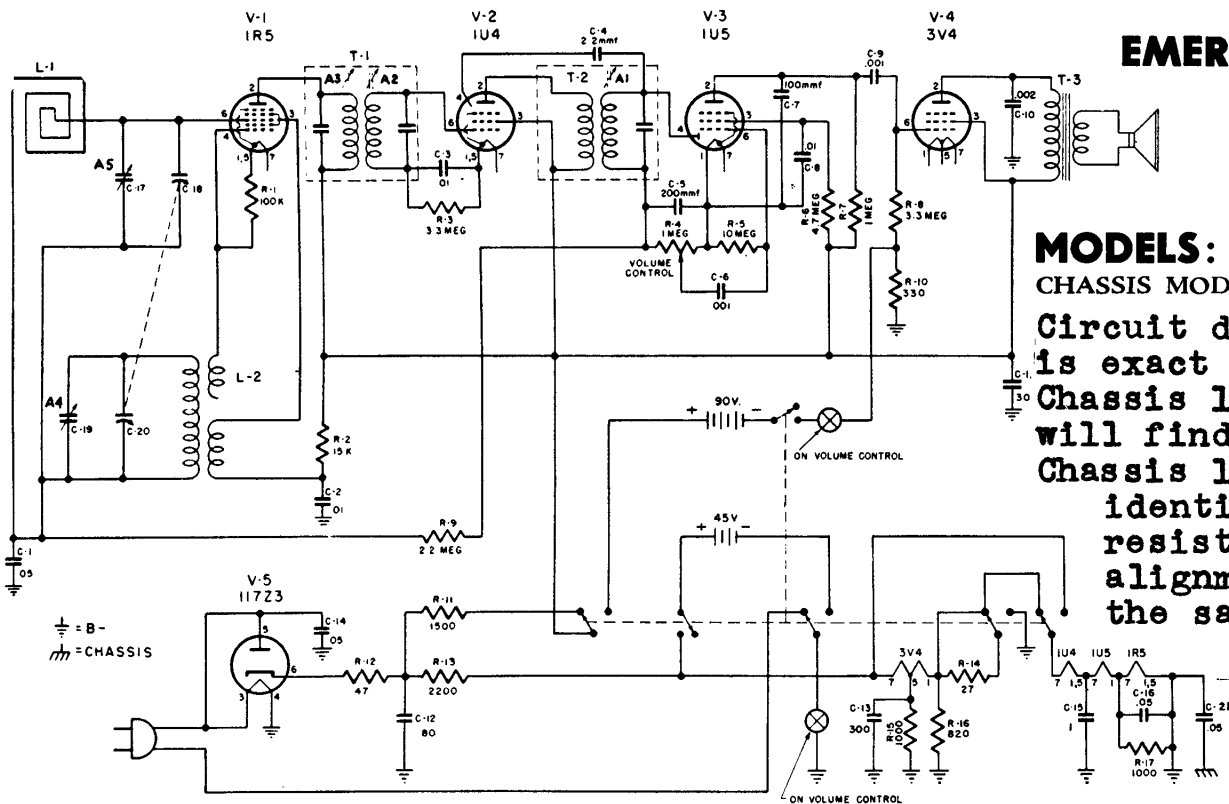


# EMERSON RADIO



## MODELS: 646A, 646B

CHASSIS MODELS: 120121A, 120121B

Circuit diagram shown is exact for Model 646B Chassis 120121B. You will find Model 646A, Chassis 120121A almost identical. Voltage, resistance, and alignment data is the same for both.

Voltage and resistance measurements taken from socket pin to chassis. VTVM used. V.C. at maximum, no signal. Line voltage: 117 volts A.C.

### VOLTAGE READINGS

CHASSIS	SYMBOL	TUBE TYPE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
120121A	V1	1R5	0	95	60	-6.2	0	0	1.3
120121B	V2	1U4	2.8	95	95	0	2.8	.05	4.0
	V3	1U5	1.3	16	15	.05	.01	.01	2.5
	V4	3V4	4	95	95	0	5.2	0	6.5
	V5	117Z3	N.C.	115	115 AC	0	115 AC	116	115

### RESISTANCE READINGS

CHASSIS	SYMBOL	TUBE TYPE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
120121A	V1	1R5	0	3800	20K	100K	0	3 Meg.	17
120121B	V2	1U4	30	3800	3800	Inf.	34	3.3 Meg.	38
	V3	1U5	17	1 Meg.	3 Meg.	1 Meg.	3 Meg.	10 Meg.	30
	V4	3V4	38	4000	3800	330	42	3.3 Meg.	54
	V5	117Z3	N.C.	2000	480	0	480	2000	2000

NC=no connection;

Inf.=infinity;

K=kilohms;

Meg.=megohms

### ALIGNMENT PROCEDURE

1. Use battery power when available. When a.c. power is used, connect the line cord through an isolation transformer if available. Otherwise connect a 0.1 mfd. condenser in series with the low side of the signal generator and B—.
2. Set the volume control at maximum. The output of the signal generator should be no higher than that necessary to obtain an output reading. Attenuate the signal input as alignment proceeds. Use an insulated alignment tool.
3. Maintain the loop in the same position relative to the chassis as when the receiver is in the cabinet.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST*	REMARKS
1	0.1 mfd.	High side to pin 6 (grid) of V1 (1R5). Low side to chassis	455 kc	Variable condenser fully open.	Across voice coil.	A1, (2nd i-f trans), A2, A3 (1st i-f trans.)	Adjust for maximum output. If a.c. is used without an isolation transformer, reduce dummy antenna to 200 mmf. to reduce hum modulation.
2	200 mmf.	High side to external ant. lead. Low side to chassis	1620 kc	Variable condenser fully open.	Across voice coil.	A4 (trimmer cond. C4.)	Adjust for maximum output.
3	200 mmf.	"	1400 kc	Tune for maximum output.	Across voice coil.	A5 (trimmer cond. C2.)	Adjust for maximum output.