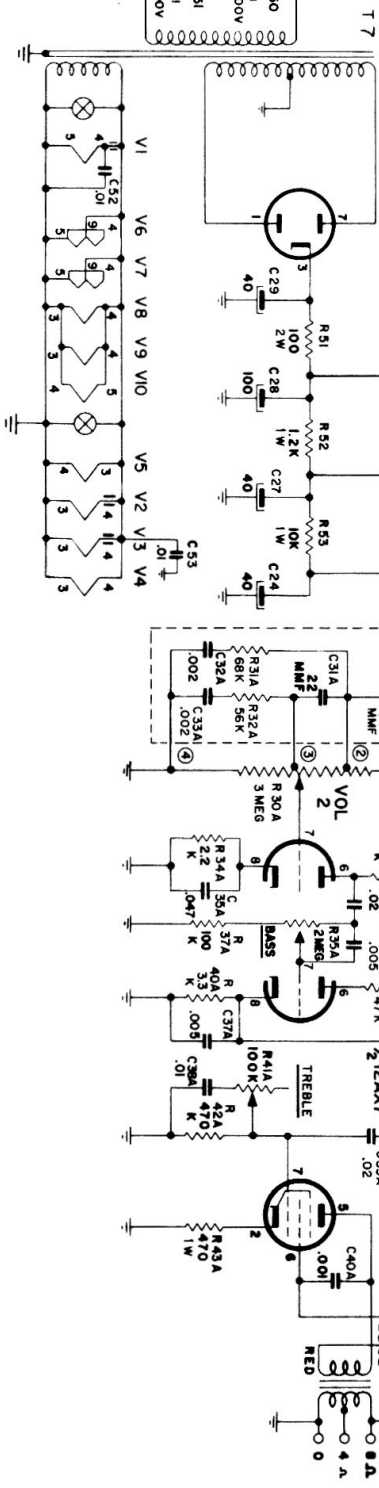
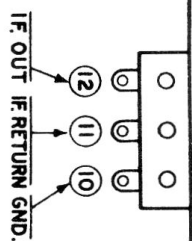
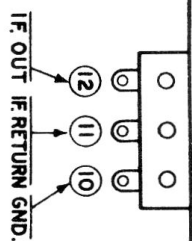
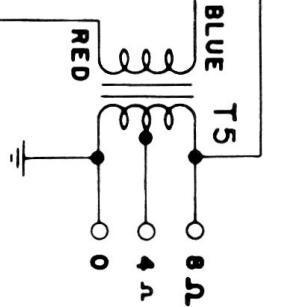




7. ALL RESISTORS  $\pm 1\%$   $1/2W$  UNLESS OTHERWISE NOTED



87



## ALIGNMENT PROCEDURE

### PRELIMINARY

Alignment is an exacting procedure and should be undertaken only when necessary. If alignment of both AM and FM is required, the AM section should be done first. The following equipment is required for alignment:

1. Signal generator with a frequency range of at least 455 kc. to 1650 kc. (AM).
2. Signal generator with a frequency range of at least 10.7 mc. to 109 mc. (FM).
3. Output meter.
4. V.T.V.M.

**NOTES:**  
Allow at least five minutes for set to warm up before proceeding with alignment.

During alignment keep signal generator output as low as possible. Keep volume controls in full clockwise position. Keep tone control in mid-range position. Connect ground side of signal generator to chassis base. Generator modulation at 400 cy. 30% and 400 cy. 22.5 kc. deviation on AM and FM respectively.

**WARNING:**  
When output meter or loudspeaker is not connected across amplifier output terminals, terminate output with a five to ten ohms resistor capable of dissipating at least five watts.

AM									
Step	Dummy Antenna	Signal Generator Coupling	Sig. Gen. Freq.	Function Switch Setting	Dial Setting	Meter Connection	Adjust	Remarks	
1	.1 mfd	High side to pin No. 7 of 6BE6 tube.	455 kc.	AM	Gang fully open	Output meter across audio output transformer terminals.	T1 & T3 Top and Bottom.	Adjust for maximum output.	
2	Same	Same	1630 kc.	AM	1630 kc.	Same	C2A	Adjust for maximum output.	
3	Same	Same	535 kc.	AM	535 kc.	Same		Check frequency limit.	
4	Repeat step 2 and 3 until no further change occurs.								
5	Loop	Loose	1400 kc.	AM	1400 kc.	Same	C1A	Adjust for maximum. (Keep Loop Antenna in proper relation to chassis).	

FM									
1	Direct	Disconnect shield on 6AQ8 Tube from ground and connect high side of generator to shield. Connect low side to chassis.	10.7 mc. No mod.	FM	108 mc.	Connect V. T. V. M. D.C. probe to junction of two 100K resistors. (See note No. 2 below). Connect Neg. lead to chassis.	I.F. transformer in tuner, top and bottom. T2 top and bottom. T4 bottom.	Adjust for maximum. Input level must be kept low enough that output does not exceed 2 volts.	
2	Same	Same	Same Mod.	Same	Same	Connect V. T. V. M. between junction of two 100K resistors Multiplex & Output Socket. (See Note No. 2 below).	T4 top	Turn signal generator to a higher output level to allow for a zero reading. A positive and negative reading will be obtained on either side of the correct setting.	
3	300 Ohms	Replace shield on 6AQ8 tube. Connect signal generator output to FM antenna terminals. (Observe polarity).	88 mc. Mod.	Same	88 mc.	Output meter across output transformer terminals.		Check calibration.	
4	Same	Same	108 mc. Mod.	Same	108 mc.	Same		Check calibration.	

**NOTE:** 1) Do not attempt realigning FM tuner. In case of difficulty replace 6AQ8 tube.  
2) Connect two 100K ohm matched resistors in series between point "A" and chassis ground.