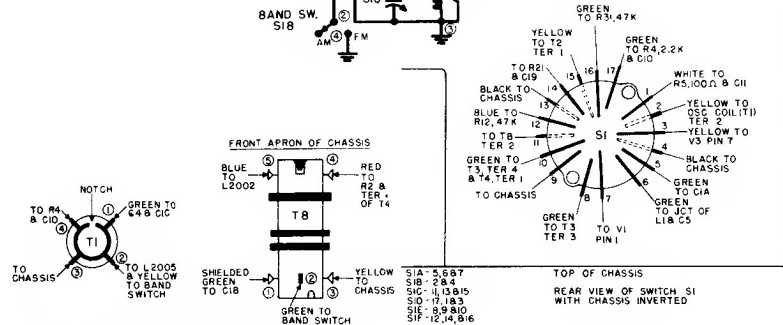


VOLTAGES ARE MEASURED WITH A 20,000 OHM PER VOLT METER OR A VACUUM TUBE VOLT METER.

ALL CAPACITORS ARE IN MMF UNLESS OTHERWISE NOTED. BAND SWITCH IN AM POSITION.



GENERAL ELECTRIC

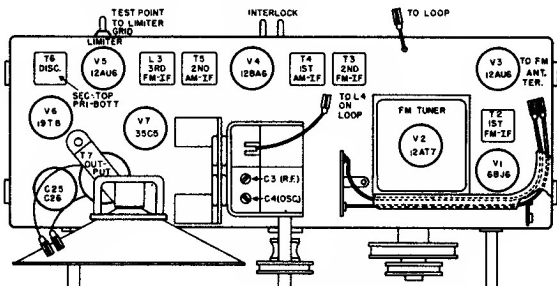
Model 409

A.M. METER ALIGNMENT NOTES

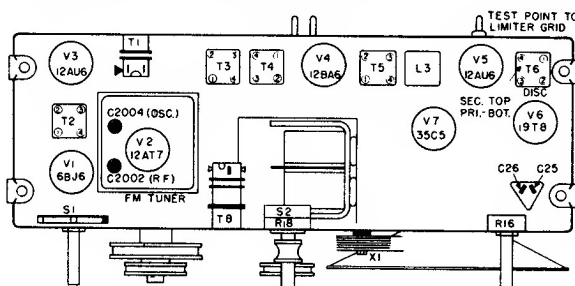
1. Connect an output meter across the speaker leads to indicate maximum output during A.M. alignment.
2. Turn the volume control to maximum clockwise position and reduce signal input so that output meter does not indicate more than $\frac{1}{2}$ watt output during A.M. alignment.
3. For alignment of 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 A.M. 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 d-c voltage developed at the limiter grid during F.M.-I.F. and R.F. alignment. Dress the V.T.V.M. leads away from the r-f end of the chassis to prevent regeneration. Reduce the signal input so that the V.T.V.M. reads approximately 1 volt d-c.
6. Connect a vacuum tube voltmeter across the volume control to read the discriminator output.
7. To align the primary of T6 (discriminator) detune the signal generator slightly either side of 10.7 mc until maximum d-c volts is read across the volume control then adjust the primary of T6 for max.
8. For F.M.-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 F.M. tuner must be in place during F.M.-R.F. alignment.
10. Set the band switch to the F.M. position.



TOP VIEW



BOTTOM VIEW

METER ALIGNMENT CHART

STEP NO.	SIGNAL GENERATOR FREQUENCY	SIGNAL INPUT POINT BETWEEN	TUNING CAPACITOR SETTING	ADJUST	SEE NOTE NO.
A.M.—I.F. ALIGNMENT					
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	
A.M.—R.F. ALIGNMENT					
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 (C-3) 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
F.M.—I.F. ALIGNMENT					
6	10.7 mc unmodulated	Pin 1 of V4 (12BA6) thru 100 mmf. and chassis	Fully closed	Core of L3 for maximum d-c 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 d-c volts at test point on rear of chassis	
8		Stator of C2001 thru .02 mf. thru hole in bottom of F.M. tuner cover		Cores of T2 for maximum d-c volts at test point on rear of chassis	
F.M. DISCRIMINATOR (T6) ALIGNMENT					
9	10.7 mc unmodulated	Pin 1 of V4 (12BA6) thru 100 mmf. and chassis	Fully closed	T6 secondary core for zero output across volume control (R16)	6, 10
10	Detune for maximum d-c at R16. See note 7			T6 primary core for maximum d-c volts across the volume control (R16)	6, 7, 10
F.M.—R.F. ALIGNMENT					
11	108.5 mc	At F.M. antenna terminals with built-in F.M. antenna disconnected	Fully open (min. cap.)	F.M. oscillator trimmer C2004 for maximum d-c volts at test point on rear of chassis	5, 8, 9, 10
12				F.M.-R.F. trimmer C2002 for maximum d-c volts at test point on rear of chassis while rocking signal generator frequency	