

for
Tubester Sets 32S-3

The transmitter will operate fine with only one Tubester replacing a tube, or with any mix of Tubesters and tubes. They may be exchanged in any order, and no precautions need be observed in operating the transmitter after the Tubesters are installed. However, THE HIGH VOLTAGES ARE DANGEROUS. Make doubly sure that the power is turned off before installing or removing a Tubester, and that it is installed only in the proper socket.

These instructions describe installing the Tubesters in three groups rather than all at once, and checking the transmitter operation and adjustments at each step. This will simplify locating any malfunction or adjustment errors should they occur. The Tubester Sets are sub-packaged to facilitate this procedure.

Prior to Tubester installation, assure that the transmitter operates normally, then turn the power OFF.

PACKAGE 1:

1. Replace the tubes with the Tubesters from Package 1. Placing the color dots on the chassis near the tube markings will be helpful in proper socket installation:

| <u>Dot Color</u> | <u>Tubester Type</u> | <u>Replaces</u> | <u>At</u> |
|------------------|----------------------|-----------------|-----------|
| Green | ST301 | (6U8A or 6EA8) | V1 |
| Orange | ST310 | (6AL5) | V10 |
| Red | ST311 | (6U8A or 6EA8) | V11 |
| Brown | ST314 | (12AT7) | V14 |

2. Turn on the transmitter. The Vox Relay may actuate momentarily as the high voltage comes up. Check transmitter operation in all modes. The Vox Gain, Anti-Vox Gain and Vox Time Constant settings may need slight adjustment to get your preferred VOX characteristics. The CW Sidetone Adjust (located below and just to the left of the meter) may need increasing for CW monitoring. No other adjustments are affected. Turn power OFF.

Package 2:

1. Replace the tubes with the Tubesters from Package 2:

| <u>Dot Color</u> | <u>Tubester Type</u> | <u>Replaces</u> | <u>At</u> |
|------------------|----------------------|-----------------|-------------------------------------------------------------------------------|
| Lt. Blue | ST302B | (6U8A or 6EA8) | V2 (Replace tube shield over ST302B). |
| White | ST303 | (6DG6 or 6CB6) | V3 Note: If the DX Engineering Speech Processor is used, install ST303 in it. |
| Yellow | ST304 | (12AT7) | V4 |
| Gold | ST315 | (6AU6 or 7543) | V301 |

2. Before turning power on, turn the ALC ZERO potentiometer (located just to the rear of V2) to its maximum resistance position, fully "clockwise".
3. Turn the transmitter on. Operation should be normal. Make two adjustments:
 - a. With RF Gain at minimum, actuate PTT, switch Meter to ALC, and set the meter to zero by adjusting the ALC ZERO potentiometer.
 - b. Set the Dial Pointer by monitoring SYNC mode in the receiver.
4. Assure that the transmitter operation is normal, then turn transmitter OFF.