



publications engineering

SERVICE BULLETIN

COLLINS RADIO COMPANY

Cedar Rapids, Iowa 52406

MASTER COPY

EQUIPMENT TYPE 32S-1

BULLETIN NO. 1

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SUBJECT: Improve VOX Operation

Field use of the 32S-1 Transmitter has indicated that the VOX circuit was too sensitive to extraneous room noise for some operators. Operation of the VOX circuit varies greatly with the type microphone used and the operator. A modification has been made to this VOX circuit to roll off the high frequencies and to increase the hold-in time of the VOX relay. This modification may be performed on transmitters in the event that the user is having difficulty with VOX operation. Units above serial number 1475 will have all modifications incorporated; serial numbers below this may have some of the modifications.

The addition of C179 and C180 will roll off the high frequency response of the VOX circuit. Voice power is centered in the lower frequency range, and sensitivity to the desired voice signal will not be affected, however a considerable reduction in response to room noise will occur.

The addition of a 2 mh choke, L28, eliminates a switching transient which causes VOX instability.

The revision of C118 to .1 uf from its present value of .01 uf will result in improved break in operation on CW.

The capacity change of C119 will increase the hold-in time of the VOX relay.

It is recommended that these modifications be made only if trouble is being encountered with the VOX operation.

MODIFICATION PROCEDURES:

1. Lift cover of unit.
2. Remove two screws on top of unit. Retain.
3. Remove four legs on bottom of unit. Retain.
4. Slide out chassis.
5. Locate C119 (.01 uf) capacitor between pin 5 of V10 and VOX relay contact. Remove and discard. Replace C119 with a .022 uf capacitor (931 0291 00).
6. Locate C118 (.01 uf) capacitor between pin 1 of V14 and pin 2 of V10. Remove and discard. Replace C118 with a .1 uf capacitor (913 3152 00).
7. Add a .0047 uf capacitor (913 3012 00) C179, from pin 1 of V14 to ground lug.
8. Add a 100 uuf capacitor (912 2817 00) C180, from pin 2 of V14 to ground lug.
9. Add a 2 mh RF choke (240 0084 00), L28, from tie point on terminal strip, directly in front of CARRIER BAL pot which is junction of .01 uf capacitor and BFO test coax, to convenient ground lug.
10. Slide chassis back in unit.
11. Replace 4 legs and associated hardware.
12. Replace 2 screws on top of unit.

PARTS REQUIRED:

Qty.	Description	Circuit Symbol	Collins Part Number
1	Capacitor, .022 uf 400V ±10%	C119	931 0291 00
1	Capacitor, .0047 uf 500V ±20%	C179	913 3012 00
1	Capacitor, 100 uuf 500V ±10%	C180	912 2817 00
1	Choke RF 2 mh	L28	240 0084 00
1	Capacitor, .1 mf 400V	C118	913 3152 00

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.