


REV A	APPLICATION			REVISIONS		
	FINAL ASSEMBLY	REV	DESCRIPTION	DATE	APPROVED	APPROVED
SH 1	RT-406F	A	INITIAL RELEASE PER DCN W3149	6/28/04	M. May	C. Estes R. Talken
DWG. NO. 150-041852	<p>Typed signatures indicate approval. Handwritten signature approval of this document is on file at Wulfsberg Electronics, Prescott, Arizona.</p>					
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APPROVALS	DATE	TITLE				
DRAWN L. Evans	5/27/04	SERVICE INSTRUCTION, WSI RT-406F-5 (TO REDUCE HARMONICS AND IMPROVE THE SENSITIVITY)				
CHECKED C. Estes	5/28/04	SIZE	CAGE CODE	DWG. NO.	REV	
ENGINEER M. May	5/26/04	A	1B7G3	150-041852	A	
ISSUED R. Talken	6/28/04					



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SERVICE INSTRUCTION

EQUIPMENT: RT-406F

DATE:

INSTRUCTION NUMBER: WSI RT-406F-5 Revision A

EFFECTIVITY

This Service Instruction applies to all RT-406F 401-012785-0X Mod 13 and below and 401-012785-5X Mod 14 and below.

REASON

To reduce harmonics from the receiver 2nd LO which improves sensitivity at 450 MHz.

DESCRIPTION

This modification adds a resistor on the Guard Receiver input coax and a test select capacitor in the oscillation circuit.

COMPLIANCE

This modification is an enhancement and not reimbursable under warranty.

APPROVAL

This modification does not affect the original approval.

MANPOWER

N/A.

REFERENCES

RT-406F Maintenance Manual, P/N 150-1332-0000.

MATERIAL INFORMATION

The parts required to modify this unit in accordance with this Service Instruction are available from Wulfsberg Electronics, at (928) 708-1518.

PARTS REQUIRED:

ITEM	QTY	U/M	PART NUMBER	DESCRIPTION	REF
1	1	EA	104-02101-0006	CAPACITOR, MICA RADIAL 100PF +/- 5.0 100V	C500*
1	1	EA	104-00001-0083	CAPACITOR, MICA 10PF 2%	C500*
1	1	EA	104-02331-0006	CAPACITOR, MICA RADIAL 330PF +/- 5.0 100V	C500*
2	1	EA	139-00499-0000	RESISTOR, CHIP 49.9 Ω 1/8W 1%	R500

MODIFICATION PROCEDURE

Caution: Any disassembly/assembly must be done at a static-safe workstation. Removed modules should be placed in antistatic bags when not installed in the unit.

Open the RT-406F and gain access to the R/T (A7) Receiver Board (300-014366-00) per the Maintenance Manual. Perform the following modification:

NOTE: R500 is not installed on 300-014366-01, High sensitivity receiver. R500 is installed only on 300-014366-00 when used in top level LRU #'s 400-012785-00, -03, -50, and -53, where guard receiver is not present.

1. Remove the receiver assembly cover.
2. Locate and remove C43. See Figure 1.
3. Cut both legs of Item 1 to .2". Solder one leg of Item 1 (C500) to R32 junction. Solder the other leg of Item 1 (C500) to the adjacent shield. See Figure 1.
***NOTE:** Capacitors are test select.
4. Solder one end of Item 2 (R500) from the center conductor of the Guard Receiver input coax of PS1. Solder the other end to the adjacent shield. See Figure 2.
5. Verify 2nd L.O. stage has oscillation on pin 12 of U13. Use appropriate C500* as required.
6. Reinstall the receiver assembly cover. Reassemble the RT-406F.

TESTING PROCEDURE

Align and perform a complete final test of the unit in accordance with the Maintenance Manual.

IDENTIFICATION PROCEDURE

Upon completion of this Service Instruction, mark the serial tag on the exterior of the LRU as follows:

For p/n 401-012785-0X: Mark the LRU Hardware Mod "**14**".

For p/n 401-012785-5X: Mark the LRU Hardware Mod "**15**".

Trim leads here

R32

C500

C43

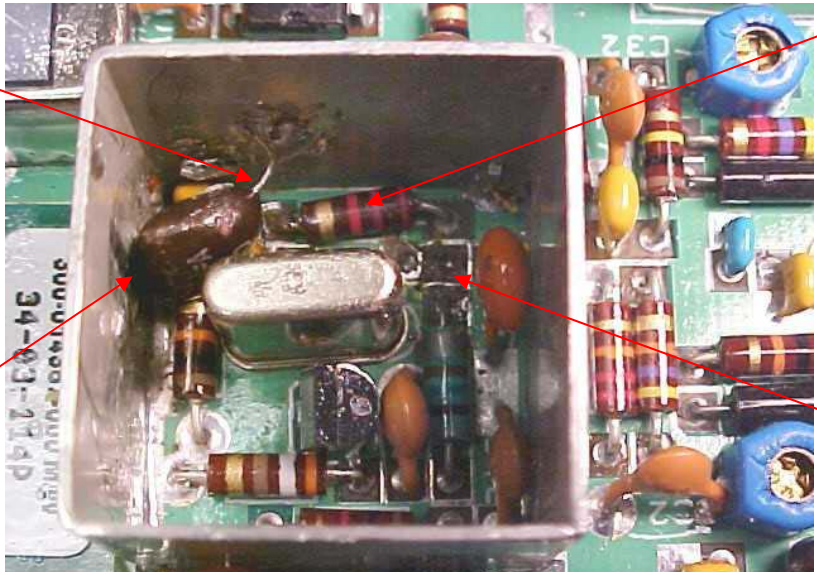


Figure 1

Guard receiver input coax

R500

PS1

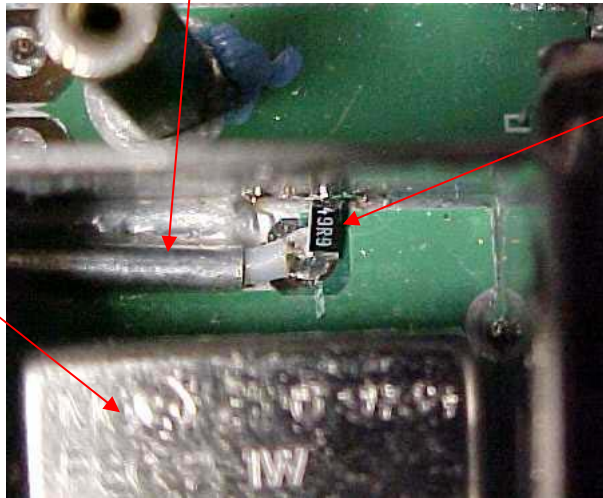


Figure 2