MOTOROLA

MOTOROLA 75MF

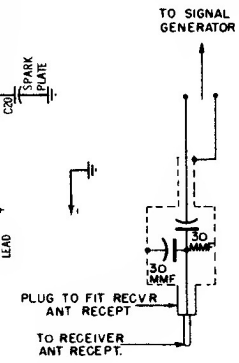
FORD FEG-18806-H

SERVICE NOTES

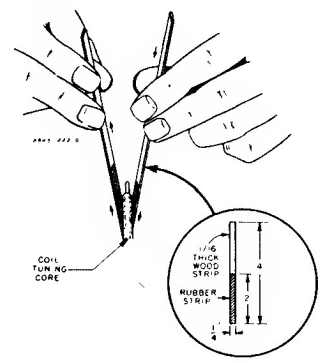
RADIO POLARITY - WHEN SERVICING THIS RECEIVER ON THE SERVICE BENCH, BE SURE THAT THE RECEIVER "A" LEAD IS CONNECTED TO THE POSITIVE SIDE OF THE POWER SOURCE AND THAT THE RECEIVER HOUSING IS CONNECTED TO THE NEGATIVE SIDE. IF CONNECTED OTHERWISE, THE RECEIVER WILL NOT OPERATE AND DAMAGE TO COMPONENTS MAY RESULT.

TRANSISTOR REPLACEMENT - When replacing a transistor, be sure that the transistor mounting screws are securely tightened. If not securely tightened, the transistor may be damaged from lack of proper heat dissipation. NOTE: When a transistor is replaced, the emitter current should be checked (see EMITTER CURRENT ADJUSTMENTS).

EMITTER CURRENT ADJUSTMENT - The emitter current is adjusted by variable resistor R-23 for 390 Ma flow through the transistor with 12 volts at the receiver's "A" lead. The current is adjusted by measuring the voltage drop across the top section of T-4 primary winding. Connect the negative lead of a low range VTVM to the yellow lead of T-4 (top of primary winding) and the positive VTVM lead to the white lead (tap on primary) of T-4; adjust R-23 for a .82 volt reading (see ALIGNMENT LOCATIONS photo).



DUMMY ANTENNA DATA

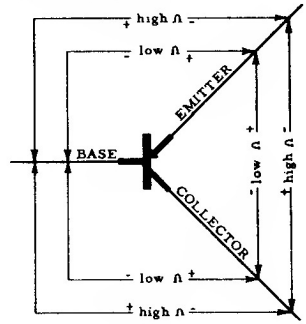


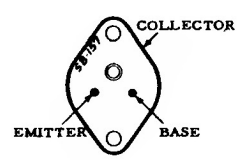
CORE ALIGNMENT TOOL DETAIL

6. TRANSISTOR CHECK - The transistors used in this receiver can be expected to give unusually long trouble-free life. However, the following transistor checks are provided to facilitate servicing:

Substituting a known good transistor for a suspected one is the simplest and most positive way of checking transistors.

The transistor may be checked for shorts and opens by using an ohmmeter. This check primarily measures the ability of a transistor to conduct current in one direction and to resist current flow in the opposite direction. The resistance in the conduction direction is very low in relation to the resistance in the non-conduction direction. This check is made by connecting the ohmmeter leads as shown in illustration.





TRANSISTOR CONNECTIONS (PIN VIEW)

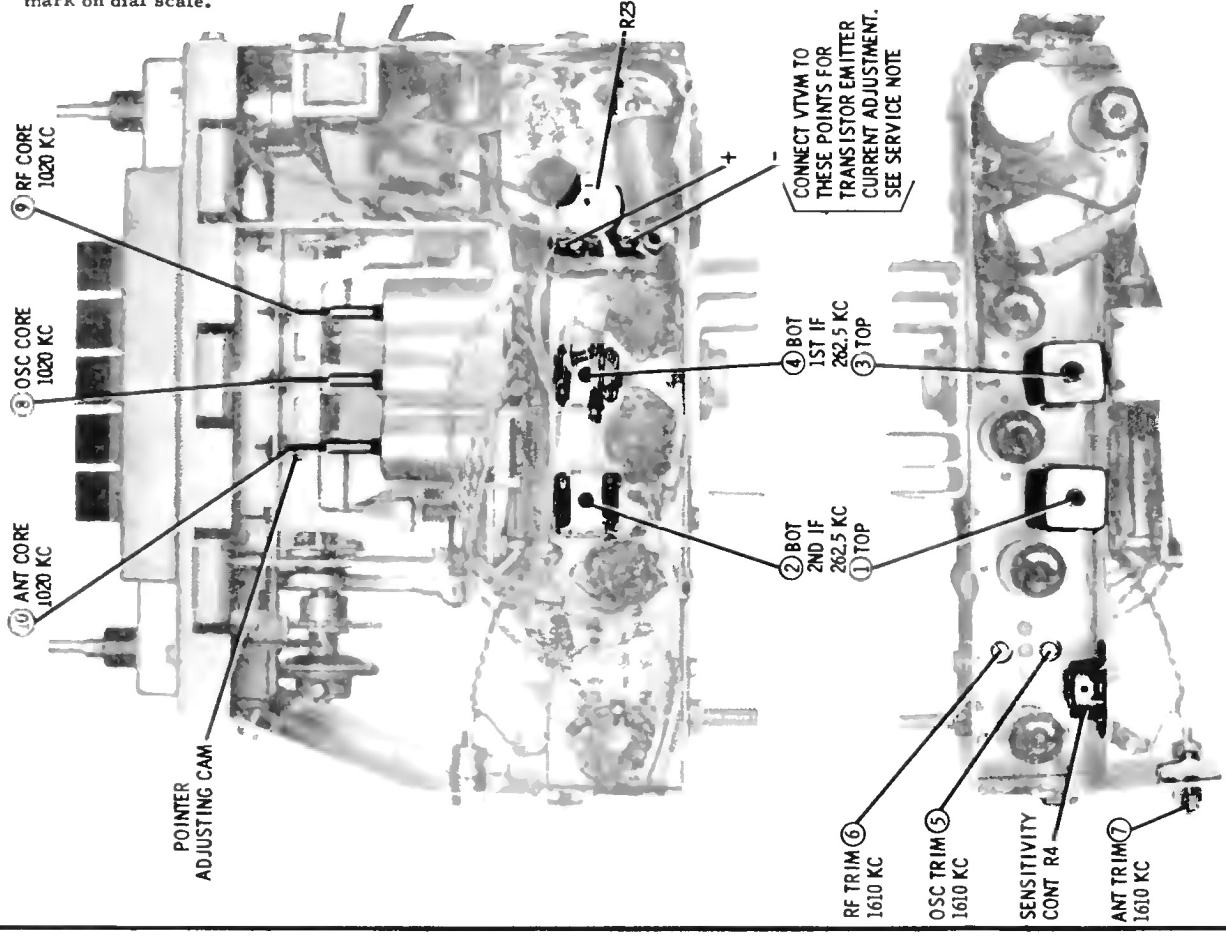
MOTOROLA 75MF, FORD FEG-18806-H, Alignment Information

Connect an output meter across the speaker voice coil. Set tone control to high and volume control to maximum. Attenuate signal generator output to maintain 1.79 volts (1 watt) on output meter to prevent overloading. Input voltage should be 14.4 volts.

STEP	GENERATOR CONNECTION	GENERATOR FREQUENCY (400 cycle mod)	TUNER SET TO	ADJUST	REMARKS
IF ALIGNMENT					
1.	12AD6 grid (pin 7) thru .1 mf & chassis	262.5 Kc	Hi end stop	1, 2, 3 & 4	Adjust for maximum.
RF ALIGNMENT					
2.	Antenna recept thru dummy	1610 Kc	Hi end stop	5, 6 & 7	Adjust for maximum.
NOTE: Do not perform steps 3, 4, 5 & 6 unless tuner has been tampered with or components have been replaced. Before proceeding with step 3, back tuning cores 1-3/8" out of tuning coils to eliminate their effect on trimmer adjustment.					
3.	Antenna recept thru dummy (see Figure)	1610 Kc	Hi end stop	5, 6 & 7	Adjust for maximum.
4.	"	1020 Kc	25/32" from hi end stop	8, 9 & 10	Adjust for maximum.
5.	"	1610 Kc	Hi end stop	5, 6 & 7	Adjust for maximum.
6. Repeat steps 4 & 5 until no further increase, then cement cores in place; last adjustment should be step 5.					
SENSITIVITY CONTROL					
7.	Antenna recept thru dummy	600 Kc at 5 microvolts	Tune for max	Sensitivity control	Adjust for 1.79 volts output.
ANTENNA TRIMMER					
8.			Weak station around 1400 Kc	7	Adjust for maximum with radio installed in car and antenna fully extended.

TO CALIBRATE POINTER

Tune radio to 1000 Kc signal and rotate pointer adjusting cam until center of pointer coincides with the center of the 1000 Kc mark on dial scale.



ALIGNMENT ADJUSTMENT LOCATIONS