

SCHEMATIC SYMBOL

DESCRIPTION

B & K-PRECISION PART NO.

DIODES & TRANSISTORS (continued)

D7	1N4735A (6.2 V) Zener	152-037-9-001
D8, 9, 13, 14	1N4148 Silicon Diode.....	151-038-9-001
D10	1 A, 1 kV Silicon Diode.....	151-053-9-001
D11, 12	Protection Diode (Silicon) 3 A	151-054-9-001
D17	1N4744A (15 V) Zener.....	152-031-9-001
Q1, 2	2N5818 NPN Silicon Transistor	176-051-9-001
Q3, 5	MPS6519 PNP Silicon Transistor.....	177-015-9-001
Q4, 7	P Channel FET	182-035-9-001
Q6	FET (Clamp Diode).....	182-036-9-001
Q8	2N5950 FET	182-031-9-001
Q9 - 11	PNP Silicon Transistor	177-017-9-001

INTEGRATED CIRCUITS

IC1	324, Quad Op Amp	307-060-9-001
IC2	CMOS LSI A/D Converter.....	308-085-9-001
IC3	4511.....	308-061-9-001
IC4	75491	307-082-9-001
IC5	CA-3130S.....	308-073-9-001
IC6	301	307-074-9-001
IC7	307	307-123-9-001

MISCELLANEOUS

T1	Transformer, Power	065-138-9-001
S1 - 14	Switch Assembly (14 Station)	088-040-9-001
DS1 - 4	Display, 7-Segment LED (Red Face).....	238-009-9-001
DS1 - 4	Display, 7-Segment LED (Black Face).....	238-010-9-001
F1	Fuse, 3 AG, 2 A	191-251-3-002
F2	Fuse, 3 AG, 1/16 A.....	191-005-9-001
F3	Fuse, 3 AG, 1/8 A Slow Blow	190-251-3-108
F4	Fuse, HVA, 2 A.....	194-004-9-001
	Overlay, Front Panel.....	255-190-9-001
	Case, Rear (Plastic).....	271-057-9-001
	Case, Front (Plastic)	271-062-9-001
	Fuse Lock Housing (1/2), 2 Required Per Fuse	380-247-9-001
	Handle, Plastic	380-279-9-001
	Window, Display	380-295-9-001
	Pad, Anti-Skid (Rear Foot).....	381-080-9-001
	Button, Switch (White)	384-072-9-009
	Button, Switch (Tan)	384-072-9-017
	Button, Switch (Bright Ochre)	384-072-9-020
	AC Power Cord.....	420-022-9-001
	15-Lead Jumper (Display Board Assembly)	427-025-9-001
	Test Lead, Black	522-062-9-001
	Test Lead, Red	522-063-9-001
	Fuse Holder/Jack Assembly.....	523-218-9-001
	Decorative Screw (Handle Pivot)	634-085-9-001
	Fuse Clip (3 AG).....	741-058-9-001
	Fuse Clip (1000 V).....	741-104-9-001
	Fuse Holder Contact Spring.....	767-038-9-001
	Spring, Handle Pivot	767-049-9-001
	AC Receptacle	770-018-9-001
	Jack Insert.....	771-027-9-001

There is a minimum charge for each 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 charges. Specify model and serial number when ordering replacement parts. Order parts from: **B & K-Precision**, Dynascan Corporation, Factory Service Operations, 6460 West Cortland Street, Chicago, Illinois 60635.

B & K-PRECISION • DYNASCAN CORPORATION
6460 W. Cortland St. • Chicago, Ill. 60635

SCHEMATIC DIAGRAM

AND PARTS LIST



2831

DIGITAL MULTIMETER

PARTS LIST
488-253-9-002E

SCHEMATIC SYMBOL

DESCRIPTION

B & K-PRECISION PART NO.

RESISTORS

Unlisted resistors are $\pm 5\%$, 1/4 W. See schematic diagram for value.

R2	1 k Ω $\pm 20\%$, 1/4 W Potentiometer	008-333-9-001
R4, 44	2.5 k Ω Trimmer Potentiometer	010-007-9-005
R20, 38	470 k Ω $\pm 5\%$, 1/2 W Metal Film.....	011-102-8-474
R24	0.1 Ω $\pm 1/2\%$, 1 W Wirewound.....	004-178-9-001
R25	0.9 Ω $\pm 1/2\%$, 1 W Wirewound.....	004-160-9-001
R26	9 Ω $\pm 1/2\%$, 1/2 W Metal Film	011-088-9-001
R27	90 Ω $\pm 1/2\%$, 1/2 W Metal Film	011-089-9-001
R28	900 Ω $\pm 1/2\%$, 1/2 W Metal Film.....	011-141-9-001
R29	Limiter, Special High Voltage Current	004-163-9-001
R30	1 M Ω $\pm 5\%$, 3 W Metal Film	011-003-5-105
R32	2.5 k Ω Trimmer Potentiometer	010-008-9-005
R33	1 k Ω Trimmer Potentiometer	010-008-9-004
R41	0.01 Ω $\pm 1\%$, 10 W, 4 Terminal Wirewound	004-177-9-001
R42	684 Ω $\pm 1/2\%$, 1/2 W Metal Film.....	011-058-9-001
R43	12.4 k Ω $\pm 1\%$, 1/4 W Metal Film	015-141-1-242
R45	9.09 k Ω $\pm 1\%$, 1/4 W Metal Film	015-141-9-091
VR1 - 3	Metal Oxide Varistor.....	004-179-9-001

NETWORKS

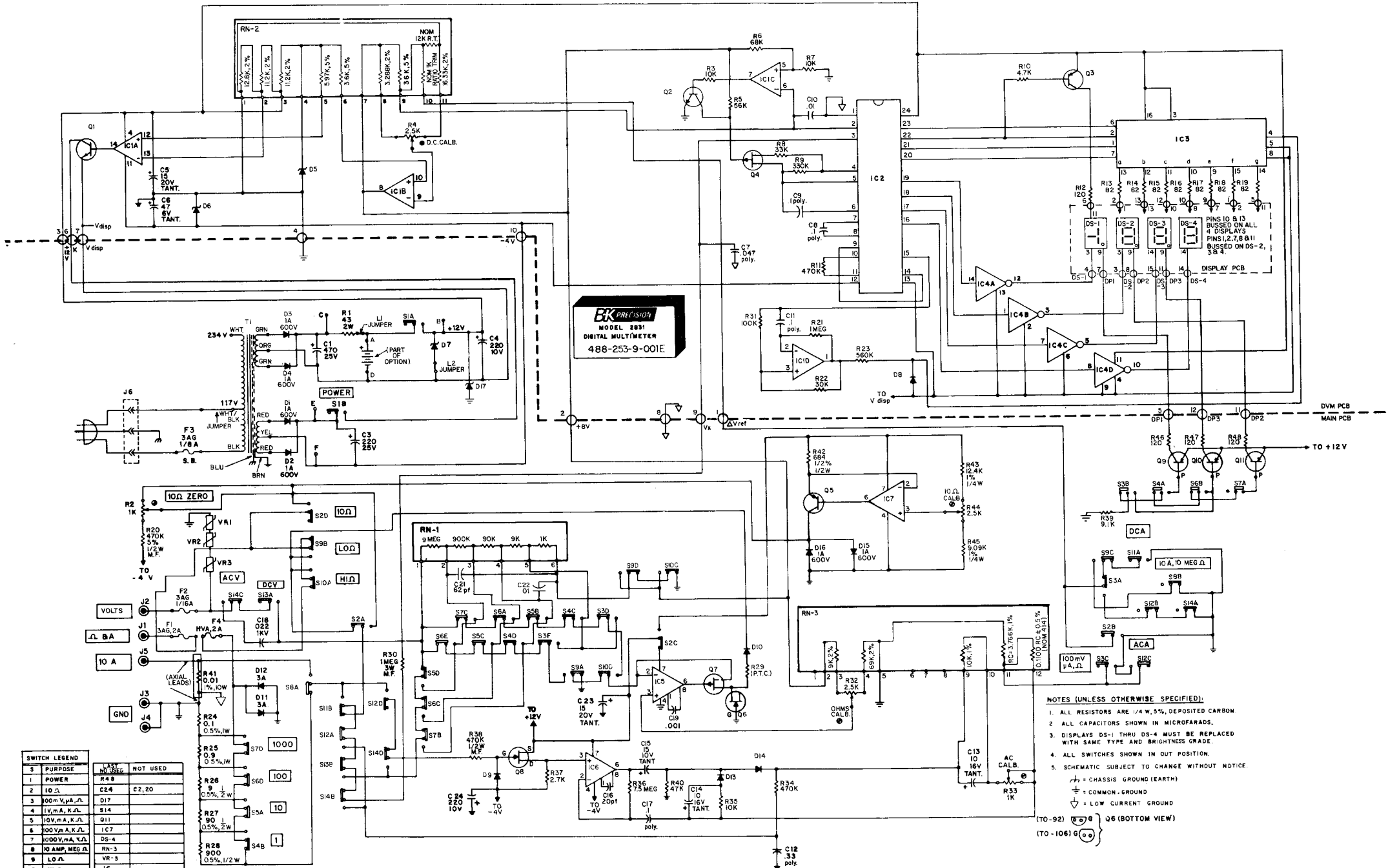
RN1	Resistor Network (INPUT)	012-022-9-001
RN2	Resistor Network.....	012-018-9-001
RN3	Resistor Network.....	012-014-9-001

CAPACITORS

C1	470 μ F, 25 V Electrolytic	022-284-9-001
C3	220 μ F, 25 V Electrolytic.....	022-083-9-001
C4, 24	220 μ F, 10 V Electrolytic	022-109-9-001
C5, 23	15 μ F $\pm 20\%$, 20 V Tantalum	027-016-9-001
C6	47 μ F $\pm 20\%$, 6.3 V Tantalum.....	027-013-9-001
C7	0.047 μ F $\pm 20\%$, 100 V Polyester	025-094-9-001
C8, 9, 11, 17	0.1 μ F $\pm 20\%$, 100 V Polyester	025-109-9-001
C10	0.01 μ F $\pm 10\%$, 100 V Ceramic Disc.....	020-101-9-001
C12	0.33 μ F $\pm 10\%$, 100 V Polyester	025-114-9-001
C13, 14	10 μ F $\pm 20\%$, 16 V Tantalum	027-030-9-001
C15	15 μ F $\pm 20\%$, 10 V Tantalum	027-009-9-001
C16	20 pF $\pm 5\%$, 500 V NPO Ceramic Disc	031-039-9-001
C18	0.022 μ F $\pm 20\%$, 1 kV Polyester	025-103-9-001
C19	0.001 μ F $\pm 10\%$, 500 V Ceramic Disc	020-016-9-001
C21	62 pF $\pm 5\%$, 500 V NPO Ceramic Disc	031-048-9-001
C22	0.01 μ F $\pm 5\%$, 1 kV Polyester.....	025-163-9-001

DIODES & TRANSISTORS

D1 - 4, 15, 16	1 A, 600 V Silicon Diode	151-050-9-001
D5	1N4565 (6.4 V) Reference Zener	152-066-9-001
D6	1N749A (4.3 V) Zener	152-062-9-001



SWITCH LEGEND	RESISTOR VALUE	NOT USED
1 POWER	R48	C2, 20
2 10 Ω	C24	
3 100 μV, μA, Ω	D17	
4 1 V, mA, K, Ω	S14	
5 10 V, mA, K, Ω	Q11	
6 100 V, mA, K, Ω	IC7	
7 1000 V, mA, K, Ω	DS-4	
8 10 AMP, MEG Ω	RN-3	
9 LO Ω	VR-3	
10 HI Ω	J6	
11 DCA	F4	
12 ACA		
13 DCV		
14 ACV		

- NOTES (UNLESS OTHERWISE SPECIFIED):
- ALL RESISTORS ARE 1/4 W, 5%, DEPOSITED CARBON
 - ALL CAPACITORS SHOWN IN MICROFARADS.
 - DISPLAYS DS-1 THRU DS-4 MUST BE REPLACED WITH SAME TYPE AND BRIGHTNESS GRADE.
 - ALL SWITCHES SHOWN IN OUT POSITION.
 - SCHEMATIC SUBJECT TO CHANGE WITHOUT NOTICE.
- ⊕ - CHASSIS GROUND (EARTH)
 ⊕ - COMMON GROUND
 ⊕ - LOW CURRENT GROUND
 (TO -92) ⊕ ⊕ ⊕ Q6 (BOTTOM VIEW)
 (TO -106) ⊕ ⊕ ⊕