

August 1, 1981

REVISION 1
TO
KWM/HF-380 SERVICE BULLETIN NO 7

Attached is a revised issue of KWM/HF-380 Service Bulletin No 7, titled "Prevent Excessive EMI (RCVR Birdies) and Eliminate Electronic Tuning Backlash," originally dated 22 December 1980.

At the time this service bulletin was originally published, the serial number effectivity of the change was not available. This revision supplies the missing effectivity.

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

KWM-380 TRANSCEIVER (622-5093-001, -101)
HF-380 TRANSCEIVER (622-3580-001, -101)
CONTROL CARD A8 (638-6929-001, -002)

SERVICE BULLETIN NO 7**PREVENT EXCESSIVE EMI (RCVR BIRDIES) AND
ELIMINATE ELECTRONIC TUNING BACKLASH**

This service bulletin applies to the following:

EQUIPMENT	APPLIES TO SERIAL NUMBERS	PRODUCTION CUT-IN SERIAL NUMBER
KWM-380 (622-5093-001, -101)	431 and below, 433 through 443, 446 through 463, 465, 466, 468 through 472, 474 through 481, 483, 484, 486 through 489, and 491	432, 444, 445, 464, 467, 473, 482, 485, 490, 492, and above
HF-380 (622-3580-001, -101)	35 and below, and 37 through 41	36, 42, and above

Some of the HF-380 and KWM-380 Transceivers have exhibited excessive electromagnetic interference (birdies) in the 4- to 5-MHz frequency range and on certain frequencies that repeat on every band such as 7.259, 14.259, etc. This problem is solved by changing the values of nine coils in the control card A8 output to the low-pass filter and by adding cable clamps to properly position two cables in the synthesizer compartment.

At times, when moving the tuning knob in the opposite direction of its previous rotation, the frequency will go one count in the wrong direction before tuning properly. An example would be tuning up in frequency, stopping, then tuning down in frequency. The display may go up one additional count before starting down. This electronic backlash is eliminated by this modification which consists of making two circuit trace cuts and adding two jumper wires.

Estimated time required is 2.0 man-hours.

The modification parts are itemized in the material information paragraph. For information concerning parts, contact Collins Service Center, Rockwell International, 6001 Threadgill Avenue, El Paso, Texas 79924. Reference KWM-380/HF-380 Service Bulletin No 7 in all correspondence.

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This service bulletin references the KWM-380 Transceiver Service Manual, CPN 523-0769878, and HF-380 Transceiver Service Manual, CPN 523-0769880.

The next revision to the KWM-380 and HF-380 service manuals will include the changes covered by this service bulletin.

MODIFICATION PROCEDURE

CAUTION: STATIC SENSITIVE DEVICES ARE LOCATED ON CONTROL CARD A8. DO ALL WORK ON A CONDUCTIVE SURFACE SUCH AS TINFOIL.

- A. Turn off all power to the transceiver.
- B. Remove the dust cover by removing the four screws located adjacent to the four feet on the bottom of the transceiver.

NOTE: Refer to the KWM-380 service manual overall unit section, CPN 523-0770677, or HF-380 service manual overall unit section, CPN 523-0770689, for location of subassemblies and components. Figure and item numbers are in parentheses.

- C. Remove the card cage cover (7-5).
- D. Remove control card A8 (7-6) from the card cage.

NOTE: Refer to the control card A8 instructions, CPN 523-0770685, figure 5, located in the back of the KWM-380/HF-380 service manuals and to figure 1 of this bulletin while performing steps E through I. Refer to figure 2 while performing steps J and K. Figure 3 shows the changes in steps F through I schematically.

- E. Remove 100- μ H coils L1 through L9 and replace them with 560- μ H coils (240-2723-050).
- F. Cut the circuit trace from U9-2 to E1.
- G. Cut the circuit trace from U8-13 to E2.
- H. On the bottom of the card, install a jumper wire (422-2400-020) from E1 to U9-4.
- I. On the bottom of the card, install a jumper wire (422-2400-020) from E2 to U8-12.
- J. Install two cable clamps (150-0873-010) in the synthesizer compartment as shown in figure 2.
- K. Route the two cables on the back of the synthesizer assembly through the cable clamps and out the end of the card cage. This will hold the cables away from the circuit card components.
- L. Reassemble the transceiver in the reverse order of disassembly.

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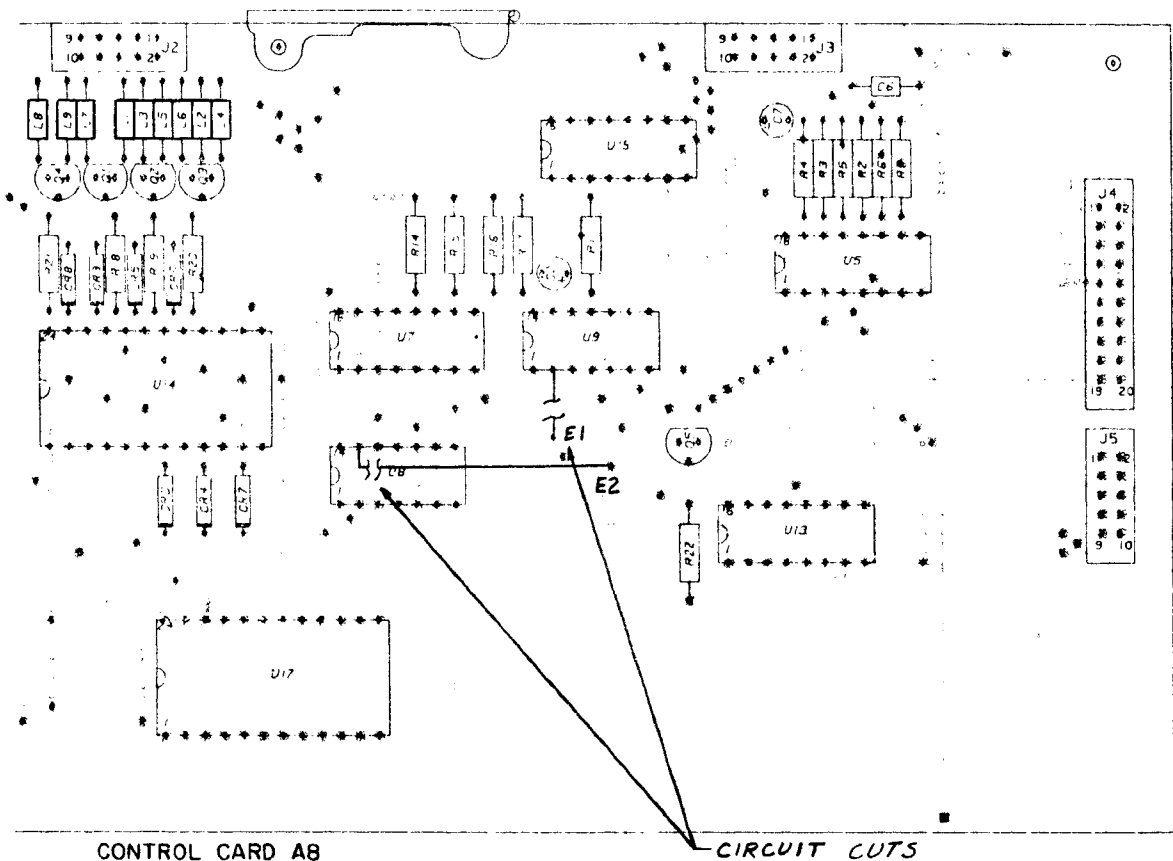
M. Mark SB 7 on the service bulletin information chart. If the transceiver does not have an information chart, install a chart (280-3778-010) near the nameplate.

MATERIAL INFORMATION

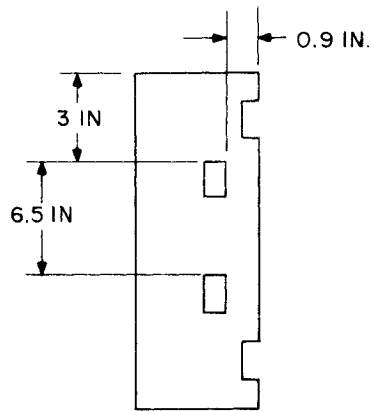
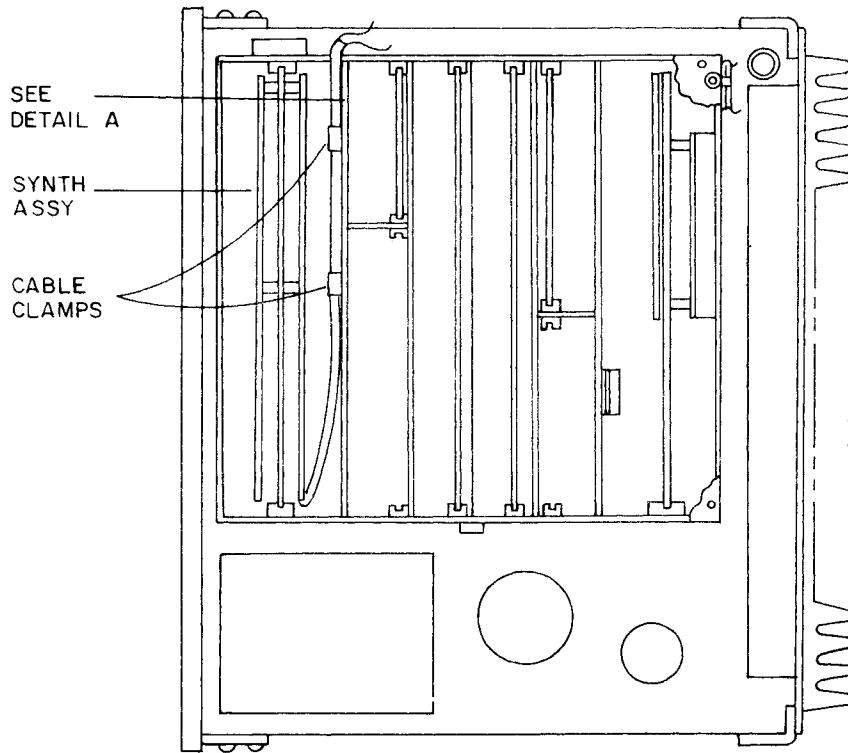
The parts listed below are required to modify one KWM-380 or one HF-380.

<u>COLLINS PART NUMBER</u>	<u>QTY</u>	<u>UNIT PRICE</u>	<u>DESCRIPTION</u>
240-2723-050	9		Coil, 560 μ H, L1 through L9
422-2400-020	150 mm (6 in)		Wire, #30 AWG
150-0873-010	2		Clamp, cable
*280-3778-010	1		Chart, information

*Order if needed.



P/O Control Card A8
Figure 1

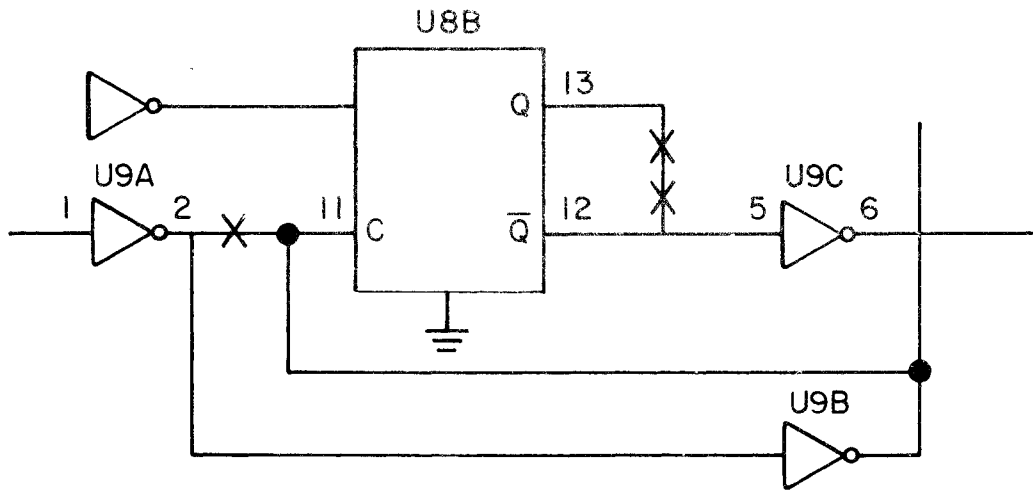


DETAIL A

KWM-380/HF-380 Transceiver, Cable Clamp Location
Figure 2

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P/O Control Cable A8, Schematic Diagram
Figure 3