



SERVICE BULLETIN

EQUIPMENT SERIES: 75S

BULLETIN NO. 2

DATE 5-10-62

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EQUIPMENT TYPE: RECEIVER 75S-3, 75S-3A

SUBJECT: TO MINIMIZE BACKGROUND HUM LEVEL

The background hum of the 75S-3 Receiver, in normal operation, is extremely low. However, when using headphones or when operating in a room with low ambient noise, the background hum may become noticeable. This can be decreased by the installation of the following modification.

This modification should be installed only to minimize background hum level and not merely to update the receiver.

MODIFICATION PROCEDURE:

1. Remove four feet and Phillips-head screw centered between rear feet of receiver.
2. Turn unit to operating position, open top lid, and remove the two bright Phillips-head screws in top panel rim.
3. Gently slide unit out of cabinet and place bottom-side up with front panel toward operator.
4. Locate the dual AF/RF GAIN control on the right side of panel. Cut the ground lug loose, that is mounted behind this control, both at the panel and at the coax shielding. Dress leads so that they will not be damaged when unit is replaced to cabinet.
5. From terminal strip TB8, located between power transformer T8 and center shield can which houses tuning coil L18, remove and discard 22K, 1/2-watt resistor R54 from terminals 1 and 3 (ground).
6. Locate terminal strip TB4, between left edge of chassis and tube socket XV8, and remove 1.2K, 1/2-watt resistor R25 from XV8 pin 9 and terminal 3 of TB4 (ground).
7. Remove 3.3K, 1/2-watt resistor R26, from XV8 pin 8 and terminal 3 of TB4 (ground).
8. Drill 3/32-inch diameter hole 1/2-inch from edge of chassis in vacant area near transformer T6.

CAUTION: Use center punch to locate position of hole and drill from bottom of chassis. Avoid scattering chips in unit and be careful not to damage wires.

9. Install new standoff terminal (306-0977-00) using 4-40 x 1/4-inch machine screw (343-0285-00), and no. 4 lock washer (310-0396-00).
10. Connect one end of green wire (439-7069-00) to newly installed standoff, feed wire under crystals at end of band switch, and connect to TB8 terminal 1. (See step 5.)
11. Install new 5.6K, 1/2-watt resistor R25 (745-1384-00) between tube socket XV8 pin 9 and terminal 3 on TB4 (ground) adjacent to XV8. At the same time, install new 220-uuf, 500-volt capacitor C33 (912-2841-00) between same two points (in parallel to R25).
12. Install new 15K, 1/2-watt resistor R54 (745-1401-00) from XV8 pin 9 to new standoff terminal.
13. Install new 1000-pf, 500-volt capacitor C34 (913-3009-00) between XV8 pin 8 and terminal 3 on TB4 (ground). At the same time, install new choke L16 (240-0193-00) between same two points (in parallel to C34). These two parts should be mounted together about 3/8-inch above tube socket pins and away from adjacent parts as much as possible.
14. Install 8-uf, 25 volt capacitor C29 (183-1167-00) between newly installed standoff and terminal 3 on TB4 (ground) adjacent to tube socket XV8.

CAUTION: Observe polarity. In this modification the positive end of capacitor C29 must be grounded.

15. Place unit in upright position.
16. This completes the modification and the receiver may be reinstalled to cabinet. Check for protruding wires at AF/RF GAIN control.

PARTS REQUIRED:

Modification kit 549-5427-00 which consists of the following parts:

<u>Qty</u>	<u>Description</u>	<u>Collins Part Number</u>	
1	Capacitor, 8 uf, 25V Electrolytic	C29	183-1167-00
1	Capacitor, 220 uuf, 500V Mica	C33	912-2841-00
1	Capacitor, 1000 uuf, 500V Ceramic	C34	913-3009-00
1	Resistor, 5600 ohm, 1/2 watt, Carbon	R25	745-1384-00
1	Resistor, 15,000 ohm, 1/2 watt, Carbon	R54	745-1401-00
1	Choke, 100 uh r-f	L16	240-0193-00
1	Machine screw, 4-40 x 1/4-inch		343-0285-00
1	Lock washer #4		310-0396-00
1	Standoff terminal 4-40 x 1/2-inch		306-0977-00
1.0 (ft)	Wire, electric #22 AWG, green, 600 volt insulated		439-7069-00

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For modification parts, price quotations (minimum order charge is \$15.00), and availability contact Collins Radio Company, Service Parts Department, Cedar Rapids, Iowa 52406. All parts orders must specify the Collins modification kit number, or part numbers, quantity required, and reference this service bulletin.