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## SERVICE BULLETIN

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### **Interface Unit IU-1507A Part Number 4001976-0751, -0752 and -0753 Unit Mod 24**

#### **Hardware Changes to Reduce EMI Radiation**

This modification adds an EMI Filter to the IU-1507A Power supply line to reduce EMI emissions to the required level. In addition, System cables with connectors that have plastic hoods will be replaced with connectors with metal hoods.

This Service Bulletin can be downloaded from the Telephonics web site [www.telephonics.com](http://www.telephonics.com) .

## **PART 1, PLANNING**

### **1. Effectivity**

This modification applies to all IU-1507A units part numbers 4001976-0751, 4001976-0752 and 4001976-0753 with S/N less than T3013.

### **2. Reason**

EMI radiation reduction by adding an EMI filter in the power supply line. In addition, Cable hoods are changed from plastic to metal.

### **3. Description**

This change updates the unit mod status plate as shown on page 1. Improved grounding and component additions yield an EMI radiation reduction.

### **4. Compliance**

This is an optional change that can be done at operator's convenience. Telephonics recommends the change be accomplished only if noise from VHF, UHF or HF communications equipment affects system performance.

### **5. Approval Statement**

This service bulletin contains no modification information that revises the approved configuration and therefore does not require governmental or other regulatory agency approval.

### **6. Manpower**

Eight (8) hours of labor including testing are estimated to incorporate this modification.

### **7. Weight and Balance**

None.

### **8. Electrical Load Data**

Not Changed.

### **9. Software**

Not Changed.

### **10. Reference**

8070592-0001

IU-1507A Ship Check Test Procedure

## 11. Affected Publications

TM109302  
006-15590-000

RDR-1500 System Manual ,Volume 1 and  
RDR-1500 Maintenance Manual, Volume 2  
Will be updated at the next manual revision.

## 12. Warranty

Eight (8) hour of labor will be allowed for units in warranty.

## **PART 2, MATERIAL INFORMATION**

All parts necessary to upgrade an IU-1507A, P/Ns 4001976-0751, -0752 and -0753 according to this service bulletin are listed below:

<b>Item</b>	<b>Part Number</b>	<b>Qty</b>	<b>Description</b>	<b>Notes</b>
1	364-2006-001	1	Filter Bracket	
2	T5915-0042-001	1	Filter, EMI, Low-Pass	
3	6432-0405	2	Screw, BH, 4-40x5/16	
4	44086-1692	1 ft	Hook-up Wire M/F 44086—16	
5				Reserved
6	381-1004-033	1	Nameplate	
7	T5935-0403-002	1	Connector, EMI/RFI Metal Hood	J1
8	T5935-0403-001	3	Connector, EMI/RFI Metal Hood	J2, J3 & J4 (If 2Indicators)

For additional material information - please contact:

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Attn: Product Support Department

Please specify part numbers, quantity required and reference this Service Bulletin. In addition, please refer to PCN number 381-0444.

## **PART 3, ACCOMPLISHMENT INSTRUCTION SUMMARY**

This modification procedure is structured as follows:

- Chassis and circuit cards Hardware Modifications to reduce EMI radiation
- Testing – Perform IU-1507A ATP Test, Section 11.

### **A. Chassis and circuit cards Hardware Modifications to reduce EMI radiation**

1. Acquire the Modification Parts Kit above.
2. Side Cover Removal. Disengage nine one-quarter turn captive fasteners on right side (when facing front panel) of unit and remove side cover.
3. Using the Disassembly. Assembly instructions in the referenced manual, locate the connector module as shown in figure 1.

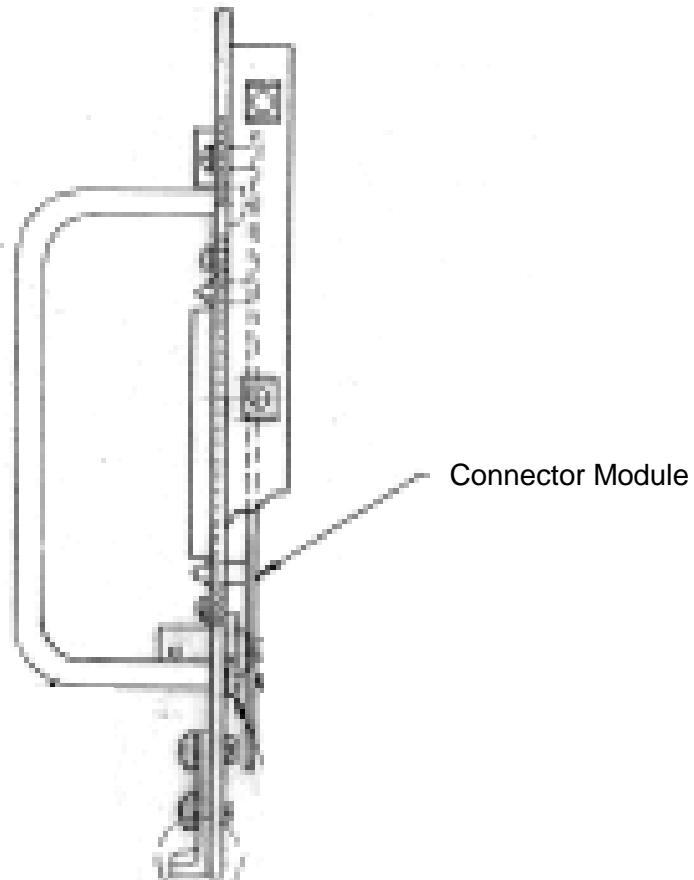


Figure 1. Connector Module Location

4. Use the manual instructions to remove the connector (Interconnection) module from the Front Panel.
5. (Paragraph and Figure 2 RESERVED)

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- 6 Using items 1 and 2 add two item 4 wires to connect the filter to the Connector Module.

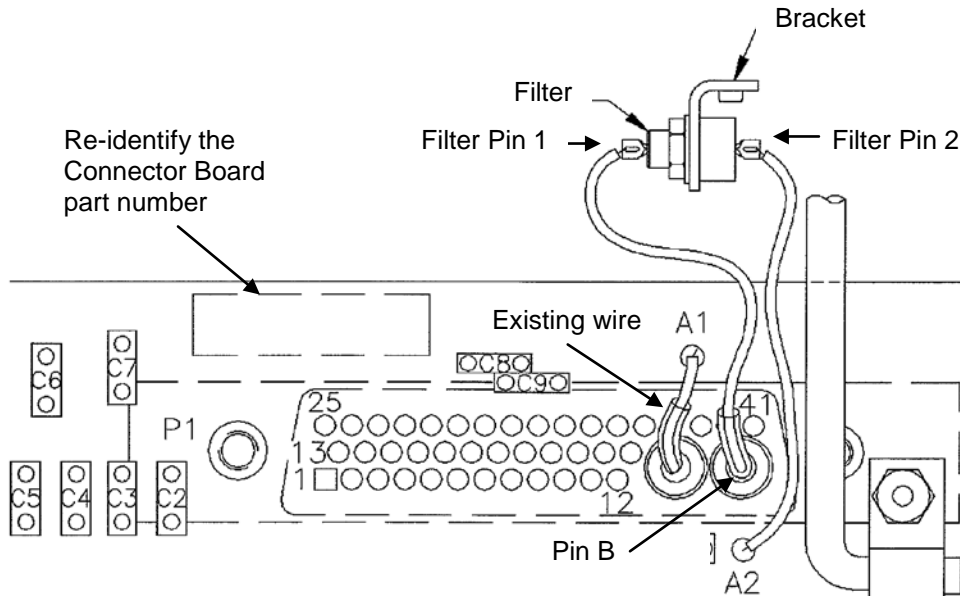


Figure 3 EMI Filter Wiring Diagram

- A) Retain the existing wire from P1 pin A to A1
  - B) Replace the wire from P1 pin B to A2 with a three (3) inch wire from P1 pin B to Filter pin 1.
  - C) Add a three (3) inch wire from P1 pin A2 to Filter pin 2.
  - D) Use a sharp blade remove the numeral "2" from the existing part number 8057127-0502. Using black ink, replace the numeral "2" with the numeral "3" so that the new part number now reads 8057127-0503. Allow the ink to dry thoroughly before assembly of the connector module to the front panel.
7. Re-assemble the Connector Module to the Front Panel.

- Using two (2) item 3 screws attach the filter assembly to the chassis wall as shown in Figures 4 and 5.

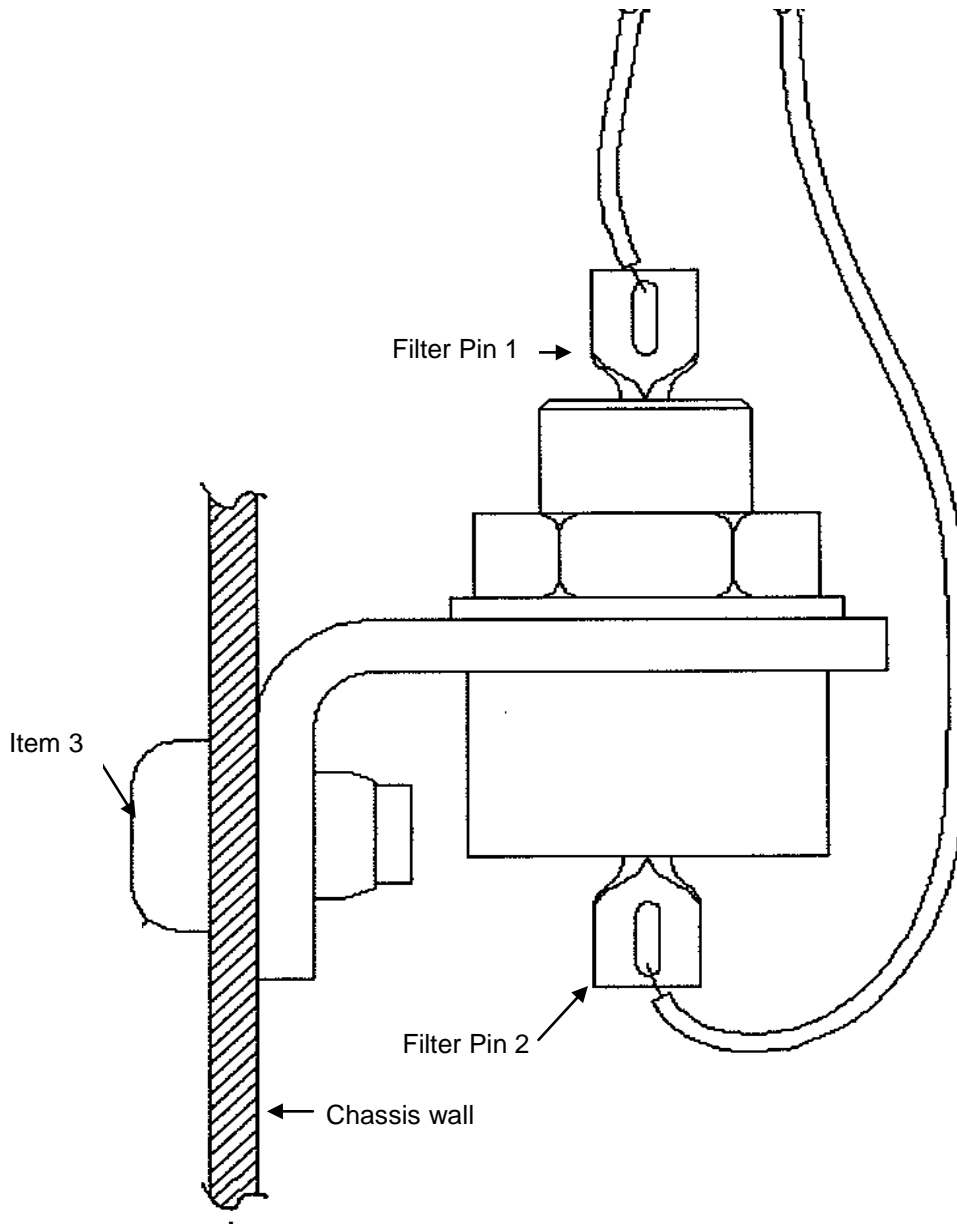
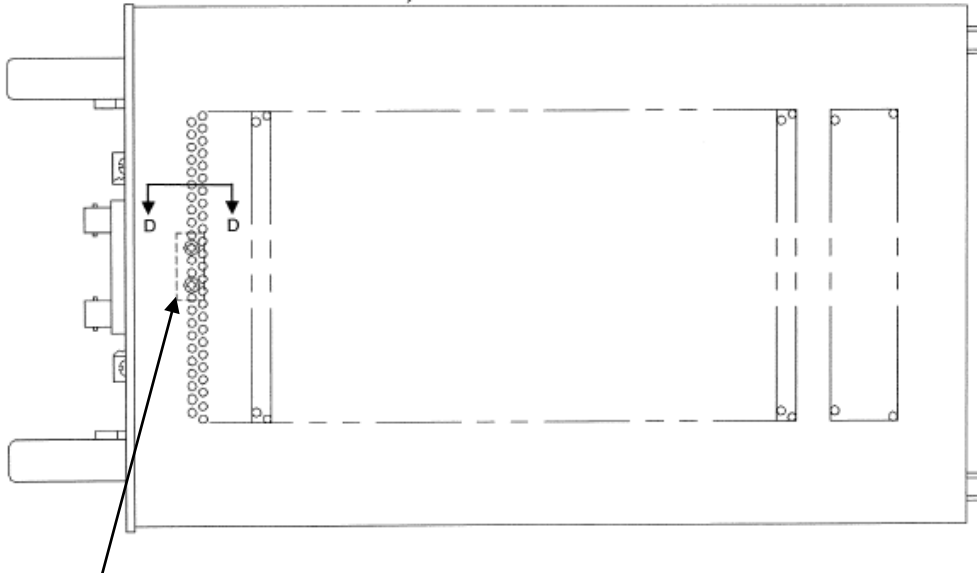


Figure 4. EMI Filter Installation

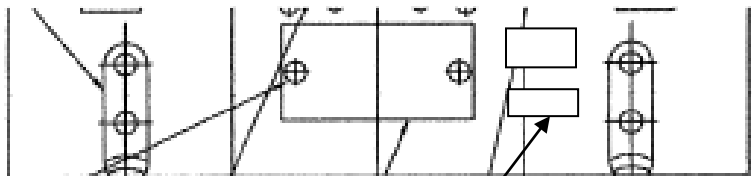
9. Figure 5 shows the mounted position of the filter.



Filter inside  
mounted  
here

Figure 5. EMI Filter Installation Location

10. Dust Cover. Fasten nine one-quarter turn captive fasteners on right side (when facing front panel) of unit and attach the dust cover.
11. Add a new name plate (item 6) to the front panel approximately as shown in Figure 6.



Add new nameplate  
here

Figure 6. New Name Plate Location

12. Mark the new nameplate with a drop of red paint showing Modification Level 24.

13. On the system cables, replace the existing plastic cable hoods with metal hoods. Follow the instructions shown in Figure 7. The plastic hood is removed by unfastening four (4) screws.
14. The system cables shall be over-braded with shielding that has 90% coverage. This shielding shall extend to and attach to the metal hoods of the connectors. Splicing of the shield shall have an overlap or one (1) inch minimum.

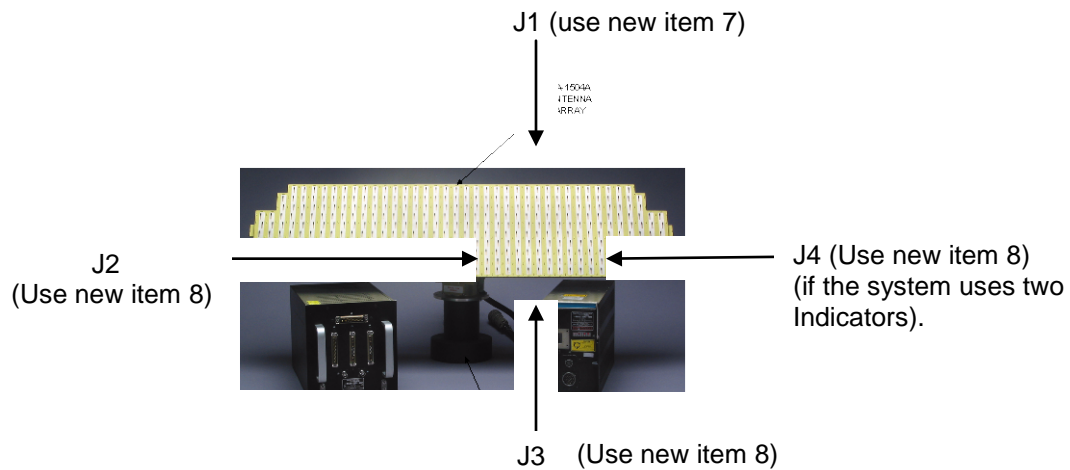


Figure 7. Front Panel

## B. Testing

Perform Section 11 of the referenced ATP to verify that an IU-1507A Line Replaceable Unit is in good working order.

For additional information contact:

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