

7 PART LISTS

7.1 Preamplifier - Amplifier & Discriminator

<u>Reference No.</u>	<u>Description</u>		
R1	1 M Ω	1/2W	5 % fixed carbon resistor
R2	56 k Ω	1/8W	" "
R3	100 k Ω	"	" "
R4	18 k Ω	"	" "
R5	100 k Ω	"	" "
R6	1.8 k Ω	"	" "
R7	1 k Ω	1/2W	cermet single-turn potentiometer
R8	10 k Ω	1/8W	5 % fixed carbon resistor
R9	220 Ω	"	" "
R10	255 Ω	1/4W	1 % metal film resistor
R11	4.7 k Ω	1/8W	5 % fixed carbon resistor
R12	47 k Ω	"	" "
R13	30 k Ω	"	" "
R14	5.1 k Ω	1/4W	1 % metal film resistor
R15	390 Ω	1/8W	5 % fixed carbon resistor
R16	1.8 k Ω	"	" "
R17	390 Ω	"	" "
R18	100 Ω	"	" "
R19	120 Ω	"	" "
R20	100 Ω	"	" "
R21	47 k Ω	"	" "
R22	30 k Ω	"	" "
R23	4.7 k Ω	"	" "

<u>Reference No.</u>	<u>Description</u>		
R24	5.1 k Ω	1/4W	1 % metal film resistor
R25	1.8 k Ω	1/8W	5 % fixed carbon resistor
R26	390 Ω	"	" "
R27	390 Ω	"	" "
R28	1 k Ω	1/4W	1 % metal film resistor
R29	3.3 k Ω	1/8W	5 % fixed carbon resistor
C1	.001 μ F	6 kV.	Disc ceramic capacitor
C2	22 μ F	15 V.	Tantalum capacitor
C3	6.8 μ F	35 V.	" "
C4	0.1 μ F	25 V.	Disc ceramic capacitor
C5	22 μ F	15 V.	Tantalum capacitor
C6	22 μ F	15 V.	" "
C7	47 μ F	20 V.	" "
C8	6.8 μ F	35 V.	" "
C9	22 μ F	15 V.	" "
C10	47 μ F	20 V.	" "
C11	22 μ F	15 V.	" "
C2A, C3A, C7A, C10A	2.2 μ F	25 V	Disc ceramic capacitors
C5A, C6A, C8A, C9A, C11A	0.1 μ F	25 V	" "
C12	0.1 μ F	50 V.	" "
C13	680 pF		Dipped mica capacitor
Q1, Q2	2N 3906		Transistors
Q3, Q5, Q7	MPS 3706		"
Q4, Q6, Q8	MPS 3702		"
Q9	2N 404 A		"

<u>Reference No.</u>		<u>Description</u>
D1	1N 4009	Diode
D2	1N 3712	Tunnel diode

7.2 Timer & Gate

<u>Reference No.</u>		<u>Description</u>
R1	5 k Ω 2 W	10-turn potentiometer
R2	5 k Ω "	" "
R3	56 Ω 1/8 W	5 % fixed carbon resistor
R4	56 Ω "	" "
R5	470 Ω "	" "
R6	4.7 k Ω "	" "
R7	470 Ω "	" "
R8	1.2 k Ω "	" "
R9	270 Ω "	" "
R10	2.7 k Ω "	" "
R11	10 k Ω "	" "
R12	3.3 k Ω "	" "
R13	270 Ω "	" "
R14	22 Ω "	" "
R15	18 k Ω "	" "
R16	10 k Ω "	" "
R17	3.9 k Ω "	" "
R18	1 k Ω "	" "

<u>Reference No.</u>	<u>Description</u>		
R19	3.9 k Ω	1/8 W	5 % fixed carbon resistor
R20	1 k Ω	"	" "
R21	1.5 k Ω	"	" "
R22	10 k Ω	"	" "
C1	10 μ F	50 V	Electrolytic capacitor
C2	.01 μ F	25 V	Disc ceramic capacitor
C3	.01 μ F	25 V	" "
C4	1000 pF	500 V	Dipped mica capacitor
IC3, IC4, IC5	SN 7490	N	Decade counter IC.
IC1, IC2	SN 7493	N	4-bit Binary counter IC.
IC6	MC 948	P	Flip-Flop IC.
Q1	2N 1674	A	Unijunction Transistor
Q2, Q3	2N 709		Transistors
Q4, Q5	2N 3646		"
Q6, Q7, Q8	MPS 3706		"
D1	1N 662		Switching Diode
D2-D12	1N 914	A	" "

7.3 Scaler & Display

<u>Reference No.</u>	<u>Description</u>	
R1, R2, R3	56 k Ω	1/4 W 5 % fixed carbon resistor
V1, V2, V3	GR-110	Readout tubes .
IC1, IC2, IC3	SN 7441	AN BCD-to-Decimal Decoder/Driver IC.
IC4, IC5, IC6	SN 74190	N UP/DOWN Decade counter IC.

7.4 H.V. Supply & 5V. Regulated Supply

<u>Reference No.</u>			<u>Description</u>
R1	270 Ω	1/8 W	5 % fixed carbon resistor
R2	2.2 k Ω	"	" "
R3	1 M Ω	1/4 W	" "
R4	180 k Ω	1/4 W	" "
R5	40 Ω	2 W	Wire wound resistor
C1	0.01 μ F	25 V	Disc ceramic capacitor
C2	0.01 μ F	1 kV	" "
C3	4 μ F	450 V	Electrolytic capacitor
C4	0.01 μ F	1000 V	Disc ceramic capacitor
C5, C6	0.01 μ F	3 kV	" "
C7	22 μ F	15 V	Tantalum capacitor
T1	TDK P2616/H5B		Ferrite Pot cores
V1	GV3S-1100		Corotron Regulator tube
Q1, Q2	2N 3440		Transistors
D1, D3	SE-05	1000 PIV	Silicon rectifiers
D2	1N 1732	3000 PIV	" "
D4	1N 4734A		Zener diode