



K=1,000Ω  
M=1,000,000Ω  
ALL RESISTORS 1/2 WATT UNLESS OTHERWISE NOTED.

DRAWING NUMBER 649W-1			
902-173			
ELECTRONIC VOLT-OHM-CAPACITY-MILLIAMMETER			
SCHEMATIC WIRING DIAGRAM MODEL 209A			
DRAWN & TRACED	CHECKED	APP'D.	DATE
P.J.K.	[Signature]	[Signature]	4-28-1949
THE HICKOK ELECTRICAL INSTRUMENT COMPANY CLEVELAND, OHIO			

## SECTION 7 - PARTS LIST FOR MODEL 209A

NOTE: There is a minimum charge of \$1.50 for the shipment of any one order.

REF. SYMBOL	HICKOK STOCK NUMBER	NAME AND DESCRIPTION	FUNCTION
BT-1	2210-2	BATTERY: 1½ V. unit cell, size D	
BT-2		BATTERY: Same as BT-1	
C-1	3105-113	CAPACITOR: .15 mfd, 200 V, paper, Solar Solite	
C-2	3105-24	CAPACITOR: .1 mfd, 400 V, paper tubular	
C-3	3105-103	CAPACITOR: .05 mfd, 400 V, paper Solar Solite	
C-4	3085-19	CAPACITOR: 15 mfd, 25 V, electrolytic	
C-5	3095-8	CAPACITOR: 470 mmf, 500 V, 10% mica	
C-6	3085-25	CAPACITOR: 10 mfd, 450 V, electrolytic	
C-7		CAPACITOR: Same as C-3	
C-8	3095-9	CAPACITOR: 1000 mmf, 500 V, 10% mica	
C-9	3105-9	CAPACITOR: .05 mfd, 400 V, paper, tubular	
C-10		CAPACITOR: Same as C-5	
M-1	220-115	METER: Model S22-46G Chrome flush square, 0-500 microamps	
R-21	16925-11	POTENTIOMETER: 3000 ohms, linear, carbon zero adjust	
R-39	16925-12	POTENTIOMETER: 3000 ohms, linear, wire wound, A.C. calib.	
R-40		POTENTIOMETER: Same as R-39. D.C. Calib.	
R-41	16925-27	POTENTIOMETER: 10,000 ohms, linear, carbon, ohms adjust	
R-50	16925-99	POTENTIOMETER: 500,000 ohms, linear, Carbon	
R-51		POTENTIOMETER: Same as R-50	
R-1	18414-332	RESISTOR: 330,000 ohms, 10%, ½W, composition	
R-2	18415-332	RESISTOR: 3.3 megs, 10%, ½W, composition	
R-3	18525-516	RESISTOR: 3 meg, ½W, 1%	
R-4	18414-682	RESISTOR: 680,000 ohms, 10%, ½W, composi- tion	
R-5	18415-102	RESISTOR: 1 meg, 10%, ½W, composition	
R-6		RESISTOR: Same as R-4	
R-7	18415-201	RESISTOR: 2 meg, 5%, ½W, composition	
R-8		RESISTOR: Same as R-5	
R-9	18525-432	RESISTOR: 9.45 ohms, ½W, 1%	
R-10	18525-354	RESISTOR: 90 ohms, ½W, 1%	
R-11		RESISTOR: Same as R-5	
R-12	18412-472	RESISTOR: 4700 ohms, 10%, ½W, composition	
R-13		RESISTOR: Same as R-2	
R-14	18670-422	RESISTOR: 345 ohms, medium spool	
R-15	18525-353	RESISTOR: 900 ohms, ½W, 1%	
R-16	18525-355	RESISTOR: 6 meg, ½W, 1%	
R-17	18679-107	RESISTOR: 69 ohms, double spool	
R-18	18525-352	RESISTOR: 9000 ohms, ½W, 1%	
R-19	18525-356	RESISTOR: 1.2 meg, ½W, 1%	
R-20	18413-332	RESISTOR: 33,000 ohms, 10%, ½W, composi- tion	
R-22	18413-102	RESISTOR: 10,000 ohms, 10%, ½W, composi- tion	
R-23		RESISTOR: Same as R-22	
R-24	18679-107	RESISTOR: 34.5 ohms, double spool	
R-25	18525-351	RESISTOR: 90,000 ohms, ½W, 1%	
R-26	18525-357	RESISTOR: 600,000 ohms, ½W, 1%	
R-27	18679-108	RESISTOR: 6.9 ohms, double spool	
R-28	18525-445	RESISTOR: 900,000 ohms, ½W, 1%	
R-29	18525-358	RESISTOR: 120,000 ohms, ½W, 1%	
R-30	18679-108	RESISTOR: 3.45 ohms, double spool	
R-31	18550-127	RESISTOR: 9 meg, 1W, 1%	
R-32	18525-359	RESISTOR: 60,000 ohms, ½W, 1%	
R-33	18670-102	RESISTOR: 1.15 ohms, small spool	
R-34	18575-98	RESISTOR: 90 meg, 2%, 2W	
R-35	18525-360	RESISTOR: 20,000 ohm, ½W, 1%	
R-36	18412-751	RESISTOR: 7500 ohms, 5%, ½W, composition	
R-37	18412-101	RESISTOR: 1000 ohms, 5%, ½W, composition	
R-38		RESISTOR: Same as R-37	
R-42	18412-222	RESISTOR: 2200 ohms, 10%, ½W, composition	
R-43	18415-222	RESISTOR: 2.2 meg, 10%, ½W, composition	
R-44		RESISTOR: Same as R-43	
R-45	18424-562	RESISTOR: 560,000 ohms, 10%, 1W	
R-46	18414-472	RESISTOR: 470,000 ohms, 10%, ½W, composi- tion	
R-47	18415-152	RESISTOR: 1.5 meg, 10%, ½W, composition	

## SECTION 7 - PARTS LIST FOR MODEL 209A

NOTE: There is a minimum charge of \$1.50 for the shipment of any one order.

REF. SYMBOL	HICKOK STOCK NUMBER	NAME AND DESCRIPTION	FUNCTION
R-48		RESISTOR: Same as R-47.	
R-49		RESISTOR: Same as R-47.	
R-52	18575-117	RESISTOR: 90 megohms, 2W, 10%, CP2	
R-53	18412-151	RESISTOR: 1500 ohms, 5%, ½W, composition.	
R-54		RESISTOR: Same as R-1.	
R-56	18670-103	RESISTOR: 3 ohms, small spool.	
R-57	18424-301	RESISTOR: 300,000 ohms, 5%, 1W, composition.	
R-58	18413-201	RESISTOR: 20,000 ohms, 5%, ½W, composition.	
R-59		RESISTOR: Same as R-52.	
S-1	19912-172	SWITCH: Rotary, 5 section, 7 position.	Range switch
S-2	19912-168	SWITCH: Rotary, 4 section, 6 position, 7 pole.	Selector switch
S-3	19911-9	SWITCH: Toggle S. P. S. T.	Toggle
S-4	19912-62	SWITCH: Rotary, 1 section, 3 position, 4 pole.	Circuit selector
T-1	20800-90	TRANSFORMER: Power	
V-1	20875-51	TUBE: 6AL5	High frequency probe rectifier
V-2	20875-22	TUBE: 6X5GT/G	Power rectifier and A.C. volts rectifier
V-3	20875-17	TUBE: 6SJ7	Cathode follower
V-4	20875-19	TUBE: 6SN7GT	Bridge tube
V-5	20875-22	TUBE: Same as V-2.	
	3030-46	CABLE: D.C. 48" shielded cable assembly.	D.C. Test lead
	16970-15	CABLE: A.C. 48" shielded cable and probe assembly.	A.C. Test lead
	4160-70	DIAL ASSEMBLY: Dial and knob.	Selector switch control
	4160-71	DIAL ASSEMBLY: Dial and knob.	Range switch control
	10300-8	JACK: Red, pin plug.	
	10300-11	JACK: Black, pin plug.	
	11500-11	KNOB: Hickok bar, with pointer	
	12270-12	LAMP: 6-8V, .15A, #47 G.E.	Pilot lamp
	12450-152	LEAD: 48" unshielded, red.	Ohms & Mils Test Lead
	12450-99	LEAD: 48" unshielded, black.	GND & -Mils Test Lead
	19350-67	SOCKET: Miniature, polystyrene, Amphenol	
	19350-30	SOCKET: Octal, molded bakelite.	
	19350-112	SOCKET: Pilot lamp, miniature screw base red jewel.	

NOTE: In ordering parts or materials for this instrument, the serial number must be given in order to identify properly the material required.



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