



publications engineering

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# SERVICE BULLETIN

COLLINS RADIO COMPANY

Cedar Rapids, Iowa 52406

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## COMMUNICATIONS

### 30S-1 RF LINEAR AMPLIFIER

#### SERVICE BULLETIN NO 2

#### PREVENT INTERMITTENT DROPOUT OF PLATE OVERLOAD RELAY

Some 30S-1 operators experience occasional dropout of plate overload relay K204, caused by short duration high plate currents. These currents sometimes occur after application of signal but before the exciter output is reduced by the alc circuits. A 2000- $\mu$ F, 6-volt dc capacitor installed across the energizing coil of the relay presents a low-impedance path to the audio envelope currents, but continues to provide dc overload protection. The instantaneous currents are not harmful to the 6CX1000A tube because of conservative tube operation.

The estimated time to perform this modification is 30 minutes.

The 10th edition of the 30S-1 RF Linear Amplifier Instruction Book, Collins part number 520-5879000, includes the modification covered by this service bulletin.

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.

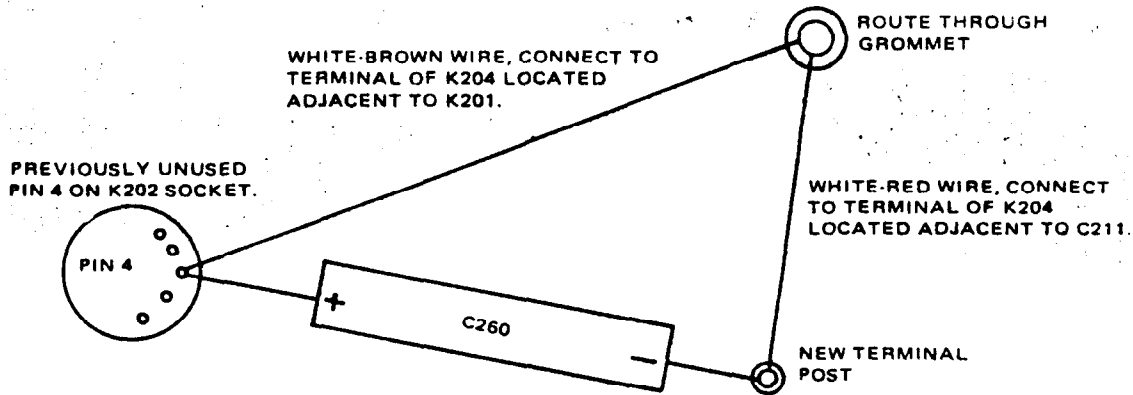
To determine if this modification is installed, check for the presence of the tubular electrolytic capacitor visible at the left front underside of the relay shelf.

#### MODIFICATION PROCEDURE

1. Remove all power to unit and remove relay shelf and position it in a manner to gain access to lower side of shelf. Locate K202 socket and K204 mounting nut on the underside of the relay shelf, and remove mounting nut.
2. Install terminal post (306-0978-000) in place of removed K204 mounting nut.



3. Install 2000- $\mu$ F capacitor C260 (183-1311-000) and approximate 10-inch lengths of white-brown (439-7302-000) and white-red (439-7303-000) wires as shown in the illustration.



**30S-1 Relay Shelf, Underside, Modification Instructions**

Reassemble relay shelf removed in step 1, and check the unit for proper operation.

5. Mark SB 2 on information chart 280-3778-010 and apply chart to an appropriate location on outside of unit if it is your wish to identify the unit as modified.

**PARTS REQUIRED**

<u>COLLINS PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
183-1311-000	1	Capacitor, 2000- $\mu$ F, 6 Vdc, electrolytic (C260)
306-0978-000	1	Terminal, 6-32 x 5/8, insulated
439-7302-000	1.0 ft	Wire, AWG #22, white-brown, Teflon
439-7303-000	1.0 ft	Wire, AWG #22, white-red, Teflon
280-3778-010	1	Chart, information