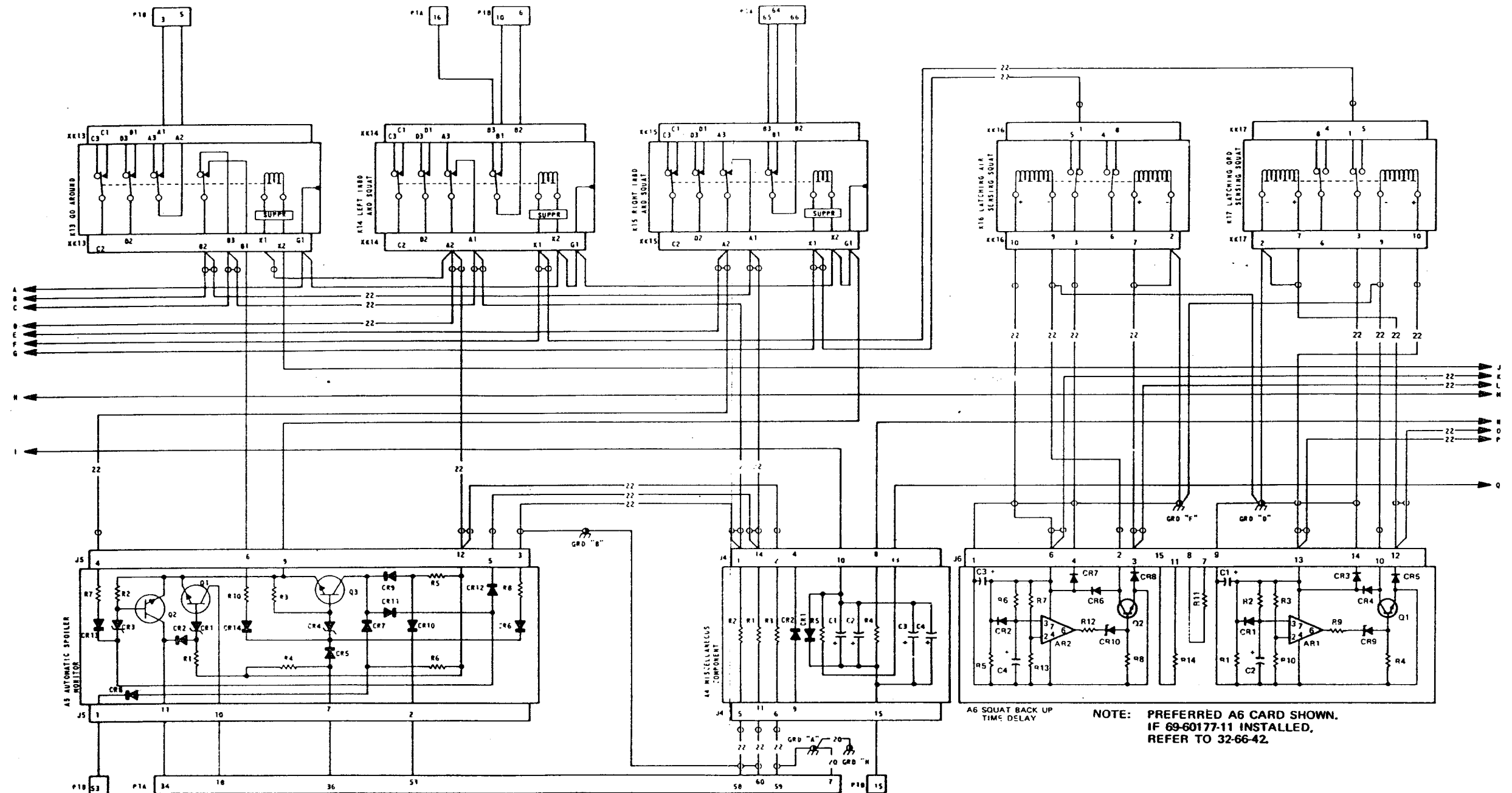


65-52811-40, -42, -49, -82, -83, -89, -126, -127, -133, -155, -175, -176, 183, -184

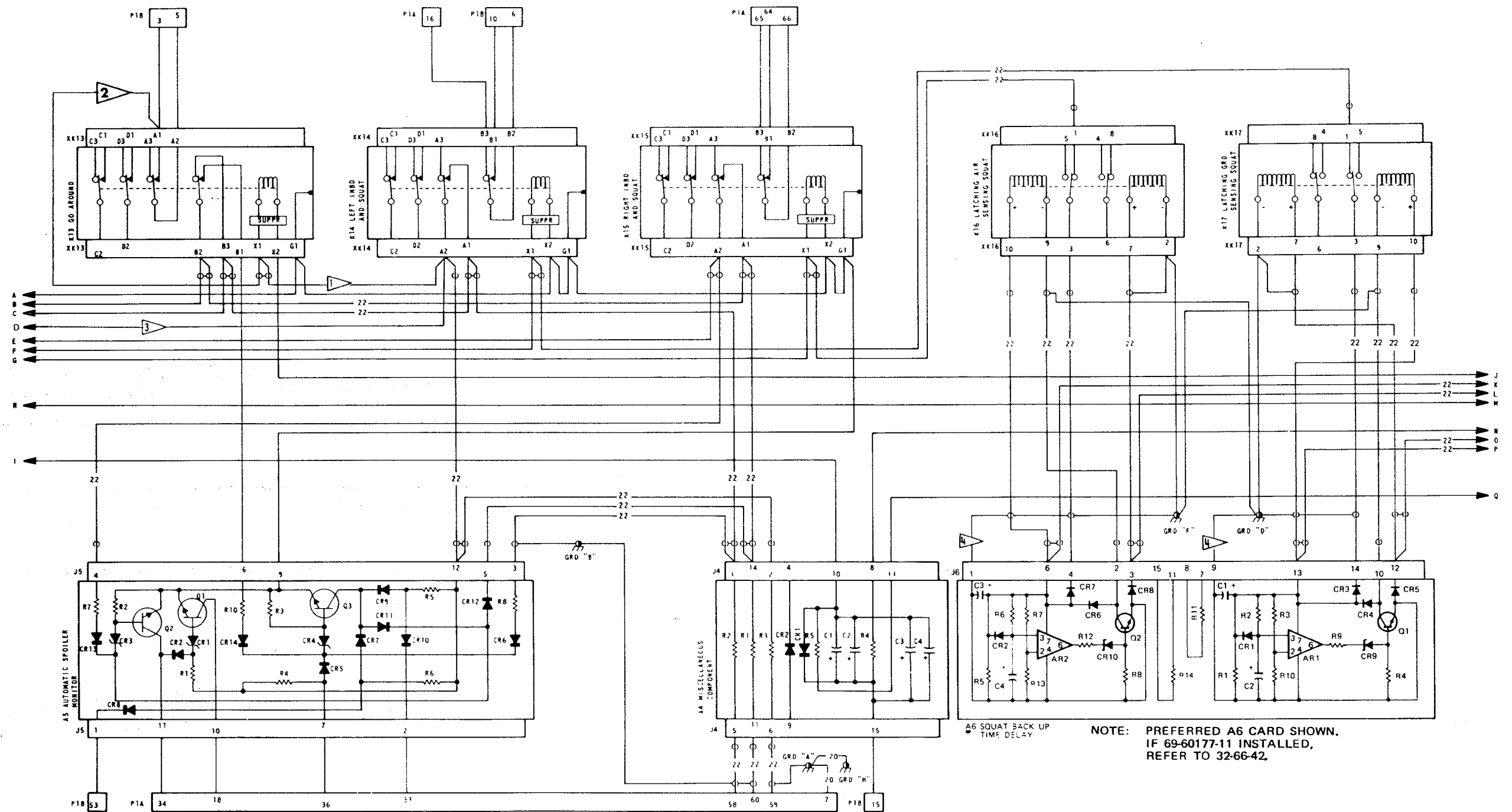
BOEING
COMMERCIAL JET
OVERHAUL MANUAL



65-52811-58, -60, -96, -115, -140, -162



65-52811-40, -42, -49, -58, -60, -82, -83, -89, -96,



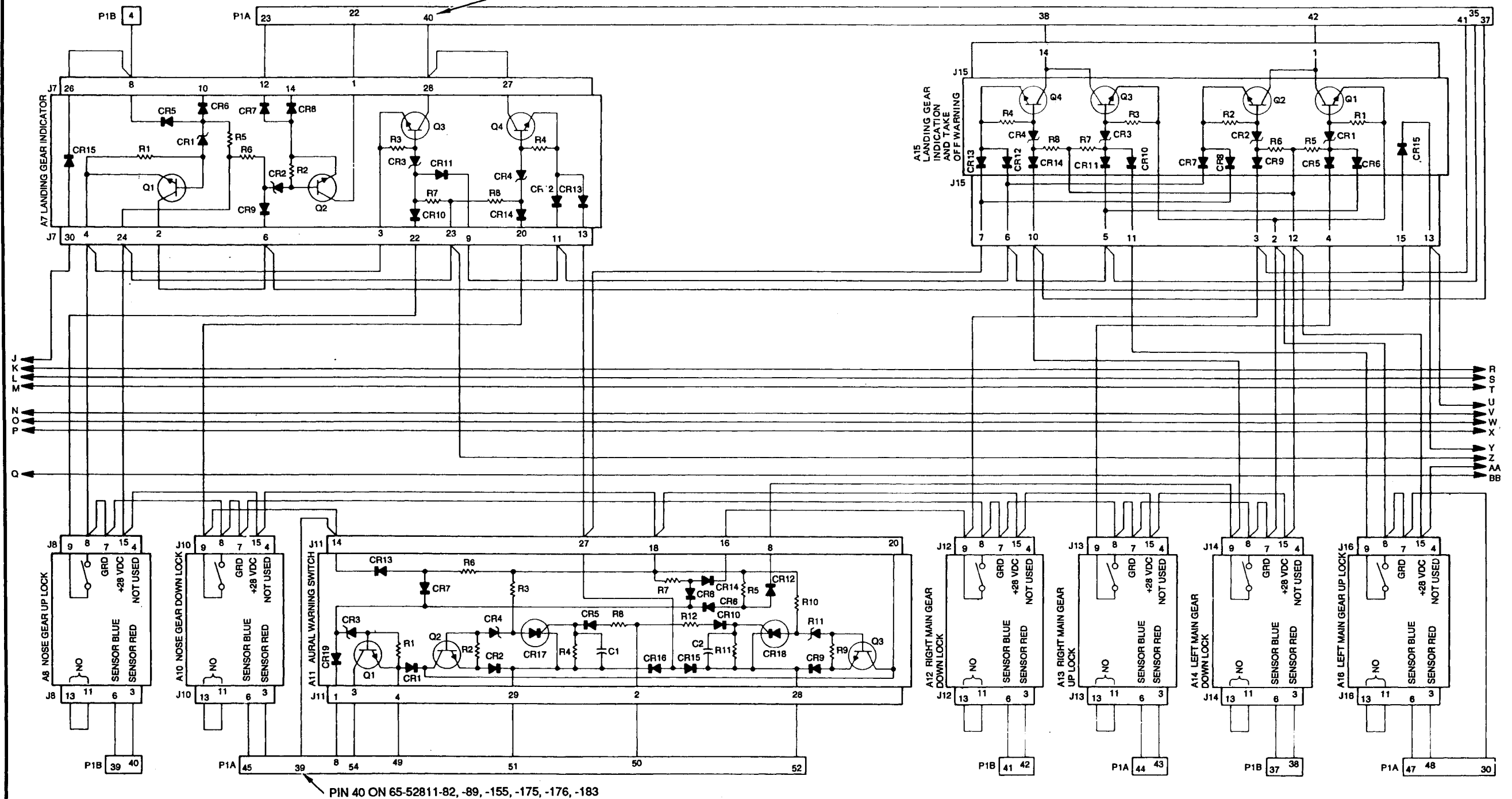
- 1 65-52811-133, -155
- 2 65-52811-115, -126, -127, -133, -140, -155, -162, -175, -176, -183, -184
- 3 ALL EXCEPT 65-52811-133, -155
- 4 USE PIN J6-8 FOR 65-52811-183, -184

65-52811-115, -126, -127, -133, -140, -155, -162, -175, -176, -183, -184

Schematic Diagram
Figure 802 (Sheet 2A)

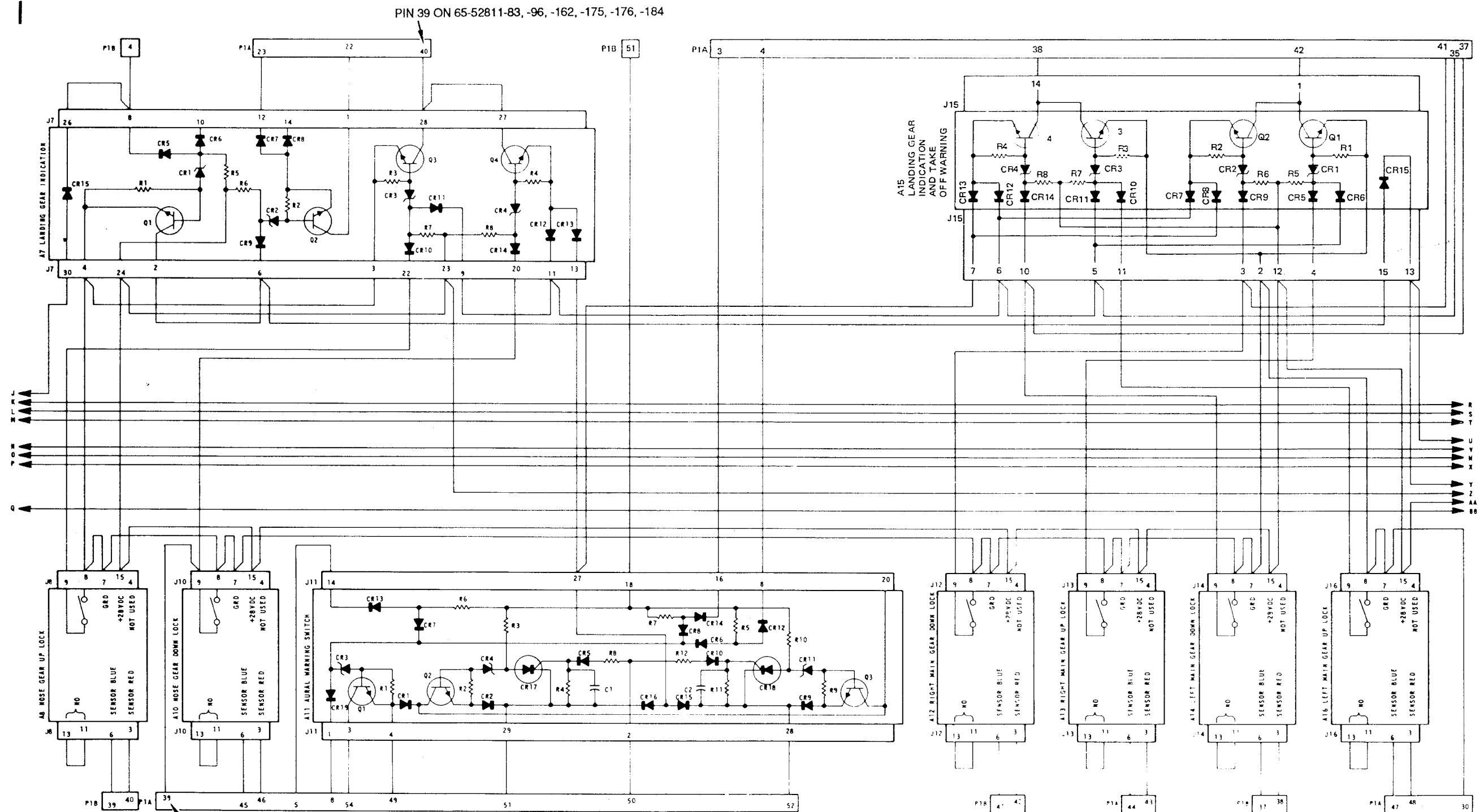
Jun 5/91

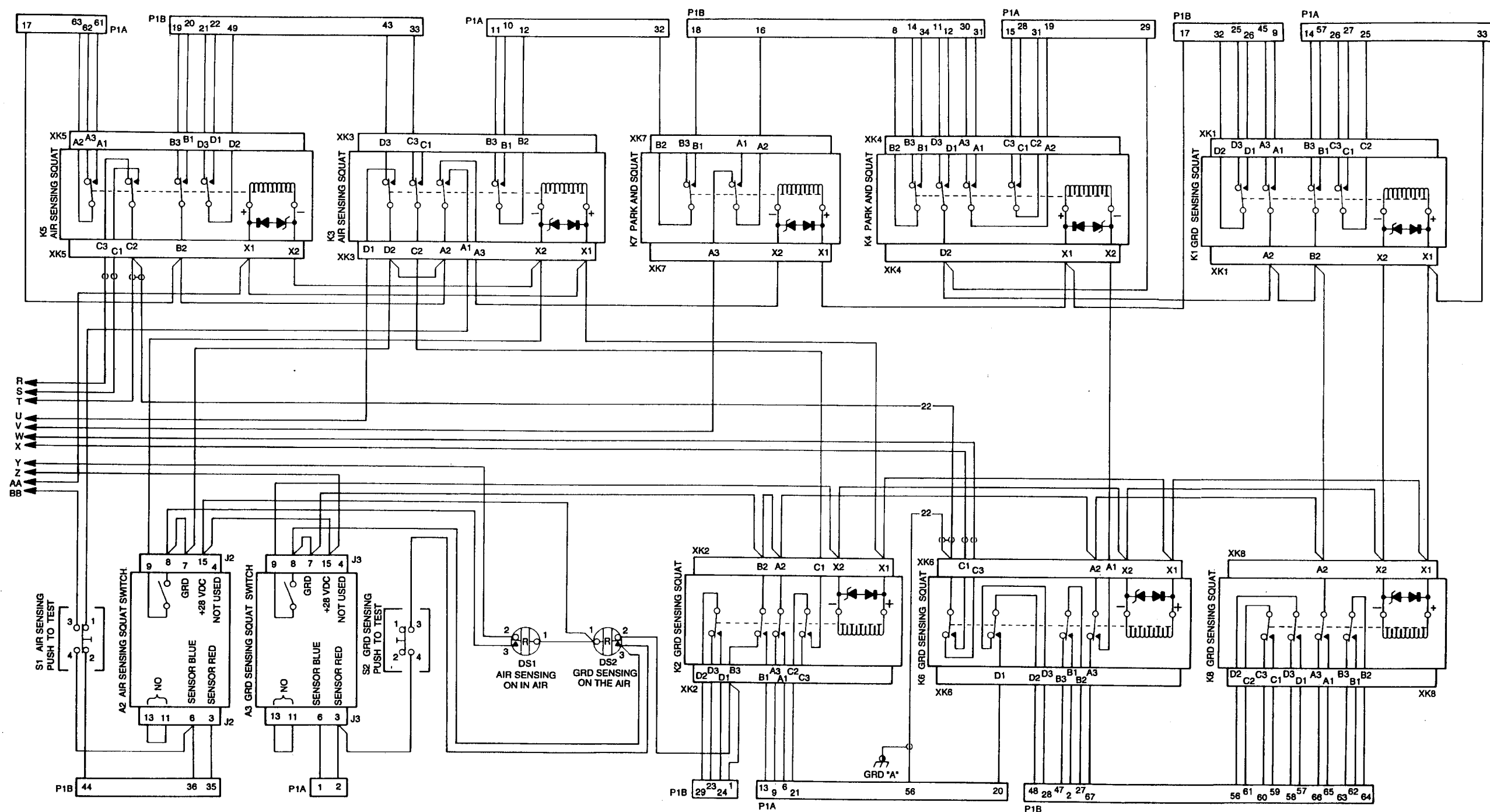
PIN 39 ON 65-52811-82, -89, -155, -175, -176, -183



65-52811-40, -49, -58, -82, -89, -115, -126, -133, -155, -175, -176, -183

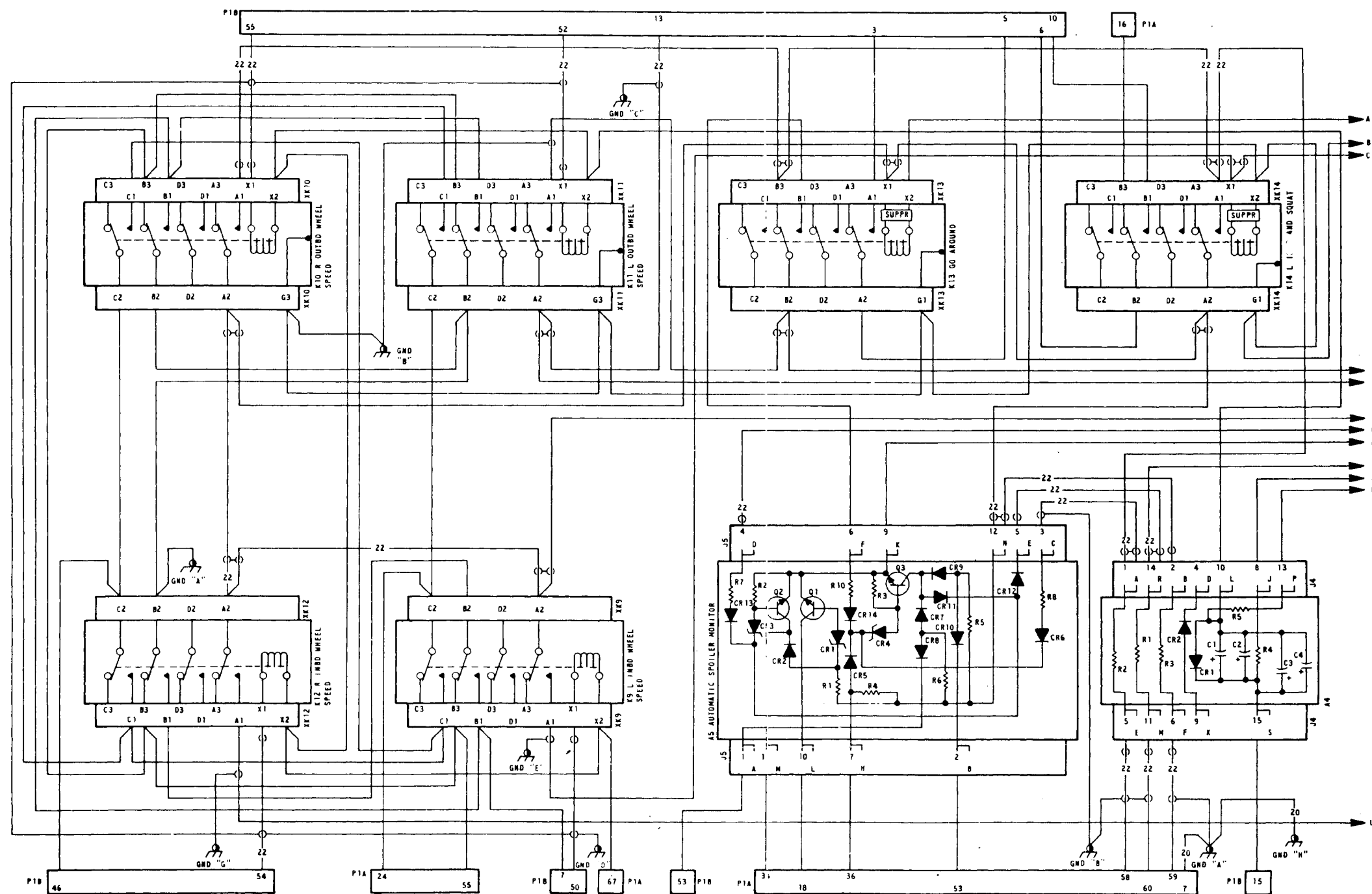
Schematic Diagram
Figure 802 (Sheet 3)





65-52811-40,-42,-49,-58,-60,-82,-83,-89,-96,-115,-126,
-127,-133,-140,-155,-162,-175,-176,-183,-184

Schematic Diagram
Figure 802 (Sheet 5)

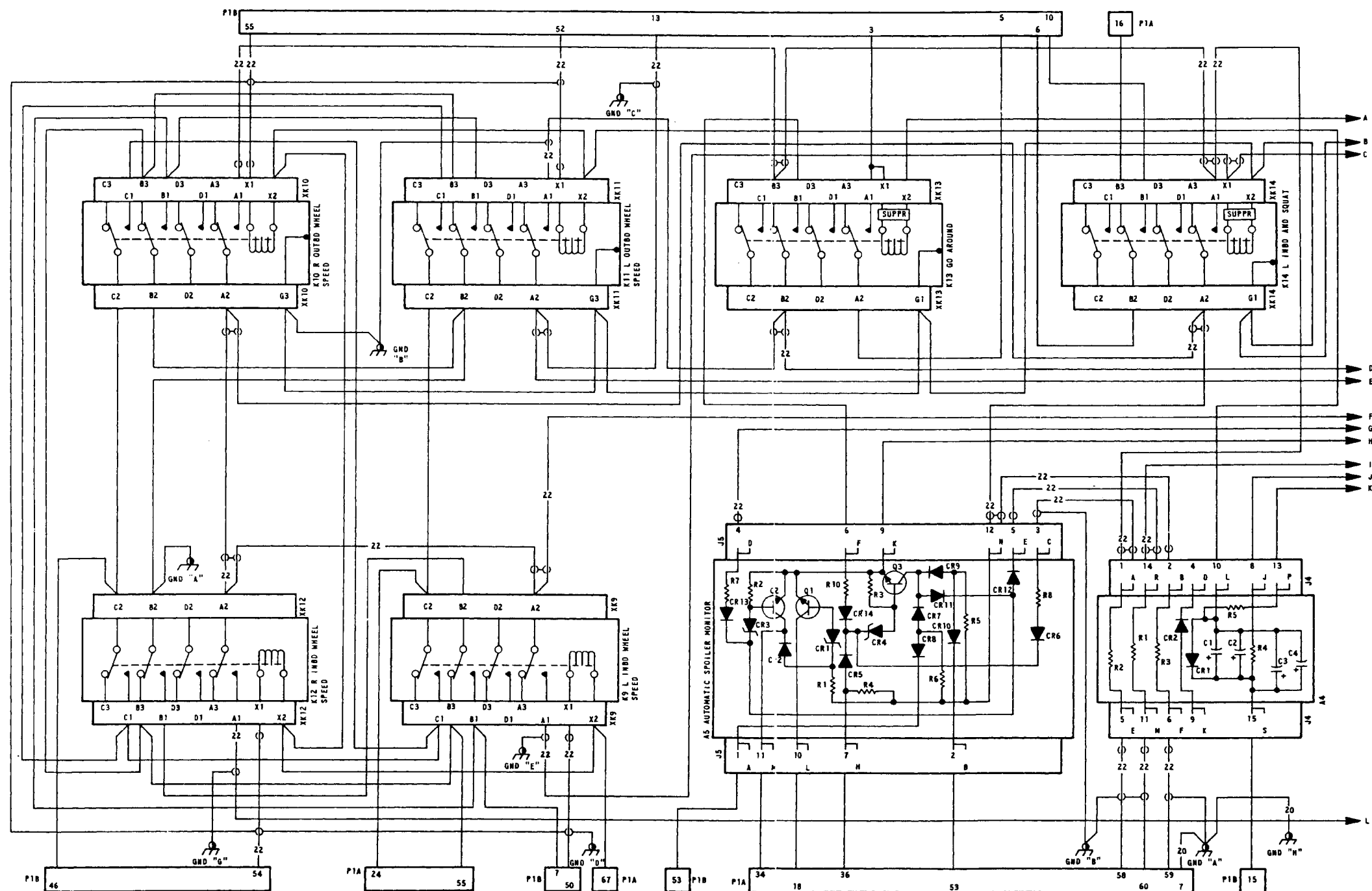


65-52811-62, -66

Schematic Diagram
Figure 803 (Sheet 1)

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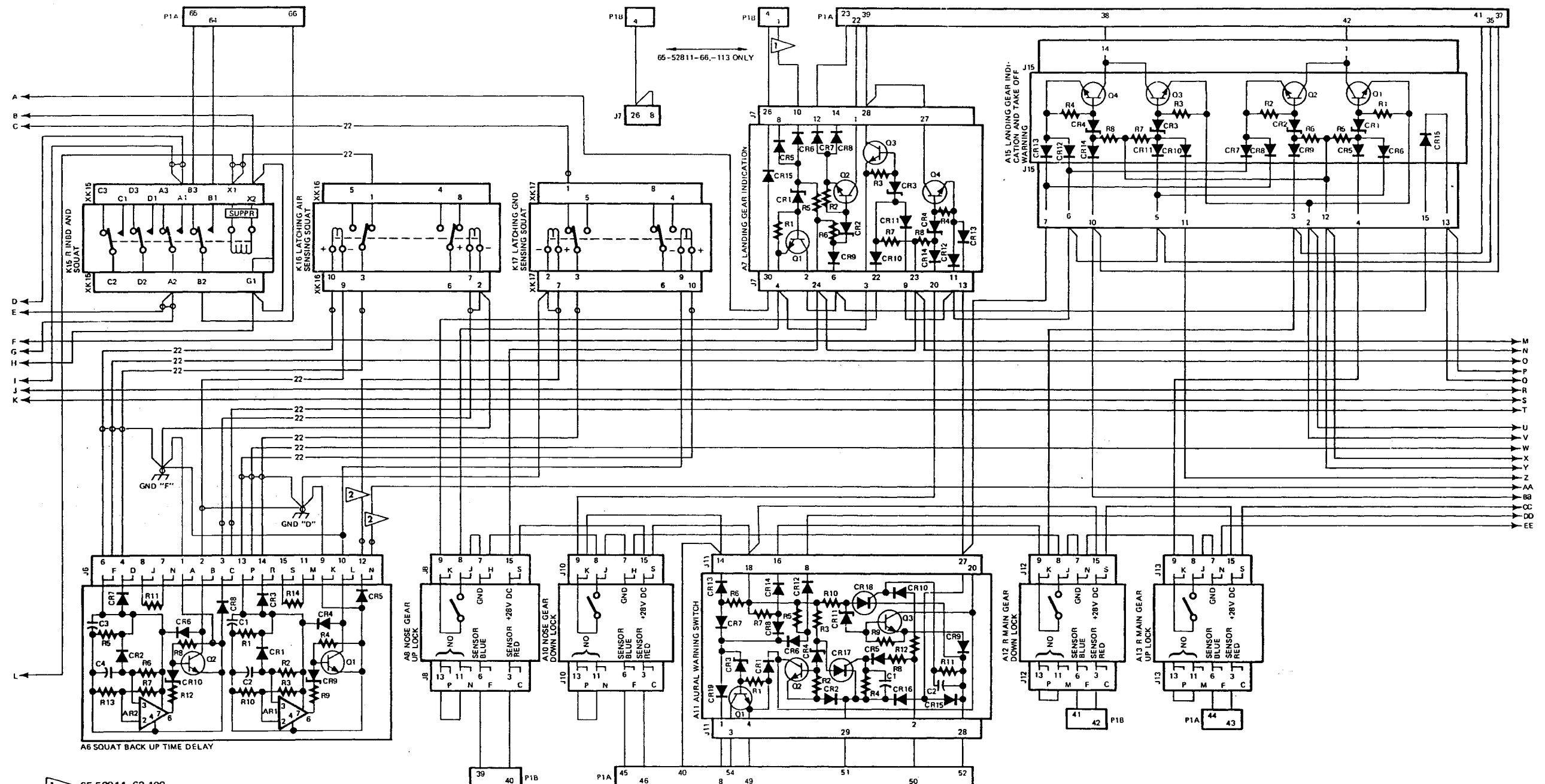


65-52811-109, - 13

Schematic Diagram
Figure 803 (Sheet 1A)

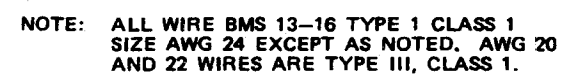
32-66-44
Page 824A

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- 1 65-52811-62-109
2 AWG 22 ON 65-52811-109,-113

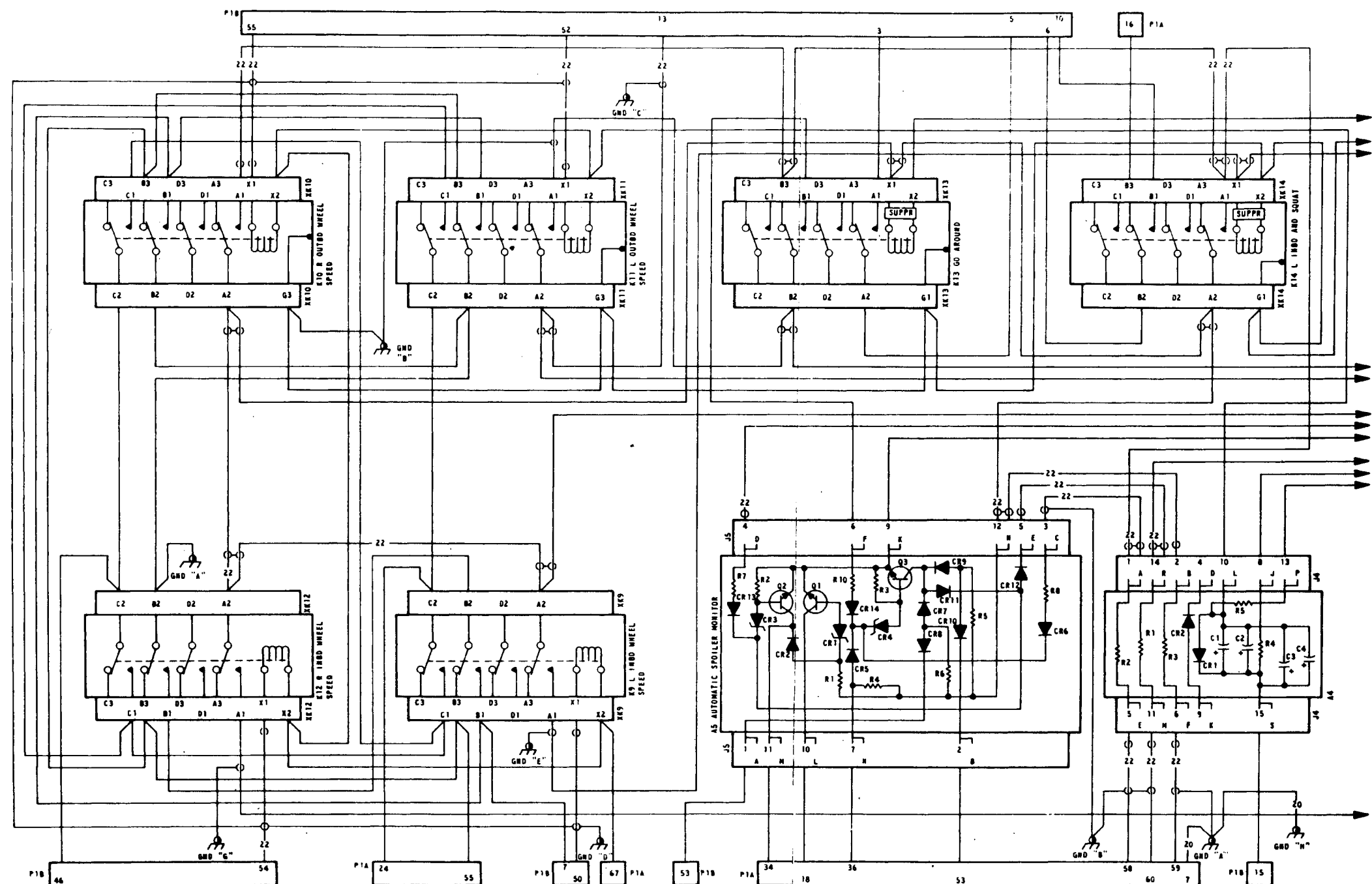
65-52811-62,-66,-109,-113



**PIN B-1 CONNECTED
ON 85-52811-85, -112, ONLY**

Schematic Diagram
Figure 803 (Sheet 3)

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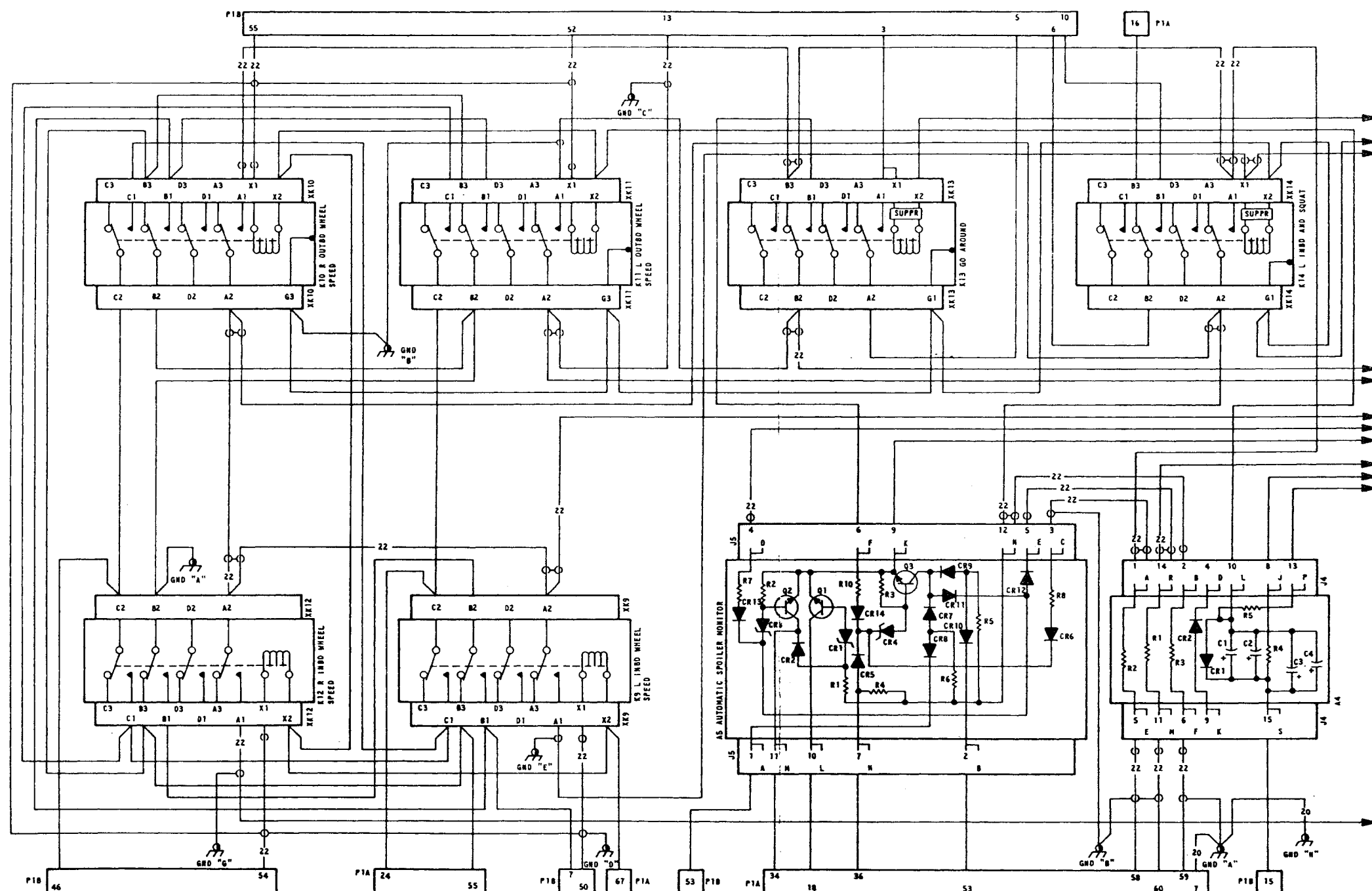


65-52811-64

Schematic Diagram
Figure 804 (Sheet 1)

Jan 5/77

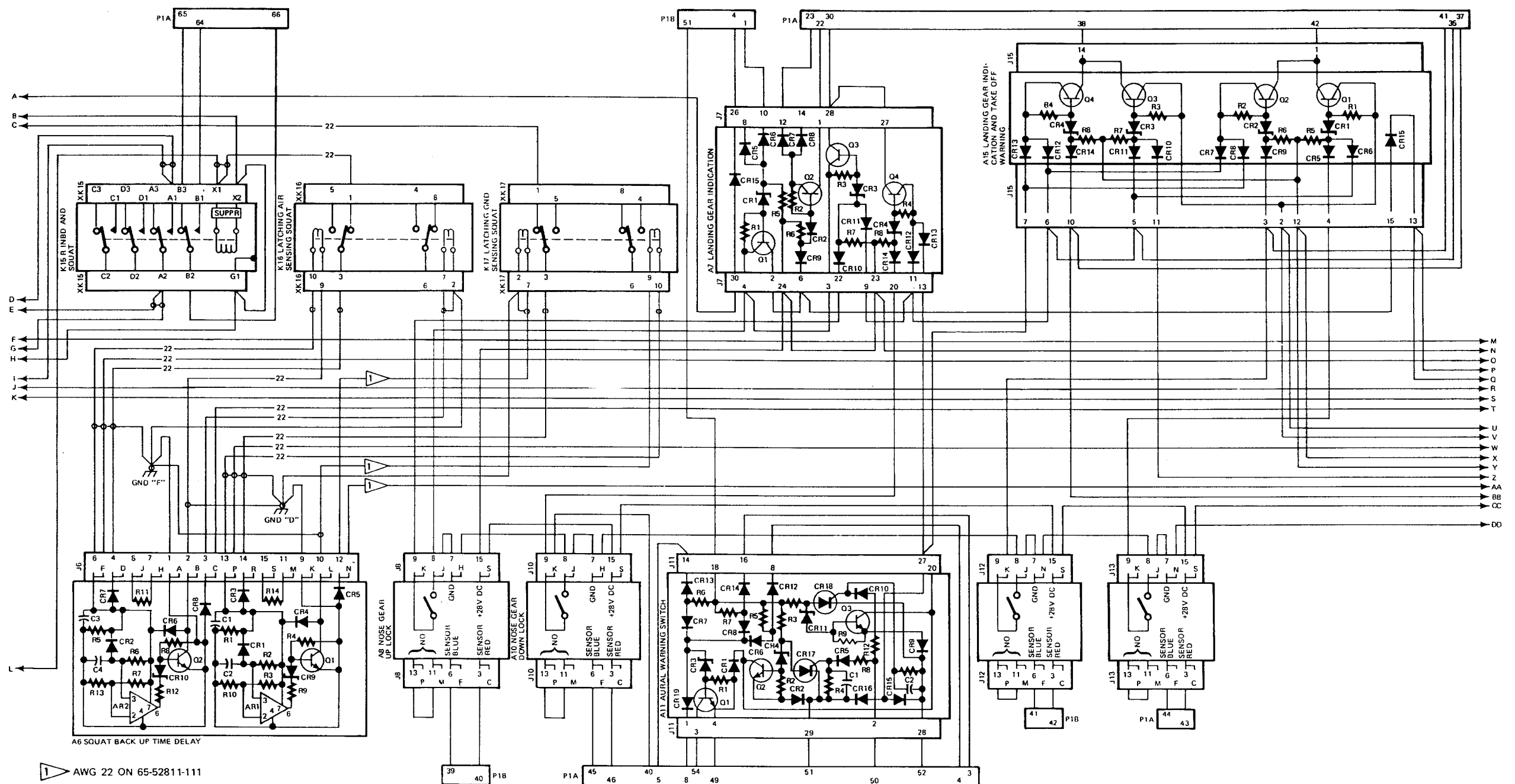
32-66-44
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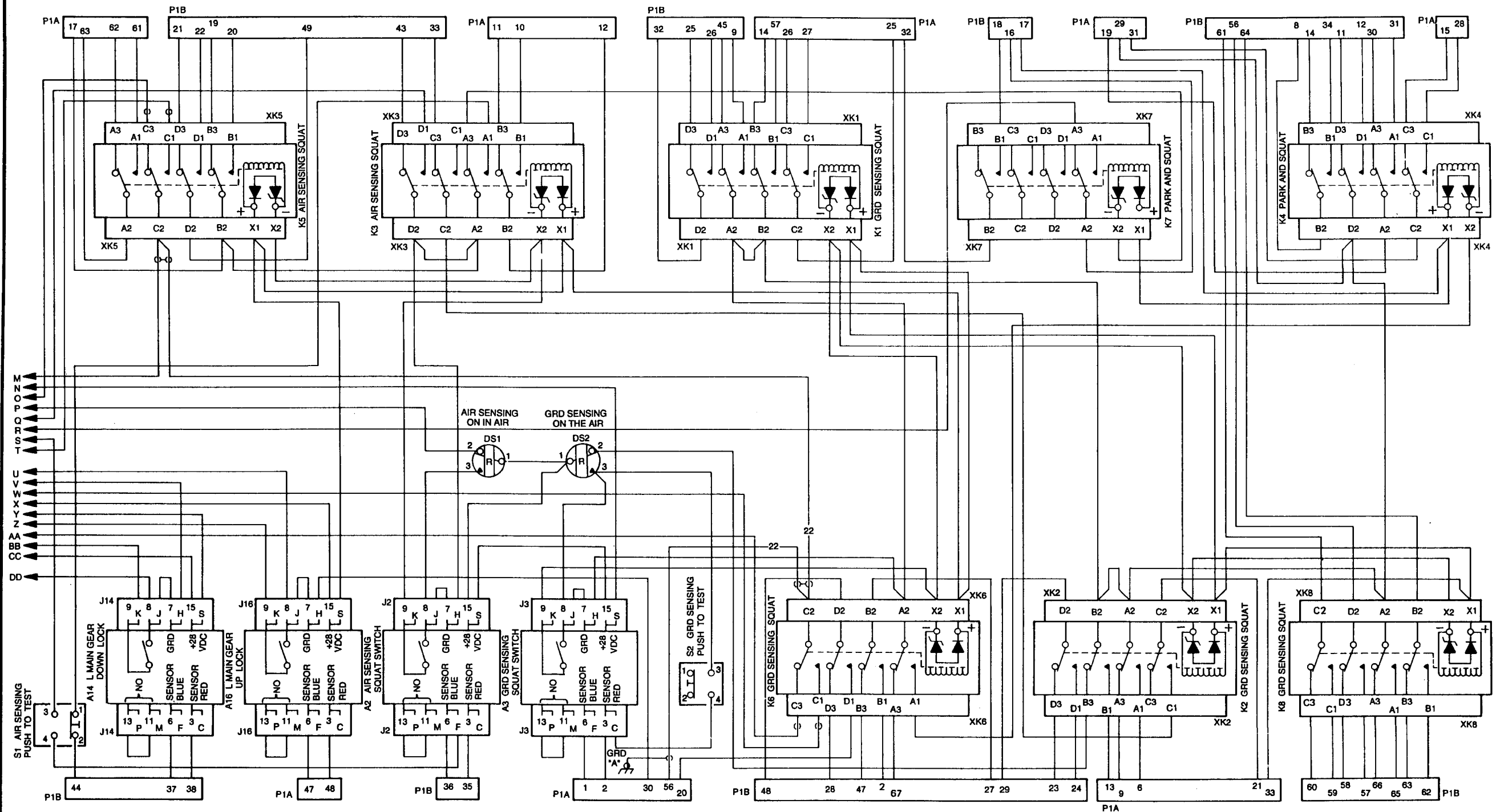
65-52811-111

Schematic Diagram
Figure 804 (Sheet 1A)

32-66-44
Page 830A



65-52811-64, -111



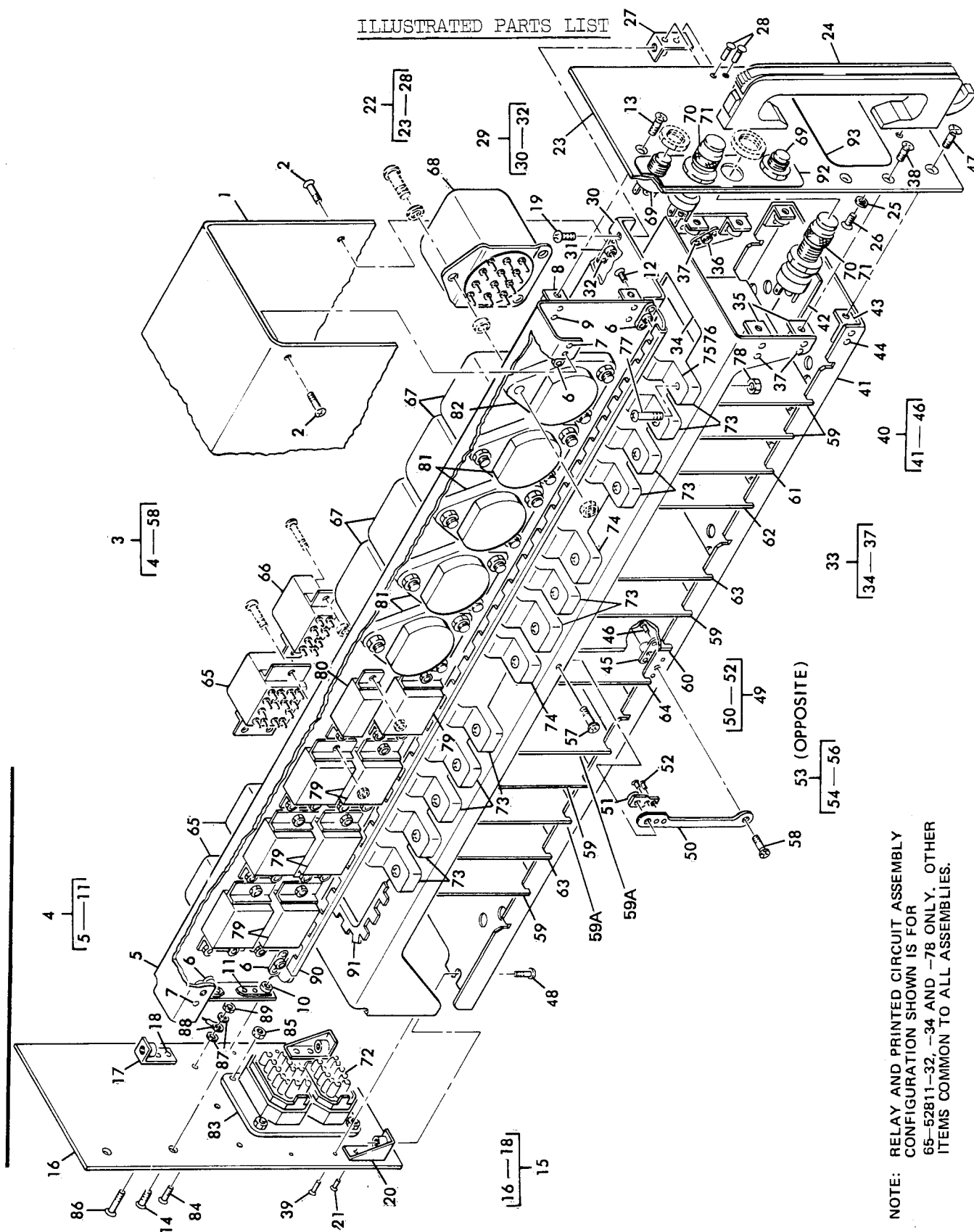
ALL WIRE BMS 13-16 TYPE I, CLASS 1,
SIZE AWG 24 EXCEPT AS NOTED. AWG 20
AND 22 WIRES ARE TYPE III, CLASS 1

65-52811-64,-111

Schematic Diagram
Figure 804 (Sheet 3)

OVERHAUL MANUAL

ILLUSTRATED PARTS LIST



NOTE: RELAY AND PRINTED CIRCUIT ASSEMBLY
CONFIGURATION SHOWN IS FOR
65-52811-32, -34 AND -78 ONLY. OTHER
ITEMS COMMON TO ALL ASSEMBLIES.

Landing Gear Accessory Unit Assembly (M338)
Figure 1101 (Sheet 1)

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Diagram illustrating the assembly of a multi-bay electronic chassis. The diagram shows the chassis structure with various components and their assembly points labeled with numbers. Key components and labels include:

- Chassis Structure:** 73 (Main chassis frame), 74 (Internal support rails), 83 (Rear chassis rail), 59, 59A, 60, 61, 62, 63, 64, 94, 95, 96, 97, 98, 100, 101, 102, 103, 105-110, 111, 112.
- Mounting Brackets and Connectors:** 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112.
- Assembly Instructions:**
 - SEE (A) points to the front panel assembly area (101, 102, 103, 105-110).
 - SEE (B) points to the rear panel assembly area (96, 98, 105-110).

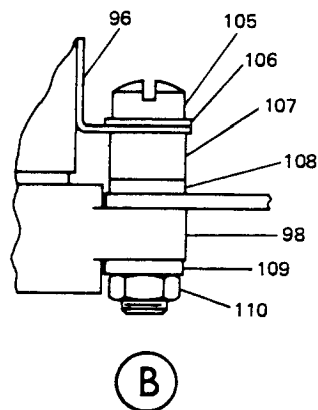
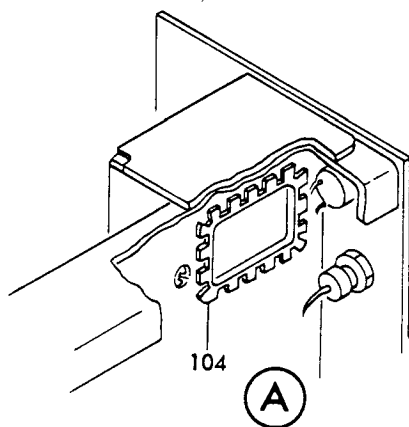


Figure 1101 (Sheet 2)

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1101-	65-52811-32		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							A	RF
	65-52811-34		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							B	RF
	65-52811-40		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							C	RF
	65-52811-42		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							D	RF
	65-52811-49		LG ACCESSORY UNIT ASSY (M338) (SB 27-1049)(PRE SB 27-1114R2)							E	RF
	65-52811-58		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							F	RF
	65-52811-62		LG ACCESSORY UNIT ASSY (M338) (PRE SB 27-1114R2)							G	RF
	65-52811-64		LG ACCESSORY UNIT ASSY (M338)(SB 32-1102)(PRE SB 27-1114R2)							H	RF
	65-52811-66		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093)(PRE SB 27-1114R2)							I	RF
	65-52811-60		LG ACCESSORY UNIT ASSY (M338)(SB 32-1085)(PRE SB 27-1114R2)							J	RF
	65-52811-78		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093)(PRE SB 27-1114R2)							K	RF
	65-52811-82		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093)(PRE SB 27-1114R2)							L	RF
	65-52811-83		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093)(PRE SB 27-1114R2)							M	RF
	65-52811-89		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093)(PRE SB 27-1114R2)							N	RF
	65-52811-96		LG ACCESSORY UNIT ASSY (M338)(SB 32-1093R1)(PRE SB 27-1114R2)							P	RF
	65-52811-109		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R2)							Q	RF
	65-52811-111		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R2)							R	RF
	65-52811-113		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R2)							S	RF
	65-52811-115		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R2)							T	RF
	65-52811-183		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R4)							U	RF
	65-52811-184		LG ACCESSORY UNIT ASSY (M338) (POST SB 27-1114R4)							V	RF
1	DL200-225		. DUST COVER, V94869								1
2	NAS600-5B		. SCREW								8

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-					
3	65-80041-1		. CHASSIS ASSY	ABK	1
3	65-80041-15		. CHASSIS ASSY	C-J L-TUV	1
4	65-80041-2		. . RELAY BRACKET ASSY	ABK	
4	65-80041-14		. . RELAY BRACKET ASSY	C-J L-T	1
5	65-80041-3		. . . RELAY BRACKET	ABK	1
5	65-80041-13		. . . RELAY BRACKET	C-J L-T	1
6	NAS1068A04L		. . . NUTPLATE		6
7	BACR15BA3D		. . . RIVET		12
8	52LHA227-62		. . . NUTPLATE, V72962		2
9	BACR15BB3D		. . . RIVET		4
10	NAS687A06		. . . NUTPLATE		2
11	BACR15BA3D		. . . RIVET		4
12	NAS600-5B		. . SCREW		3
13	NAS514P632-68		. . SCREW		2
14	NAS601-6B		. . SCREW		2
15	65-80041-4		. . REAR PLATE ASSY		1
16	65-80041-5		. . . REAR PLATE		1
17	52LHA227-62		. . . NUTPLATE, V72962		1
18	BACR15BA3D		. . . RIVET		2
19	NAS601-6B		. . SCREW		2
20	52LHA227-62		. . NUTPLATE, V72962		2
21	BACR15BA3D		. . RIVET		4
22	65-80041-6		. . FRONT PLATE ASSY		1
23	65-80041-7		. . . FRONT PLATE		1
24	40L2-2		. . . LATCH, V71286 (PREF)		1
24	40L2-2A		. . . LATCH, V71286 (OPT)		1
25	MS35337-43		. . . WASHER		2
26	NAS603-6P		. . . SCREW		2
27	52LHA227-62		. . . NUTPLATE, V72962		1
28	BACR15BA3D		. . . RIVET		2
29	65-80041-8		. . BUNDLE COVER ASSY		1
30	65-80041-9		. . . BUNDLE COVER		1
31	NAS1068A04L		. . . NUTPLATE		3
32	BACR15BA3D		. . . RIVET		6
33	65-73698-69		. . LOWER SHELF ASSY		1
34	65-73698-70		. . . LOWER SHELF		1
35	52LHA227-62		. . . NUTPLATE, V72962		4
36	NAS1068A04L		. . . NUTPLATE		2
37	BACR15BA3D		. . . RIVET		12
38	NAS514P632-6B		. . SCREW		4
39	BACR15BA4D		. . RIVET		4

OVERHAUL MANUAL

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1101-											
40	65-73698-74		.	.							1
41	65-73698-75		.	.	.						1
42	65-73698-64		.	.	.						1
43	52LHA227-62		.	.	.						2
44	BACR15BA3D		.	.	.						4

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1101-											
45	52LHTA51M40		.	.	.	NUTPLATE, V72962					2
46	BACR15BA2D		.	.	.	RIVET					4
47	NAS514P632-6B		.	.	.	SCREW					2
48	NAS601-5P		.	.	.	SCREW					2
49	69-60036-1		.	.	.	STRAP ASSY					1
50	69-60036-3		.	.	.	STRAP					1
51	52LHTA57M40		.	.	.	NUTPLATE, V72962					1
52	BACR15BA2A		.	.	.	RIVET					2
53	69-60036-2		.	.	.	STRAP ASSY					1
54	69-60036-3		.	.	.	STRAP					1
55	52LHTA57M40		.	.	.	NUTPLATE, V72962					1
56	BACR15BA2A		.	.	.	RIVET					2
57	NAS514P440-5		.	.	.	SCREW					2
58	NAS600-5P		.	.	.	SCREW					2
59	2-899-111		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-111)				ABK	5
59	8-060-02		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-211)(PREF)					5
59	2-899-111		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-111)(OPT)				C-FJ L-PTUV	5
59	8-060-02		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-211)				GHI Q-S	5
59A	2-899-111		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61266-111)				AB	2
59A	8-060-02		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61266-211)(PREF)				AB C-FJT UV	2
59A	2-899-111		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61266-111)(OPT)				C-FJT UV	2
59A	8-060-07		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61266-213)				GHIK- S	2
60	2-899-113		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-113)				ABK	1
60	8-060-07		.	.	.	PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-213)(PREF)					1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-60	2-899-113		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-113)(OPT)	C-FJ L-P TUV	1
60	8-060-07		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-213)	GHI Q-S	1
61	69-60177-7		. PRINTED CIRCUIT ASSY (REF 32-66-42)	ABKUV	1
61	69-60177-13		. PRINTED CIRCUIT ASSY (REF 32-66-42)	C-J L-T	1
62	65-58250-23		. PRINTED CIRCUIT ASSY (REF 32-66-41)		1
63	65-58250-29		. PRINTED CIRCUIT ASSY (REF 32-66-41)		2
64	69-60177-5		. PRINTED CIRCUIT ASSY (REF 32-66-42)		1
64	69-60177-19		. PRINTED CIRCUIT ASSY - AURAL WARNING LOGIC (REF 32-66-42)		1
65	BACR13CG2AB		. RELAY		7
66	BACR13CF2AB		. RELAY		1
67	10-60450-3 (BOEING)		. RELAY APPROVED PARTS ARE: A410-159673-03, V73949; FCC400-7, V78290; G59673-3, V73949; G59673-3A, V73949; 9524-6508, V35344	ABK	4
67	10-60450-3 (BOEING)		. RELAY APPROVED PARTS ARE: A410-159673-03, V73949; FCC400-7, V78290; G59673-3, V73949; G59673-3A, V73949; 9524-6508, V35344	C-J L-TUV	2
68	10-60450-6		. RELAY APPROVED PARTS ARE: A410-159673-06; V73949; FCC400-8, V78290; 9524-8208, V35344	ABK	1
68	10-60450-6		. RELAY	C-J L-TUV	3

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1101-			APPROVED PARTS ARE: A410-159673-06, V73949; FCC400-8, V78290; 9524-8208, V35344								
69	C2006		.	SWITCH, SNAP, V81640							2
70	MS25041-6		.	INDICATOR							2
71	387		.	LAMP (OPT)							2
71	MS18209-387		.	LAMP (PREF)							2
72	65-58211-33		.	WIRE BUNDLE						A	1
72	65-58211-33		.	WIRE BUNDLE (MOD BY SB 32-1093R1)						K	1
72	65-58211-35		.	WIRE BUNDLE						B	1
72	65-58211-37		.	WIRE BUNDLE						U	1
72	65-58211-39		.	WIRE BUNDLE						V	1
72	65-58211-41		.	WIRE BUNDLE						CE	1
72	65-58211-41		.	WIRE BUNDLE (MOD BY SB 32-1093R1)						LN	1
72	65-58211-43		.	WIRE BUNDLE						D	1
72	65-58211-43		.	WIRE BUNDLE (MOD BY SB 32-1093R1)						M	1
72	65-58211-59		.	WIRE BUNDLE						F	1
72	65-58211-63		.	WIRE BUNDLE						G	1
72	65-58211-65		.	WIRE BUNDLE						H	1
72	65-58211-67		.	WIRE BUNDLE						I	1
72	65-58211-61		.	WIRE BUNDLE						J	1
72	65-58211-61		.	WIRE BUNDLE (MOD BY SB 32-1093R1)						P	1
72	65-58211-110		.	WIRE BUNDLE						Q	1
72	65-58211-112		.	WIRE BUNDLE						R	1
72	65-58211-114		.	WIRE BUNDLE						S	1
72	65-58211-116		.	WIRE BUNDLE						T	1
73	582553-1		.	CONNECTOR, V00779						ABK	11
73	582553-1		.	CONNECTOR						C-JLM NQ-TUV	12
74	582585-1		.	CONNECTOR, V00779							2
75	66143-2LP		.	TAB TERMINAL, V00779						A-PUV	AR
75	66144-2LP		.	TAB TERMINAL, V00779						A-PUV	AR
75	66168-2		.	TAB TERMINAL, V00779						Q-T	AR
75	66169-2		.	TAB TERMINAL, V00779						Q-T	AR
76	582507-1		.	KEYING PLUG							AR
77	NAS600-9P		.	SCREW							26
78	BACN10DN40		.	NUT							26
79	18-0006-0000		.	SOCKET, RELAY, V05574							7
79	BACS16W1		.	SOCKET, RELAY (OPT)							7
80	18-0007-0000		.	SOCKET, RELAY, V05574							1
80	BACS16X1		.	SOCKET, RELAY (OPT)							1
81	000300-0598		.	SOCKET, RELAY, V05574						ABK	4
81	000300-0598		.	SOCKET, RELAY, V05574						C-J L-TUV	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1101-											
82	000300-0596		.	SOCKET, RELAY, V05574						ABK	1
82	000300-0596		.	SOCKET, RELAY, V05574						C-J	3
										L-TUV	
83	DPX2MA67P67P 34B0059		.	CONNECTOR, V71468 (REPLD BY DPX2MB 67P67P34B0059)						ACE	1
83	DPX2MB67P67P 34B0059		.	CONNECTOR, V71468 (REPLS DPX2MA 67P67P34B0059)						ACE	1
83	DPX2MA67P67P 34B0060		.	CONNECTOR, V71468 (REPLD BY DPX2MB 67P67P34B0060)						BDJ	1
83	DPX2MB67P67P 34B0060		.	CONNECTOR, V71468 (REPLS DPX2MB 67P67P34B0060)						BDJV	1
83	DPX2MB67P67P 34B0059		.	CONNECTOR, V71468						FTU	2
83	DPX2MB67P67P 34B0063		.	CONNECTOR, V71468						GQ	1
83	DPX2MB67P67P 34B0064		.	CONNECTOR, V71468						HMPR	1
83	DPX2MB67P67P 34B0065		.	CONNECTOR, V71468						IKLNS	1
84	NAS514P440-6		.	SCREW							4
85	BACN10DN40		.	NUT							4
86	NAS514P632- ()P		.	SCREW							3
87	AN960D6L		.	WASHER							6
88	BACT12AC		.	TERMINAL LUG							3
89	22NM107-62		.	NUT, V72962							3
90	BACG20ZA1850		.	GROMMET							1
91	BACG20ZA680		.	GROMMET							1
92	BAC27DEX975		.	ALUMINUM FOIL MARKER							1
93	69-31184-39		.	NAMEPLATE						A-F J-PUV	1
93	BAC27DEX3512		.	MARKER						GHI Q-T	1
94	69-60177-11		.	PRINTED CIRCUIT ASSY (REF 27-62-52) (OPT)						C-FJ L-PT	1
94	69-63485-4		.	PRINTED CIRCUIT ASSY (REF 27-62-52) (OPT)						CDF-J Q-T	1
94	69-63485-4		.	PRINTED CIRCUIT ASSY (REF 27-62-52) (OPT)						LMP	1
94	69-63485-6		.	PRINTED CIRCUIT ASSY (REF 27-62-52) (OPT)						CDF-J LM P-T	1
94	69-63485-10		.	PRINTED CIRCUIT ASSY (REF 27-62-52) (PREF)						CDF-J LMP-T	1
94	69-60177-9		.	PRINTED CIRCUIT ASSY (REF 32-66-42)						UV	1
95	KAX9E004		.	RELAY, V35344						C-J L-TUV	2

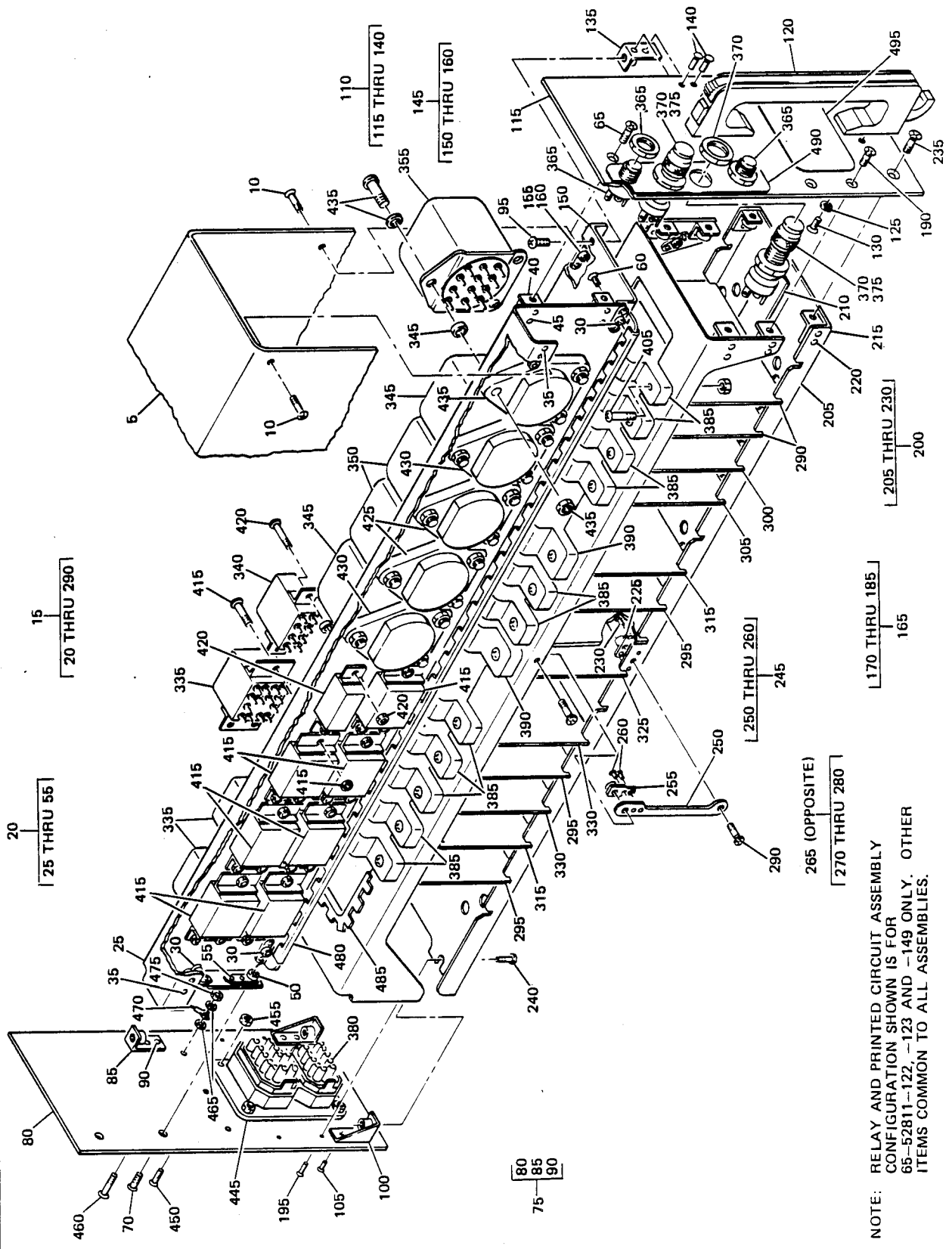
65-52811
DASH NUMBERS LIMITED

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1101-96	BR9AXH5V3		. RELAY, V82050 (PREF)	C-J L-TUV	2
96	BR20AXH5V3		. RELAY, V82050 (OPT)	C-J L-TUV	2
97	BACS16W2		. SOCKET, RELAY	C-J L-TUV	2
98	VB10-1PWC11-43		. SOCKET, RELAY, V05574	C-J L-TUV	2
99	BACC47DJ1		. CONTACT	C-J L-TUV	AR
100	BAC27DEX1843		. MARKER, AL FOIL	C-J L-TUV	1
101	65-80041-10		. PLATE	C-J L-TUV	1
102	NAS600-5B		. SCREW	C-J L-TUV	2
103	BACN10DN40		. NUT	C-J L-T	2
104	BACG20ZA350		. GROMMET	C-J L-TUV	1
105	990-0004-021		. SCREW, V05574	C-J L-TUV	4
106	990-0001-063		. LOCKWASHER, V05574	C-JL-T UV	4
107	118-0090-000		. STUD, V05574	C-JL-T UV	4
108	108-0022-000		. SPACER, V05574	C-JL-T UV	4
109	AN960-4L		. WASHER, V05574	C-JL-T	4
110	990-0002-033		. NUT, V05574	C-JL-T UV	4
111	BAC27DEX975		. MARKER	C-JL-T UV	1
112	BAC27DEX4751		. MARKER	Q-TUV	1

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	ITEM NO.
A2, A3, A8, A13, A16	2-899-111	59
A2, A3, A8, A13, A16	8-060-02	59
A4	69-60177-7	61
A4	69-60177-13	61
A5	65-58250-23	62
A6	*69-63485-10	94
A6	69-63485-6	94
A6	69-63485-4	94
A6	69-60177-11	94
A6	69-60177-9	94
A7, A15	65-58250-29	63
A10	2-899-113	60
A10	8-060-07	60
A11	69-60177-5	64
A11	69-60177-19	64
A12, A14	2-899-111	59A
A12, A14	8-060-02	59A
A12, A14	8-060-07	59A
DS1, DS2	MS25041-6	70
J2-J6, J8, J10, J12-J16	582553-1	73
J7, J11	582585-1	74
K1-K6, K8	BACR13CG2AB	65
K7	BACR13CF2AB	66
K9, K12	KAX9E004	95
K9-K12, (K10, K11)	10-60450-3	67
K13, K14, K15	10-60450-6	68
K16, K17	*BR9AXH5V3	96
K16, K17	BR20AXH5V3	96
P1A, P1B	DPX2MA67P67P34B0059	83
P1A, P1B	DPX2MA67P67P34B0060	83
P1A, P1B	DPX2MB67P67P34B0063	83
P1A, P1B	DPX2MB67P67P34B0064	83
P1A, P1B	DPX2MB67P67P34B0065	83
S1, S2	C2006	69
XK1-XK6, XK8	*18-0006-0000	79
XK1-XK6, XK8	BACS16W1	79
XK7	*18-0007-0000	80
XK7	BACS16X1	80
XK9, XK12	BACS16W2	97
XK9-XK12 (XK10, XK11)	000300-0598	81
XK13, XK14, XK15	000300-0596	82
XK16, XK17	VB10-1PWC11-43	98

* PREFERRED PART

BOEING
COMMERCIAL JET
OVERHAUL MANUAL



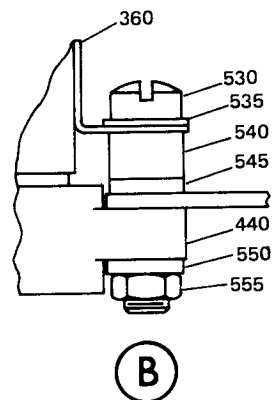
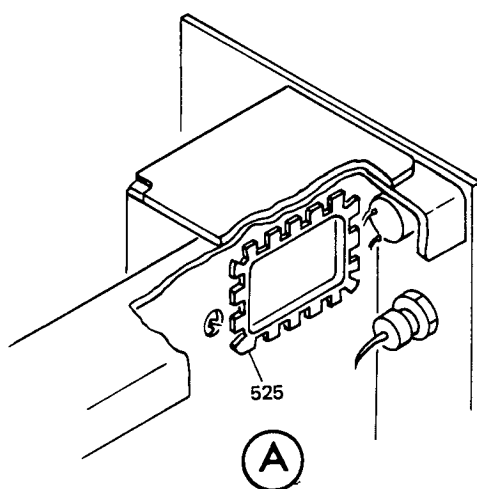
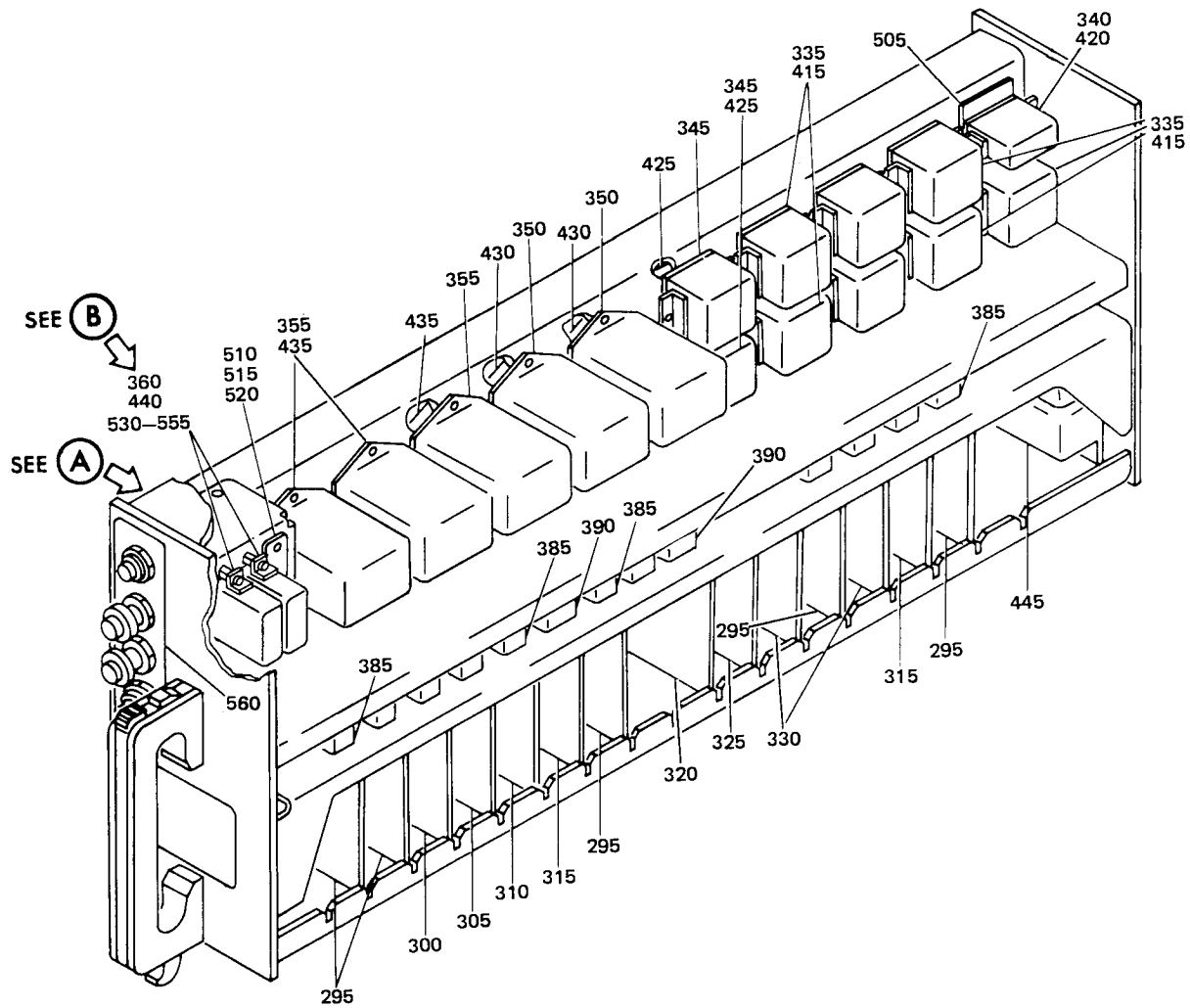
NOTE: RELAY AND PRINTED CIRCUIT ASSEMBLY
CONFIGURATION SHOWN IS FOR
65-52811-122, -123 AND -149 ONLY. OTHER
ITEMS COMMON TO ALL ASSEMBLIES.

Landing Gear Accessory Unit Assembly M338
Figure 1102 (Sheet 1)

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65-52811-126, -127, -133, -140, -155, -162, -175, -176

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-1	65-52811-122		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	A	
1	65-52811-123		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	B	
1	65-52811-126		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	C	
1	65-52811-127		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	D	
1	65-52811-133		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	E	
1	65-52811-140		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	F	
1	65-52811-149		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	G	
1	65-52811-175		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R4)	H	
1	65-52811-176		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R4)	I	
1	65-52811-155		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	J	
1	65-52811-162		LG ACCESSORY UNIT ASSY M338 (POST SB 27-1114R2)	K	
5	DL200-225		. DUST COVER, V94869		1
10	NAS600-5B		. SCREW		8
15	65-80041-1		. CHASSIS ASSY	ABG	1
15	65-80041-15		. CHASSIS ASSY	C-F	1
				H-K	
20	65-80041-2		. . BRACKET ASSY, RELAY	ABG	1
20	65-80041-14		. . BRACKET ASSY, RELAY	C-F	1
				H-K	
25	65-80041-3		. . . BRACKET, RELAY	ABG	1
25	65-80041-13		. . . BRACKET, RELAY	C-F	1
				H-K	
30	NAS1068A04L		. . . NUTPLATE		6
35	BACR15BA3D		. . . RIVET		12
40	52LHA227-62		. . . NUTPLATE, V72962		2
45	BACR15BB3D		. . . RIVET		4
50	NAS687A06		. . . NUTPLATE		2

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-					
55	BACR15BA3D		. . . RIVET		4
60	NAS600-5B		. . SCREW		3
65	NAS514P632-6B		. . SCREW		2
70	NAS601-6B		. . SCREW		2
75	65-80041-4		. . REAR PLATE ASSY		1
80	65-80041-5		. . . REAR PLATE		1
85	52LHA227-62		. . . NUTPLATE, V72962		1
90	BACR15BA3D		. . . RIVET		2
95	NAS601-6B		. . SCREW		2
100	52LHA227-62		. . NUTPLATE, V72962		2
105	BACR15BA3D		. . RIVET		4
110	65-80041-6		. . FRONT PLATE ASSY		1
115	65-80041-7		. . . FRONT PLATE		2
120	40L2-2		. . . LATCH, V71286		1
120	40L2-2A		. . . LATCH, V71286 (OPT)		1
125	MS35337-43		. . . WASHER		2
130	NAS603-6P		. . . SCREW		2
135	52LHA227-62		. . . NUTPLATE, V72962		1
140	BACR15BA3D		. . . RIVET		2
145	65-80014-8		. . BUNDLE COVER ASSY		1
150	65-80014-9		. . . BUNDLE COVER		1
155	NAS1068A04L		. . . NUTPLATE		3
160	BACR15BA3D		. . . RIVET		6
165	65-73698-69		. . LOWER SHELF ASSY		1
170	65-73698-70		. . . LOWER SHELF		1
175	52LHA227-62		. . . NUTPLATE, V72962		4
180	NAS1068A04L		. . . NUTPLATE		2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E 1 2 3 4 5 6 7	USE CODE	QTY PER ASSY
1102-185	BACR15BA3D		. . . RIVET		12
190	NAS514P632-6B		. . SCREW		4
195	BACR15BA4D		. . RIVET		4
200	65-73698-74		. . BOTTOM COVER ASSY		1
205	65-73698-75		. . . BOTTOM COVER		1
210	65-73698-64		. . . PAD		1
215	52LHA227-62		. . . NUTPLATE, V72962		2
220	BACR15BA3D		. . . RIVET		4
225	52LHTA51M40		. . . NUTPLATE, V72962		2
230	BACR15BA2A		. . . RIVET		4
235	NAS514P632-6B		. . SCREW		2
240	NAS601-5P		. . SCREW		2
245	69-60036-1		. . STRAP ASSY		1
250	69-60036-3		. . . STRAP		1
255	52LHTA57M40		. . . NUTPLATE, V72962		1
260	BACR15BA2A		. . . RIVET		2
265	69-60036-2		. . STRAP ASSY		1
270	69-60036-3		. . . STRAP		1
275	52LHTA57M40		. . . NUTPLATE, V72962		1
280	BACR15BA2A		. . . RIVET		2
285	NAS514P440-5		. . SCREW		2
290	NAS600-5P		. . SCREW		2
295	2-899-111		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-111)	ABG	5
295	8-060-02		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-211) (PREF)		5
295	2-899-111		. PRINTED CIRCUIT ASSY, PROXIMITY SWITCH, V08748 (BOEING 10-61226-111) (OPT)	C-F H-K	5
300	69-60177-7		. PRINTED CIRCUIT ASSY (REF 32-66-42)	ABG	1
300	69-60177-13		. PRINTED CIRCUIT ASSY (REF 32-66-42)	C-F H-K	1
305	65-58250-23		. PRINTED CIRCUIT ASSY (REF 32-66-41)		1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102-310	69-63485-10		.	PRINTED	CIRCUIT	ASSY	(REF			CDFH	1
			.	27-62-52)	(PREF)					IK	
310	69-63485-6		.	PRINTED	CIRCUIT	ASSY	(REF			CDFH	1
			.	27-62-52)						IK	
310	69-63485-4		.	PRINTED	CIRCUIT	ASSY	(REF			CDFH	1
			.	27-62-52)	(OPT)					I-K	
310	69-60177-11		.	PRINTED	CIRCUIT	ASSY	(REF			C-F	1
			.	32-66-42)	(OPT)					H-K	
315	65-58250-29		.	PRINTED	CIRCUIT	ASSY	(REF				2
			.	32-66-41)							
320	2-899-113		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				ABG	1
			.	SWITCH, V08748 (BOEING							
			.	10-61226-113)							
320	8-060-07		.	PRINTED	CIRCUIT	ASSY, PROXIMITY					1
			.	SWITCH, V08748 (BOEING							
			.	10-61226-213) (PREF)							
320	2-899-113		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				C-F	1
			.	SWITCH, V08748 (BOEING						H-K	
			.	10-61226-113) (OPT)							
325	69-60177-5		.	PRINTED	CIRCUIT	ASSY	(REF				1
			.	32-66-42)							
330	2-899-111		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				AB	2
			.	SWITCH, V08748 (BOEING							
			.	10-61226-111)							
330	8-060-02		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				A-F	2
			.	SWITCH, V08748 (BOEING							
			.	10-61226-211) (PREF)							
330	2-899-111		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				C-F	2
			.	SWITCH, V08748 (BOEING							
			.	10-61226-111) (OPT)							
330	8-060-07		.	PRINTED	CIRCUIT	ASSY, PROXIMITY				G-K	2
			.	SWITCH, V08748 (BOEING							
			.	10-61226-213)							
335	BACR13CG2AB		.	RELAY							7
340	BACR13CF2AB		.	RELAY							1
345	A410-159673-03		.	RELAY, V73949 (BOEING 10-60450-3)						ABG	2
345	FCC400-7		.	RELAY, V78290 (BOEING 10-60450-3)						ABG	2

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	NOMENCLATURE							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102-											
345	G59673-3		.	RELAY, V73949 (BOEING 10-60450-3)						ABG	2
345	G59673-3A		.	RELAY, V73949 (BOEING 10-60450-3)						ABG	2
345	9524-6508		.	RELAY, V35344 (BOEING 10-60450-3)						ABC	2
345	KAX9E004		.	RELAY, V35344						C-F H-K	2
350	A410-159673-03		.	RELAY, V73949 (BOEING 10-60450-3)							2
350	FCC400-7		.	RELAY, V78290 (BOEING 10-60450-3)							2
350	G59673-3		.	RELAY, V73949 (BOEING 10-60450-3)							2
350	G59673-3A		.	RELAY, V73949 (BOEING 10-60450-3)							2
350	9524-6508		.	RELAY, V35344 (BOEING 10-60450-3)							2
355	A410-159673-06		.	RELAY, V73949 (BOEING 10-60450-6)						ABG	1
355	FCC400-8		.	RELAY, V78290 (BOEING 10-60450-6)						ABG	1
355	9524-8208		.	RELAY, V35344 (BOEING 10-60450-6)						ABG	1
355	A410-159673-06		.	RELAY, V73949 (BOEING 10-60450-6)						C-F H-K	3
355	FCC400-8		.	RELAY, V78290 (BOEING 10-60450-6)						C-F H-K	3
355	9524-8208		.	RELAY, V35344 (BOEING 10-60450-6)						C-F H-K	3
360	BR9AXH5V3		.	RELAY, V82050						C-F H-K	2
360	BR20AXH5V3		.	RELAY, V82050 (OPT)						C-F H-K	2
365	C2006		.	SWITCH, SNAP, V81640							2
370	MS25041-6		.	INDICATOR							2
375	387		.	LAMP (OPT)							2
375	MS18209-387		.	LAMP (PREF)							2
380	65-52811-33		.	WIRE BUNDLE (SB 27-1114R2)						A	1
380	65-52811-35		.	WIRE BUNDLE (SB 27-1114R2)						B	1
380	65-52811-41		.	WIRE BUNDLE (SB 27-1114R2)						CE	1
380	65-52811-43		.	WIRE BUNDLE (SB 27-1114R2)						D	1
380	65-52811-61		.	WIRE BUNDLE (SB 27-1114R2)						F	1
380	65-52811-33		.	WIRE BUNDLE (SB 32-1093R2) (SB 27-1114R2)						G	1
380	65-52811-41		.	WIRE BUNDLE (SB 32-1093R2) (SB 27-1114R2)						HJ	1
380	65-52811-43		.	WIRE BUNDLE (SB 32-1093R2) (SB 27-1114R2)						I	1
380	65-52811-61		.	WIRE BUNDLE (SB 32-1093R2) (SB 27-1114R2)						K	1

FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102-											
385	582553-1		.	C	O	N	N	E	C	A	11
385	582553-1		.	C	O	N	N	E	C	A	12
										H-K	
390	582585-1		.	C	O	N	N	E	C	A	2
395	66143-2LP		.	T	E	R	M	I	N	A	AR
400	582507-1		.	P	L	U	G	,	K	E	AR
405	NAS600-9P		.	S	C	R	E	W			26
410	BACN10DN40		.	N	U	T					26
415	18-0006-0000		.	S	O	C	K	E	T	,	7
415	BACS16W1		.	S	O	C	K	E	T	,	7
420	18-0007-0000		.	S	O	C	K	E	T	,	1
420	BACS16X1		.	S	O	C	K	E	T	,	1
425	000300-0598		.	S	O	C	K	E	T	,	2
425	BACS16W2		.	S	O	C	K	E	T	,	2
										H-K	
430	000300-0598		.	S	O	C	K	E	T	,	2
435	000300-0596		.	S	O	C	K	E	T	,	1
435	000300-0596		.	S	O	C	K	E	T	,	3
										H-K	
440	VB10-1PWC11-43		.	S	O	C	K	E	T	,	2
										H-K	
445	DPX2MB67P67P34B0059		.	C	O	N	N	E	C	T	1
										ACE	
445	DPX2MB67P67P34B0060		.	C	O	N	N	E	C	T	1
										BDF	
445	DPX2MB67P67P34B0065		.	C	O	N	N	E	C	T	1
										GHJ	
445	DPX2MB67P67P34B0064		.	C	O	N	N	E	C	T	1
										IK	
450	NAS514P40-6		.	S	C	R	E	W			4
455	BACN10DN40		.	N	U	T					4
460	NAS514P632-()P		.	S	C	R	E	W			3
465	AN960D6L		.	W	A	S	H	E	R		6
470	BACT12AC		.	T	E	R	M	I	N	A	3
475	22NM107-62		.	N	U	T	,	V	7	2	3
480	BACG20ZA1850		.	G	R	O	M	M	E	T	1

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FIG. & ITEM NO.	PART NO.	AIRLINE PART NUMBER	N O M E N C L A T U R E							USE CODE	QTY PER ASSY
			1	2	3	4	5	6	7		
1102-											
485	BACG20ZA680		.	G	R	O	M	M	E		1
490	BAC27DEX975		.	M	A	R	K	E	R, AL FOIL		1
495	69-31184-39		.	M	A	R	K	E	R		1
500	BACC47DJ1		.	C	O	N	T	A	C	C-F	AR
										H-K	
505	BAC27DEX1843		.	M	A	R	K	E	R, AL FOIL	C-F	1
										H-K	
510	65-80041-10		.	P	L	A	T	E		C-F	1
										H-K	
515	NAS600-5B		.	S	C	R	E	W		C-F	2
										H-K	
520	BACN10DN40		.	N	U	T				C-F	2
										H-K	
525	BACG10ZA350		.	G	R	O	M	M	E	C-F	1
										H-K	
530	990-0004-021		.	S	C	R	E	W, V05574		C-F	4
										H-K	
535	990-0001-063		.	L	O	C	K	W	A	C	4
										H-K	
540	118-0090-000		.	S	T	U	D, V05574			C-F	4
										H-K	
545	108-0022-000		.	S	P	A	C	E	R, V05574	C-F	4
										H-K	
550	AN960-4L		.	W	A	S	H	E	R	C-F	4
										H-K	
555	990-0002-033		.	N	U	T, V05574				C-F	4
										H-K	
560	BAC27DEX975		.	M	A	R	K	E	R	C-F	1
										H-K	

REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)		
REFERENCE DESIGNATION	PART NUMBER	ITEM NO.
A2, A3, A8, A13, A16	2-899-111	295
A2, A3, A8, A13 A16	8-060-02	295
A4	69-60177-7	300
A4	69-60177-13	300
A5	65-58250-23	305
A6	*69-63485-10	310
A6	69-63485-6	310
A6	69-63485-4	310
A6	69-60177-11	310
A7, A15	65-58250-29	315
A10	2-899-113	320
A10	8-060-07	320
A11	69-60177-5	325
A12, A14	2-899-111	330
A12, A14	8-060-02	330
A12, A14	8-060-07	330
DS1, DS2	MS25041-6	370
J2-J6, J8, J10, J12-J16	582553-1	385
J7, J11	582585-1	390
K1-K6, K8	BACR15CG2AB	335
K7	BACR15CF2AB	340
K9, K12	A410-159673-03	345
K9, K12	FCC400-7	345
K9, K12	G59673-3	345
K9, K12	G59673-3A	345
K9, K12	KAX9E004	345
K9, K12	9524-6508	345
K10, K11	A410-159673-03	350
K10, K11	FCC400-7	350
K10, K11	G59673-3	350
K10, K11	G59673-3A	350
K10, K11	9524-6508	350
K13, K14, K15	A410-159673-06	355
K13, K14, K15	FCC400-8	355
K13, K14, K15	9524-8208	355
K16, K17	*BR9AXH5V3	360
K16, K17	BR20AXH5V3	360

FIGURE 1102 REFERENCE DESIGNATION INDEX (SEE SCHEMATIC DIAGRAM)

REFERENCE DESIGNATION	PART NUMBER	ITEM NO.
P1A, P1B	DPX2MB67P67P34B0059	445
P1A, P1B	DPX2MB67P67P34B0060	445
P1A, P1B	DPX2MB67P67P34B0064	445
P1A, P1B	DPX2MB67P67P34B0065	445
S1, S2	C2006	365
XK1-XK6, XK8	*18-0006-0000	415
XK1-XK6, XK8	BACS16W1	415
XK7	*18-0007-0000	420
XK7	BACS16X1	420
XK9, XK12	000300-0598	425
XK9, XK12	BACS16W2	425
XK10, XK11	000300-0598	430
XK13, XK14, XK15	000300-0596	435
XK16, XK17	VB10-1PWC11-43	440

* PREFERRED PARTS

VENDORS

V00779 AMP, INCORPORATED, 2800 FULLING MILL, MIDDLETON, PENNSYLVANIA 17057

V05574 VIKING ELECTRONICS INCORPORATED, 9250 INDEPENDENCE AVENUE,
CHATSWORTH, CALIFORNIA 91311

V08748 ELDEC CORP., 16700 - 13TH PLACE WEST, P.O. BOX 100, LYNNWOOD,
WASHINGTON 98036

V35344 LEACH CORPORATION, CONTROL PRODUCTS DIV., 6900 ORANGETHORPE
AVE., BUENA PARK, CALIFORNIA 90620-1351

V71286 REXNORD, INC., SPECIALTY FASTENER DIV., 601 ROUTE 46 WEST, P.O. BOX
601, HASBROUCK HEIGHTS, NEW JERSEY 07604-3118

V71468 ITT CANNON DIV. OF ITT CORP., 666 EAST DYER ROAD, SANTA ANA,
CALIFORNIA 92702

V72962 ELASTIC STOP NUT, A DIV. OF HARVARD INDUSTRIES, INC., 2330 VAUXHALL
ROAD, UNION, NEW JERSEY 07083-5038

V73949 GUARDIAN ELECTRIC MFG. COMPANY, 1425 LAKE AVENUE, WOODSTOCK,
ILLINOIS 60098

V78290 STRUTHERS-DUNN, INC., LAMBS ROAD, PITMAN, NEW JERSEY 08071

V81640 EATON CORP., AEROSPACE AND COMMERCIAL CONTROLS DIV., 2250
WHITFIELD AVE. E., SARASOTA, FLORIDA 34243-9703

V82050 ESTERLINE ELECTRONICS CORP., 3501 HARBOR BLVD, P.O. BOX 1499, COSTA
MESA, CALIFORNIA 92626

V94867 CHURCHILL CORPORATION, 344 FRANKLIN STREET, BOX C, MELROSE,
MASSACHUSETTS 02176