

SPECIFICATIONS

(Design and specifications subject to change without notice).

Dimensions: : 37.8 cm(W) x 40.7 cm(D) x 34.9 cm(H)

Weight : 11.7 kg

Colour System PAL/SECAM/NTSC (3.58 MHz,
4.43 MHz)

Scanning 625 Lines, 50 Hz (PAL/SECAM)
525 Lines, 60 Hz (NTSC)

Input A/B

Video 1 Vp-p, 75 Ω , BNC Type

Audio 390 mVrms (-6 dBs), Hi Impedance,
RCA Type

VTR (EIAJ 8 Pin)

Video Input 1 Vp-p, 75 Ω

Video Output 1 Vp-p, 75 Ω

Audio Input 1 Vrms (2.2 dBs), Hi Impedance

Audio Output 100 mVrms (-17.8 dBs),
Low Impedance

Line Output

Video 1 Vp-p, 75 Ω , BNC Type

Audio 300 mVrms (-8 dBs), Low Impedance,
RCA Type

RGB (AV) Connector 21 Pin Connector

Scan Frequency H. 15.75 kHz/15.625 kHz
V.50 Hz/60 Hz

Power Input 120 V ~ 240 V AC, 50 Hz/60 Hz

Power Consumption 75 W (max.)

Picture Tube 36 cm In-Line Type

Viewable Picture Size 28.5 cm(W) x 21.3 cm(H)

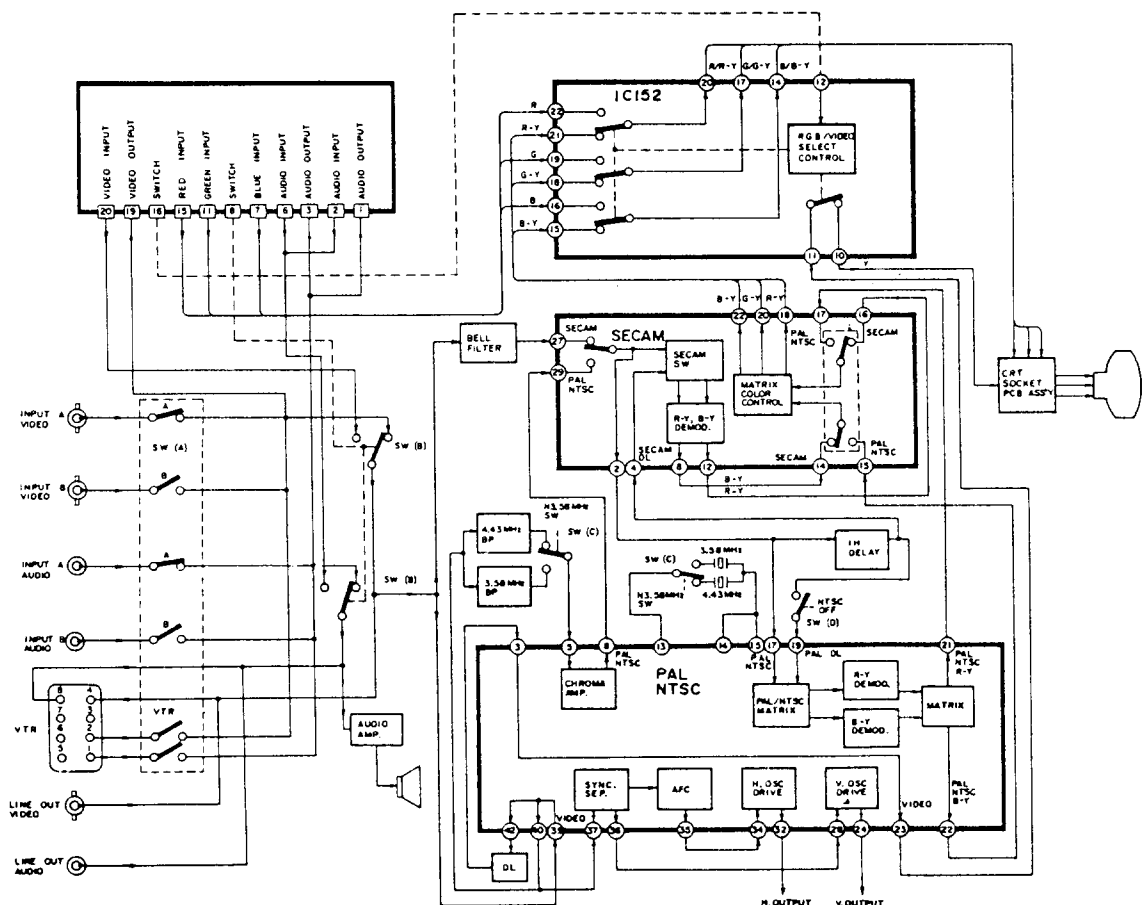
High Voltage 24.5kV $\pm$ 1 kV (at zero beam current)

Speaker 8 cm round type, 8 Ω

Audio Power Output 1.5 W

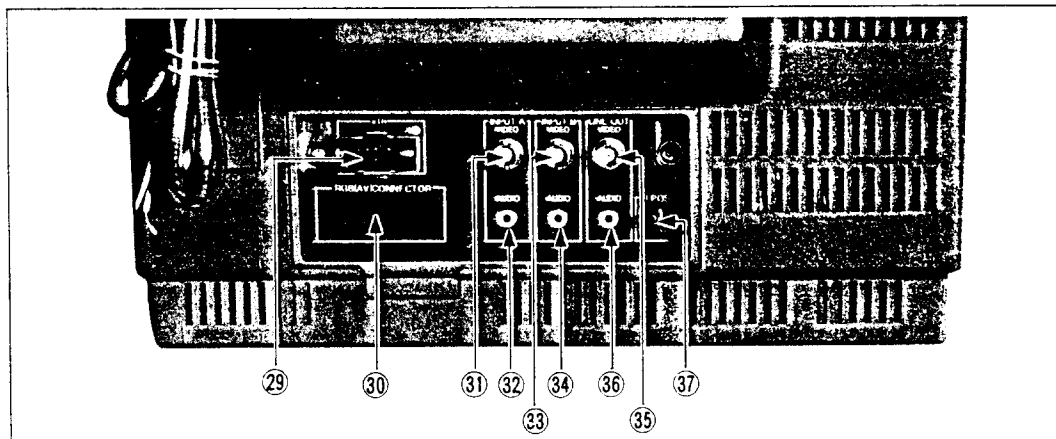
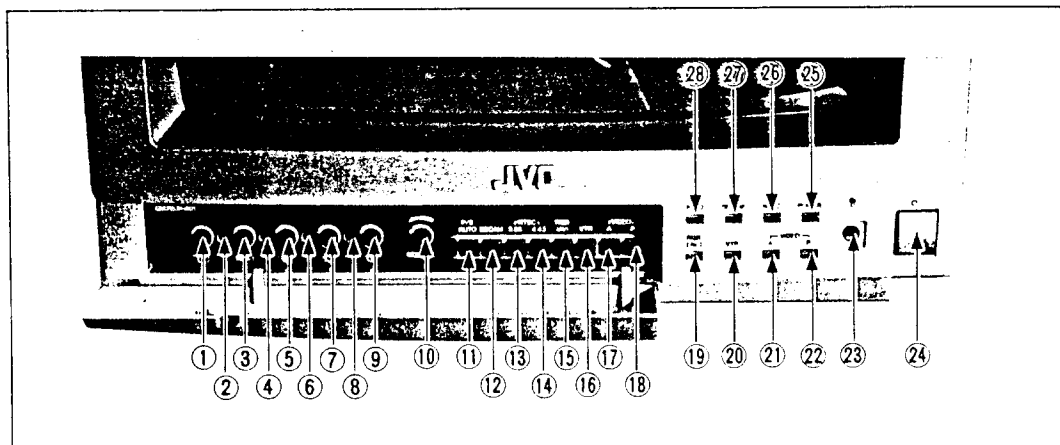
- ## 2. OUTLINE

Selection between 3.58 MHz and 4.43 MHz of the NTSC system can be made by shifting the NTSC switch on the unit front panel. By this shifting, SW(C) shown in the figure below is switched.



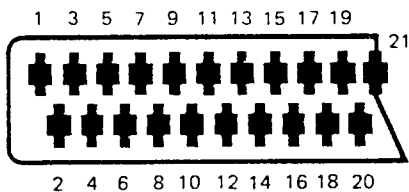
3. FUNCTIONS

- ① V. HOLD
- ② SUB TINT
- ③ TINT
- ④ SUB COLOUR
- ⑤ COLOUR
- ⑥ SUB BRIGHTNESS
- ⑦ BRIGHTNESS
- ⑧ SUB CONTRAST
- ⑨ CONTRAST
- ⑩ VOLUME
- ⑪ P/S AUTO SWITCH
- ⑫ SECAM SWITCH
- ⑬ NTSC (3.58) SWITCH
- ⑭ NTSC (4.43) SWITCH
- ⑮ RGB (AV) SWITCH
- ⑯ VTR SWITCH
- ⑰ VIDEO A SWITCH
- ⑱ VIDEO B SWITCH
- ⑲ RGB (AV) INDICATOR
- ⑳ VTR INDICATOR
- ㉑ VIDEO A INDICATOR
- ㉒ VIDEO B INDICATOR
- ㉓ EARPHONE JACK
- ㉔ POWER SWITCH
- ㉕ POWER INDICATOR
- ㉖ NTSC INDICATOR
- ㉗ SECAM INDICATOR
- ㉘ P/S AUTO INDICATOR



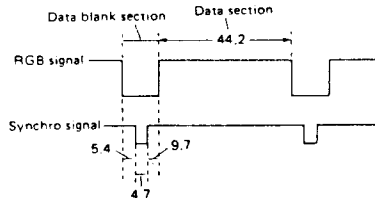
- | | | |
|----------------------|-------------------|-----------------------|
| ⑲ VTR CONNECTOR | ⑳ INPUT A (AUDIO) | ㉕ LINE OUT (VIDEO) |
| ㉑ RGB (AV) CONNECTOR | ㉖ INPUT B (VIDEO) | ㉗ LINE OUT (AUDIO) |
| ㉒ INPUT A (VIDEO) | ㉘ INPUT B (AUDIO) | ㉙ H. POSITION CONTROL |

■ RGB (AV) Connector

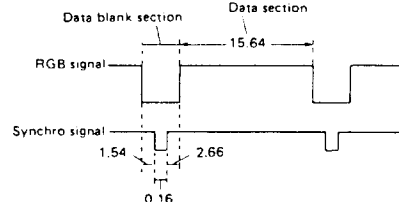


■ RGB (AV) connector recommended input signal

H. SYNC period (μ sec.)

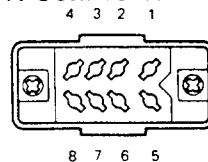


V. SYNC period (m sec.)



DESIGNATION	PIN NO.	DESIGNATION	PIN NO.
AUDIO OUT (500mVrms Low Impedance)	1, 3	RED IN (700mVp-p, 75 Ω)	15
AUDIO IN (500mVrms High Impedance)	2, 6	GROUND for RED	13
GROUND for AUDIO	4	GREEN IN (700mVp-p, 75 Ω)	11
VIDEO OUT (1Vp-p 75 Ω)	19	GROUND for GREEN	9
VIDEO IN (1Vp-p 75 Ω)	20	BLUE IN (700mVp-p, 75 Ω)	7
GROUND for VIDEO	17	GROUND for BLUE	5
SLOW SW L(0~2V)-INTERNAL H(9.5~12V)-ACTIVE	8	FAST SW L(0~0.4V)-INTERNAL H(1~3V)-ACTIVE	16
NO CONNECTION	10, 12, 14	GROUND for SW	18
		GROUND for SCREEN	21

■ VTR Connector



DESIGNATION	PIN NO.
AUDIO IN	1
VIDEO IN	2
GROUND (VIDEO OUT)	3
VIDEO OUT	4
GROUND (AUDIO IN)	5
" (VIDEO IN)	6
" (AUDIO OUT)	7
AUDIO OUT	8

4. HOW TO REMOVE FOR SERVICE

■ REMOVING REAR COVER

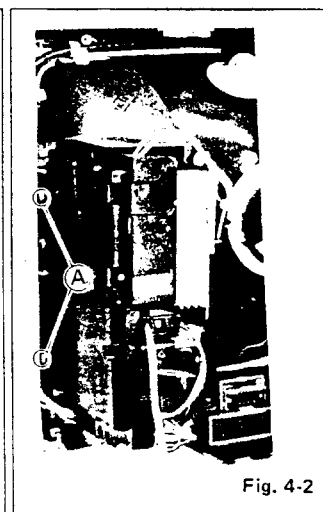
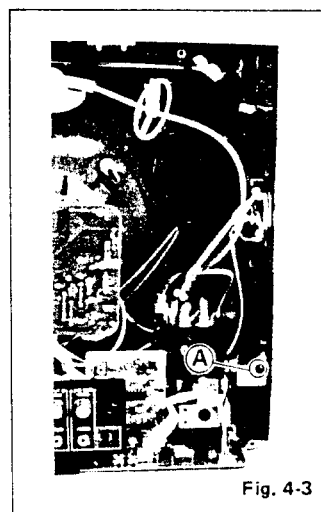
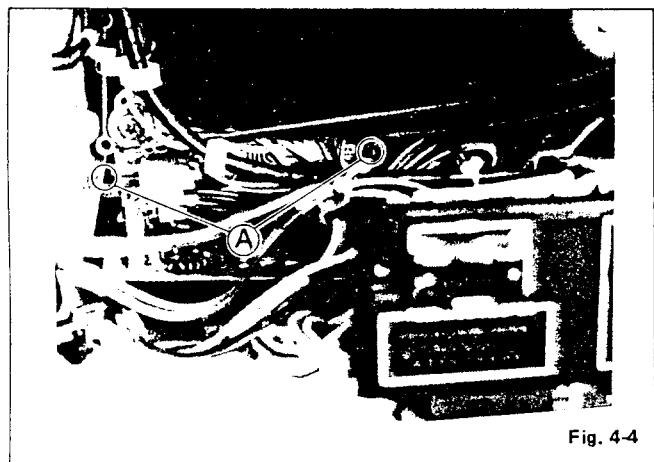
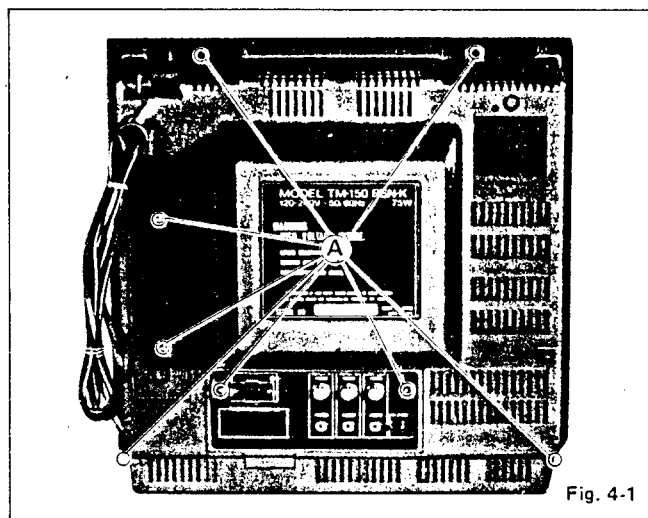
Unscrew the eight screws (A) shown in Fig. 4-1 and remove the rear cover.

■ REMOVING MAIN P.C. BOARD

1. Unscrew the two screws (A) shown in Fig. 4-2 and remove the Power P.C. Board.
2. Unscrew the one screw (A) shown in Fig. 4-3.
3. Unscrew the two screws (A) shown in Fig. 4-4.
4. Pull out the printed circuit board along the rail straight toward the rear.

■ WIRE CLAMPING AND TYING BAND

1. Be sure to clamp the wire.
2. Never remove the tying band used for wire clamping. Should it be inadvertently removed, be sure to clamp the wire again, using insulating material.



5. SERVICE ADJUSTMENTS

Regarding general or color adjustments, refer to the appended PAL/SECAM (Service adjustments).

As for the test points and respective volume adjusting knob positions, refer to the schematic diagram and the section on "alignment locations" appearing in the same diagram.

As to the following items, observe the respective instructions given herein.

■ POWER SUPPLY

Confirm that DC 110V exists between TP-91 and TP-E ().

■ RGB BRIGHT & CONTRAST

Adjust RGB BRIGHT & CONTRAST VR so that an optimum status of images is obtained.

■ RGB & B CUTOFF

1. Under a "no signal" state, shift the RGB CUTOFF SERVICE switch.

2. Turn the R & B CUTOFF VR fully clockwise.
3. Adjust the RGB BRIGHT VR so that the horizontal line is slightly illuminated.
4. Adjust the R & B CUTOFF VR so that the horizontal line is turned white.
5. Return the RGB CUTOFF SERVICE switch to its original position.

■ SUB "H" POSITION VR

Set the "H" POSITION VR at its center position and adjust the SUB "H" POSITION VR so that the image is positioned at the center.

6. REPLACEMENT PARTS LIST

SX-1805A (MAIN P.B. Ass'y)

SYMBOL NO.	△	PART NO.	PART NAME	REMARKS	SYMBOL NO.	△	PART NO.	PART NAME	REMARK
VARIABLE RESISTOR					COIL				
R1161		CEX40202-015	V R	100kΩ B (RGB Contrast)	L1201		A76186-12Z	Peaking Coil	12μH
1168		" -053	V R	5kΩ " (RGB Bright)	1203		" -56	"	56μH
1177		" -014	V R	10kΩ " (R Cut Off)	1301		" -4.7Z	"	4.7μH
1179		" -014	V R	" " (B Cut Off)	1302		" -8.2Z	"	8.2μH
1207		QVAZ001-C004A	V R Block		1303		" -8.2Z	"	"
1339		CEX40202-013	V R	1kΩ " (DL. Amp.)	1391		A49468-562	"	5600μH
1403		CEX40197-014	V R	10kΩ " (V. Height)	1501		A04872-90	"	90μH
1430		" -022	V R	200Ω " (V. Lin.)	1551		CE40954-00A	Linearity Coil	
1505		CEX40202-014	V R	10kΩ " (H. Hold)	1552		CJ30030-028	Heater Choke	
1658		CEX40118-B14M	V R	" " (Volume)	1553		CE40140-00E	Width Coil	
1813		CEX40202-053	V R	5kΩ " (R Cut Off)	1801		QQL043K-101	Peaking Coil	100μH
1814		" -053	V R	" " (G Cut Off)	1802		" -101	"	"
1815		" -053	V R	" " (B Cut Off)	1803		" -101	"	"
1819		" -022	V R	200Ω " (R Drive)	1804		A76186-47Z	"	47μH
1820		" -022	V R	" " (G Drive)	1805		" -47	"	"
					1806		" -47	"	"
RESISTOR					DIODE				
R1501		QRV141F-1502AY	MF R	15kΩ ¼W F	D1001		MA4110(M)-Y	Zener Diode	
1503		" -1503AY	"	150kΩ ¼W "	1003		1SS133-Y	Si. Diode	
1524		QRG019J-181S	OM R	180Ω 1W J	1004		"	"	
1525		" -471S	"	470Ω " "	1005		"	"	
1551		" -471S	"	" " " "	1006		"	"	
1553		QRX029J-2R2A	MF R	2.2Ω 2W "	1007		"	"	
1554		" -3R3A	"	3.3Ω " "	1008		"	"	
1555		" -3R3A	"	" " " "	1009		MA4120(M)-Y	Zener Diode	
1562		" -3R3A	"	" " " "	1010		"	"	
1572	△	CJ39520-00Q	R Block		1011		"	"	
1804		QRG029J-103A	OM R	10kΩ " "	1012		"	"	
1805		" -103A	"	" " " "	1013		"	"	
1806		" -103A	"	" " " "	1014		"	"	
1862		QRZ0056-332Z	Comp. R.	3.3kΩ ½W K	1015		MA4150-Y	Zener Diode	
1864		ERZ-C05ZK271	Z N R		1016		1SS133-Y	Si. Diode	
CAPACITOR					1017		SLR-54VW5	LED	Video B
C1310		QAT3510-340M	V Cap.		1018		"	"	Video A
1320		" -340M	"		1019		"	"	VTR
1381		QCT25UJ-330	C Cap.	33pF 50V J	1020		"	"	RGB (AV)
1382		" -560	"	56pF " "	1021		"	"	Power
1383		" -330	"	33pF " "	1151		MA4110(M)-Y	Zener Diode	
1384		" -680	"	68pF " "	1152		"	"	
1403		QEM61HK-225MZ	E Cap.	2.2μF " K	1153		"	"	
1404		QFV81HJ-474M	TF Cap.	0.47μF " J	1154		1SS133-Y	Si. Diode	
1405		QEM51EK-475M	E Cap.	4.7μF 25V K	1155		"	"	
1406		QFV81HJ-334M	TF Cap.	0.33μF 50V J	1156		"	"	
1463		QFV71HJ-104MZ	TF Cap.	0.1μF " K	1157		"	"	
1508		QFP31HG-302S	PP Cap.	3000pF " G	1158		"	"	
1551	△	QFZ0081-5701S	MPP Cap.	5700pF 1600V ±3%	1159		"	"	
1553		QETB1VM-228	E Cap.	2200μF 35V M	1160		W06A-Z	"	
1556		QEN61HM-474Z	BP E Cap.	0.47μF 50V "	1161		1SS133-Y	"	
1557		QFV71HJ-104MZ	TF Cap.	0.1μF " J	1162		"	"	
1558		QFZ0067-434S	MPP Cap.	0.43μF 200V K	1163		W06A-Z	"	
1565		QET52CR-336	E Cap.	33μF 160V R	1164		1SS133-Y	"	
1861		QFH63BK-223M	MM Cap.	0.022μF 1250V K	1201		"	"	
1863		QET52ER-105	E Cap.	1μF 250V R	1202		"	"	
1864		QET52ER-475	"	4.7μF " "	1204		"	"	
1374		QEE51VK-105B	Tan. Cap.	1μF 35V K	1205		"	"	
1561		QET52ER-475	E Cap.	4.7μF 250V R	1231		SLR-54GG5	LED	NTSC
1652		QETB1CM-478	"	4700μF 16V M	1232		"	"	SECAM
TRANSFORMER					1233		"	"	P/S Auto
T1301		A75196-B	3.58BP Transf.		1235		1SS133-Y	Si. Diode	
1301P		A75325	B.P. Transf.		1237		"	"	
1301S		CE40357	Bell Transf.		1301		"	"	
1302A		CE40359	Ident Transf.		1302		"	"	
1302B		CE40564-001	"		1303		"	"	
1303		CE40563-002	DL P Transf.		1304		"	"	
1304		CE40358	Descri. Transf.		1305		"	"	
1305		"	"		1306		"	"	
1552		CE40361-00C	Drive Transf.		1307		"	"	
					1371		"	"	
					1372		MA4075(H)-Y	Zener Diode	
					1373		1SS133-Y	Si. Diode	

SYMBOL NO.	△	PART NO.	PART NAME	REMARKS	SYMBOL NO.	△	PART NO.	PART NAME	REMARKS
D1374		1SS133-Y	Si. Diode		Q1301		2SC1740(Q,R)-Y	Si. Transistor	
1376		"	"		1304		"	"	
1401		1SR35-100-Z	"		1305		"	"	
1402		1SS133-Y	"		1306		"	"	
1501		MA4039(H)-Y	Zener Diode		1307		"	"	
1503		1SS133-Y	Si. Diode		1371		2SC1815(Y,GR)L	"	
1504		"	"		1401		2SC1740(Q,R)-Y	"	
1506		"	"		1501		2SA1015(Y,GR)L	"	
1507		"	"		1502		2SC1627A	"	
1551		V19E-Z	"		1503		2SC1740(Q,R)-Y	"	
1553		RH-1B-Z	"		1504		2SA1015(Y,GR)L	"	
1554		V19E-Z	"		1505		2SC1740(Q,R)-Y	"	
1555		" -Z	"		1551	△	2SD1554	"	
1571		1SR35-100-Z	"		1801		2SC1360	"	
1572	△	MA4068(L)-Y	Zener Diode		1802		"	"	
1573		1SS133-Y	Si. Diode		1803		"	"	
1574		"	"		1804		2SC2068	"	
1861		RM2C	"		1805		"	"	
1881		1SS133-Y	"		1806		"	"	
1882		"	"						
1883		"	"						
TRANSISTOR					IC				
Q1001		2SC1740(Q,R)	Si. Transistor		IC 1001		TC4066BP	I.C.	
1002		2SA1015(Y,GR)	"		1002		"	"	
1003		2SC1740(Q,R)	"		1003		LA7016	"	
1004		"	"		1004		"	"	
1005		"	"		1151		AN6551	"	
1006		"	"		1152		AN5352	"	
1010		2SA1015(Y,GR)	"		1201		TA7698AP	"	
1011		"	"		1371		M51397AP	"	
1012		2SC1740(Q,R)	"		1401		AN5515	"	
1013		"	"		1651		AN5265	"	
1014		"	"						
1015		"	"		OTHERS				
1016		2SA1015(Y,GR)	"		DL1201	△	CE40228-00D	CRT Socket	
1017		2SC1740(Q,R)	"		1301		CE40267-001	Delay Line	
1018		"	"		FR1529	△	A76350	1H Delay Line	or CE40728-001
1019		2SC1959(Y)	"		1571	△	QRZ0054-100M	F R	10Ω ¼W J
1151		2SC1740(Q,R)	"		1831	△	" -4R7M	"	4.7Ω " "
1152		"	"		F1551	△	QRH127J-470M	"	47Ω ¼W "
1153		"	"		J4601	△	QMF51E2-1R25S	Fuse	1.25A
1154		2SA1015(Y,GR)	"		S1101		CEX40201-002	Jack	Earphone
1155		2SC1740(Q,R)-Y	"		1105		QST3821-C01	Push Switch	Service SW
1201		2SC1740(Q,R)-L	"		1151		QSS1A22-C01	Slide Switch	RGB Service SW
1203		2SA1015(Y,GR)-Y	"		1401		QSL4A13-C02	Lever Switch	Service SW
1204		"	"				" -C02	"	V. Center SW
1207		2SC1740(Q,R)-Y	"		X1301		CE40668-001	Crystal	
1208		"	"		1302		CE40749-001	"	
1209		"	"						

SX-9210A (POWER P.B. Ass'y)

SYMBOL NO.	△	PART NO.	PART NAME	REMARKS	SYMBOL NO.	△	PART NO.	PART NAME	REMARKS
VARIABLE RESISTOR					DIODE				
R9016		CEX40202-054	V R	50kΩ B (B1 Adj.)	D9001		TVR4N	Si. Diode	
RESISTOR					9002		"	"	
R9002		QRF153K-5R6	UNF R	5.6Ω 15W K	9003		"	"	
9003		QRM055K-1R0	MP R	1Ω 5W "	9004		"	"	
9007		QRF208K-181	UNF R	180Ω 20W "	9005		RGP10J	"	
9015	△	QRZ0057-685	C R	6.8MΩ 1W J	9007		RU4B	"	
9017		QRG039J-220	OM R	22Ω 3W "	9008		RGP10J	"	
CAPACITOR					9009		RU2-LFA1	"	
C9001	△	QFZ9017-473M	MM Cap.	0.047μF AC250V M	9010		RD12E(B)	Zener Diode	
9004	△	" -473M	"	" " "	IC				
9005		QCZ9011-472M	C Cap.	4700pF AC400V M	IC 9001		STK7358	I.C.	
9006		" -472M	"	" " "	OTHERS				
9007		" -472M	"	" " "					
9008		QEZ0084-227M	E Cap.	220μF 400V M					
9010		QCZ0115-152A	C Cap.	1500pF 2kV K					
9014		QFV81HJ-124M	TF Cap.	0.12μF 50V J					
9015		QCZ0115-151A	C Cap.	150pF 2kV K					
9016		QEN51HM-224	BP E Cap.	0.22μF 50V M					
9017		QEZ0090-477M	E Cap.	470μF 160V A					
9019	△	QCZ9012-222M	C Cap.	2200pF AC400V M					
9021		QEZ0091-107M	E Cap.	100μF 180V H					
9002,3	△	QCZ9012-102M	C Cap.	1000pF AC400V M					
9013,8		QEM51CK-107M	E Cap.	100μF 16V K					
9022		" -107M	"	" " "					
TRANSFORMER									
T9001	△	CE40839-00A	SW Transf.						
COIL									
L9001		CJ39509-015	Heter Choke						
9002		A76186-68	Peaking Coil	68μH					

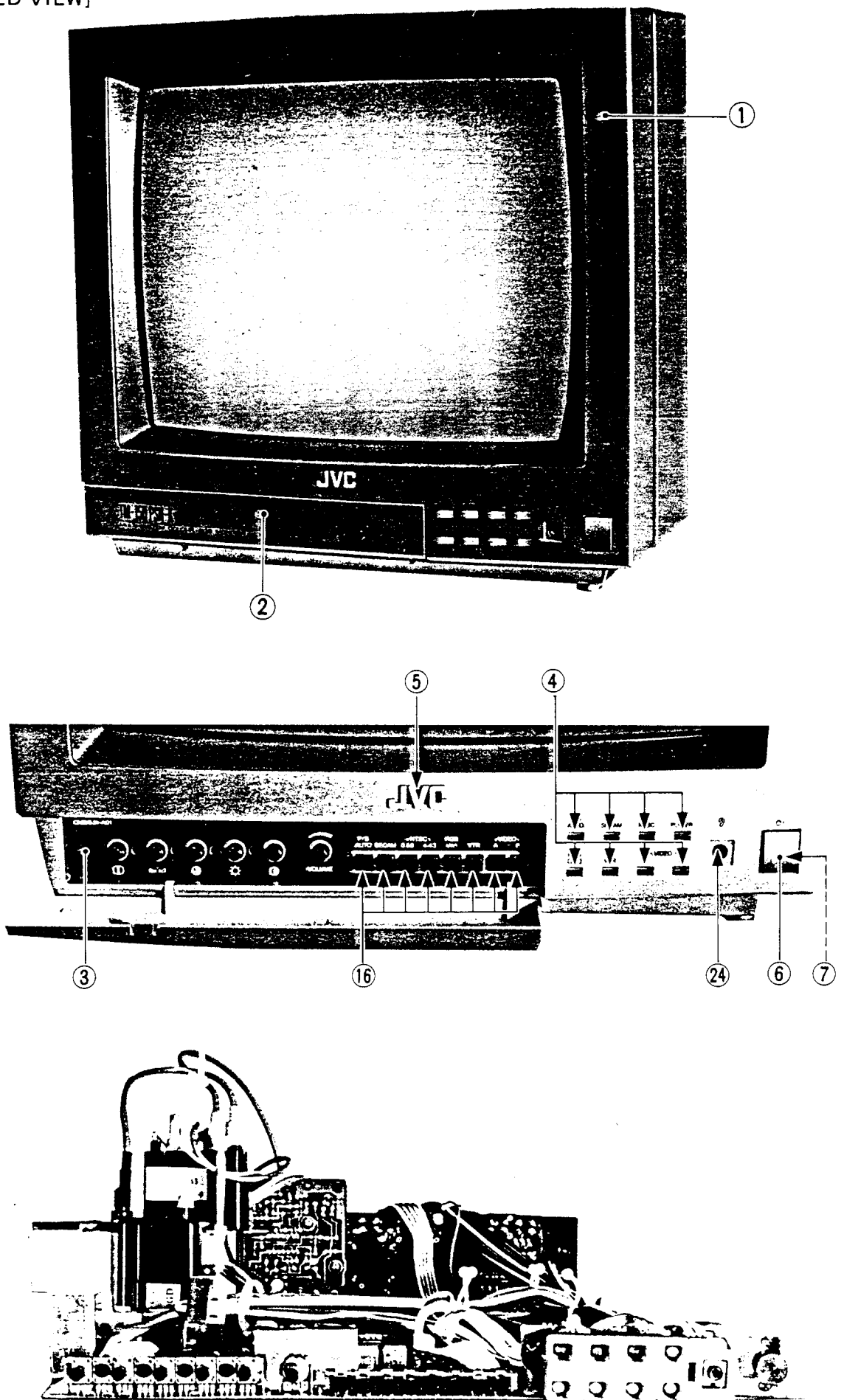
SX-4013A (H POSITION CONTROL P.B. Ass'y)

SYMBOL NO.	△	PART NO.	PART NAME	REMARKS	SYMBOL NO.	△	PART NO.	PART NAME	REMARKS
VARIABLE RESISTOR									
R4007		CEX40402-024	V R	20kΩ B (Sub H Pos)	D4004		1SS133-Y	Si. Diode	
4008		CEX40206-B14	"	10kΩ B (H Position)	4005		"	"	
					4006		"	"	
CAPACITOR					TRANSISTOR				
C4003		QFP31HG-102S	PP Cap.	1000pF 50V G	Q4001		2SC1740(Q,R)	Si. Transistor	
4006		" -102S	"	" " "	4002		2SA1015(Y,GR)	"	
DIODE					IC				
D4001		RD11E(B)	Zener Diode		IC 4001		TC4011BP	I.C.	
4002		1SS133-Y	Si. Diode						
4003		"	"						

CHASSIS AND CABINET PARTS LIST

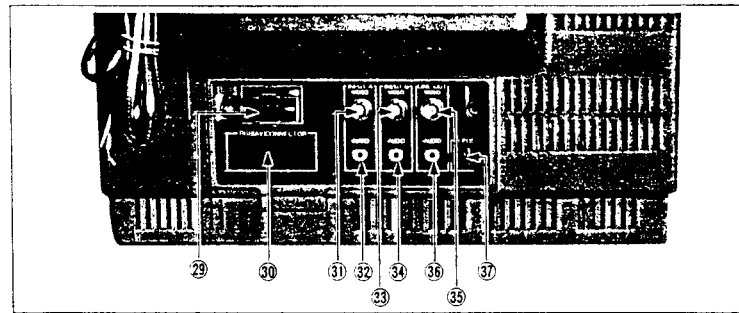
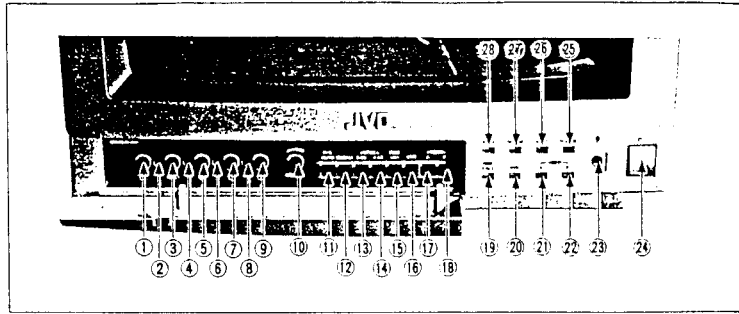
VIEW NO.	SYMBOL NO.	△	PART NO.	PART NAME	REMARK
1			CM10475-00B	Front Cabinet Ass'y	
2			CM20718-002	Door	Within Front Cabinet Ass'y
3			CM31531-001	Operation Sheet	"
4			CM43059-001	LED Holder	"
5			CM43094-001	JVC Mark	"
6			CM42998-001	Power Knob	"
7			CM30861-023	Spring	"
8	SP01		HSA0899-01D	Speaker	
9	V01	△	A36JFT60X-AC	Picture Tube	
10	L01	△	CJ30013-00D	Degaussing Coil	
11	DY01	△	CE20067-00B	Def. Yoke Ass'y	
12			CH41434-00B	Braided Ass'y	With Spring
13			CE40305-00B	PC Magnet	
14			CE40764-00A	Wedge Ass'y	(x3)
15	T1551	△	CJ26421-00C	HV Transf.	
16			CM41678-B01	Push Knob	(x8)
17			CM20719-00A	Terminal Ass'y	
18	SW01	△	QSP4D21-C04	Power Switch	
19			A46445	Focus Cover	(x2)
20			CM10419-002-M0	Rear Cover	
21			GBSA4016N	Tap Screw	(x8)
22			CM20162-B16(R)	Rating Label	
23		△	QMP5138-200R	Power Cord	
24			CEX40201-002	Earphone Jack	
25			A27425-3V0	Cord Clamp	

[EXPLODED VIEW]



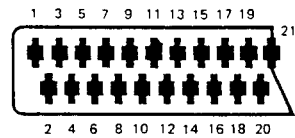
FUNCTIONS

- ① V. HOLD
- ② SUB TINT
- ③ TINT
- ④ SUB COLOUR
- ⑤ COLOUR
- ⑥ SUB BRIGHTNESS
- ⑦ BRIGHTNESS
- ⑧ SUB CONTRAST
- ⑨ CONTRAST
- ⑩ VOLUME
- ⑪ P/S AUTO SWITCH
- ⑫ SECAM SWITCH
- ⑬ NTSC (3.58) SWITCH
- ⑭ NTSC (4.43) SWITCH
- ⑮ RGB (AV) SWITCH
- ⑯ VTR SWITCH
- ⑰ VIDEO A SWITCH
- ⑱ VIDEO B SWITCH
- ⑲ RGB (AV) INDICATOR
- ⑳ VTR INDICATOR
- ㉑ VIDEO A INDICATOR
- ㉒ VIDEO B INDICATOR
- ㉓ EARPHONE JACK
- ㉔ POWER SWITCH
- ㉕ POWER INDICATOR
- ㉖ NTSC INDICATOR
- ㉗ SECAM INDICATOR
- ㉘ P/S AUTO INDICATOR

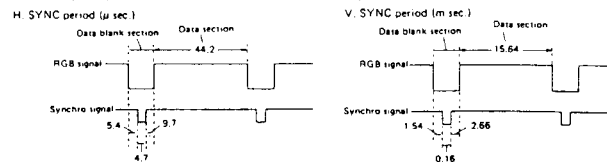


- ⑳ VTR CONNECTOR
- ㉑ RGB (AV) CONNECTOR
- ㉒ INPUT A (VIDEO)
- ㉓ INPUT B (VIDEO)
- ㉔ LINE OUT (VIDEO)
- ㉕ LINE OUT (AUDIO)
- ㉖ INPUT A (AUDIO)
- ㉗ INPUT B (AUDIO)
- ㉘ H. POSITION CONTROL

■ RGB (AV) Connector

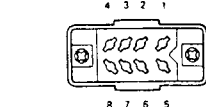


■ RGB (AV) connector recommended input signal

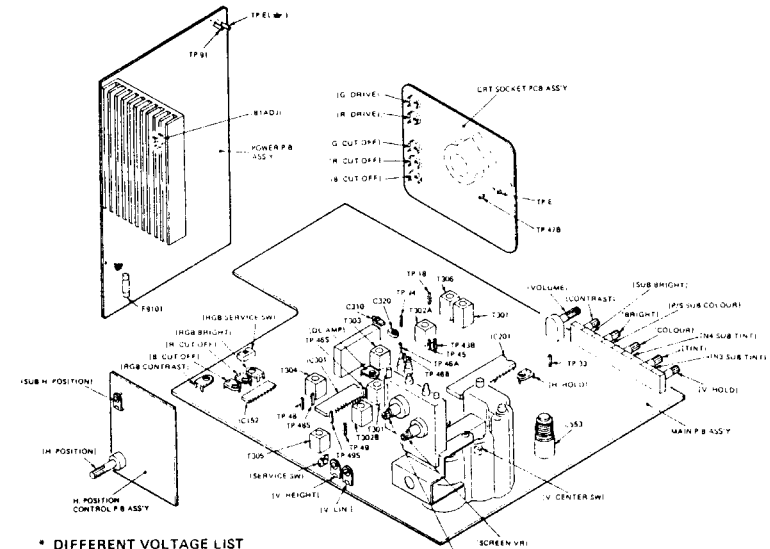


DESIGNATION	PIN NO.	DESIGNATION	PIN NO.
AUDIO OUT (500mVrms Low Impedance)	1, 3	RED IN (700mVp-p, 75Ω)	15
AUDIO IN (500mVrms High Impedance)	2, 6	GROUND for RED	13
GROUND for AUDIO	4	GREEN IN (700mVp-p, 75Ω)	11
VIDEO OUT (1Vp-p 75Ω)	19	GROUND for GREEN	9
VIDEO IN (1Vp-p 75Ω)	20	BLUE IN (700mVp-p, 75Ω)	7
GROUND for VIDEO	17	GROUND for BLUE	5
SLOW SW L(0~2V)-INTERNAL H(9.5~12V)-ACTIVE	8	FAST SW L(0~0.4V)-INTERNAL H(1~3V)-ACTIVE	16
NO CONNECTION	10, 12, 14	GROUND for SW	18
		GROUND for SCREEN	21

■ VTR Connector



DESIGNATION	PIN NO.
AUDIO IN	1
VIDEO IN	2
GROUND (VIDEO OUT)	3
VIDEO OUT	4
GROUND (AUDIO IN)	5
" (VIDEO IN)	6
" (AUDIO OUT)	7
AUDIO OUT	8



* DIFFERENT VOLTAGE LIST

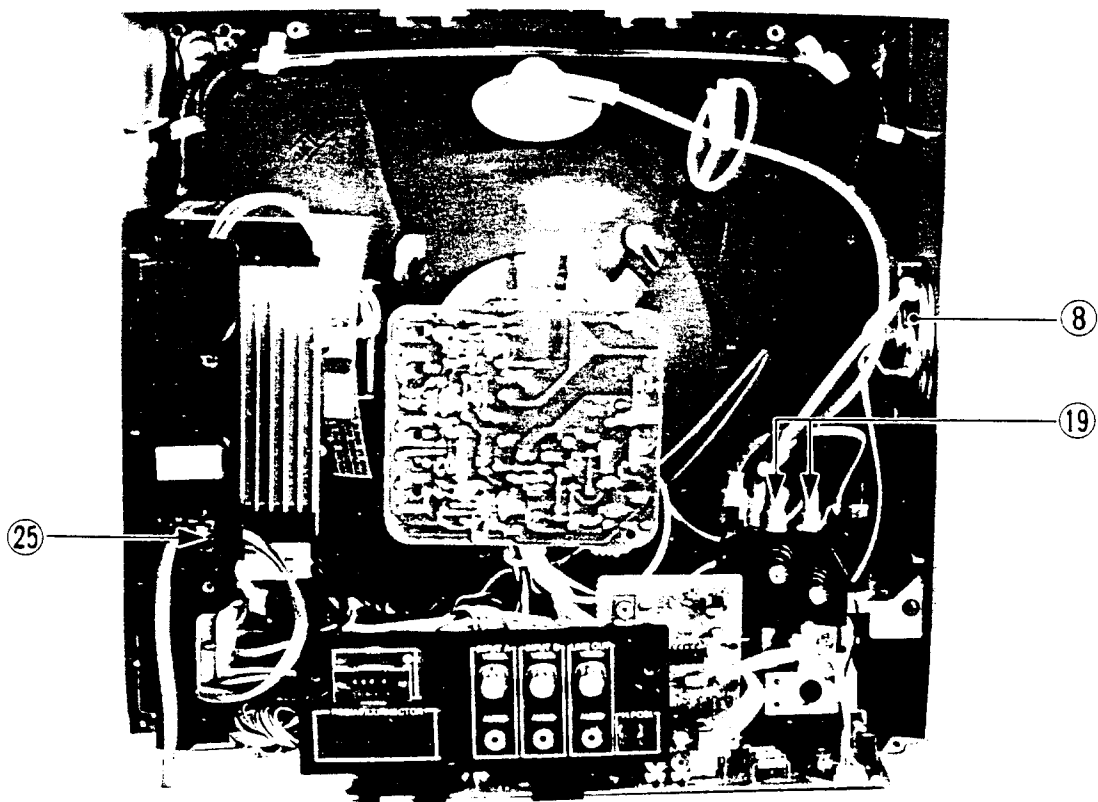
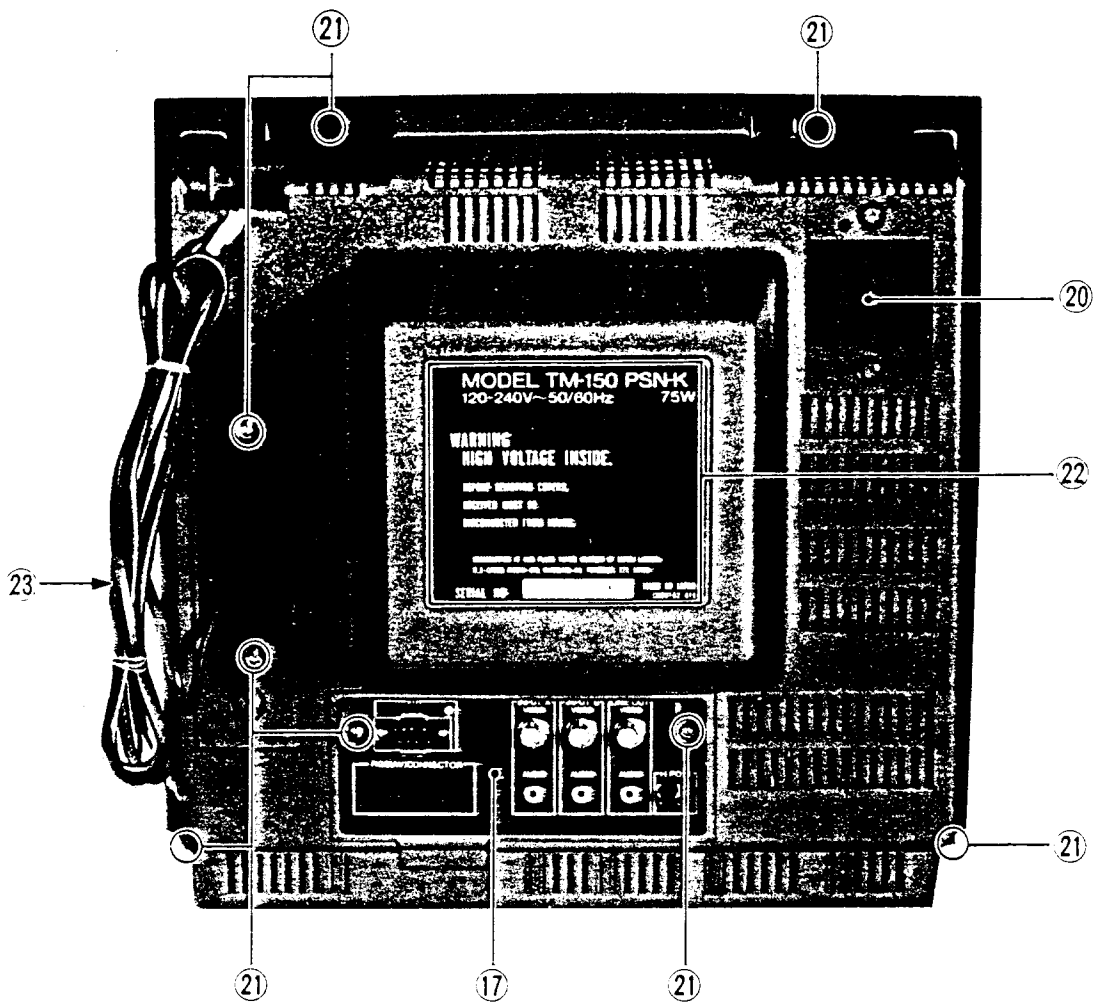
MAIN P.B. ASSY

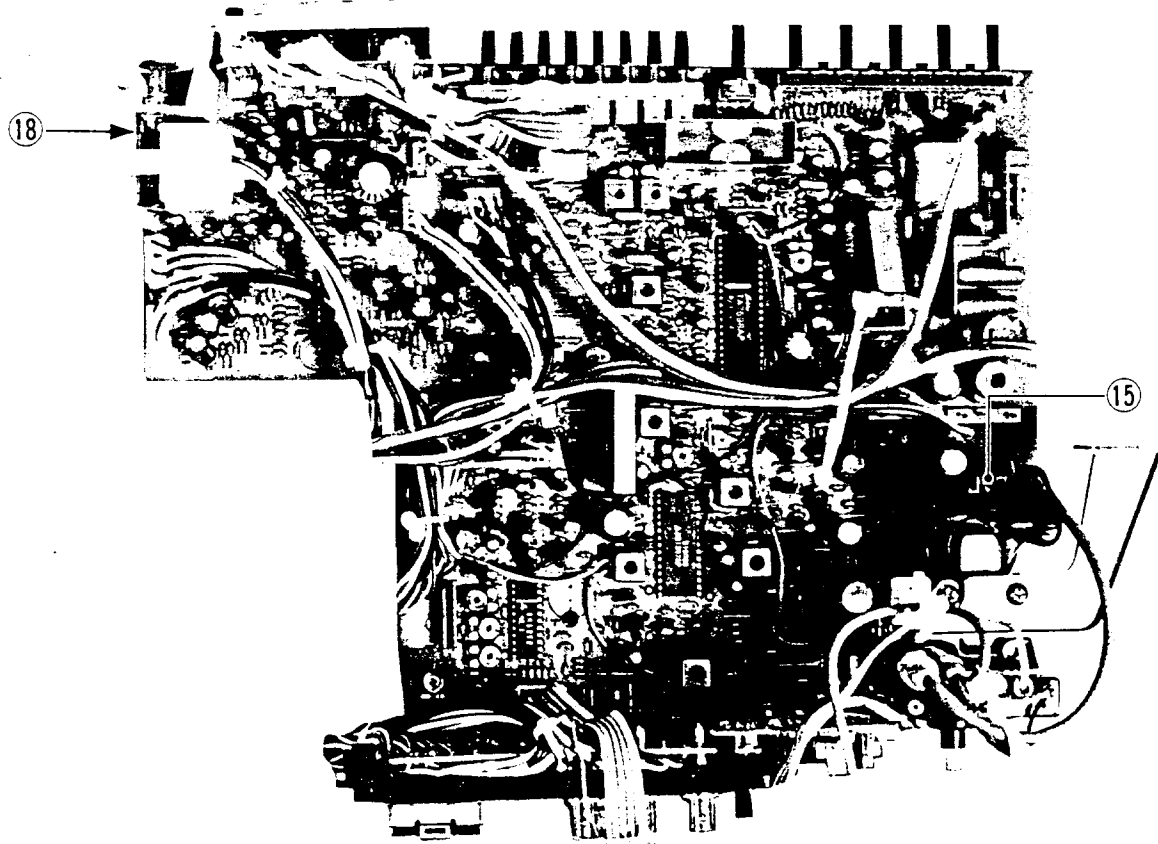
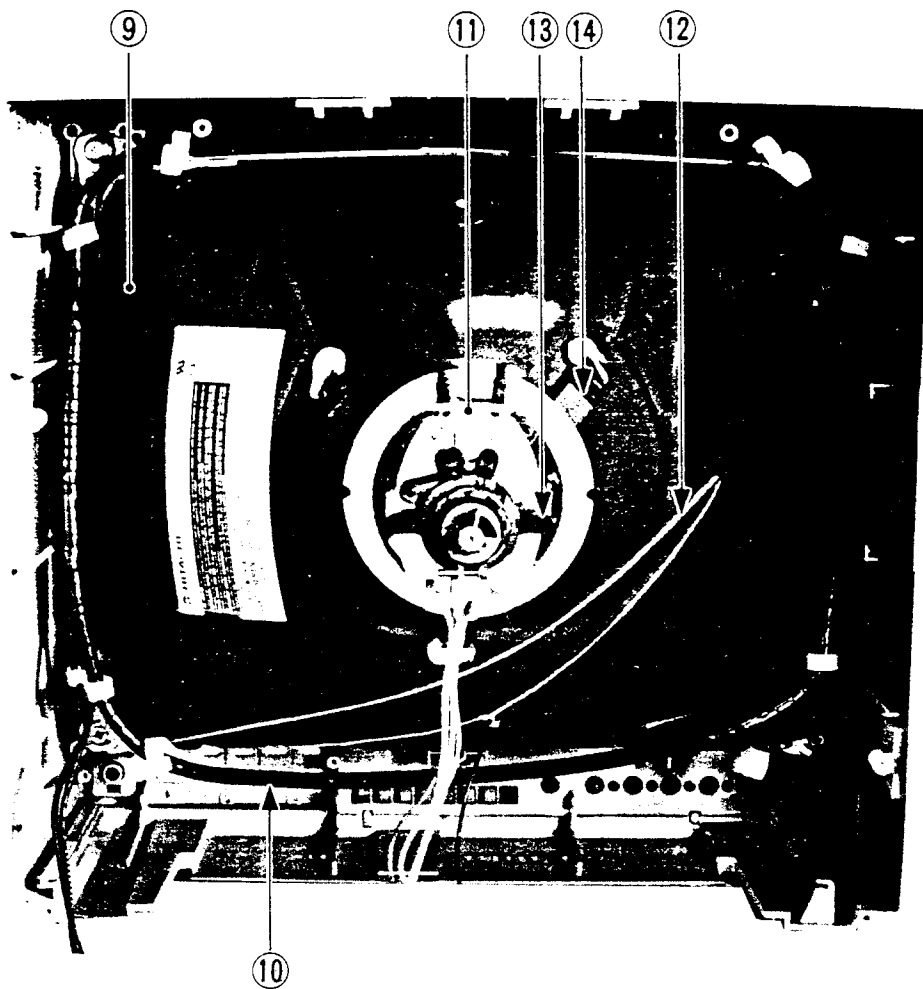
IC No.	IC001	IC002	IC003	IC004	IC152
System SW Position	5	6	13	3	3
VIDEO A	0	0	12	0	0
VIDEO B	12	0	0	12	0
VTR	0	12	0	0	12
RGB (AV)	0	0	0	0	0

IC No.	IC201	IC371
System SW Position	5	6
PAL	9.6	5.2
SECAM	9.9	5.2
NTSC (4.43)	9.6	5.2
NTSC (3.58)	9.6	5.2

Tr. Symbol	Q154	Q201	Q301	Q304	Q305
System SW Position	B	C	E	B	C
PAL	0	0.7	0	0.7	0
SECAM	0	0.7	0	0.7	0
NTSC (4.43)	0.7	0	0	0.7	0
NTSC (3.58)	0.7	0	0	0.7	0

Tr. Symbol	Q306	Q307	Q371	Q401	Q505
System SW Position	B	C	E	B	C
PAL	0	0	0	0.6	0
SECAM	0.7	0	0	0.6	0
NTSC (4.43)	0	0	0	0.6	0
NTSC (3.58)	0	0	0	0.6	0





SAFETY PRECAUTION

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.

For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

2. Alterations of the design or circuitry of receiver should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in television sets have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (Δ) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list in Service manual may create shock, fire, or other hazards.
4. The chassis and any sub-chassis contained in this product are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on this product when the HOT chassis is exposed.
5. If any repair has been made to the chassis, it is recommended that the B_1 setting should be checked or adjusted (See ADJUSTMENT OF B_1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10k Ω 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate

evidence of overheating should be replaced. Always use the manufacturer's replacement components.

9. ISOLATION CHECK

(SAFETY FOR ELECTRICAL SHOCK HAZARD)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, channel selector knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) DIELECTRIC STRENGTH TEST

The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3,000V AC (r.m.s.) for a period of one second.

... withstand a voltage of 1,100V AC (r.m.s.) to an appliance rated up to 120V, and 3,000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.

This method of test requires a test equipment not generally found in the service trade.

(2) LEAKAGE CURRENT CHECK

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.) Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

• ALTERNATE CHECK METHOD

Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.).

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

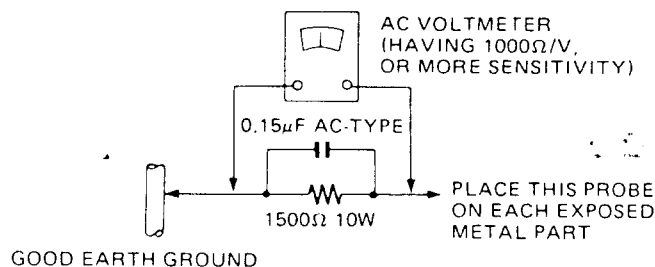


Fig. A

SERVICE ADJUSTMENTS

1) PICTURE TUBE

The picture tube is a precision in-line gun type. For this picture tube, dynamic convergence is carried out by a precision deflection yoke which eliminated the use of convergence yoke and convergence circuit. The adjustment of picture tube is therefore made easier as only the adjustment of static convergence by using a magnetic is enough. The deflection yoke and purity/convergence magnets assembly has been set at the factory and requires no field adjustments.

However, should the assembly be accidentally jarred or tampered with, some or all adjustments may be necessary.

2) COLOUR PURITY & VERTICAL CENTRE

Loosen yoke retaining clamp (Fig. B-1). With a sharp knife cut between the picture tube and the bond. Remove wedges completely and clean off dried adhesive from the picture tube. PAINT is used to lock the tabs of the purity/convergence magnet assembly in place (Fig. B-1). The paint must be removed with the end of a screwdriver before any adjustments are attempted.

1. Select no signal UHF channel.
2. Let the purity tabs come in line horizontally as is shown in Fig. B-3. A long tab should be in the same direction as the other short tab.
3. Move the yoke slowly to backward.
4. Turn the green cut-off control to maximum and the red and blue cut-off controls to minimum. Then adjust the screen control so that the green band can be seen best. (Fig. B-2, 4).
5. Rotate the two tabs in the opposite directions and with them kept at an angle, together in either direction so that the green band is centered on the picture tube.
6. Check the vertical center position by displaying a horizontal line. Unless correct, bring it to the center by rotating the two tabs, kept at an angle, together in either direction. (Fig. B-5, 6).
7. Repeat steps 5 and 6 alternately until the green band and the vertical centre come to the centre.
8. Move the yoke slowly towards the bell of the tube so that the whole surface of the picture tube is filled with a green pure raster.
9. Turning red or blue cut-off control to maximum and green cut-off control to minimum, make sure of a red or blue pure raster.
10. Secure yoke retaining clamp (do not install wedges at this time).

(As to models equipped with a magnet locking ring, secure it and keep six magnets from moving even if it is touched slightly.)

NOTE:

The locations of adjustment parts in Fig. B-1, B-2 and B-6 are given for a sample. They differ according to a set. In such a case, use them while checking it with the set to repair. Use the "Alignment Location" in the Schematic Diagram together.

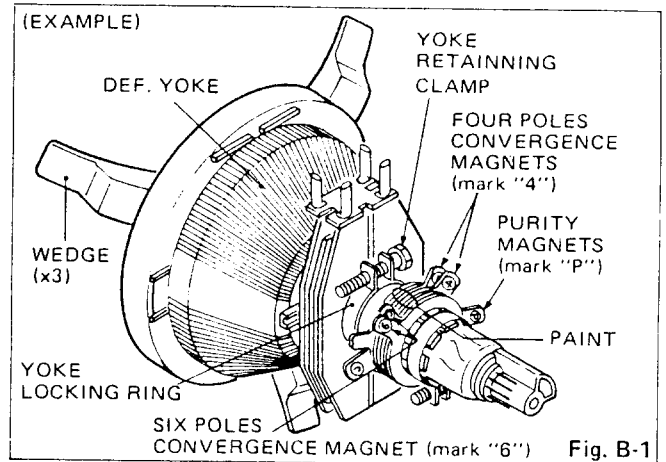


Fig. B-1

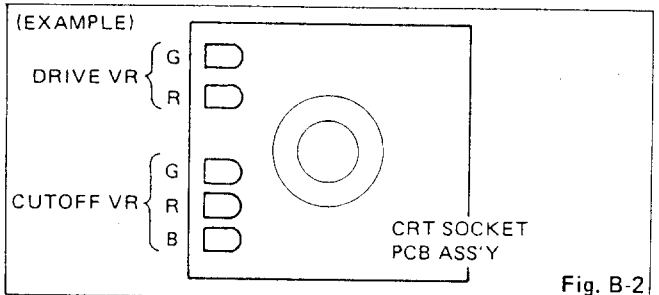


Fig. B-2

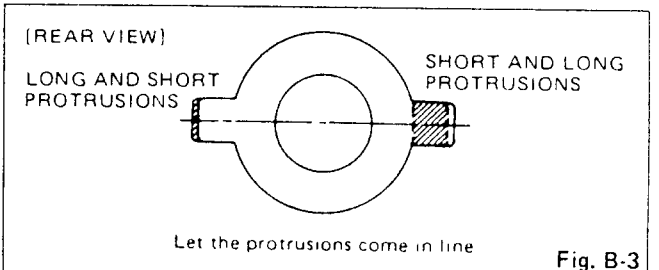


Fig. B-3

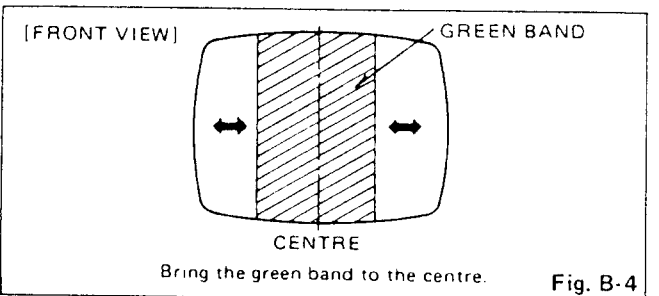


Fig. B-4

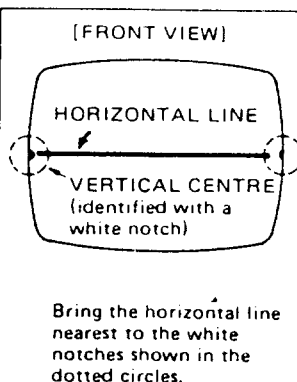


Fig. B-5

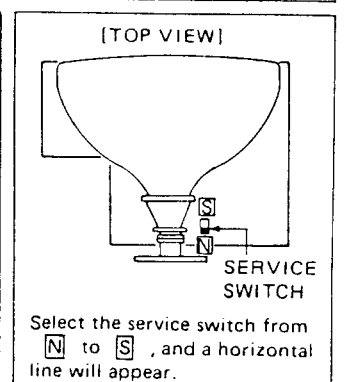


Fig. B-6

3) STATIC CONVERGENCE & DYNAMIC CONVERGENCE

1. Connect a crosshatch generator to the antenna terminals and adjust BRIGHTNESS and CONTRAST control for a distinct pattern.
2. Adjust the convergence around the edges of the picture tube by tilting the yoke, up-down and left-right, and temporarily install one wedge at the top of the yoke. (Fig. B-9, 10, 11).
3. Rotate the front pair of tabs as a unit to minimize the separation of the red and blue lines around the center of the screen. Variation of the angle between the tabs adjust the convergence of red and blue. (Fig. B-7)
4. Rotate the rear pair of tabs as a unit to minimize the separation of the magenta (R/B) and green lines. (Fig. B-8)
5. Adjust the spacing of the rear tabs to converge the magenta and green lines.
6. Apply paint to fix 6 magnets.
7. Remove the wedge installed temporarily on the yoke.
8. Tilting the angle of the yoke up, down and sideways, and adjust the yoke so as to obtain the circumference convergence. (Fig. B-10, 11)
9. Insert three wedges to the position as shown in Fig. B-12 to obtain the best circumference convergence.
10. Wedge has a backing of both faces adhesive tape. Therefore, tearing off one side of adhesive tape, and fix the wedges.
11. White balance adjustment (Black & White tracking) can now be performed.

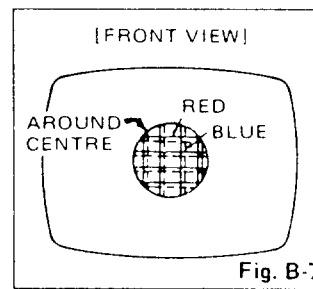


Fig. B-7

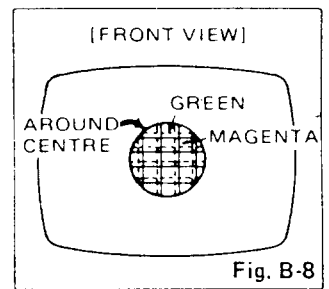


Fig. B-8

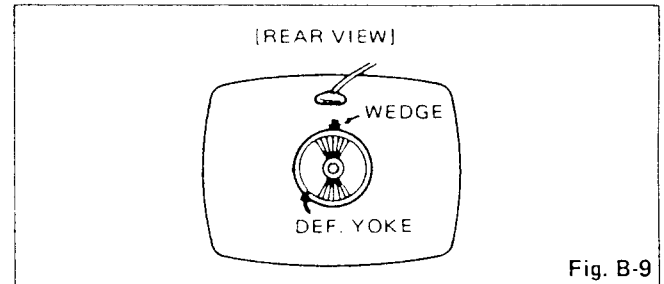


Fig. B-9

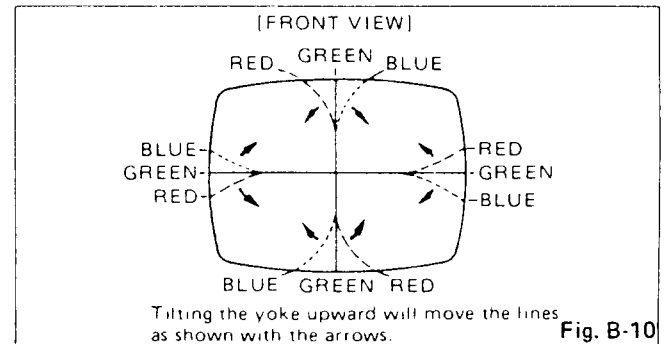


Fig. B-10

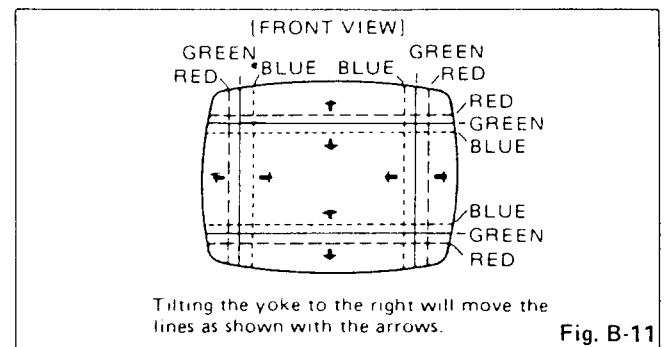


Fig. B-11

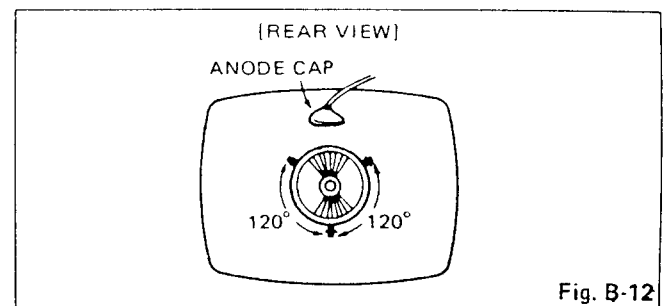


Fig. B-12

4) WHITE BALANCE ADJUSTMENT (Black and White Tracking)

1. Display a monochrome pattern.
2. Set the red and green drive controls for their mechanical center (Fig. B-2).
3. Turn the red, green and blue cut off controls and the screen control fully counterclockwise.
4. Display a horizontal line. (Refer to "HORIZONTAL LINE" or Fig. B-6)
5. Turn screen control slowly clockwise until a very faint horizontal line appears.
6. Turn the cut off control of the color which has appeared first, clockwise by about 10° and then adjust the screen control again so that the color may shine faintly.
7. Turn the other color cut off controls slowly clockwise until a reasonable white line appears.
8. Return the monochrome pattern. (Refer to "HORIZONTAL LINE" or Fig. B-6)
9. Adjust the red and green drive controls for best white highlights.

* Some item of adjustment method is not applicable to some model.

In such a case omit the item.

* Use the undermentioned adjustment methods after repair or for readjustment of misadjustment.

* Adjustments except the following description are mentioned in the service manual text.

* The locations of the under mentioned adjustment parts are described in the "Alignment Location" of the Schematic Diagram.

* Test point pins are not indicated in the printed circuit board, but in the Schematic Diagram under certain circumstances. In this case, look for test points, which are indicated in the Schematic Diagram, on the printed circuit board; and use it for test points even if there are not test point pins.

POWER SUPPLY

* The earth is hot or cold.

Use a suitable earth by checking whether hot or cold in each schematic diagram.

■ DC 12V VOLTAGE

Adjust the 12V ADJ. VR to obtain DC 12V between TP-99 and earth.

■ B₁ VOLTAGE

Confirm that B₁ voltage exists between TP-91 and earth.

NOISE (RF A.G.C. Delay)

This control is set at the factory and rarely requires any adjustment. If a snowy picture appears on a medium to weak station, adjust the NOISE VR.

1. Turn NOISE VR fully counter-clockwise (or clockwise), maximum noise in picture.
2. Slowly turn NOISE VR clockwise (or counter-clockwise) until snow or noise in picture just disappears.

Note: Check operation on strong channels. If overloading occurs (bending, poor colour, loss of colour sync. etc.) make compromise adjustment.

FOCUS

Adjust FOCUS VR for best overall definition and picture detail at normal brightness and contrast.

VERTICAL HEIGHT

Adjust the V. HEIGHT VR to obtain the optimum size of vertical height.

VERTICAL CENTER

Centering is completed at the factory, although it may become distorted when CRT is changed.

In such case, adjusting the VERTICAL CENTER moves the picture up or down.

VERTICAL LINEARITY & HEIGHT

1. Set a colour bar generator to crosshatch or a pattern with which symmetry can be checked.
2. Reduce the vertical size with the VERTICAL HEIGHT VR.
3. Adjust the vertical symmetry with the VERTICAL LINEARITY VR.
4. Readjust the VERTICAL HEIGHT VR so that the picture extends to normal size.

HORIZONTAL OSCILLATOR

1. Set the H. HOLD VR to the mechanical centre position.
2. Short TP-33 and  with a jump wire.
3. Adjust H. HOLD VR until picture is in view and locks or drift slowly back and forth.
4. Remove the jump wire.
5. Make sure that the set maintains horizontal sync. When channels are switched.

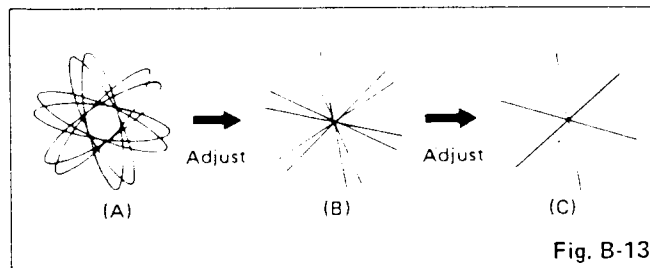
SUB BRIGHTNESS

1. Set the BRIGHT and CONTRAST VR knobs to central position respectively.
2. Adjust the SUB BRIGHT VR to obtain the optimum brightness.

CHROMA CIRCUIT

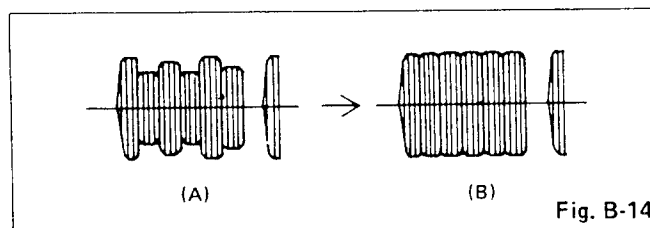
■ PAL (With SECAM circuit)

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to TP-43B.
3. Adjust IDENT TRANSF. (T302A) for the maximize waveform (Burst signal).
4. Set the oscilloscope at the X-Y mode and connect channel 1 (X axis) to TP-49 and channel 2 (Y axis) to TP-48 respectively.
5. Short TP-46A and TP-46B with a jump wire.
6. Supply bias to TP-45 through 10 k Ω resistor from 12V DC.
7. Adjust DL AMP. VR so that the figure becomes (B) from (A).
8. Adjust DL P. TRNASF. (T303) so that the figure becomes (C) from (B).
9. While observing the screen, adjust colour synchronization by manipulating the C320 (4.43 MHz OSC).



■ SECAM

1. Receive a SECAM colour bar signal.
2. Connect an oscilloscope to TP-40.
3. Adjust BELL TRANSF. (T301S) for flat waveform as shown in Fig. B-14-(B).
4. Connect a digital voltmeter to TP-46S.
5. Adjust DENT TRANSF. (T302B) for the maximum DC voltage.
6. Adjust DISCRI. TRANSF. (T304) and DISCRI TRANSF. (T305) until colours are eliminated from the black-and-white sections of the colour bars.



■ NTSC (COLOUR SYNCHRONIZATION)

1. Receive a NTSC (3.58 MHz) colour bar signal.
2. Short TP-46A and TP-46B with a jump wire.
3. Supply bias to TP-45 through 10k Ω resistor from 12V DC.
4. While observing the screen, adjust colour synchronization by manipulating the C310 (3.58 MHz OSC).

SUB TINT (NTSC)

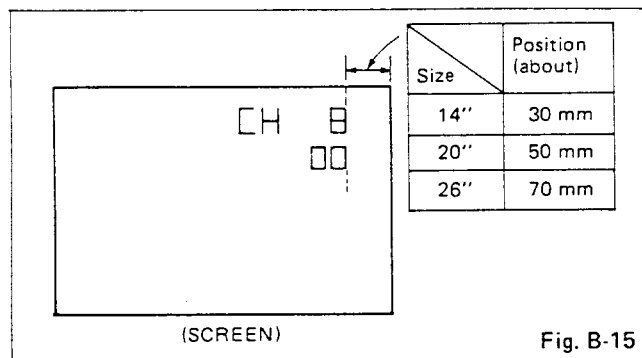
1. Receive a NTSC colour signal (4.43 MHz/3.58 MHz).
2. Set the TINT VR knob to the central position.
3. Adjust the SUB TINT VR (4.43 MHz/3.58 MHz) until natural tint is obtained.

P/N SUB COLOUR

1. Receive a SECAM colour signal.
2. Adjust the COLOUR VR knob to obtain natural colour density.
3. Receive a PAL colour signal.
4. Adjust the P/N SUB COLOUR VR until natural colour density is obtained.

ON SCREEN

1. Display characters on the screen.
2. Adjust the character positions as shown in the figure by manipulating the CLK VR (on screen adjustment VR).
3. Confirm that characters on the screen are positioned at approximately the same locations on other channels.



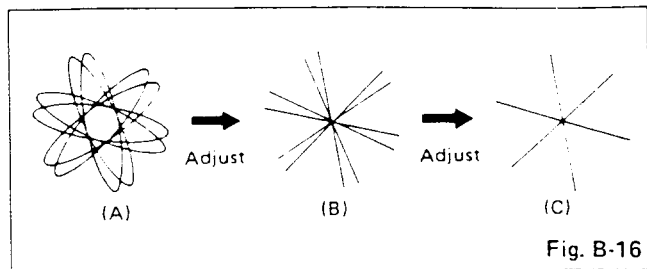
HORIZONTAL WIDTH

Adjust H.WIDTH control coil by turning it with a hexagonal adjusting bar only if RIGHT and LEFT sides of pictures can't be seen.

CHROMA CIRCUIT

■ PAL (Without SECAM circuit)

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to TP-43B.
3. Adjust IDENT TRANSF. (T302A) for the maximize waveform (Burst signal).
4. Set the oscilloscope at the X-Y mode and connect channel 1 (X axis) to pin ②② of IC201 and channel 2 (Y axis) to pin ②① of IC201 respectively.
5. Short TP-46A and TP-46B with a jump wire.
6. Supply bias to TP-45 through 10k Ω resistor from 12V DC.
7. Adjust DL AMP. VR (R339) so that the figure becomes (B) from (A).
8. Adjust DL P. TRANSF. (T303) so that the figure becomes (C) from (B).
9. While observing the screen, adjust colour synchronization by manipulating the C320 (4.43 MHz OSC).



HORIZONTAL LINE

● CUT-OFF SERVICE SWITCH

Select the CUT-OFF SERVICE SWITCH from N to S and a HORIZONTAL LINE will appear.

When returning a monochrome pattern select the CUT-OFF SERVICE SWITCH from S to N and a monochrome pattern will appear.

● CUT-OFF SERVICE TIP

Reconnect the CUT-OFF SERVICE TIP from N to S and a HORIZONTAL LINE will appear.

When returning a monochrome pattern reconnect the CUT-OFF SERVICE TIP from S to N and a monochrome pattern will appear.

■ Adjustment of V. IF CIRCUIT

1. Connect a colour bar generator to antenna terminal. (When the signal is too strong, use the attenuator.)
2. Connect DC voltmeter (or tester) between AGC terminal of E. Tuner and earth.
3. Rotate "Noise" VR so that RF. AGC voltage becomes DC 4.5 V $\pm$ 1 V.
4. Adjust CW transformer so that the indicator becomes to minimum.
5. Confirm the adjustment of "Noise" VR.

■ Adjustment of RF. AFC

1. Connect a colour bar generator to antenna terminal.
2. Adjust AFC TRANSF. so that the voltage of TP-16 becomes DC 7.0 V $\pm$ 0.5 V.
(Conform to swing between about 9V and 4V previously.)

■ Adjustment of S. IF CIRCUIT

1. Tune in a local station preferably a program with the continuous audio.
2. Adjust TAKE OFF TRANSF. (T601) and S. IF TRANSF. (T602) so that the sound becomes to maximum without distortion.

REPLACEMENT PARTS LIST INFORMATION

PRODUCT SAFETY NOTE

Components identified by the Δ symbol in the PARTS LIST and the shaded areas on the Schematic have special characteristics important to safety. Before replacing any of these components, read carefully the SAFETY PRECAUTION on Page A(E) of this Service Manual. DO NOT degrade the safety of the set through improper servicing.

1. ABBREVIATED WORDS OF RESISTORS AND CAPACITORS

RESISTORS

CR : Carbon Resistor
Comp. R : Composition Resistor
OM R : Oxide Metal Film Resistor
VR : Variable Resistor
MF R : Metal Film Resistor

FR : Fusible Resistor
UNF R : Unflammable Resistor

CAPACITORS

C Cap. : Ceramic Capacitor
M Cap. : Mylar Capacitor
E Cap. : Electrolytic Capacitor

BP E Cap. : Bi-Polar (or Non-Polar) Electrolytic Capacitor
MM Cap. : Metalized Mylar Capacitor
PP Cap. : Polypropylene Capacitor
MPP Cap. : Metalized PP Capacitor
PS Cap. : Polystyrol Capacitor
Tan. Cap. : Tantalum Capacitor

2. FOLLOWING RESISTORS AND CAPACITORS OF STANDARD ELECTRICAL COMPONENTS ARE OMITTED FROM THIS PARTS LIST. EACH PART NUMBER OF THESE STANDARD REPLACEMENT COMPONENTS IS DEFINED AS FOLLOWS.

Carbon Resistor (C R): Lead form ()

Rating	Part No.
$\frac{1}{4}W$	Q R D 1 4 1 J - □ □ □ CR ———— $\frac{1}{4}W$ ———— Tolerance Lead form Constant term
$\frac{1}{2}W$	Q R D 1 2 1 J - □ □ □
$\frac{1}{2}W$	Q R D 1 6 1 J - □ □ □

Ceramic Capacitor (C Cap.): Lead form ()

Withstand Voltage	Parts No.
50V	Q C S 1 1 H J - □ □ □ C Cap. ———— 50V ———— Lead form Tolerance Constant term
500V	Q C S 1 2 H J - □ □ □

Composition Resistor (Comp. R): Lead form ()

Rating	Part No.
$\frac{1}{2}W$	Q R C 1 2 1 K - □ □ □ Comp. R ———— $\frac{1}{2}W$ ———— Tolerance Lead form Constant term

Electrolytic Capacitor (E Cap.): Lead form ()

Withstand Voltage	Parts No.
6.3V	Q E T 4 0 J R - □ □ □ E Cap. ———— 6.3V ———— Lead form Tolerance Constant term
10V	Q E T 4 1 A R - □ □ □
16V	Q E T 4 1 C R - □ □ □
25V	Q E T 4 1 E R - □ □ □
50V	Q E T 4 1 H R - □ □ □

Mylar Capacitor (M Cap.): Lead form ()

Withstand Voltage	Part No.
50V	Q F M 4 1 H K - □ □ □ M Cap. ———— 50V ———— Lead form Tolerance Constant term
100V	Q F M 4 2 A K - □ □ □
200V	Q F M 4 2 D M - □ □ □

3. DECODING OF TOLERANCE AND CONSTANT TERM

TOLERANCE

J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$ N: $\pm 30\%$ H: $\begin{smallmatrix} +50\% \\ -10\% \end{smallmatrix}$ Z: $\begin{smallmatrix} +80\% \\ -20\% \end{smallmatrix}$ P: $\begin{smallmatrix} +100\% \\ -0\% \end{smallmatrix}$ R: $\begin{smallmatrix} +30\% \\ -10\% \end{smallmatrix}$ F: $\pm 1\%$

CONSTANT TERM

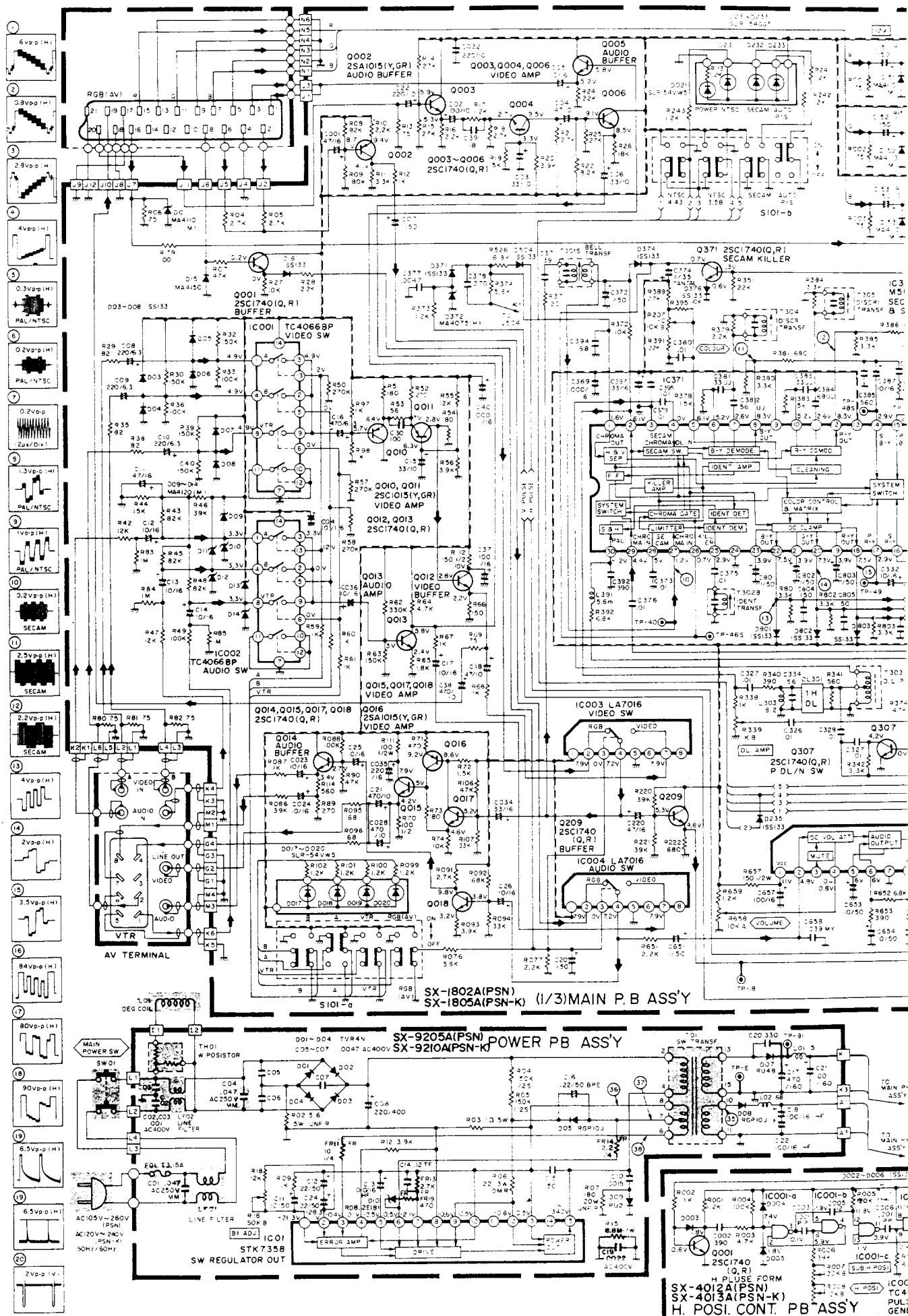
• Carbon Resistor ($\frac{1}{4}W$, $\pm 5\%$ Tolerance)

Q R D 1 4 1 J - □ □ □
CONSTANT TERM.
- □ □ □
↑ ↑ ↑
1 R 0 $\rightarrow 1.0\Omega$ 47k Ω $\rightarrow 47 \times 10^3 \rightarrow$ Q R D 1 4 1 J - 2 R 7
⋮
9 R 7 $\rightarrow 9.7\Omega$

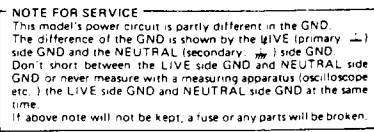
1 0 □ $\rightarrow 10\Omega$ means $10 \times 10^0 (\Omega)$
⋮
8 2 □ $\rightarrow 82\Omega$ means $82 \times 10^0 (\Omega)$

• Ceramic Capacitor (50 Volts, $\pm 5\%$ Tolerance)

Q C S 1 1 H J - □ □ □
CONSTANT TERM.
- □ □ □
↑ ↑ ↑
1 R 0 $\rightarrow 1.0pF$ 5pF $\rightarrow$ Q C S 1 1 H J - 5 R 0
⋮
8 R 0 $\rightarrow 8.0pF$ 680pF $\rightarrow 68 \times 10^1 \rightarrow$ Q C S 1 1 H J - 6 8 1
⋮
8 8 □ $\rightarrow 88\Omega$ means $88 \times 10^0 (pF)$

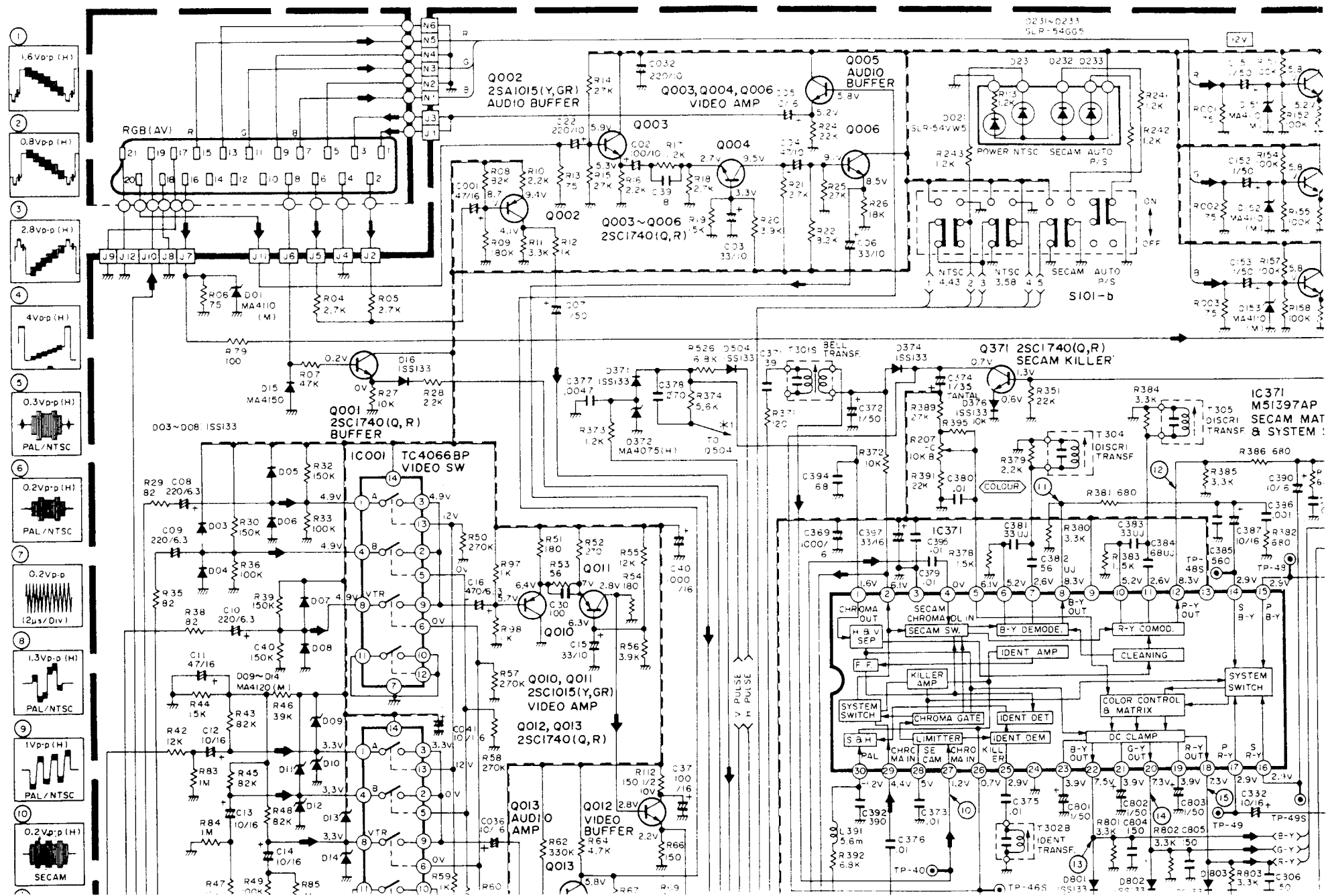




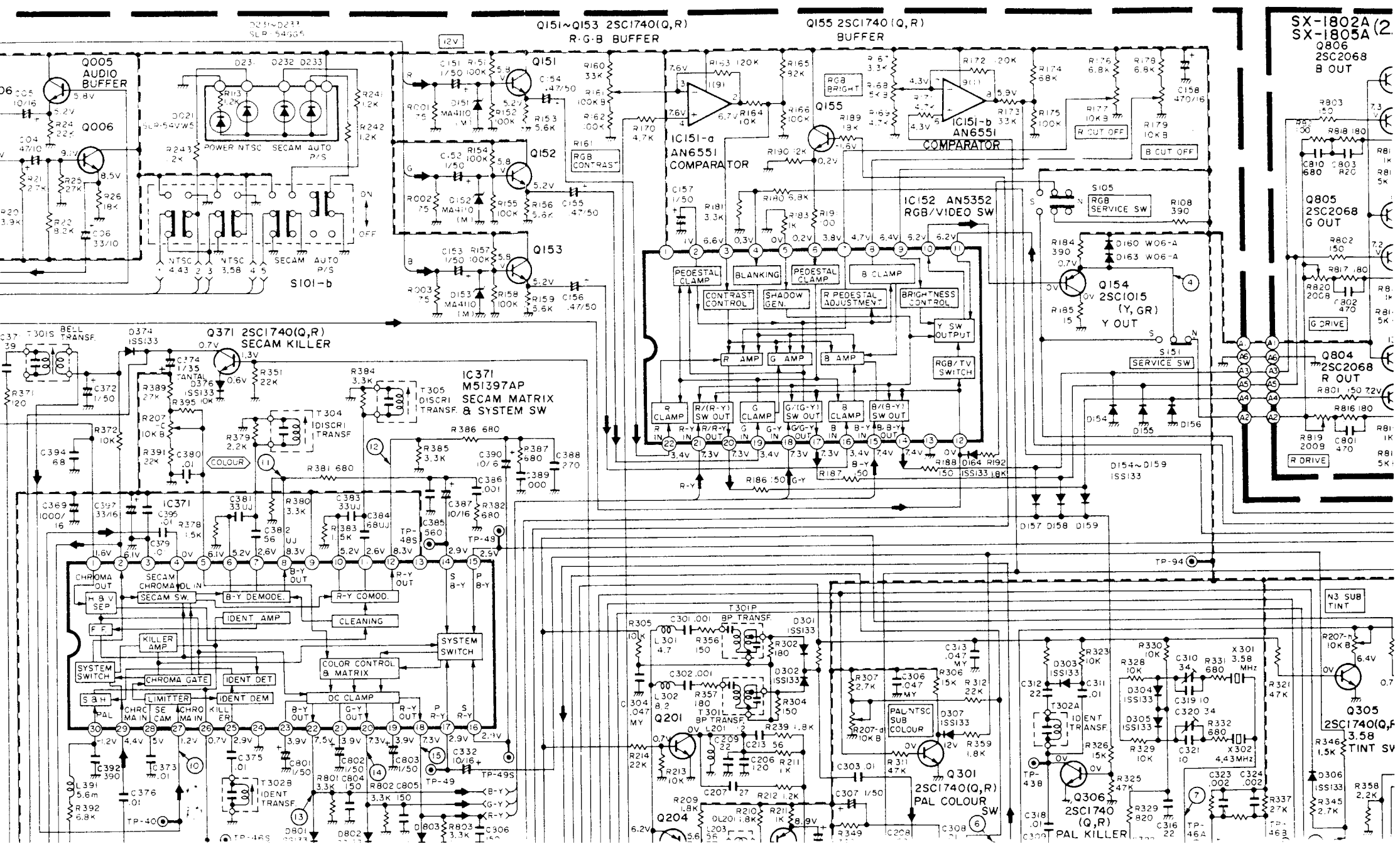


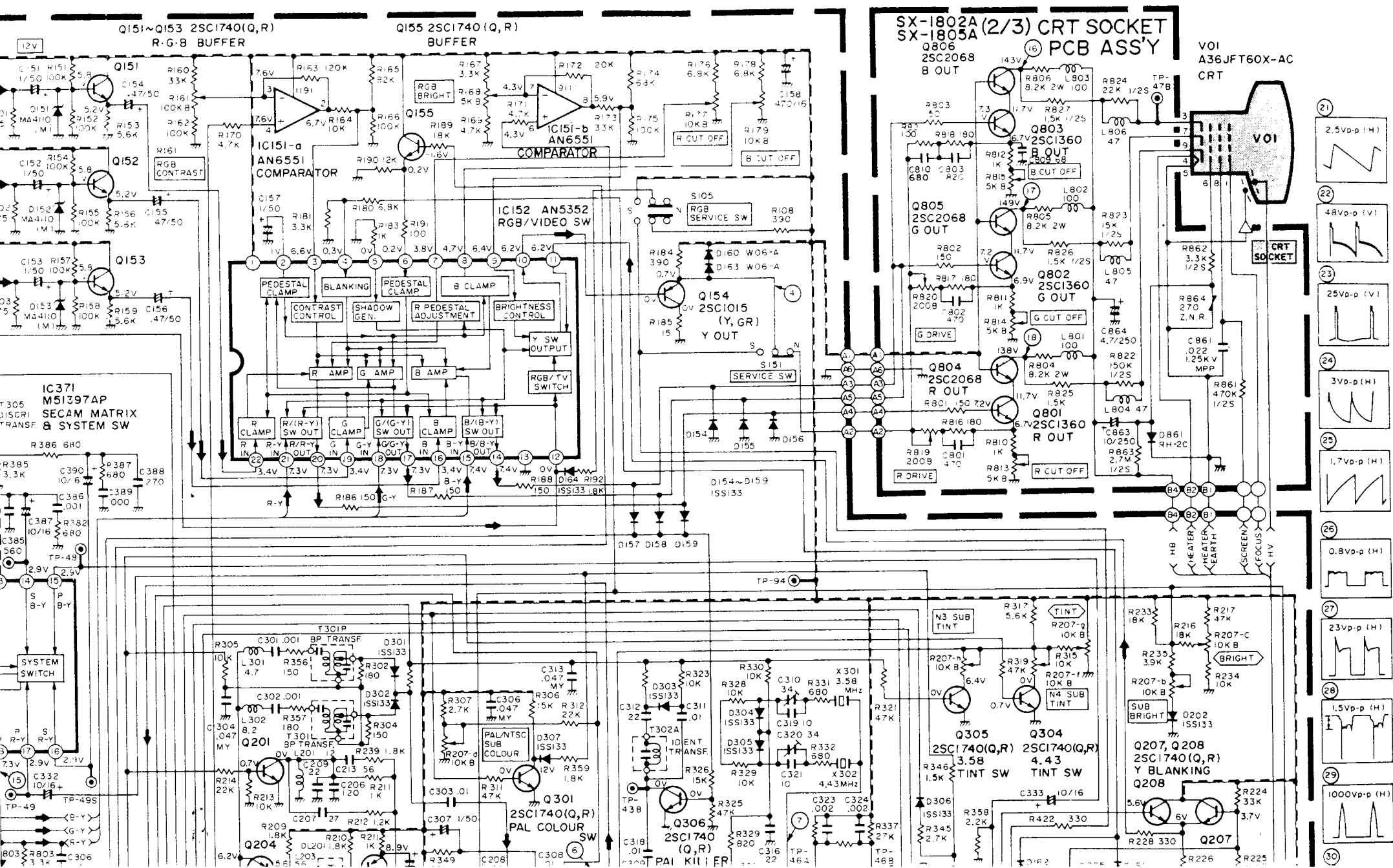
SCHEMATIC DIAGRAM

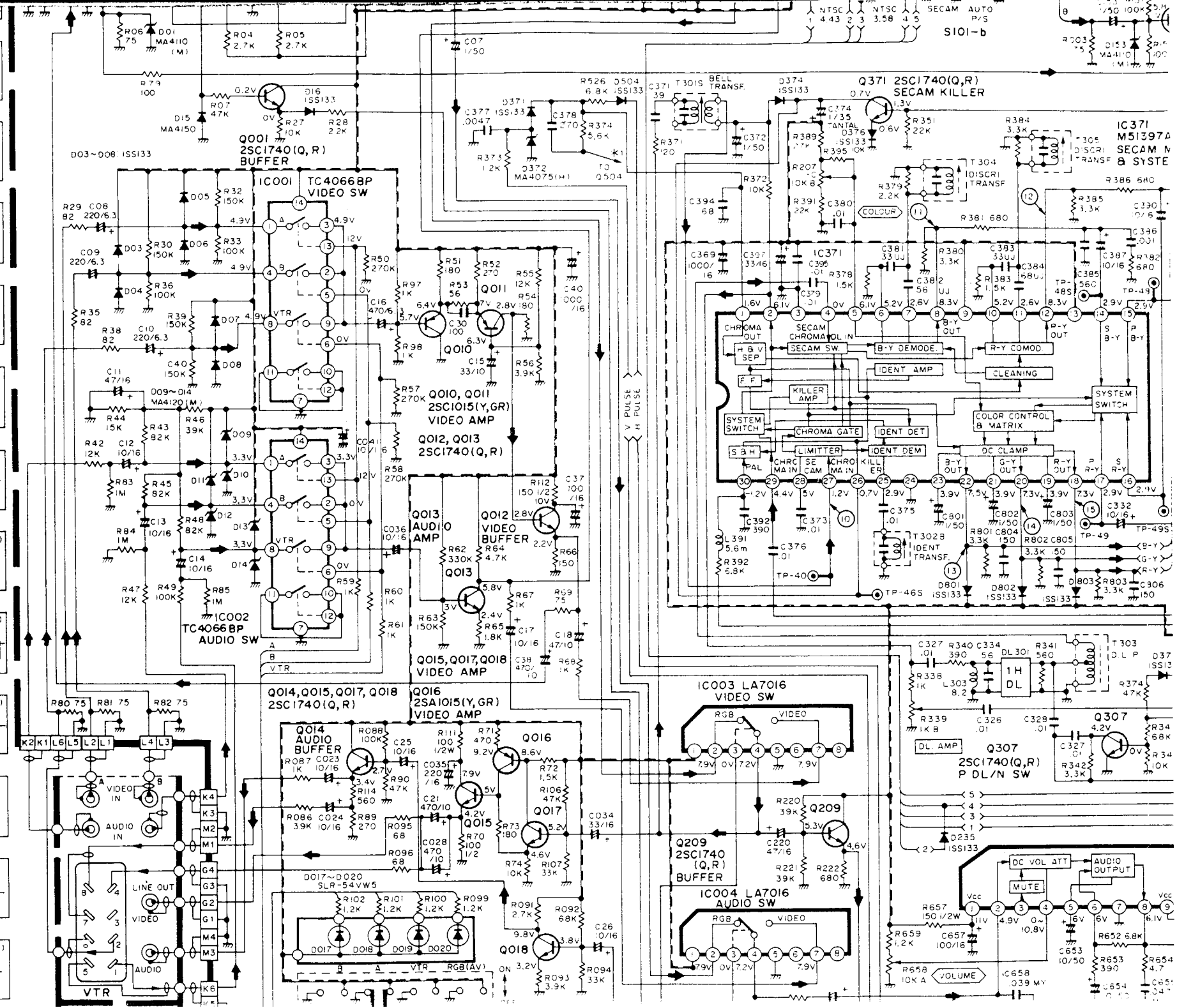
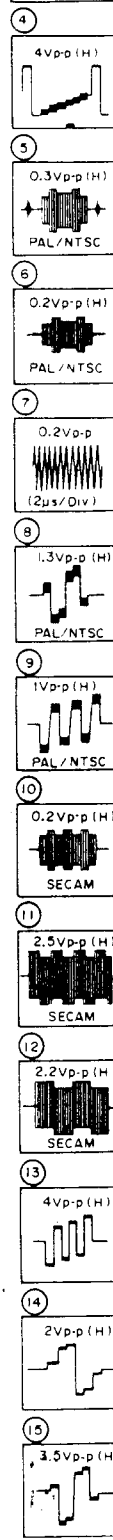
TM-150PSN-K

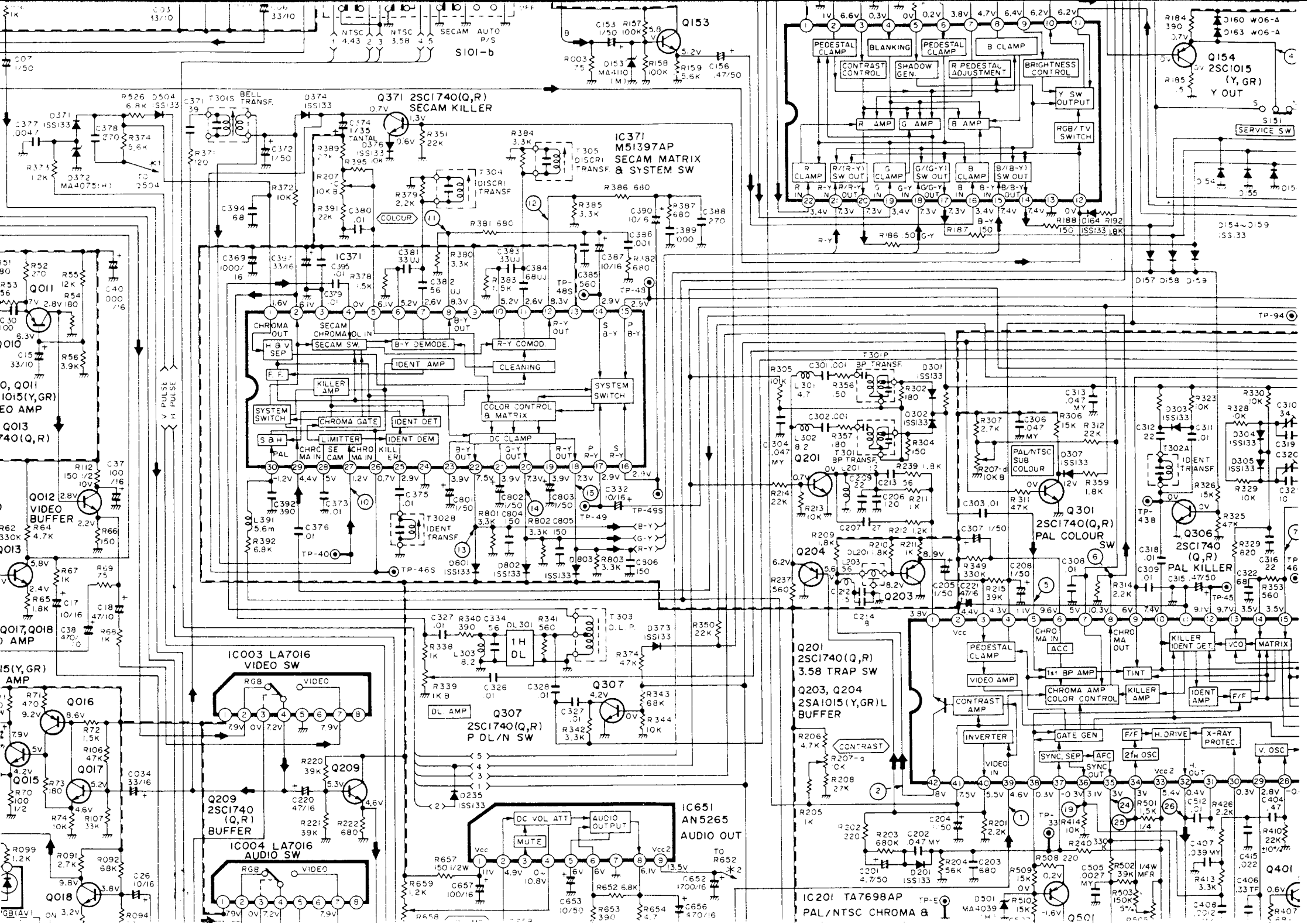


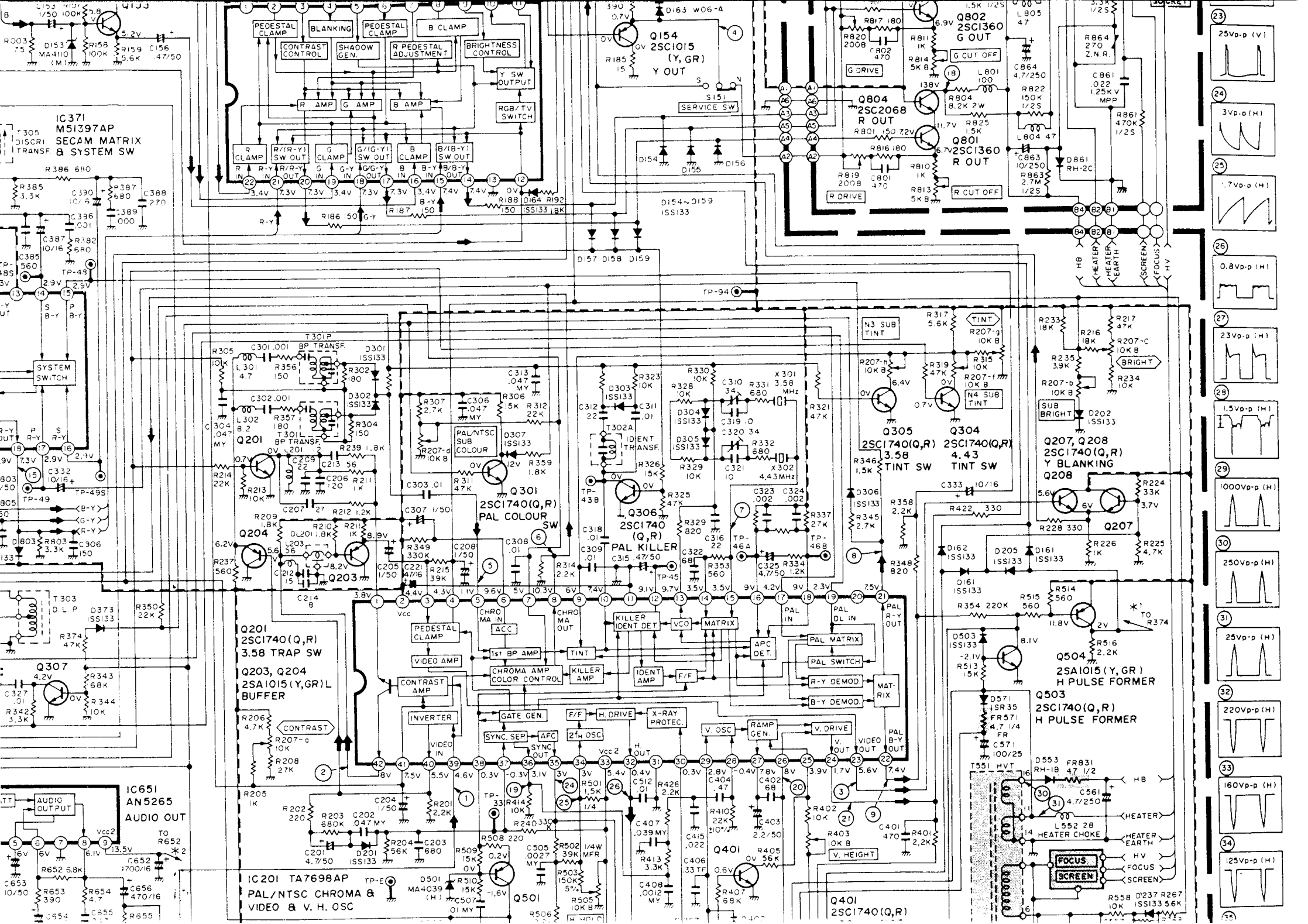
A









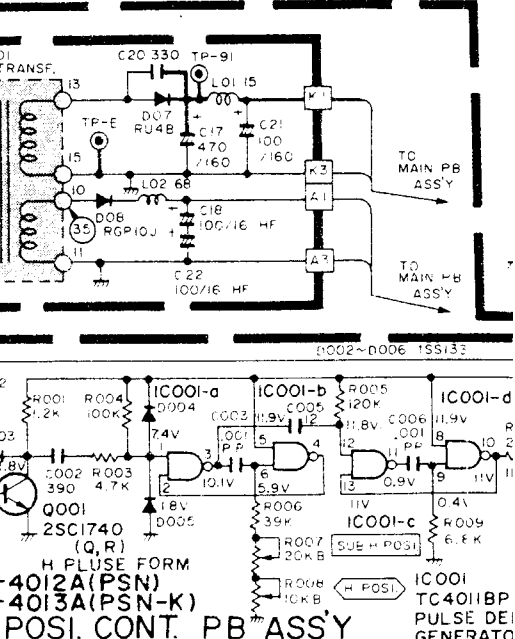
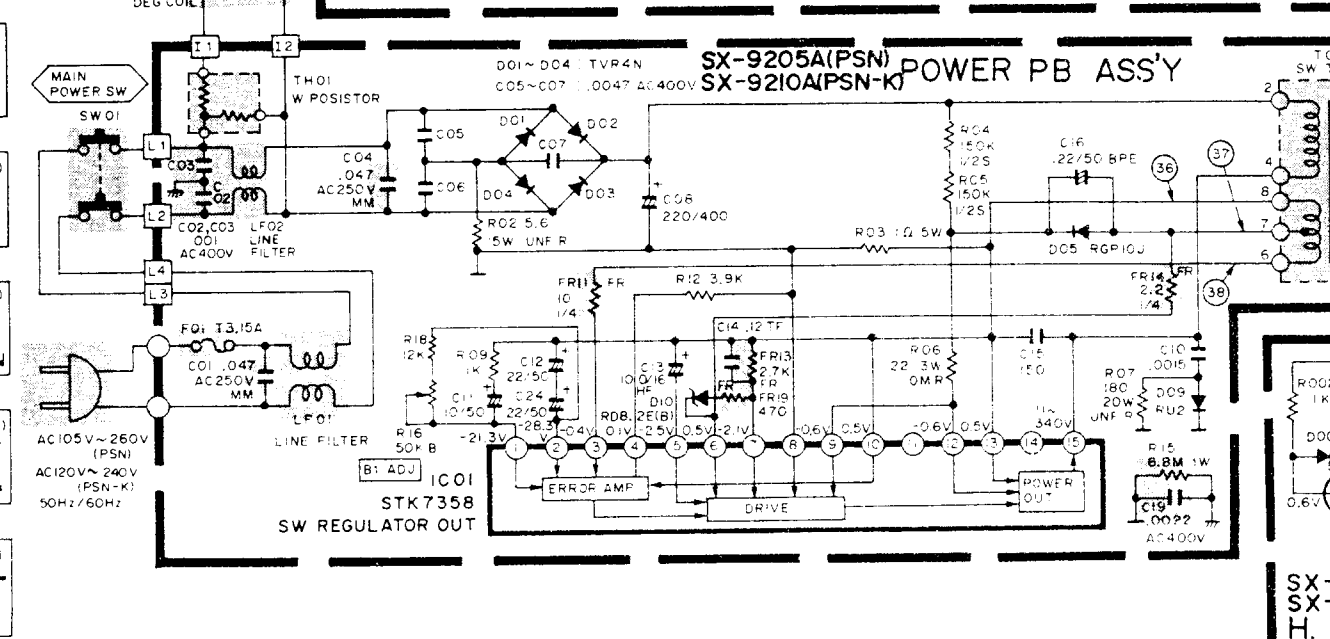
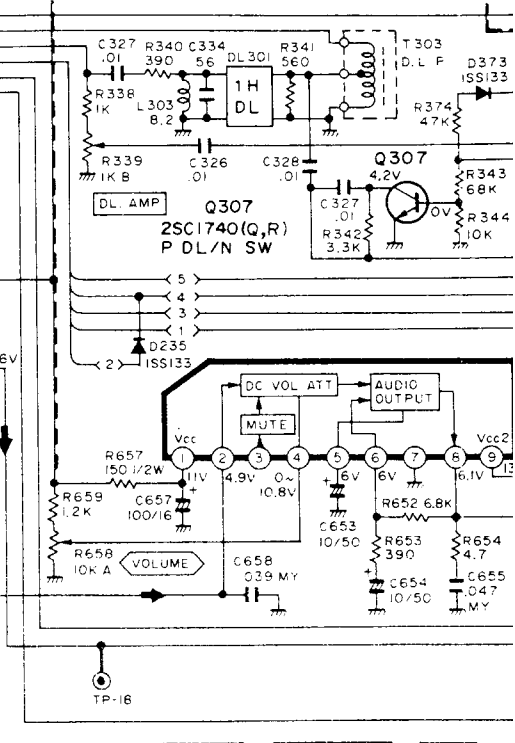
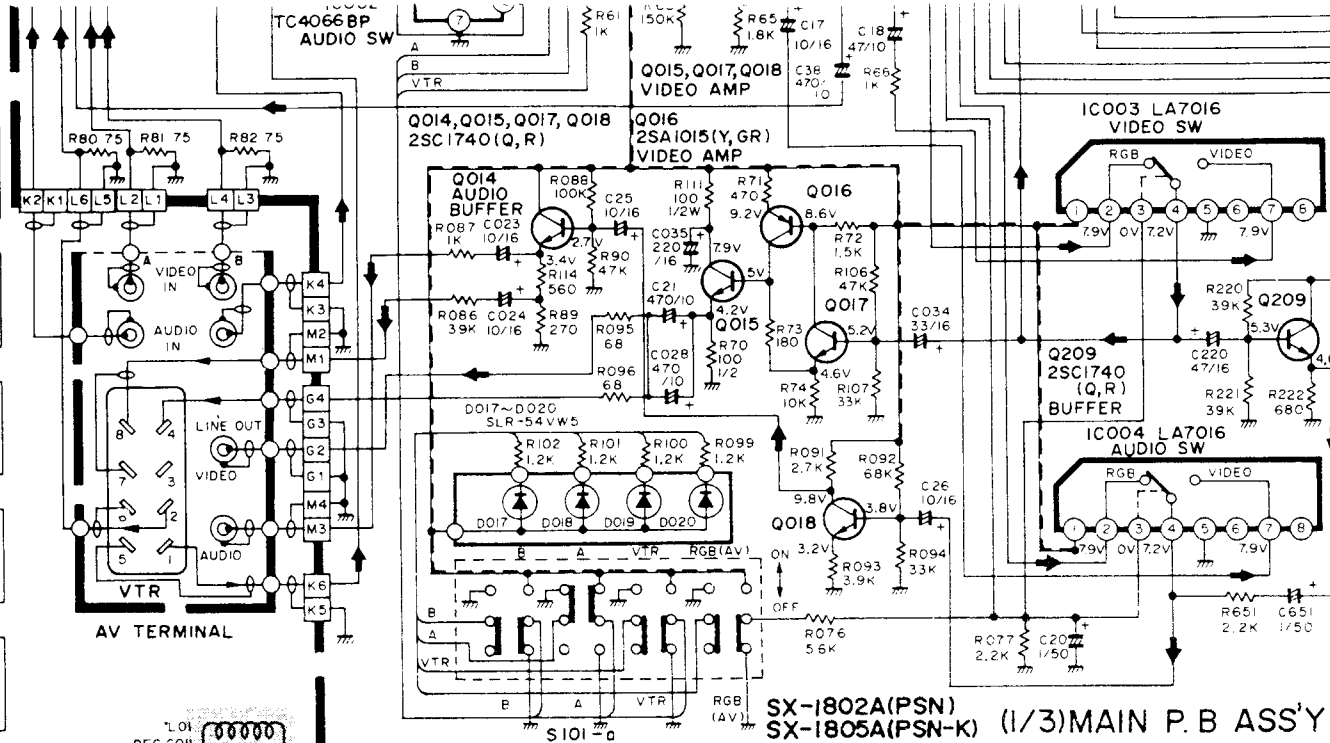
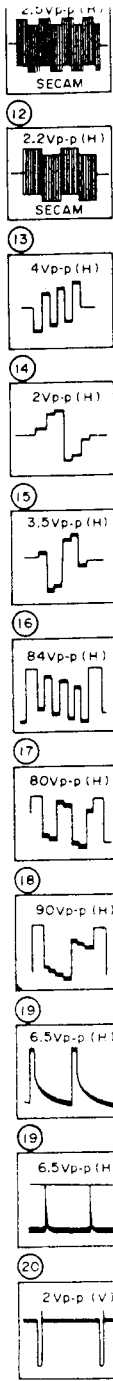


E

F

G

H



1

2

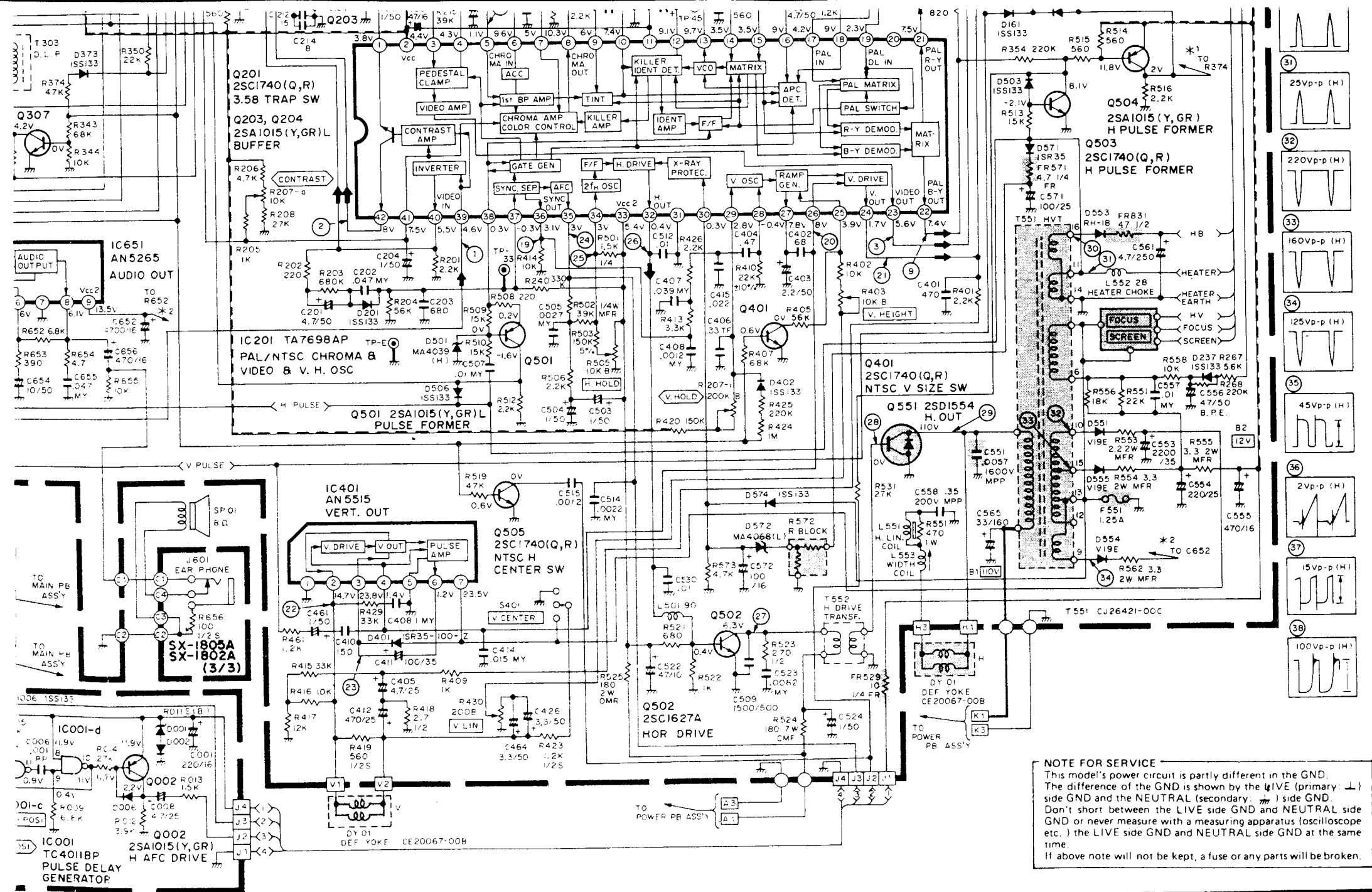
3

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①



①

②

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JVC TM-150PSN-K SCHEMATIC DIAGRAM

■ NOTICE

- Measurement of voltage values and waveforms was conducted by creating picture displays from color bar video signals of PAL, SECAM, and NTSC (3.58 MHz/4.43 MHz) respectively after setting the SYSTEM SWITCH at the AUTO position.
- The measurements were made with each VR under the condition just after the shipment. The figures of the signal circuits may be more or less different after adjustments, so use the figures simply for reference.
- [Voltage value description method]
The described voltage values denote those obtained when pictures are created from PAL signals and VIDEO A mode. As these values may change at a different position of the system switch, please refer to the different voltage list on page ⑥.
Multimeter used
DC 20 k Ω /V
Given figures are all DC voltages.
Sweep speed of oscilloscope
H $\rightarrow$ 20 μ S/div. V $\rightarrow$ 5 mS/div.
Others $\rightarrow$ sweep speed specified
- Since the schematic diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

SAFETY

FR ($\text{---}\overline{\text{W}}\text{---}$) denotes a fusible resistor which operates as a fuse. When replacing fusible resistors parts indicated with black shading () in the circuit diagrams, be sure to ensure safety by using designated parts.

As to other parts too, use designated parts to maintain safety and performance.

INDICATION OF PARTS SYMBOL

Inside board (Example) SX-1805A: R1209 $\rightarrow$ R209

Outside board (Example) R0001 $\rightarrow$ R01

SCHEMATIC DIAGRAM INDICATION

Resistor

- Resistance value
Without unit: [Ω] K : [k Ω] M : [M Ω]
- Rated allowable power
Without indication : 1/6W, Others Indicated
- Type
Without indication : Carbon resistor
OMR : Oxide metal film resistor
UNF : Unflammable resistor
MF R : Metal film resistor
FR : Fusible resistor
- * Composition resistor 1/2 [W] is indicated as 1/2S or Comp.

Capacitor

- Capacitance
Above 1 [pF] : Below 1 [μ F]
- Withstand voltage
Without indication : DC 50 [V]
Others : DC withstand voltage [V]
AC indicated : AC withstand voltage [V]
- Indications for electrolytic capacitors are as follows.
(Example)
47/50 $\rightarrow$ capacitance [μ F] / withstand voltage [V]
- Type
Without indication : Ceramic capacitor
MY : Mylar capacitor
MM : Metalized mylar capacitor
PP : Polypropylene capacitor
MPP : Metalized polypropylene capacitor
NP : Nonpolar electrolytic capacitor
BP : Bipolar electrolytic capacitor
TAN. : Tantalum capacitor

Coil

- Without unit : [μ H]

Connection method

-  : Connector,  : Receptacle
- $\circ$  : Wrapping or soldering

Power Supply

-  : B1 Voltage (110V)  : B2 Voltage (12V)

- * Respective voltage values are indicated on schematic diagram.

Test point & GND. symbol.

-  : Test point by miniature GT pin
-  : Only test point display
-  : Live (Primary) side ground
-  : Neutral (Secondary) side ground

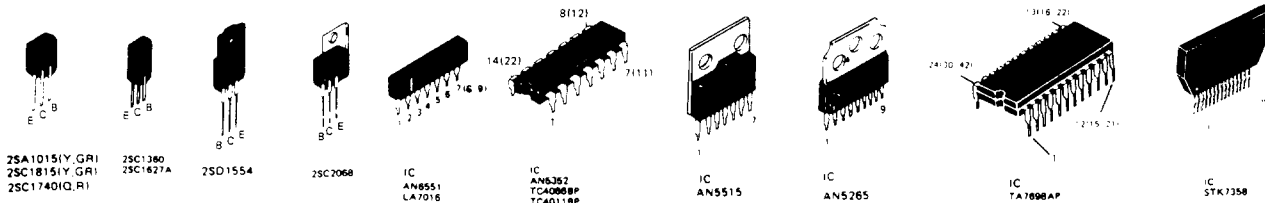
NOTE FOR SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE (primary: ) side GND and the NEUTRAL (secondary: ) side GND.

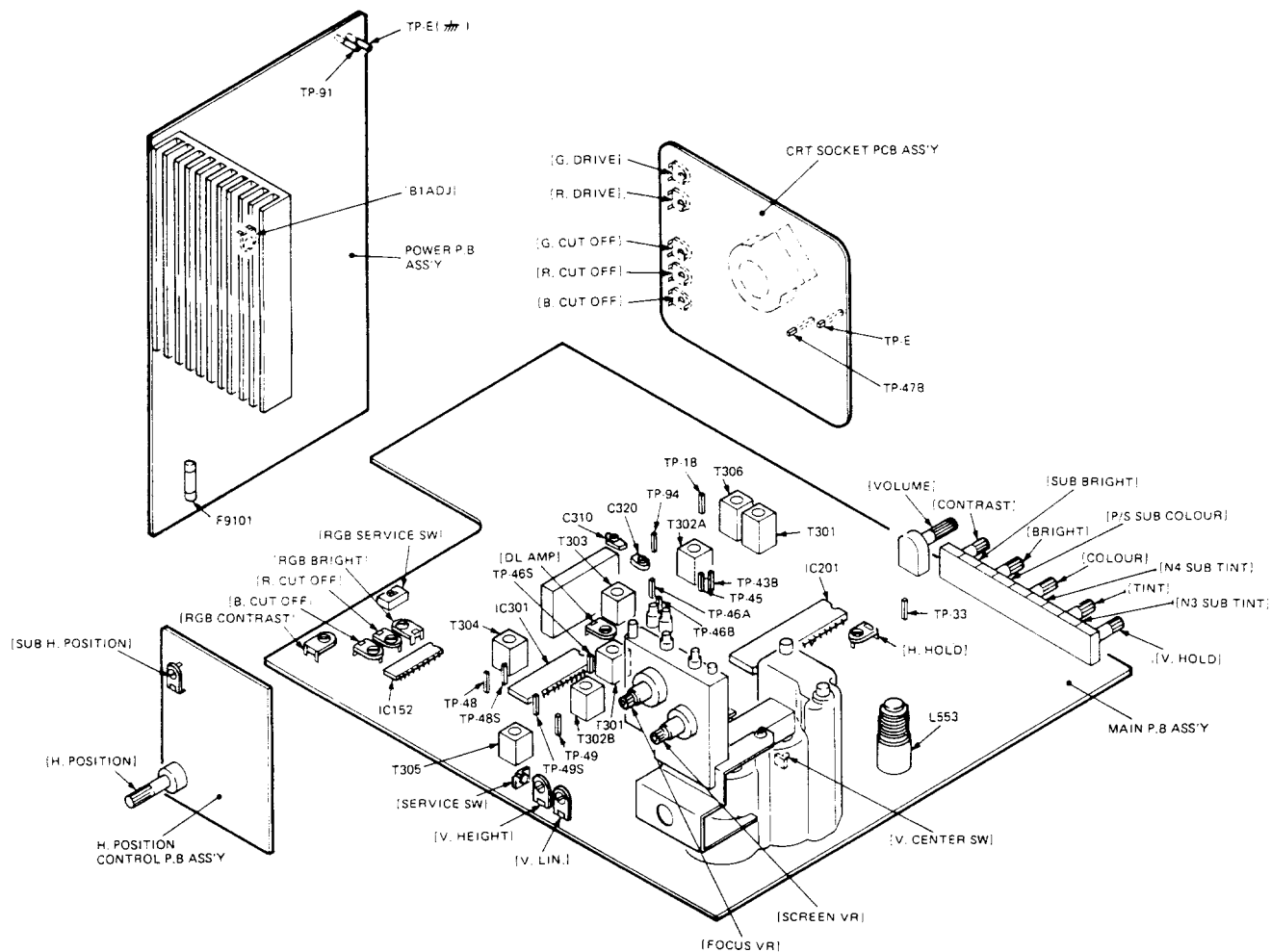
Don't short between the LIVE side GND and NEUTRAL side GND or never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and NEUTRAL side GND at the same time.

If above note will not be kept, a fuse or any parts will be broken.

■ BASINGS OF TRANSISTORS & ICs

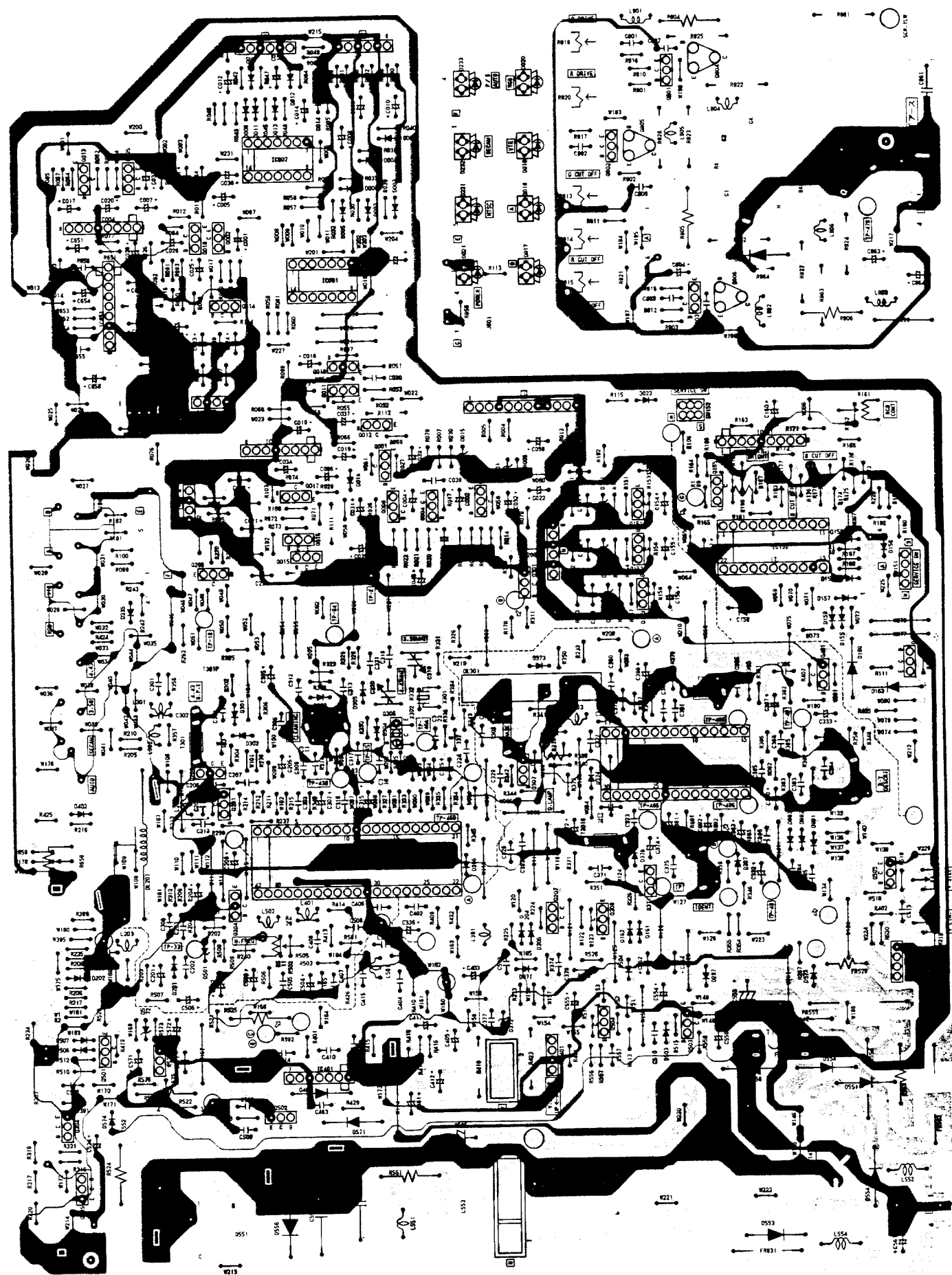


■ ALIGNMENT LOCATION



■ PARTS LIST (Shaded Parts in the Schematic Diagram)

Symbol No.	Part No.	Part Name	Symbol No.	Part No.	Part Name
SX-1805A (MAIN PB ASS'Y)			FR9011	QRZ0054-100M	F R
R1572	CJ39520-00Q	R Block	9013	QRH127J-272M	"
C1551	QFZ0081-5701S	MPP Cap.	9014	QRZ0054-2R2M	"
D1572	MA4068(L)	Zener Diode	9019	QRZ0054-471M	"
Q1551	2SD1554	Si. Transistor	F9001	QMF51E2-3R15S	Fuse
FR1529	QRZ0054-100M	F R	LF9001	CE40719-00A	Line Filter
1571	QRZ0054-4R7M	"	LF9002	"	"
1831	QRH127J-470M	"	TH9001	A76038	W Posistor
F1551	QMF51E2-1R25S	Fuse	OUTSIDE OF PB ASS'Y		
	CE40228-00D	CRT Socket	V01	A36JFT60X-AC	Picture Tube
SX-9210A (POWER PB ASS'Y)			L01	CJ30013-00D	Degaussing Coil
R9015	QRZ0057-685	C R	DY01	CE20067-00B	Def. Yoke Ass'y
C9001	QFZ9017-473M	MM Cap.	SW01	QSP4D21-C04	Power Switch
9002	QCZ9012-102M	C Cap.	T1551	CJ26421-00C	HV Transf.
9003	"	"		QMP5138-200R	Power Cord
9004	QFZ9017-473M	MM Cap.			
9019	QCZ9012-222M	C Cap.			
T9001	CE40839-00A	SW Transf.			



* DIFFERENT VOLTAGE LIST

MAIN P.B. ASS'Y

System SW Position	IC001			IC002			IC003	IC004	IC152		
	5	6	13	5	6	13	3	3	16	19	22
VIDEO A	0	0	12	0	0	12	0	0	3.4	3.4	3.4
VIDEO B	12	0	0	12	0	0	0	0	3.4	3.4	3.4
VTR	0	12	0	0	12	0	0	0	2.1	2.1	2.1
RGB (AV)	0	0	0	0	0	0	3.8	3.8	2.1	2.1	2.1

System SW Position	IC201					IC371						
	6	7	9	12	19	4	6	10	26	27	28	29
PAL	9.6	5	6	9.1	2.3	0	5.2	5.2	0.7	1.2	5	4.4
SECAM	9.9	0.1	6.4	6.9	4.2	2.9	4.2	4.2	10.2	6.1	6.1	5.4
NTSC (4.43)	9.6	0.1	6.4	6.5	2.3	0	5.2	5.2	0.7	1.2	5	4.4
NTSC (3.58)	9.6	5	6	9.1	2.3	0	5.2	5.2	0.7	1.2	5	4.4

System SW Position	Q154			Q201			Q301			Q304			Q305		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PAL	0	0.7	0	0.7	0	0	0	12	0	0.7	0	0	0	6.4	0
SECAM	0	0.7	0	0.7	0	0	0	12	0	0.7	0	0	0	6.3	0
NTSC (4.43)	0.7	0	0	0.7	0	0	0.7	0.1	0	0	6.0	0	0.7	0	0
NTSC (3.58)	0.7	0	0	0	0	0	0.7	0.1	0	0.7	0	0	0	6.3	0

System SW Position	Q306			Q307			Q371			Q401			Q505		
	B	C	E	B	C	E	B	C	E	B	C	E	B	C	E
PAL	0	0	0	0	4.2	0	1.3	0.7	0.6	0.6	0	0	0.6	0	0
SECAM	0.7	0	0	0	4.2	0	0.3	10.2	0	0	3.9	0	0	0.7	0
NTSC (4.43)	0	0	0	0.6	0	0	1.3	0.7	0.6	0.6	0	0	0.7	0	0
NTSC (3.58)	0	0	0	0.6	0	0	1.3	0.7	0.6	0.6	0	0	0.6	0	0