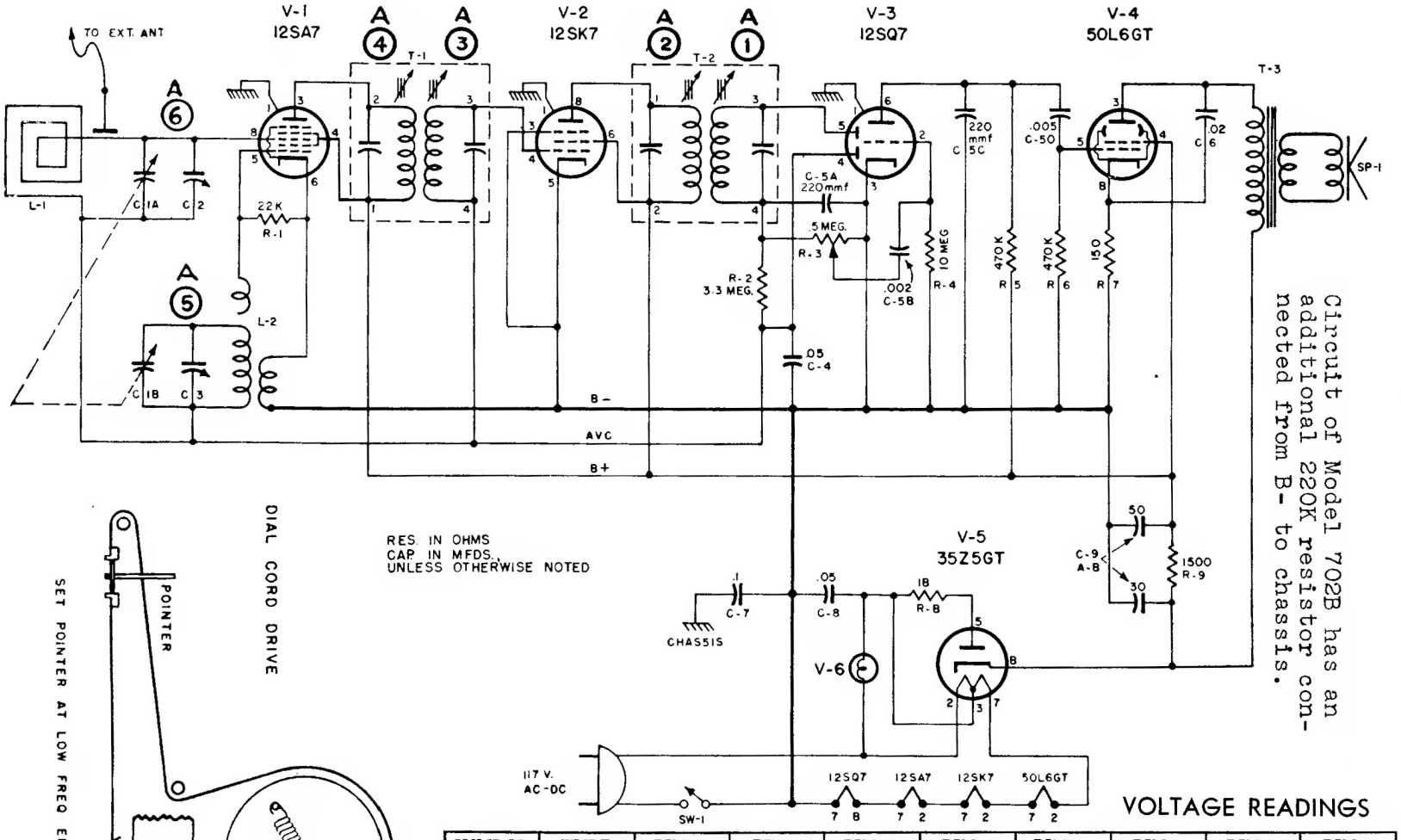
Emerson Radio

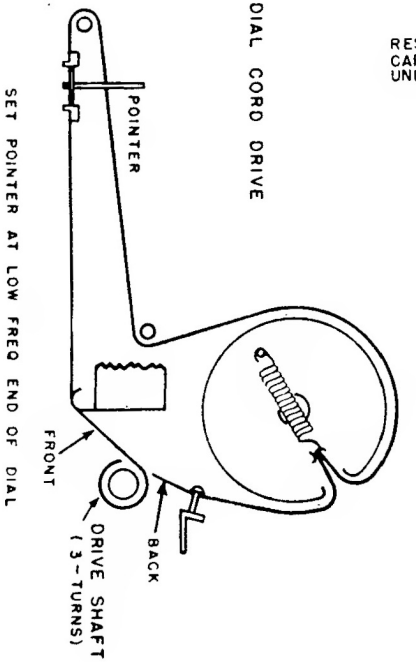
MODELS: 653B - 702B

CHASSIS: 120136-B



Circuit of Model 702B has an additional 220K resistor connected from B- to chassis.

RES. IN OHMS
CAP. IN MFDS.,
UNLESS OTHERWISE NOTED



VOLTAGE READINGS

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8
V-1	12SA7	—.3 DC	24 AC	80 DC	80 DC	—6 DC	0	12 AC	—.7 DC
V-2	12SK7	—.3 DC	36 AC	0	—1 DC	0	80 DC	24 AC	80 DC
V-3	12SQ7	—.3 DC	—.7 DC	0	—.7 DC	—.5 DC	50 DC	0	12 AC
V-4	50L6GT	0	80 AC	110 DC	80 DC	0	0	36 AC	5 DC
V-5	35Z5GT	0	117 AC	110 AC	0	110 AC	0	80 AC	110 DC

D-C voltage measurements are at 20,000 ohms per volt; a-c voltage measured at 1,000 ohms per volt.

Measured values are from socket pin to common negative.

Line voltage maintained at 117 volts for voltage readings.

Nominal tolerance on component values makes possible a variation of ±15%

Volume control at maximum, no signal applied for voltage measurements.

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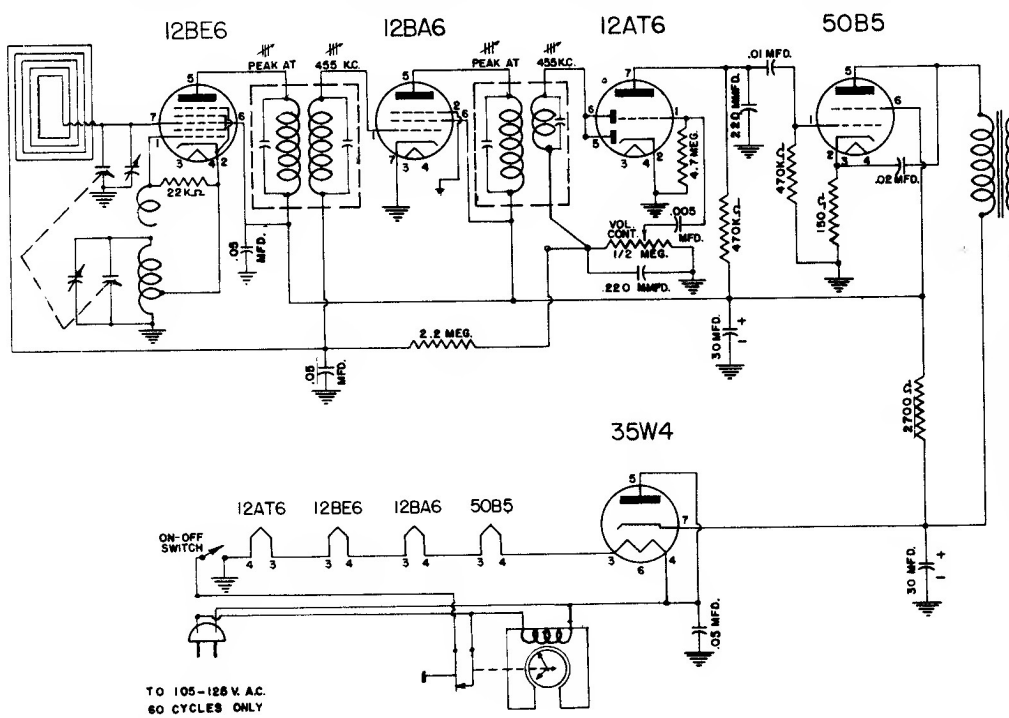
Models 653B and 702B, Chassis 120136-B.

ALIGNMENT

To set pointer, turn variable condenser fully closed and set pointer at mark near left end of dial backplate. Use isolation transformer if available. If not, connect a 0.1 mfd. condenser in series with low side of signal generator and chassis. Volume control should be at maximum position; output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	METER OUTPUT	ADJUST	REMARKS
1	0.1 mfd.	High side to stator of rear section of tuning condenser. Low side to chassis.	455 kc	Variable condenser fully open.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output. If isolation transformer is not used, reduce dummy antenna to 0.001 mfd. to reduce hum modulation.
2	200 mmfd.	High side to external antenna lead. Low side to external ground lead.	1620 kc	Variable condenser fully open.	Across voice coil.	A5	Adjust for maximum output.
3	200 mmfd.	High side to external antenna lead. Low side to external ground lead.	1400 kc	Tune for maximum output.	Across voice coil.	A6	Adjust for maximum output.

DEWALD RADIO MANUFACTURING CORP. MODEL F-523



FOR PROFESSIONAL SERVICEMEN

To calibrate receiver connect the output of signal generator to a 1 turn loop coupled to the loop antenna. Connect the lowside of signal generator through a 1/10 mfd. condenser to receiver chassis. Adjust signal generator to 455 kilocycles and adjust both I.F. transformers for maximum signal. Open the receiver variable condenser for minimum capacity. Set signal generator at 1720 kilocycles. Peak oscillator section of receiver condenser for maximum signal. Next set signal generator at 1500 kilocycles. Tune in this signal. Adjust R.F. section of receiver variable condenser for maximum signal strength. Keep the signal generator output as low as possible when making all of these measurements.

MODEL F-523