

15 April 1974

FROM: Amateur Products Management, Cedar Rapids, Iowa 52406

KWM-2/2A TRANSCEIVERS (522-1611-000, 522-1792-000)

## SERVICE BULLETIN NO 10

SUBJECT: Eliminate vhf parasitic oscillations in tone oscillator, V2B

This modification applies to KWM-2 (522-1611-000) and KWM-2A (522-1792-000) Transceivers, serial numbers 39093 and below, except for the following: 39014, 39017, 39073, 39079, 39082, 39083, 39086, 39087, 39089, and 39091.

The subject capability has been incorporated in KWM-2/2A production units having serial numbers 39014, 39017, 39073, 39079, 39082, 39083, 39086, 39087, 39089, 39091, 39094, and above.

Some units may have an audible 1000-Hz tone in CW mode with the key open. This is caused by vhf parasitic oscillations modulating the tone oscillator.

A 47-ohm resistor is added in series with the screen grid of tone oscillator V2B to act as a parasitic suppressor.

Estimated time to perform this modification is 0.5 man-hour.

The parts necessary to modify one KWM-2/2A are available within 30 days after receipt of order at a price of \$0.41. (Minimum order charge is \$25.00; price subject to change without notice.) The parts may be obtained from Collins Radio Company, Service Parts Department, Cedar Rapids, Iowa 52406. All orders should specify the Collins part numbers and reference this service bulletin.

The KWM-2 and KWM-2A Transceivers Instruction Book (523-0176000), 9th edition, will include the changes covered by this modification.

## MODIFICATION PROCEDURE

- a. Remove transceiver from cabinet as follows:
  - 1. Remove all four feet and the screw that is midway between the feet.
  - 2. Turn transceiver right side up, lift lid, and remove the two bright-plated screws in the style-frame under the lid.
  - 3. Carefully slide the chassis forward and set the cabinet aside.
- b. Note the locations of vacuum tube V2 as the changes will be made on the bottom side, opposite V2. Turn chassis over.



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c. Refer to figure 1 and perform the following:

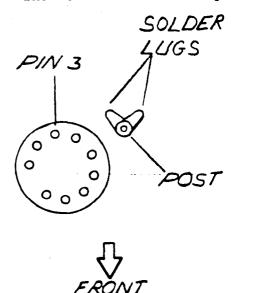
- 1. Locate and disconnect the 0.1- $\mu$ F capacitor, C49, and the 100- $k\Omega$  resistor, R49, from pin V2-3 (leave other ends connected).
- 2. Remove and discard hardware securing solder lugs (near V2) to chassis.
- 3. Install new post (306-0977-000) on top of two solder lugs by V2, using new screw (343-0286-000).
- 4. Connect one end of new 47-ohm resistor (745-1296-000), R215, to pin V2-3 and other end to new post.
- 5. Connect R49 and C49 leads (disconnected in step c.1) to new post.
- d. Reassemble cabinet.
- e. Check transceiver for proper operation and verify that no audible tone exists in CW mode with the key open.
- f. Enter SB 10 on the information chart (280-3778-010); apply chart to convenient location on unit if one is not present.

## MATERIAL INFORMATION

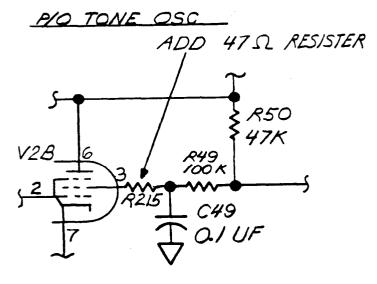
The parts necessary to modify one KWM-2/2A are itemized below:

NEW COLLINS PART NUMBER	QTY	UNIT PRICE	DESCRIPTION	COLLINS PART NUMBER	INSTRUCTIONS -DISPOSITION
306-0977-000 343-0286-000 745-1296-000 *280-3778-010	1 1 1	\$0.25	Post Screw Resistor, 47 ohms, R215 Information chart		

<sup>\*</sup>The information chart is optional, and should be installed if the unit does not have one.



V2 Socket, Bottom View Figure 1



Partial Schematic Figure 2