



EQUIPMENT SERIES: 32S

BULLETIN NO. 3

DATE 8-8-60

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(1st Revision 10-1-60)

EQUIPMENT TYPE: 32S-1, 32S-2

SUBJECT: ADD VOX RELAY TIME CONSTANT CONTROL.

NOTE: This revision supersedes and replaces  
32S Service Bulletin 3 dated 8-8-60. Changes  
are indicated by black lines in margin.

Modifying Transmitters 32S-1/2 according to this bulletin will allow the time constant of the vox control relay to be adjusted. Adjusting the time constant will enable the operator to obtain a more uniform operation of the relay by compensating for variations in microphone and voice characteristics. Increasing the time constant will increase the time between the last spoken word or keyed character and the release of the relay; decreasing it will have converse effects.

**MODIFICATION PROCEDURE:**

Refer to figure 1 for circuit changes.

1. Remove feet from cabinet.
2. Lift lid and remove the two unpainted screws from top rim of front panel.
3. Slide unit out of cabinet.
4. Remove and discard 10-megohm resistor R86 connected between V11, pin 9 and ground. Refer to figure 2.
5. Remove and discard 0.022-uf capacitor C119 connected between V10, pin 5 and vox relay K1. Replace with 0.047-uf capacitor (931-0295-00). Use sleeving (152-1613-00) on leads. Refer to figure 2.
6. Solder an 18-inch length of wire (439-7036-00) to V10, pin 7 and another 18-inch length to V10, pin 5. Lay wires along chassis and through cable grommet hole (in corner near front panel) to the top of the chassis.
7. With unit in upright position, remove VOX GAIN control knob and mounting hardware. Do not unsolder.
8. Mount new VOX TIME CONSTANT control (376-7206-00) in bracket (546-7972-002) using the knob and hardware included in kit.

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9. Place VOX TIME CONSTANT control bracket over the shaft of the VOX GAIN control and insert VOX GAIN control in its original position. Tighten mounting hardware. Refer to figure 3.
10. Solder one of the 18-inch wires to center terminal of VOX TIME CONSTANT control.
11. Solder remaining 18-inch wire to the counterclockwise (viewed from shaft end) terminal of VOX TIME CONSTANT control as shown in figure 3.
12. Reassemble unit.

ADJUSTMENT PROCEDURE:

1. To set control, place VOX TIME CONSTANT control to midrange (approximately) and the VOX and ANTI-VOX controls fully counterclockwise.
2. Speak into the microphone and advance the VOX GAIN until satisfactory vox action is attained. Continuing to speak into the microphone, rotate the VOX TIME CONSTANT control in either direction to achieve the desired release delay.
3. As the control is rotated counterclockwise to shorten release time, there will be some reduction in vox sensitivity. It may be necessary to advance the VOX GAIN control.
4. Set the ANTI-VOX control as covered in 32S-1 or 32S-2 instruction books.

PARTS REQUIRED:

Modification Kit 546-7968-00 which consists of: \* Price \$3.50

QTY	DESCRIPTION	COLLINS PART NUMBER
1	Mounting Bracket, Resistor	546-7972-002
1	Resistor, Variable - 10 meg	376-7206-00
1	Capacitor, 0.047 uf $\pm$ 10% - Fixed paper dielectric	931-0295-00
1	Nut, Plain Hex - 3/8-32	313-0061-00
1	Washer, Lock - 3/8	373-0085-00
1	Knob	281-0069-00
3 (ft)	Wire, no. 22 electrical, white-green	439-7036-00
0.3 (ft)	Insulation Sleeving, electrical	152-1613-00

The above kit may be obtained from Collins Radio Company, Service Parts Department, Cedar Rapids, Iowa, at the price indicated. All orders should specify modification kit 546-7968-00 and make reference to 32S Bulletin No. 3. Shipments of this kit will begin October 15, 1960.

\* Original bulletin showed incorrect price of \$9.25. Refunds will be made of monies received over this amount. Orders received but not yet shipped will be billed at the corrected price.

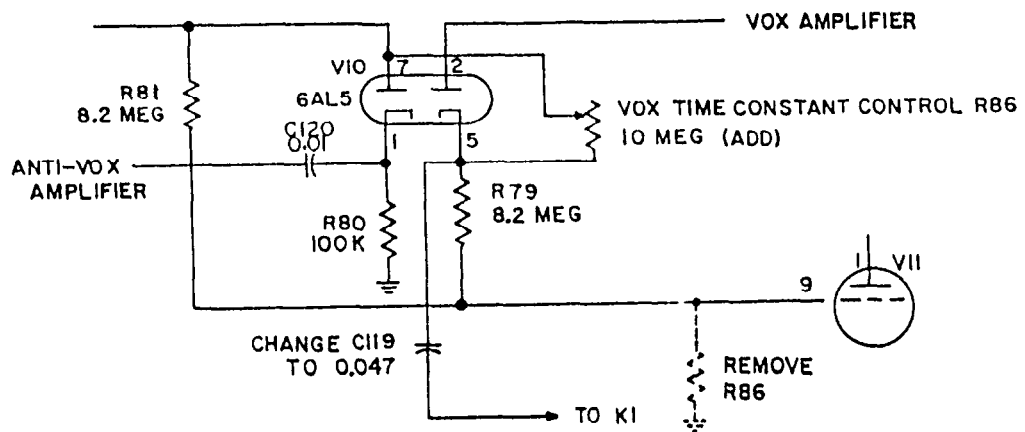


Figure 1. 32S-1/2 VOX Time Control Circuit Changes

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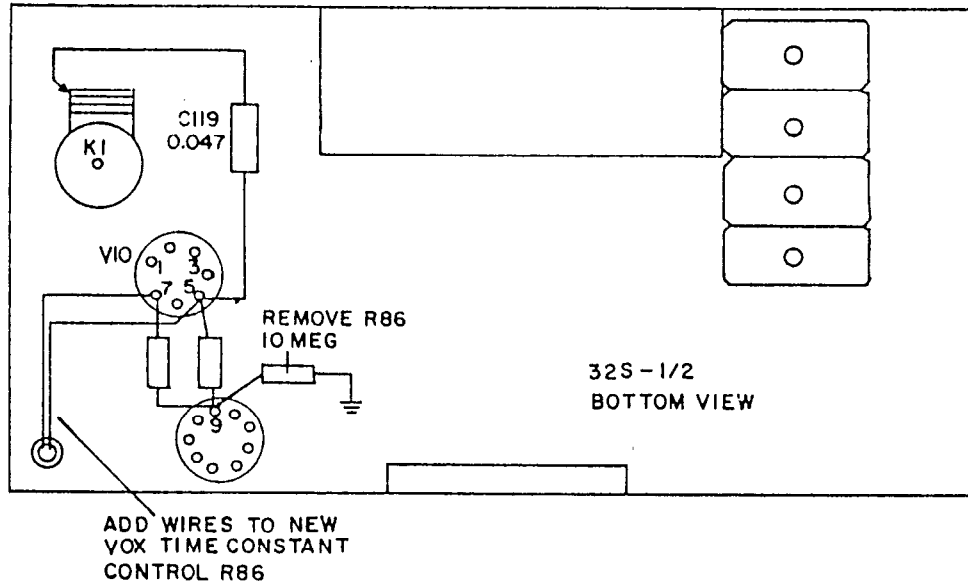


Figure 2. Parts Location - After Modification

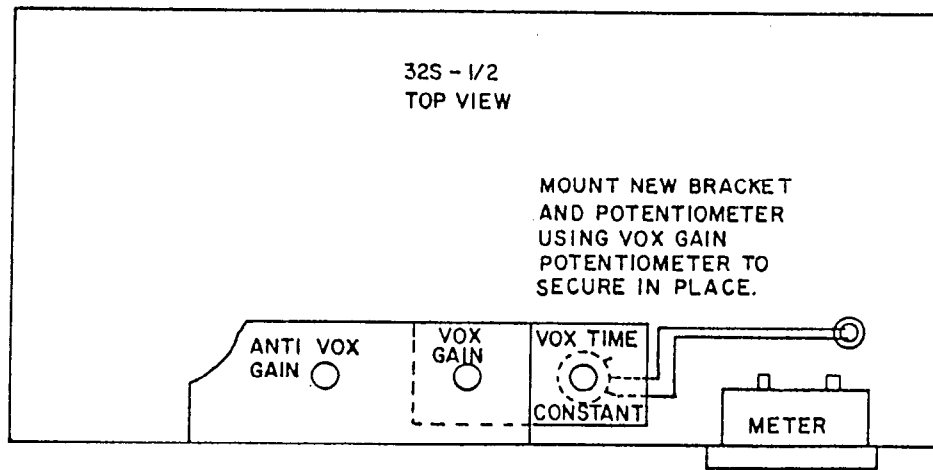


Figure 3. Mounting VOX Time Constant Control