

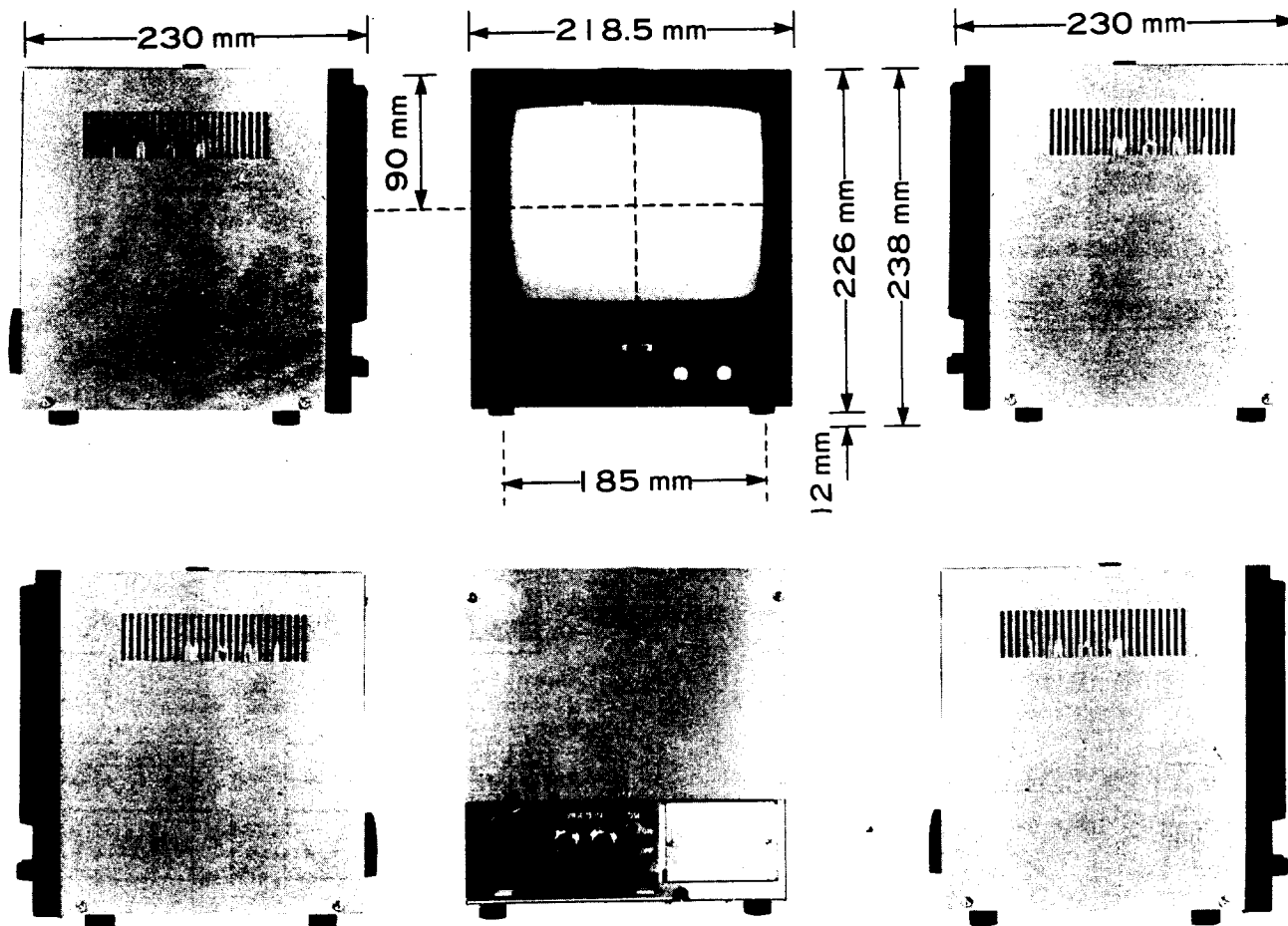
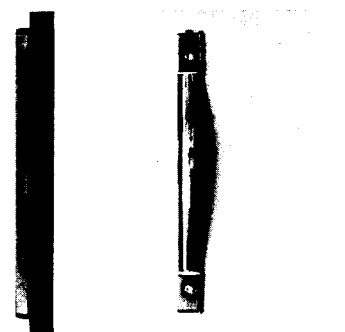


OPERATING INSTRUCTIONS & SERVICE MANUAL

9" (23 cm) CCTV PICTURE MONITOR

Model PM-910

For Service Manuals
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PRELIMINARIES

PM-910 is a 9"(23cm) diagonal CRT used reliable picture monitor for monochrome video program. Full solid-state with top quality integrated circuits and silicon semi-conductors design assure high quality picture for a long time. Simple circuitry design and compact construction present this monitor as an economical device. The PM-910T external sync driven picture monitor with DC restoration is optionally available for higher class applications.

This manual contains initial set up procedures, operating instructions and service informations for both types, PM-910 and PM-910T.

Please note that the PM-910 picture monitor is finely adjusted precision piece of equipment. To be assured of trouble-free operation, full performance capability and a long service life, we strongly recommend that you check these instructions completely before attempting to assemble, install or operate the monitor.

Although this picture monitor is a solid-state, modular unit using mainly low-voltage circuitry at non-hazardous energy levels, power supply voltages present on certain parts of the interior. Such parts are not accessible in normal use, but while carrying out maintenance or repair, **EXTREME CARE** should be taken. Mains voltage can be **LETHAL!**

It is strongly recommended not to move them unless really necessary, and in such cases, always follow the procedure given in these instructions, and use appropriate tools. And note that the inside adjustment or repair should only be made by a fully qualified technician.

CARE IN HANDLING

Careful handling of the monitor and accessories should be practiced at all times, avoiding unnecessary physical shocks and similar rough handling.

The monitor should always be set up in a well-ventilated area, and shielded from heat sources, high-powered lights, especially strong magnetic fields (such as power transformers), which may cause picture swing or distortion.

Excessively moisture-, gas- or salt-laden atmospheres should be avoided as much as possible, since circuitry components and connector contacts may be adversely affected.

Dust accumulation should be avoided, since many parts of the unit will be adversely affected in time, and the service-life will be shortened.

Regularly check the connection cables, which are prone to damage, especially in outdoor use. The cable should always be handled with care, kept free from sharp bends and kinks, and relieved from strain near the connectors. And checking of the connectors for full insertion and tightness is also recommended, especially where the same setup is used for a long time.

NAMES OF SECTIONS

- Carrying handle
- Upper case
- Front escutcheon
- Picture tube (CRT)
- Power switch
- Power lamp
- V. Hold (Driver control)
- H. Hold (Driver control)
- Brightness
- Contrast
- Video input connectors (bridged)
- Video termination switch (75-ohm ON/OFF)
- Blind plate for optional unit (For EXT sync/DC restore unit)
- EXT Sync/DC restore unit
- DC restoration switch (ON/OFF)
- Sync termination switch (75-ohm ON/OFF)
- Sync mode switch (Internal/External)
- Sync input connectors

SET UP & OPERATION

Position the picture monitor in the desired location and connect the power cord to an AC outlet. And make sure that the monitor is installed securely, in a stable condition.

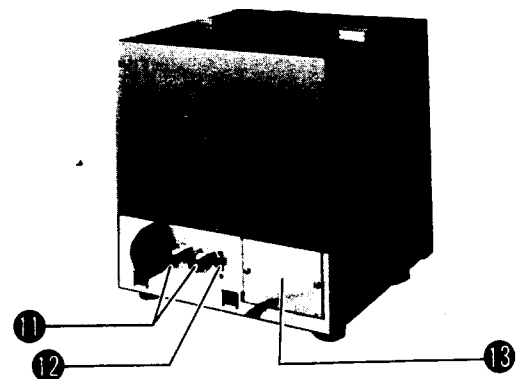
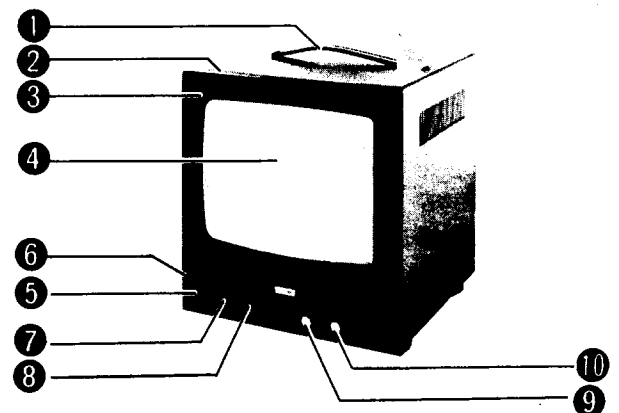
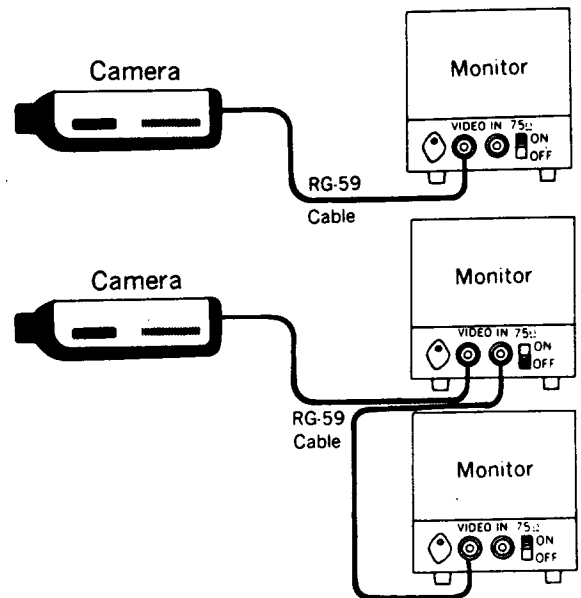
Make the coaxial-cable connection for video signal between the picture monitor and the signal source (video camera or-VTR etc.). And make certain that all connectors are properly and fully mated, and the locking rings are securely tightened.

Set the video termination switch to 75-ohm (if more than one monitor is to be used, see below).

If provided, set the sync internal/external switch to internal (if applicable).

After switching on the monitor and setting up the raster, adjust the brightness and contrast controls for the most pleasing picture.

BASIC CONNECTION

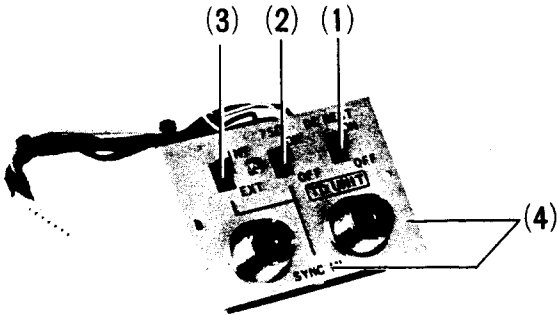


EXTERNAL SYNC DRIVE & DC RESTORATION UNIT

An optional external sync drive & DC restoration unit is available for PM-910. An external sync drive provision is for synchronous operation with other video equipment and DC restoration is for high fidelity reproduction of signals bright or dark signal referred to black level.

This unit is provided with DC restoration circuit and related switch, and with Ext. sync drive circuit with two sync input connectors and necessary switches.

An installation of this unit can be made easily so that the PM-910 basic monitor can be easily converted to PM-910T external drivable monitor with DC restoration. With this unit, required sync input level is 4.0V (p-p) negative polarity sync of 75-ohm impedance.



PROVISIONS

(1) DC REST switch

This is an on/off switch for DC restoration. When DC restoration is not required, set this switch off position.

(2) SYNC IN connectors

Two sync input connectors are provided in a bridge connection for several monitors synchronous operation.

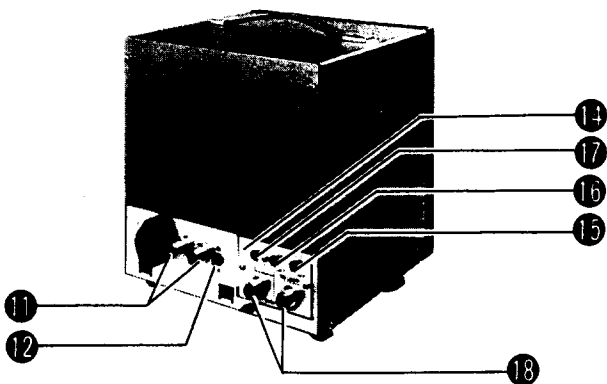
(3) 75-ohm switch (Sync termination)

This is a sync termination switch with 75 ohms. In the case of several monitors operation, set this sync termination switch off, except last monitor in the train.

(4) EXT/INT switch

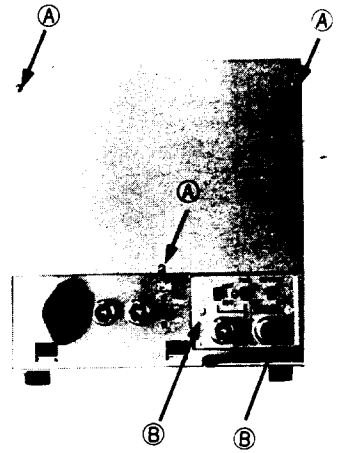
This is a sync mode switch for external sync drive. In the case of external sync drive, set this switch to EXT position.

PM-910/T Rearview



INSTALLATION OF THE EXT SYNC/DC REST UNIT

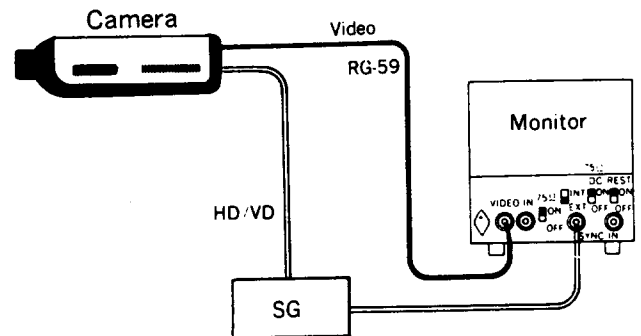
- (1) Take out the 3 screws (A) from rear cover, and remove the cover.
- (2) Take out the 2 screws (B) from the rear blind panel and remove the blind panel.
- (3) Install the EXT SYNC/DC REST unit with 2 screws (B).
- (4) Pull out the jumper plug (7P) putting on a monitor main board.
- (5) Connect the EXT SYNC/DC REST unit to the monitor main board by 7P mini-connector.
- (6) Fix the rear cover as it was, with the 3 screws (A).



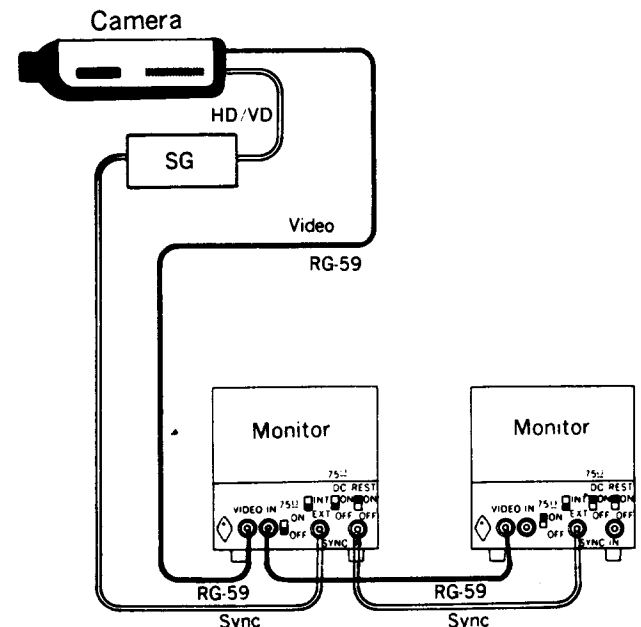
Note that the jumper plug (7P mini-plug) should be on the monitor main board in the case of operation without EXT SYNC/DC REST unit. Without this jumper plug, a monitor never be operated.

EXTERNAL SYNC DRIVE CONNECTION

(1) ONE CAMERA, ONE MONITOR



(2) MULTIPLE MONITORS WITH EXTERNAL SYNC DRIVE



SPECIFICATIONS

PICTURE TUBE : 9" (23cm) diagonal CRT
Implosion protective
Type 230BLB4 or Equiv.

VIDEO INPUT LEVEL & IMPEDANCE : VS 1.0V (p-p), 75 ohms

SCANNING RATES
HORIZONTAL : 15.75KHz or 15.625KHz
VERTICAL : 60Hz or 50Hz

VIDEO FREQUENCY RESPONSE : 5.5MHz or more (+3dB)

VIDEO OUTPUT LEVEL : 30V(p-p)

HORIZONTAL RESOLUTION : 550 lines or better
at center

SIGNAL-TO-NOISE RATIO : 55dB or better
(Sync noise excluded)

LINEARITY : Maximum 2% (of height)

AMBIENT TEMPERATURE : -10°C ~ +45°C

POWER REQUIREMENT : 100/120VAC, 60Hz or
220/240VAC, 50Hz

POWER CONSUMPTION : Approx. 24 watts

DIMENSIONS (WHD) : 218.5 X 226 X 230 (in mm)

WEIGHT : 6.0Kg

RATINGS FOR OPTIONAL UNIT (PM-910T only)

SYNC INPUT LEVEL : 4.0V(p-p) Negative polarity

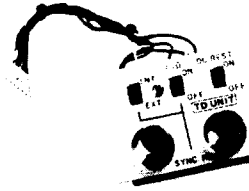
SYNC INPUT IMPEDANCE : 75-ohm or High (Switchable)

DC RESTORATION : Built-in (On/off switchable)

OPTIONAL ACCESSORIES

Following optional accessories & unit are available for PM-910 monitor.

* EXTERNAL SYNC DRIVE & DC RESTORATION UNIT



For external sync operation system, an external sync drive unit of plug-in type is available.

This unit includes DC restoration.

* SCREEN HOOD



Functionally styled snap-on hood of durable material is provided.

* DOUBLE-UNIT RACK PANEL



This fine-finish metal panel accepts two PM-910 or 910T for standard 19" rack. Control panel cover included.

Inexpensive type without panel cover is also provided.

* Design and specifications are subject to change for improvement.



IKEGAMI

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5-6-16 Ikegami, Ohta-ku, Tokyo TELEX 2466738 IKETSU J
PHONE TOKYO (03) 754-2121 CABLE ADDRESS IKETSU TOKYO

MAINTENANCE

Although PM-910 picture monitor is designed to withstand long continuous service, it is recommended to conduct periodical inspections for longer satisfactory service with full performance.

Check the following points periodically,

- (1) The knobs and adjustments for correct positions and connections.
- (2) Connectors for good contact.
- (3) Input and output circuits for short-circuit.
- (4) Internal temperature drift.
- (5) Soldering portions.

And keep the monitor interior clean as much as possible.

MAIN PARTS LIST

* V101	Picture Tube	230BLB4 or equivalent
Q1	Transistor	2SC1815
Q2	Transistor	2SA564
Q3	Transistor	2SC1012A
Q4	Transistor	2SC1815
Q5	Transistor	2SC1226A
Q6	Transistor	2SA699A
Q7	Transistor	2SD975
* Q8	Transistor	2SC681A
Q9	Transistor	2SC1317
* Q101	Transistor	2SD566 or 2SD469
IC1	Integrated Circuit	HA11235
D1	Diode	1S2473 or 1S1588
D2	Diode	1S2473 or 1S1588
D3	Diode	RU-1A
D4	Diode	HF-1
D5	Diode	SB-2
D6	Diode	SF-1
D7	Diode	DS132B
D8	Diode	DS131B
* D9	Diode	RD6.8E
* D10	Diode	RD6.8E
D11	Diode	1S2091
VS1	Varistor	ERV1E2470M
T1	H. Drive Transformer	ST-602926
* T2	Flyback Transformer	ST4-B1119-1
* T101	Power Transformer	ST4-B27058
L1	Peaking Coil (Choke)	47 μ H
L2	Peaking Coil (Choke)	82 μ H
* L3	H. Linearity Coil	ST4-B0052-2B
* L4	H. Width Coil	ST4-B10039
* L101	Deflection Yoke	ST4-B27070
C1	Electrolytic Capacitor	47 μ F 16V
C2	Electrolytic Capacitor	220 μ F 10V
C3	Electrolytic Capacitor	47 μ F 16V
C4	Ceramic Capacitor	680pF 50V *
C5	Electrolytic Capacitor	10 μ F 160V
C6	Electrolytic Capacitor	1 μ F 160V
C7	Electrolytic Capacitor	1 μ F 25V
C8	Polyester Capacitor	0.022 μ F 50V
C9	Polyester Capacitor	0.022 μ F 50V
C10	Electrolytic Capacitor	1000 μ F 16V
C11	Electrolytic Capacitor	100 μ F 16V
C12	Polyester Capacitor	0.0047 μ F 50V
C13	Tantalum Capacitor	3.3 μ F 25V
C14	Tantalum Capacitor	3.3 μ F 25V
C15	Ceramic Capacitor	560pF 50V
C16	Tantalum Capacitor	4.7 μ F 25V
C17	Ceramic Capacitor	330pF 50V
C18	Electrolytic Capacitor	47 μ F 16V
C19	Electrolytic Capacitor	1000 μ F 25V
C20	Metallized Film Capacitor	0.33 μ F 200V
C21	Polyester Capacitor	0.022 μ F 50V
C22	Polyester Capacitor	0.01 μ F 50V
C23	Electrolytic Capacitor	100 μ F 16V
C24	Polyester Capacitor	0.0027 μ F 50V
C25	Polypropylene Capacitor	0.0027 μ F 600V
C26	Polyester Capacitor	0.0047 μ F 50V
C27	Electrolytic Capacitor	1 μ F 25V
C28	Polyester Capacitor	0.047 μ F 50V
C29	Polyester Capacitor	0.022 μ F 50V
C30	Electrolytic Capacitor	1 μ F 25V
C31	Polyester Capacitor	0.01 μ F 50V
* C32	Polypropylene Capacitor	0.047 μ F 400V *
* C33	Polypropylene Capacitor	0.047 μ F 400V
* C34	Polypropylene Capacitor	0.01 μ F 400V *
C35	Electrolytic Capacitor	220 μ F 16V
C36	Electrolytic Capacitor	3.3 μ F 500V
C37	Polypropylene Capacitor	0.01 μ F 400V
C38	Polypropylene Capacitor	0.01 μ F 630V
C39	Electrolytic Capacitor	2200 μ F 16V
C40	Electrolytic Capacitor	100 μ F 16V
C41	Electrolytic Capacitor	220 μ F 16V

INTERNAL ADJUSTMENTS

All internal controls are factory set and locked at the optimum position. Adjustment should not be undertaken except by a qualified service technician, and only when absolutely necessary. This information is provided only as a source of reference for the qualified service technician.

There are five adjustments on the monitor main board.

HORIZONTAL FREQUENCY : This is a screwdriver adjustment to control picture horizontal position when the H. Hold cannot follow.

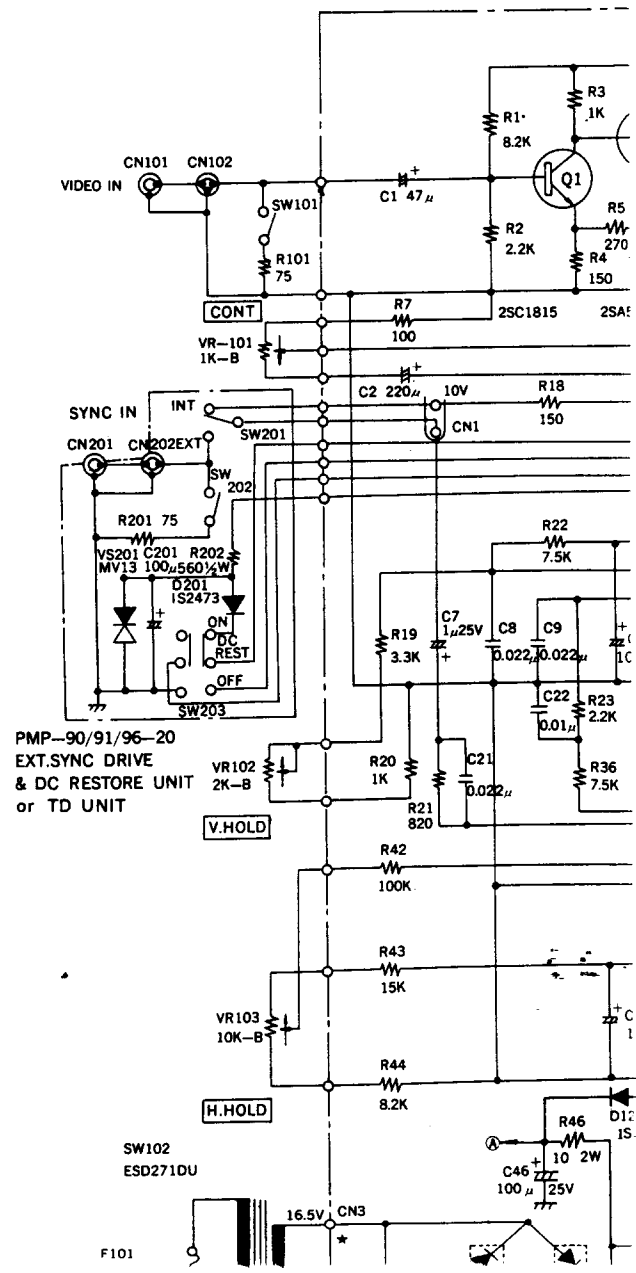
FOCUS : This is a screwdriver adjustment to make a correct focus when the picture is blurred.

VERTICAL BIAS : This is a screwdriver adjustment to control bias of the video output circuit and IC 1. Turn this control when overlapped pictures or shrank pictures are on the screen.

VERTICAL LINEARITY : This is a screwdriver adjustment to control V. linearity when the picture is distorted in upper or lower part on the screen.

VERTICAL HEIGHT : This is also a screwdriver adjustment to correct a height when the center circle of the test pattern is oblong vertically or horizontally.

SCHEMATIC DIAGRAM



INTERNAL ADJUSTMENTS

Internal controls are factory set and locked at minimum position. Adjustment should not be taken except by a qualified service technician, only when absolutely necessary. This information is provided only as a source of reference for the qualified service technician.

There are five adjustments on the monitor main board.

HORIZONTAL FREQUENCY : This is a screwdriver adjustment to control picture horizontal position when the H. Hold is followed.

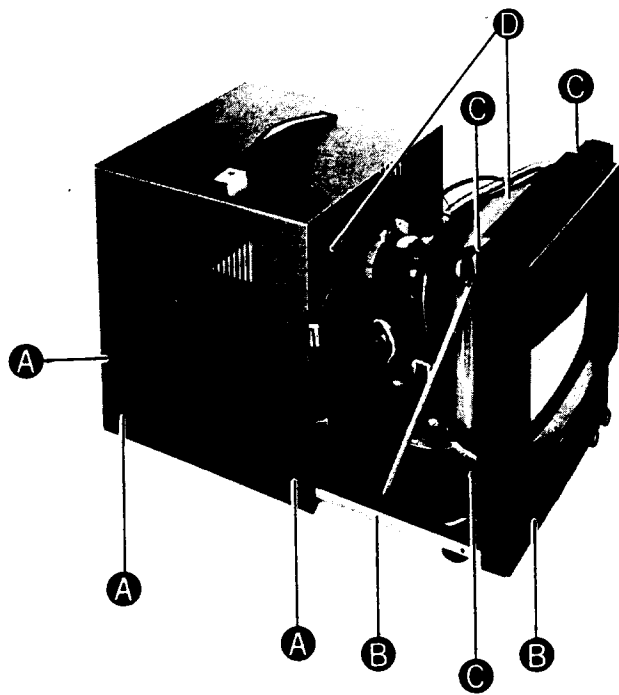
VERTICAL FOCUS : This is a screwdriver adjustment to make a sharp focus when the picture is blurred.

VIDEO BIAS : This is a screwdriver adjustment to control bias of the video output circuit and IC 1. This control when overlapped pictures or shrunked pictures are on the screen.

VIDEO LINEARITY : This is a screwdriver adjustment to control V. linearity when the picture is distorted over or lower part on the screen.

VERTICAL HEIGHT : This is also a screwdriver adjustment to correct a height when the center circle of the test pattern is oblong vertically or horizontally.

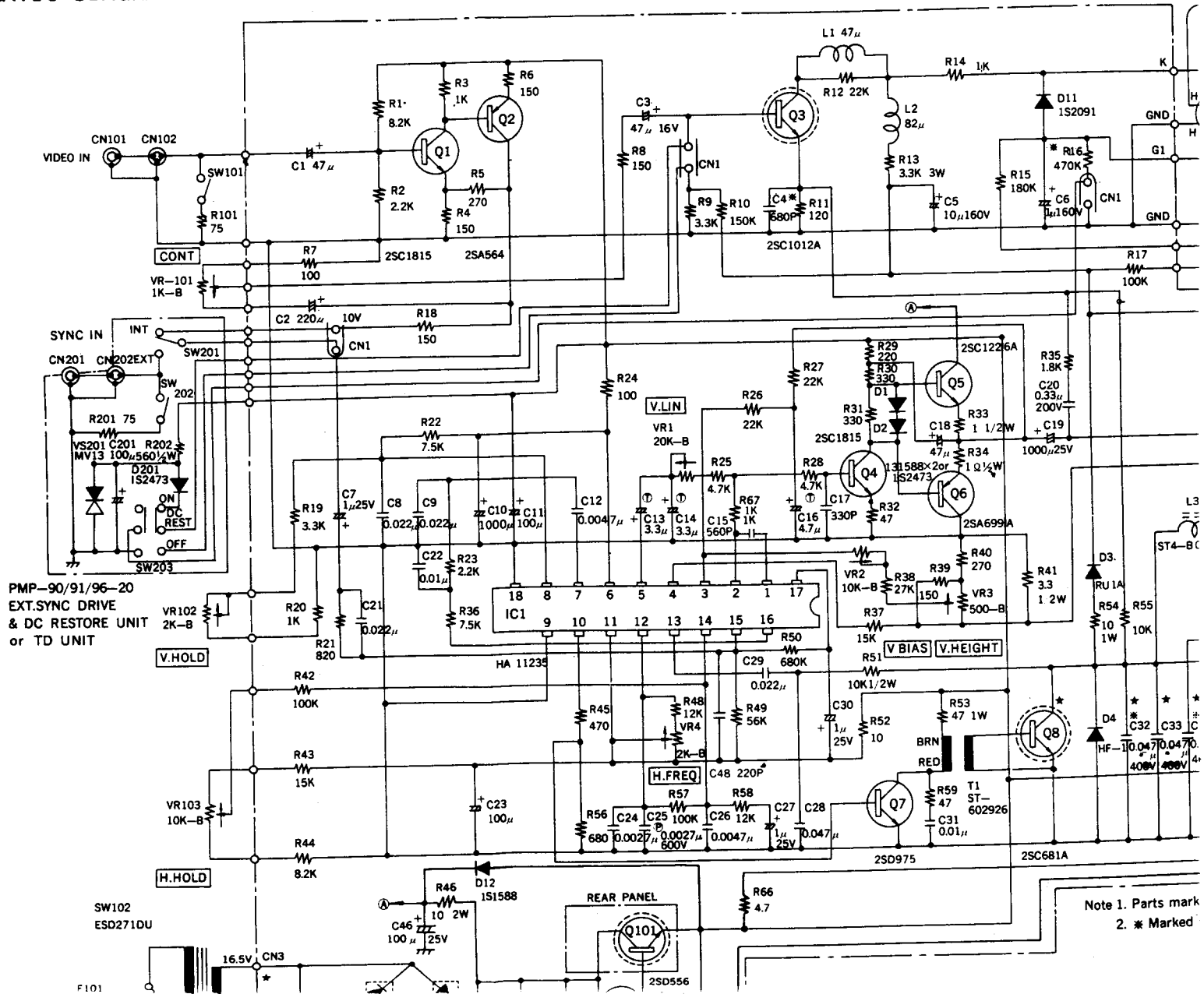
PICTURE TUBE (CRT) REPLACEMENT



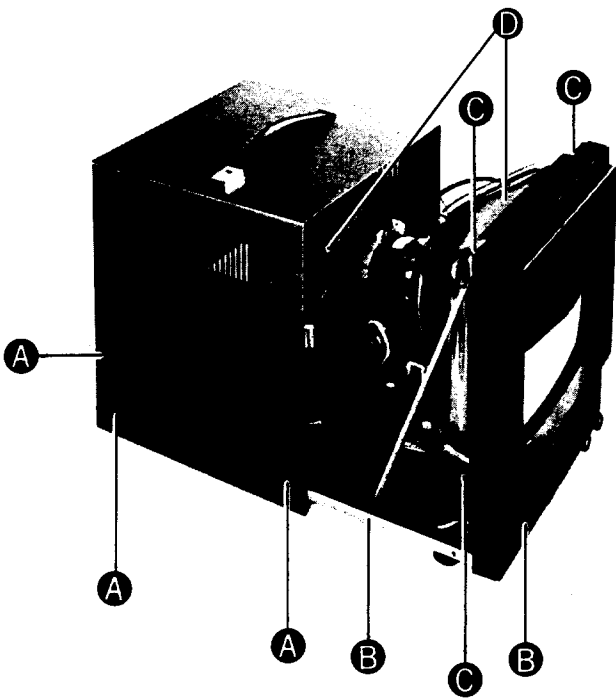
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- (6) Pr
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CIRCUIT DIAGRAM



PICTURE TUBE (CRT) REPLACEMENT



(1) Switch off the power and unplug the power cord.

In the case of tube replacement, making sure that the monitor has been switched off for several minutes to allow the tube anode to discharge.

(2) Take out the five screws **A** from a top cover, and remove the cover.

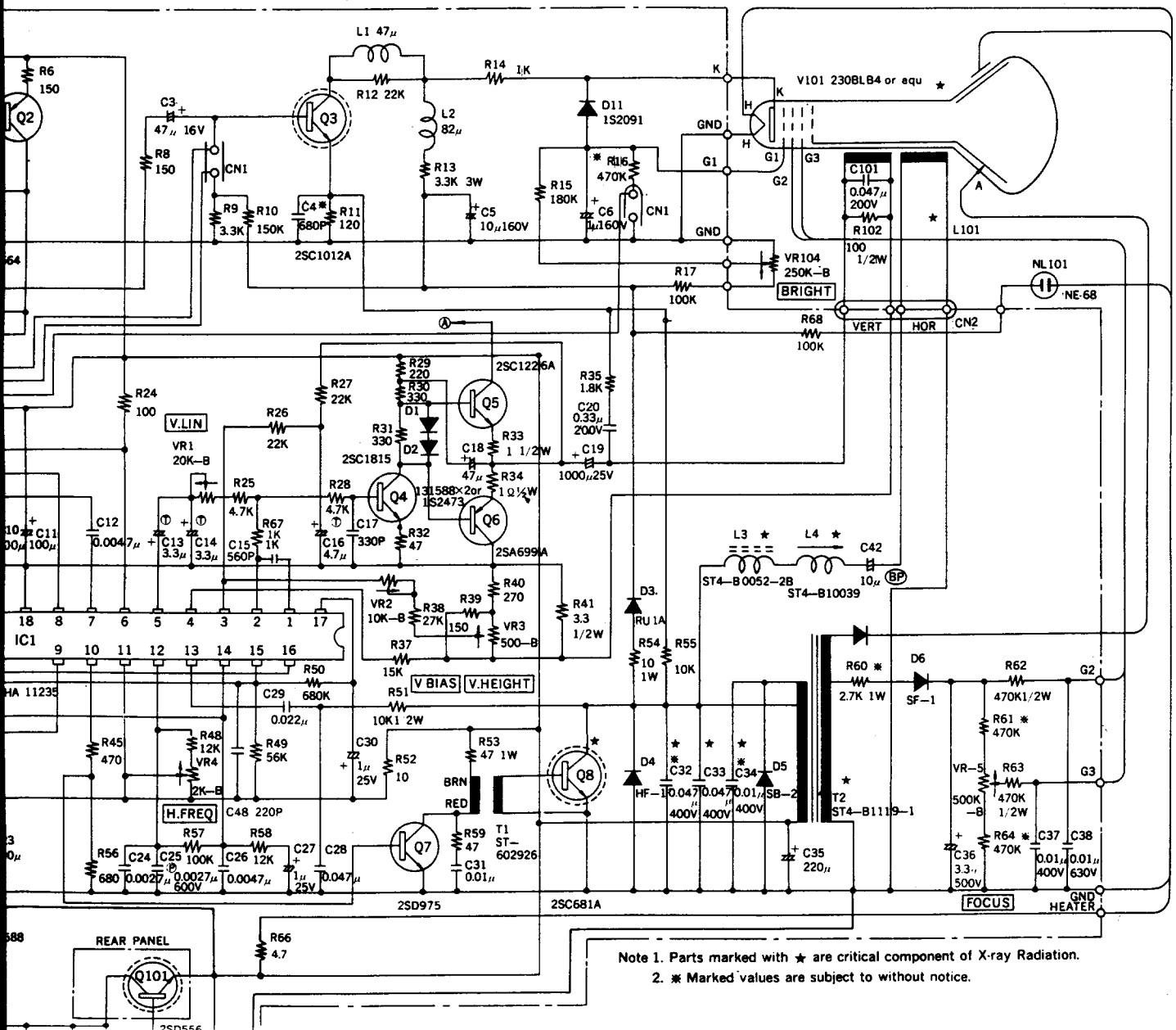
(3) Take out the 2 screws **B** from a CRT support bar.

(4) Carefully remove CRT socket, connector to the deflection coil assembly and anode cap.

(5) Take out the 4 screws **C** and remove old CRT.

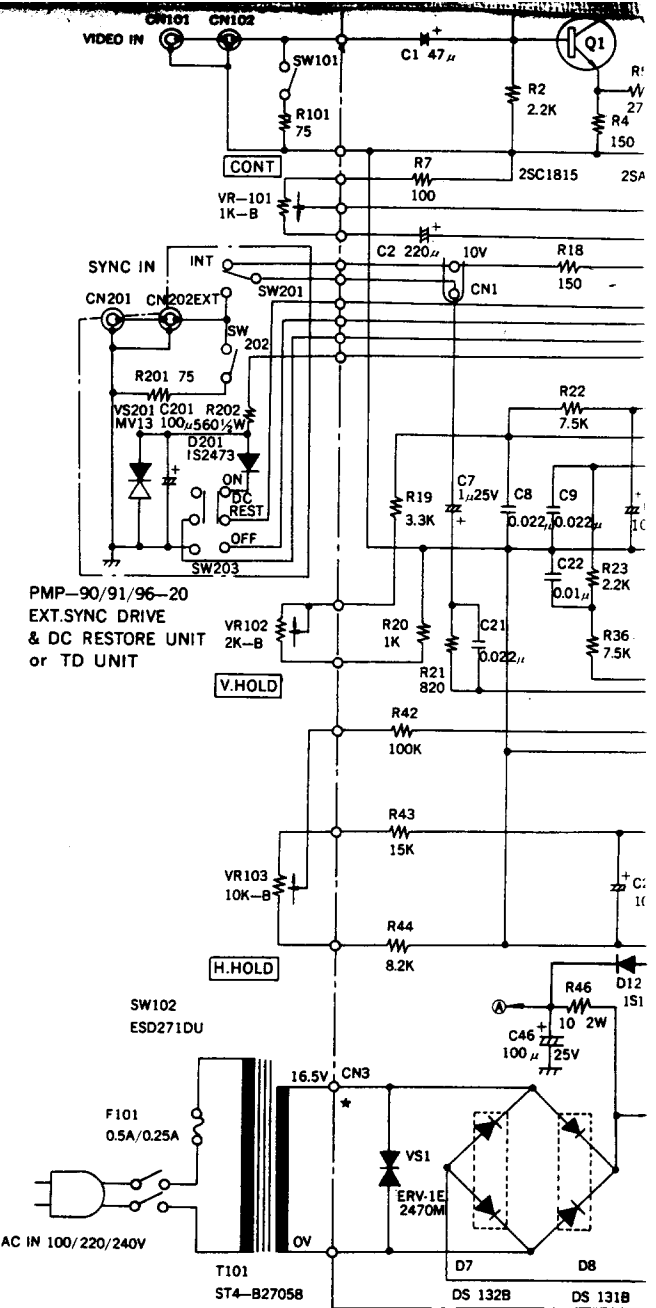
(6) Put new CRT for replacement, and observe reverse sequence in assembling the cover.

Note that the picture tube (CRT) must be replaced only with identical part number.



Note 1. Parts marked with * are critical component of X-ray Radiation.
2. * Marked values are subject to without notice.

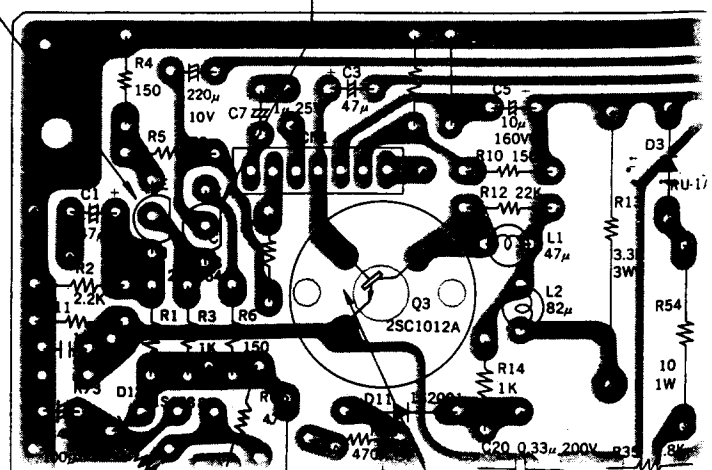
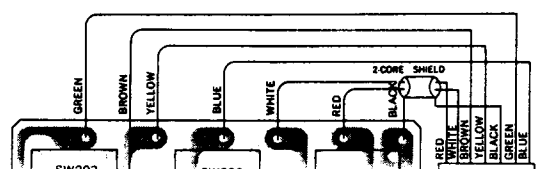
D7	Diode	DS131B	
D8	Diode	RD6.8E	
D9	Diode	RD6.8E	
D10	Diode	1S2091	
D11	Diode	ERV1E2470M	
VS1	Varistor	ST-602926	
T1	H. Drive Transformer	ST4-B1119-1	
T2	Flyback Transformer	ST4-B27058	
T101	Power Transformer	47μH	
L1	Peaking Coil (Choke)	82μH	
L2	Peaking Coil (Choke)	ST4-B0052-2B	
L3	H. Linearity Coil	ST4-B10039	
L4	H. Width Coil	ST4-B27070	
L101	Deflection Yoke		
C1	Electrolytic Capacitor	47μF	16V
C2	Electrolytic Capacitor	220μF	10V
C3	Electrolytic Capacitor	47μF	16V
C4	Ceramic Capacitor	680pF	50V *
C5	Electrolytic Capacitor	10μF	160V
C6	Electrolytic Capacitor	1μF	160V
C7	Electrolytic Capacitor	1μF	25V
C8	Polyester Capacitor	0.022μF	50V
C9	Polyester Capacitor	0.022μF	50V
C10	Electrolytic Capacitor	1000μF	16V
C11	Electrolytic Capacitor	100μF	16V
C12	Polyester Capacitor	0.0047μF	50V
C13	Tantalum Capacitor	3.3μF	25V
C14	Tantalum Capacitor	3.3μF	25V
C15	Ceramic Capacitor	560pF	50V
C16	Tantalum Capacitor	4.7μF	25V
C17	Ceramic Capacitor	330pF	50V
C18	Electrolytic Capacitor	47μF	16V
C19	Electrolytic Capacitor	1000μF	25V
C20	Metallized Film Capacitor	0.33μF	200V
C21	Polyester Capacitor	0.022μF	50V
C22	Polyester Capacitor	0.01μF	50V
C23	Electrolytic Capacitor	100μF	16V
C24	Polyester Capacitor	0.0027μF	50V
C25	Polypropylene Capacitor	0.0027μF	600V
C26	Polyester Capacitor	0.0047μF	50V
C27	Electrolytic Capacitor	1μF	25V
C28	Polyester Capacitor	0.047μF	50V
C29	Polyester Capacitor	0.022μF	50V
C30	Electrolytic Capacitor	1μF	25V
C31	Polyester Capacitor	0.01μF	50V
C32	Polypropylene Capacitor	0.047μF	400V *
C33	Polypropylene Capacitor	0.047μF	400V
C34	Polypropylene Capacitor	0.01μF	400V *
C35	Electrolytic Capacitor	220μF	16V
C36	Electrolytic Capacitor	3.3μF	500V
C37	Polypropylene Capacitor	0.01μF	400V
C38	Polypropylene Capacitor	0.01μF	630V
C39	Electrolytic Capacitor	2200μF	35V
C40	Electrolytic Capacitor	100μF	16V
C41	Electrolytic Capacitor	220μF	16V
C42	Electrolytic Capacitor (BP)	10μF	25V
C43	Not Used		
C44	Not Used		
C45	Not Used		
C46	Electrolytic Capacitor	100μF	25V
C47	Not Used		
C48	Ceramic Capacitor	220pF	50V
C101	Polyester Capacitor	0.047μF	200V
VR1	Variable Resistor (Carbon Film)	22K ohms	lin. taper
VR2	Variable Resistor (Carbon Film)	10K ohms	lin. taper
VR3	Variable Resistor (Carbon Film)	470 ohms	lin. taper
VR4	Variable Resistor (Carbon Film)	2.2K ohms	lin. taper
VR5	Variable Resistor (Carbon Film)	470K ohms	lin. taper
VR101	Variable Resistor (Carbon Film)	1K ohms	lin. taper
VR102	Variable Resistor (Carbon Film)	2K ohms	lin. taper
VR103	Variable Resistor (Carbon Film)	10K ohms	lin. taper
VR104	Variable Resistor (Carbon Film)	250K ohms	lin. taper
SW101	Slide Switch (75 ohms)	SW76B	
SW102	Slide Switch (Power)	ESD-271DU	
CN1	7P Connector	171822-7	
CN101	Coaxial Connector (Video)	MB-R (UHF bulk head)	
CN102	Coaxial Connector (Video)	MB-R (UHF bulk head)	
F101	Fuse	0.5A 125V (117V/100V) 0.25A 250V (240V/220V) NE-68	
NL101	Neon Lamp		
PW1	Power Cord		
D201	Diode	1S2473	
VS201	Varistor	MV13	
C201	Electrolytic Capacitor	100μF	16V
R201	Carbon Film Resistor	75 ohms	1/4W
R202	Carbon Film Resistor	560 ohms	1/2W
SW201	Slide Switch (INT/EXT)	SLP-3.5-2022	
SW202	Slide Switch (75 ohms)	SLP-3.5-2022	
SW203	Slide Switch (DC Rest.)	SLP-3.5-2022	
CN201	Coaxial Connector (Sync.)	MB-R (UHF bulk head)	
CN202	Coaxial Connector (Sync.)	MB-R (UHF bulk head)	

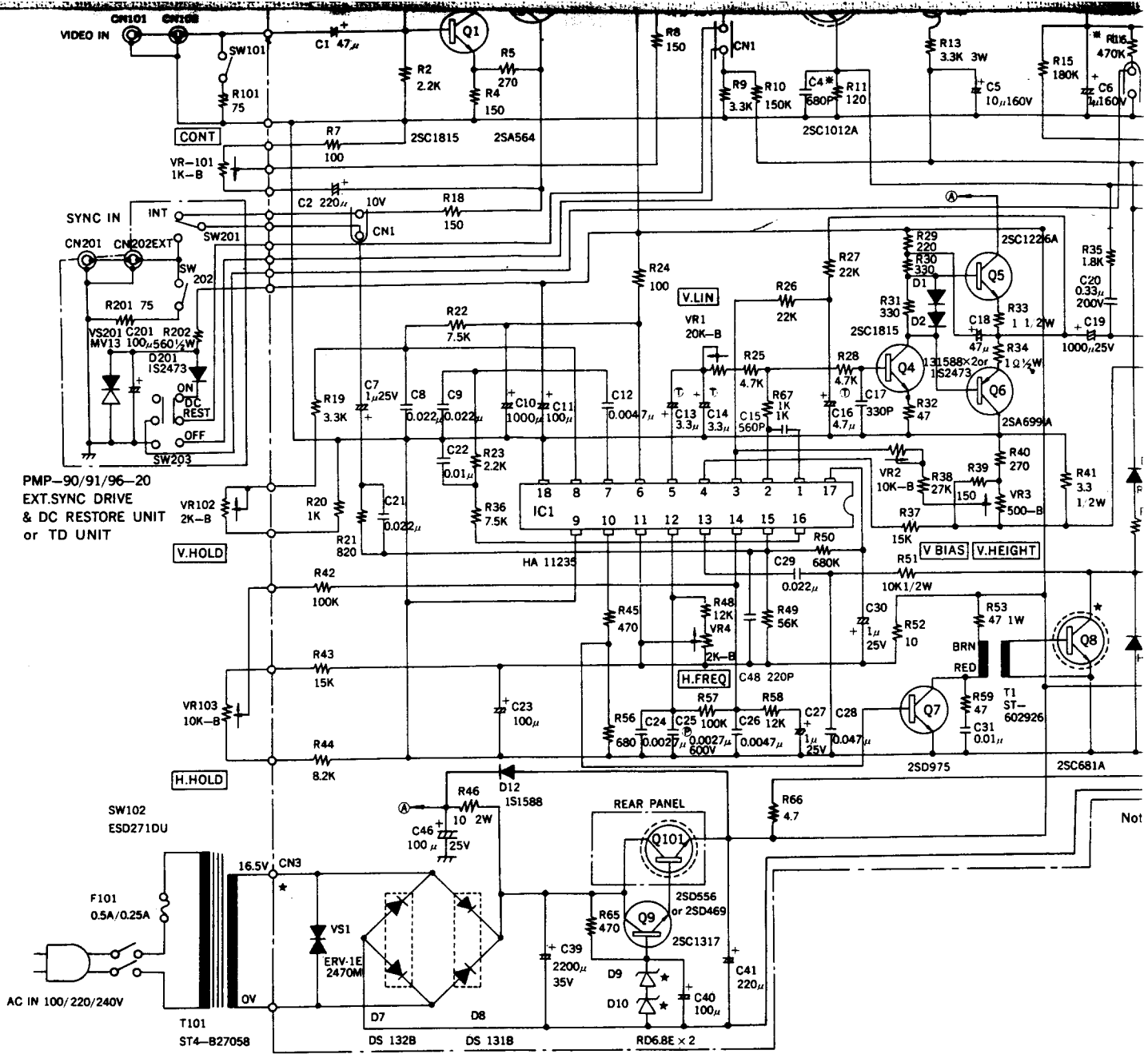


Q1	DCVAC	VP	Waveform
B	3.4	1.0	[Waveform]
C	9.1	1.4	[Waveform]
E	2.8	1.0	[Waveform]

Q2	DCVAC	VP	Waveform
B	9.1	1.4	[Waveform]
C	6.8	2.4	[Waveform]
E	9.8	1.3	[Waveform]

Q5	DC	VP	Waveform
B	8		[Waveform]
C	12		[Waveform]
E	7		[Waveform]





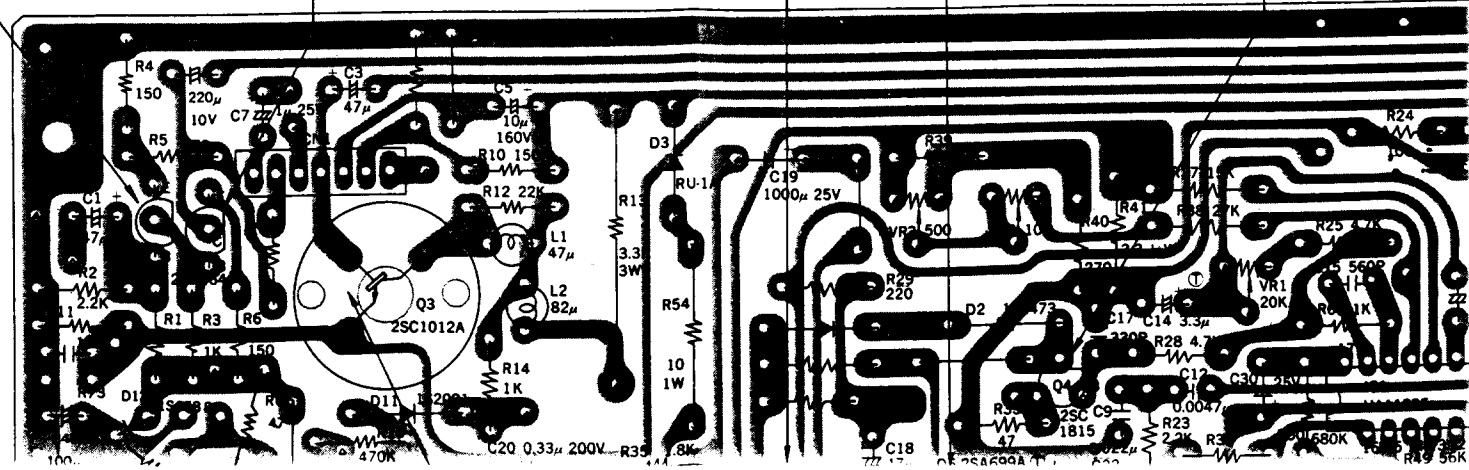
Q1	DC	VAC	VP	Waveform
B	3.4	1.0		
C	9.1	1.4		
E	2.8	1.0		

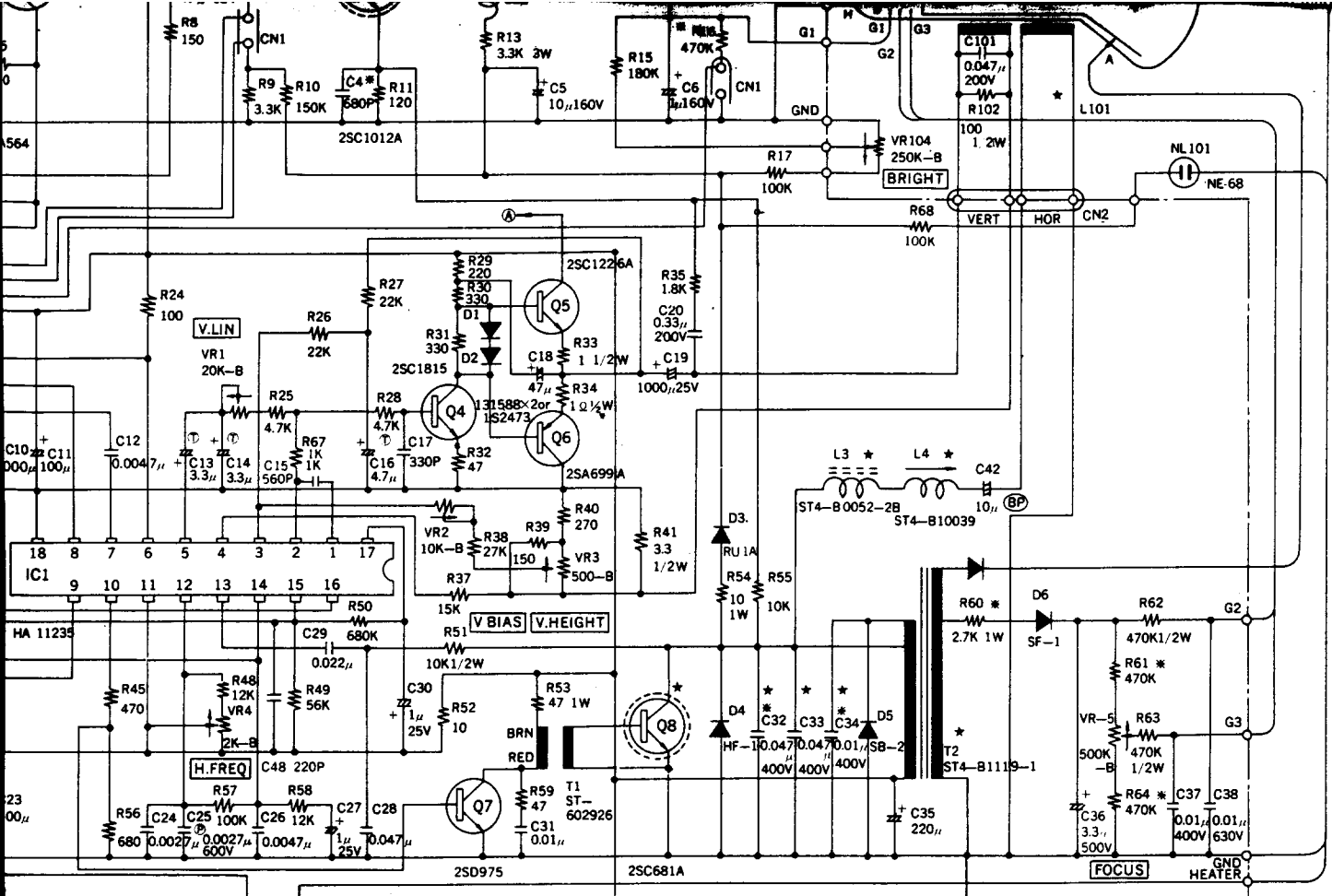
Q2	DC	VAC	VP	Waveform
B	9.1	1.4		
C	6.8	2.4		
E	9.8	1.3		

Q5	DC	VAC	VP	Waveform
B	8.0	10		
C	12.0	-		
E	7.5	12.0		

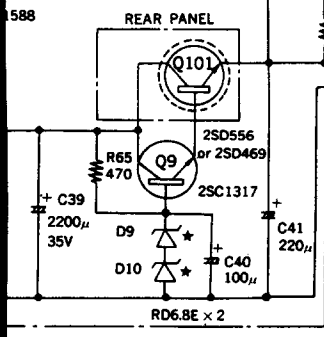
Q6	DC	VAC	VP	Waveform
B	6.5	12.0		
C	-	-		
E	7.3	12.0		

Q4	DC	VAC	VP	Waveform
B	0.98	1.3		
C	6.5	12.0		
E	0.35	0.7		





Note 1. Parts marked with * are critical component of X-ray Radiation.
 2. * Marked values are subject to without notice.

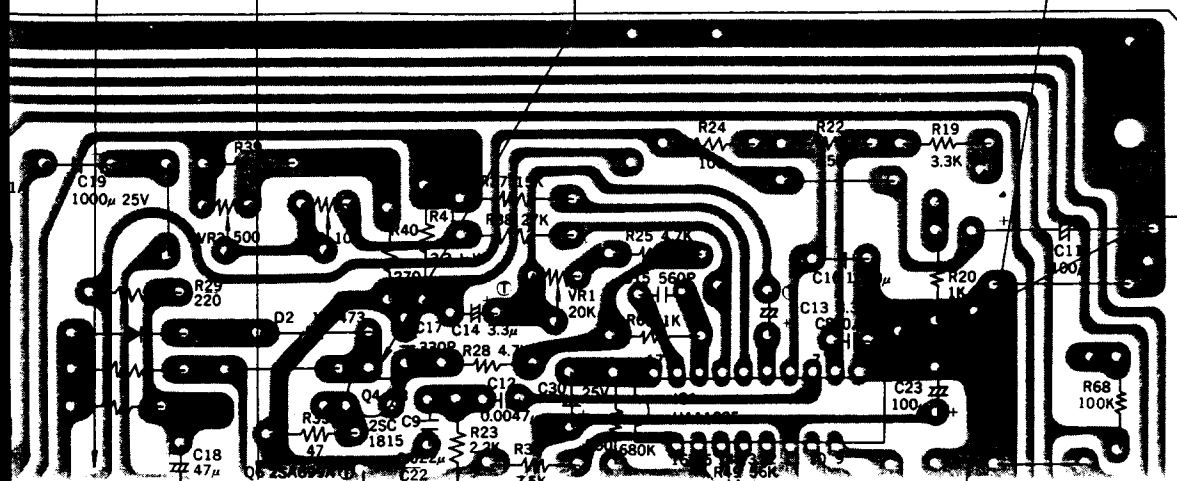


CVAC VP	Waveform
8.0 10	
2.0 -	
7.5 12.0	

Q6 DCVAC VP	Waveform
B 6.5 12.0	
C - -	
E 7.3 12.0	

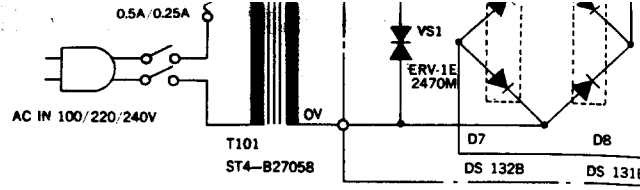
Q4 DCVAC VP	Waveform
B 0.98 1.3	
C 6.5 12.0	
E 0.35 0.7	

Q7 DCVAC VP	Waveform
B 0.32 0.8	
C 10.2 18	
E - -	



IC1 DCVAC VP	Waveform
1 3.2 1.8	
2 1.2 2.1	
3 3.1 1.1	

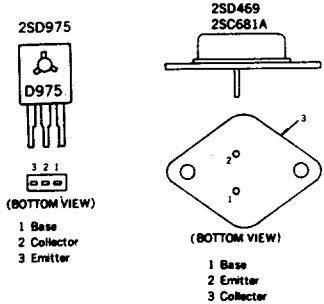
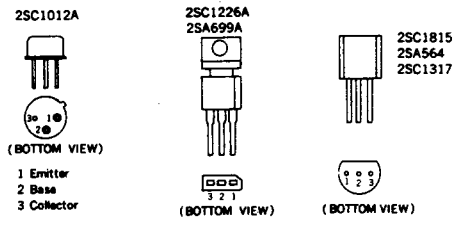
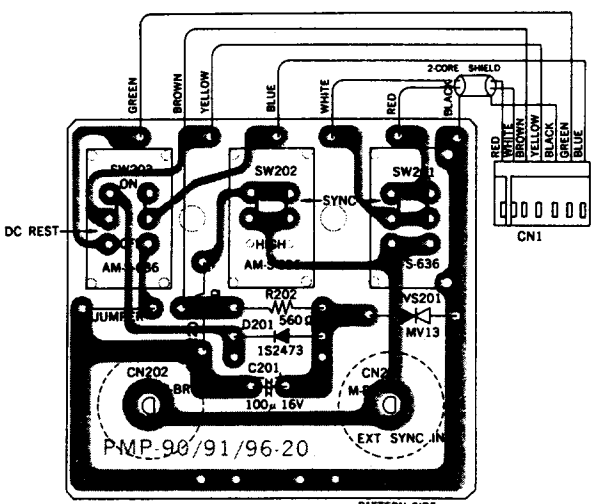
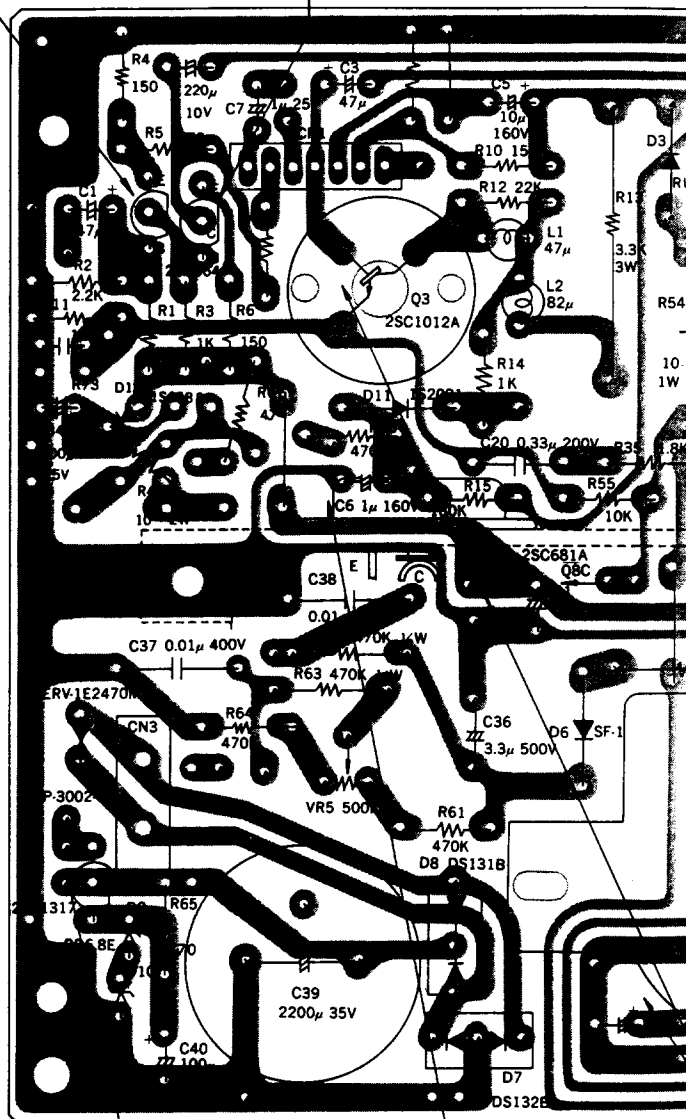
C42	Electrolytic Capacitor (BP)	10μF	25V
C43	Not Used		
C44	Not Used		
C45	Not Used		
C46	Electrolytic Capacitor	100μF	25V
C47	Not Used		
C48	Ceramic Capacitor	220pF	50V
C101	Polyester Capacitor	0.047μF	200V
VR1	Variable Resistor (Carbon Film)	22K ohms	lin. taper
VR2	Variable Resistor (Carbon Film)	10K ohms	lin. taper
VR3	Variable Resistor (Carbon Film)	470 ohms	lin. taper
VR4	Variable Resistor (Carbon Film)	2.2K ohms	lin. taper
VR5	Variable Resistor (Carbon Film)	470K ohms	lin. taper
VR101	Variable Resistor (Carbon Film)	1K ohms	lin. taper
VR102	Variable Resistor (Carbon Film)	2K ohms	lin. taper
VR103	Variable Resistor (Carbon Film)	10K ohms	lin. taper
VR104	Variable Resistor (Carbon Film)	250K ohms	lin. taper
SW101	Slide Switch (75 ohms)	SW768	
SW102	Slide Switch (Power)	ESD-271DU	
CN1	7P Connector	171822-7	
CN101	Coaxial Connector (Video)	MB-R (UHF bulk head)	
CN102	Coaxial Connector (Video)	MB-R (UHF bulk head)	
F101	Fuse	0.5A 125V (117V/100V)	
		0.25A 250V (240V/220V)	
		NE-68	
NL101	Neon Lamp		
PW1	Power Cord		
D201	Diode	1S2473	
VS201	Varistor	MV13	
C201	Electrolytic Capacitor	100μF	16V
R201	Carbon Film Resistor	75 ohms	1/4W
R202	Carbon Film Resistor	560 ohms	1/2W
SW201	Slide Switch (INT/EXT)	SLP-3.5-2022	
SW202	Slide Switch (75 ohms)	SLP-3.5-2022	
SW203	Slide Switch (DC Rest.)	SLP-3.5-2022	
CN201	Coaxial Connector (Sync.)	MB-R (UHF bulk head)	
CN202	Coaxial Connector (Sync.)	MB-R (UHF bulk head)	



Q1	DCVAC	VP	Waveform
B	3.4	1.0	[Square wave]
C	9.1	1.4	[Square wave]
E	2.8	1.0	[Square wave]

Q2	DCVAC	VP	Waveform
B	9.1	1.4	[Square wave]
C	6.8	2.4	[Square wave]
E	9.8	1.3	[Square wave]

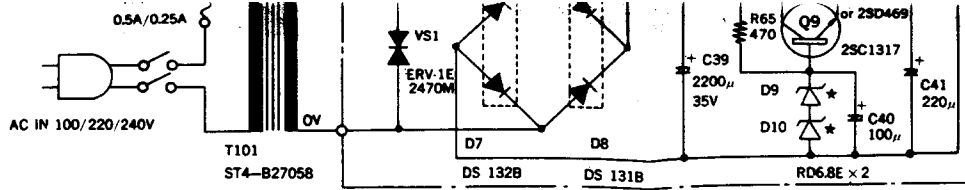
Q3	DCVAC	VP	Waveform
B			
C			
E			



Q9	DCVAC	VP	Waveform
B	13.5	-	[Square wave]
C	16.5	2.0	[Square wave]
E	12.8	-	[Square wave]

Q8	DCVAC	VP	Waveform
B	-	2.5	[Square wave]
C	11.9	100	[Square wave]
E	-	-	[Square wave]

Q3	DCVAC	VP	Waveform
B			
C			
E			



. taper
. taper
. taper
. taper
. taper
. taper
. taper
. taper
. taper

Q1 DCVAC VP		
B	3.4	1.0
C	9.1	1.4
E	2.8	1.0

Q2 DCVAC VP		
B	9.1	1.4
C	6.8	2.4
E	9.8	1.3

Q5 DCVAC VP		
B	8.0	10
C	12.0	-
E	7.5	12.0

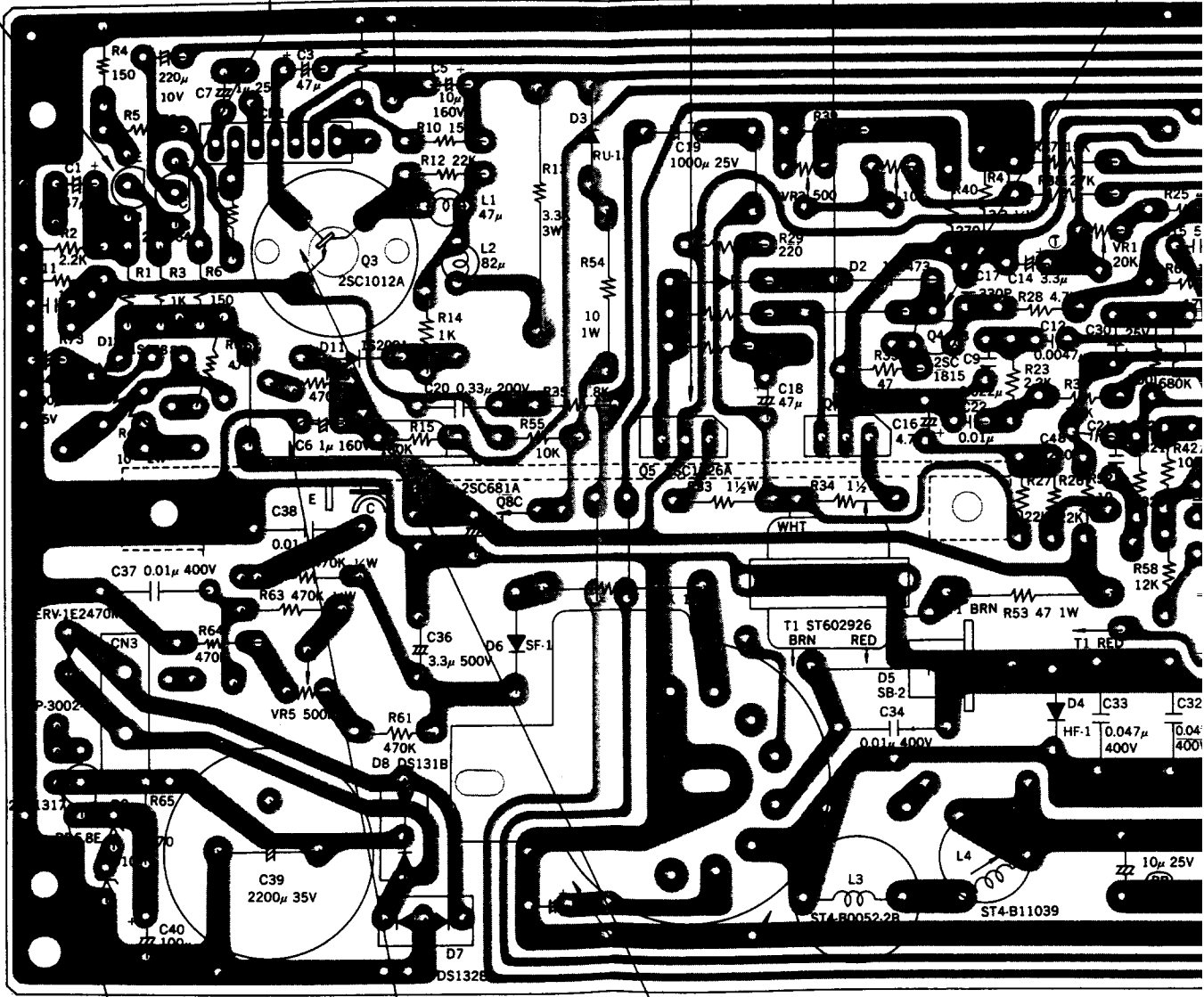
Q6 DCVAC VP		
B	6.5	12.0
C	-	-
E	7.3	12.0

Q4 DCVAC VP		
B	0.98	-
C	6.5	-
E	0.35	-

head)
head)
7V/100V)
0V/220V)

W
W

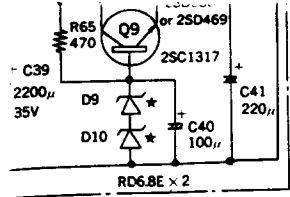
head)
head)



Q9 DCVAC VP		
B	13.5	-
C	16.5	2.0
E	12.8	-

Q8 DCVAC VP		
B	-	2.5
C	11.9	100
E	-	-

Q3 DCVAC VP		
B	1.8	1.2
C	49	30
E	1.2	0.7

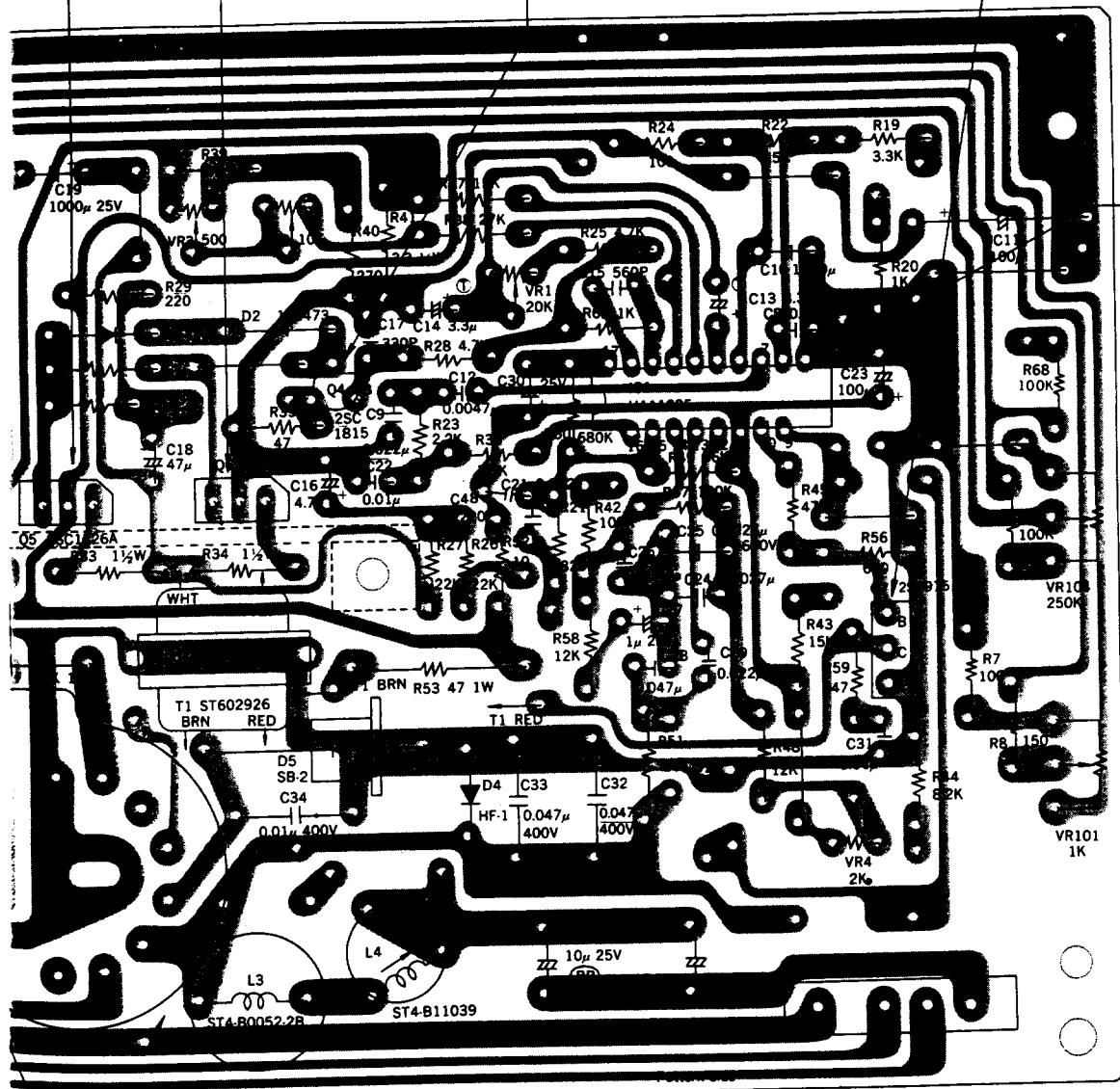


AC VP	Waveform
10	
-	
12.0	

Q6 DCVAC VP	Waveform
B 6.5 12.0	
C - -	
E 7.3 12.0	

Q4 DCVAC VP	Waveform
B 0.98 1.3	
C 6.5 12.0	
E 0.35 0.7	

Q7 DCVAC VP	Waveform
B 0.32 0.8	
C 10.2 18	
E - -	



IC1 DCVAC VP	Waveform
1 3.2 1.8	
2 1.2 2.1	
3 3.1 1.1	
5 7.2 2.3	
6 11.4 -	
7 5.1 4.0	
8 5.2 2.5	
10 1.6 4.0	
12 6.4 5.0	
13 3.4 1.4	
15 12.8 2.3	
16 1.25 11.0	
17 4.1 0.45	

CVAC VP	Waveform
.8 1.2	
19 30	
.2 0.7	