

**BOEING**   
**COMMERCIAL JET**  
**OVERHAUL MANUAL**

AIRSPEED WARNING SWITCH MODE MODULE ASSEMBLY (P1-6)

31-36-51

BOEING P/N 69-37347

AIRLINE P/N

THIS SUBJECT APPLIES TO THE FOLLOWING BOEING AIRPLANE MODELS:

707 STRATOLINER	707 INTERCONTINENTAL	720	727	737
NONE	NONE	NONE	NONE	LIMITED

THE FOLLOWING DIRECTIVES APPLY TO THIS SUBJECT:

BOEING SERVICE BULLETIN	BOEING TEMPORARY REVISION	OTHER DIRECTIVES	DATE DIRECTIVE INCORPORATED INTO TEXT

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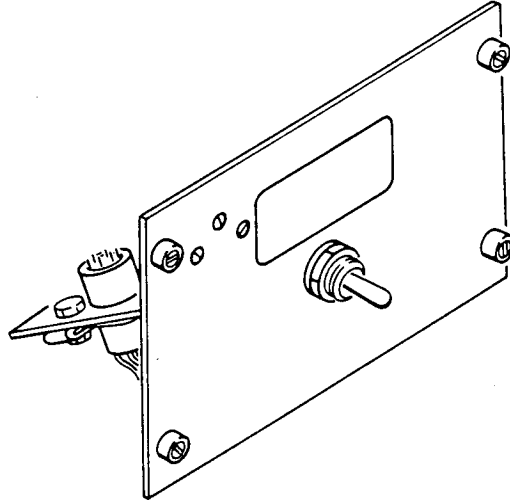
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AIRSPPEED WARNING SWITCH MODE MODULE ASSEMBLY (Pl-6)

Boeing Part Number: 69-37347-1



Airspeed Warning Switch Mode Module Assembly (Pl-6)  
Figure 1

1. DESCRIPTION AND OPERATION

A. Description

- (1) The airspeed warning switch mode module assembly consists of a connector, a switch and a wire bundle mounted on a baseplate.

B. Operation

- (1) The airspeed warning switch mode module assembly is used for pilot selection of one of two airspeed warning modes.

C. Leading Particulars

Height -- 2-5/8 inches (approx)  
Length -- 3-3/4 inches (approx)  
Width -- 3 inches (approx)  
Operating Voltage -- 28 volts dc

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2. DISASSEMBLY

A. General

- (1) Disassemble only as necessary for cleaning, inspection, repair, and replacement of components.
- (2) Unsolder wiring connections and remove connector pins only when replacement of wire or component is required. Tag disconnected wires to facilitate reassembly. Refer to Subject 20-12-01 for unsoldering procedures.

CAUTION: USE CARE WHEN HANDLING WIRING CONNECTIONS.

B. Disassembly (See figure 3.)

- (1) Remove connector screw (5), nut (6) and connector (7).
- (2) Remove toggle switch (8).

3. CLEANING

WARNING: MAKE CERTAIN THAT ALL SOURCES OF FLASH OR FIRE ARE ELIMINATED FROM AREA OF POSSIBLE CONTACT WITH COMBUSTIBLE MATERIALS AND VAPORS DURING THE FOLLOWING PROCEDURE.

CAUTION: DO NOT APPLY ABRASIVE CLEANING MATERIALS OR BRUSHES TO ANY PART OF ASSEMBLY UNLESS OTHERWISE SPECIFIED. USE ONLY CLEANING METHODS AS OUTLINED HEREIN. DO NOT ALLOW SOLVENTS OR CLEANING FLUIDS (EXCEPT NAPHTHA AND ALCOHOL) TO CONTACT ELECTRICAL SURFACES. DO NOT ALLOW SOLVENTS OR CLEANING FLUIDS TO CONTACT IMPREGNABLE MATERIALS.

- A. Remove dust or foreign matter from assembly using low pressure air suction.
- B. Clean exterior surfaces per "Alkaline Cleaning" in Subject 20-30-03.
- C. Clean interior surfaces and electrical contacts with aliphatic naphtha or isopropyl alcohol. Dry thoroughly with low pressure air.
- D. For cleaning information related to soldering, refer to "Preparation for Soldering," in Subject 20-12-01.
- E. Clean terminal lugs and other bonding areas per Subject 20-11-03.

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4. INSPECTION/CHECK

A. Visual Checks

NOTE: Use five-power magnification for checking component, wiring, and soldering.

- (1) Check components for security of mounting.
- (2) Check components and wire for damage.
- (3) Check wire terminals and connections for proper installation.
- (4) Check wire insulation for charring, cracking, and brittleness.
- (5) Check wire for proper routing.
- (6) Check connectors for bent, corroded, or cracked pins.
- (7) Check nameplates, metal labels, and Metal-Cals for proper installation and legibility.
- (8) Check components for legibility of reference designations and terminal identification.
- (9) Check finished surfaces for damage.
- (10) Check assembly for warping, bending, or other damage.
- (11) Check insulating sleeving for proper installation and evidence of damage.

B. Special Checks

- (1) Check vendor components per manufacturer's instructions.

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5. REPAIR

A. Repair

- (1) Instructions for repair of electrical connectors (plugs, receptacles, sockets, and wire terminations) are contained in "Repair of Electrical Connectors," Subject 20-11-02.
- (2) Instructions for repair of soldered connections at terminals or solder cups are contained in "Soldering Electrical Connections," Subject 20-12-01.
- (3) Instructions for repair of wire terminations at terminal lugs and preparation of electrical bonding areas are contained in "Repair of Electrical Terminations," Subject 20-11-03.
- (4) Straighten assembly components and connector pins if bent.
- (5) Silk screen, rubber stamp, or steel stamp as applicable, all damaged reference designations, terminal numbers, or component identification markings. Refer to Subject 20-50-10.

B. Refinish

NOTE: Refer to Subject 20-41-01 for decoding of F and SRF finish symbols and to Subject 20-30-02 for stripping of protective finishes.

- (1) If protective finishes are worn or damaged, refinish as indicated:
  - (a) All Structural Parts -- Apply F-2.21, F-2.30, or SRF-2.30 all over.
  - (b) Front Plate or Baseplate -- Apply F-12.75 or SRF-14.9031 to front surface and edges.
  - (c) Screws (with heads exposed on front of front plate or baseplate) -- Apply F-14.91 to heads.

C. Replacement

- (1) Replace all parts worn or damaged beyond minor repair.
- (2) Replace damaged wire with BMS 13-16, type 1 class 1, Size AWG 22.
- (3) Apply new nameplates, Metal-Cals, and metal labels per Subject 20-50-05.
- (4) Replace defective insulating sleeving per Subject 20-11-03.
- (5) Replace parts damaged by cleaning solvents.

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6. ASSEMBLY

## A. General

- (1) Complete required REPAIR procedures.
- (2) Connect electrical wires per schematic diagram.

## B. Reassembly (See figure 3.)

- (1) Install toggle switch (8).
- (2) Install connector (7), screw (5) and nut (6).

7. FITS AND CLEARANCES

## A. None

8. TESTING

## A. Test Equipment

- (1) Ohmmeter

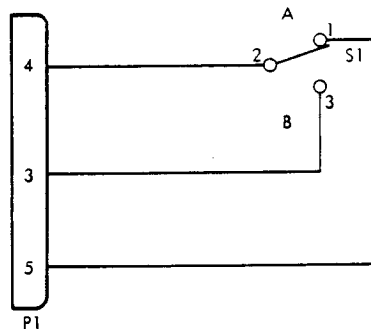
## B. Functional Test

- (1) Set switch S1 to position A and verify continuity between pins 4 and 5 and no continuity between pins 3 and 4.
- (2) Set switch S1 to position B and verify continuity between pins 3 and 4 and no continuity between pins 4 and 5.

9. TROUBLE SHOOTING (See figure 2.)

- A. If failure of a test occurs, check for defective connections, incorrect wiring connections, and defective components.

<u>Trouble</u>	<u>Possible Cause</u>	<u>Correction</u>
B. Failure to obtain continuity or no continuity	Switch S1 defective	Replace S1



Schematic Diagram  
Figure 2



10. STORAGE INSTRUCTIONS

- A. Protect assembly from dust, moisture, and atmospheric conditions. Place assembly in plastic bag and insert in protective carton, padded sufficiently to ensure against damage during storage and handling. Close, tape, and mark carton with assembly identity and date of overhaul.
- B. For further information, refer to "Protection, Storage, and Handling of Airplane Components," Subject 20-70-01.

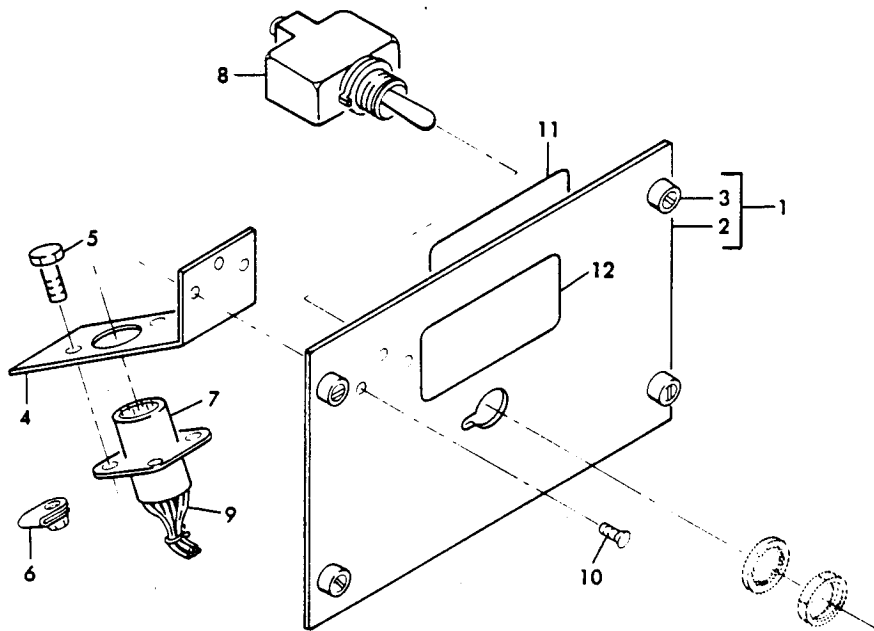
11. SPECIAL TOOLS, FIXTURES, AND EQUIPMENT

- A. Tools used for repair of electrical connectors are listed in Subject 20-11-02.
- B. Tools used for repair of electrical terminations and for replacement of insulating sleeving are listed in Subject 20-11-03.
- C. Tools used for soldering electrical connections are listed in Subject 20-12-01.

NOTE: For additional equipment required for testing, refer to TESTING.

12. ILLUSTRATED PARTS LIST

- A. Exploded View



Airspeed Warning Switch Mode Module Assembly 69-37347-1

Figure 3

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B. Group Assembly Parts List

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		
3-	69-37347-1		AIRSPEED WARNING SWITCH MODE MODULE ASSEMBLY								
1	69-37347-2		. BASEPLATE ASSEMBLY. . . . .								1
2	BACP10U375G		. . BASEPLATE . . . . .								1
3	BACS21DD1		. . STUD ASSEMBLY . . . . .								4
4	69-55171-3		. BRACKET . . . . .								1
5	BACS12CB04-5		. SCREW . . . . .								2
6	BACN10W1		. NUT . . . . .								2
7	BACC45FN10-5P		. CONNECTOR . . . . .								1
8	MS24523-23		. SWITCH, Toggle. . . . .								1
9	69-37347-3		. WIRE BUNDLE . . . . .								1
10	MS20426D4		. RIVET . . . . .								3
11	BAC27DCC434		. METAL-CAL . . . . .								1
12	BAC27DCC-283		. METAL-CAL . . . . .								1

Reference Designation Index (See Schematic Diagram)		
Reference Designation	Part Number	Item No.
P1	BACC45FN10-5P	7
S1	MS24523-23	8