

MAY 11 1977

**B & K PRECISION MODEL 501-A PARTS LIST**

488-113-9-002 B

SCHEMATIC SYMBOL	DESCRIPTION	B & K PART No.
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**TRANSFORMERS**

T-1	Power Transformer, 117V AC Primary	065-067-9-001
T-1	Power Transformer, 234V AC Primary	065-067-9-002

**MISCELLANEOUS**

F-1	1/4 Amp, 3AG 250V Slo-Blo Fuse	190-251-3-104
	Front Panel	255-095-9-903
	Molded Plastic Side, Left	271-013-9-001
	Molded Plastic Side, Right	271-013-9-002
	Bottom Panel	272-087-9-902
	Rubber Foot	380-120-9-001
	Glamour Cap	384-008-9-001
PL-1	Neon Lamp/Resistor	401-001-9-002
	Line Cord	420-013-9-001
	Instruction Manual	480-130-9-001
	Mylar Overlay	482-033-9-902
	Composite Schematic/Parts List	499-037-9-001
	Red Lead, (Banana Plug Both Ends)	539-036-0-000
	Black Lead, (Banana Plug Both Ends)	539-037-0-000
	Transistor Socket	749-076-9-001
	Knob	751-005-9-005
	Banana Jack, Red	774-001-9-001
	Banana Jack, Black	774-001-9-002
	Banana Jack, Blue	774-001-9-003
	Banana Jack, Green	774-001-9-004
	Banana Jack, Yellow	774-001-9-006
	Ferrite Core	870-002-9-001
	FP-5 Probe	FP-5

NOTE: Standard value resistors and capacitors are not listed, values may be obtained from schematic diagram.

Minimum charge \$2.00 per invoice. Orders will be shipped C.O.D. unless previous open account arrangements have been made or remittance accompanies order. Advance remittance must cover postage or express charge.

Specify serial number when ordering replacement parts.

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**CAPACITORS**

C-1, 2	1000 $\mu$ fd, 35 Volt Electrolytic Capacitor	022-001-9-015
C-3, 4, 5	100 $\mu$ fd, 25 Volt Electrolytic Capacitor	022-081-9-001

**RESISTORS**

R-1/SW-1	15K, 1/2 Watt Pot/Switch (Sweep Voltage)	008-168-9-001
R-4	5.1K, 2 Watt 5% Glass Resistor	003-002-8-512
R-9	100 $\Omega$ , 1/4 Watt 1% Carbon Film Resistor	002-011-9-001
R-10	49.9 $\Omega$ , 1/4 Watt 1% Carbon Film Resistor	002-004-9-001
R-11	20 $\Omega$ , 1/4 Watt 1% Carbon Film Resistor	002-013-9-001
R-12	10 $\Omega$ , 1/4 Watt 1% Carbon Film Resistor	002-010-9-001
R-13, 14, 40, 41, 42, 43	10K, 1/4 Watt 1% Carbon Film Resistor	002-012-9-001
R-17	2.15K, 1/4 Watt 1% Carbon Film Resistor	002-007-9-001
R-18	4.99K, 1/4 Watt 1% Carbon Film Resistor	002-005-9-001
R-36	2K, 1/4 Watt Trimpot (Calibrate)	008-170-9-001
R-37	10K, 1/4 Watt Trimpot (Offset Adjust)	008-058-9-001
R-39	1K, 2 Watt 1% Wirewound Resistor	006-001-9-005
R-44	49.9K, 1/4 Watt 1% Carbon Film Resistor	002-006-9-001
R-45	24.9K, 1/4 Watt 1% Carbon Film Resistor	002-009-9-001
R-46	12.4K, 1/4 Watt 1% Carbon Film Resistor	002-008-9-001
RP-1	Resistor Package	012-001-9-001

**DIODES**

D-1, 2, 3, 4, 5, 6, 7, 8	Diode, 1 Amp, 600 PIV Silicon Rectifier	151-018-9-001
D-9, 10	Diode, Zener, 15 Volt 5% 1 Watt 1N7444	152-031-9-001
D-11, 12	Diode, Germanium 1N100	150-001-9-006

**INTEGRATED CIRCUITS**

IC-1	723C Voltage Regulator	307-009-9-001
IC-2	7402P Quad 2-Input Nor Gate	307-011-9-001
IC-3, 4	7473P Dual J-K Flip-Flop	307-010-9-001
IC-5, 6, 7, 8	741C Operational Amplifier	307-016-9-001

**TRANSISTORS**

Q-1	Transistor, 2N3738 NPN Silicon Power, H.V.	172-012-9-001
Q-2, 3	Transistor, 2N5550, NPN Silicon Signal, H.V.	176-033-9-001
Q-4	Transistor, D40A5, NPN Silicon Power	172-005-9-001
Q-5, 6, 11, 12	Transistor, SPS2306, NPN Silicon Signal	176-023-9-001
Q-8, 9, 10	Transistor, MPSA70, PNP Silicon Signal	177-008-9-001

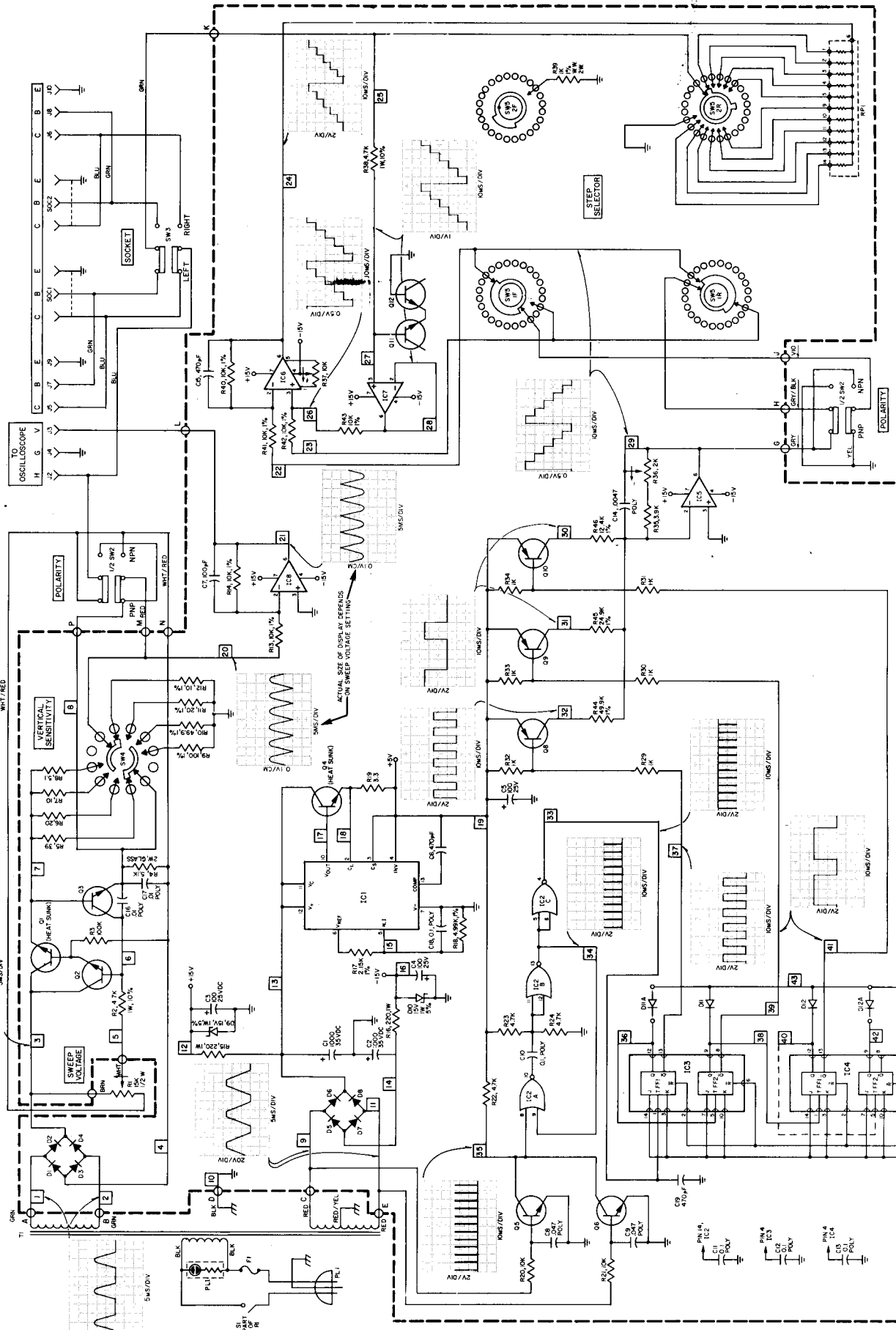
**SWITCHES**

SW-2	Slide Switch, 4PDT	084-026-9-001
SW-3	Slide Switch, DPDT	084-017-9-001
SW-4	Rotary Switch, Vertical Range	083-131-9-001
SW-5	Rotary Switch, Step Selector	083-132-9-001

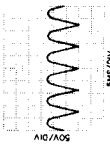
- NOTE—UNLESS OTHERWISE SPECIFIED:
- IC2-PIN 14 TO +5V, PIN 7 TO GND
  - IC3 & IC4-PIN 4 TO +5V, PIN 11 TO GND
  - ALL RESISTORS (1/4W, 5%, UNLESS SPECIFIED IN OHMS)
  - CAPACITORS IN MICROFARADS
  - VOLTAGES MEASURED WITH VTVM & 175MC INPUT TO CURVE TRACER, NOMINAL VOLTAGE TOLERANCE 10% (REFERENCED TO GROUND)
  - ROTARY SWITCHES SHOWN IN FULL CW POSITION, CURVE TRACER SET UP THUSBY:
  - SWEEP VOLTAGE POT SET TO 20V
  - SWEEP RATE POT SET TO 100V/CM
  - POLARITY SWITCH SET TO PNP POSITION
  - VERTICAL SENSITIVITY SWITCH SET TO 100V/DIV
  - 10K RESISTOR BRIDGING RIGHT SOCKET TERMINALS C-E

7. RFL IS A 1/4W, 1% D1P RESISTOR PACKAGE. VALUES ARE:  
 PIN 5 = 10K  
 PIN 15 = 500  
 PIN 6 COMMON  
 PIN 9 = 10K  
 PIN 13 = 500  
 PIN 14 = 250K  
 PIN 16 = 25K  
 PIN 17 = 10K  
 PIN 18 = 25K  
 PIN 19 = 10K  
 PIN 20 = 25K

8. ARROWS ON POTS INDICATE CW ROTATION



LAST INE	NOT USED
R46	25, 26, 27
C19	7
D12	
IC8	
SW5	
JB	



VERTICAL SENSITIVITY

SWEEP VOLTAGE

HEAT SINK

HEAT SINK

HEAT SINK

HEAT SINK

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117V/254V XFRMR  
 PRIMARY WIRING

117V SCHEME

254V SCHEME

COLOR CODE  
 for the above

① = BLK  
 ② = BLK/YEL  
 ③ = BLK/RED  
 ④ = BLK/WHI