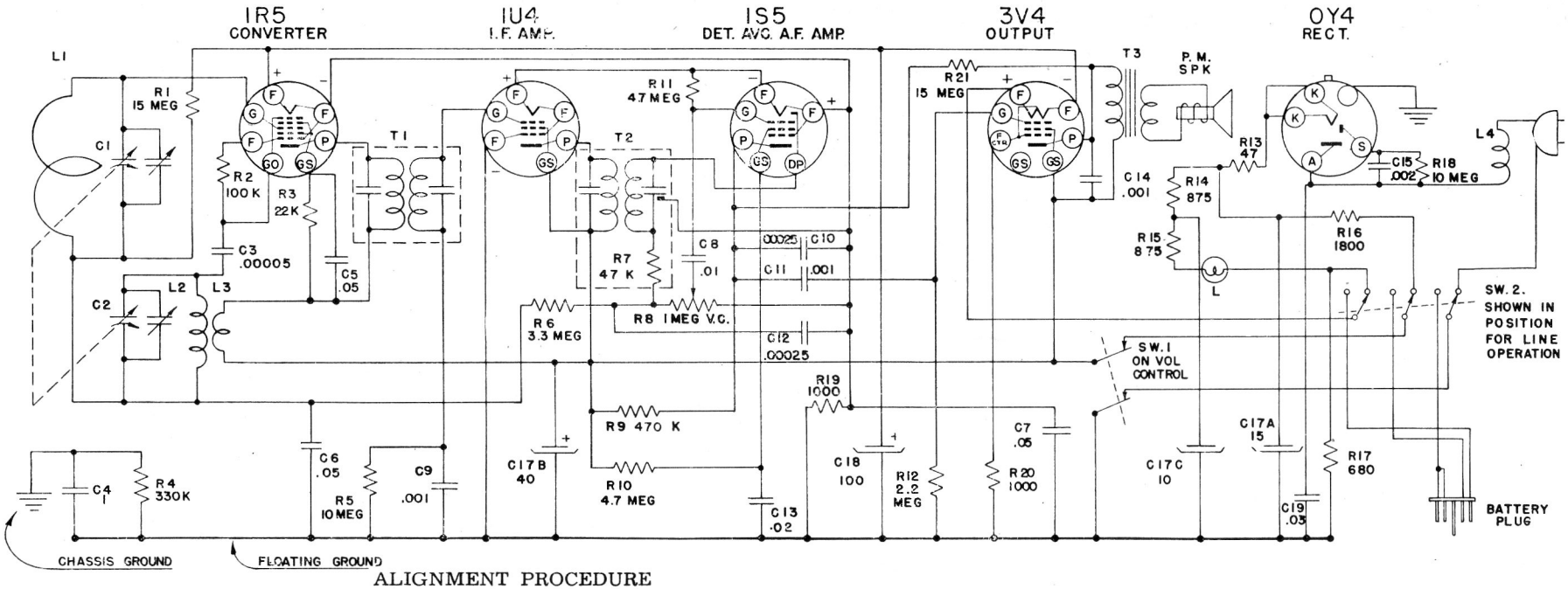


ALIGNMENT PROCEDURE

PRELIMINARY:

Output meter connection	Across loudspeaker voice coil
Output meter reading to indicate 50 milliwatts (standard ouput)	.4 volts
Dummy antenna value to be used in series with generator output	See chart below
Connection of generator output lead	See Chart Below
Connection of generator ground lead	Floating ground
Generator modulation	30% 400 cycles
Position of volume control	Fully clockwise
Position of dial pointer with variable fully closed	Last mark at left end of dial

Position of Variable	Frequency of Generator	Dummy Antenna	Generator Output Connection	Trimmers Adjusted in Order Shown for Maximum Output	Function of Trimmer
Open	455	.05 mfd.	IR5 grid (Stator of C1)	Top of 2nd & 1st IF trans. T2 & T1	IF
1400	1400		*Test Loop	C2; C1, Trimmers on Variable Condenser	Osc. Ant.
600	600		*Test Loop	**Check Point	

*Standard Hazeltine Test Loop Model 1150 or 3 turns of wire about 6" in diameter, placed about one foot from the set loop.

The alignment procedure should be repeated in the original order for greatest accuracy. Always keep the output from the signal generator at its lowest possible value to make the AVC action of the receiver ineffective.

CAUTION: While handling the set out of the cabinet, be careful not to bend the loop because any change in its spacing in respect to the aluminum plate will change the tracking of the antenne circuit with the oscillator.

**If the antenna stage does not track with the oscillator at 600 Kc, check to see if the loop is parallel with the aluminum plate. If it is necessary to straigten the loop to track the set at 600 kc, it will be necessary to retune the set to 1400 kc and repeat the alignment procedure in its original order until the correct spacing has been obtained. In some few cases, due to variations in the parts and wiring of the set, the loop may have to be bent slightly out or in to track the set, but usually the best tracking is obtained with the loop straight.

AC-DC BATTERY PORTABLE MODEL 140P CHASSIS RE209

INSTRUCTIONS ON DATA SHEET 2

ARVIN DATA SHEET 1

VOLTAGE & RESISTANCE MEASUREMENTS FROM SOCKET TERMINALS TO FLOATING GROUND

WITH SLIDE SWITCH IN ELECTRIC POSITION

TUBE	VOLTAGE 1	2	3	4	5	6	7	8	RESISTANCE 1	2	3	4	5	6	7	8
1R5	2.8	95	48	**	2.8	*1.8	4.2		39	3.5K	25.5K	100K	39	4.3M	50	
1U4	0	95	95	*1.8	0	0	1.4		0	3.5K	3.5K	4.3M	0	10M	22	
1S5	2.8	0	*2	*20	*50	*1	1.4		39	Inf.	1M+	4.75M	333.5K	4.7M	22	
3V4	4.2	95	95	7	5.6	0	7		50	3.5K	3.5K	65	60	2.2M	65	
OY4	0	0	+DC	117AC	117AC	0	120	120	330K	Inf.	Inf.	Inf.	Inf.	Inf.	1889	1889

WITH SLIDE SWITCH IN BATTERY POSITION

1R5	3.0	90	48	**	3.0	*1.8	4.5		39	*	**	100K	39	4.3M	50	
1U4	0	90	90	*1.8	0	0	1.5		0	*	*	4.3M	0	10M	22	
1S5	3.0	0	*2	*20	*50	*1	1.5		39	Inf.	1M+	4.75M	390K	4.7M	22	
3V4	4.5	90	90	0	6.0	0	7.5		50	*	*	680	60	2.2M	72	
OY4	0	0	0	0	0	0	0	0	330K	Inf.	10.3M	330K	330K	Inf.	2.5K	2.5K

All voltage measurements are made with a line voltage of 117V AC or a battery having 90 VB and 7.5 VA; with no signal using a 1000 ohm per volt voltmeter and are +DC unless otherwise indicated.

* Measured with a vacuum tube voltmeter.

**The oscillator voltage measured with a vacuum tube voltmeter from the oscillator grid to floating ground will vary from approx. —6V with the variable condenser closed to —12V with the condenser open. The true oscillator voltage measured from the grid to the negative filament lug should be from —10 to —20V.

* The resistance reading at this point is the leakage across the electrolytic condenser and will vary with different condensers and different ohmeters. With the negative lead of the ohmeter to floating ground. the reading may vary anywhere from 50K to 1M depending on the type meter used.

** 22K higher than the electrolytic condensers leakage

K equals 100 ohms

M equals 1 megohm

I.F. = 455 KC.

Approximate Resistance of Coils:

L1-.9 ohms
L2-7 ohms
L3-1.5 ohms
L4-9.4 ohms

T1 Primary - 34 ohms
Secondary-22 ohms
Revised
T1 Primary - 25 ohms
Secondary - 25 ohms

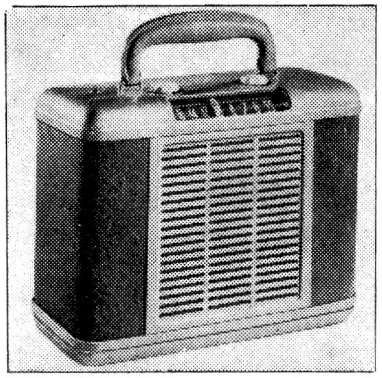
T2 Primary - 22 ohms
Secondary - 34 ohms
has 47,000 ohm resistor in series inside can
Revised
T2 Primary - 23 ohms
Secondary - 35 ohms
has 47,000 ohm resistor in series inside can.

T3 Primary - 250 ohms
Secondary-.4 ohms

CIRCUIT ON SHEET 1

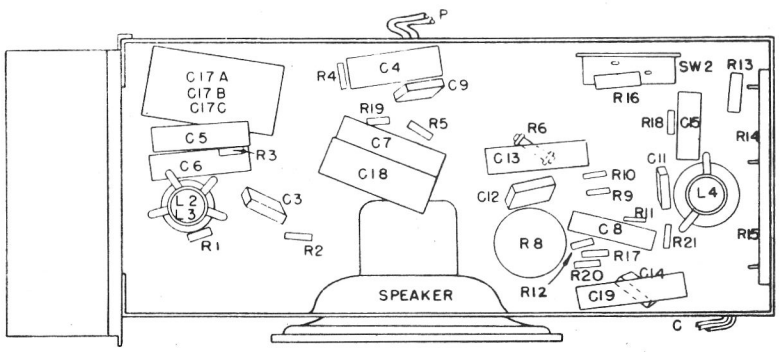
1947-48

INSTRUCTION DATA

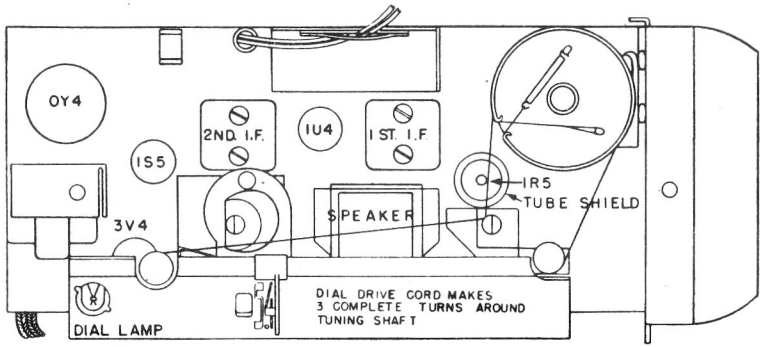


AC-DC BATTERY PORTABLE MODEL 140P

CHASSIS RE-209



LOCATION OF PARTS UNDER CHASSIS



TUBE LAYOUT

ARVIN 2 DATA SHEET