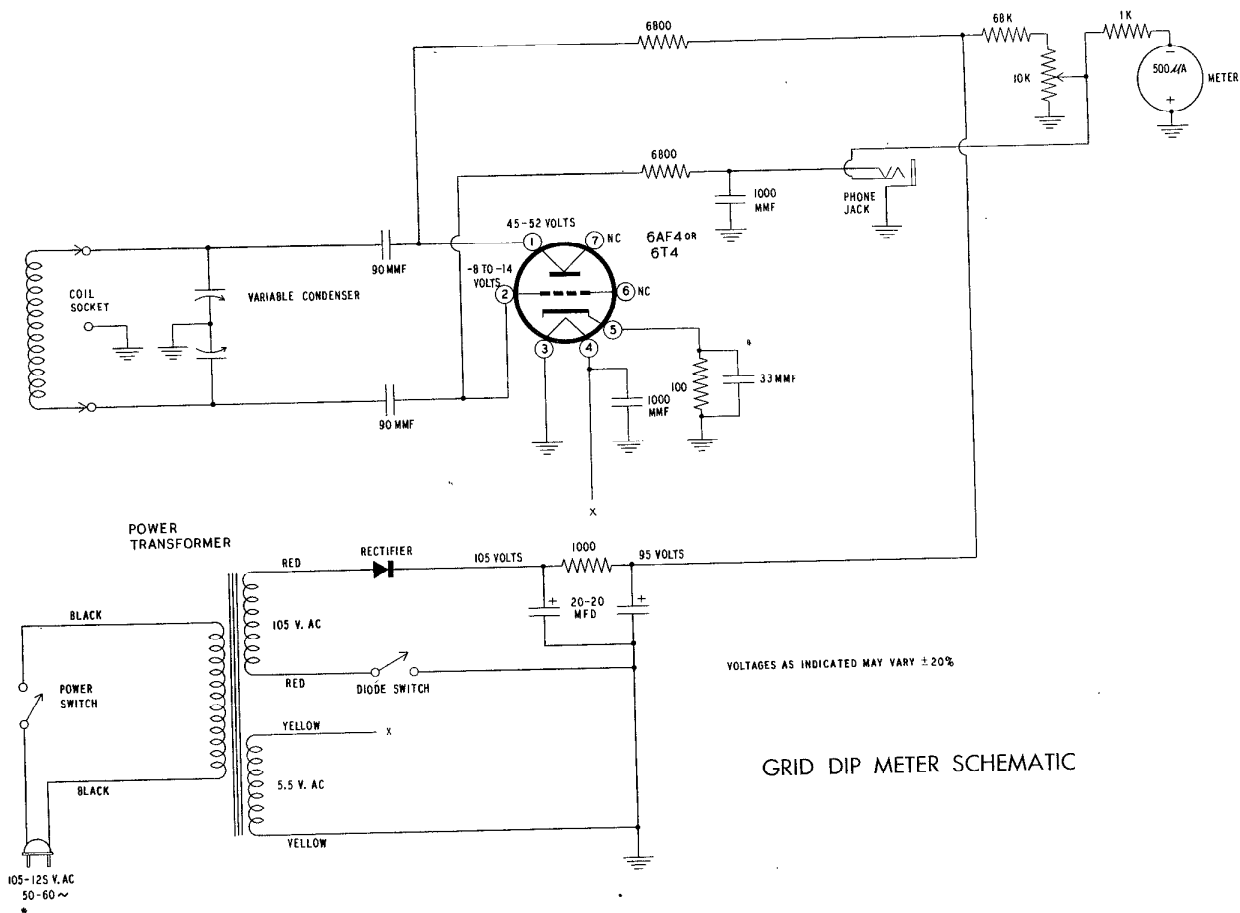
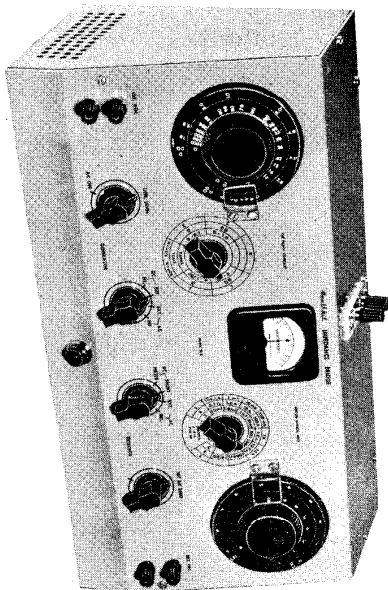


Frequency Range.....	2 to 250 mc using five coils. Additional coils available; extending frequency to 350 kc.
Meter Movement.....	500 microampere
Power Requirements.....	117 volt, 5 watts, 50/60 cycle
Power Supply.....	Transformer operated selenium rectifier
Dimensions.....	7" long x 2 1/2" wide x 3 1/4" deep
Shipping Weight.....	4 lbs.
Net Weight.....	2 lbs.

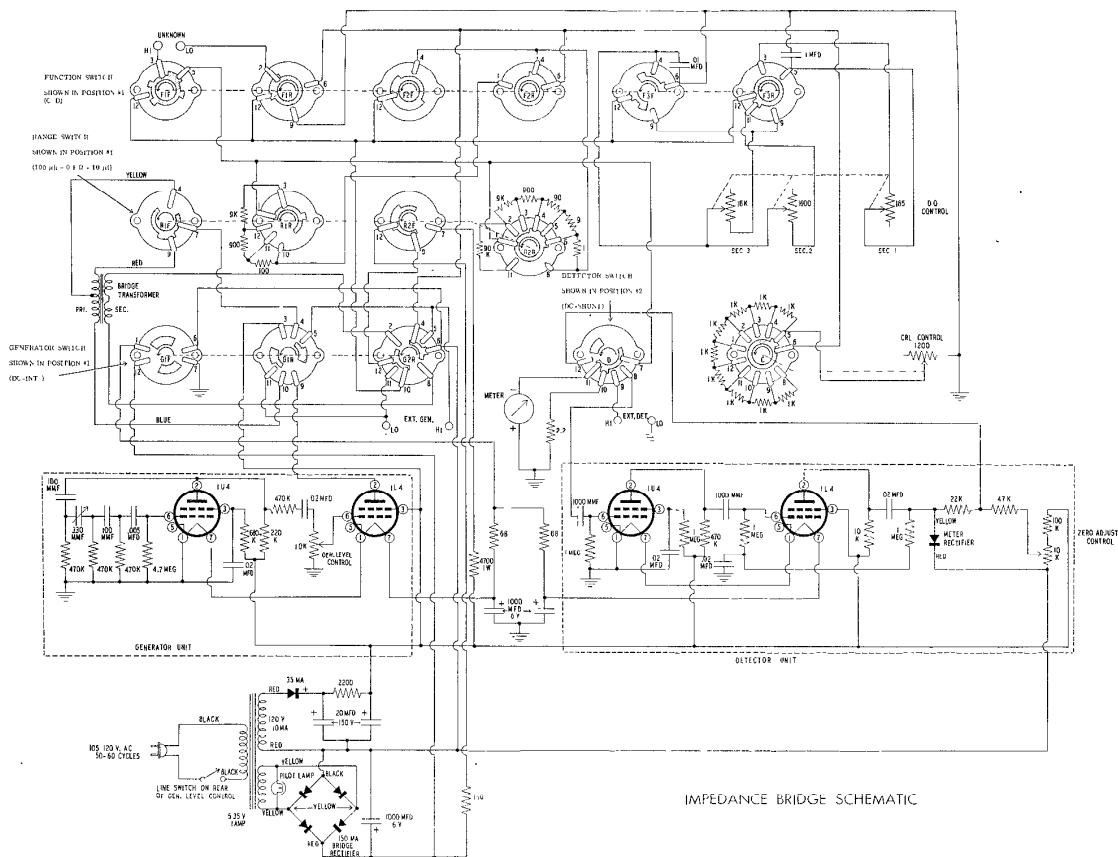


HEATHKIT IMPEDANCE BRIDGE MODEL IB-2

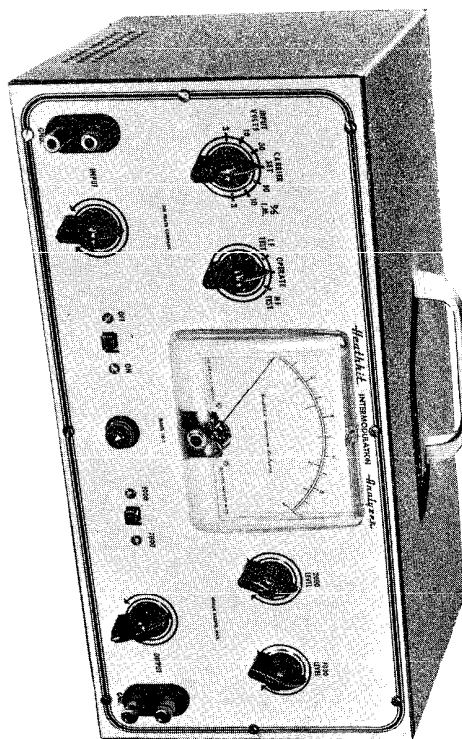


SPECIFICATIONS

Circuit.....	4-arm impedance bridge
DC Measurements.....	Built-in power supply operating directly from 110 V AC. Panel binding posts provide for use of external supply.
Meter.....	100-0-100 microampere meter
AC Measurements.....	Built-in 1000 cycle vacuum tube oscillator. Terminals on panel provide for connecting an external generator for measurement at other frequencies.
Detector.....	Vacuum tube detector and rectifier make use of built-in meter. Panel binding posts provide for connection to external detector.
Resistance.....	0.1 Ω to 10 megohm
Capacitance.....	10 μfd to 100 μfd
Inductance.....	0.002 to 1
Dissipation Factor (D).....	0.1 to 1000
Storage Factor (Q).....	1/2 or 1/3 decade resistors used. 1/2 of 1% silver mica condensers used. Accuracy is limited more by interpretation of scales and workmanship of assembly. The following is normal:
Accuracy.....	Resistance $\pm 3\%$
	Capacitance $\pm 3\%$
	Inductance $\pm 10\%$
	Dissipation Factor (D) $\pm 20\%$
	Storage Factor (Q) $\pm 20\%$
Power Requirements.....	Accuracy will fall off at extreme outer limits.
Tube Complement.....	105-125 volts, 50/60 cycles, 10 watts
Power Supply.....	2 - 11U4 and 2 - 11A
Cabinet Size.....	Power Transformer and Selenium Rectifier
Shipping Weight.....	8" high x 17" wide x 6" deep
	15 lbs.

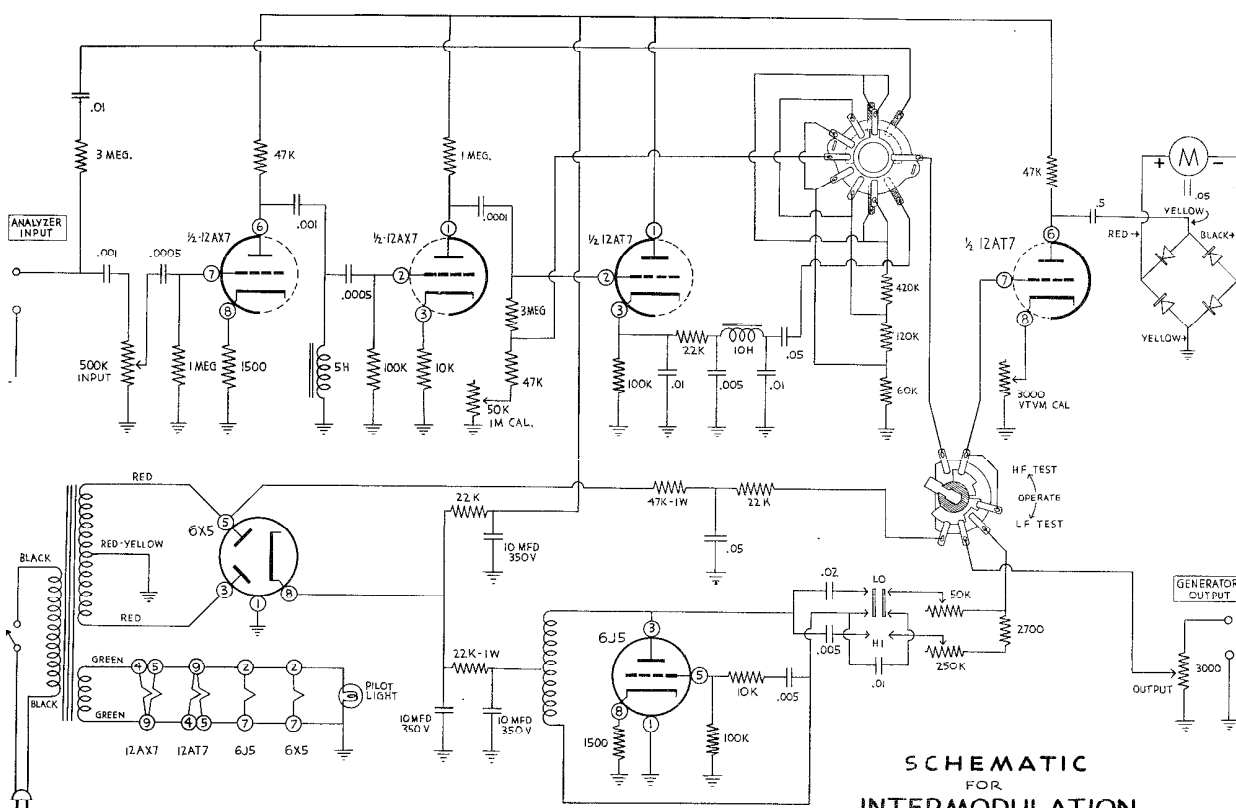


HEATHKIT INTERMODULATION ANALYZER MODEL IM-1



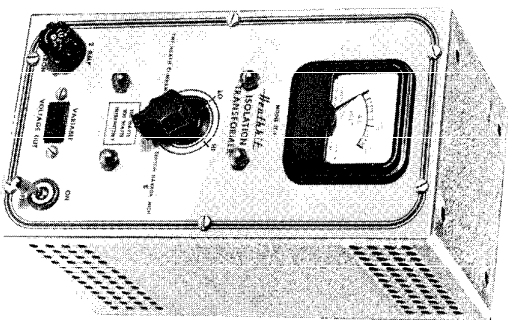
TECHNICAL SPECIFICATIONS

Power Requirements:	105-125V AC, 50-60 cycles, 30 Watts (115-230V on export model)
Tube Complement:	1 12AX7 Cascade Amplifier 1 12AT7 Detector and Meter Amplifier 1 6J5 HF Oscillator 1 6X5 Rectifier
Analyzer Ranges:	Full Scale 30% - 10% - 3% 60 cycles (Line Frequency) Approx. 3000 and 7000 cycles LF/HF Ratio: 4 to 1 voltage normal—can be set to any combination.
Generator Output Impedance:	3000 ohms
Voltmeter Ranges:	Full Scale 30 Volts - 10 Volts - 3 Volts
Dimensions:	7" high x 15" wide x 8" deep
Shipping Weight:	10 lbs.



SCHEMATIC
FOR
INTERMODULATION
ANALYZER
IM-1

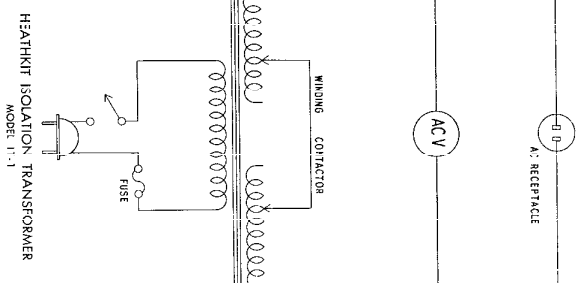
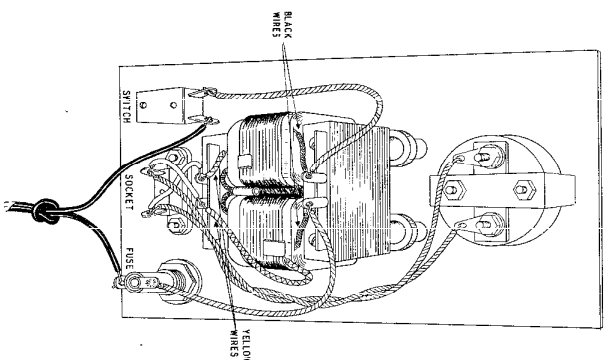
HEATHKIT ISOLATION TRANSFORMER MODEL IT-1



APPLICATIONS

The Heathkit Isolation Transformer will fulfill a multitude of requirements in service shops. Not only will it provide isolation for universal or transformerless type radios and thereby eliminate shock hazard, it will also provide a means of increasing the AC voltage applied to the radio. In this manner, intermittent conditions of operation can be detected by applying higher than normal voltages and thereby inducing a breakdown in the component affected. While this does not necessarily represent the universal solution to intermittent operation difficulties, it will prove extremely helpful in eliminating some of the more common faults.

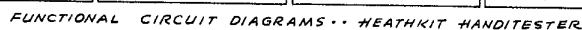
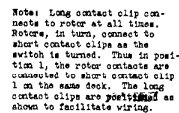
It is possible that many other applications of the Isolation Transformer will suggest themselves to the user; i.e. it can be used to isolate interference radiating devices from the AC line thereby reducing interference level. It can also be used in checking fluorescent lamp starters by determining the voltage level required for operation. Small motors or appliances may have their operating characteristics altered through the use of a variable voltage Isolation transformer-



MODEL M-1



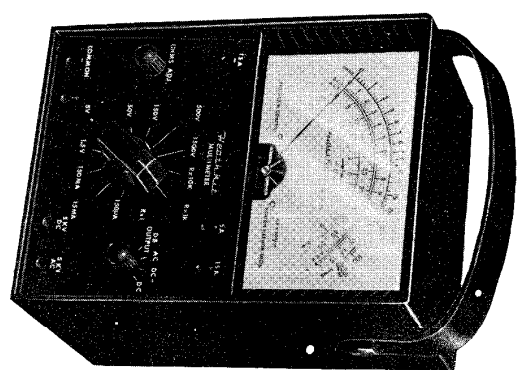
Range DC Volts.....	Full scale 10-30-300-1,000 and 5,000 Volts
Range AC Volts.....	Full scale 10-30-300-1,000 and 5,000 Volts
Range Ohmmeter.....	0-3,000 Ohms 30 Ohms Center 0-300,000 Ohms 30 Ohms Center 0-10 MA 0-100 MA 400 Microampere 3"
Range Milliamperes.....	Dual half wave
Meiter Movement.....	1% divider and calibrating resistors provided
AC Rectifier.....	Meiter movement 2% of full scale
Accuracy.....	Streamline Bakelite
Case.....	Burgess No. 1 Unicell Flashlight Battery
Ohmmeter Battery.....	



MODEL M-1

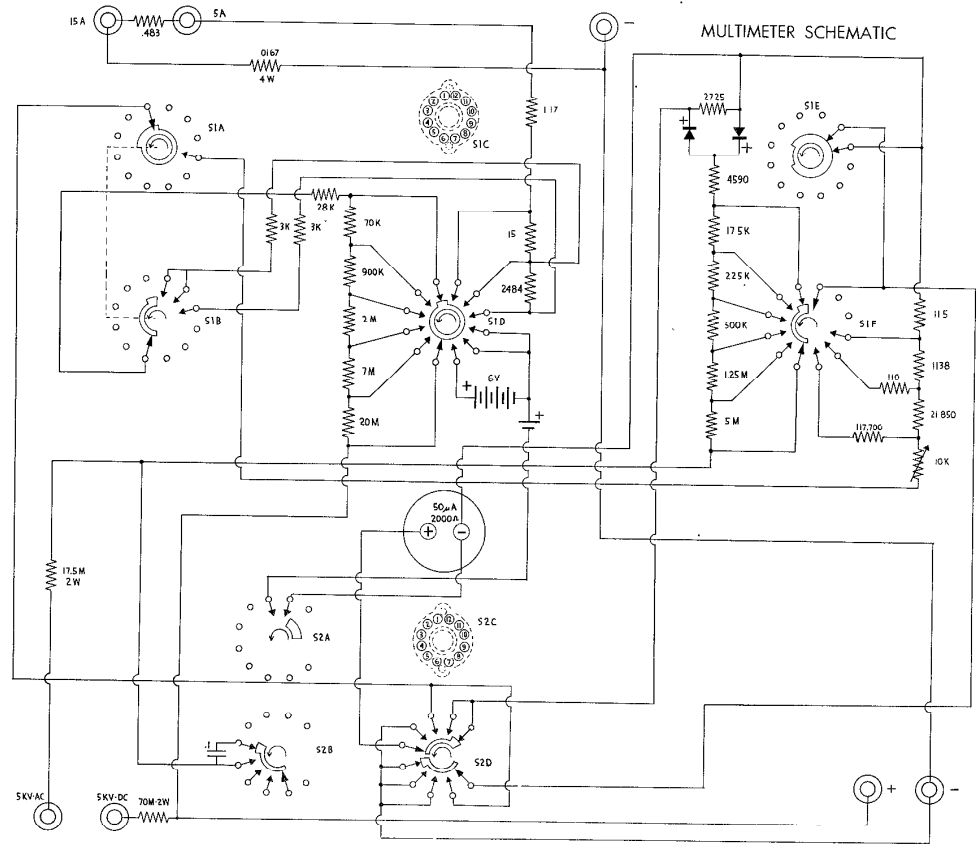
The HEATH COMPANY
BENTON HARBOR, MICH.

HEATHKIT MULTIMETER MODEL MM-1

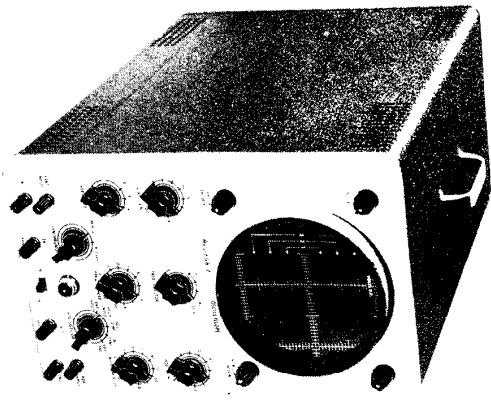


SPECIFICATIONS

- Sensitivity.....20,000 ohm/volt DC, 5000 ohm/volt AC
- Range, DC Volts.....1.5 - 5 - 50 - 150 - 500 - 1500 - 5000
- Range, AC Volts.....1.5 - 5 - 50 - 150 - 500 - 1500 - 5000
- Range, Direct Current.....150 microamperes, 15 - 150 - 500 milliamperes, 15 amperes.
- Range, Ohmmeter.....0.2 ohms to 20 megohms
- Range, Decibels.....-10 to +65 db
- Resistors.....1% precision type
- Controls.....Range switch, Output-AC-DC-Reverse DC switch, Ohms adjust control.
- Batteries.....1 type C cell, 4 Penlite cells
- Cabinet.....Black Bakelite
- Dimensions.....7 1/2" x 5 1/2" x 4"
- Net Weight.....4 lbs.
- Shipping Weight.....6 lbs.

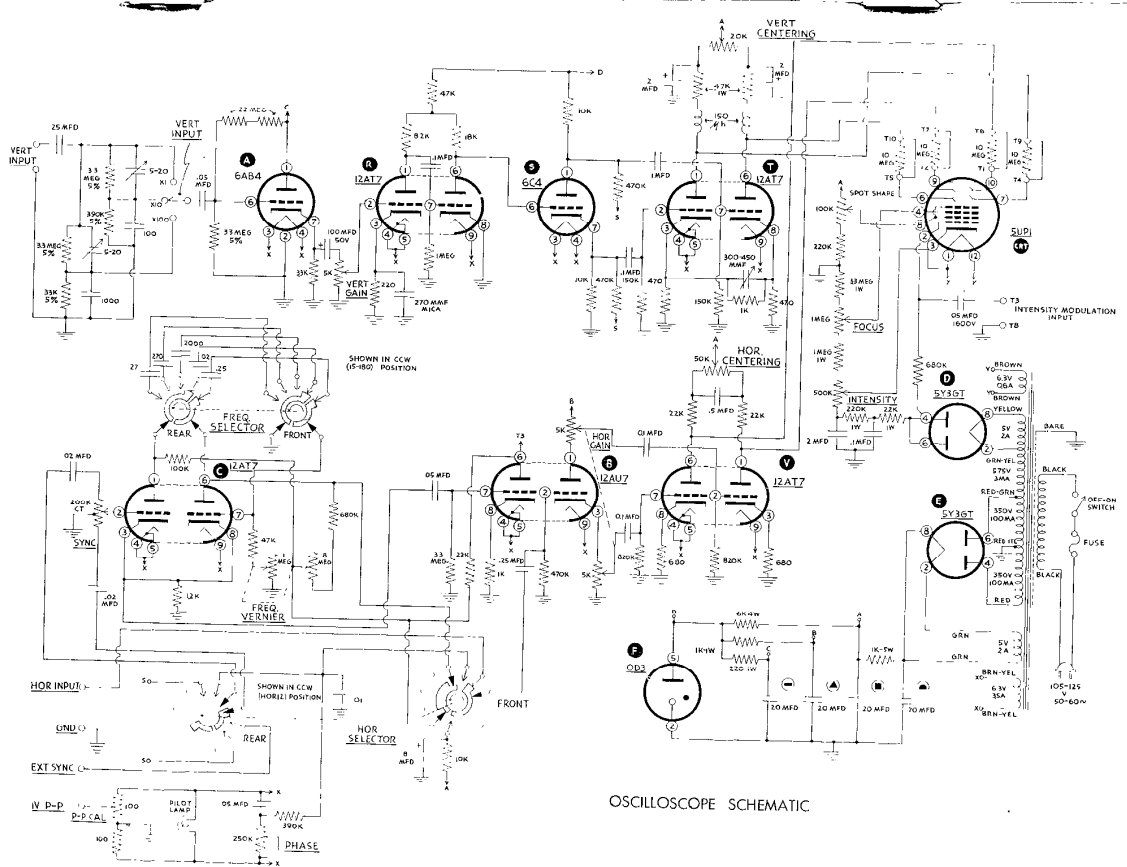


HEATHKIT OSCILLOSCOPE MODEL O-9



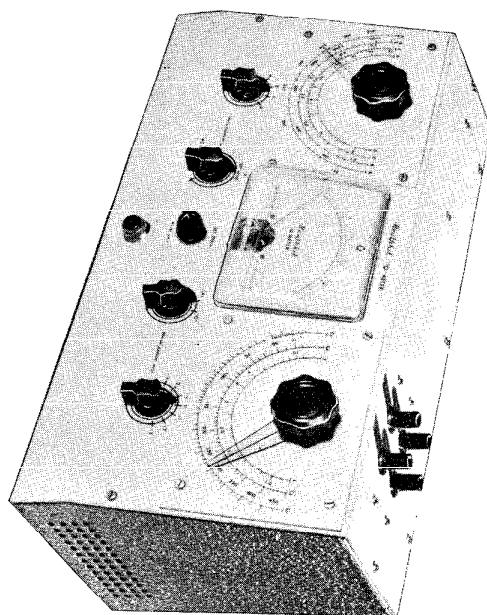
SPECIFICATIONS

Vertical: Frequency Response.....	.2 db 10 cycles to 2 mc
Sensitivity.....	.6 db 5 cycles to 3 mc
Input Impedance.....	0.025 volts per inch at 1 kc
Horizontal: Frequency Response.....	47 μ i shunting 2 megohm X1 position
Sensitivity.....	35 μ i shunting 2 megohm X10-100 position
Input Impedance.....	.6 db 10 cycles to 500 kc
Sweep Generator.....	25 μ i shunting 1 megohm
Tube Complement.....	Multivibrator - frequency range of 10-50,000 cps
	1 - 50P1 Cathode Ray Tube
	1 - 6AB4 Vertical Input
	1 - 12A07 Horizontal Input and Blanking
	1 - OD3 Regulator
	1 - 6C4 Vertical Phase Splitter
	4 - 12AT7 Multivibrator, Vertical Cascade Amplifier, Horizontal and Vertical Deflection Amplifiers.
Power Requirements.....	2 - 5Y3GT Low and High Voltage Rectifiers
Dimensions.....	10 $\frac{1}{2}$ x 12 $\frac{1}{2}$ x 5 $\frac{1}{2}$ inches, 70 watts
Net Weight.....	8 $\frac{5}{8}$ x 1 $\frac{1}{8}$ x 1 $\frac{1}{8}$ inches x 16" deep
Shipping Weight.....	18 $\frac{1}{2}$ lbs.
	26 lbs.



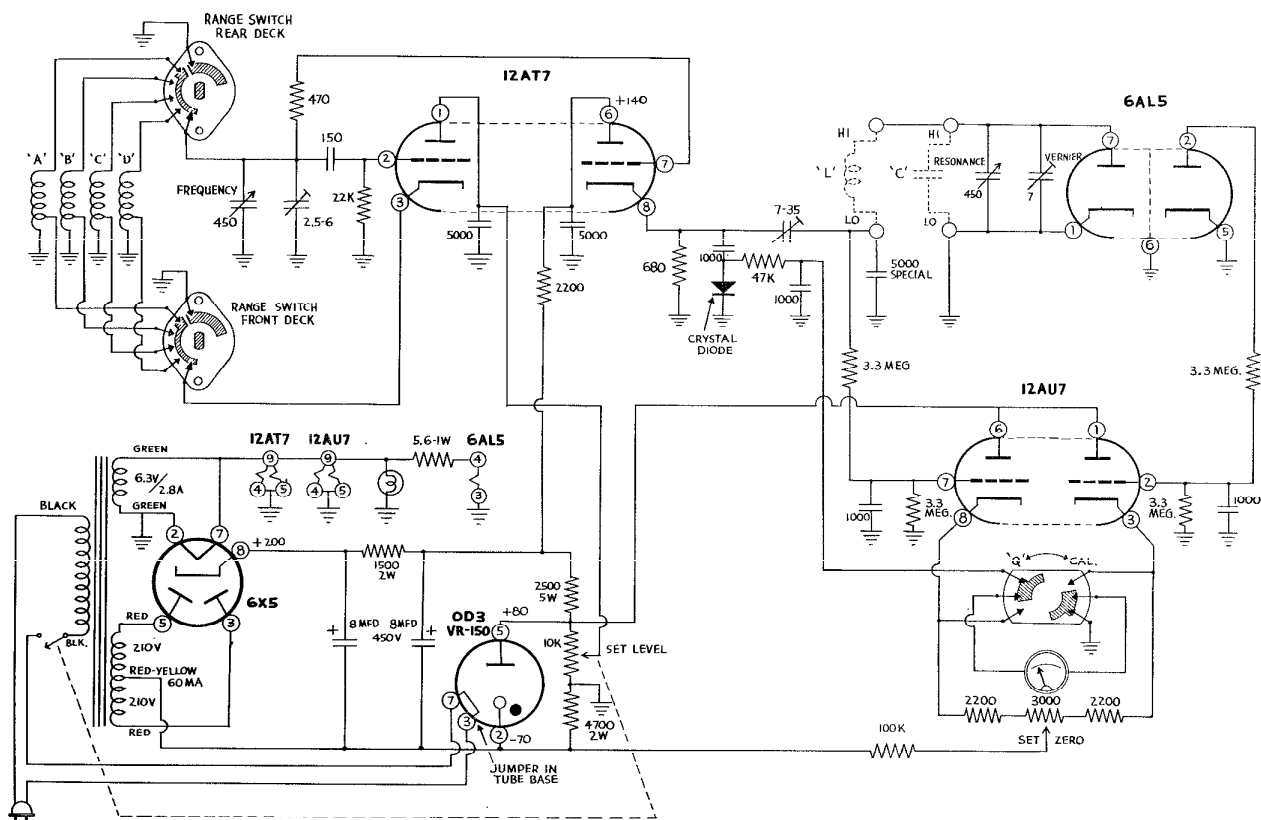
OSCILLOSCOPE SCHEMATIC

HEATHKIT MODEL QM-1 Q-METER



SPECIFICATIONS

Power Requirements	115 volts AC 50/60 cycles 30 watts
Tube Complement	1 - 12AT ⁶ Oscillator
1 - 6AL5 VTVM diode	
1 - 12AU ⁷ VTVM amplifier	
1 - OD3/VR150 Regulator	
1 - 6X5 Rectifier	
Frequency Range	150 KC - 18 MC
Inductance Scale Range	1 micro H. - 10 milli H.
Actual Capacity Scale Range	40 MMF - 450 MMF
Effective Capacity Scale Range	40 MMF - 400 MMF
Vernier Capacity Scale Range	-3 MMF - +3 MMF
"Q" Scale Range	250 Full scale x1 or x2
Dimensions	8" high x 17" wide x 6" deep



Tube Complement..... 12AX7 Voltage Amplifier and Phase Splitter
2 6X5 Push Pull Power Amplifiers

2 - 35C5 Push-Pull Power Amplifiers

Compensated Volume Control

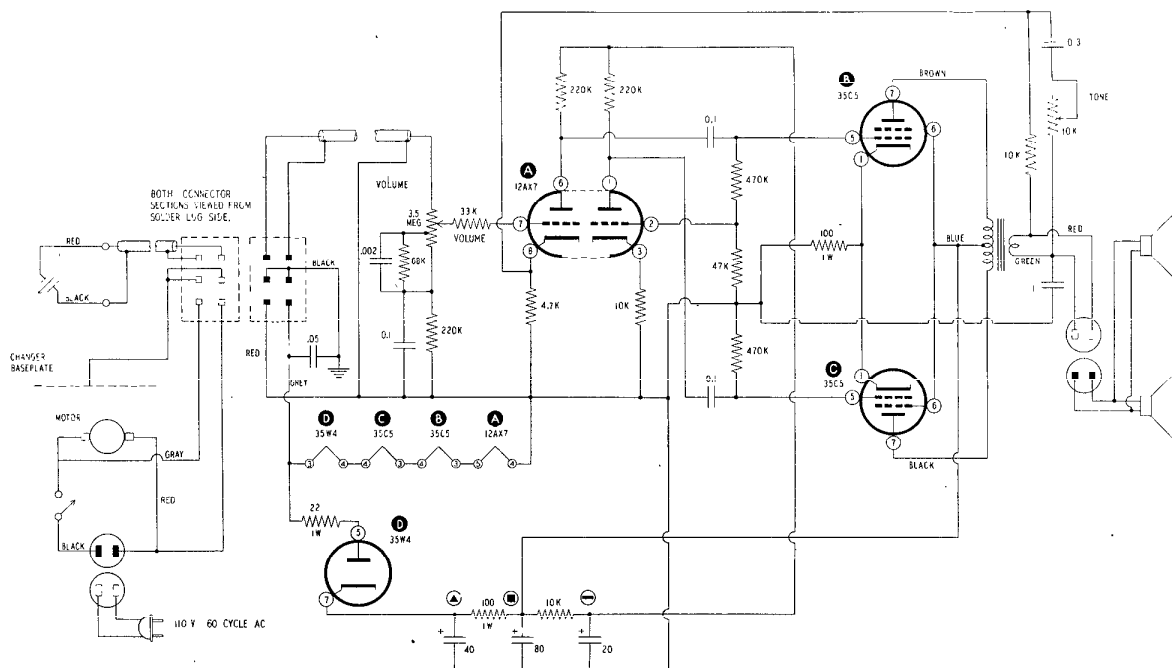
Power Requirements..... 117 volt 60 cycle AC, 45 watts

Record Changer..... Three speed, Automatic shut-off

Speakers..... 2 - 6" matched
Dewalia Iwano

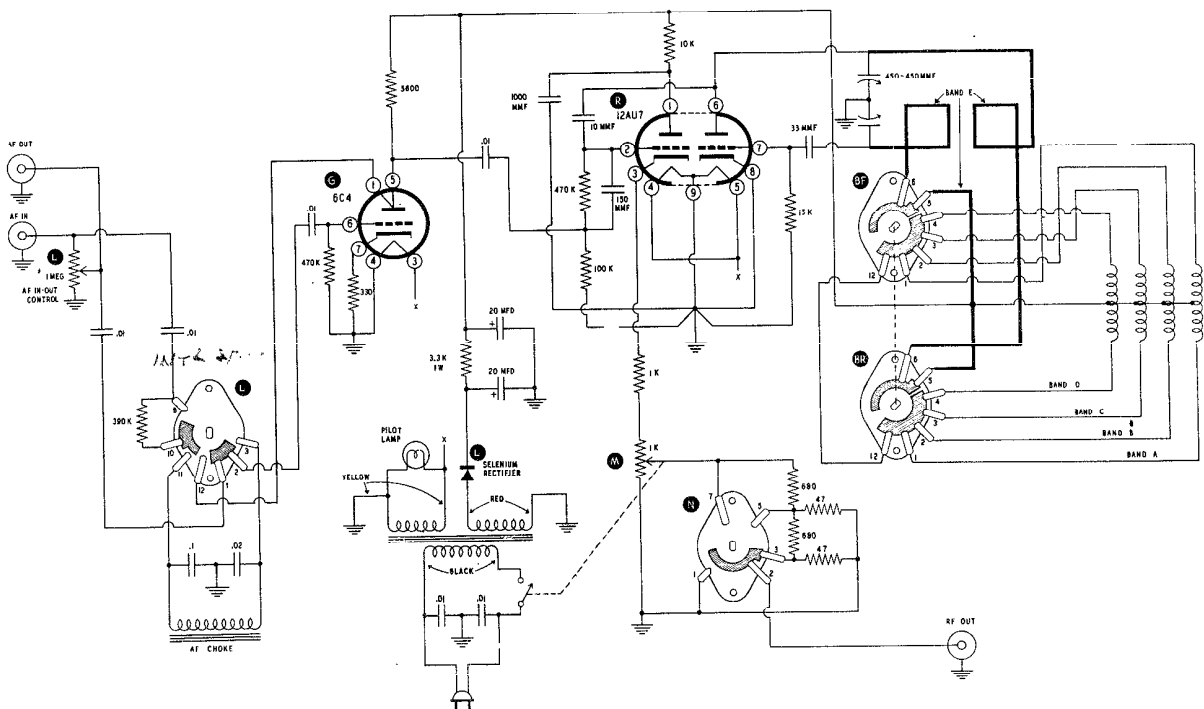
Speakers.....	Proxilyn Impregnated Fabric Covered
Cabinet.....	16 3/4" x 12 1/4" x 10 1/2" high
Dimensions.....	

Shipping Weight..... 30 lbs.

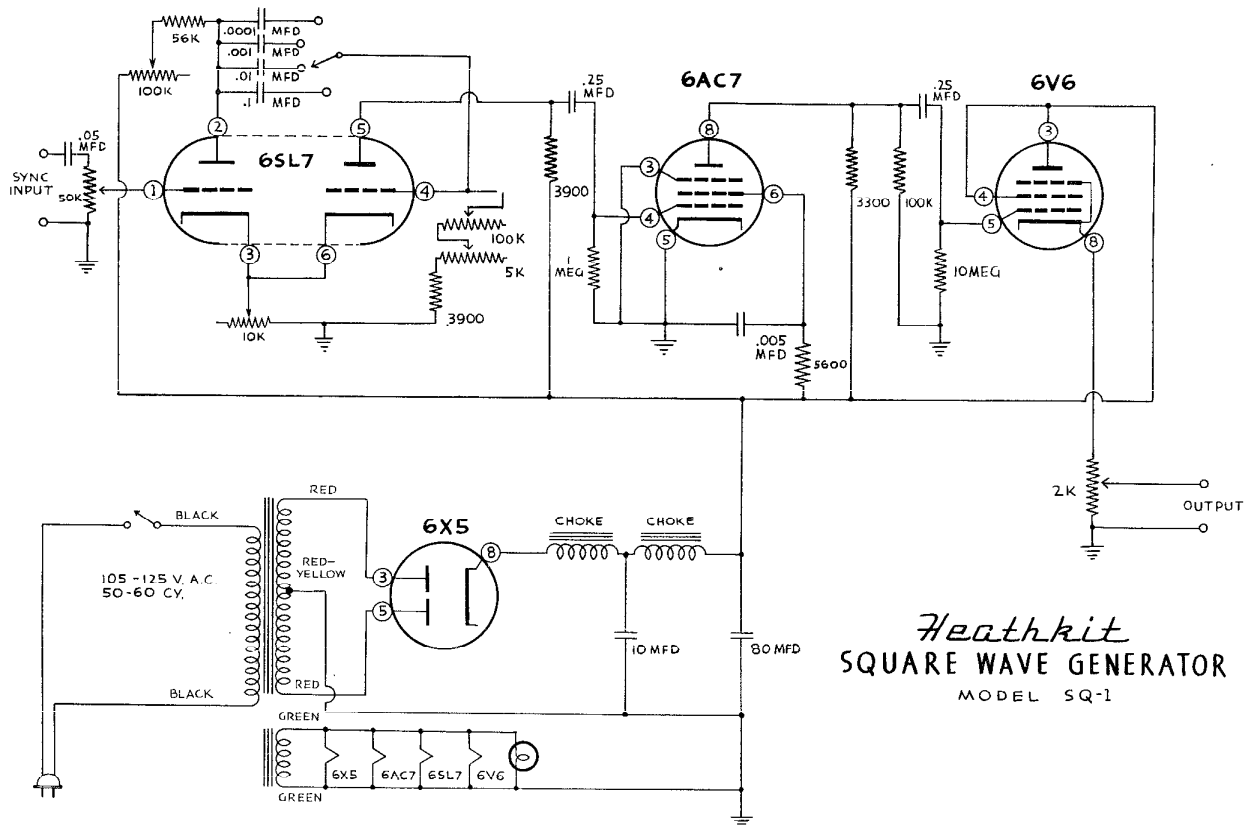


HEATHKIT RECORD PLAYER

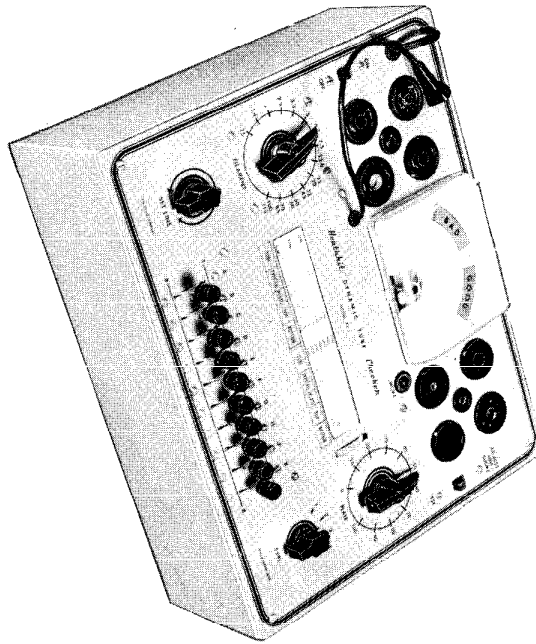
Frequency Range	
Band A.....	160 kc to 500 kc
Band B.....	500 kc to 1650 kc
Band C.....	1.65 mc to 6.5 mc
Band D.....	6.5 mc to 25 mc
Band E.....	25 mc to 110 mc
Calibrated Harmonics.....	110 mc to 120 mc
Radio Frequency Output.....	In excess of 100,000 microvolts
Modulation Frequency.....	Approximately 400 cycles
Audio Output.....	2 to 3 volts
Audio Frequency Input.....	Approximately 5 v across 1 megohm
Tubes	
12AU7.....	RF Oscillator-Buffer
6C4.....	Audio Oscillator or Audio Amplifier
Power Requirements.....	105-125 v, 50/60 cycles
Cabinet Size.....	9 1/2" wide x 6 1/2" high x 5" deep
Shipping Weight.....	7 lbs.



Power Requirements:	105-125 VAC, 50-60 Cycle, 10 Watts
Ranges:	100 - 1000 - 10 KC - 100 KC
Tube Complement:	1 - 6SL7, 1 - 6AC7, 1 - 6V6, 1 - 6X5
Physical Specifications:	12½" Long, 7" High, 7½" Deep
Shipping Weight	13 lbs.
Net Weight	11 lbs.

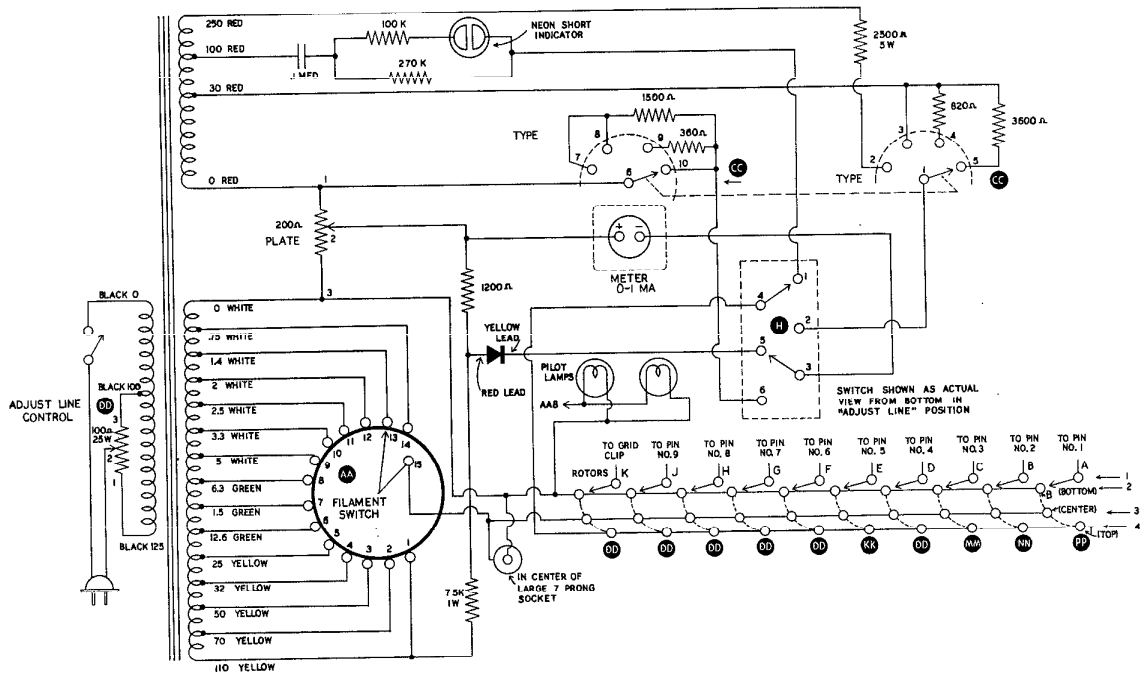


HEATHKIT TUBE CHECKER MODEL TC-2



SPECIFICATIONS

Simplified set-up procedure.
Rapid switch selection of individual tube elements.
Any combination of base pin connections.
Check for quality, emission, shorted elements, open elements, and filament continuity.
Checks 4, 5, 6, and 7 pin large, regular and miniature, octal, locial, Hytron, 9 pin miniature and pilot lamps.
Individual tests on multiple element tubes.
Blank panel socket for obsolescence protection.
Compensation for line voltage variation.
New smooth rolling illuminated roll chart.
Easy to read GOOD-BAD meter scale.
Fourteen Filament voltages - .75 to 117 volts
Element Test Voltages.....0-250 volts
Dimensions.....1 1/4" wide x 1 1/4" deep x 4 1/4" high
Power Requirements.....105-125 volts 50/60 cycles AC



SCHEMATIC
HEATHKIT TUBE CHECKER
Model TC-2

HEATHKIT VISUAL-AURAL SIGNAL TRACER MODEL T-3



FEATURES AND APPLICATIONS

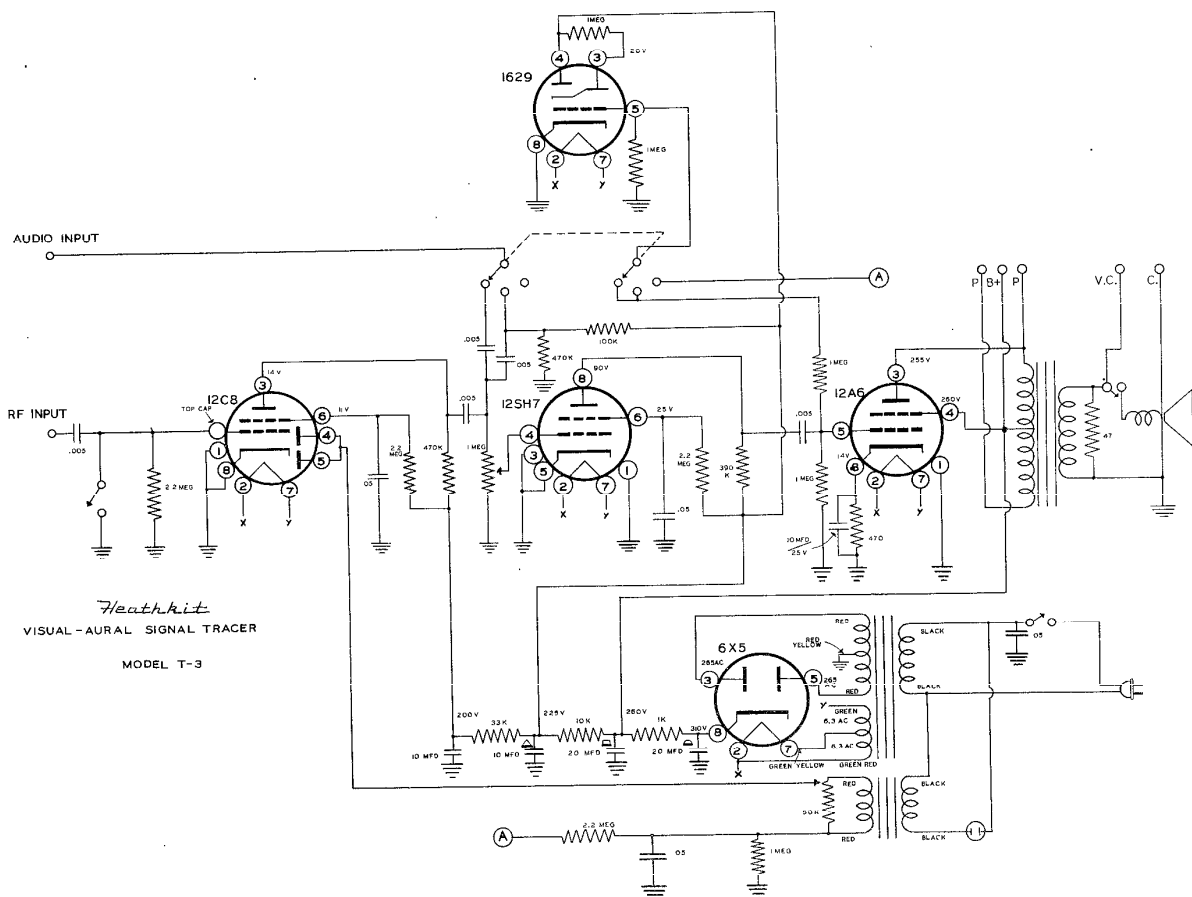
High gain RF channel for direct observation of actual transmitted signal. Can be used for AM, FM and TV circuit investigation.
 Low gain channel for audio circuit exploration.
 Visual signal indicator.
 Convenient wattmeter circuit.
 Noise locator circuit.
 Utility amplifier for checking record changers, tuners, etc.
 Useful for checking microphones, musical instrument pickups and speakers.
 Substitution test speaker and output transformer.
 Oscilloscope preamplifier.
 VTVM panel terminals.
 Output meter.

TUBE COMPLEMENT

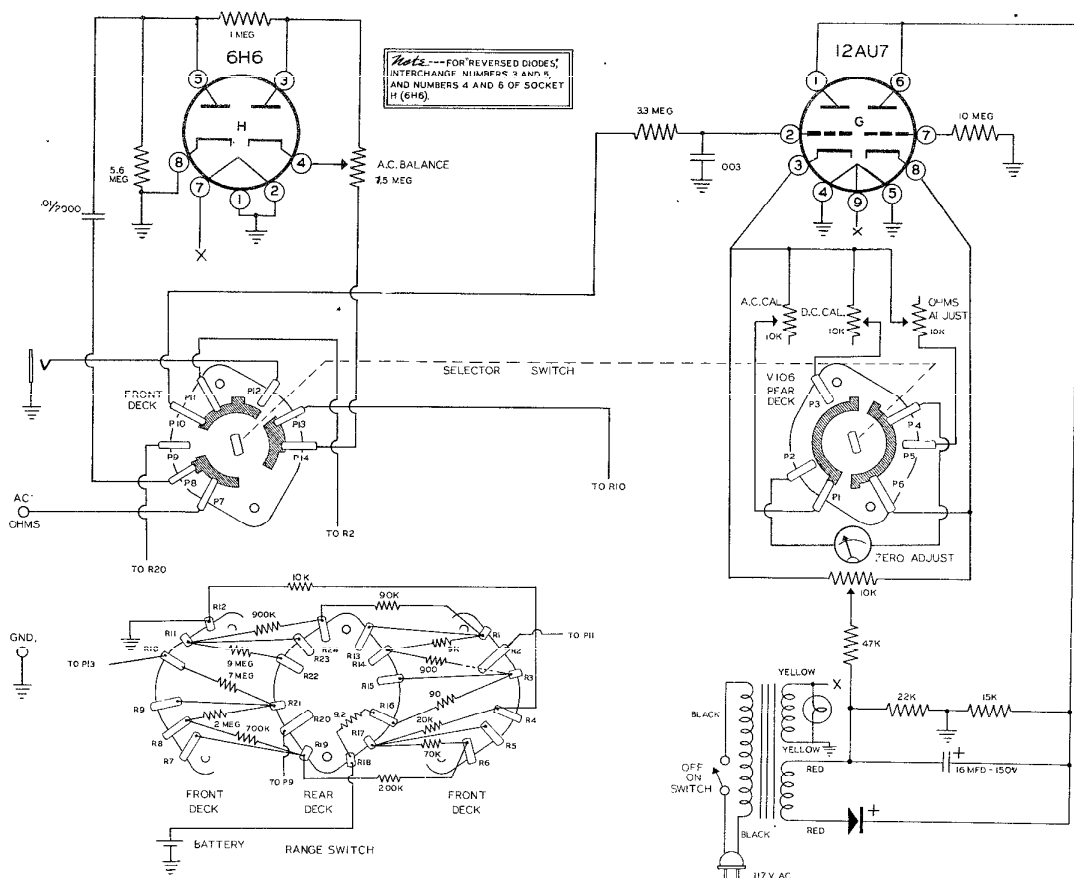
12C8 amplifier and wattmeter rectifier.
 12SH7 high gain pentode amplifier.
 12A6 beam power output.
 1629 electron beam visual indicator.
 6X5 full-wave rectifier.

PROBES AND TEST LEADS

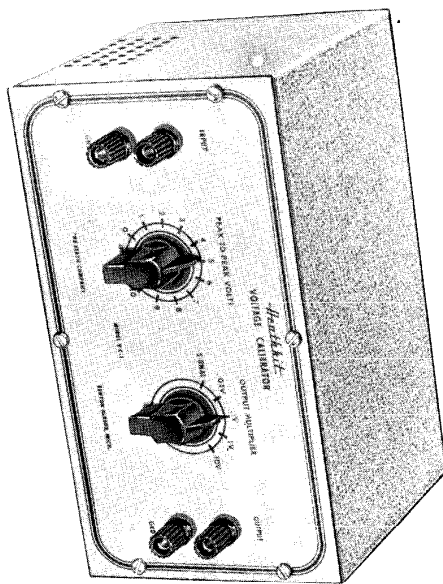
Shielded RF probe and lead.
 Audio probe and lead.
 Two flexible panel test leads with alligator clips.
SPECIFICATIONS
 Cabinet size $9\frac{1}{2}$ " wide $6\frac{1}{2}$ " high 5" deep.
 Shipping weight 8 pounds.
 Power requirements 110 to 120 volts AC at 50-60 cycles.



Power Requirements:	105-.325V 50/60 Cycle AC, 10 Watts.
Cabinet Size:	7 3/8" high x 4 11/16" wide x 4 1/8" deep.
Kit Shipping Weight:	7 pounds
Meter:	4 1/2" Streamlined case with 200 microampere movement.
Multipliers:	Precision type.
Tubes:	1 - 12AU7 Twin triode meter bridge. 1 - 6B6 Twin diode AC rectifier.
Power Supply:	Power transformer and selenium rectifier.
Battery:	1 1/2 Volt flashlight cell
D. C. Voltmeter: 7 Ranges:	0-1.5, .5, 15, 50, 150, 500, 1500 volts full scale.
	With accessory probe to 30,000 Volts.
	11 Megohms (1 megohm in probe) on all ranges.
Input Resistance:	1,100 megohms with accessory probe.
Sensitivity:	7,333,333 ohms per volt on 1.5 Volt range.
Circuit:	Balanced bridge (push-pull) using twin triode.
Electronic AC Voltmeter: 7 Ranges:	0-1.5, .5, 15, 50, 150, 500, 1,500, (1000V Max.)
	Scales reading R.M.S. (.707 of positive peak).
	Diode with adjustable compensation.
Electronic Ohmmeter: 7 Ranges:	Scale with 10 ohms center x1, x10, x100, x1000,
	x10K, x100K, x1 Meg. Measures .1 ohm to 1,000 megohms with internal battery.

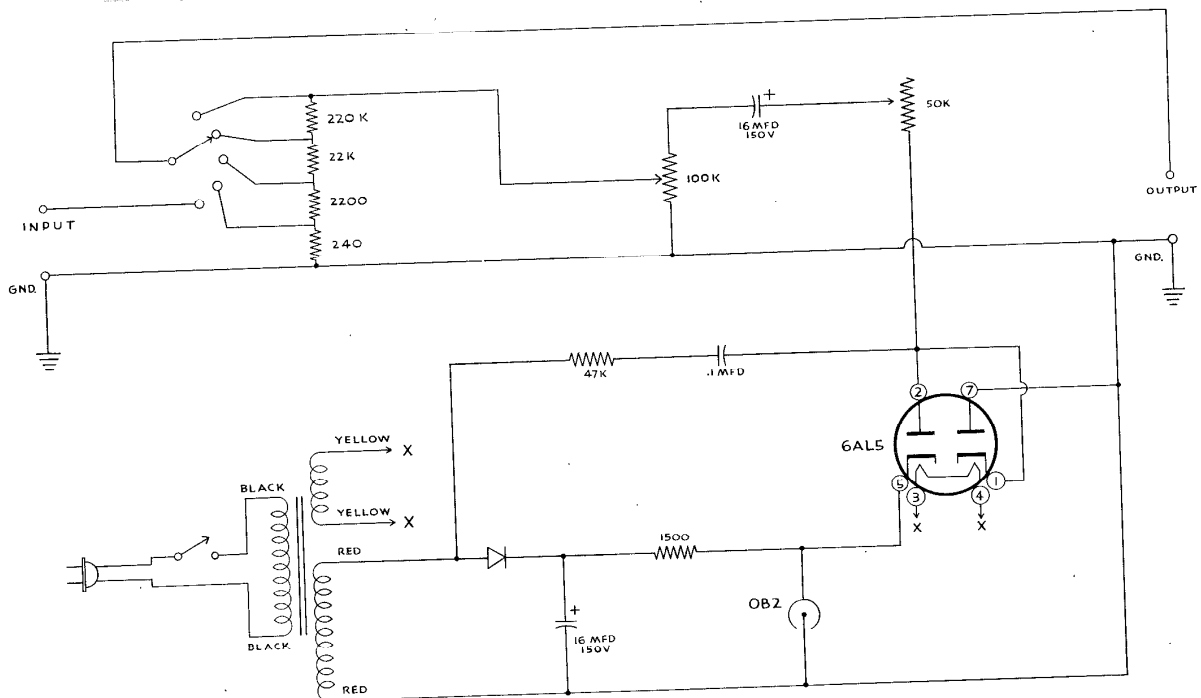


MODEL VC-2 VOLTAGE CALIBRATOR



SPECIFICATIONS

Power Requirements:	105-125V AC, 50-60 Cycles, 5 Watts.
Tube Complement:	1 6AL5 Clipper, 1 OB2 Voltage Regulator.
Input Impedance:	Approx. 25 MMF with signal tied through calibrator
Ranges: Using Peak-To-Peak Volts	0 - 1 Volt
Control and Output Multiplier switch	0 - 1 Volt 0 - 10 Volts 0 - 100 Volts
Cabinet Dimensions:	8 1/8" Wide x 4 3/8" High x 4 7/8" Deep



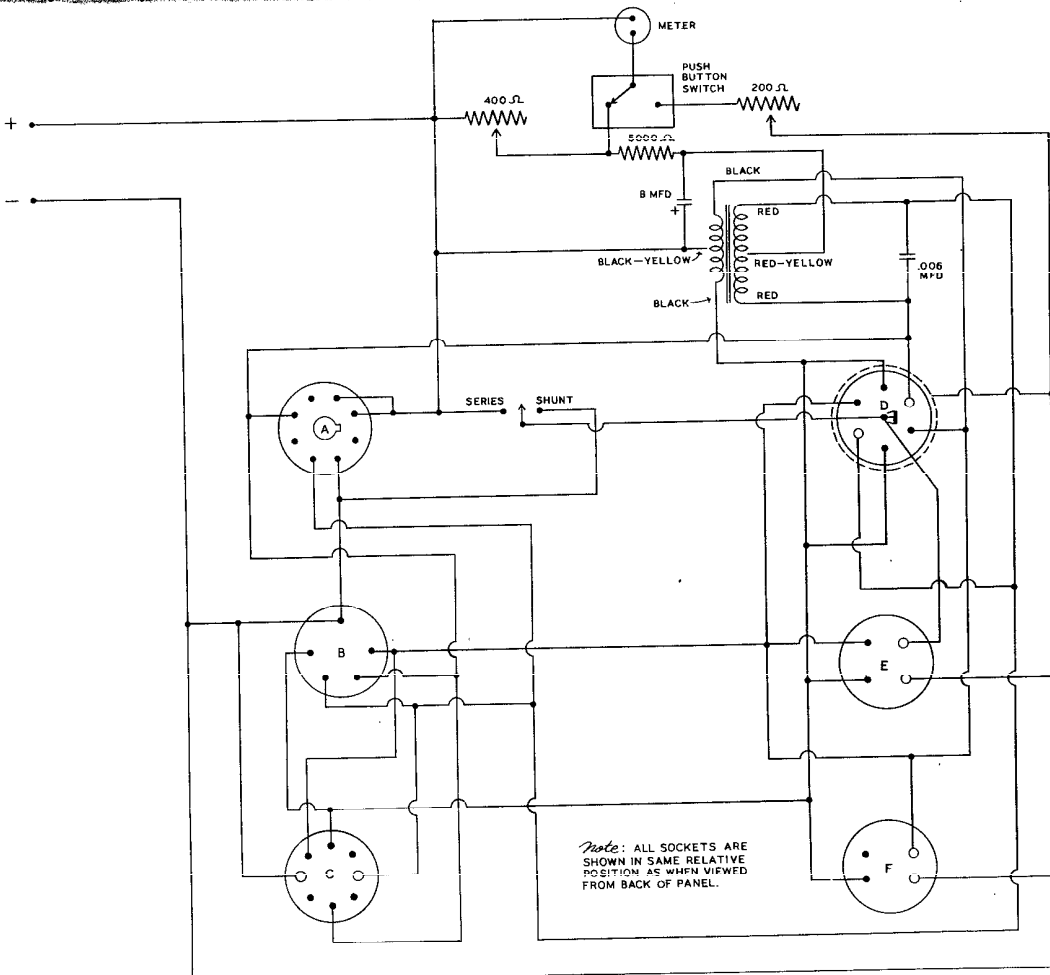
Heathkit
VOLTAGE CALIBRATOR
MODEL VC-2

HEATHKIT MODEL VT-1 VIBRATOR TESTER



SPECIFICATIONS

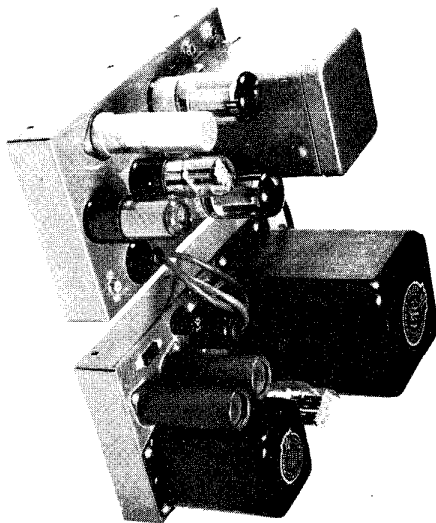
Power Requirements	4 to 6 Volts DC (Variable)
Meter Indications	4 Amperes
Size	GOOD-BAD
Shipping Weight	Length 10", width 7 1/8", Depth 3 1/2" 7 Pounds





Heathkit MODEL W-2
AMPLIFIER CIRCUIT DIAGRAM

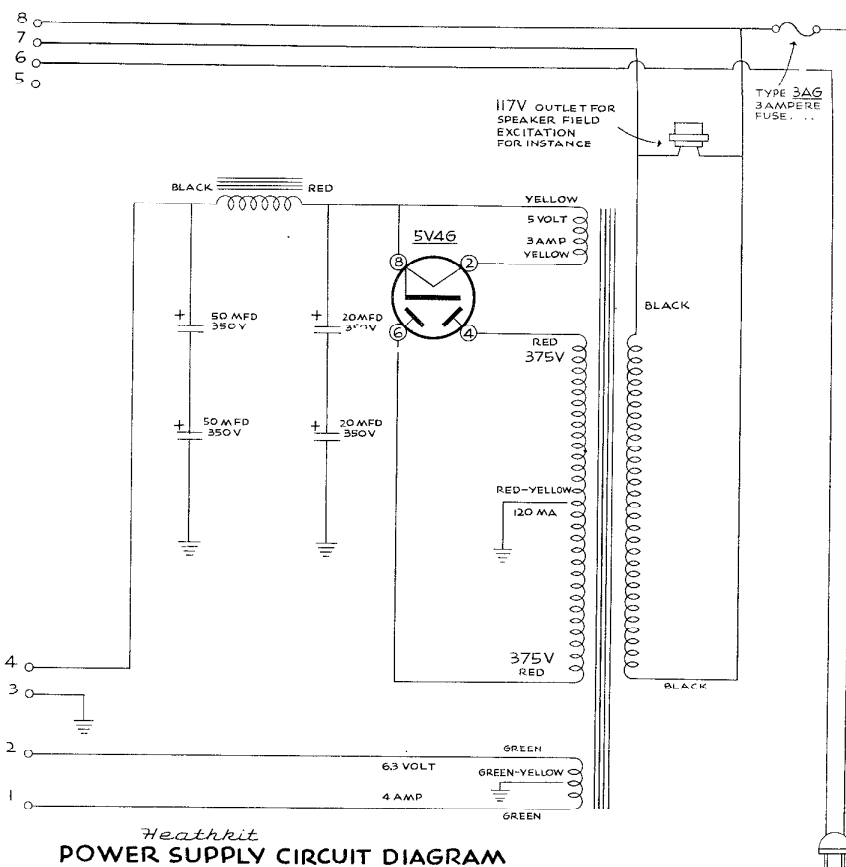
HEATHKIT "WILLIAMSON TYPE" AMPLIFIER MODEL W-2



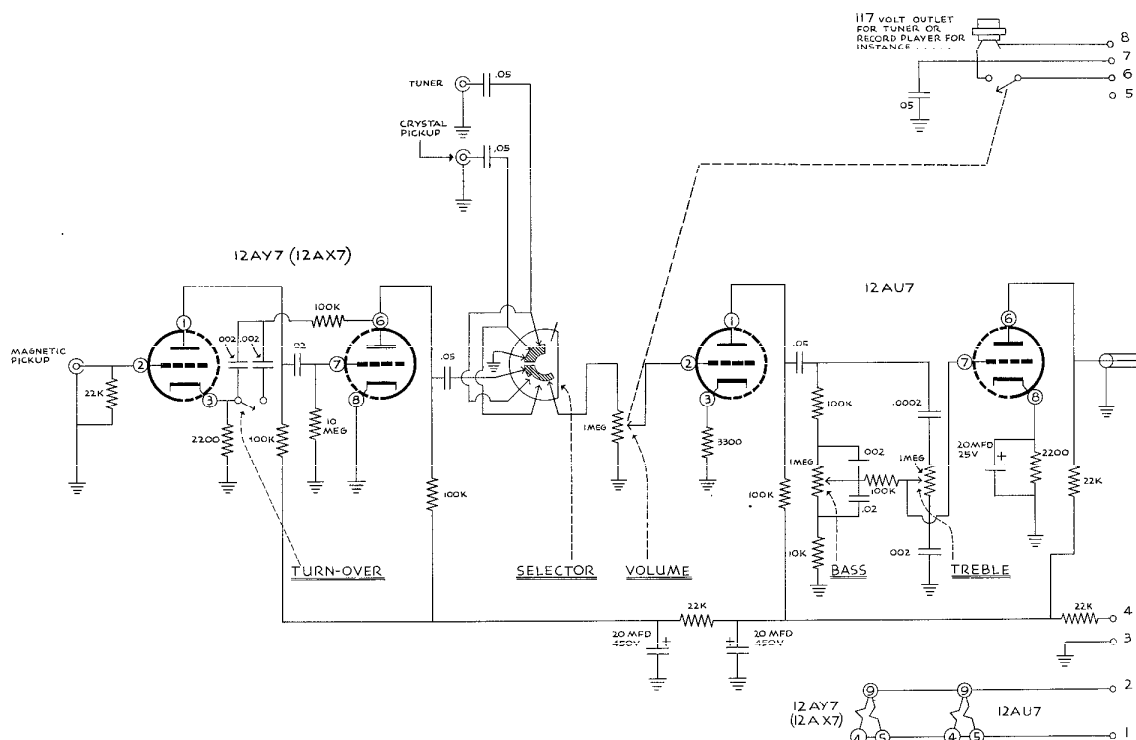
TECHNICAL SPECIFICATIONS

Amplifier and Power Supply (W-2M)

Tube Complement	2 - 6SN7GT; 2-5881; 1 - 5V4G
Frequency response	within 1 db from 10 cycles to 100 KC.
Harmonic distortion at 5 watt output	less than 0.5% between 20 cycles and 20 KC
IM distortion at 5 watt equivalent output	0.5% using 60 and 3000 cycles.
Output impedance	4, 8 or 16 ohms.
Input voltage for 5 watt output	75 volts across 2.2 megohms
Power requirements	105-125 volts 50/60 cycles 120 watts.
Overall dimensions (each unit)	7" high x 5½" wide x 11" long.

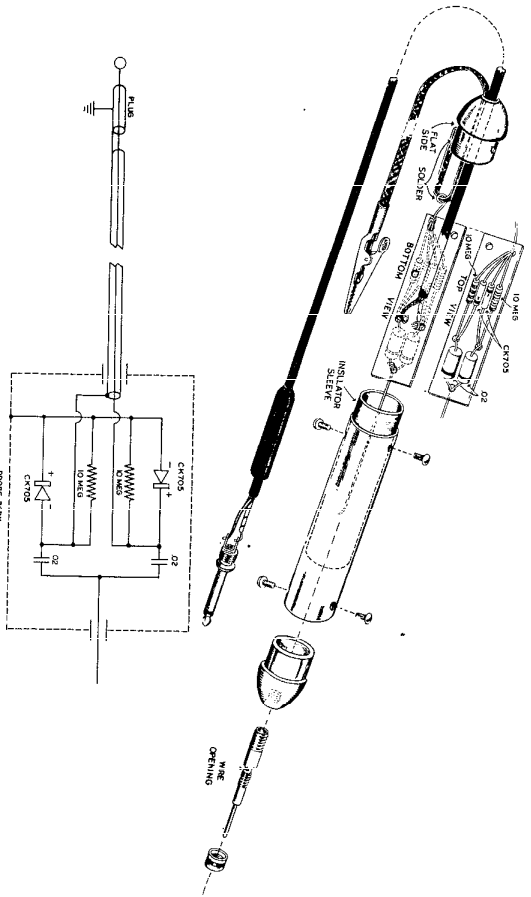


Tube Complement.....	1 - 12AY7 (or 12AX7) and 1 - 12AU7.
Switch selected inputs.....	2 - low gain for crystal pickup and tuner. 1 - high gain for magnetic pickup.
Switch selected turn-over.....	for 73 RPM and LP on high gain channel.
Bass tone control at 20 cycles.....	boosts 15 db max., cuts 15 db max.
Treble tone control at 20KC.....	boosts 15 db max., cuts 15 db max.
Input voltage at 1KC for 1.2 volts output.....	0.2 volts across 1 megohm on low gain channels. 0.004 volts across 22K on high gain channel
Power requirements.....	220V DC at 6 mA and 6.3V at 600 mA.
Dimensions less shafts and knobs.....	22" high x 10 1/4" wide x 7 1/4" deep.



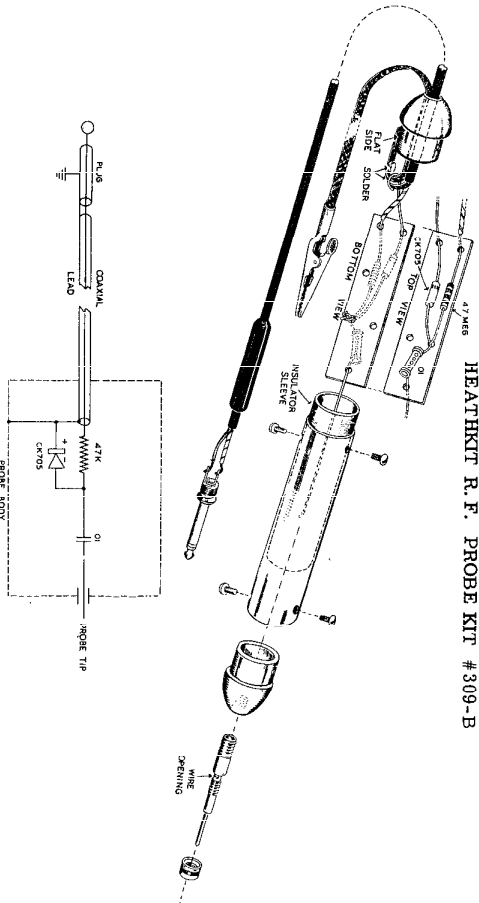
PREAMPLIFIER CIRCUIT DIAGRAM

HEATHKIT PEAK-TO-PEAK VOLTAGE PROBE #338-B



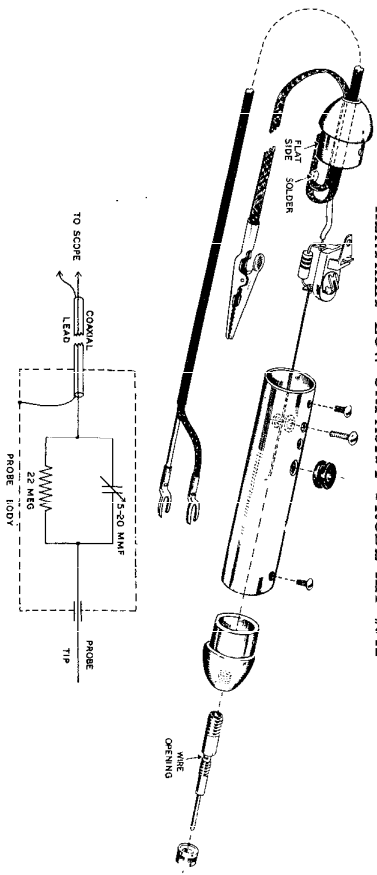
PEAK TO PEAK PROBE 338-B

HEATHKIT R.F. PROBE KIT #309-B



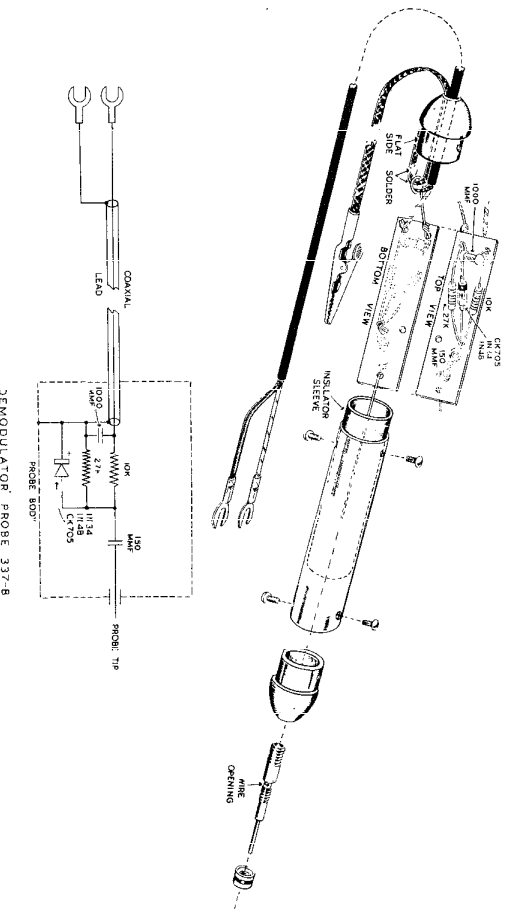
R.F. PROBE 309-B

HEATHKIT LOW CAPACITY PROBE KIT #342



PROBE 100V

HEATHKIT DEMODULATOR PROBE #337-B



DEMULATOR PROBE 337-B

This presentation of HEATHKIT SPECIFICATIONS AND SCHEMATICS represents the world's greatest selection of kit form electronic equipment offered by the world's largest kit manufacturing company.

"Always the leader and pioneer in kit form electronics."

Heath Company Benton Harbor , Michigan



Quality
ELECTRONIC
EQUIPMENT
IN KIT FORM