TMC SPECIFICATION			NO. 1357
REV:			
COMPILED:	CHECKED:	APPD:	SHEET 1 OF 6
TITLE: INSTALLATION INSTRUCTIONS FOR KIT 395			

INSTALLATION INSTRUCTIONS

for

KIT 395

1. EQUIPMENT AFFECTED

TMC Models HFTM-10KJ and HFTM-10KJS

2. SCOPE

KIT395 provides the materials and instructions for removal of the motor-drive assemblies for the tune and load capacitors and for their replacement with manual tuning assemblies, complete with counter readouts.

3. PURPOSE

The KIT395 counter readouts on the manual tune and load capacitor assemblies allow accurate tuning charts to be established for the transmitter. Once established, the tuning charts will provide the references for presetting tune and load controls, even in a transmitter power-off condition. In an on-the-air condition, only slight fine tuning adjustments will be required, compensating for VSWR changes when different antennas are patched to the transmitter.

The reliability of the transmitter is greatly increased with the installation of KIT395. Motor failure is eliminated. Transmitter mistuning is greatly reduced, thus minimizing overdissipation of tubes and increasing component lifespan.

4. MATERIAL SUPPLIED

ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	BB101	Bearing
2	2	BB106-1	Bearing
3	2	BB117	Bearing
4	2	BB118-3	Bearing
5	1	CA17	Cable Assembly
6	2	CY107-1	Counter, Rotating
7	6	GR116	Gear
8	2	GR139	Gear
9	2	HA111	Handle
10	1	LD2518/MS6360	Front Panel
11	12	LWE06MRN	Lock Washer
12	10	LWE08MRN	Lock Washer
13	1	MC102	Coupling
14	2	MC131	Coupling
15	2	MP134	Knob
16	2	MS5236	Knob Crank
17	1	MS5526	Cover, Load Cap. Chassis
18	1	MS5606	Cover, Tune Cap. Chassis
19	1	MS6361	Bearing Plate
20	1	MS6362	Bearing Plate
21	2	MS6363	Bearing Plate
22	2	MS6364	Bearing Plate
23	8	NTH0632BN8	Nut
24	2	PM316	Collar
25	2	PM691FD6.000S	Shaft

ITEM	QTY	PART NUMBER	DESCRIPTION
26	1	PM691FD11.250S	Shaft
27	1	PM691FD15.3125	Shaft
28	1	PM691FS7.000S	Shaft, Load Cap.
29	1	PM691FS8.000S	Shaft, Tune Cap.
30	12	SCBP0632BN8	Machine Screw
31	10	SCBP0832BN7	Machine Screw
32	32	SLHC0832SP2	Set Screw
33	1	TP113R-3/4	Chassis Hole Punch
34	1	WR100-4	Allen wrench

5. PROCEDURE

1. Remove all power from transmitter.
2. Remove right side cover and RF shield from transmitter frame.
3. Remove metal shield located immediately behind the P.A. compartment main control panel.
4. Remove A4791 (Bandswitch position indicator lamp assembly.
5. Identify, mark and unsolder all other wires from the rear of the main control panel.
6. Remove the tune and load capacitor assemblies.
7. Remove motor, motor control printed circuit board and capacitor shaft from both capacitor assemblies.
8. Drill two 13/16 inch holes on both sides of the capacitor mounting bracket assembly. See figure 1 for exact location.

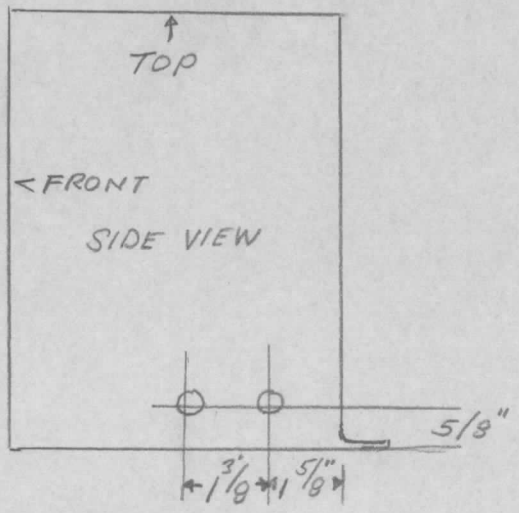
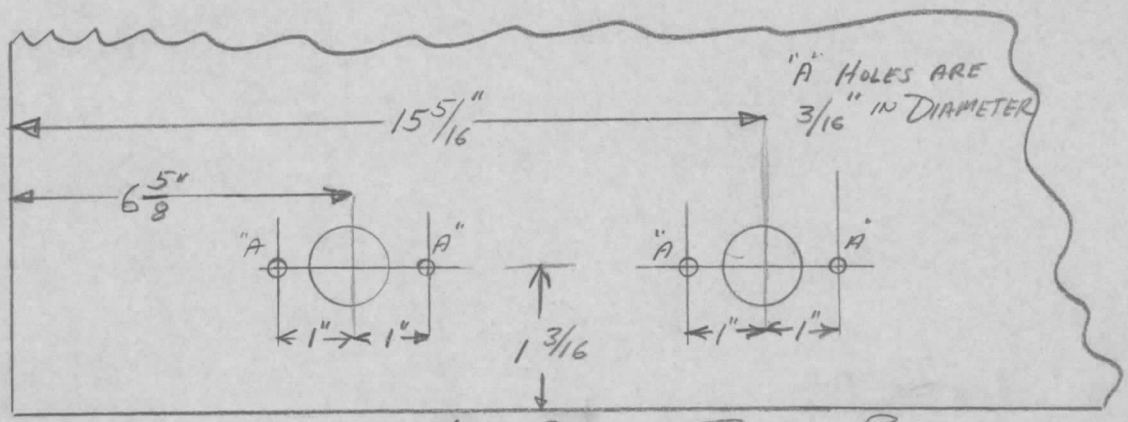


FIGURE 1

9. Locate and make six holes in the Main Control Panel Shield as shown in Figure 2 using a drill and the chassis punch that is provided with this kit.



REAR VIEW OF MAIN CONTROL PANEL SHIELD

FIGURE 2

10. Mount the two counters (item 6) and the two bearing plates (item 21) on the new front panel (item 10) using (items 11, 23 and 30) hardware.

11. Assemble both control knob, shafts and gears as shown in figure 3.

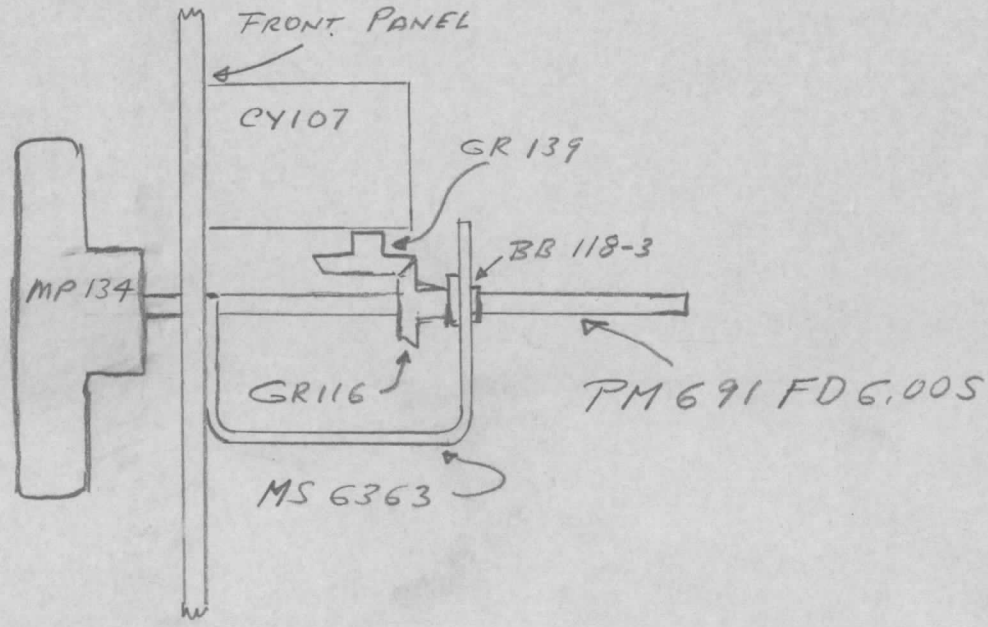


FIGURE 3

12. Remove the old control panel from the transmitter and relocate all switches (except the TUNE & LOAD toggle switches) and lamps on to the new front panel (item (10).

13. Install the new front panel on the transmitter and reconnect all of the wires previously disconnected in step 5, except those wires that were connected to the TUNE and LOAD switches. These wires should be cut back so that no bare wire is exposed and then taped to the wiring harness.

14. Mount the two bearing plates (item 22) on inner surface of the main control panel shield using item 23 hardware.

15. Reinstall the main control panel shield and fasten one half of the shaft coupling (item 14) on the ends of the control shafts.

16. Attach the load capacitor shaft (item 28) on to the end of the load capacitor using the rigid coupling (item 13) and (item 32) set screws.

17. Assemble the bearing plate gears and long shaft as shown in figure 4.

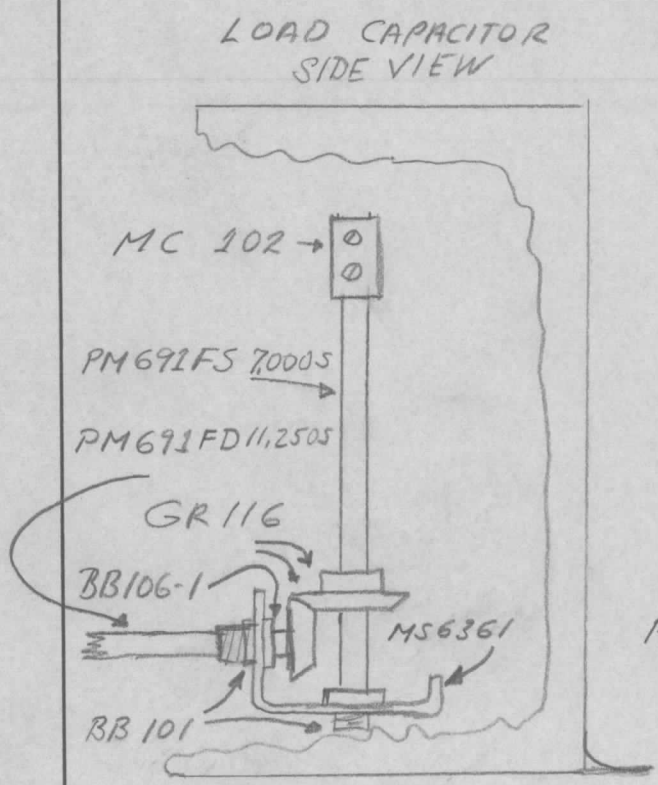


FIGURE 4

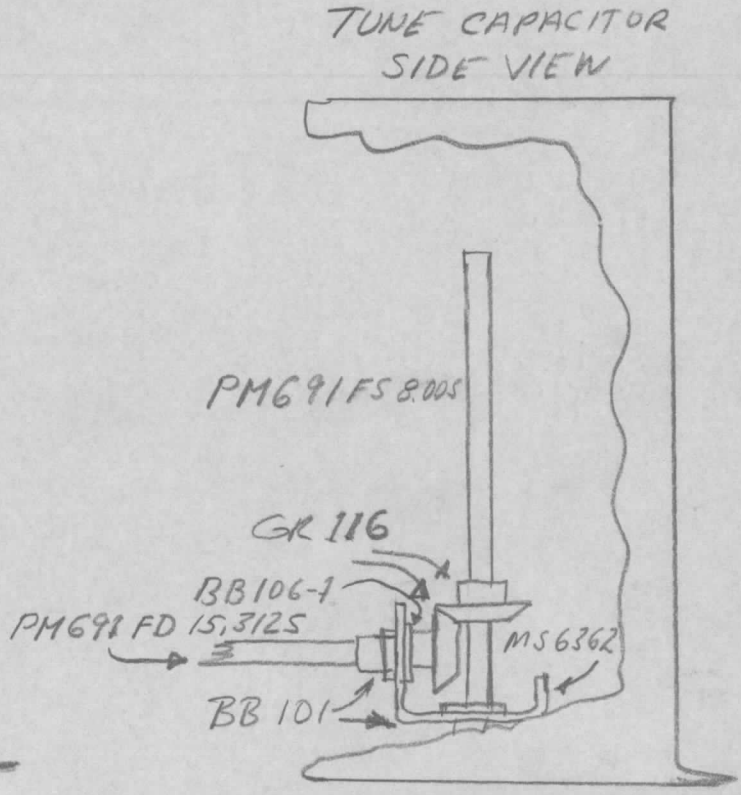


FIGURE 5

18. Assemble the TUNE capacitor assembly as shown in figure 5. and reinstall in the transmitter.

19. Reinstall the LOAD capacitor assembly in the transmitter.

20. To align the counters with the capacitors, loosen one section of shaft couplings rotate each counter to 000. Rotate the long shafts of the capacitor assemblies in a clockwise direction towards minimum capacity. Minimum capacity on the TUNE capacitor is reached when the shaft can not be rotated anymore in the clockwise direction. Minimum capacity on the LOAD capacitor is reached when the lower plate has withdrawn from the upper plate by 1/8 inch. Rotate both of the long shafts ½ turn counter-clockwise and tighten the couplings.

NOTE: This completes the modification of the transmitter.