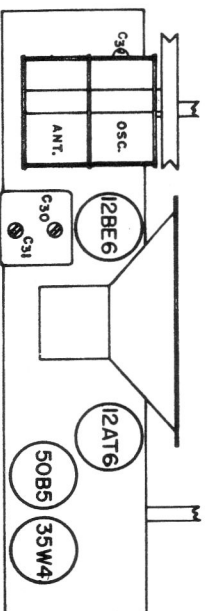


- R 1 22,000 ohm
- R 2 1 Megohm
- R 3 2.2 Megohm
- R 4 2 Megohm Vol
- R 5 470,000 ohm
- R 6 10 Megohm
- R 7 470,000 ohm
- R 8 1500 ohm 1 watt
- R 9 150 ohm
- R 10 68 ohm 2 watt

NOTE: All resistors are 1/2 watt unless otherwise shown.

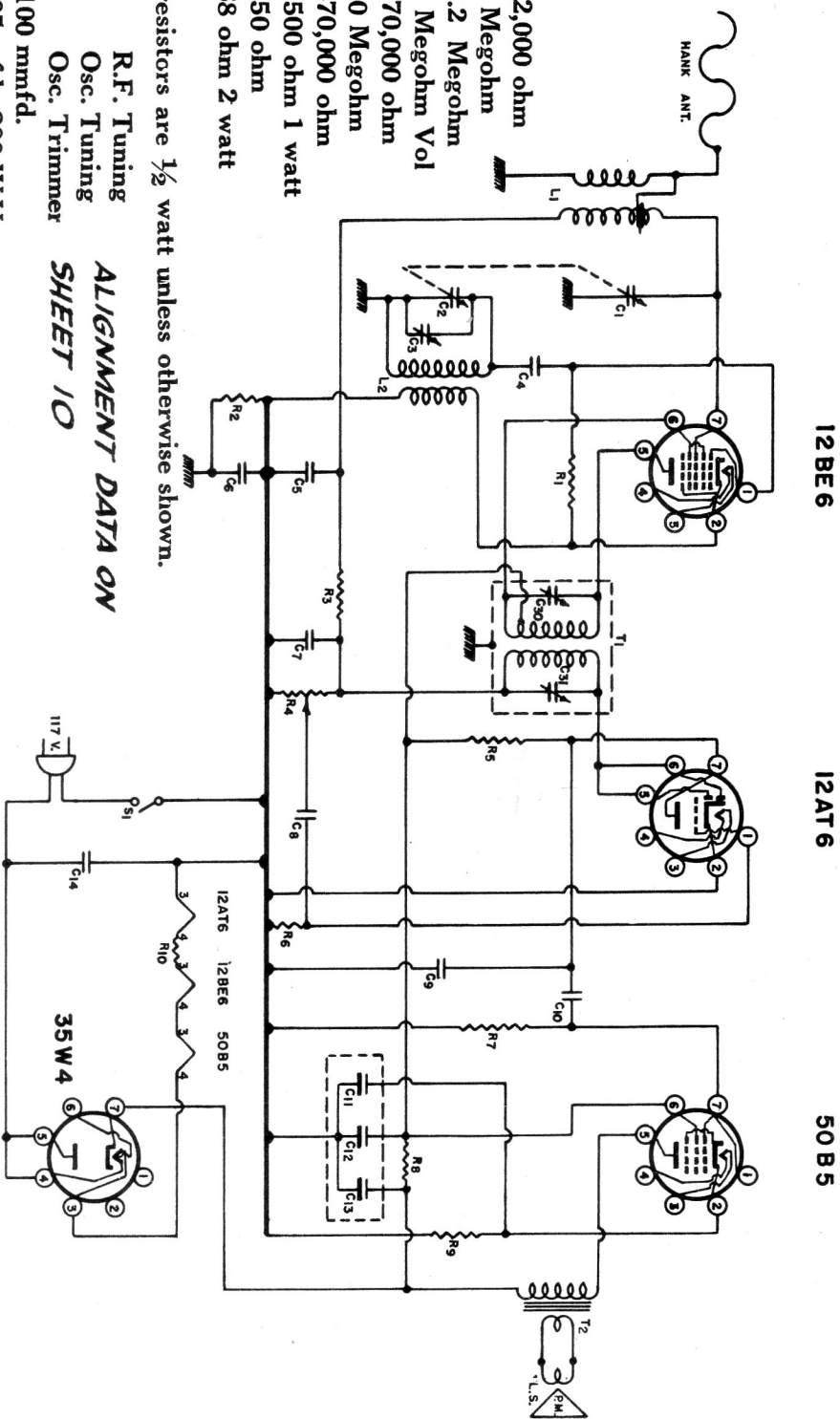
ALIGNMENT DATA ON SHEET 10

- C 1 R.F. Tuning
- C 2 Osc. Tuning
- C 3 Osc. Trimmer
- C 4 100 mmfd.
- C 5 .05 mfd., 200 W.V.
- C 6 .025 mfd., 600 W.V.
- C 7 220 mmfd.
- C 8 .005 mfd., 450 W.V. Ceramic disc
- C 9 470 mmfd.
- C 10 .01 mfd., 400 W.V.
- C 11 25 mfd. filter condenser
- C 12 30 mfd. filter condenser
- C 13 60 mfd.
- C 14 .02 mfd., 600 W.V.
- L 1 Antenna Coil
- L 2 Oscillator
- L.S. Speaker 4" P.M.
- S 1 Switch (on Vol. Control No. 10662)
- T 1 I.F. Transformer
- T 2 Output Transformer



1949-50
IF = 456 KC.

AC-DC
MODEL
M-412



M-412 ALIGNMENT PROCEDURE

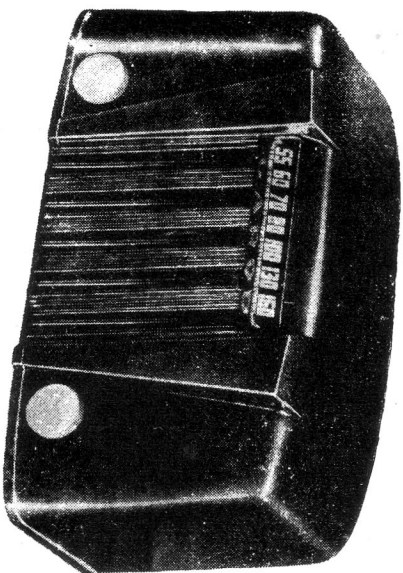
CONNECT S.G. OUTPUT	INPUT FREQUENCY	RECEIVER DIAL SETTING	ADJUST	CIRCUIT RESONATED	REMARKS
12BE6	456 KC.	Gang at Min.	C30,31	I.F.	Adjust for Max. output
Ant. Lead	1500 KC.	See note †	C3	Oscillator	Adjust for Max. output

*Short oscillator section of gang through 0.1 mfd. capacitor to chassis.

†Since there is no trimmer on the R.F. section, it is necessary to rock the gang while adjusting the Osc. trimmer until Max. output is reached. This brings the Ant. & Osc. gang sections into tracking at this point, and a further check should be made at 600 KC. In most cases the tracking at this point will be permissible, but if not it may be made to track by bending the R.F. plate at this point.

SOCKET VOLTAGES			
PLATE	SCREEN GRID	CATHODE	FILAMENT
12BE6	100V	100 V.	12 V.
12AT7	50V		12 V.
50B5	120V	100 V.	50 V.
		8 V.	

NOTE—All voltages measured with the line voltage of 117 Volts.



1949-50

AC-DC

MODEL

M-412

CIRCUIT DATA
ON SHEET 9

ASTRA

DATA SHEET

10