

HF-380 TRANSCEIVER (622-3580-001)
KWM-380 TRANSCEIVER (622-5093-001)
RECEIVER-EXCITER ASSEMBLY A3 (638-6908-001, -002)

SERVICE BULLETIN NO 13

AGC TIME CONSTANT CHANGES

This service bulletin applies to the following:

EQUIPMENT	APPLICABLE TO SERIAL NUMBER	PRODUCTION CUT-IN SERIAL NUMBER
HF-380 622-3580-001	206 and below	207
KWM-380 622-5093-001	2099 and below	2100
Production cut-in for receiver-exciter assembly A3 (638-6908-001, -002) is REV P.		

This modification improves the performance of the automatic gain control (AGC) by changing AGC time constants. The attack time is lengthened to a nominal 12 ms, the fast release time is reduced to a nominal 400 ms, and the slow release hang time is made longer but the discharge time after hang is shortened. The increased attack time improves the noise immunity of the AGC, making it less susceptible to hanging up on short noise pulses, and eliminating any AGC instability when a strong signal is on the skirt of the if crystal frequency.

This change is accomplished by changing the values of three resistors and one capacitor on receiver-exciter assembly A3.

Estimated time required is 0.5 man-hour.

The modification parts are itemized in the material information paragraph. For additional information concerning parts, contact Collins Telecommunications Products Division/Rockwell International, Service Parts Department, Cedar Rapids, Iowa 52498. Reference HF-380/KWM-380 Service Bulletin No 13 in all correspondence.

No special tools or equipment are required.



MODIFICATION PROCEDURE

- A. Disconnect the transceiver from primary power.
- B. Set the transceiver on its side with the power transformer on top. Remove the dust cover by removing four screws adjacent to the four feet on the bottom of the transceiver.

CAUTION: THIS EQUIPMENT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) DEVICES. SPECIAL HANDLING METHODS AND MATERIALS MUST BE USED TO PREVENT EQUIPMENT DAMAGE. THE MAINTENANCE OPERATOR AND ALL TOOLS SHOULD BE GROUNDED.

- C. Place the transceiver on a workbench with the bottom side up.

NOTE: Refer to figure 1 for location of components.

Use a 25- to 30-watt soldering iron with a tip designed for use with printed circuits. The tip should be clean to ensure proper melting of the solder prior to component removal or when securing new components to the card. Take care to avoid application of excessive heat.

- D. Disconnect the cable connected to J15.
- E. Remove 3.3- μ F capacitor C409 and replace it with a new 1.0 μ -F capacitor (184-9102-350).
- F. Remove 2.2-M Ω resistor R416 and replace it with a new 3.3-M Ω resistor (745-0875-000).
- G. Remove 910- Ω resistor R417 and replace it with a new 2.7-k Ω resistor (745-0764-000).
- H. Remove 27-k Ω resistor R418 and replace it with a new 2.7-k Ω resistor (745-0764-000).
- I. Reconnect the cable that was removed from J15 in step D.
- J. Reinstall the dust cover.
- K. Mark SB 13 on the service bulletin information chart. If the transceiver does not have an information chart (280-3778-010), order one and attach it near the nameplate.



SERVICE BULLETIN

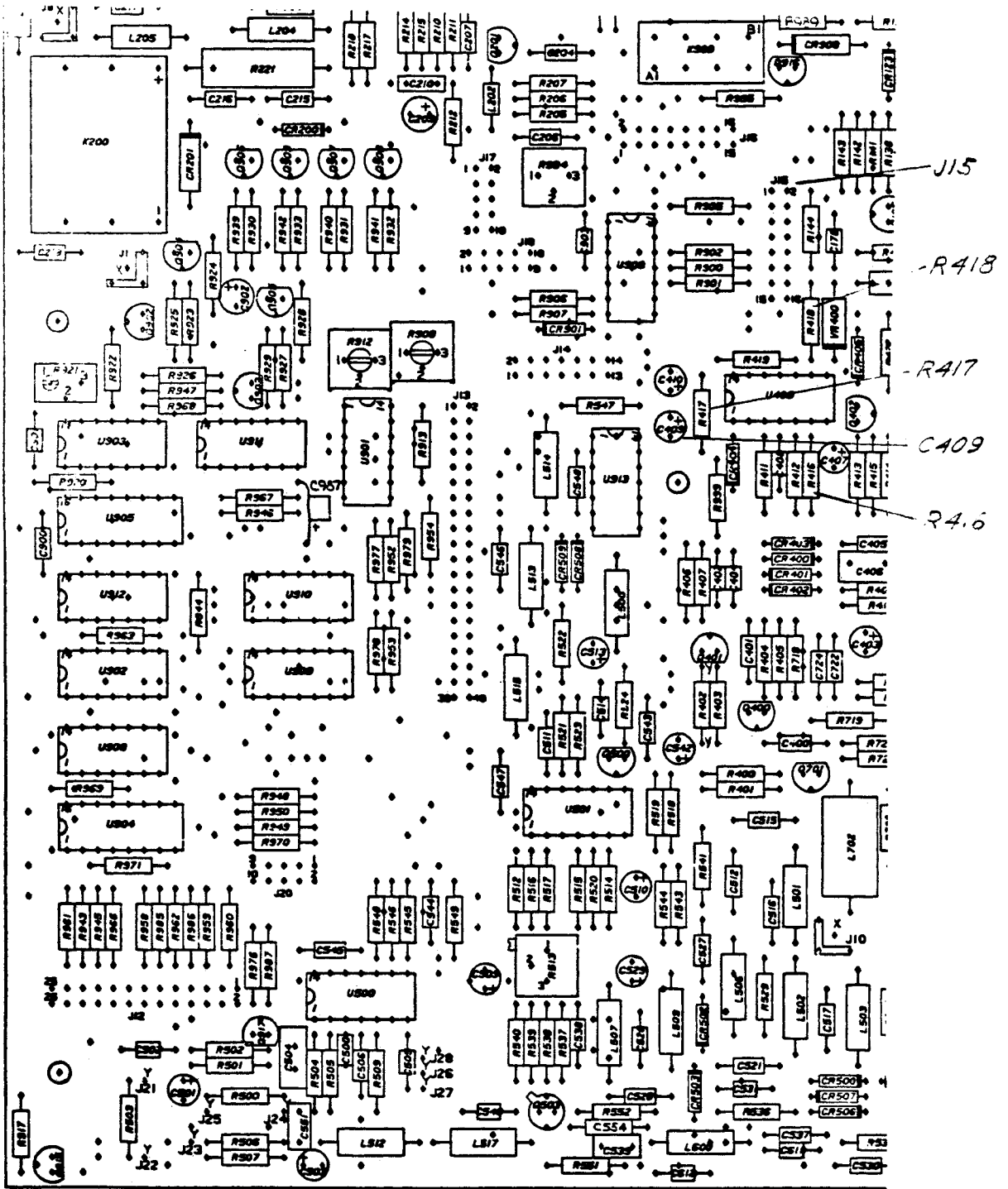
Collins Telecommunications Products Division/Rockwell International

MATERIAL INFORMATION

The parts listed below are required to modify one HF-380 or one KWM-380.

<u>COLLINS PART NUMBER</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
184-9102-350	1		Capacitor, 1.0 μ F, C409
745-0875-000	1		Resistor, 3.3 M Ω , R416
745-0764-000	2		Resistor, 2.7 k Ω , R417, R418
*280-3778-010	1		Chart, information

*Order if needed



P/O Receiver-Exciter Assembly A3
Figure 1