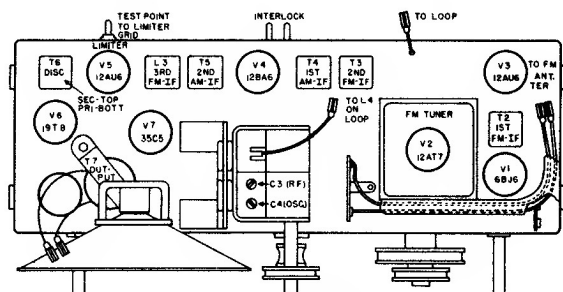
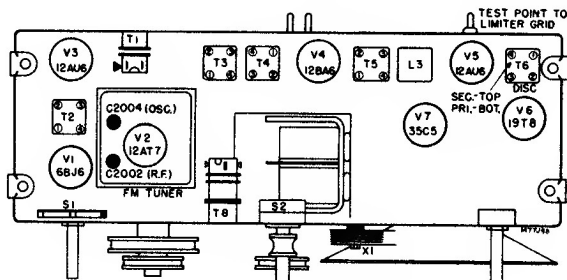


MODEL 440



TOP VIEW



BOTTOM VIEW

ALIGNMENT CHART

	STEP NO.	SIGNAL GENERATOR FREQUENCY	SIGNAL INPUT POINT BETWEEN	TUNING CAPACITOR SETTING	ADJUST	SEE NOTE NO.
AM—I-F	1	455 kc, 30% mod. with 400 cycles	Pin 1 of V4 (12BA6) thru .02 mf. and chassis	Fully closed	Primary and secondary cores of T5 for maximum output meter reading.	1, 2, 4
	2		Pin 1 of V3 (12AU6) thru .02 mf. and chassis		Primary and secondary cores of T4 for maximum output meter reading.	
AM—R-F	3	1620 kc, 30% mod. with 400 cycles	Pin 1 of V1 (6BJ6)	Fully open (min. cap.)	(C4) oscillator trimmer for maximum output meter reading	1, 2, 4
	4	1500 kc, 30% mod. with 400 cycles		For maximum output meter reading	R-f trimmer (C3) for maximum output meter reading while rocking gang condenser	
	5		Inductively coupled to the loop. See Note 3		Adjust antenna trimmer (C2) on loop for maximum	1, 2, 3, 4
FM—I-F	6	10.7 mc unmodulated	Pin 1 of V4 (12BA6) thru 100 mmf. and chassis	Fully closed	Core of L3 for maximum DC reading at test point on rear of chassis	5, 10
	7		Pin 1 of V3 (12AU6) thru 100 mmf. and chassis		Cores of T3 for maximum DC volts at test point on rear of chassis	
	8		Stator of C2001 thru .02 mf. thru hole in bottom of FM tuner cover		Cores of T2 for maximum DC volts at test point on rear of chassis	
FM DIS-CRIMINATOR	9	10.7 mc unmodulated	Pin 1 of V4 (12BA6) thru 100 mmf. and chassis	Fully closed	T6 primary core for maximum DC volts across the volume control R104	6, 7, 10
	10				T6 secondary core for zero DC volts output across volume control R104	
FM—R-F	11	108.5 mc	At FM antenna terminals with built-in FM antenna disconnected	Fully open (min. cap.)	FM oscillator trimmer C2004 for max. DC volts at test point on rear of chassis	5, 8, 9, 10
	12				FM—r-f trimmer C2002 for maximum DC volts at test point on rear of chassis while rocking signal generator frequency	

ALIGNMENT

A-M METER ALIGNMENT NOTES

1. Connect an output meter across the speaker leads to indicate maximum output during AM alignment.

2. Turn the volume control to maximum clockwise position and reduce signal input so that output meter does not indicate more than $\frac{1}{2}$ watt output during AM alignment.

3. For alignment of the antenna trimmer C2, it is necessary to inductively couple the signal generator output to the loop antenna by connecting a four-turn, six-inch diameter loop of wire across the generator output terminals and locating the loop about one foot from the radio loop. The position of loop should not be changed during alignment to prevent possible errors in peak readings.

4. Set the band switch in "AM" position.

F-M METER ALIGNMENT NOTES

5. Connect a vacuum tube voltmeter between the test point on the rear of the chassis and chassis to read the DC voltage developed at the limiter grid during FM—i-f and r-f alignment. Dress the VTVM leads away from the r-f end of the chassis to prevent regeneration. Reduce the signal input so that the VTVM reads approximately 1 volt DC.

6. Connect a VTVM across the volume control to read the discriminator output.

7. To align the primary of T6 (discriminator), detune the secondary core slightly until some DC voltage is read across the volume control, then adjust the primary of T6 for maximum.

8. For FM—r-f alignment, the output impedance of the signal generator should be 300 ohms to properly match the input impedance of this receiver.

9. The cover on the FM tuner must be in place during FM—r-f alignment.

10. Set the band switch to the "FM" position.