HISTORY PARTS LIST

ABBREVIATIONS:

cer	ceramic
comp	composition
emc	electrolytic, metal cased
gmv	guaranteed minimum value
h	henry
k	kilohms (10^3 ohm)
ma	milliamps (10^{-3} amps)
meg	megohms (10^6 ohm)
mh	millihenry (10^{-3} henry)
mpt	metalized, paper tubular
mt	mylar, tubular
mv	millivolts (10^{-3} amps)
μf	microfarad (10^{-6} farad)
μh	microhenry (10^{-6} henry)
μsec	microsecond (10^{-6} second)
nsec	nano second (mμ or 10^{-9} second)
Ω	ohm
pbt	paper, "bathtub"
pcc	paper covered can
pf	picofarad ($\mu\mu$f or 10^{-12} farad)
piv	peak inverse voltage
pmc	paper, metal cased
poly	polystyrene
prec	precision
pt	paper tubular
ptm	paper, tubular molded
tub	tubular
v	working volts, dc
var	variable
w	watt
WW	wire wound

513

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For all serial numbers.

TEKTRONIX, INC.
P.O. Box 500
Beaverton, Oregon

SPECIAL NOTES AND SYMBOLS:

±	approximate serial number
X000	part first added at this serial number
000X	part removed after this serial number
*000-000	asterisk preceeding Tektronix part number indicates manufactured by or for Tektronix, also Tektronix reworked or checked components
mod w/	modify with _____. Simple replacement is not recommended. Replace with part listed for later instruments and also modify the circuit symbol numbers listed after mod w/.

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513 ELECTRICAL PARTS

Values are fixed unless marked otherwise

CAPACITORS

Tolerance ±20% unless otherwise indicated.
Tolerance of all electrolytic capacitors are as follows (with exceptions):

3V - 50V = -10% to +250%
51V -350V = -10% to +100%
351V -450V = -10% to + 50%

C1	281-007	3-12 pf	Cer.	Var.	500V		
C2	281-005	1.5-7 pf	Cer.	Var.	500V		
C3	281-005	1.5-7 pf	Cer.	Var.	500V		
C4	281-005	1.5-7 pf	Cer.	Var.	500V		
C5	281-010	5-20 pf	Cer.	Var.	500V		101-1074
C5	281-008	3-12 pf	Cer.	Var.	500V		1075-up
C6	281-005	1.5-7 pf	Cer.	Var.	500V		
C7	281-007	3-12 pf	Cer.	Var.	500V		
C8	281-007	3-12 pf	Cer.	Var.	500V		
C9	281-007	3-12 pf	Cer.	Var.	500V		
C10	281-007	3-12 pf	Cer.	Var.	500V		
C11	281-007	3-12 pf		Var.	500V		
C12	281-007	3-12 pf		Var.	500V		
C13	281-513	27 pf	Cer.		500V		
C14	283-505	100 pf	Mica		500V	10%	
C15	283-518	330 pf	Mica		500V		
C16	285-528	.1 µf	PTM		600V		
C17	283-000	.001 µf	Discap		500V		
C18, C19	*295-038	2x20 µf	EMC		450V	10% Selected	
C20, C21	*295-038	2x20 µf	EMC		450V	10% Selected	
C22	285-515	.022 µf	PTM		400V		
C23	285-519	.047 µf	PTM		400V		
C24	290-020	275 µf	EMT		6V		
C25	290-020	275 µf	EMT		6V		
C26	285-526	.1 µf	PTM		400V		
C27.1	283-000	.001 µf	Discap		500V		
C27.2	281-501	4.7 pf	Cer.		500V	±1 pf	
C28.1	283-509	180 pf	Mica		500V	+Selected	X165-up
C28.2	283-536	220 pf	Mica		500V	+Selected	X165-up
C30.1	283-000	.001 µf	Discap		500V		
C30.2	283-002	.01 µf	Discap				
C31	Disconnect C31	20 µf	EMC (2x20)		450V	with C32,C40	101-709X
C32	Mod w/C40	20 µf	EMC (2x20)		450V	with C31,C40	101-709
	290-037	20 µf	EMC (2x20)		450V	with C31,C40	710-up

+Selected for best high-frequency compensation. Values may vary with individual instruments.

CAPACITORS (continued)

C33	285-510	.01 µf		400V		101-222X
C34	285-510	.01 µf		400V		101-164X
C35	285-531	.1 µf	PBT	400V		101-1019
	285-526	.1 µf	PTM	400V		1020-1770
	283-001	.005 µf	Discap	500V		1771-up
C36	285-531	.1 µf	PBT	400V		101-1019
C36	285-526	.1 µf	PTM	400V		1020-up
C37	Mod w/R68,R69,R70	150 pf	Mica	500V		101-164
	283-515	250 pf	Mica	500V		165-up
C38	285-531	.1 µf	PBT	400V		101-1019
	285-526	.1 µf	PTM	400V		1020-up
C39	285-510	.01 µf	PTM	400V		
C40	Mod w/C32 Disconnect C31	20 µf	EMC (2x20)	450V	with C31, C32	101-709
	290-037	20 µf	EMC (2x20)	450V	with C32	710-up
C41	283-000	.001 µf	Discap	500V		
C42	285-510	.01 µf	PTM	400V		
C43.1	290-037	20 µf	EMC (2x20)	450V		
C43.2	290-037	20 µf	EMC (2x20)	450V		
C43.3	290-037	20 µf	EMC (2x20)	450V	with C520	
C44	285-510	.01 µf	PTM	400V		
C45	285-510	.01 µf	PTM	400V		
C46-52	281-001	.5-5 pf	Tub. Var.			
C53	283-000	.001 µf	Discap	500V		101-1887X
C54-74	281-001	.5-5 pf	Tub. Var.			
C75	283-000	.001 µf	Discap	500V		101-1887X
C76-77	281-001	.5-5 pf	Tub. Var.			X1411-up
C88, C90	290-040	2x40 µf	EMC	250V		X1411-up
C101	285-510	.01 µf	PTM	400V		
C102	285-510	.01 µf	PTM	400V		
C102.1	285-531	.1 µf	PBT	400V		101-1019
	285-526	.1 µf	PTM	400V		1020-up
C103	290-037	20 µf	EMC (2x20)	450V	with C512	
C103.1	290-037	20 µf	EMC (2x20)	450V	with C111	
C104	281-511	20 pf	Cer.	500V	10%	
C105	283-536	220 pf	Mica	500V		
C105.1	285-504	.0015 µf	PTM	400V		
C106	285-512	.015 µf	PTM	400V		
C107	285-532	.15 µf	PTM	400V		
C108	281-518	47 pf	Cer.	500V		
C109	not required, disc.	20 µf		450V		101-164X
C110	281-518	47 pf	Cer.	500V		
C111	290-037	20 µf	EMC (2x20)	450V	with C103.1	
C112	281-012	7-45 pf	Cer. Var.	500V		
C113	281-510	22 pf	Cer.	500V		

CAPACITORS (continued)

C114		.001 µf				
C115	Use 050-050	.01 µf	Mylar Timing Series		Replaces 295-027	
C116		.1 µf				
C117		1 µf				
C118	285-526	.1 µf	PTM	400V		
C119	285-511	.01 µf	PTM	600V		
C120	Use 285-562	.47 µf	PTM	400V		
C121	281-518	47 pf	Cer.	500V		101-1887
	281-510	22 pf	Cer.	500V		1888-up
C122	281-012	7-45 pf	Cer. Var.	500V		
C123	281-516	39 pf	Cer.	500V		
C124	281-516	39 pf	Cer.	500V		
C125	285-531	.1 µf	PBT	400V		101-1019X
C126		2x.1 µf		400V		101-1019
C126	283-002	.01 µf	Discap	400V		1020-up
C127	283-000	.001 µf	Discap	500V		101-454
C127.1	283-001	.005 µf	Discap	500V		455-up
C128	283-000	.001 µf	Discap	500V		101-454
C128.1	283-001	.005 µf	Discap	500V		455-up
C129	290-002	8 pf	EMC	450V		
C130	285-510	.01 µf	PTM	400V		
C131	281-503	8 pf	Cer.	500V		
C132	281-503	8 pf	Cer.	500V		
C133	283-505	100 pf	Mica	500V		101-1412X
C134.1	285-518	.03 µf	PMC	2500V		
C134.2	285-518	.03 µf	PMC	2500V		
C135	290-037	20 µf	EMC 1/2(2x20)	450V	with C140	
C136	281-518	47 pf	Cer.	500V		
C137	281-503	8 pf	Cer.	500V		101-844
C137	281-501	4.7 pf	Cer.	500V		845-1412
	281-506	12 pf	Cer.	500V		1413-up
C138	290-000	6.25 µf	EMC	300V		
C139	283-001	.005 µf	Discap	500V		
C140	290-037	20 µf	EMC 1/2(2x20)	450V	with C135	
C141	283-001	.005 µf	Discap	500V		
C142	285-531	.1 µf	PBT	400V		101-1019X
C144	285-518	.03 µf	PMC	2500V		
C401	290-036	40 µf	EMC (2x20)	450V		
C402	285-511	.01 µf	PTM	600V		
C403	290-036	40 µf	EMC (2x20)	450V		
C404	285-510	.01 µf	PTM	400V		
C405	290-046	150 µf	EMC	150V		
C406 (5)	290-037	200 µf	5(2x20)	450V		
C407	285-510	.01 µf	PTM	400V		
C408	285-526	.1 µf	PTM	400V		
C409	285-510	.01 µf	PTM	400V		
C410	290-036	40 µf	EMC (2x20)	450V		

CAPACITORS (continued)

C411.1	290-036	40 µf	EMC (2x20)	450V		
C411.2	290-036	40 µf	EMC (2x20)	450V		
C412.1, C412.2	290-037	2x20 µf	EMC	450V		
C413	285-517	.022 µf	PTM	600V		
C414.1	285-515	.022 µf	PTM	400V		
C414.2	285-515	.022 µf	PTM	400V		X159-up
C415	285-535	.25 µf	PMC	2500V		
C416	285-510	.01 µf	PTM	400V		
C417	285-507	.0047 µf	PTM	6000V		101-1017
C417 Use	281-556	500 pf	PTM	10,000V		1018-up
C418	283-044	.001 µf	Discap	3000V		
C419.1	285-513	.015 µf	PTM	3000V		
C419.2	285-513	.015 µf	PTM	3000V		
C420	285-509	.0068 µf	PTM	5000V		
C421	285-509	.0068 µf	PTM	5000V		
C422	285-509	.0068 µf	PTM	5000V		
C423	285-509	.0068 µf	PTM	5000V		
C424	285-509	.0068 µf	PTM	5000V		
C425	285-509	.0068 µf	PTM	5000V		
C501	281-508	12 pf				101-170
	281-503	8 pf	Cer.	500V		171-up
C502	285-526	.1 µf	PTM	400V		
C503	281-005	1.5-7 pf	Cer. Var.			
C504	281-518	47 pf	Cer.	500V		
C505	281-518	47 pf	Cer.	500V		
C506	283-001	.005 µf	Discap	500V		
C507	283-505	100 µf	Mica	500V		
C508	283-001	.005 µf	Cer.	500V		
C509	283-001	.005 µf	Cer.	500V		
C512	290-037	20 µf	EMC 1/2(2x20)	450V	with C103	
C513	285-510	.01 µf	PTM	400V		101-1019
	283-526	.001 µf	Mica	500V		1020-up
C514, C515, C516.1	285-531	3x.1 µf	PBT	400V		
C517	283-536	220 pf	Mica	500V		101-864
	283-518	330 pf	Mica	500V		865-up
C518	285-510	.01 µf	PTM	400V		
C519	283-536	220 pf	Mica	500V		101-864
	283-518	330 pf	Mica	500V		865-up
C520	290-037	20 µf	(2x20)	450V	with C43.3	
C600	281-005	1.5-7 pf	Cer. Var.			101-1770
	281-007	3-12 pf	Cer. Var.			1771-up
C601A-C636A						
	281-007	3-12 pf	Cer. Var.			101-1770X
C601B-C636B						
	281-506	12 pf	Cer. Var.			101-1770X

CAPACITORS (continued)

C601	281-012	7-45 pf	Cer.	Var.		X1771-up
C602	281-012	7-45 pf	Cer.	Var.		X1771-up
C603-C638A						
	281-007	3-12 pf	Cer.	Var.		1771-up
C603-C638B						
	281-506	12 pf	Cer.		500V	1771-up
C637	281-012	7-45 pf				101-1770
C638	281-012	7-45 pf				101-1770
C639	281-007	3-12 pf	Cer.	Var.		X947-1770
	281-005	1.5-7 pf				1771-up

FUSES

F401	159-011	6.25 3AG	Slo-Blo	50-60 cycle	117V operation
Power Supply					
	159-005	3A 3AG	Slo-Blo	50-60 cycle	234V operation
Vertical Amp.					
	159-001	.5 8AG	Fast-Blo	60 cycle	117V operation
	159-001	.5 8AG	Fast-Blo	50-60 cycle	234V operation
	159-025	.5 3AG	Fast-Blo	50 cycle	117V operation

INDUCTORS

L1	114-003	1.3-2.2 µh	Var.	
L2	114-017	3.3-7.0 µh	Var.	
L3	114-028	.92-1.5 µh	Var.	
L4	114-007	2.4-4.4 µh	Var.	
L5	108-039	Delay Network Inductor (40 section)		
L7	108-037	Dist. Amp. Grid Inductor		
L8	108-037	Dist. Amp. Grid Inductor		
L9 Use	114-011	2.6-4.8 µh	Var.	
L10	114-011	2.6-4.8 µh	Var.	
L11	108-038	Dist. Amp. Plate Inductor		
L12	108-038	Dist. Amp. Plate Inductor		
L13	114-007	2.2-4.4 µh	Var.	
L14	114-007	2.2-4.4 µh	Var.	
L102	108-037	.30 µh		101-854
	108-020	7.1 µh		855-up
L104	108-038	150 µh		101-1412
Use	108-002	110 µh		1413-up

RESISTORS

Resistors are fixed composition, ±10% unless otherwise indicated.

R1	302-470	47 Ω	1/2 w.				
R3	310-106	9 meg	1 w.		Prec.	1%	
R4	302-470	47 Ω	1/2 w.				
R5	309-008	700 k	1/2 w.		Prec.	1%	
R6	309-001	433 k	1/2 w.		Prec.	1%	
R7	309-008	700 k	1/2 w.		Prec.	1%	
R8	309-001	433 k	1/2 w.		Prec.	1%	
R9	310-097	900 k	1 w.		Prec.	1%	
R10	309-046	111 k	1/2 w.		Prec.	1%	
R11	310-099	966.7 k	1 w.		Prec.	1%	
R12	309-037	31.1 k	1/2 w.		Prec.	1%	
R13	310-098	990 k	1 w.		Prec.	1%	
R14	309-034	10.1 k	1/2 w.		Prec.	1%	
R15	309-014	1 meg	1/2 w.		Prec.	1%	
R16	302-470	47 Ω	1/2 w.				
R17	306-103	10 k	2 w.				
R18	304-333	33 k	1 w.				
R19	306-103	10 k	2 w.				
R20	304-333	33 k	1 w.				
R21	*312-507	680 Ω	1/2 w.			3%	
R22	Use 312-530	680 Ω	1 w.				101-177
R22	*312-530	820 Ω	1 w.			-5to0%	178-up
R23	301-151	150 Ω	1/2 w.			5%	
R24	302-274	270 k	1/2 w.				
R25	311-039	1 meg	2 w.	Var.			
R26	301-151	150 Ω	1/2 w.			5%	
R27	302-270	27 Ω	1/2 w.				
R28	302-105	1 meg	1/2 w.				
R29	302-101	100 Ω	1/2 w.				
R30	302-221	220 Ω	1/2 w.				
R31	302-270	27 Ω	1/2 w.				
R32	302-270	27 Ω	1/2 w.				
R33	302-105	1 meg	1/2 w.				
R34	309-014	1 meg	1/2 w.		Prec.	1%	
R35.1	302-470	47 Ω	1/2 w.				
R35.2	302-470	47 Ω	1/2 w.				X165-up
R36	302-270	27 Ω	1/2 w.				
R37	302-101	100 Ω	1/2 w.				
R38	304-222	2.2 k	1 w.				101-222
R38	304-102	1 k	1 w.			+Selected	223-up
R39	302-470	47 Ω	1/2 w.				
R40	302-105	1 meg	1/2 w.				
R41	302-151	150 Ω	1/2 w.				
R42	301-102	1 k	1/2 w.			5%	101-222

+R38 selected for best high frequency compensation; may vary with individual instruments.

RESISTORS (continued)

R42	301-182	1.8 k	1/2 w.			5%	223-up
R43	304-682	6.8 k	1 w.				
R44	309-076	300 Ω	1/2 w.		Prec.	1%	101-946X
R45	Mod w/R52,R53	330 Ω					101-164
	" " "	470 Ω	1/2 w.				165-694X
R45.1	309-078	343 Ω	1/2 w.		Prec.	1%	X695-up
R46	302-270	27 Ω	1/2 w.				
R47	302-270	27 Ω	1/2 w.				
R49	311-005	500 Ω	2 w.	Var.			101-164
	311-006	1 k	2 w.	Var.			165-up
R50	311-012	5 k					101-164
	311-015	10 k	2 w.	Var.	WW		165-up
R51	306-392	3.9 k	2 w.				101-164
	306-103	10 k	2 w.				165-up
R52	Mod w/R45, R53	330 Ω					101-164
R52	Mod w/R45,R53	18 k	2 w.				165-705
	*312-545	15 k	2 w.				706-up
R53	Mod w/R45, R52	470 Ω					101-164
	" " "	22 k	2 w.				165-705
	*312-545	12 k	2 w.				706-up
R54.1	302-270	27 Ω	1/2 w.				
R54.2	302-270	27 Ω	1/2 w.				X165-up
R55	303-270	27 Ω					101-164
	*312-529	390 Ω	1 w.			0--5%	165-up
R56	309-015	1.11 meg	1/2 w.		Prec.	1%	101-1770
R56	302-226	22 meg	1/2 w.				1771-up
R57	302-562	5.6 k	1/2 w.				101-1770
	302-124	120 k	1/2 w.				1771-up
R58	311-026	100 k	2 w.	Var.			101-1770
	311-034	500 k	2 w.	Var.			1771-up
R59	311-015	10 k	2 w.	Var.	WW		101-1770
	311-026	100 k	2 w.	Var.			1771-up
R60	302-183	18 k					101-164
	302-223	22 k					165-363
	302-183	18 k					364-1770
R60	302-332	3.3 k					1771-up
R61	302-104	100 k	1/2 w.				101-1770
	302-124	120 k	1/2 w.				1771-up
R62	302-470	47 Ω	1/2 w.				101-1770
	302-100	10 Ω	1/2 w.				1771-up
R63	302-470	47 Ω	1/2 w.				
R64	302-470	47 Ω	1/2 w.				
R65	302-470	47 Ω	1/2 w.				101-1770
	302-100	10 Ω	1/2 w.				1771-up
R66	302-470	47 Ω	1/2 w.				
R67	302-470	47 Ω	1/2 w.				
R68	Mod w/R69, R70,C37	330 Ω	1 w.				101-164
	*312-528	390 Ω	1 w.				165-up

RESISTORS (continued)

R69	Mod w/R68,R70,C37	330 Ω	1 w.				101-164
	*312-528	390 Ω	1 w.				165-up
R70	Mod w/R68,R69,C37	39 Ω	1/2 w.				101-164
	302-470	47 Ω	1/2 w.				165-up
R71	306-822	8.2 k	2 w.				
R72	302-470	47 Ω	1/2 w.				101-222
	302-100	10 Ω	1/2 w.				223-up
R73	302-470	47 Ω	1/2 w.				
R74	302-470	47 Ω	1/2 w.				
R75	302-470	47 Ω	1/2 w.				101-222
R75	302-100	10 Ω	1/2 w.				223-up
R76	302-470	47 Ω	1/2 w.				
R77	302-470	47 Ω	1/2 w.				
R78	311-039	1 meg	2 w.	Var.			
R79	302-474	470 k	1/2 w.				
R80	302-101	100 Ω	1/2 w.				
R80.1	302-474	470 k	1/2 w.				X1770-up
R81	309-045	100 k	1/2 w.		Prec.	1%	
R82	Use 309-090	50 k	1/2 w.		Prec.	1%	
R83	302-470	47 Ω	1/2 w.				
R84	309-082	670 Ω	1/2 w.		Prec.	1%	
R85	309-082	670 Ω	1/2 w.		Prec.	1%	
R86	309-082	670 Ω	1/2 w.		Prec.	1%	
R87	309-082	670 Ω	1/2 w.		Prec.	1%	
R88-R91							
	*312-573	127 Ω				±1% Selected	101-1410
R88,R90,R91							
	312-550	1270 Ω				±1% Selected	1411-up
R89	311-034	500 k		Var.			1411-up
R92	302-470	47 Ω	1/2 w.				
R92.1	302-470	47 Ω	1/2 w.				
R92.2	302-470	47 Ω	1/2 w.				
R92.3	302-470	47 Ω	1/2 w.				
R92.4	302-470	47 Ω	1/2 w.				
R92.5	302-470	47 Ω	1/2 w.				
R92.6	302-470	47 Ω	1/2 w.				
R93	302-104	100 k	1/2 w.				101-1887X
R94	301-222	2.2 k	1/2 w.			5%	
R95	302-470	47 Ω	1/2 w.				
R95.1	302-470	47 Ω	1/2 w.				
R95.2	302-470	47 Ω	1/2 w.				
R95.3	302-470	47 Ω	1/2 w.				
R95.4	302-470	47 Ω	1/2 w.				
R95.5	302-470	47 Ω	1/2 w.				
R95.6	302-470	47 Ω	1/2 w.				
R96	308-037	1 k	25 w.		WW	5%	X1339-up
R97	302-104	100 k	1/2 w.				101-1887X

RESISTORS (continued)

R98	301-222	2.2 k	1/2 w.			5%	
R101	302-226	22 meg	1/2 w.				
R102	302-105	1 meg	1/2 w.				
R103	302-470	47 Ω	1/2 w.				
R104	302-474	470 k	1/2 w.				
R105	302-331	330 Ω	1/2 w.				
R106	304-152	1.5 k	1 w.				101-854
	302-121	120 Ω	1/2 w.				855-up
R107	306-472	4.7 k	2 w.				
R108	304-152	1.5 k	1 w.				101-854
R108	302-561	560 Ω	1/2 w.				855-up
R109	302-470	47 Ω	1/2 w.				
R110	302-105	1 meg	1/2 w.				
R111	306-822	8.2 k	2 w.				101-127
	306-103	10 k	2 w.				128-up
R111.1	302-470	47 Ω	1/2 w.				X165-up
R112	304-102	1 k	1 w.				
R113+	311-038	500 k	2 w.	Var.			
R114	302-155	1.5 meg	1/2 w.				
R115	306-472	4.7 k	2 w.				101-164X
R115.1	306-472	4.7 k	2 w.				X165-up
R115.2	306-472	4.7 k	2 w.				X165-up
R116	302-470	47 Ω	1/2 w.				
R116.1	302-395	3.9 meg	1/2 w.				X1075-up
R117	302-224	220 k	1/2 w.				
R118	302-104	100 k	1/2 w.	Var.			
R119	311-026	100 k	2 w.	Var.			
R120	304-224	220 k	1 w.				
R121A-I	302-224	220 k	1/2 w.				
R121.1A-I	309-051	200 k	1/2 w.		Prec.	1%	
R122A,B	*312-100	2x220 k	2 w.				
R123	306-472	4.7 k	2 w.				101-164X
R123.1	306-222	2.2 k	2 w.				X165-up
R123.2	306-272	2.7 k	2 w.				X165-up
R124	302-470	47 Ω	1/2 w.				
R125	306-103	10 k	2 w.				
R126	306-103	10 k	2 w.				
R127	304-153	15 k	1 w.				
R128	302-124	120 k	1/2 w.				
R129 Use	302-104	100 k	1/2 w.				
R130	302-470	47 Ω	1/2 w.				
R131	306-153	15 k	2 w.				
R132	302-472	4.7 k	1/2 w.				101-1887
	302-102	1 k	1/2 w.				1888-up
R133.1	302-226	22 meg	1/2 w.				
R133.2	302-106	10 meg	1/2 w.				
R134	304-684	680 k	1 w.				
R135	302-274	270 k	1/2 w.				

+Concentric with R142, furnished as a unit.

RESISTORS (continued)

R136	311-034	500 k	2 w.	Var.			
R137	302-474	470 k	1/2 w.				
R138.1	302-186	18 meg	1/2 w.				101-1019
	302-226	22 meg	1/2 w.				1020-up
R138.2	302-156	15 meg	1/2 w.				101-1019
R138.2	302-106	10 meg	1/2 w.				1020-up
R139	310-501	200 k	2 w.		Prec.	2%	
R140.1	302-226	22 meg	1/2 w.				
R140.2	302-106	10 meg	1/2 w.				
R141	302-101	100 Ω	1/2 w.				
R142±	311-038	100 k	2 w.	Var.			
R143	306-123	12 k					101-142
	306-822	8.2 k	2 w.				143-up
R144	311-011	5 k	2 w.	Var.			
R145	302-824	820 k	1/2 w.				
R146	311-026	100 k	2 w.	Var.			
R147	302-823	82 k	1/2 w.				101-1020
	302-474	470 k	1/2 w.				1021-up
R148+	302-272	2.7 k	1/2 w.				101-1887
	+*312-578	2.7 k	1/2 w.				1888-up
R149	302-272	2.7 k	1/2 w.				101-1887
	+*312-578	2.7 k	1/2 w.				1888-up
R150	302-822	8.2 k	1/2 w.				101-142
	302-682	6.8 k	1/2 w.				143-up
R151 Select with R152, matched ratio ±1/2%		12 k	2 w.				101-1896
	++312-579	15 k	2 w.				1897-up
R152 Select with R151, matched ratio ±1/2%		12 k	2 w.				101-1896
	++312-579	15 k	2 w.				1897-up
R153	309-045	100 k	1/2 w.		Prec.	1%	
R154	309-042	68 k	1/2 w.		Prec.	1%	101-142
	309-043	82 k	1/2 w.		Prec.	1%	143-up
R155	309-042	68 k	1/2 w.		Prec.	1%	101-142
	309-043	82 k	1/2 w.		Prec.	1%	143-up
R156	309-045	100 k	1/2 w.		Prec.	1%	
R157 Select with R158, matched ratio ±1%		150 k	2 w.				101-1887
	+++312-580	66 k	4 w.				1888-up
R158 Select with R157, matched ratio ±1%		150 k	2 w.				101-1887
	+++312-580	66 k	4 w.				1888-up

±Concentric with R113, furnished as a unit.
+R148 and R149, s/n 1888-up, matched to 1% of each other. Furnished as a unit.
++R151 and R152, s/n 1897-up, matched to 1% of each other. Furnished as a unit.
+++R157 and R158, s/n 1888-up, matched within 1% of each other. Furnished as a unit.

RESISTORS (continued)

R159	+312-551	25 k	25 w.		WW		
R160	302-470	47 Ω	1/2 w.				
R161	302-470	47 Ω	1/2 w.				
R162	+312-551	25 k	25 w.		WW		
R163	304-331	330 Ω	1 w.				101-1887
R163	306-331	330 Ω	2 w.				1888-up
R164	302-820	82 Ω	1/2 w.				
R165	302-820	82 Ω	1/2 w.				
R166	304-224	220 k	1 w.				101-454
R166.1	304-474	470 k	1 w.				455-up
R167	304-224	220 k	1 w.				101-454
R167.1	304-474	470 k	1 w.				455-up
R168	304-103	10 k	1 w.				
R169	302-123	12 k	1/2 w.				101-454
R169.1	302-103	10 k	1/2 w.				455-up
R170	311-016	10 k	2 w.	Var.			101-454
	311-018	20 k	2 w.	Var.			455-up
R171	311-016	10 k	2 w.	Var.			101-454
R171.1	311-018	20 k	2 w.	Var.			455-up
R172	302-123	12 k	1/2 w.				101-454
R172.1	302-103	10 k	1/2 w.				455-up
R173	302-102	1 k	1/2 w.				
R174	302-102	1 k	1/2 w.				
R175	302-473	47 k	1/2 w.				
R176	302-473	47 k	1/2 w.				
R177	302-124	120 k	1/2 w.				101-454
R177.1	302-274	270 k	1/2 w.				455-up
R178	302-124	120 k	1/2 w.				101-454
R178.1	302-274	270 k	1/2 w.				455-up
R179	301-564	560 k	1/2 w.			5%	101-222
R179	309-003	500 k	1/2 w.		Prec.	1%	223-454
R179.1	302-683	68 k	1/2 w.				455-up
R180	302-335	3.3 meg	1/2 w.				101-454
R180.1	302-105	1 meg	1/2 w.				455-up
R181	302-474	470 k	1/2 w.				
R182	302-474	470 k	1/2 w.				
R183	302-470	47 Ω	1/2 w.				X156-up
R183.1	304-103	10 k	1 w.				
R184	301-474	470 k	1/2 w.				101-164
	302-124	120 k	1/2 w.				165-1412
R184	309-045	100 k	1/2 w.		Prec.	1%	1413-up
R185	301-394	390 k					101-164
	309-045	100 k	1/2 w.		Prec.	1%	165-1412
	309-044	95 k	1/2 w.		Prec.	1%	1413-up
R186	306-272	2.7 k	2 w.				
R187	306-472	4.7 k	2 w.				101-1412

+R159 and R162 matched within 1% of each other. Furnished as a unit.

RESISTORS (continued)

R187	304-152	1.5 k	1 w.			1413-up
R187.1	306-272	2.7 k	2 w.			X1413-up
R188	304-473	47 k	1 w.			101-1412
	306-473	47 k	2 w.			1413-up
R190	302-334	330 k				101-164
R190 Use	309-049	150 k	1/2 w.			165-up
R191	302-474	470 k				101-164
Use	309-052	220 k	1/2 w.			165-up
R192	302-224	220 k	1/2 w.			
R193	302-154	150 k	1/2 w.			
R194	311-026	100 k	2 w.	Var.		
R195	304-472	4.7 k	1 w.			101-1412
	306-682	6.8 k	2 w.			1413-up
R196	302-222	2.2 k	1/2 w.			101-1412
	304-392	3.9 k	1 w.			1413-up
R197	306-153	15 k	2 w.			101-1412
	306-682	6.8 k	2 w.			1413-up
R197.1	306-153	15 k	2 w.			X845-1412
	306-682	6.8 k	2 w.			1413-up
R198	306-183	18 k	2 w.			101-164
R198	306-393	39 k	2 w.			165-1412
	306-333	33 k	2 w.			1413-up
R198.1	306-393	39 k	2 w.			X165-1412
	306-333	33 k	2 w.			1413-up
R199	302-223	22 k	1/2 w.			
R199.1	302-334	330 k	1/2 w.			X1413-up
R200	304-473	47 k	1 w.			
R201	302-471	470 Ω	1/2 w.			
R202	306-223	22 k	2 w.			
R203	304-103	10 k	1 w.			
R204	304-472	4.7 k	1 w.			
R205	302-684	680 k	1/2 w.			
R206	+311-027	100 k	1/2 w.	Var.	WW	
R207	302-822	8.2 k	1/2 w.			
R208	311-034	500 k	2 w.	Var.		
R209	306-475	4.7 meg	2 w.			
R210	311-042	2 meg	2 w.	Var.		
R211	306-155	1.5 meg	2 w.			101-1887
	306-105	1 meg	2 w.			1888-up
R212	311-042	2 meg	2 w.	Var.		
R213	302-155	1.5 meg	1/2 w.			
R214	304-104	100 k	1 w.			
R215	304-105	1 meg	1 w.			101-1019
	304-155	1.5 meg	1 w.			1020-up
R216	302-474	470 k	1/2 w.			

+Concentric with SW104. Furnished as a unit.

RESISTORS (continued)

R217	302-104	100 k	1/2 w.				X1020-up
R220	302-105	1 meg	1/2 w.				X1861-up
R226	311-034	500 k	2 w.	Var.			X1888-up
R227	302-105	10 meg	1/2 w.				X1888-up
R401.1	304-474	470 k	1 w.				
R401.2	302-474	470 k	1/2 w.				
R402	306-224	220 k	2 w.				
R403	310-101	1.75 meg	1 w.		Prec.	1%	
R404	302-473	47 k	1/2 w.				
R405	309-007	666.6 k	1/2 w.		Prec.	1%	
R406 Use	308-031	2 k	20 w.		WW	5%	
R407.1	302-474	470 k	1/2 w.				
R407.2	302-470	47 Ω	1/2 w.				
R408	304-823	82 k	1 w.				
R409	302-223	22 k	1/2 w.				
R410	302-474	470 k	1/2 w.				
R411	309-017	1.5 meg	1/2 w.		Prec.	1%	
R412 Use	309-010	750 k	1/2 w.		Prec.	1%	
R413.1	308-040	1.5 k	25 w.		WW	5%	
R413.2	308-040	1.5 k	25 w.		WW	5%	
R414.1	302-102	1 k	1/2 w.				
R414.2	302-102	1 k	1/2 w.				
R415	302-474	470 k	1/2 w.				
R416	304-563	56 k	1 w.				
R417	302-225	2.2 meg	1/2 w.				
R418	302-223	22 k	1/2 w.				
R419 Use	302-225	2.2 meg					
R420	302-683	68 k	1/2 w.				
R421	301-564	560 k	1/2 w.			5%	
R422	302-224	220 k	1/2 w.				
R423	302-155	1.5 meg	1/2 w.				
R424	302-474	470 k	1/2 w.				
R425	311-026	100 k	2 w.	Var.			
R426	302-274	270 k	1/2 w.				
R427	302-274	270 k	1/2 w.				
R428	308-042	3 k	25 w.		WW	5%	101-222
	308-041	2.4 k	25 w.		WW	5%	223-1612
	308-044	3.8 k	25 w.		WW	5%	1613-up
R429	304-471	470 Ω	1 w.				101-1612
	304-391	390 Ω	1 w.				1613-up
R430	304-471	470 Ω	1 w.				101-164
	304-331	330 Ω	1 w.				165-1612
	304-391	390 Ω	1 w.				1613-up
R431	311-055	50 Ω	2 w.	Var.	WW	5%	
R432	302-470	47 Ω	1/2 w.				
R433	302-224	220 k	1/2 w.				
R434	302-154	150 k	1/2 w.				

RESISTORS (continued)

R435	302-683	68 k	1/2 w.				101-157
	302-474	470 k	1/2 w.				158-up
R436	306-472	4.7 k	2 w.				
R437	302-332	3.3 k	1/2 w.				
R438	302-124	120 k	1/2 w.				
R439.1	302-474	470 k	1/2 w.				
R439.2	302-151	150 Ω	1/2 w.				
R440	304-275	2.7 meg	1 w.				
R441	311-042	2 meg	2 w.	Var.			
R442	314-003	30 meg	2 w.				
R443	314-003	30 meg	2 w.				
R444	314-003	30 meg	2 w.				
R445	302-475	4.7 meg	1/2 w.				
R446	302-105	10 meg	1/2 w.				
R447	302-106	10 meg	1/2 w.				
R448	302-225	2.2 meg	1/2 w.				
	302-275	2.7 meg	1/2 w.				
R449.1	303-114	110 k	1 w.			5%	
	304-104	100 k	1 w.				
R450	312-540	30 meg	2 w.				
R451.1		6.8 meg	1/2 w.				
R452	308-044	3.8 k	25 w.		WW	5%	X1613-up
R455	308-024	15 k	10 w.		WW	5%	X1546-up
R501	+311-033	250 k	2 w.	Var.			
R502	302-333	33 k	1/2 w.				
R503	302-124	120 k	1/2 w.				
R504	306-822	8.2 k	2 w.				
R505	306-822	8.2 k	2 w.				
R506	302-154	150 k	1/2 w.				
R507	302-683	68 k	1/2 w.				
R508	311-026	100 k	2 w.	Var.			
R509	304-681	680 Ω	1 w.				
R510	302-474	470 k	1/2 w.				
R511	302-474	470 k	1/2 w.				
R512	304-103	10 k	1 w.				
R513	302-473	47 k	1/2 w.				
R514	302-474	470 k	1/2 w.				
R515	302-474	470 k	1/2 w.				
R516	302-223	22 k	1/2 w.				
R517	302-154	150 k	1/2 w.				
R518	306-822	8.2 k	2 w.				
R519	306-822	8.2 k	2 w.				
R520	302-474	470 k	1/2 w.				
R521	302-333	33 k	1/2 w.				101-2010
	302-473	47 k	1/2 w.				2011-up
R522	302-154	150 k	1/2 w.				

+Concentric with SW501. Furnished as a unit.

RESISTORS (continued)

R523	304-472	4.7 k	1 w.				
R528	304-471	470 Ω	1 w.				
R529	304-683	68 k	1 w.				101-274
	304-823	82 k	1 w.				275-1019
	310-094	400 k	1 w.		Prec.	1%	1020-up
R530	304-154	150 k	1 w.				101-274
	304-184	180 k	1 w.				275-1019
	310-100	1 meg	1 w.		Prec.	1%	1020-up
R531	302-274	270 k	1/2 w.				101-274
	302-334	330 k	1/2 w.				275-1019
R531	310-102	2 meg	1 w.		Prec.	1%	1020-up
R532	302-474	470 k	1/2 w.				101-274
	302-684	680 k	1/2 w.				275-1019
	310-103	4 meg	1 w.		Prec.	1%	1020-up
R533	302-185	1.8 meg	1 w.				101-1019
R533	310-107	10 meg	1 w.		Prec.	1%	1020-up
R534	302-103	10 k	1/2 w.				
R535	302-103	10 k	1/2 w.				
R536	302-474	470 k	1/2 w.				
R537	304-392	3.9 k	1 w.				
R538	302-471	470 Ω	1/2 w.				
R539	302-474	470 k	1/2 w.				
R540	302-223	22 k	1/2 w.				
R541	312-003	20 k	2 w.	Var.	WW	2%	
R542	309-064	20 Ω	1/2 w.		Prec.	1%	
R543	309-066	40 Ω	1/2 w.		Prec.	1%	
R544	309-071	142 Ω	1/2 w.		Prec.	1%	
R545	309-079	416 Ω	1/2 w.		Prec.	1%	
R546	309-029	1582 Ω	1/2 w.		Prec.	1%	
R547	309-032	5.25 k	1/2 w.		Prec.	1%	
R548	309-035	13.23 k	1/2 w.		Prec.	1%	
R549	304-104	100 k	1 w.				
R550	304-473	47 k	1 w.				
R551	302-225	2.2 meg	1/2 w.				
R552	306-473	47 k	2 w.				
R553	302-824	820 k	1/2 w.				
R554	302-824	820 k	1/2 w.				
R555	302-684	680 k	1/2 w.				
R556	302-155	1.5 meg	1/2 w.				
R557	311-012	5 k	2 w.	Var.	WW		
R558	304-682	6.8 k	1 w.				101-396
	304-103	10 k	1 w.				397-up
R559	302-104	100 k	1/2 w.				
R601	309-076	300 Ω	1/2 w.		Prec.	1%	

SELENIUM RECTIFIERS

SR1	106-007	Selenium
SR2,3	106-008	Selenium

NOTE: To replace selenium rectifiers with silicon diodes, order Modification Kit No. 040-011

SWITCHES

SW1	260-052	Vert. Input	rotary	unwired
	262-032	Vert. Input	rotary	wired
SW2	260-053	Vert. Defl. Sens.	rotary	unwired
	262-033	Vert. Defl. Sens.	rotary	wired
SW3	260-025	AC - DC	rotary	unwired
SW101	260-005	Trigger Selector	rotary	unwired
SW102	260-046	Sweep Time (front)	rotary	unwired
	262-053	Sweep Time (front)	rotary	wired
	260-049	Sweep Time (rear)	rotary	unwired
	262-054	Sweep Time (rear)	rotary	wired
SW103	260-035	Sweep Time Multiplier	rotary	unwired
	262-034	Sweep Time Multiplier	rotary	wired
SW104+	311-027	Sweep Magnifier		unwired
SW401	Use 260-276	Power On	toggle	unwired
SW501++	311-033	Delay Trigger	toggle	unwired
SW502	260-034	Trigger Rate Generator	rotary	unwired
	262-035	Trigger Rate Generator	rotary	wired

TRANSFORMERS

T401	120-228	T513P	
T501	120-035	T11A	
T502	120-035	T11A	101-1019
	120-047	T21A	1020-up

VACUUM TUBES

V1	*157-013	12AN6	
V2	*157-013	12AN6	
V3	154-039	12AT7	
V4	*157-013	12AW6	101-164
	*157-008	12AT7	165-up

+ Concentric with R206. Furnished as a unit.
++Concentric with R501. Furnished as a unit.

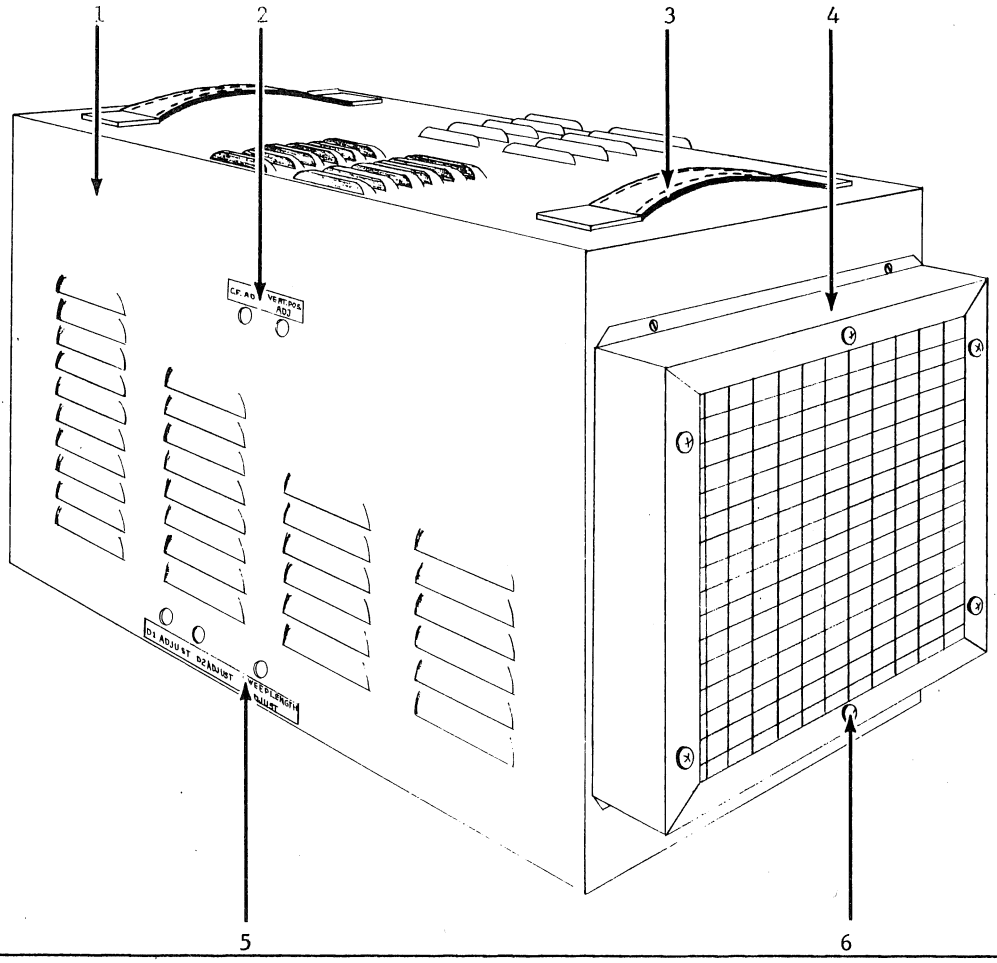
VACUUM TUBES (continued)

V5	154-032	6J6	
V6	154-030	6CB6	101-222
	154-042	12AW6	223-up
V7	*157-008	12AT7	
V8	*157-008	12AT7	
V9	*157-001	6AH6	
V10	*157-001	6AH6	
V11	*157-001	6AH6	
V12	*157-001	6AH6	
V14	154-018	6AS5	
V15-28	*157-004	6CB6	
V101	154-030	6CB6	101-119
V101	154-013	6AH6	120-up
V102	154-016	6AL5	
V103	154-012	6AG7	
V104	154-030	6CB6	101-164
	154-013	6AH6	165-up
V105	154-012	6AG7	
V106	154-012	6AG7	
V107	154-029	6C4	
V108	154-016	6AL5	
V109	154-039	12AT7	101-142
V109	154-041	12AU7	143-up
V110	154-017	6AQ5	
V111	154-017	6AQ5	
V112	154-030	6CB6	
V113	154-030	6CB6	
V114	154-041	12AU7	
V115	154-039	12AT7	101-1412
	154-027	6BK7	1413-up
V116	154-029	6C4	
V117	154-039	12AT7	101-1412
V117	154-027	6BK7	1413-up
V118	154-041	12AU7	101-164X
V118.1	154-029	6C4	X165-up
V118.2	154-016	6AL5	X165-up
V119	154-032	6J6	
V120	Use*040-094	5XP2	101-1887
	*154-081	T51P2 CRT Standard Phosphor	1888-up
V401	154-035	6X4	
V402	154-035	6X4	
V403	154-018	6AS5	101-1034
	154-044	12B4	1035-up
V404	154-022	6AU6	
V405	154-021	6AU5	
V406	154-022	6AU6	
V407	154-020	6AS7	

VACUUM TUBES (continued)

V408	154-022	6AU6	
V409	154-043	12AX7	
V410	154-052	5651	
V411.1	154-035	6X4	
V411.2	154-035	6X4	
V412	154-003	OD3	
V413	154-021	6AU5	
V414	154-021	6AU5	
V415	154-041	12AU7	
V416.1	154-051	5642	
V417.1	154-051	5642	
V418.1	154-051	5642	
V419	154-051	5642	
V420	154-003	OD3	X1613-up
V501	154-030	6CB6	101-170
	154-041	12AU7	171-up
V502	154-030	6CB6	101-170
V502	154-039	12AT7	171-up
V503	154-039	12AT7	
V504	154-039	12AT7	101-2010
	154-046	12BH7	2011-up
V506	154-039	12AT7	101-170X
V507	154-032	6J6	
V508	154-039	12AT7	
V509	154-041	12AU7	
V510	154-041	12AU7	

CABINET

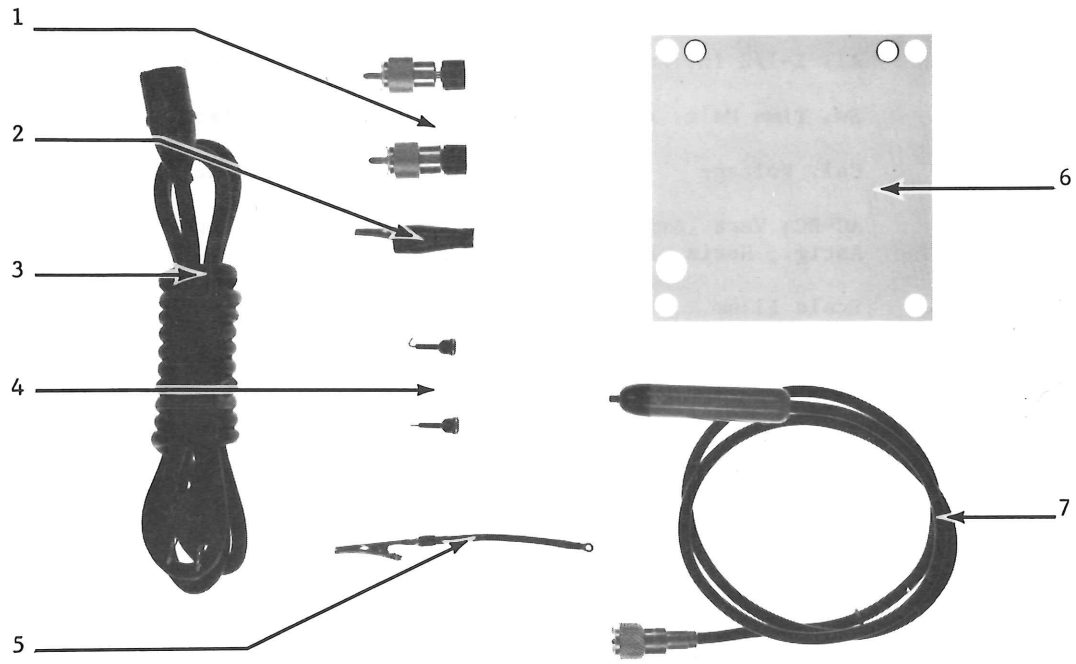


Ref. No.	Item Name	Description	Part No.
1.	Cabinet		437-012
2.	Tag		334-517
3.	Handle,	Pakawa Leather	367-001
4.	Housing, filter Filter, air		380-002 378-004
5.	Tag		334-536
6.	Screw,	8-32 x 1/2 in. FHS Phillips	213-016

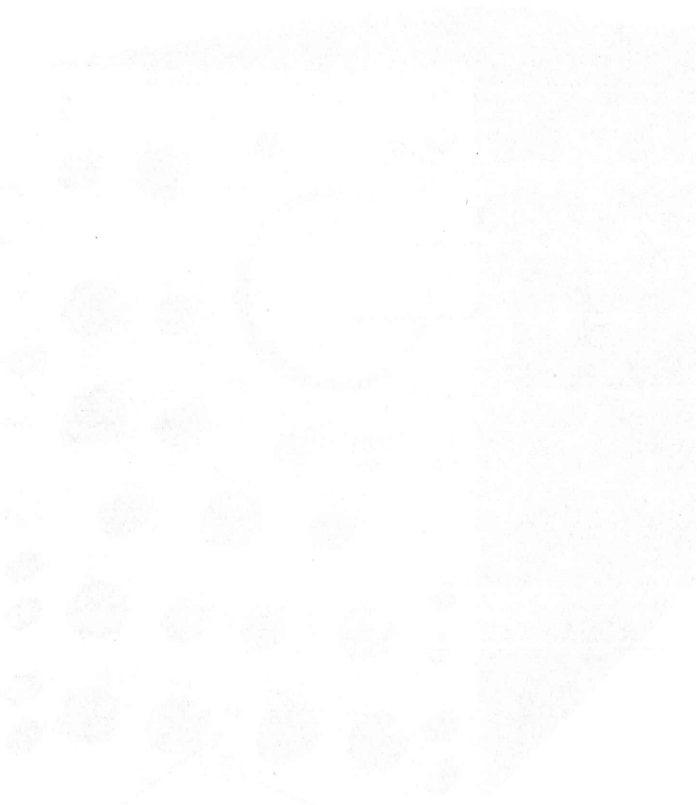
KNOBS

Part No.	Control	Color	Qty.
312-100	Sw. Time Multiplier Ass'y (Cal. 0-.9)	Black	1
366-007	All 1-1/2 in. knobs with white line	Black	9
366-502	Sw. Time Mult. (Cal. 1-10)	Black	1
366-509	Cal. Voltage	Black	1
366-510	AC-DC; Vert. Amp. Atten.; Focus; Intens.; Astig.; Horiz. Pos.; Vert. Pos.	Black	7
366-511	Scale Illum.	Black	1

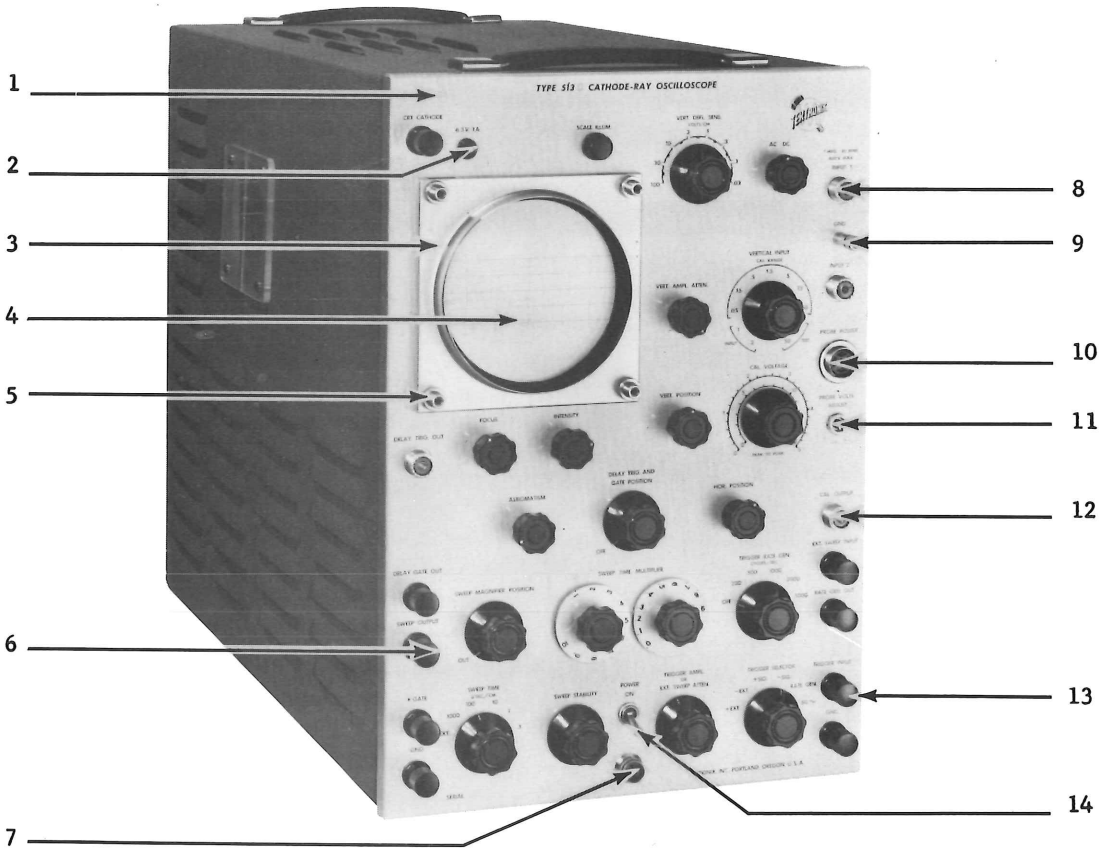
ACCESSORIES



Ref. No.	Item Name	Description	Part No.
1.	Adapter	A510	013-004
2.	Clip, Probe		344-005
3.	Cord, Power	2-wire	161-004
4.	Tip,	w/hook shank w/straight shank	206-008 206-009
5.	Cable,	ground lead	175-014
6.	Filter, light	green	378-503
7.	Probe,	P510A, 42 in.	Replaced by P6000 Series



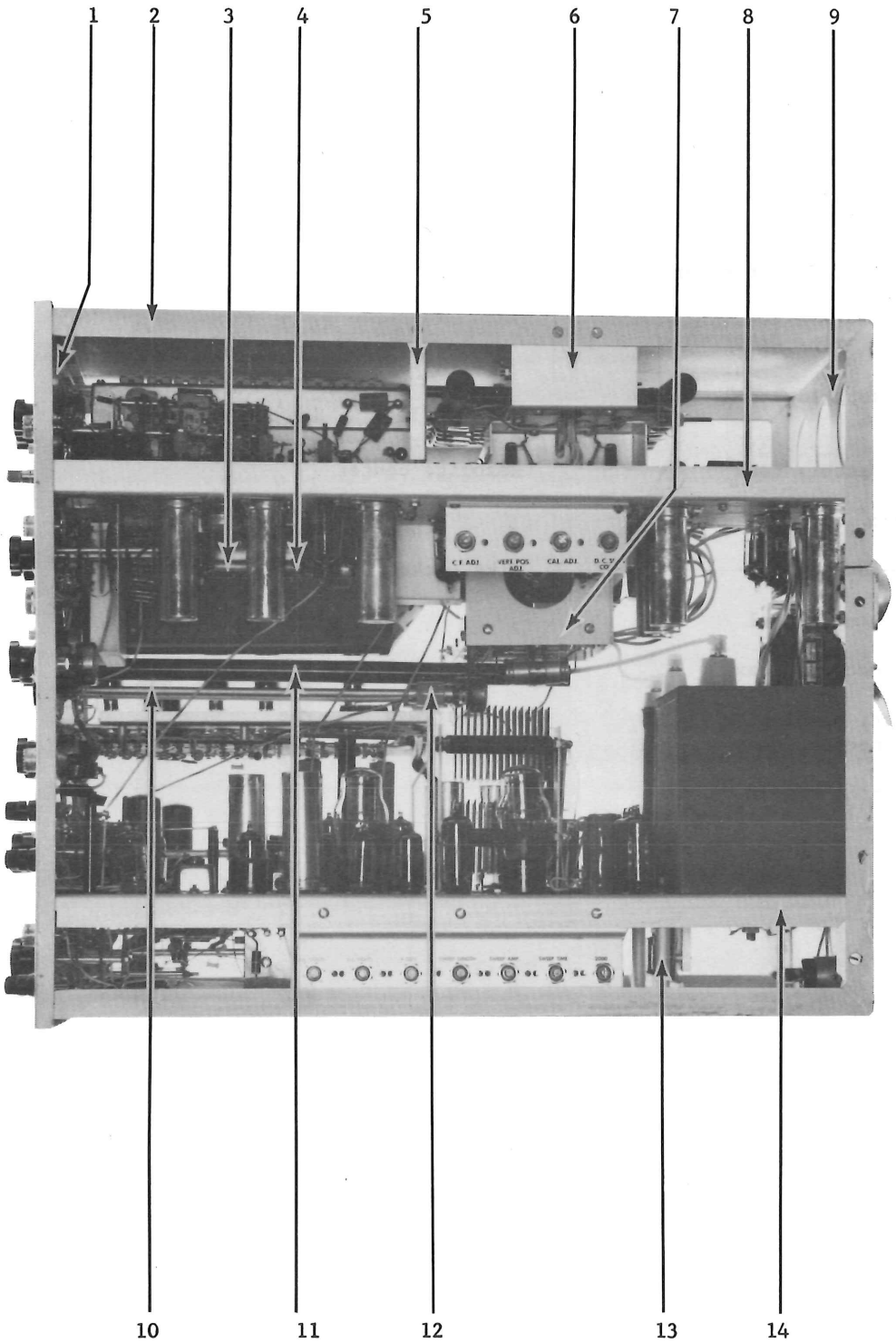
FRONT



FRONT

Ref. No.	Item Name	Description	Part No.
1.	Panel, Front	(without Delay Network)	333-065
	Panel, Front	(513D)	333-067
2.	Socket, tip jack	black	136-002
3.	Cover, graticule		200-025
4.	Graticule		331-024
5.	Stud		210-424
	Washer, (under cover)		210-816
	Stud,		355-043
6.	Post, Binding		Ass'y 129-002
7.	Socket, light		136-025
	Jewel,	red	378-518
8.	Connector, coax	Rexolite center	131-012
9.	Post, binding		129-020
10.	Connector,	Mike socket	131-009
11.	Bushing, Panel		358-010
12.	Connector, coax	Teflon center	131-051
13.	Post, binding	s/n 101-649	Ass'y 129-002
	Connector, coax	s/n 650-up	131-012
14.	Switch, toggle		260-134

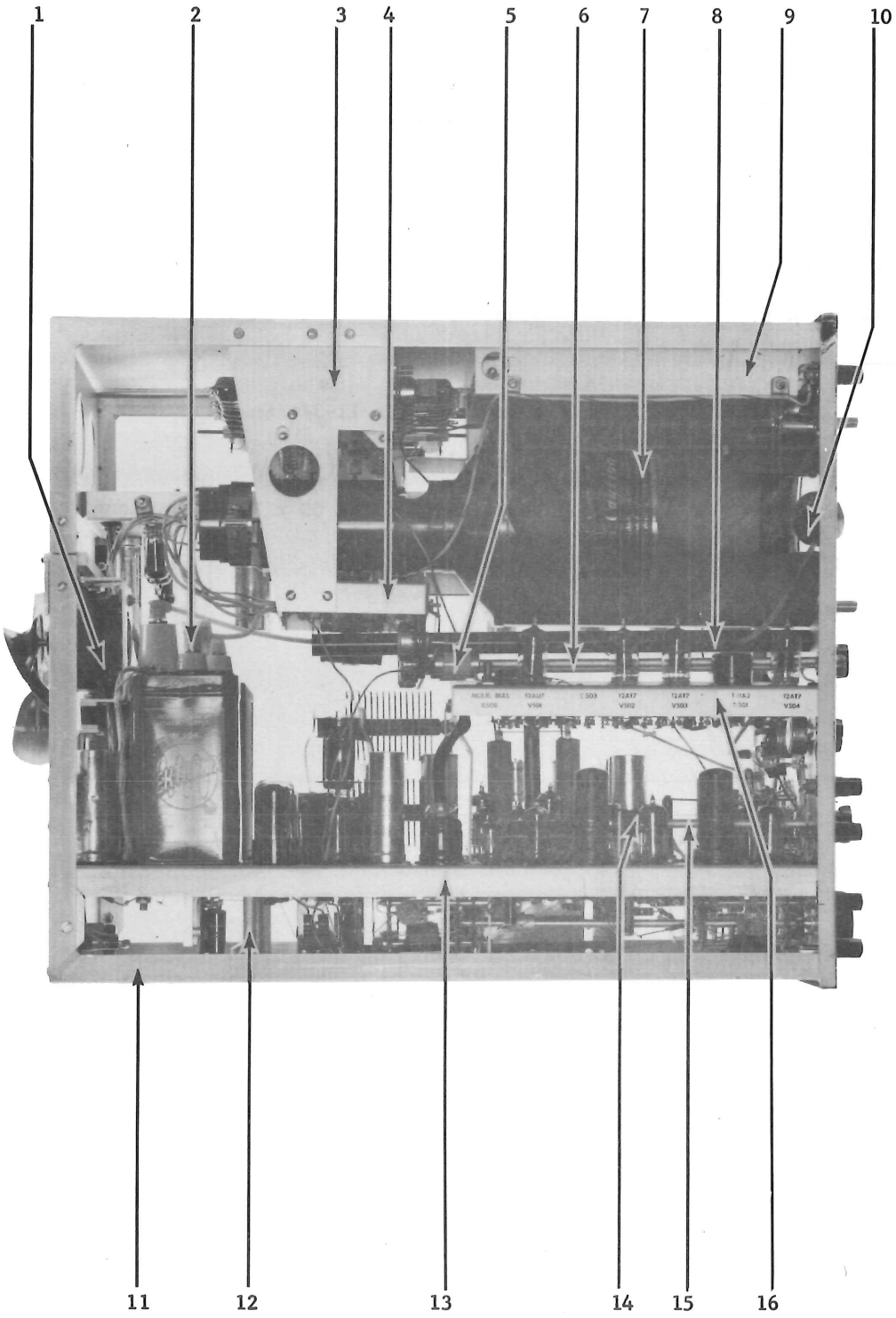
RIGHT SIDE



RIGHT SIDE

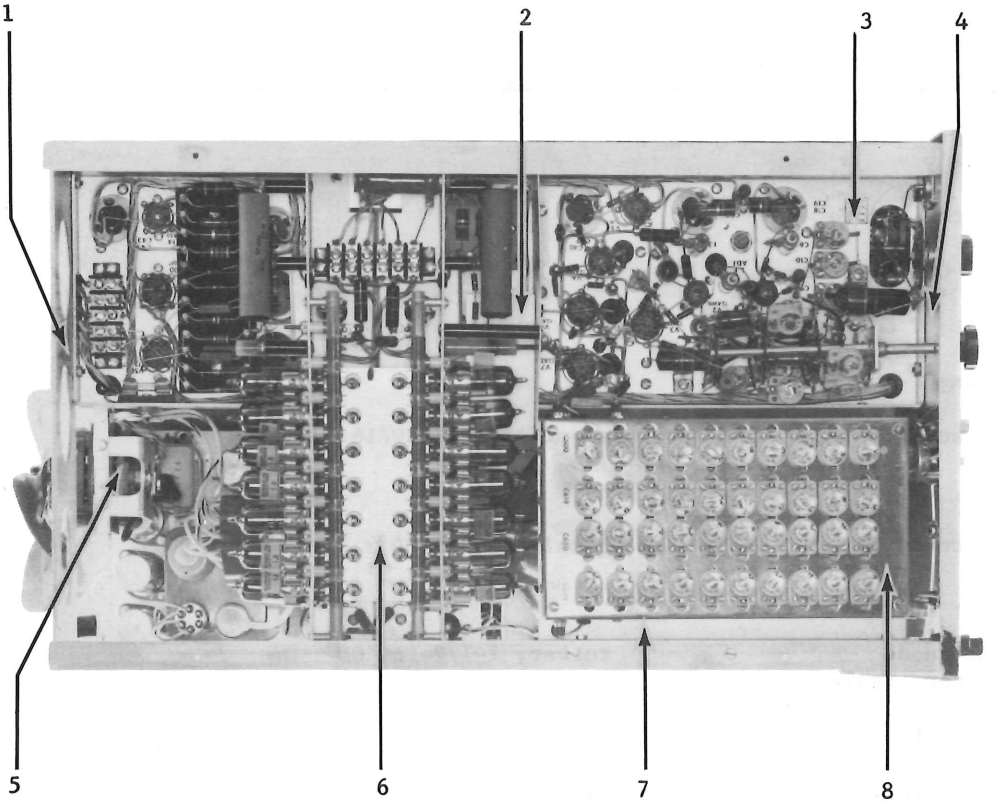
Ref. No.	Item Name	Description	Part No.
1.	Plate, Sub Panel		386-302
2.	Frame, right		426-007
3.	Rod, ext.	alum., 1/4 x 7-1/8 in.	384-089
4.	Coupling	fiber	376-001
5.	Shield, V.A.		337-035
6.	Bracket, Sweep Amp.	alum.	406-061
7.	Bracket, F & I	alum.	406-092
8.	Chassis, V.A.		Page B-54
9.	Plate,	alum., 4-3/8 x 11-3/4 in.	387-507
10.	Rod, ext.	alum., 1/4 x 10-9/16 in.	384-029
11.	Tube, conduit	bakelite, 5/8 in. OD x 15.45 in. long	166-003
12.	Coupling		376-006
13.	Tube, spacer	alum.	166-012
14.	Chassis, Sweep and Power		Page B-44

LEFT SIDE



LEFT SIDE

Ref. No.	Item Name	Description	Part No.
1.	Fan Ass'y		Page B-57
2.	Connector, cable		131-003
3.	Plate, CRT Support		386-308
4.	Bracket, F & I	alum.	406-092
5.	Coupling		376-006
6.	Rod, ext.	alum. 1/4 x 10-9/16 in.	384-029
7.	Shield, CRT		Page B-58
8.	Tube, conduit	bakelite, 5/8 OD x 15.45 long	166-003
9.	Shield,		337-028
10.	Cover, anode Connector, cable	rubber, 1-1/2 in. OD	200-023 131-003
11.	Frame, left		426-006
12.	Tube, spacer,	alum.	166-012
13.	Chassis, Sweep and Power		Page B-44
14.	Coupling,	fiber	376-001
15.	Rod, ext.	alum., 1/4 x 5-5/8 in.	384-016
16.	Chassis, Delay Gate Trig.		Page B-48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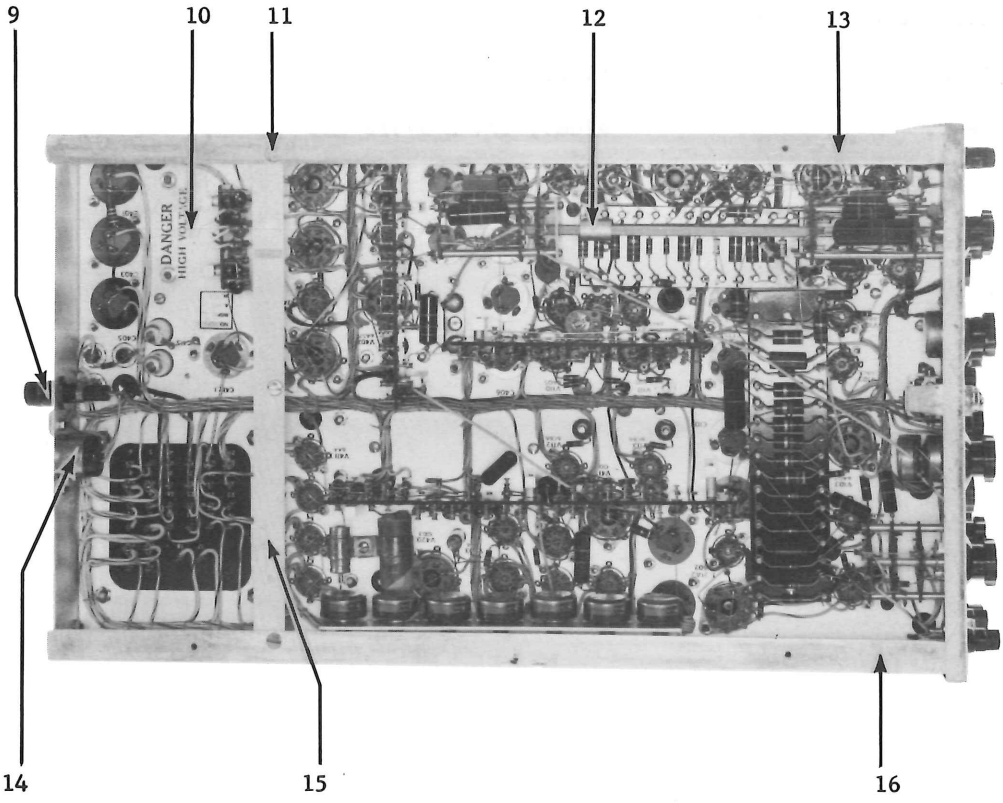
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HIGH VOLTAGE
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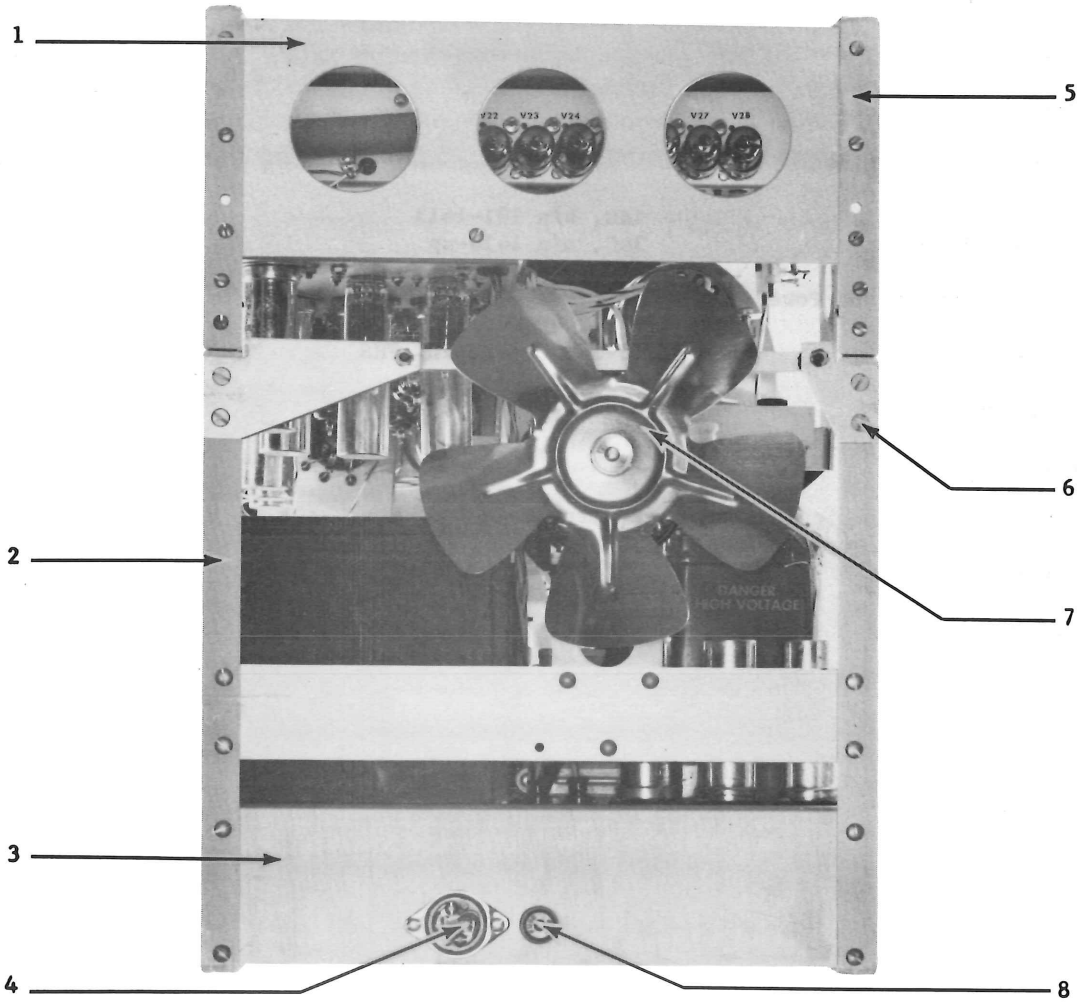
TOP & BOTTOM

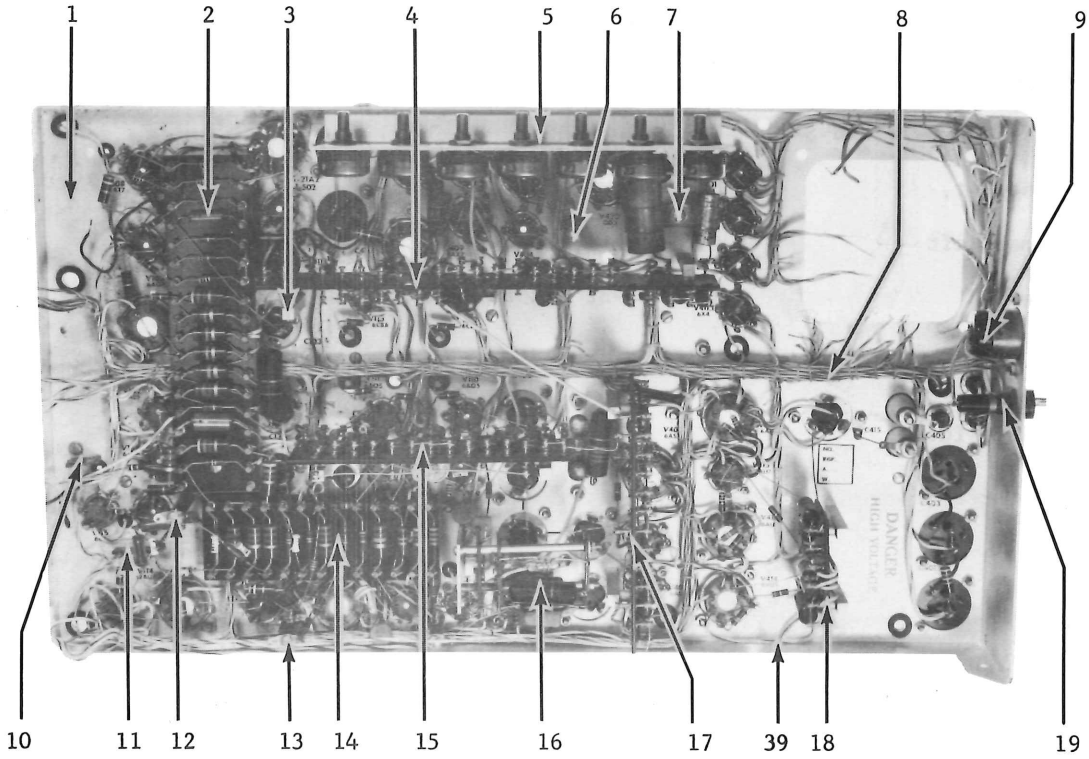
Ref. No.	Item Name	Description	Part No.
1.	Plate,	alum. 4-3/8 in. x 11-3/4 in.	387-507
2.	Shield, V.A.		337-035
3.	Chassis, V.A.		Page B-54
4.	Plate, Sub Panel		386-302
5.	Fan Ass'y		Page B-57
6.	Chassis, D.A.		Page B-50
7.	Shield,		337-028
8.	Chassis, Delay Line		Page B-58
9.	Holder, fuse Holder, fuse	4AG, s/n 101-1413 3AG, s/n 1414-up	352-001 352-002
10.	Chassis, Sweep and Power		Page B-44
11.	Screw,	10-24 x 3-1/2 in. FHS	212-503
12.	Coupling,	alum. 1 in. long	376-007
13.	Frame, left		426-006
14.	Connector,	2 wire, male	131-010
15.	Angle, Brace		122-001
16.	Frame, right		426-007

REAR



REAR

Ref. No.	Item Name	Description	Part No.
1.	Plate,	alum. 4-3/8 x 11-3/4 in.	387-507
2.	Frame, right		426-007
3.	Chassis, Power and Sweep		Page B-44
4.	Connector,	2 wire, male	131-010
5.	Frame, left		426-006
6.	Screw,	8-32 x 1 in. RHS	212-021
7.	Fan Ass'y		Page B-57
8.	Holder, fuse	4AG, s/n 101-1413	352-001
	Holder, fuse	3AG, s/n 1414-up	352-002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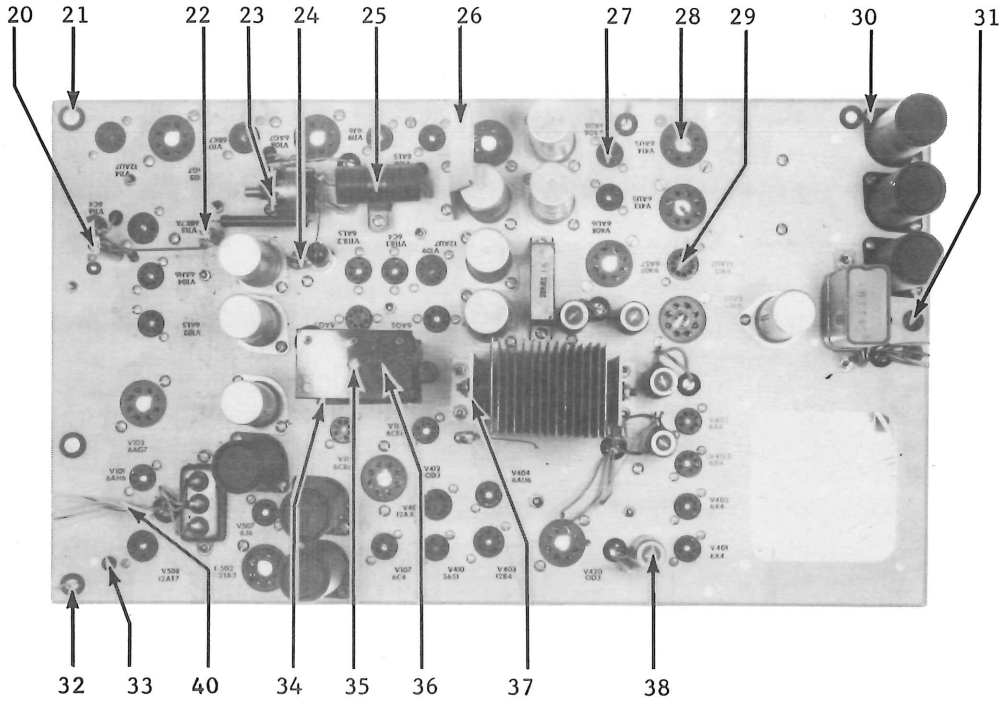
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POWER & SWEEP

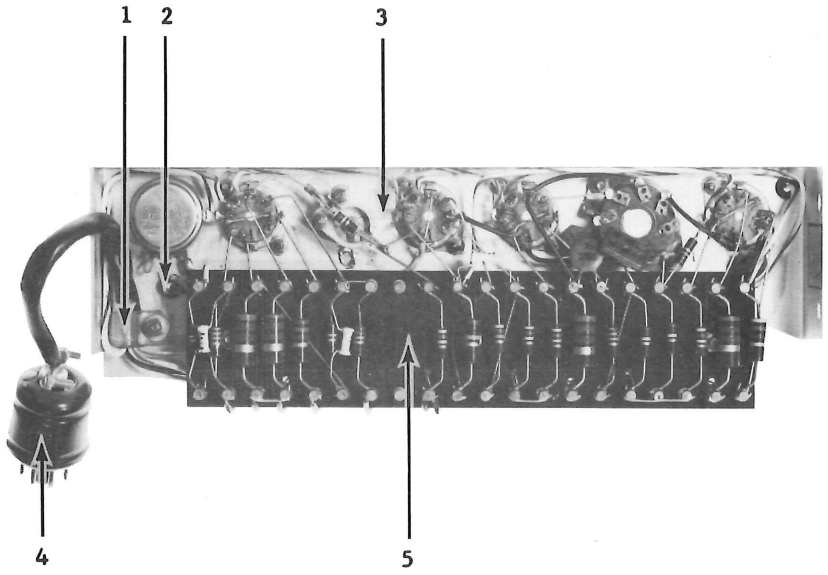
Ref. No.	Item Name	Description	Part No.
1.	Chassis		441-037
2.	Board, terminal	bakelite	392-067
	Spacer		166-033
3.	Bar	alum. 1/4 sq. x 2-1/8 in.	381-021
	Spacer,		166-031
4.	Board, terminal	bakelite	392-022
5.	Bracket, pot		406-064
6.	Screw,	6-32 x 1-1/2 in. RHS	211-553
	Eyelet,	tapered barrel	210-601
	Nut, alum.	hex. resistor mtg.	210-478
7.	Clamp, cable	plastic, 5/8 in.	343-007
	Clamp, cable	plastic, 7/8 in.	343-009
	Spacer,		166-033
	Screw,	6-32 x 1 in. BHS	211-517
	Washer,	6L x 3/8 in.	210-803
8.	Cable, harness	#1	179-010
9.	Connector,	2-wire, male	131-010
10.	Terminal,	tie point, 1 pt	131-022
11.	Terminal,	tie point, 2 pt.	131-023
12.	Rod,	nylon, 5/16 x 1-3/4 in w/pin	385-046
13.	Rod,	nylon, 5/16 x 1-3/4	385-047
14.	Board, terminal	bakelite	392-063
15.	Board, terminal	bakelite	392-020
16.	Switch, Sweep Time	rear	Page B-60
17.	Board, terminal	bakelite	392-019
18.	Board, terminal	bakelite	392-056
19.	Holder, fuse	4AG, s/n 101-1413	352-001
	Holder, fuse	3AG, s/n 1414-up	352-002
20.	Rod, nylon	5/16 x 2-1/2 in.	385-056
21.	Grommet,	rubber, 1/2 in.	348-005
22.	Rod, nylon	5/16 x 1-3/4 in.	385-060
23.	Bracket,	alum.	406-023

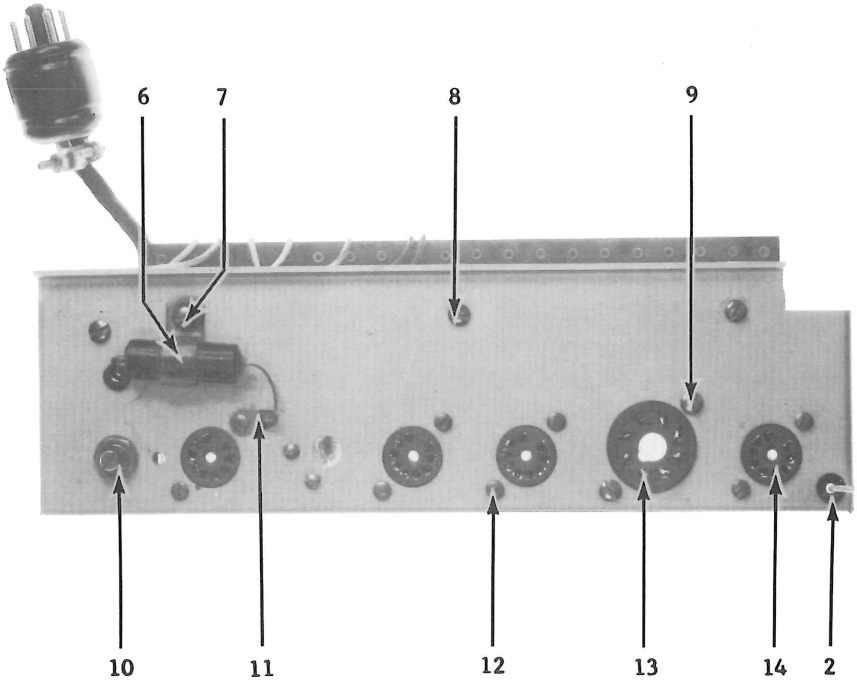
(continued Page B-46)

POWER & SWEEP (continued)

Ref. No.	Item Name	Description	Part No.
24.	Clamp, cable	plastic, 1/2 in.	343-006
25.	Clamp, cable	plastic, 7/8 in.	343-009
26.	Bracket,	alum., 2-1/4 x 4-1/2 x 1/2 in.	406-060
27.	Socket,	STM7G	136-008
28.	Socket,	STM8G	136-011
29.	Socket,	STM9G	136-015
30.	Screw,	6-32 x 5/16 in. BHS	211-507
31.	Socket, tip jack	black	136-002
32.	Grommet,	rubber, 3/8 in.	348-004
33.	Grommet,	rubber, 1/4 in.	348-002
34.	Board, terminal	bakelite	392-036
35.	Rod,	bakelite, 1/2 x 4 in.	385-022
36.	Board, terminal	bakelite	392-037
37.	Bracket, Rectifier	alum.	406-066
38.	Screw, Washer, Nut, res. mtg.	8-32 x 1-3/4 in. Fil H.S. centering alum.	212-037 210-808 210-462
39.	Cable, harness	#3	179-012
40.	Cable, harness	#2	179-011

DELAY GATE TRIGGER

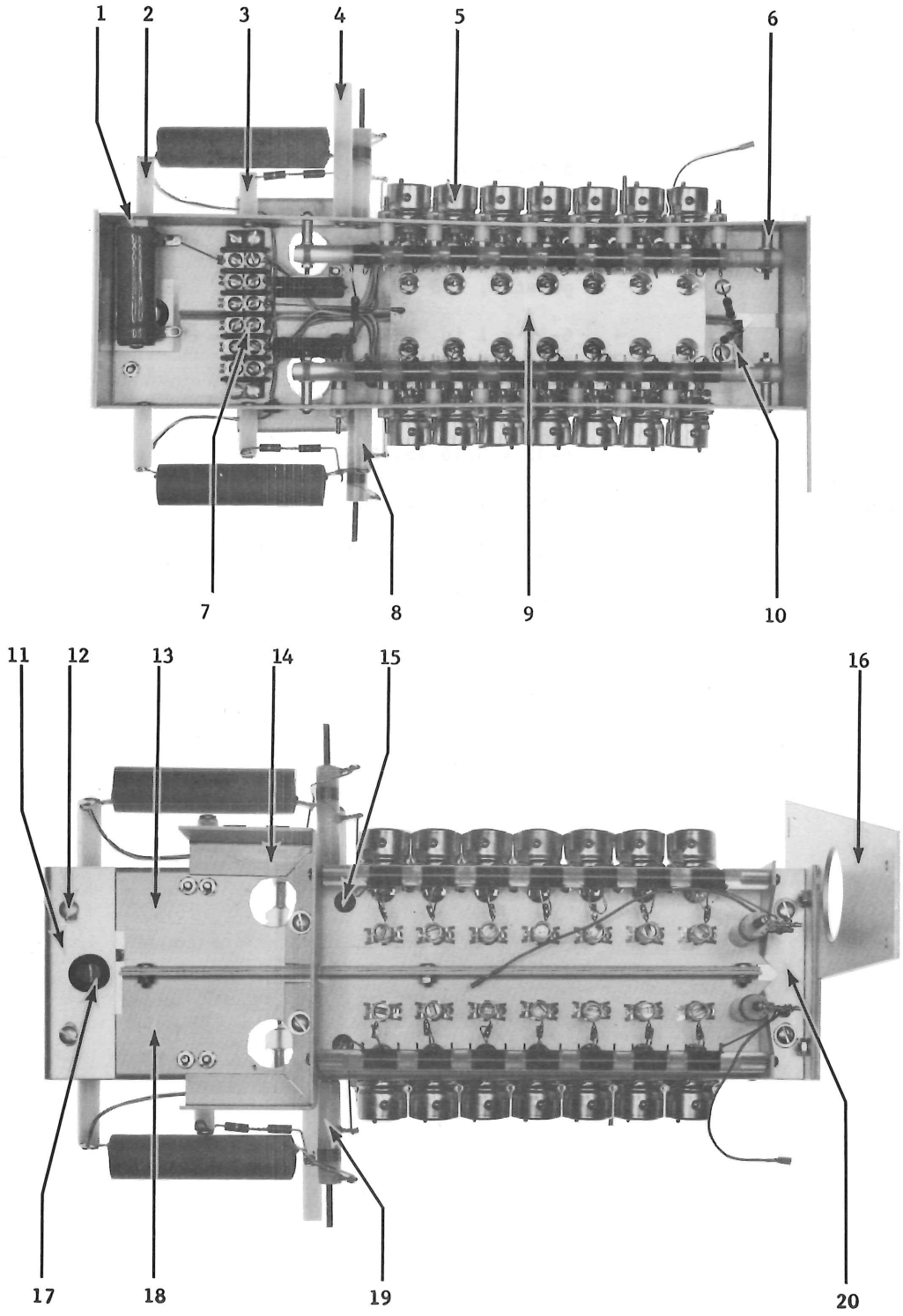




DELAY GATE TRIGGER

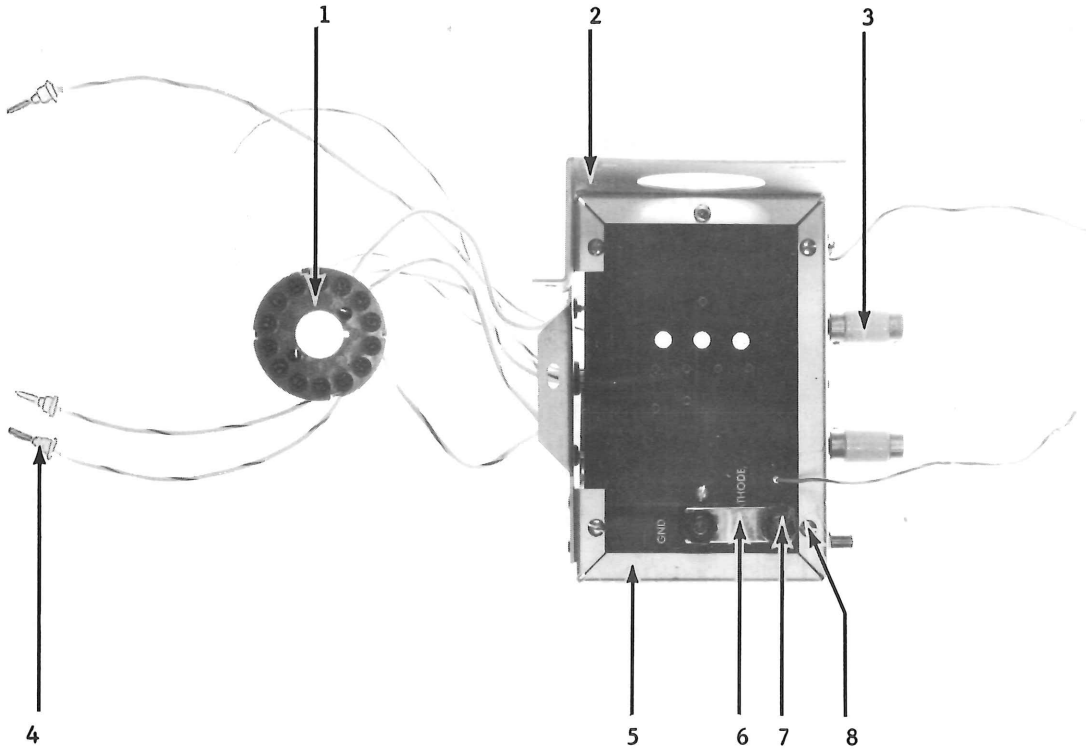
Ref. No.	Item Name	Description	Part No.
1.	Clamp, cable	plastic, 5/16 in.	343-004
2.	Grommet,	rubber, 1/4 in.	348-002
3.	Chassis		441-035
4.	Plug,	8 pin octal	134-006
5.	Board, terminal Spacer	bakelite, 1-7/8 x 8-1/8 in.	392-069 166-033
6.	Clamp, cable	plastic, 5/8 in.	343-007
7.	Screw, Washer,	6-32 x 1 in. BHS 6L x 3/8 in.	211-517 210-803
8.	Screw,	6-32 x 7/8 in. BHS	211-516
9.	Screw,	6-32 x 5/16 in. BHS	211-507
10.	Nut, pot	3/8 - 32 x 1/2 in.	210-413
11.	Lug, solder	SE6, w/2 wire holes	210-202
12.	Screw,	4-40 x 5/16 in.	211-011
13.	Socket,	STM8G	136-011
14.	Socket,	STM9G	136-015

DIST. AMP.



DIST. AMP.

Ref. No.	Item Name	Description	Part No.
1.	Centering washer	25 w. res. mtg.	210-809
	Screw,	8-32 x 2-1/4 in. Fil H.S.	212-035
	Nut, hex.	alum. 8-32 x 1/2 in.	210-462
	Lockwasher	int. #8	210-008
	Nut,	8-32 x 5/16 in.	210-409
2.	Rod, nylon	5/16 x 1 in.	385-016
3.	Rod, nylon	5/16 x 3/4 in.	385-013
4.	Rod, nylon	5/16 x 2-1/4 in.	385-054
5.	Socket, shielded	STM7	136-009
6.	Spacer,	.125ID x 3/16 OD x 1/8 in.	166-024
	Screw	4-40 x 1 in.	211-019
	Flatwasher	5S x 9/32 x .015 in.	210-801
	Lockwasher	#4	210-004
	Nut,	4-40 x 3/16 in.	210-406
7.	Strip,	Bakelite terminal, 6 pt.	124-004
8.	Rod, nylon	5/16 x 1 in.	385-016
9.	Plate, connecting	2-1/2 x 5-1/2 in.	386-333
10.	Connector,	tie point 1 pt.	131-022
11.	Bracket, alum.	Sweep Amplifier	406-061
12.	Screw,	6-32 x 5/16 in.	211-507
	Flatwasher	6L x 3/8 in.	210-803
	Lockwasher	int. #6	210-006
	Nut	6-32 x 1/4 in.	210-407
13.	Chassis,	DAB	441-033
14.	Shield, Vert. Amp. Distributor	Vert. Amp. Distributor	337-037
15.	Grommet,	1/4 in.	348-002
16.	Plate,	CRT Support	386-308
17.	Grommet,	1/2 in.	348-005
18.	Chassis,	DAF	441-034
19.	Bushing, coil		358-023
20.	Bracket	3-1/4 x 5/8 x 3/4 x 1-1/16 in.	406-062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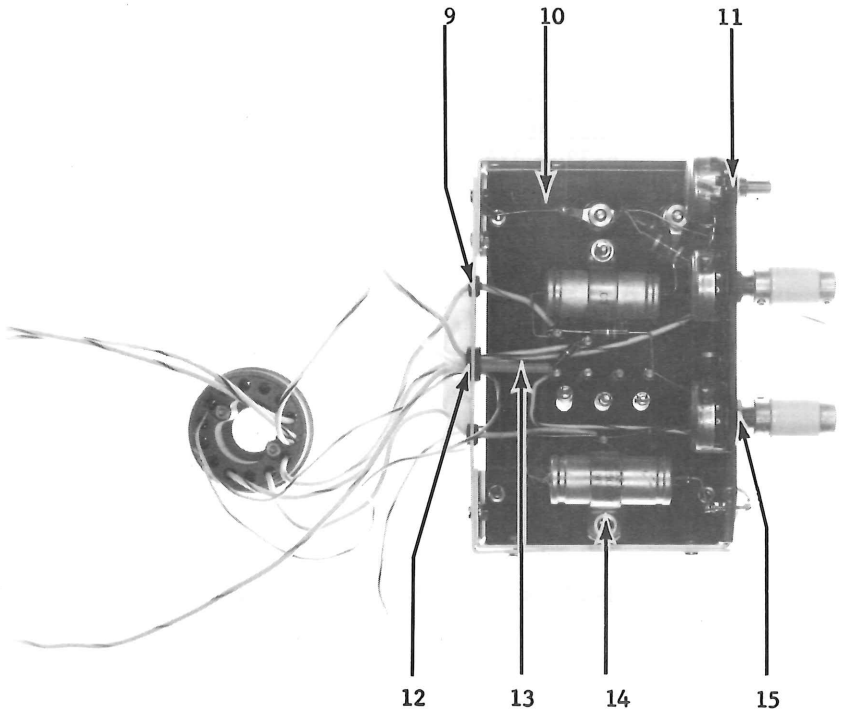
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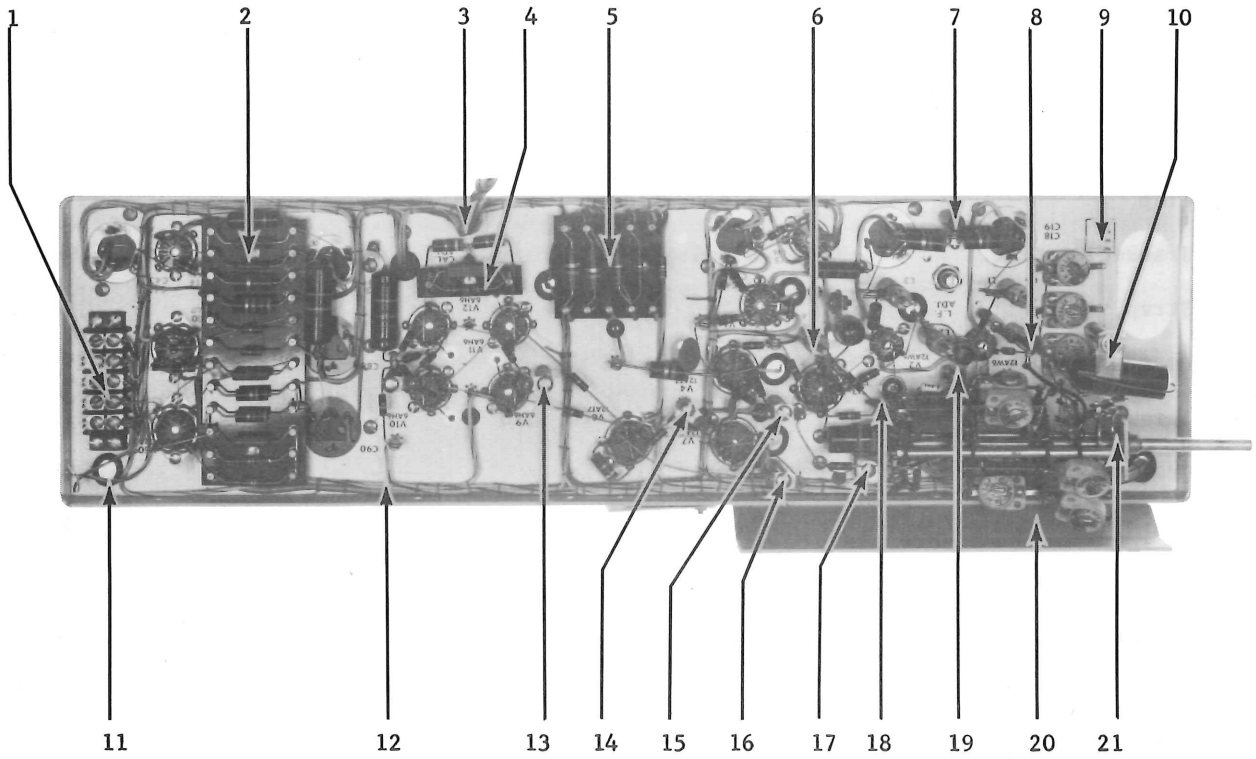
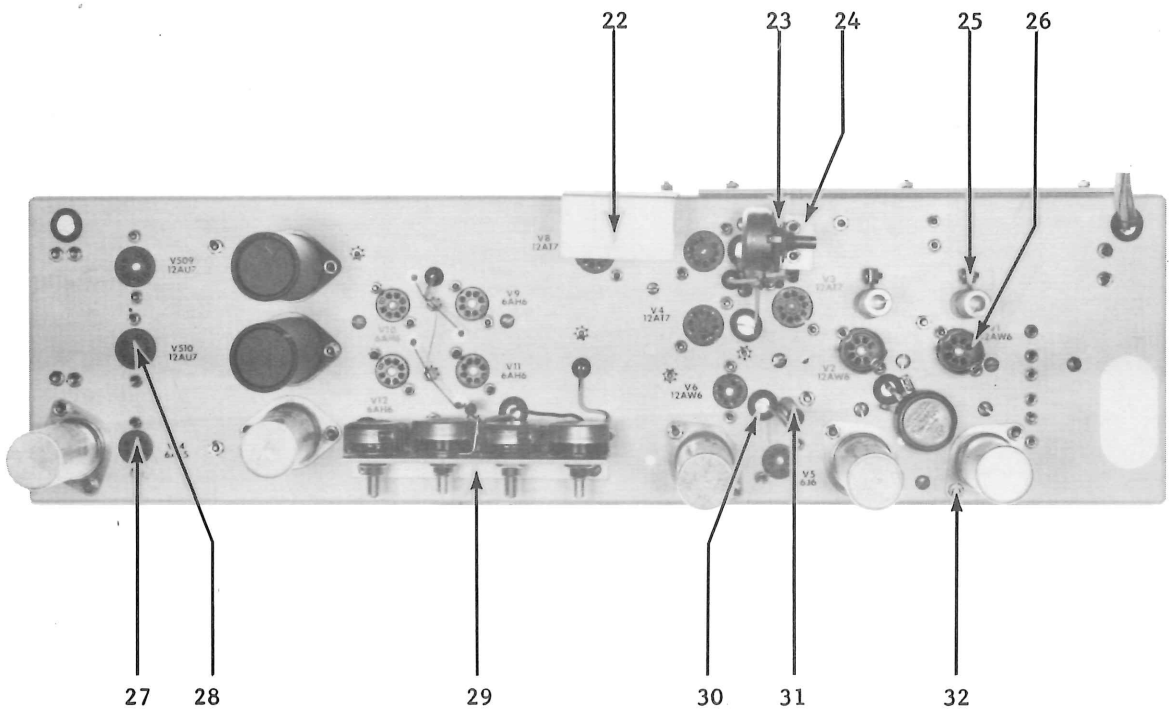
F & I

Ref. No.	Item Name	Description	Part No.
1.	Socket,	STM14	136-019
2.	Bracket, F & I	alum.	406-092
3.	Coupling		376-006
4.	Plug,	1 pin, black	134-004
	Plug,	1 pin, red	134-005
5.	Bracket, F & I	alum.	406-059
6.	Strap, connecting		386-374
7.	Post, binding		129-001
8.	Screw,	6-32 x 5/16 in. BHS	211-507
9.	Grommet,	rubber, 1/4 in.	348-002
10.	Board, terminal	bakelite	392-034
11.	Board, terminal	bakelite	392-035
12.	Grommet,	rubber, 3/8 in.	348-004
13.	Connector, cable		131-003
14.	Clamp,	plastic, 3/4 in.	343-008
	Tube, Spacer		166-052
	Screw,	6-32 x 1-1/2 in. RHS	211-521
	Washer,	6L x 3/8 in.	210-803
	Lockwasher,	int. #6	210-006
	Nut,	6-32 x 1/4 in.	210-407
15.	Nut, pot	3/8 - 32 x 1/2 in.	210-413

VERTICAL AMPLIFIER





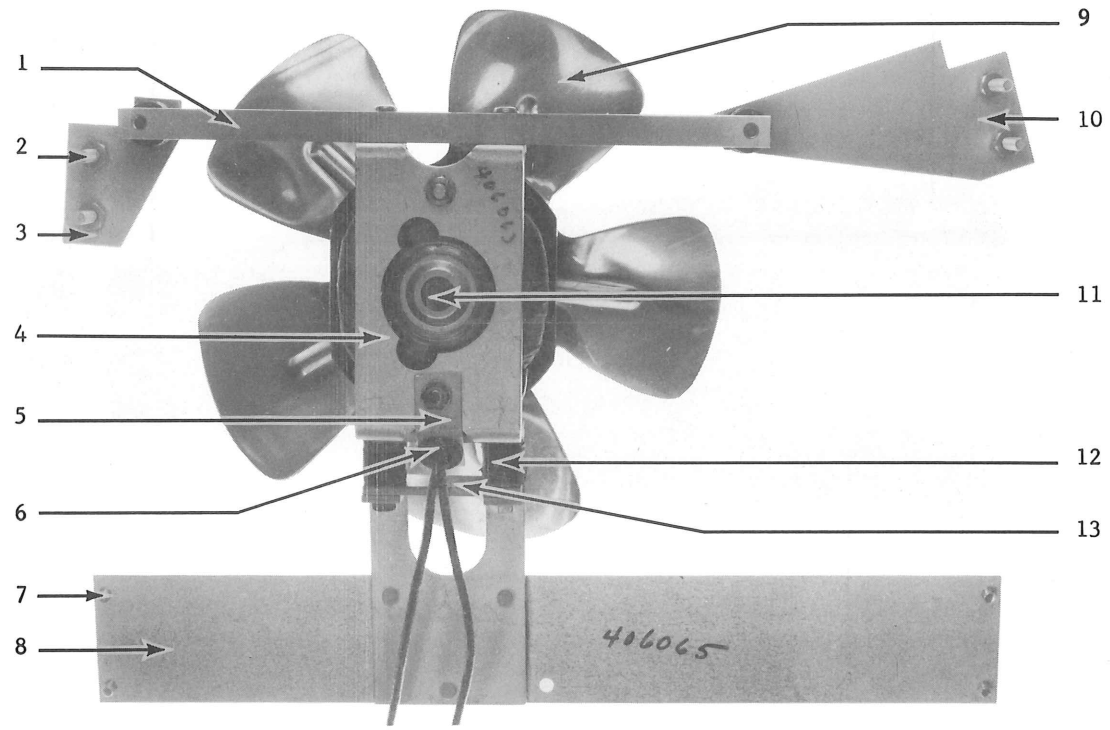
VERTICAL AMPLIFIER

Ref. No.	Item Name	Description	Part No.
1.	Strip, Spacer	Bakelite terminal 5 pt.	124-003 166-034
2.	Board, terminal	1-7/8 x 4-7/8 in.	392-062
3.	Cable, harness	#1	179-008
4.	Board, terminal	9/16 x 1-15/16 in.	392-022
5.	Board, terminal	1-15/16 x 2-1/32 in.	392-055
6.	Bushing, coil		358-023
7.	Rod, nylon	5/16 x 1 in. w/pin	385-038
8.	Rod, nylon	5/16 x 2 in. w/pin	385-048
9.	Chassis	Vertical Amplifier	441-038
10.	Clamp		343-008
11.	Grommet	3/8 in.	348-004
12.	Cable, harness	#2	179-009
13.	Rod, nylon	5/16 x 1-3/4 in.	385-060
14.	Rod, nylon	5/16 x 9/16 in.	385-012
15.	Rod, nylon	5/16 x 1-1/2 in.	385-044
16.	Rod, nylon	5/16 x 1-3/4 in.	385-046
17.	Clamp	1/2 in.	343-006
18.	Connector, terminal	tie point 1 pt	131-022
19.	Clamp	7/16 in.	343-005
20.	Bracket, alum.	2-11/16 x 7-13/15 in.	406-058
21.	Switch, Vert. Defl. Sens		Page B-60
22.	Bracket, alum.	2 x 3 x 1-1/8 in.	337-036
23.	Plate, pot B B	1-1/8 x 1-11/16 in.	386-269
24.	Bracket, alum.	1 x 11/16 x 11/16 in.	406-029
25.	Clamp,	steel	343-013
26.	Socket, shielded	STM7	136-009
27.	Socket	STM7G	136-008

VERTICAL AMPLIFIER (CONTINUED)

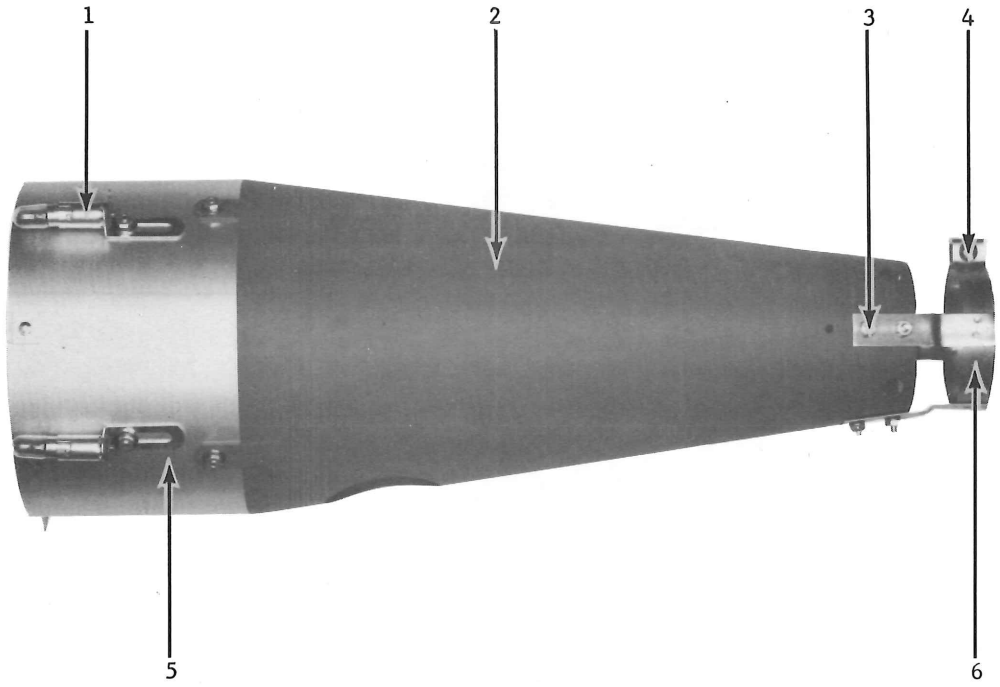
Ref. No.	Item Name	Description	Part No.
28.	Socket,	STM9G	136-015
29.	Bracket	4 pot mounting	406-096
30.	Grommet,	1/4 in.	348-002
31.	Rod, nylon	5/16 x 2-1/4 in. w/pin	385-051
32.	Screw,	6-32 x 5/16 in.	211-507
	Lockwasher	int. #4	210-004
	Nut, hex.	6-32 x 1/4 in.	210-407

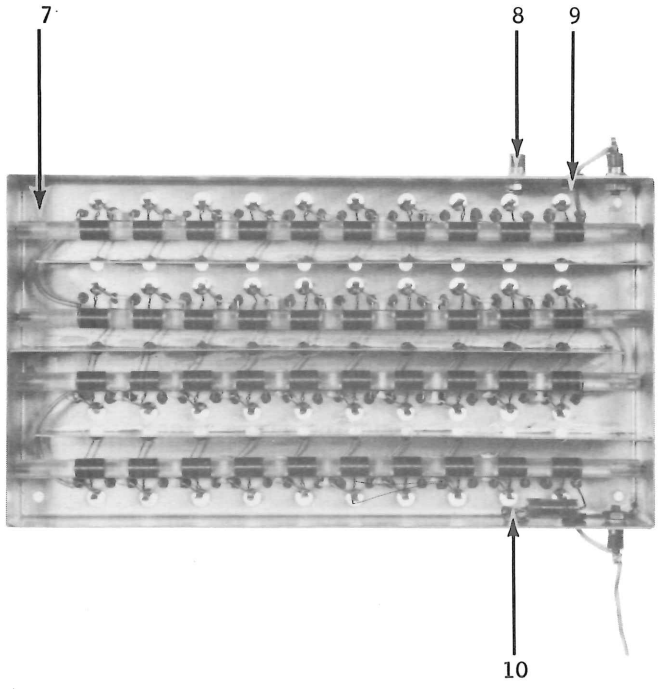
FAN



Ref. No.	Item Name	Description		Part No.
1.	Bar,	alum., 3/8 in. sq. x 8 in.		381-003
2.	Screw,	8-32 x 1 in. FHS		212-021
3.	Bracket,	alum.		406-068
4.	Bracket,	alum.		406-063
5.	Bracket,	alum.		406-069
6.	Grommet,	rubber, 3/8 in.		348-004
7.	Screw,	8-32 x 5/16 in. BHS		212-004
8.	Bracket,	mounting frame plate		406-065
9.	Blade, Fan	7 in.		369-007
10.	Bracket,	alum.		406-067
11.	Motor, Ass'y	s/n 101 - 1348 s/n 1349 - up	Use	040-040 147-001
12.	Shockmount,	rubber		348-008
13.	Plate,	shockmount, brace		386-309

CRT SHIELD & DELAY LINE

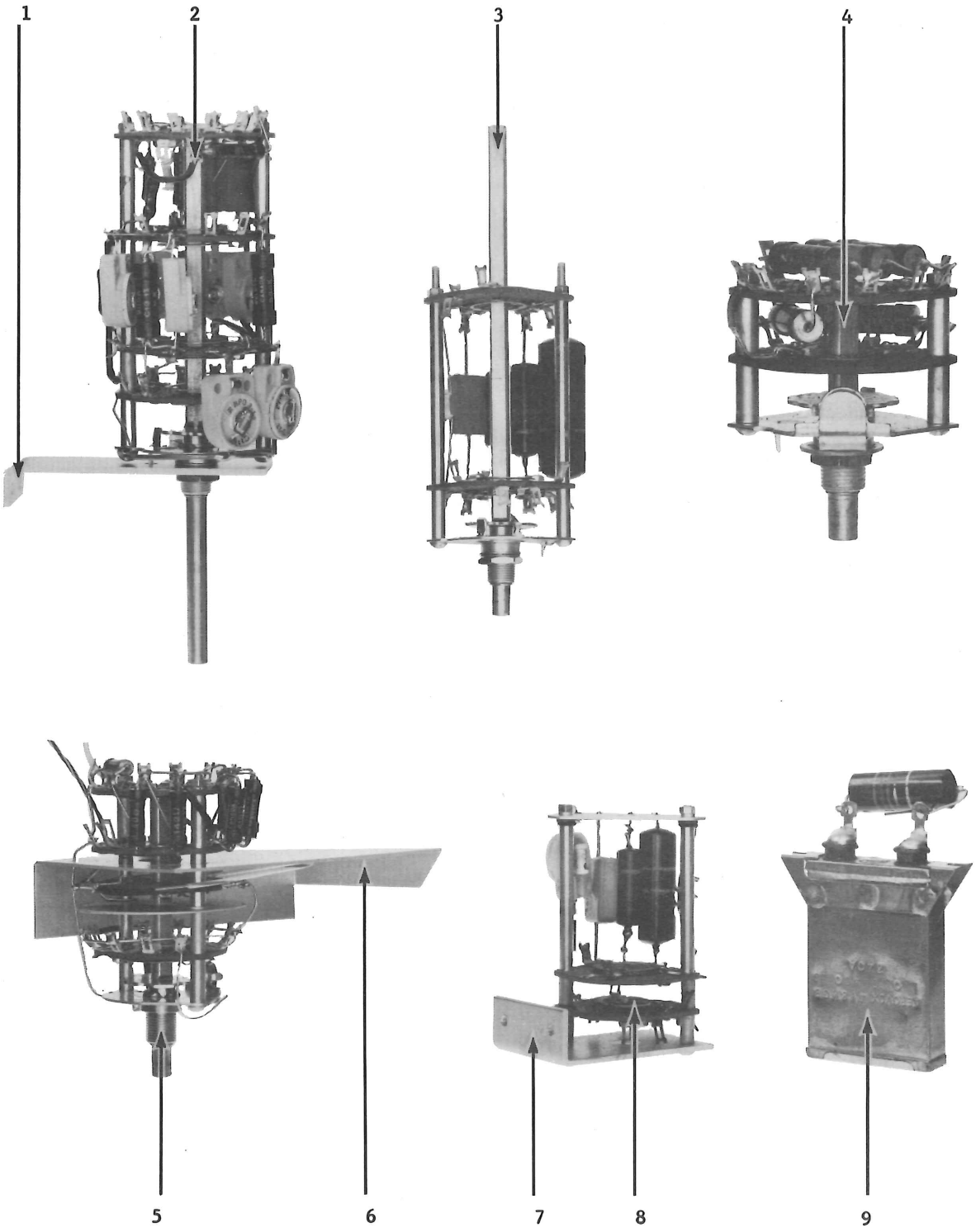




CRT SHIELD & DELAY LINE

Ref. No.	Item Name	Description	Part No.
1.	Socket,	graticule lamp	136-001
2.	Shield, CRT		337-051
3.	Screw,	6-32 x 5/16 in. BHS	211-507
	Washer,	6L x 3/8 in.	210-803
	Nut, hex.	6-32 x 1/4 in.	210-407
4.	Screw,	10-32 x 7/8 in. RHS	212-548
	Nut,	10-32 in. sq.	210-501
5.	Ring, Shield,	6-1/4 in. dia.	354-006
6.	Clamp, CRT		343-020
7.	Chassis		441-036
8.	Post, connecting		129-006
9.	Grommet,	rubber, 1/4 in.	348-002
10.	Lug, solder	SE6, w/2 wire holes	210-202

SWITCHES



SWITCHES

Ref. No.	Item Name	Description	Part No.
1.	Bracket		406-013
2.	Switch, Vert. Defl. Sens.	wired unwired	262-033 260-053
3.	Switch, Sweep Time, front	wired unwired	262-053 260-046
4.	Switch, Sweep Time Mult.	wired unwired	262-034 260-035
5.	Switch, Vert. Input	wired unwired	262-032 260-052
6.	Shield,		337-024
7.	Bracket,		406-001
8.	Switch, Sweep Time, rear	wired unwired	262-054 260-049
9.	Capacitor	(included with Sweep Time Rear Sw.)	295-027