

Collins Divisions
Cedar Rapids, Iowa 52498
(319) 395-1000
Cable COLINRAD Cedar Rapids



**Rockwell
International**

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CHANGE 1
TO
HF-KWM-380 SERVICE BULLETIN NO 17

Attached is a revised issue of HF/KWM-380 Service Bulletin No 17 titled "Make Transceiver Receiver-Exciter Board Compatible With CU-380 Coupler," dated 1 October 1982.

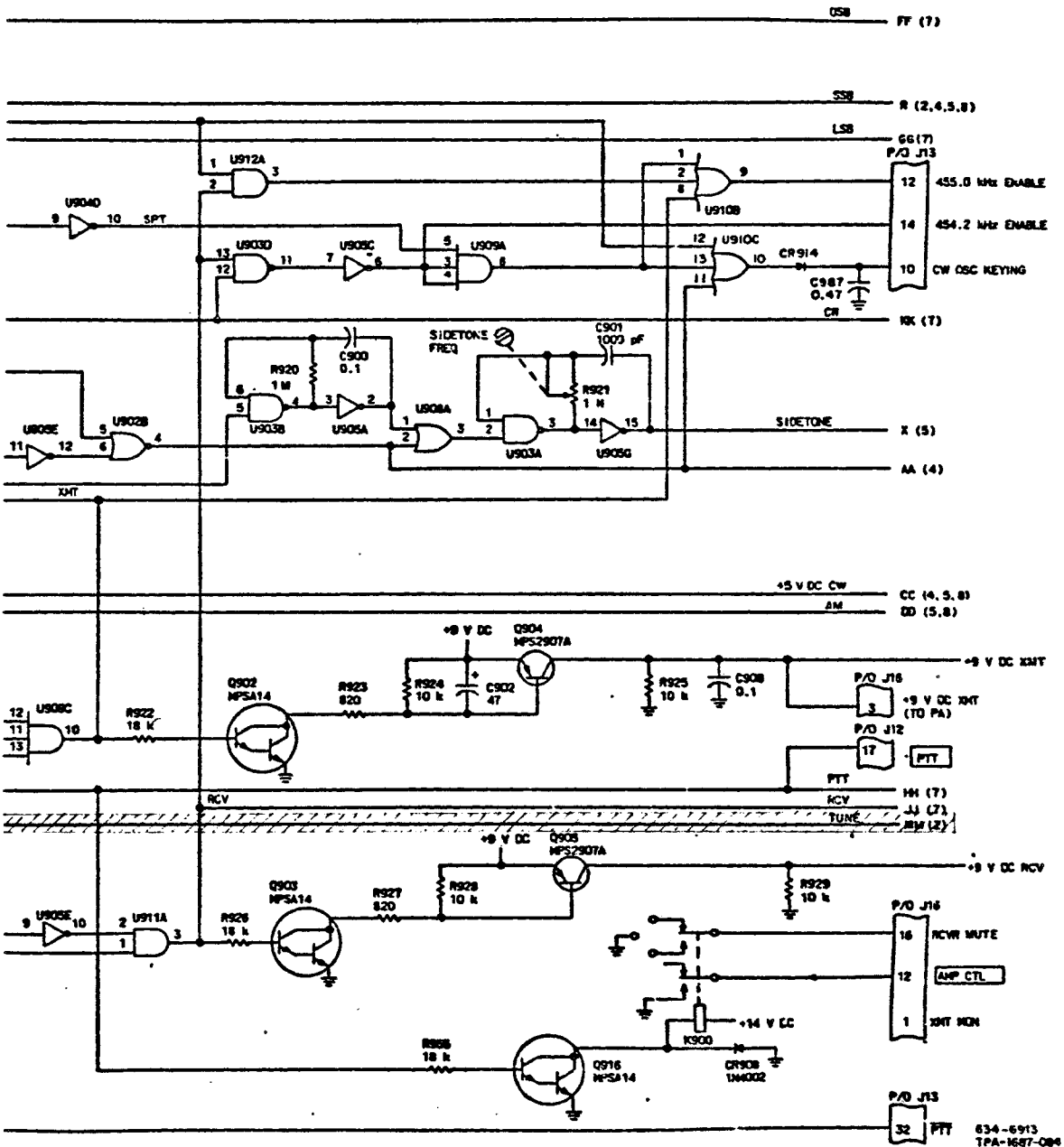
The purpose of this revision is to correct an error in figure 1 on page 5. In figure 1, the anode of diode CR910 was shown connected to the wrong thruhole.

The black bar in the margin indicates the location of the change. This revised issue replaces the entire original publication.

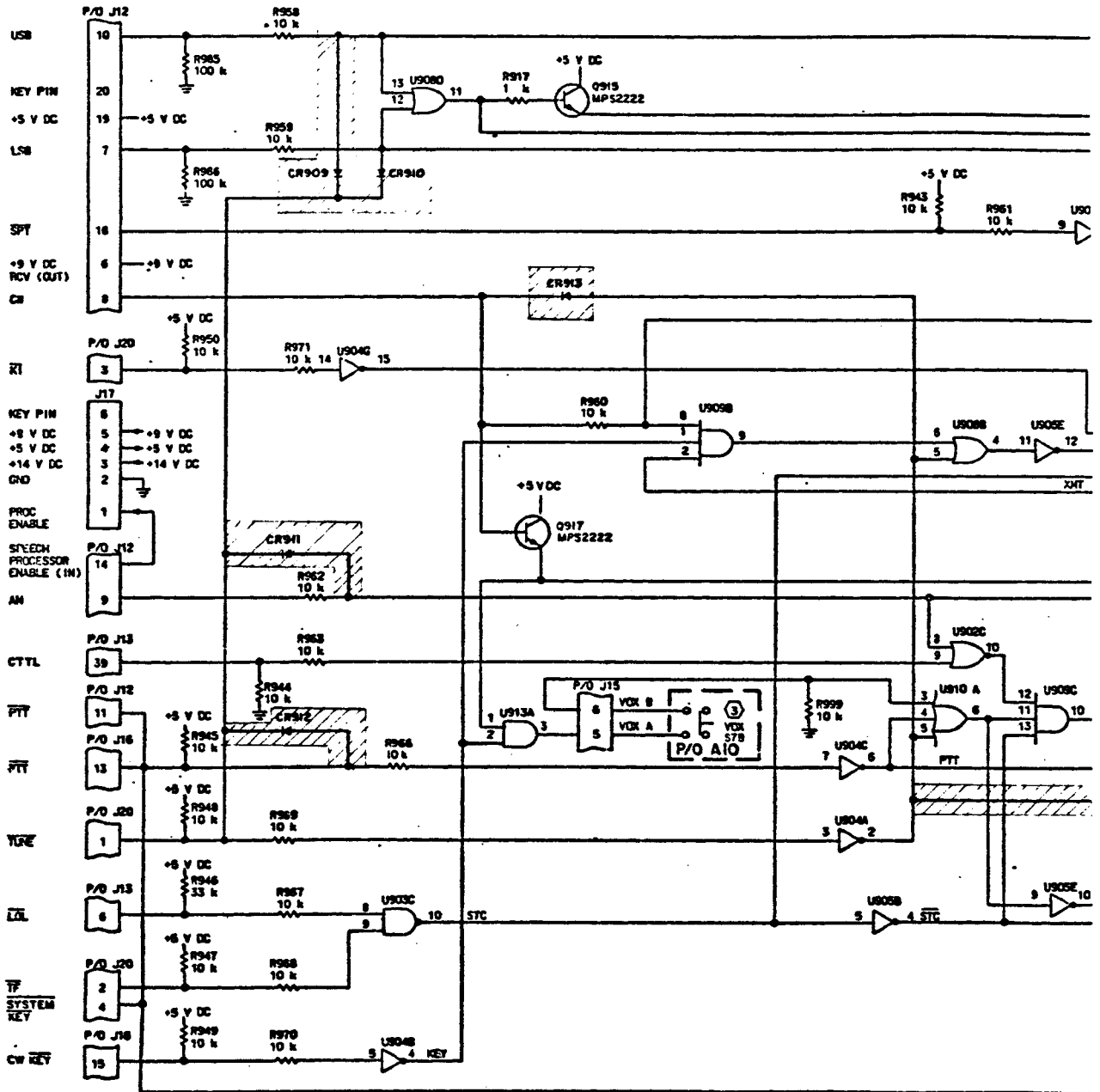


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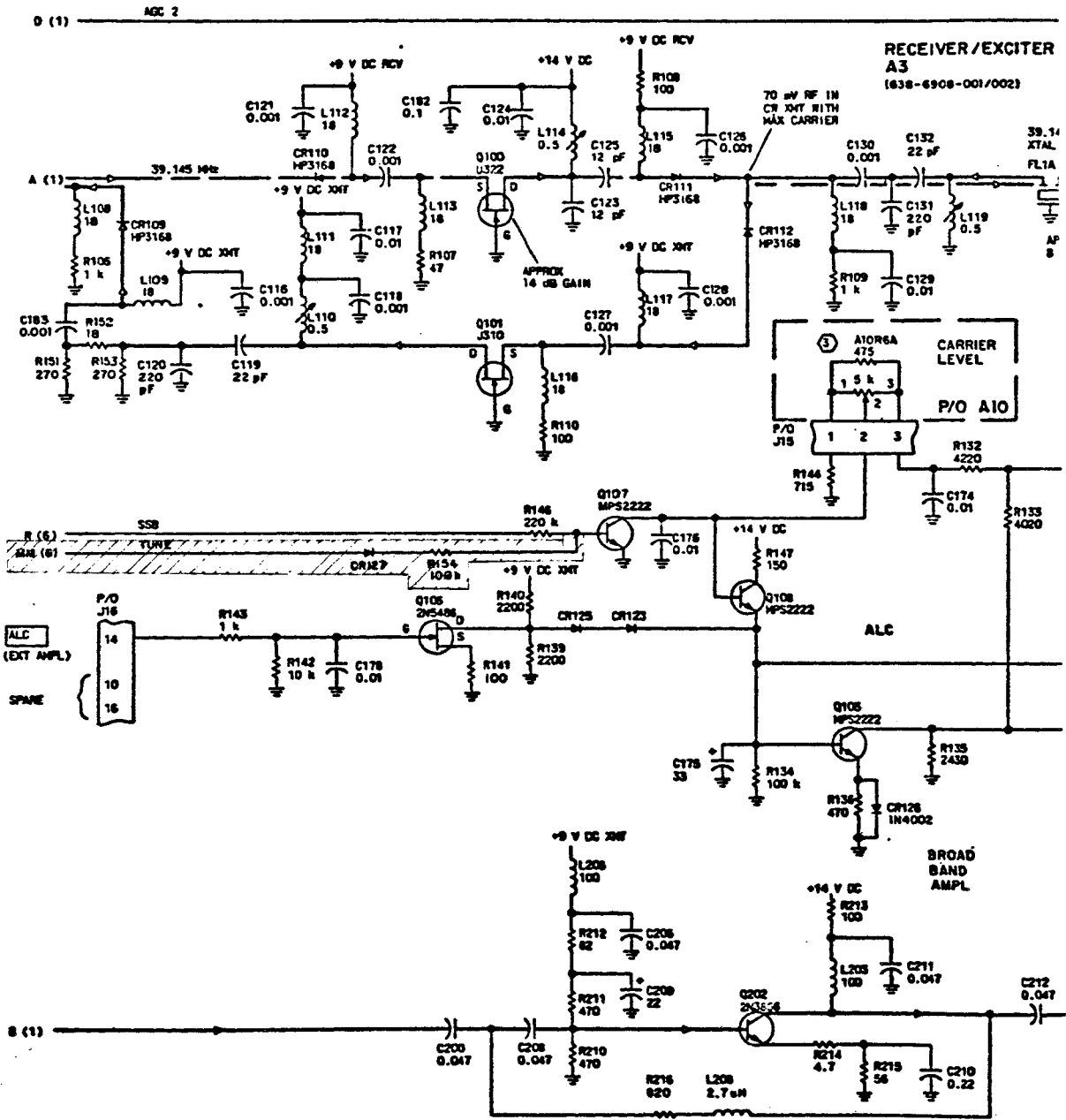
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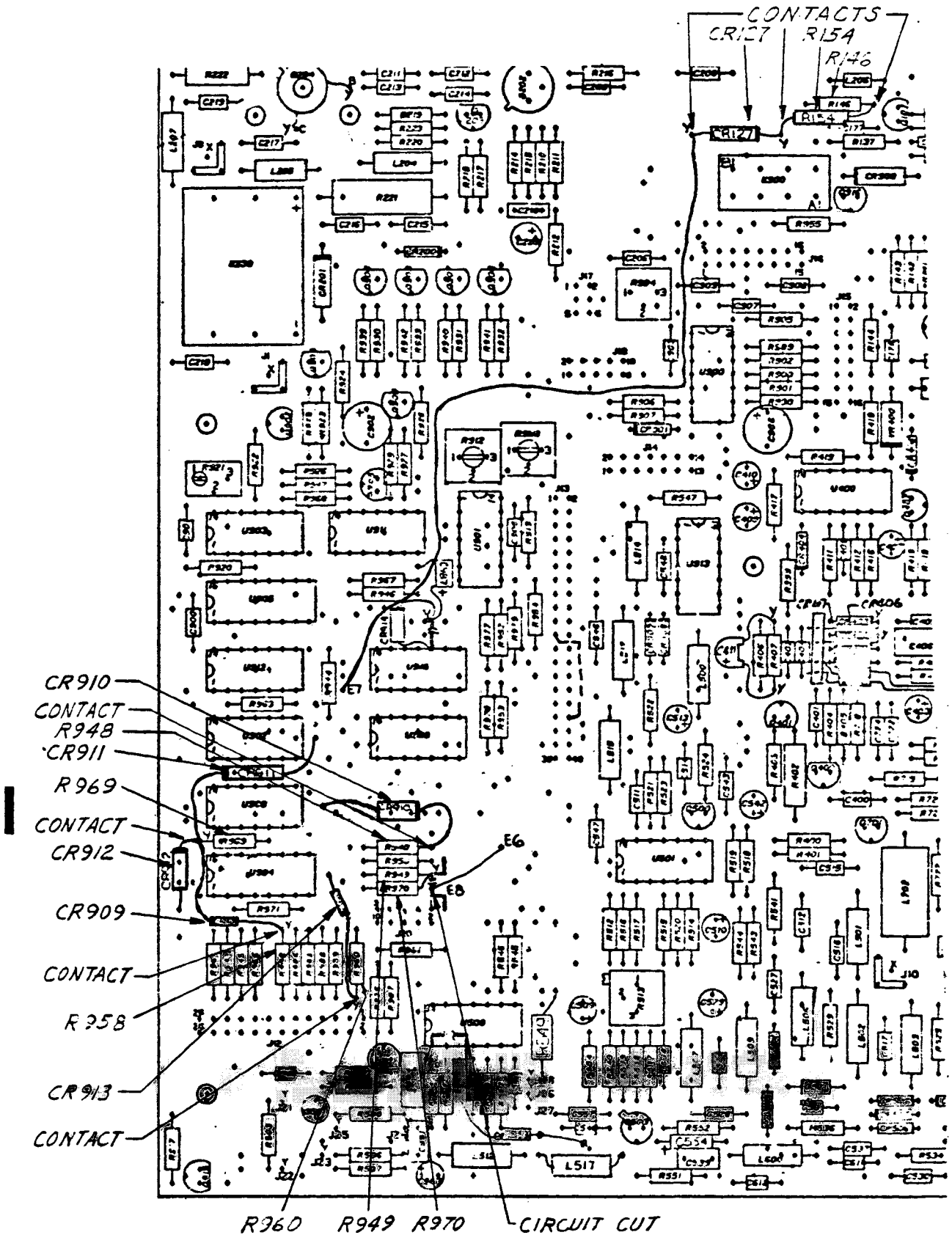
P/O Receiver-Exciter Circuit Card A3, Schematic Diagram
Figure 2 (Sheet 3)



P/O Receiver-Exciter Circuit Card A3, Schematic Diagram
Figure 2 (Sheet 2)



P/O Receiver-Exciter Circuit Card A3, Schematic Diagram
Figure 2 (Sheet 1 of 3)



P/O Receiver-Exciter Circuit Card A3

Figure 1



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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>
372-2601-045	8		Contact
353-3644-010	6		Diode, 1N4454, CR127, CR909, CR910, CR911, CR912, CR913
428-0282-050	150 mm (6 in)		Wire, #30 AWG
*280-3778-010	1		Chart, information
745-0821-000	1		Resistor, 100 k Ω , R154

*Order if needed



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- K. Connect the R960 lead to the new contact.
- L. Install 1N4454 diode CR913 (353-3644-010) as shown in figure 1 with the cathode end connected to the contact installed in step J. Solder connections on both ends.
- M. Unsolder and lift the top lead of R958 and the left-hand lead of R969.
- N. Install and solder contacts (372-2601-045) in the holes vacated by the resistor leads.
- O. Connect the R958 and R969 leads to the new contacts.
- P. Install 1N4454 diode CR909 (353-3644-010) between the two contacts installed in step N with the cathode end connected to R969.
- Q. Install 1N4454 diodes CR911 and CR912 (353-3644-010) as shown in figure 1 with the cathodes connected to R969. Solder all connections.
- R. Unsolder and lift the right-hand lead of resistor R948.
- S. Install and solder a contact (372-2601-045) in the hole where the R948 lead was removed.
- T. Connect the R948 lead to the new contact.
- U. Install 1N4454 diode CR910 (353-3644-010) as shown in figure 1 with the cathode end connected to the contact installed in step S. Solder all connections.
- V. Unsolder and lift the right-hand lead of resistor R146.
- W. Install and solder three contacts (372-2601-045) in the vicinity of R146 as shown in figure 1.
- X. Connect the R146 lead to one of the new contacts as shown in figure 1.
- Y. Install 100-k Ω resistor R154 (745-0821-000) between two of the new contacts as shown in figure 1.
- Z. Install 1N4454 diode CR127 (353-3644-010) as shown in figure 1 with the cathode end connected to R154.
- AA. Install a #30 AWG jumper wire (428-0282-050) from E7 to the anode end of CR127. Solder all connections.
- AB. Mark SB 17 on the A3 card near the part number.
- AC. Reassemble the transceiver in the reverse order of disassembly.
- AD. Mark SB 17 on the service bulletin information chart. If the unit does not have an information chart (280-3778-010), order one and attach it near the nameplate.



No special tools or equipment are required.

MODIFICATION PROCEDURE

- A. Disconnect primary power and other external cables from 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.

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

NOTE: All changes are made to the receiver-exciter circuit card A3, located on the bottom of the unit.

Taking care to not damage adjacent components, this modification can be made without removing A3 from the chassis. Refer to figure 1 for location of components. Refer to figure 2 for a schematic diagram which includes the changes made by this service bulletin.

Unplug ribbon cables as necessary to gain access to the area to be modified.

- D. Cut the circuit trace that connects R970 and R949 right-hand leads as shown in figure 1. Cover the circuit trace cut with a nonconductive material such as epoxy.

NOTE: 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.

- E. Unsolder and lift the R970 and R949 right-hand leads.
- F. Install a contact (372-2601-045) in the hole where the R949 lead was removed.
- G. Connect and solder the R970 and R949 right-hand leads to the contact installed in step F.
- H. Install and solder a #30 AWG jumper wire (428-0282-050) from E8 to E6 as shown in figure 1.
- I. Unsolder and lift the bottom lead of resistor R960.
- J. Install and solder a contact (372-2601-045) in the hole from which the R960 lead was removed.



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● 350568

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

SERVICE BULLETIN NO 17

MAKE TRANSCEIVER RECEIVER-EXCITER BOARD COMPATIBLE WITH CU-380 COUPLER

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 card A3 (638-6908-002) is REV R.		

This modification is necessary if the HF-380 or KWM-380 transceiver is to be used in a system with the CU-380 coupler. This change enables proper operation of the tune function and creates a system keyline.

NOTE: For total transceiver compatibility with the CU-380 Antenna Coupler, AC-3803 Control Interface Service Bulletin No 1, HF-380 Service Bulletin No 10, and/or KWM-380 Service Bulletin No 10 may be required. Service Bulletin No 10 on the HF-380 and KWM-380 changes the read-only memory on control card A8 to be compatible with the CU-380.

The change consists of adding six contacts, six diodes, one resistor, two jumper wires, and making one circuit trace cut.

Estimated time required is 2.0 man-hours.

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/KWM-380 Service Bulletin No 17 in all correspondence.