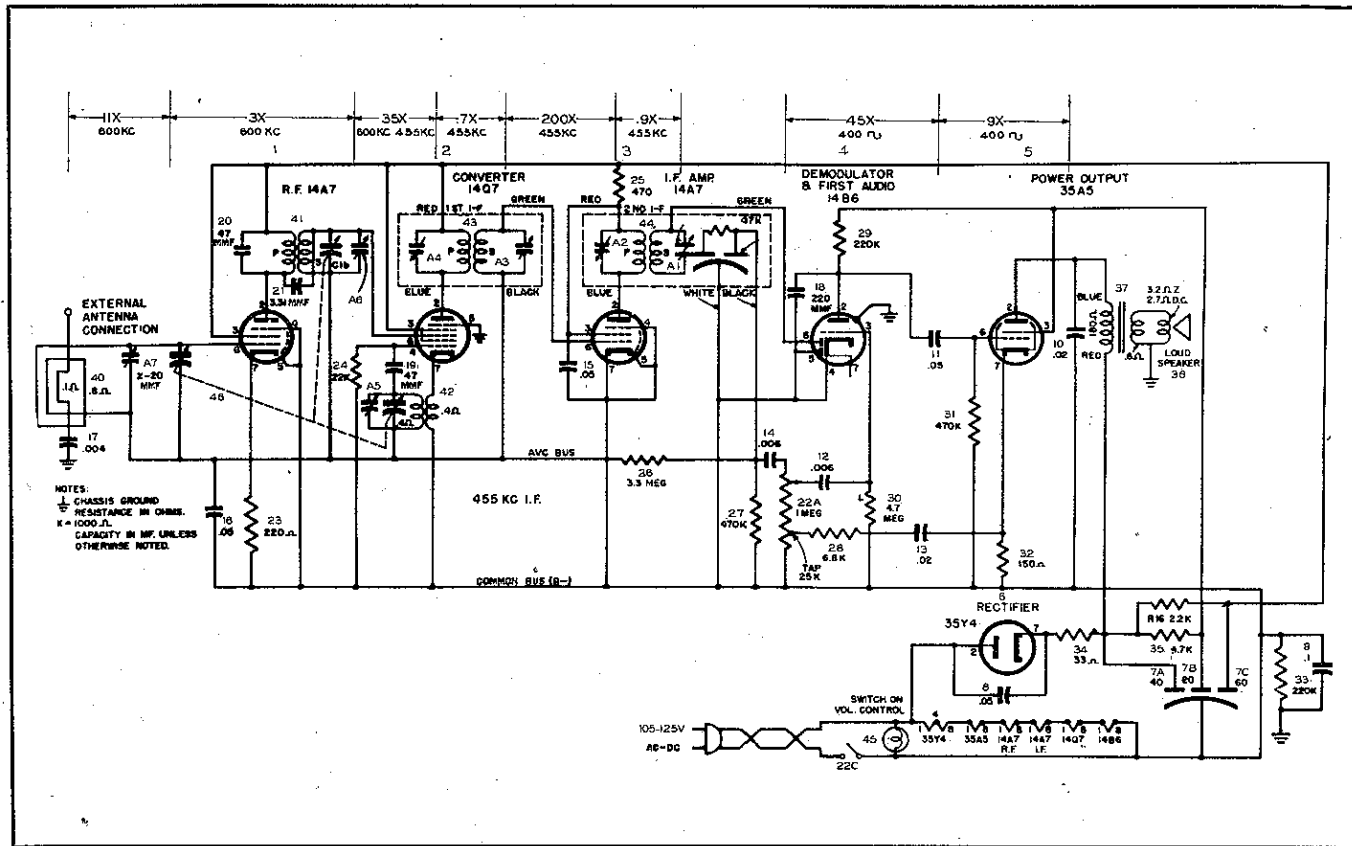
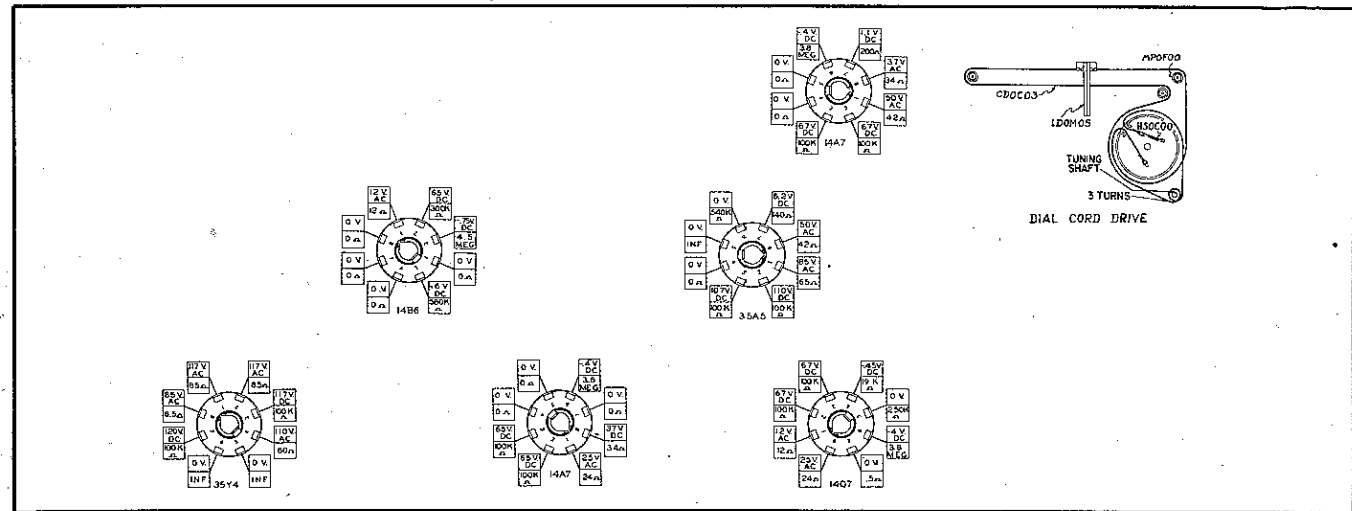


SCHEMATIC DIAGRAM



The stage gain measured values listed above are approximate values for average operative stages, rather than absolute values. It should be borne in mind that it is possible to introduce so many variables into the measurement operation, such as, type of equipment used for measuring, handling and placement of probes, the accuracy of alignment, etc., that an absolute reading is impractical. AVC is made inoperative and 3 volt battery bias substituted for measurement.

VOLTAGE AND RESISTANCE ANALYSIS CHART



1. DC voltage measurements are at 20,000 ohms per volt; AC voltages measured at 1,000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of $\pm 10\%$ in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

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PHOTO FACT* Folder

*TRADE MARK

**BENDIX
MODEL 646 A**



BENDIX MODEL 646A

TRADE NAME bendix, Model 646A
MANUFACTURER Bendix Radio Division, Bendix Aviation, Baltimore 4, Md.
TYPE SET AC - DC Superheterodyne - Self Contained Loop Antenna
TUBES (SIX) Types 14A7 RF Amp., 14Q7 Converter, 14A7 IF Amp., 14B6 Det.-AVC-AF, 35A5 Power Output, 35V4 Rectifier.

POWER SUPPLY 105-125 Volts AC-DC Rating .300 Amp. @ 117 Volts AC
TUNING RANGE—BROADCAST 535-1725KC SHORT WAVE

ALIGNMENT INSTRUCTIONS						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
.1 MFD	High side to pin #6 (signal grid) of 14Q7. Low side to B-.	455KC	High freq. end across of dial. Rotor voice coil full open.	"	A1, A2, A3, A4.	Adjust for maximum output. Use isolation transformer if available. If not, isolating capacitor must be connected between generator ground lead and receiver B-. Also decrease dummy ant. to .001 MFD to prevent excessive hum modulation.
50 MMFD	High side to ext. ant. connection. Low side to B-.	1550KC	6-21/32" from left end of dial back-plate.	"	A5	Adjust for maximum output. Use isolation transformer or isolating capacitor.
"	"	965KC	4-29/32" from left end of dial back-plate.	"	A6, A7	Check sensitivity and calibration.
"	"	580KC	2-23/32" from left end of dial back-plate.	"		Check sensitivity and calibration. If incorrect readjust A6 and A7 at 1550KC

Adjust dial pointer by turning tuning control fully counterclockwise and adjusting dial pointer until it is exactly 2-3/32" from left hand end of dial back plate. Volume control at maximum volume and output from signal generator no higher than is necessary to obtain output reading. Use insulated alignment screwdriver for adjusting.

**BENDIX
MODEL 646 A**

CHASSIS—TOP VIEW

CHASSIS—BOTTOM VIEW