

## TYPE S51A ENKELSTRAALS OSCILLOSCOOP

**DRAAGBAAR • BETROUWBAAR • LAAG IN PRIJS**

- 5" scherm; 3 KV naversnelling; helder beeld
- max. gevoeligheid 100 mV/cm tot 50 V/cm gecalibreerd
- bandbreedte 0 - 3 MHz
- tijdbasis in 6 gecalibreerde stappen van 100 mS/cm tot 1 micro.sec/cm en continu regelaar
- triggerachakeling voor automatisch of selectief triggeren en T.V. sync.
- gewicht 6 kg.
- afm. 17,5 cm breed x 37 cm lang x 20 cm hoog
- prijs f 675,—
- meestal uit voorraad leverbaar.

TELEQUIPT SCOPE COMPONENT LIST

All resistor and capacitor values are in ohms and microfarads and ratings, at 70°C, in watts and volts respectively unless otherwise stated.

Carbon resistors are of 10% tolerance and 1/2 W rating unless otherwise shown.

Whenever possible exact replacements for components should be used. These may be ordered from the company or its agents stating:-

- |     |                             |     |                       |
|-----|-----------------------------|-----|-----------------------|
| (1) | Instrument type             | (4) | Component part number |
| (2) | Instrument serial number    | (5) | Component value       |
| (3) | Component circuit reference |     |                       |

For standard components, locally available alternatives may be satisfactory.

ABBREVIATIONS

C	Carbon composition	MO	Metal oxide
CER	Ceramic	P	Paper
CM	Cermet thick-film	PE	Polyester
CP	Carbon preset	PP	Polypropylene
CT	Ceramic trimmer	PS	Polystyrene
CV	Carbon variable	Se	Selenium
E	Electrolytic	Si	Silicon
Ge	Germanium	SM	Silver mica
HS	High-stability carbon		

TELEQUIPMENT division of TEKTRONIX U.K. LIMITED  
313 Chase Road Southgate London N14 6JJ England

Telephone: 01 - 882 6100  
Telex : 262004  
Cables : TELEQUIPT LONDON N 14

Cct. ref.	Part number	Value	Description	Tol. %	Rating
R1	316-0125-01	1.2M	C		
R2	316-0125-01	1.2M	C		
R3	316-0101-01	100	C		
R4	316-0101-01	100	C		
R5	316-0471-01	470	C		
RV6	311-0725-00	500	CP	30	0.1
R7	316-0562-01	5.6k	C		
R8	316-0471-01	470	C		
R9	316-0101-01	100	C		
R11	316-0152-01	1.5k	C		
R12	303-0273-01	27k	C	5	1
R13	303-0472-01	4.7k	C	5	1
R14	303-0222-01	2.2k	C	5	1
R15	303-0153-01	15k	C	5	1
R16	307-0160-00	1k	MO	5	3/4
R17	303-0472-01	4.7k	C	5	1
R18	316-0472-01	4.7k	C		
R19	316-0101-01	100	C		
R21	316-0333-01	33k	C		
RV22	311-1002-00	100k	CV	20	1/4
R23	316-0474-01	470k	C		
R24	307-0169-00	500	MO	5	3/4
R25	316-0185-01	1.8M	C		
RV26	311-0811-00	1M	CV	20	1/4
RV27	311-0822-00	1M	CV (with S1)	20	1/4
R28	316-0105-01	1M	C		
R29	316-0185-01	1.8M	C	10	1/4 (107e)
R30	316-0106-01	10M	C		
R31	316-0104-01	100k	C		
R32	316-0125-01	1.2M	C		
R33	316-0125-01	1.2M	C		
R34	316-0471-01	470	C		
R35	316-0472-01	4.7k	C		
* R36	316-0223-01	22k	C		
R37	316-0472-01	4.7k	C		
RV38	311-0769-00	100k	CV (with S5)	20	1/4
R39	316-0563-01	56k	C		
R40	316-0471-01	470	C		
R41	316-0101-01	100	C		
R42	316-0105-01	1M	C		
R43	316-0472-01	4.7k	C		
R44	316-0224-01	220k	C		
R45	303-0472-01	4.7k	C	5	1
R46	316-0104-01	100k	C		
R47	316-0272-01	2.7k	C		
RV48	311-0752-00	1M	CP	30	0.1

\* Omitted from S51E

Carbon resistors are 10% 1/4W unless otherwise shown.

Cct. ref.	Part number	Value	Description	Tol. %	Rating				
R105 } R106 } R107 } R108 } R109 }	310-0683-00	500k 800k 1M 250k 1M	CM	1	1/2				
R110		316-0104-01				100k	C		
R111		316-0180-01				18	C		
C1		285-0772-00				0.1	PE	10	400
C2		285-0772-00				0.1	PE	10	400
C3	290-0347-00	8	E		300				
C4	290-0514-00	32	E		450				
C5	290-0379-00	32	E		275				
C6	290-0379-00	32	E		275				
C7 } C13 }	290-0376-00	32+32	E		450				
C8						290-0365-00	16	E	450
C9	290-0365-00	16	E		450				
C11	290-0365-00	16	E		450				
C12	285-0766-00	0.05	P	10	2k				
C14	285-0769-00	0.1	PE	20	400				
C15	285-0772-00	0.1	PE	10	400				
C16	281-0677-00	0.01	CER		1.5k				
* C17	285-0772-00	0.1	PE	10	400				
* C18	285-0769-00	0.01	PE	20	400				
C19	285-0788-00	0.1	PE	10	125				
C20	285-0873-00	200p	PS	5	350				
C21	285-0772-00	0.1	PE	10	400				
C22	285-0843-00	30p	PS	2p	350				
C23	285-0854-00	100p	PS	2p	350				
C24	285-0791-00	0.47	PE	10	125				
C25	285-0851-00	3,600p	PS	5	125				
C26	290-0113-01	8	E		150				
C28	285-0867-00	20p	PS	1p	350				
C29	285-0854-00	100p	PS	2p	350				
C31	285-0858-00	1,000p	PS	1	350				
C32	285-0769-00	0.01	PE	20	400				
C33	285-0847-00	560p	PS	5	125				
C34	285-0839-00	0.2	PE	2	160				
C35	285-0778-00	0.02	PS	1	350				
C36	285-0859-00	1,900p	PS	2 1/2	350				
C37	285-0854-00	100p	PS	2p	350				
C38	285-0855-00	91p	PS	2p	350				
C39	281-0137-00	6-30p	CT		350				
(908) C40	285-0871-00	150p	PS	5	350				
C41	281-0130-00	4-20p	CT						
C42	285-0772-00	0.1	PE	10	400				
(908) C43	285-0867-00	20p	PS	1p	350				

\* Omitted from S51E

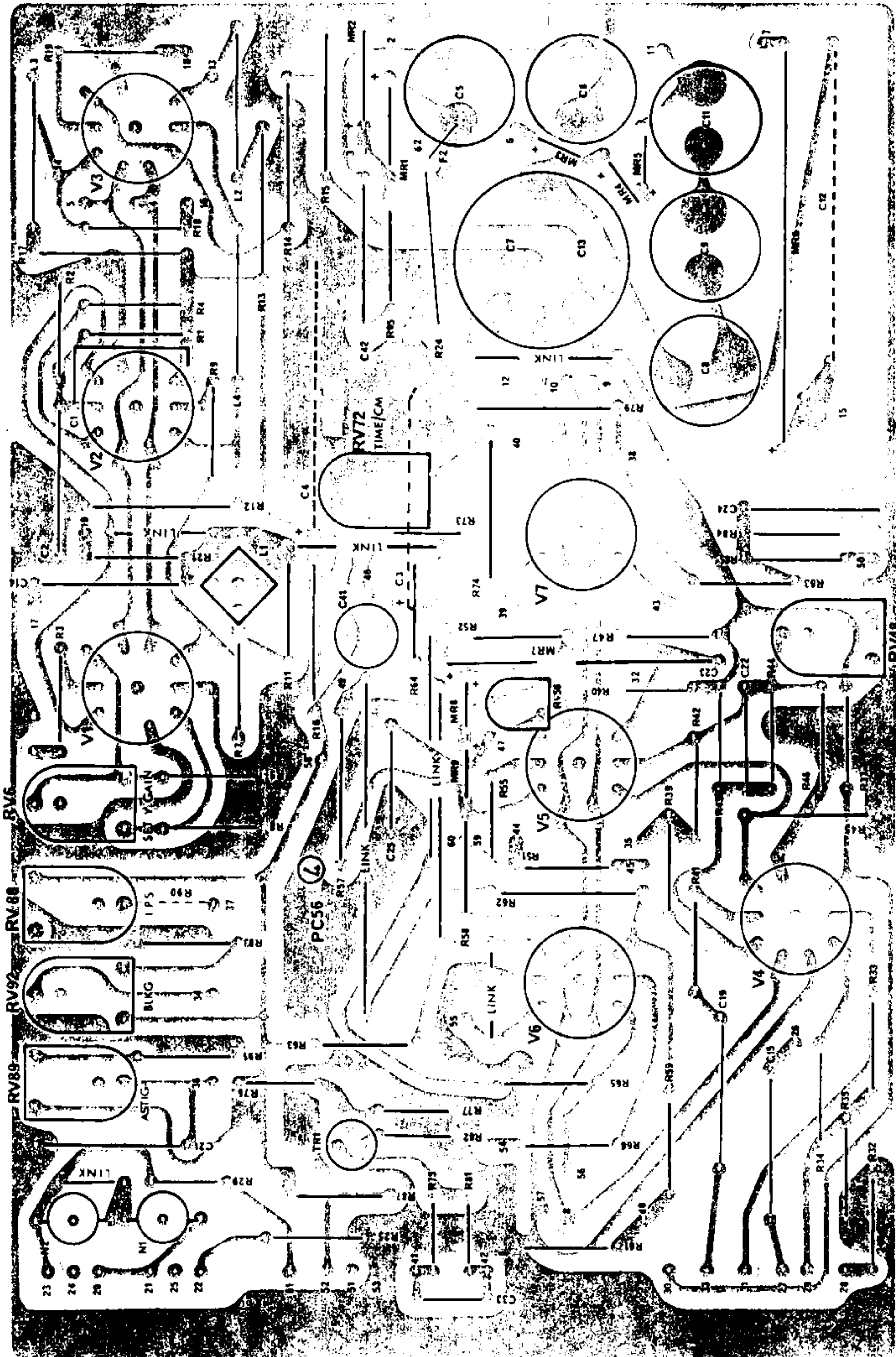
Cct. ref.	Part number	Value	Description	Tol. %	Rating	
RV49	311-0811-00	1M	CV	20	¼	
R50	316-0334-01	330k	C			
R51	316-0225-01	2.2M	C			
R52	316-0472-01	4.7k	C			
R53	316-0105-01	1M	C			
R54	316-0824-01	820k	C			
R55	316-0471-01	470	C			
RV56	311-0803-00	4.7k	CP	20	0.1	
R57	303-0104-01	100k	C	5	1	
R58	316-0101-01	100	C			
R59	316-0101-01	100	C			
R60	316-0154-01	150k	C	10	0.25	(908)
R61	316-0224-01	220k	C			
R62	303-0822-01	8.2k	C	5	1	
R63	316-0564-01	560k	C			
R64	316-0155-01	1.5M	C			
R65	316-0473-01	47k	C			
R66	316-0471-01	470	C			
R67	323-0556-40	6.04M	MF	1	½	(669)
R68	321-0886-48	680k	MF	1	1/8	(669)
R69	316-0272-01	2.7k	C			
R70	321-0407-48	169k	MF	1	1/8	(669)
RV71	311-1758-00	50k	CV (with S8)	20	¼	
RV72	311-0752-00	1M	CP	30	0.1	
R73	316-0101-01	100	C			
R74	303-0393-01	39k	C	5	1	
R75	316-0332-01	3.3k	C			
R76	301-0334-01	330k	C	5	½	(1078)
R77	315-0622-02	6.8k	C	5	¼	
RV78	311-0743-00	10k	CV	20	0.125	
R79	303-0393-01	39k	C	5	1	
R80	316-0684-01	680k	C	10	0.25	(908)
R81	316-0332-01	3.3k	C			
R82	319-0042-01	1k	HS	1	¼	
R83	316-0471-01	470	C			
R84	316-0224-01	220k	C			
R85	316-0154-01	150k	C			
RV86	311-0775-00	100k	CV	20	¼	
R87	316-0334-01	330k	C			
RV88	311-0799-00	250k	CP	30	0.1	(967)
RV89	311-0780-00	50k	CP	30	0.1	
R90	316-0474-01	470k	C			
R91	303-0104-01	100k	C	5	1	(1078)
RV92	311-0737-00	10k	CP	30	0.1	
R93	316-0224-01	220k	C			
R94	316-0104-01	100k	C			
R95	316-0563-01	56k				
R96	316-0471-01	470	C			(868)
R97	316-0224-01	220k	C	10	¼	(967)
R98	316-0104-01	100k	C	10	¼	(1113)
R101 } R103 }	310-0679-00	{ 900k } { 111k }	CM	1	¼	
R102 } R104 }	310-0678-00	{ 999k } { 10.1k }	CM	1	¼	

Cct. ref.	Part number	Value	Description	Tol. %	Rating
C101	285-0772-00	0.1	PE	10	400
C102	281-0155-00	2-22p	PP		500
C103	281-0155-00	2-22p	PP		500
C104	281-0154-00	2-12p	PP		500
C105	281-0154-00	2-12p	PP		500
C106	285-0838-00	75p	PS	2p	350
C107	285-0850-00	1,000p	PS	5	125
C108	281-0155-00	2-22p	PP		500
C109	281-0155-00	2-22p	PP		500
C110	283-0662-00	7.5p	SM	1/2p	350
C111	281-0154-00	2-12p	PP		500
C112	281-0155-00	2-22pp	PP		500
C115	285-0769-00	0.01	PE	20	400
L1	114-0262-00	140-230μH	Variable inductor		
L2	108-0482-00	160μH	Inductor		
L3	108-0482-00	160μH	Inductor		
L4	108-0483-00	16μH	Inductor		
F1	159-0081-00	1A	1 1/4 in delay 90-130V		
	159-0079-00	0.5A	1 1/4 in delay 200-240V		
F2	159-0091-00	100mA	5/8 in fast (wire-ended)		
LP1	150-0074-00	6.5V	Lamp L.E.S.		0.15A
MR1	152-0341-00	450V	Rectifier Si		0.5A
MR2	152-0341-00	450V	Rectifier Si		0.5A
MR3	152-0352-00	800V	Rectifier Si		0.2A
MR4	152-0352-00	800V	Rectifier Si		0.2A
MR5	152-0352-00	800V	Rectifier Si		0.2A
MR6	152-0350-00	5.6kV	Rectifier Se		0.48mA
MR7	152-0062-01		1N914 Si		
MR8	152-0062-01		1N914 Si		
MR9	152-0062-01		1N914 Si		
N1	150-0069-00	60V	Neon 3L		
N2	150-0069-00	60V	Neon 3L		
S1	311-0822-00		Rotary (with RV27)		
*S2	260-1082-00		Slide		
S3	260-1082-00		Slide		
*S4	260-1082-00		Slide		
S5	311-0769-00		Rotary (with RV38)		
S8	260-1290-01		Rotary (7 position) (RV71)		768
S101	260-0926-00		Slide		
S102	260-1085-01		Rotary		

\* Omitted from S51E

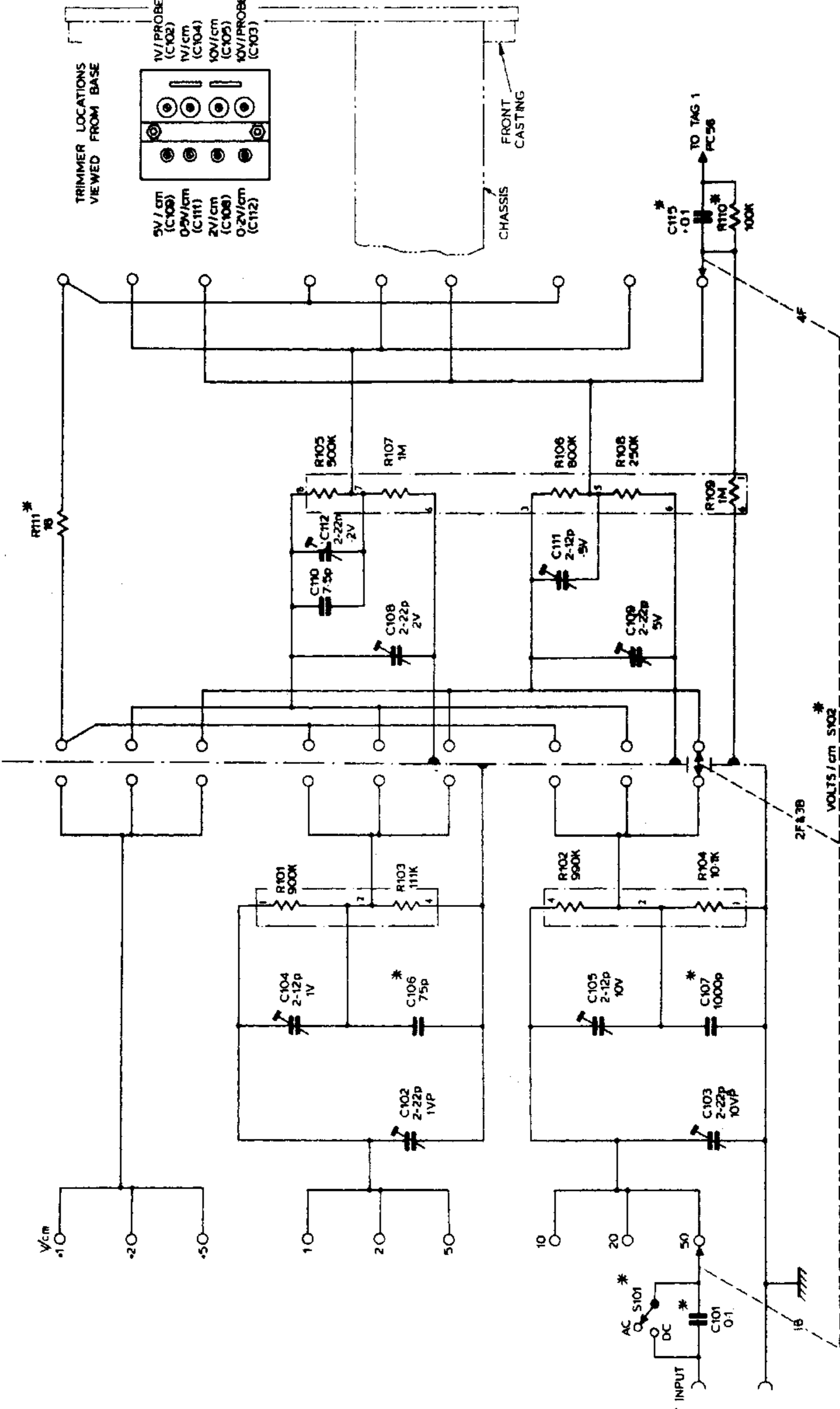
704

Cct. ref.	Part number	Description
T1	120-0533-00	Transformer
TR1	151-0326-00	BC107 Mullard Si NPN
V1	154-0187-01	ECC88/6DJ8
V2	154-0187-01	ECC88/6DJ8
V3	154-0187-01	ECC88/6DJ8
V4	154-0187-01	ECC88/6DJ8
V5	154-0187-01	ECC88/6DJ8
V6	154-0278-01	ECF80/6BL8
V7	154-0187-01	ECC88/6DJ8
CRT	154-0523-00	SE5F P31 phosphor
	154-0545-00	P7 "
	154-0548-00	P11 "



RV48 TRIG SENS

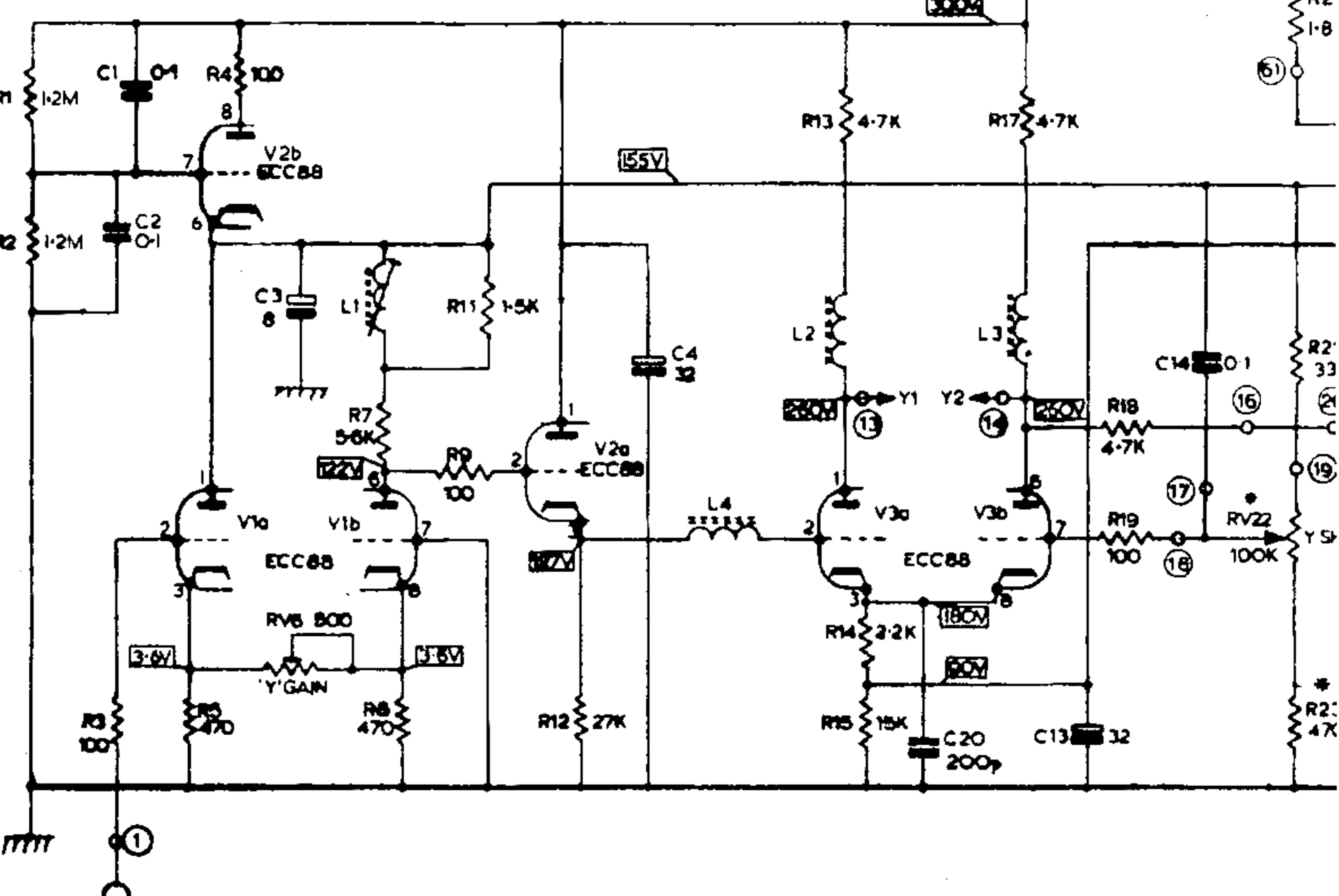
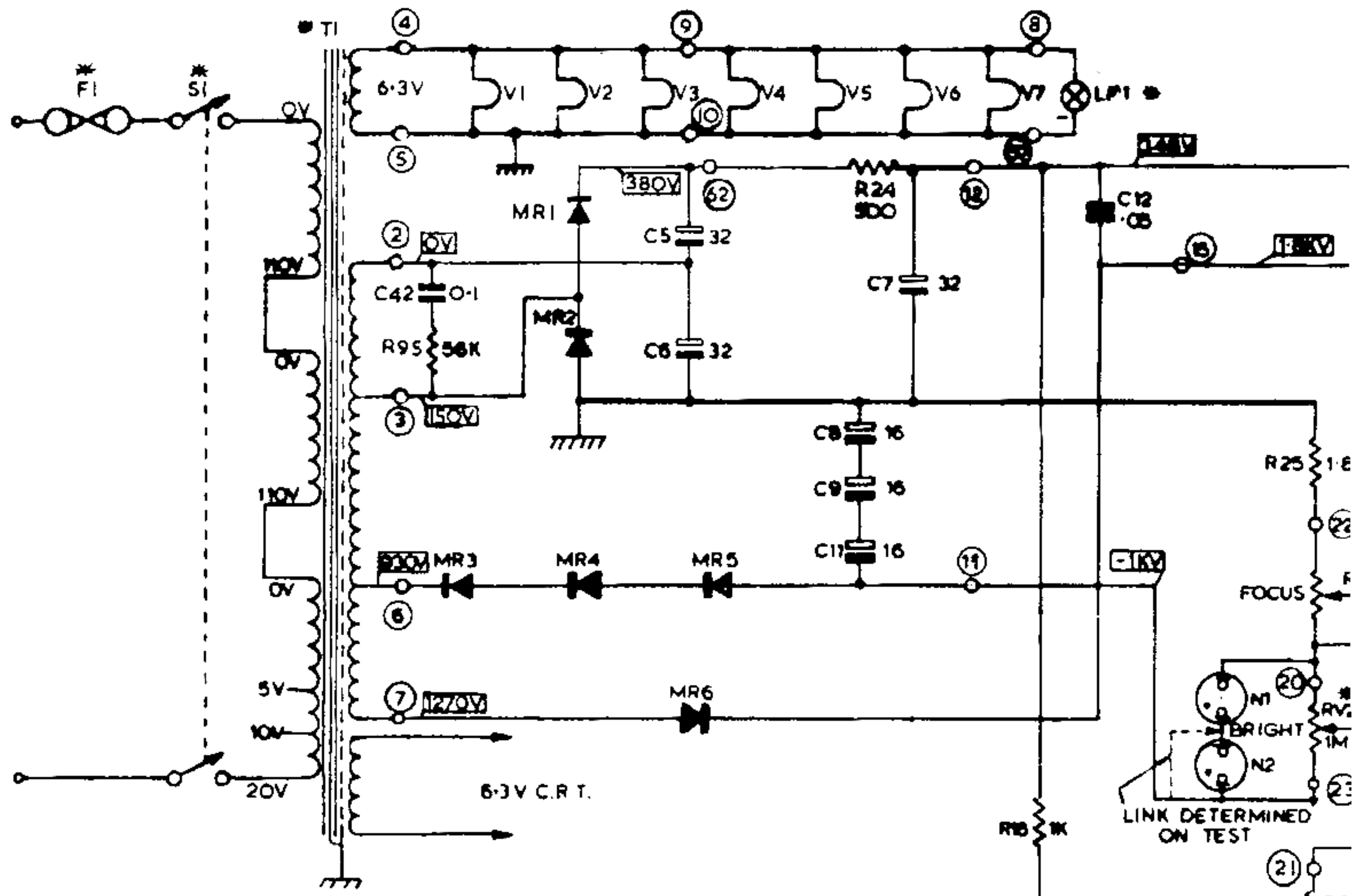




NOTES: 1 - . . . . . DENOTES THK. FILM CCT.  
2 \* DENOTES COMPONENTS NOT MTD ON PC Ⓢ

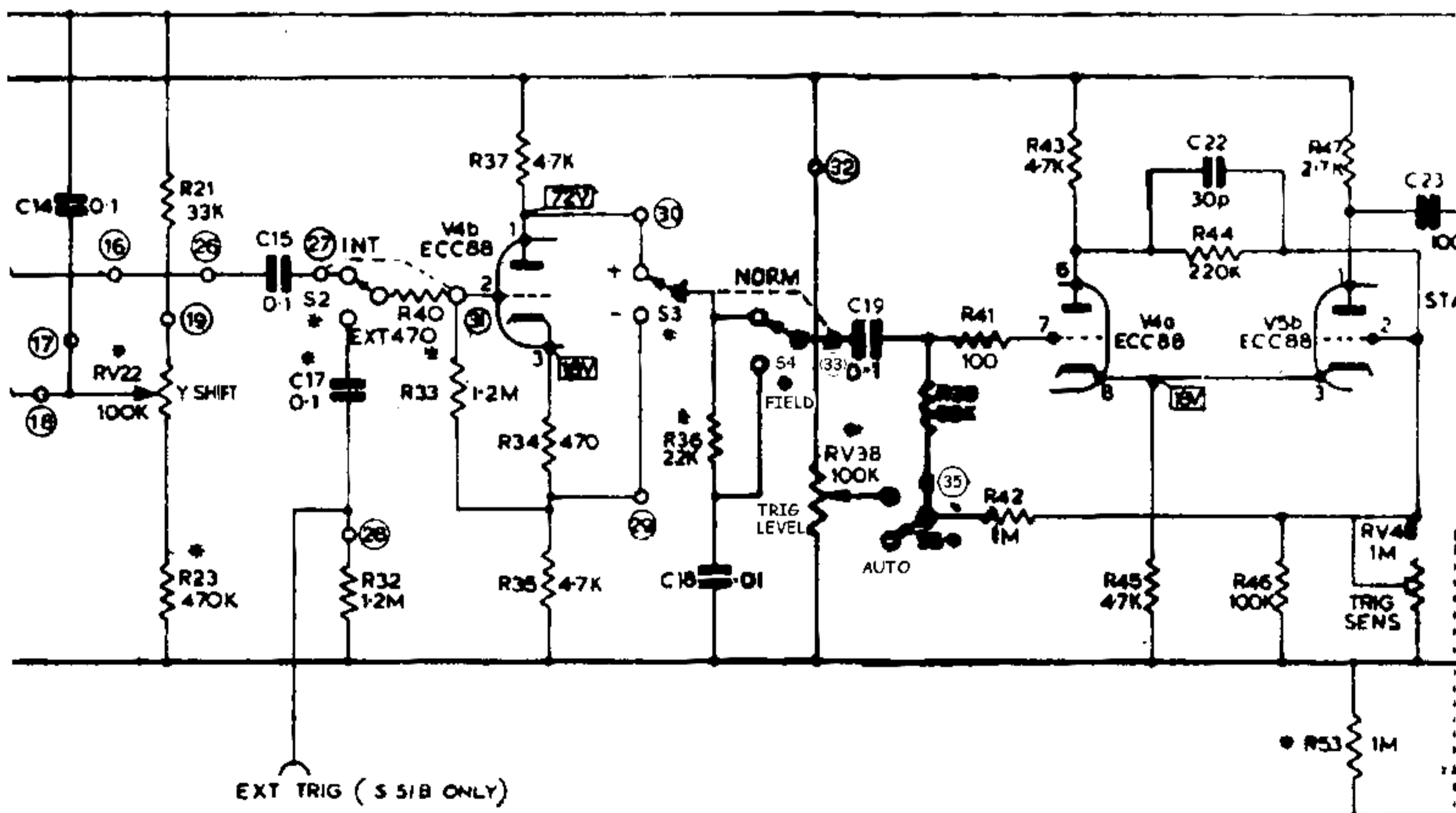
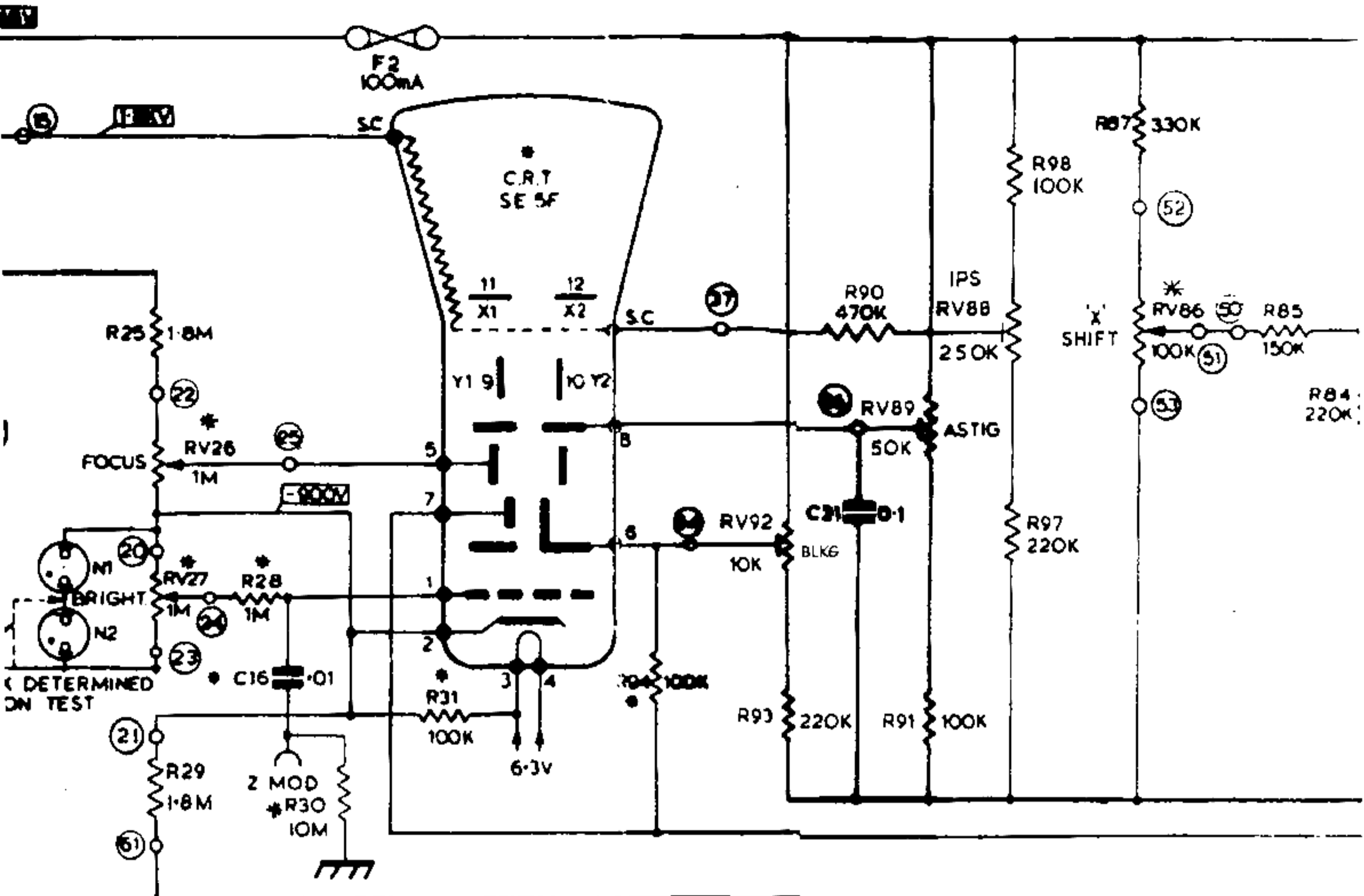
INPUT ATTENUATOR

FIG. 1



- NOTES
1. \* DENOTES COMPONENTS NOT MOUNTED ON PRINTED CIRCUIT BOARD
  2. (N) DENOTES TAGS ON PRINTED CIRCUIT BOARD.

OSCILLOSCOPE



PRINTED CIRCUIT BOARD

EXT TRIG (S 51B ONLY)

INPUT

FOR S51E CIRCUIT OMIT -	
CAPACITORS	C17 AND C18
SWITCHES	S2 & S4 AND LINK AS INDICATED
RESISTOR	R36

VILLOSCOPE TYPE S51B & E FIG. 2.

