

REV A	APPLICATION			REVISIONS		
	NEXT ASSEMBLY	FINAL ASSEMBLY	REV	DESCRIPTION	DATE	APPROVED
SH 1		RT-406F	A	INITIAL RELEASE	10/06/00	V. Wallace
				DCN W1242		

DWG. NO. 150-040862

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Wulfsberg Electronics Division
A Chelton Group Company
 Prescott, AZ 86301 U.S.A.

APPROVALS	DATE	TITLE			
DRAWN B. Patt	10/23/00	SERVICE BULLETIN WSB RT-406F-4 REV. A			
CHECKED C. Estes	10/23/00	SIZE	CAGE CODE	DWG. NO.	REV
ENGINEER B. Altmeyer	10/23/00	A	1B7G3	150-040862	A
ISSUED V. Wallace	10/23/00	SCALE NONE			SHEET 1 OF 6



Wulfsberg Electronics Division

A Chelton Group Company

6400 Wilkinson Drive • Prescott, AZ 86301 • U.S.A
Telephone: (520) 708-1550 • FAX: (520) 541-7627

SERVICE BULLETIN

EQUIPMENT: RT-406F

DATE: October 6, 2000

BULLETIN NUMBER: WSB RT-406F-4 Revision A

APPLICABILITY

This Service Bulletin applies to all RT-406F Flexcomm I Transceivers, P/N 400-012785-XX.

REASON

The procedure described in this bulletin improves the stability of the preselector and the sensitivity of transceiver.

EFFECTIVITY

Modifications described in this document are to be performed on RT-406F Flexcomm I Transceivers as required by customer or on in-warranty units at the time of scheduled maintenance.

REFERENCES

RT-406F Maintenance Manual, P/N 150-1332-000, Rev. 0

DESCRIPTION

This Service Bulletin explains how modify the RT-406F Receiver Board for improved performance.

COMPLIANCE

As required by customer.

APPROVAL

This modification does not affect the original approval.

WARRANTY INFORMATION

Units still in the warranty period may be returned for installation of this modification under the terms of the warranty agreement. Units should be sent to:

Wulfsberg Electronics Division
Attention: Repair and Overhaul Department
6400 Wilkinson Drive
Prescott, AZ 86301

MATERIAL INFORMATION

The parts required to modify an RT-406F in accordance with this Service Bulletin are available from Wulfsberg Electronics Division, at (502) 708-1518. The part numbers are as follows:

<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBERS</u>	<u>DESCRIPTION</u>
1	2	300-2251-002	Main R/T Helical Resonator
2	2	106-040856-01	Transistor, MRF-951 Low Noise, RF Amp
3	2	209-1100-106	10pF Ceramic Capacitor
4	2	230-040008-101	100 Ω 1/4 W Resistor
5	4	118-140134-033	Spring Inductor 33 nH
6	A/R	16017-22	22 AWG Bus Wire

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.

1. Replace Resonators FL1 and FL2 P/N 300-2251-001 Rev. E with Resonators P/N 300-2251-002 Rev G (refer to Figure 1).
2. Solder 22 AWG Bus Wire P/N 16017-22 from end of coaxial to ground plane using pads if available (refer to Figure 2). Remove conformal coating and solder resist as required to solder to ground plane.
3. Remove Resistors R19 and R20 (refer to Figure 1).

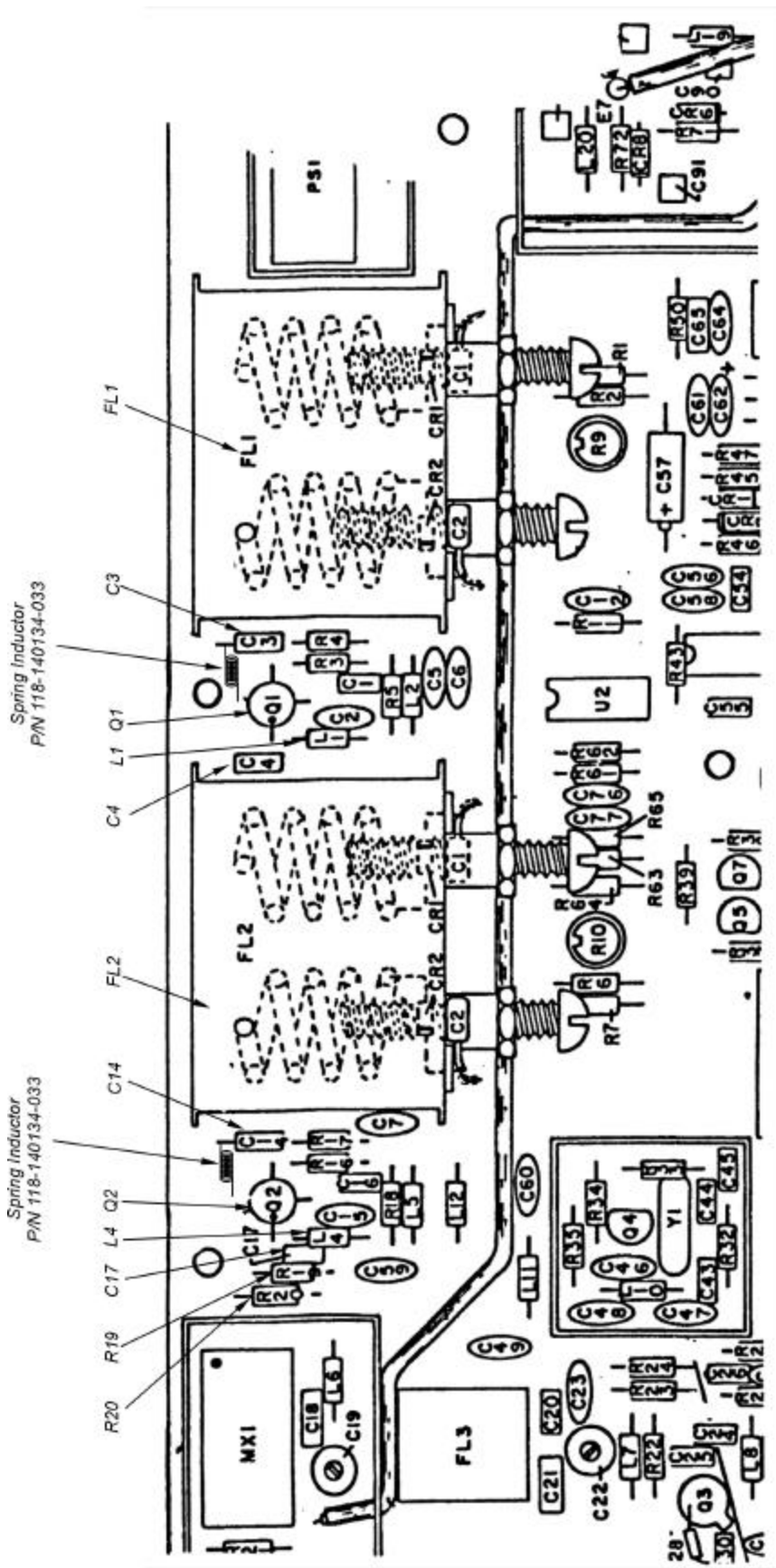


Figure 1

4. Replace Transistors Q1 and Q2 with P/N 106-040856-01 (refer to Figure 1). Orient Q1 and Q2 as shown in Figure 3. Remove conformal coating and solder resist as required to solder additional pin to ground plane.
5. Replace Capacitors C4 and C17 with P/N 209-1100-106 (refer to Figure 1).
6. Replace Chokes L1 and L4 with Resistors P/N 230-040008-101 (refer to Figure 1). Solder Spring Inductors P/N 118-140134-033 to legs of resistors, positioned approximately as shown (refer to Figure 4).
7. Solder one lead of Spring Inductor P/N 118-140134-033 to Capacitor C14 and the other lead to ground (refer to Figure 1). Remove conformal coating and solder resist as required to solder to ground
8. Solder one lead of Spring Inductor P/N 118-140134-033 to Capacitor C3 and the other lead to ground (refer to Figure 1). Remove conformal coating and solder resist as required to solder to ground
8. Add Jumper Wire P/N 16017-22 on solder side of board as shown (refer to Figure 5).

UNIT IDENTIFICATION PROCEDURE

Mark EO #WE146 on board. Mark Mod 13 on Mod Label for -00, -01, -02, and -03 units. Mark Mod 14 on Mod Label for -50, -51, -52 and -53 units.

UNIT TESTING PROCEDURE

Complete a performance test of RT-406F Receiver CTCSS Squelch and Transmitter CTCSS in accordance with Sections 2.4.4 and 2.4.8 of the RT-406F Maintenance Manual.

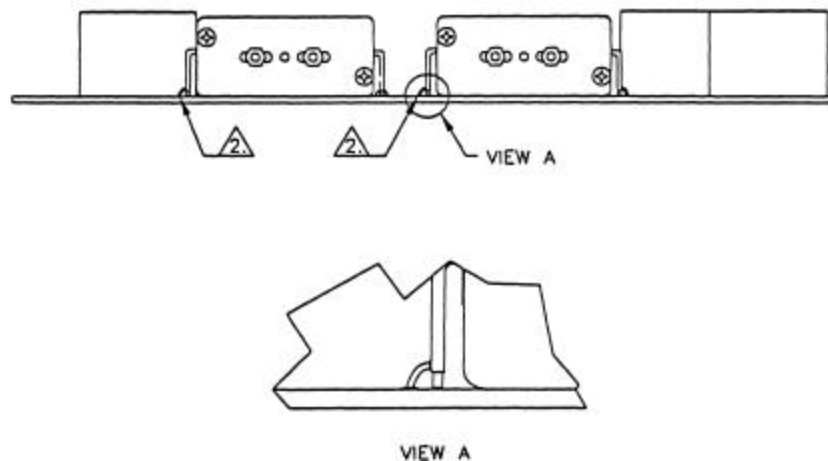


Figure 2



Figure 3

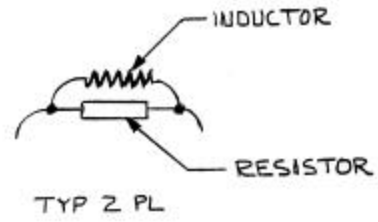


Figure 4

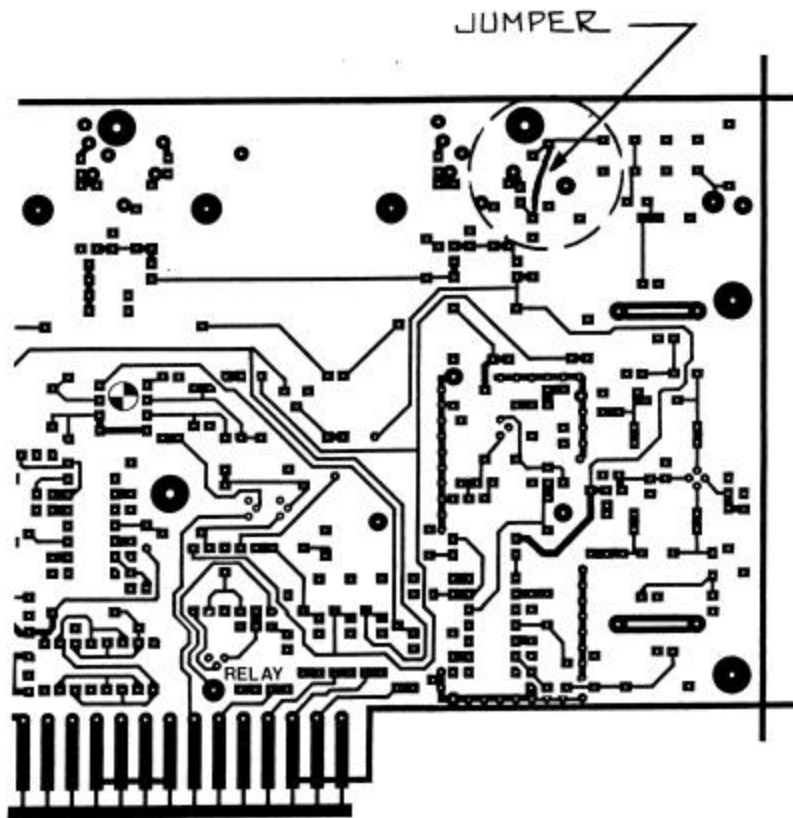


Figure 5