



815 BROADHOLLOW RD., FARMINGDALE, NY 11735 USA

SERVICE BULLETIN

MD-80/90 & B717 SERIES

PASSENGER ADDRESS SERVICE INTERPHONE CALL SYSTEM (PASICS),
ATTENDANT HANDSET ASSEMBLY P/N 686-1000-002, MODIFICATION TO
PRECLUDE INTERMITTENT RESETTING.

1 PLANNING INFORMATION:

- A. Effectivity: Attendant Handsets P/N 686-1000-002, S/N's 2400 through 2700, used in the PASICS system on board the MD-80/90 series aircraft are affected. The modification will be incorporated during manufacturing of units after S/N 2700.
- B. Reason: To correct a possibly misprogrammed Programmable Logic Device (PLD) on the A2 circuit card, which can cause the Call light not to extinguish on an Attendant handset hang-up following the first call after initial power application. Also adding a filtering capacitor to allow the use of newer PLD parts, whose input characteristics have changed from the original design.
- C. Description: Performance of this bulletin can be implemented in one of two ways;
- 1) When a unit, within the affected serial number range, is determined to exhibit the Call light reset problem, it is returned to Telephonics for reprogramming of the PLD and addition of capacitor.
 - 2) If, in the case of a repair action, it is determined that the PLD part has a hard failure, and a replacement part is ordered from Telephonics, it is installed in the handset along with the new filter capacitor, as described in the Accomplishment section of this bulletin.
- D. Performance Determination: The following defines the on aircraft test to be performed to determine if the handset is a candidate for the modification;
1. Starting with all power removed from the PASICS system, making certain all handsets are properly cradled.
 2. Apply power to the PASICS system, initiate an Attendant call from the Pilot's station, uncradle the Attendant's handset, then re-cradle.
 3. If Call light extinguishes, handset is in proper working order. But if Call light does not extinguish, reset handset by initiating a PA selection and then re-cradling. If Call light extinguishes this time, handset should be returned for modification.
 4. If Call light still will not extinguish after re-cradle, using a spare magnet assembly, place it within ¼" of handset ID plate window. If Call light extinguishes, then further troubleshooting is required of the cradle for other causes.

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- E. Compliance: The incorporation of this bulletin is recommended to be upon the determination of the performance discrepancy as defined in paragraph D above or at the earliest convenience of the operator.
- F. Approval: This modification is in accordance with the currently manufactured configuration of the unit and does not require FAA approval.
- G. Manpower: It is estimated that 1.0 man-hours will be required per unit for the performance of this bulletin.
- H. Material - Cost and Availability:
 - (1) Telephonics Performance: Telephonics will incorporate this bulletin at a charge based on the current Service Center labor rate, in units within serial number defined in the Effectivity section, when returned for modification or for repair.
 - (2) Kits: Kits, P/N SBK686-1000-5, which will consist only of the capacitor, will be supplied at the current listed cost in Telephonics Spare Parts Catalog. For kit information, refer to MATERIAL INFORMATION section of this bulletin
- I. Tooling: None
- J. Weight and Balance: None
- K. References:
 - (1) Component Maintenance Manual with IPL, Handset Assembly P/N 686-1000 and Cradle Assembly P/N 686-2000 (ATA 23-44-30).
- L. Publication Affected: Reference (1) at next scheduled revision will include changes affected by this bulletin.



2. ACCOMPLISHMENT INSTRUCTIONS:

THIS UNIT CONTAINS ELECTROSTATIC SENSITIVE DEVICES, HANDLE IN ACCORDANCE WITH REQUIREMENTS OF DOD-STD-1686.

A. Disassembly: Item references are per IPL Figure 1 of Reference 1, unless otherwise noted.

- (1) Using a small screwdriver or dental pick, remove window (5) and ID plate (10).
- (2) Remove two each pan head screws (20), lock washers (25), flat washers (30) and disengage shell assembly (15).
- (3) Disengage connector plug (65) from panel assembly (165)
- (4) Remove three each pan head screws (10), lock washers (15) and flat washers (20). (Item references for this step and step (5) are per IPL Figure 2.)
- (5) Using care to avoid damage to connector pins, separate A2 circuit card (5) from A1 circuit card (25).

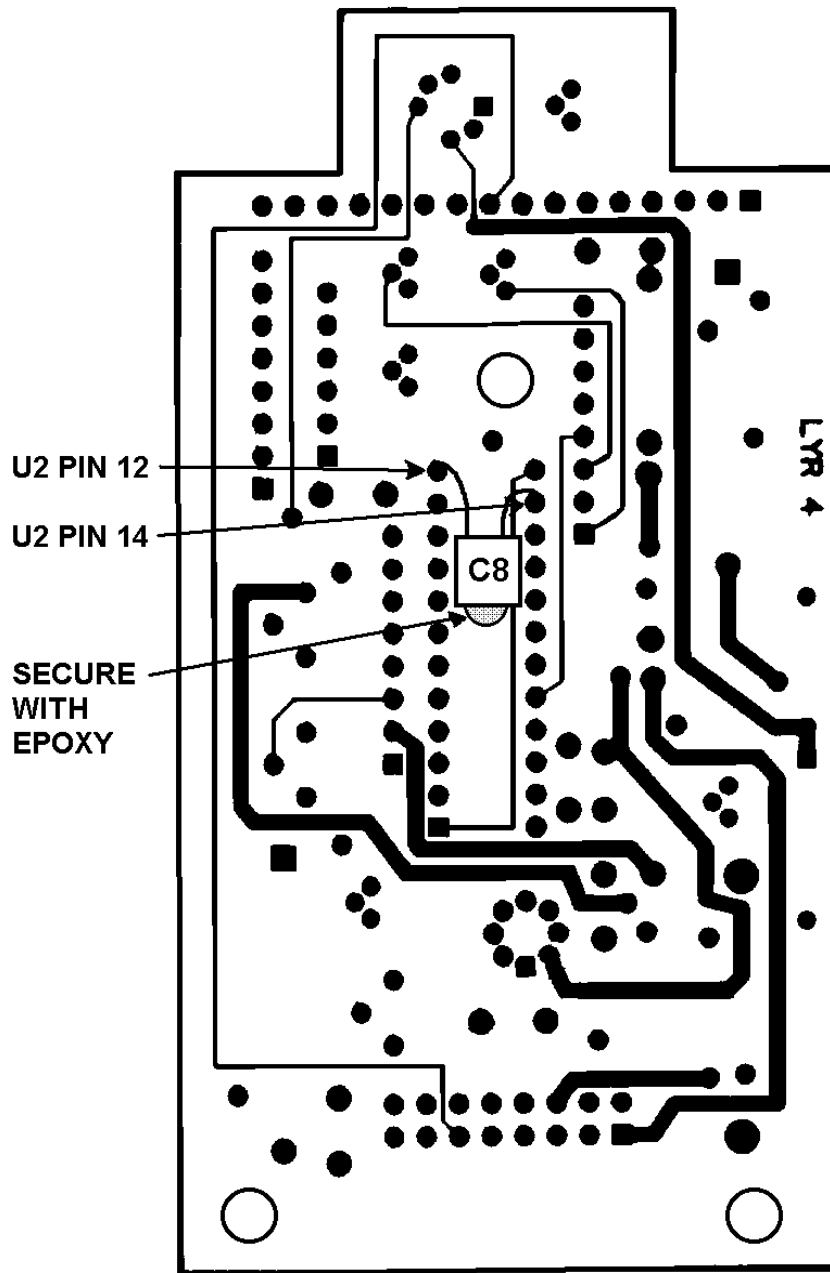
B. Modification: Unless otherwise specified, figure references are per figure(s) of this bulletin.

- (1) On the A2 card, locate and remove the defective U2 component. Install new replacement component P/N M235A909-1.
- (2) Install new capacitor C8, P/N M39014/01-1219 (100pf, 200V), on solder side of card, to U2 pins 12 & 14, as shown in Figure 1 of this bulletin.
- (3) Using a small quantity of clear fast drying epoxy, secure C8 to card surface, as shown in Figure 1 of this bulletin. Allow epoxy to dry before proceeding.
- (4) Using an acid brush and isopropyl alcohol, clean newly soldered areas. Ensure cleaned area is dry, then apply conformal coating (Humi Seal 1B31) on all reworked areas.

C. Assembly: Item references are per IPL Figure 2 for steps 1 and 2, the IPL Figure 1 for rest.

- (1) Carefully seat circuit card assembly A2 (5) on connector pins of A1 circuit card assembly (25) and secure by installing three each pan head screws (10), lock washers (15) and flat washers (20). Apply a small quantity of Loctite[®] 425 to the threads of screws before installing.

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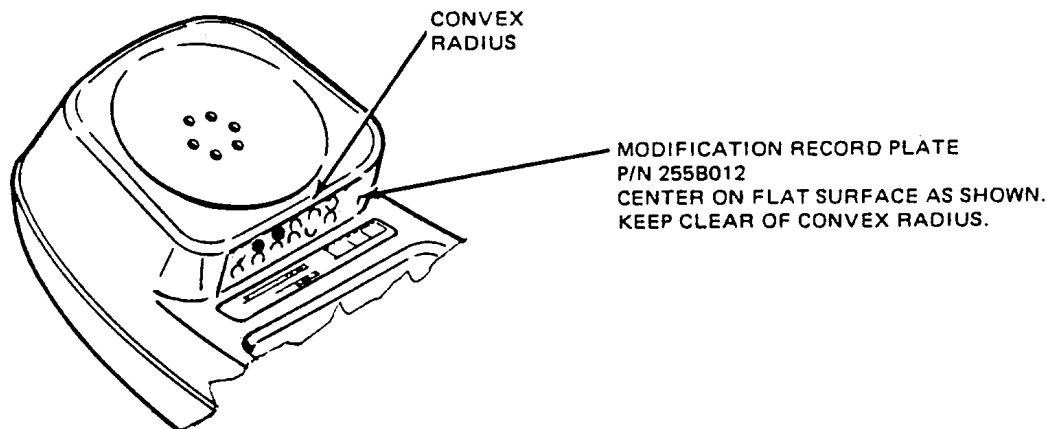
**Figure 1. A2 Circuit Card
Solder Side – Location of C8**



- (2) Reconnect electrical connector plug (65) to panel assembly (165).
- (3) Seat shell assembly (15) on handset and secure by installing two each pan head screws (20), lock washers (25) and flat washers (30). Apply a small quantity of Loctite[®] 425 to the threads of screws before installing.
- (4) Install ID plate (10) and window (5).
- (5) Test unit in accordance with instructions contained in Reference 1, except include changes as defined below in paragraph E. Testing section.

D. Identification:

- (1) At the Modification record Plate, obliterate the circled numeral ⑤, using black epoxy ink. If unit does not have a modification record plate, install one as follows:
 - (a) Using a clean, soft cloth moistened with isopropyl alcohol, clean side of deck assembly where modification record plate will be installed, as shown in sketch below.
 - (b) Strip protective paper from adhesive backing of modification record plate P/N 255B012 and install on deck above ID plate as shown below. Press with fingers to ensure maximum adhesion.





- E. Testing: Test unit in accordance with instructions contained in Reference 1, but substitute the following steps for subparagraph “A. Initialization/Power Up” in section “4. Test Procedure (Handset Assembly)” on page 103 of Reference 1.

NOTE: Test set, P/N 686-7010-001, requires a change to allow the following test procedure section to be performed. Information for the change to the test set is contained in the attached Appendix A.

- (1) Set tester main power switch S5 to the “ON” position.
- (2) Verify ATT, PLT and P/A pushbutton LEDs are dark.
- (3) Verify power supply ammeter reads 250 ± 50 milliamps.
- (4) Set main power switch S5 to “OFF” position, place magnet assembly within 1/4” of ID label on UUT. Set S5 to “ON” position, verify power supply ammeter reads 250 ± 50 milliamps.
- (5) Move magnet assembly away from handset, then place magnet assembly within 1/4” again while observing tester Reset LED. LED should be on then go off for approximately 600msec, then come on again.



3. MATERIAL INFORMATION:

Material information is furnished on a unit basis.

A. Kits: Each kit, P/N SBK686-1000-5, contains all parts listed in the NEW PART NUMBER column.

QTY	NEW PART NUMBER	KEY WORD	OLD PART NUMBER	DISPOSITION
1	M39014/01-1219	Capacitor, 100pf, 200V	None	N/A
1	255B012	Plate, Mod Record	None	N/A

B. Material – Not kitted: Small quantities of 5 minute epoxy and black epoxy ink.

C. Identification: Units incorporating this modification are identified by obliteration of the numeral ⑤ of the modification record plate.

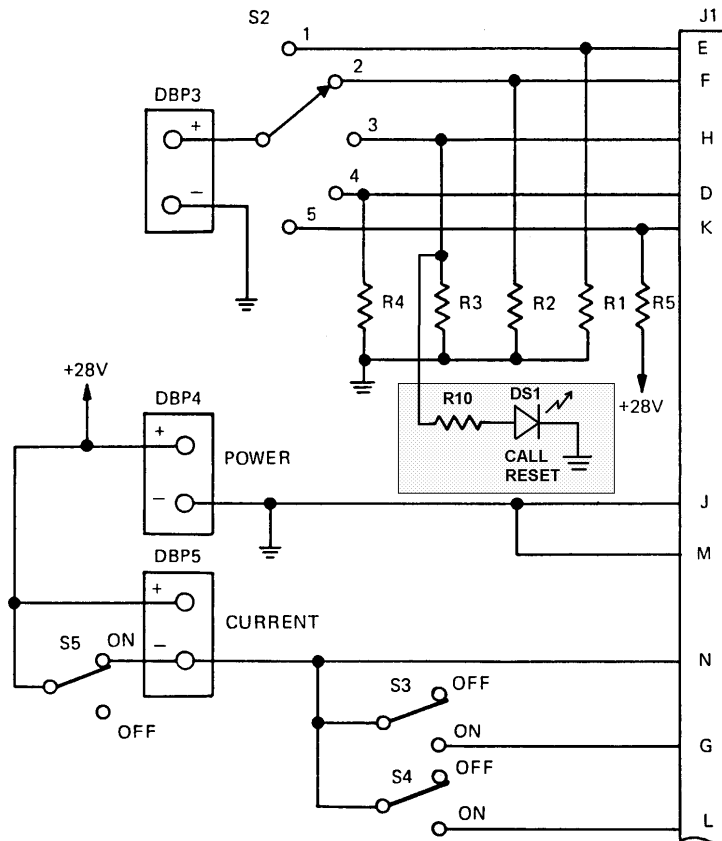
D. Interchangeability: Modified and unmodified units are interchangeable.



Appendix A

The following information is provided to allow modification of the PASICS Handset Assembly Tester, P/N 686-7010-001. This modification is necessary to perform the additional testing as outlined in Service Bulletin 686-1000-23-5. This document contains only that information relative to the modification, refer to the Component Maintenance Manual ATA 23-44-30 for the basic data on the tester.

Modification to the tester includes the addition of one LED indicator and one resistor. Depicted below is a partial schematic of the tester, with the added circuitry shown in the shaded area. A parts list for the new items is also provided below.



ADDED PARTS, IN SHADED AREA

NEW PARTS REQUIREMENT LIST

REF DES	DESCRIPTION	PART NO.	MFG
DS1	LED, red	HLMP3300	HP
R10	Resistor, 2.7K, 1/8W, 5%	RLR05C272J	Allen-Bradley