

DATE 3-15-61
SH. 1 OF 5
COMPILED BY AB

TMC SPECIFICATION NO. S-553

TITLE: 40K INSTALLATION PROCEDURE

JOB

APPROVED AB

A. INSTALLATION OF THE FINAL P.A. TUBE (ML-6697)

Reference ID-249-250-251.

The following is a step-by-step detail complete with 3 drawings, Figures 4,5 and 6, for the installation of the FINAL P.A. TUBE ML-6697. Carefully unpack Case - - - - which contains ML-6697. Remove excess packing material, tape etc. from the tube. Inspect packing material for any loose items which it may contain. Set tube aside until called for in step 8 of these instructions.

The following steps are performed from the rear of the transmitter in the top compartment of the second frame from the left facing the rear of the transmitter.

1. Remove and retain the two 10-32 screws which hold the TUBE BASE STRAP around the AIR DUCT TUBE BASE.
2. Remove SPRING CLIPS at the base of the AIR DUCT TUBE BASE.
3. Lift up and remove the AIR DUCT TUBE BASE from the transmitter.
4. Remove and retain screws, nuts and lockwashers which hold front section of GRID SCREEN in place.
5. Remove and retain front section of GRID SCREEN.
6. Place AIR DUCT TUBE BASE on table which is strong enough to support at least 100 pounds.
7. Remove six SPRING CONNECTORS and six L shaped ANODE CONNECTORS from top of the AIR DUCT TUBE BASE.

NOTE: The AIR DUCT TUBE BASE is now ready to receive the FINAL TUBE.

8. Holding FINAL TUBE with glass section up, slip tube very carefully into AIR DUCT TUBE BASE.
9. Replace six SPRING CONNECTORS and six ANODE CONNECTORS at top of AIR DUCT TUBE BASE.

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NOTE: Due to tube manufacturers height tolerances, the ANODE CONNECTORS may have to be bent down slightly to make firm contact with FINAL TUBE.

10.. Using extreme caution replace FINAL TUBE and AIR DUCT TUBE BASE in the transmitter.

NOTE: CAPACITOR STRAP at bottom of AIR DUCT TUBE BASE must be in position shown in Figure 6.

11.. Slip CAPACITOR C7326 into CAPACITOR SOCKET as shown in Figure 6.

12. Slip CAPACITOR STRAP over top end of CAPACITOR C7326 as shown in Figure 6.

13. Tighten top and bottom clamps to secure CAPACITOE C7326.

14. Replace 10-32 screws in TUBE BASE STRAP and tighten to secure AIR DUCT TUBE BASE.

15. Replace SPRING CLIPS at bottom of AIR DUCT TUBE BASE.

16. Place FILAMENT RINGS (furnished) over top of FINAL TUBE as shown in Figure 6.

17. Tighten allen screws in FILAMENT RINGS for snug fit.

NOTE: Due to possible damage to the FINAL TUBE, the FILAMENT RINGS must not be too tight, Consider snug fit to mean that FILAMENT RINGS cannot be slipped off by hand.

18. Loosen GRID RING as much as possible.

19. Replace front section of GRID SCREEN.

NOTE: Before fastening GRID SCREEN in place, make sure GRID CONNECTORS are under GRID RING as shown in Figure 6.

20. Replace and tighten all GRID SCREEN hardware.

The FINAL TUBE is now ready for electrical testing.

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B. INSTALLATION OF BANDSWITCH ASSEMBLY.

Reference ID-252.

The following is a step-by-step detail complete with Figure 7 for the installation of the BANDSWITCH ASSEMBLY.

1. Remove BANDSWITCH ASSEMBLY from Case - - - -. Remove excess packing material, tape, etc. from the assembly. Loose hardware will be found in a bag attached to the assembly.

The BAND MCS switch on the front panel of the transmitter and the BANDSWITCH ASSEMBLY were set at 19 - 24 mcs before disassembly. (See Figure 7 for correct placement of BANDSWITCH rotor, keyway alignment and front panel setting of BAND MCS switch). In the event that the BANDSWITCH rotor and the front panel reading do not agree, it becomes necessary to make them do so. Since it is impossible to change the position of the rotor. See Figure 7 for details of how to defeat the bandswitch stop mechanism so that the BAND MCS front panel setting may be varied to match the BANDSWITCH ASSEMBLY rotor setting.

2. Remove all packing material, tape, loose hardware etc. from the P.A. compartment of the transmitter.
3. Place BANDSWITCH ASSEMBLY in the transmitter as per position shown in Figure 7.

Keyway in rotor shaft and bottom hub must line up for assembly.

Bottom mounting screws for legs are part of the P.A. compartment.

Align BANDSWITCH ASSEMBLY leg supports to fit screws.

4. Connect LOAD CAPACITOR STRAP using the two 1/4-20 bolts supplied. See Figure 7 for position of strap. Screws must be very tight for firm connection.

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5. Connect HF COIL to MAIN COIL using two long 1/4-20 bolts which are on one leg of the BANDSWITCH ASSEMBLY. Check other end of connecting strap (in tube compartment) for tight connection.
6. Connect H.F. "L" section loop to C7325 at top of compartment. See Figure 7.
7. Tighten all screws at base of BANDSWITCH ASSEMBLY legs to secure assembly to transmitter.
8. Using hardware supplied, fasten fiberglass AIR DUCT (furnished) to side of tube compartment and base of P.A. compartment. See Figure 7.

C. INSTALLATION OF VACUUM CAPACITORS C7301, 7302, 7303, and 7328.

The following is a step-by-step detail for the installation of the above mentioned capacitors. Refer, as required, to Figure 4-5-6, Page 4-5-11 of NAVSHIPS 93617 Instruction Manual for positioning of the capacitors and allied parts.

1. Remove vacuum capacitors C7301, 7302, 7303 and 7328 from packing Case 28. Remove excess packing from capacitors.
2. Turn capacitor adjustment shafts so that capacitors are at minimum capacity. (Plates completely open).
3. Set front panel TUNE and LOAD counters to 000.

Refer to Figure 4-5-6, Page 4-5-11 of NAVSHIPS 93167 for positioning of capacitors.

4. Insert C7301 into clamping ring. Mesh gears so that capacitor turns smoothly. Tighten clamping ring to secure bottom of capacitor.

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5. Insert C7302 into clamping ring. Feed drive chain over sprocket.

Do not tighten clamping ring at this time.

6. Insert C7303 into clamping ring. Feed drive chain over sprocket.

Check for smooth operation of C7302 and 7303. Tighten both bottom clamping rings.

NOTE: A slight up and down movement of the capacitors may be necessary to assure smooth operation.

7. Place metal plate, with attached top clamping rings, over the tops of the capacitors. (See figure). Do not secure the plate at this time.

8. Install C7328 in clamping ring which is in place on the wall of the final tube compartment. Do not tighten clamping ring at this time.

9. Secure bracket and capacitor clamping ring to capacitor as shown in Figure mentioned above.

10. Using hardware furnished, fasten bracket to metal plate which is resting on tops of other capacitors.

11. Adjust height of plate so that C7328 is level and is not under strain.

12. Tighten front and rear clamping rings of C7328. Tighten top clamping rings of other capacitors.

13. Install L7312 as per Figure mentioned above.