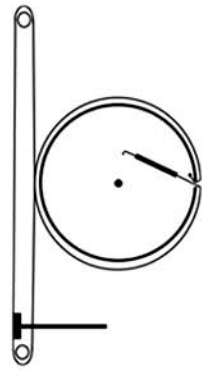


**MIDWEST
CHASSIS 12-39**

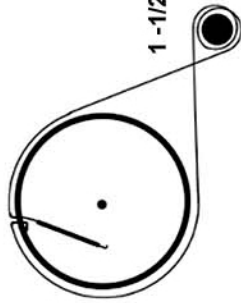
Redrawn January 23, 2021

Mike Simpson

POINTER CORD ROUTING

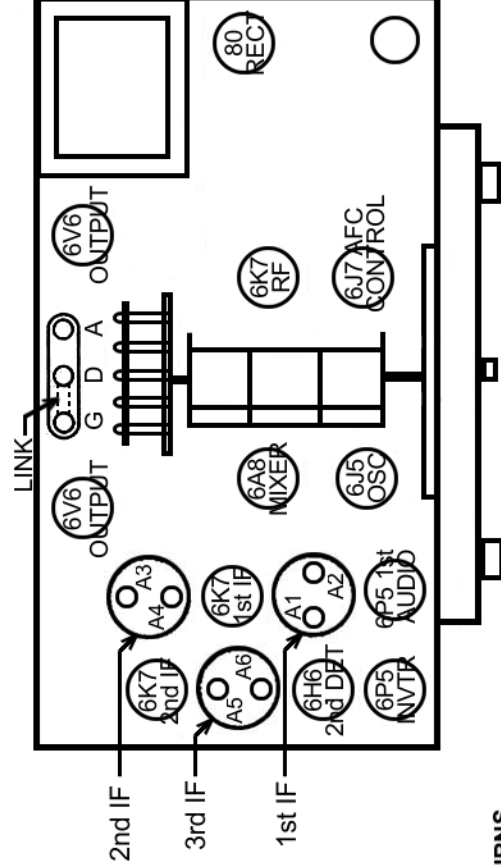


1 -1/2 TURNS



TUNING CORD ROUTING

Viewed from front
Tuning capacitor fully meshed
Use fine cord



NO SIGNAL. MOTOR SWITCH UP.
117 VAC LINE VOLTAGE.
METER USED: 20,000 OHMS/VOLT.

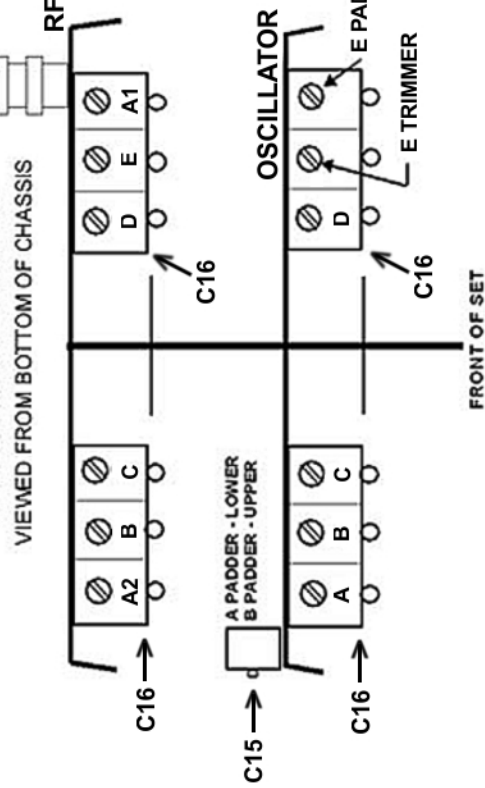
TUBE	PLATE	SCREEN	CATH
6K7 RF	245	85	2.5
6A8 MIXER	245	85	2.5
6J5 OSC	140		0
6J7 CONTROL	200	85	4.4
6K7 1st IF	245	85	4.4
6K7 2nd IF	245	85	4.4
6H6 2 nd DET	0		
6P5 1 st AF	150		9.2
6P5 INVERTER	150		9.2
6V6 OUTPUT	335	245	10
80 RECT	340 AC		0

C1	.01 MFD 200V
C2	.05 MFD 200V
C3	.25 MFD 200V
C4	.02 MFD 400V
C5	.01 MFD 400V
C6	.25 MFD 400V
C7	.05 MFD 400V
C8	10 MMFD MICA
C9	25 MMFD MICA
C10	100 MMFD MICA
C11	2000 MMFD MICA
C12	3000 MMFD MICA
C13	200 MMFD MICA
C14	60 MMFD MICA
C15	OSC PADDER
C16	TRIMMER ASSY
C17	24 MFD 500V
C18	40 MFD 350V
C19	.01 MFD 600V

R1	200 OHM 1/4W
R2	500 OHM 1/4W
R3	1000 OHM 1/4W
R4	2000 OHM 1/4W
R5	5000 OHM 1/4 W
R6	25K OHM 1/4W
R7	50K OHM 1/4W
R8	100K OHM 1/4W
R9	200K OHM 1/4W
R10	500K OHM 1/4W
R11	1 MEGOHM 1/4W
R12	3 MEGOHM 1/4W
R13	40 K OHM 1/4W
R14	25K OHM 1/2W
R15	15K OHM 1W
R16	VOLUME 500K
R17	Tap@25K
	200 OHM 2 W

A BAND
ANTENNA
COIL

RF & OSCILLATOR
ADJUSTMENT LOCATIONS
VIEWED FROM BOTTOM OF CHASSIS



FRONT OF SET

MIDWEST
CHASSIS 12-39

Redrawn January 23, 2021

Mike Simpson

**ALIGNMENT INSTRUCTIONS
FOR MIDWEST CHASSIS
12-39, 17-39, 120 (12-40) & 170 (17-40)**

1. Remove oscillator tube.
2. Connect high side of signal generator output to grid cap of mixer through .01uFD capacitor, low side to chassis.
3. Set Signal Generator for 456 KC, modulated output.
4. Connect volt meter to measure AC voltage at voice coil or DC voltage on AVC line.
5. Adjust IF trimmers A1 thru A5 for maximum output. Repeat several times using as low as possible output from Signal Generator. (A6 will be adjusted later)

6. Replace Oscillator tube.
7. Connect output of Signal Generator to antenna terminal through a 200 ohm resistor in parallel with a 10 MMFD capacitor.
8. Set MOTOR switch to the OFF position.
9. Set band switch to "A" band, receiver and generator to 1500 KC.
10. Adjust Oscillator Trimmer A, Antenna and RF trimmers A1 & A2 for Maximum.
11. Set Generator and receiver to 600 KC. Adjust Oscillator A Padder for maximum.
12. Repeat steps 9 thru 11 for proper tracking.

13. Set band switch to "B" band, receiver and generator to 4.1 MC.
14. Adjust Oscillator trimmer B and Antenna Trimmer B for Maximum.
15. Set Generator and receiver to 1.6 MC. Adjust Oscillator B Padder for maximum.
16. Repeat steps 13 thru 15 for proper tracking.

17. Set band switch to "C" band, receiver and generator to 12 MC.
18. Adjust Oscillator trimmer C and Antenna Trimmer C for Maximum.

19. Set band switch to "D" band, receiver and generator to 30 MC.
20. Adjust Oscillator trimmer D and Antenna Trimmer D for Maximum.

21. Set band switch to "E" band, receiver and generator to 350 KC.
22. Adjust Oscillator trimmer E and Antenna Trimmer E for Maximum.
23. Set Generator and receiver to 125 KC. Adjust Oscillator E Padder for maximum.
24. Repeat steps 21 thru 23 for proper tracking.

Automatic Frequency Control Adjustment

1. Set receiver band switch to Broadcast band A position.
2. Set the MOTOR switch to the OFF position.
3. Connect 5 Milliamp meter in series with 6J7, AFC Control Tube, cathode.
4. Adjust signal generator output to simulate an average radio signal at approximately 1000 KC and tune receiver to exact resonance of the signal generator.
5. Note reading on Milliamp meter.
6. Set MOTOR switch to the ON position.
7. Adjust IF trimmer A6 to obtain same reading on meter.

Trimmer A6 may require a touch-up using a station to assure proper AFC function.