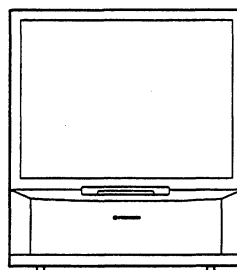


Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
ARP2952

PROJECTION MONITOR RECEIVER

SD-P50A3-K

SD-P55A3-K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	Remarks
	SD-P50A3-K	SD-P55A3-K		
KUXC	○	○	AC120V	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

1.1 SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

The following precautions should be observed :

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled.
Keep picture tube away from the while handling.
2. When service is required, even though the PROJECTION MONITOR RECEIVER an isolation transformer should be inserted between power line and the set in safety before any service is performed.
3. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
4. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's.
Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.

6. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and service technician.

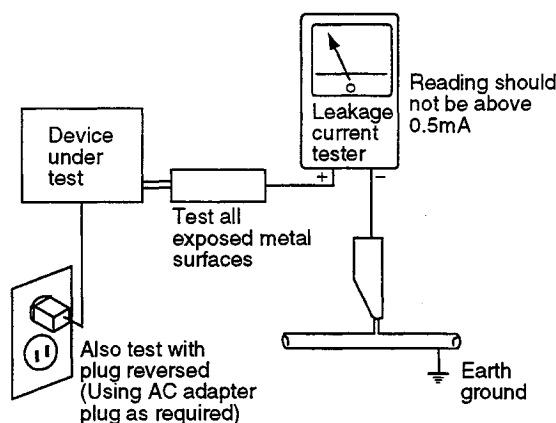
Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

High Voltage

This set is provided with a X-ray protection for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this X-ray protection may correctly be operated.

Serviceman Warning

In the status of the black picture (video muting is being applied) when no signal is input, high voltage of this set during operation is less than 30.5kV. In case any component having some relation to the high voltage is replaced, confirm that the high voltage is lower than 30.5kV in the status of the black picture when no signal is input.

To measure H. V. use a high impedance H. V. meter.

Connect (-) to earth and (+) to the FBT anode cable connector. (Refer to page 131.)

X-radiation

TUBE : The primary source of X-radiation in this set is the picture tube.

For continued X-radiation protection, the replacement tube must be the same type as the original, PIONEER approved type.

The picture tube (CRT Assy R, G, B) used in this set holds complete guarantee against X-ray radiation when the X-ray is sealed (See page 4). Accordingly, when the current in flowing to the picture tube (CRT Assy R, G, B), be sure to perform it by putting the tube into X-ray sealed applied state. Avoid absolutely to flow the current to the picture tube (CRT Assy R, G, B) itself. Moreover, when the voltage of the high voltage circuit becomes abnormally a little higher, the picture tube radiates X-rays.

Accordingly, when servicing the high voltage circuit be sure to replace as an assy with the POWER SUPPLY SERVICE Assy in the manner in which has been adjusted to perform normal operation.

1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.3 CHARGED SECTION, HIGH VOLTAGE GENERATING POINT AND X-RAY PROTECTION

■ Charged section

The circuit in which the commercial AC power is used as it is without passing through the power supply transformer. If the charged section is touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. In this case, be sure to connect the set via an insulated transformer and supply the current.

■ Charged section (Power supply primary side)

1. The primary side of the POWER SUPPLY SERVICE Assy
2. AC Power Cord

■ High voltage generating point

The place where voltage of over 100V is generated.

1. Charged section
2. POWER SUPPLY SERVICE Assy
(including FBT) (30.0kV, 220V, 135V)
3. R. CRT AMP Assy (10.5kV, 220V)
4. G. CRT AMP Assy (10.5kV, 220V)
5. B. CRT AMP Assy (10.5kV, 220V)
6. CRT Assy R (30.0kV)
7. CRT Assy G (30.0kV)
8. CRT Assy B (30.0kV)
9. Focus Variable Resistor (VR1) (10.5kV)
10. Deflection Yokes (L1, L2 and L3) [Approx. 1100V at peak]
11. HV Distributer
12. Velocity Modulation Block of the AMP Assy (135V)

■ X-ray protection

- Regarding the parts which are relative to radiation of X-rays (There is the danger to radiate X-ray from the individual CRT Assy R, G, B), there are notifications of caution in the individual schematic diagrams. Be sure to read them for safety's sake.

- The component parts for X-ray protection are as follows:
When the current flows to the CRT Assy R, G, B, be sure to perform it with these parts being attached.

Protection from the X-ray radiation is maintained in the state in which these parts have been installed to the CRT Assy R, G, B. Accordingly, never supply current only to the CRT Assy R, G, B.

Moreover, the anode voltage of the CRT Assy R, G, B should always be kept not higher than the predetermined value (in the minimum brightness and picture state when non signal input is less than 30.5kV). Be sure to drive the CRT Assy R, G, B by using a completely functional POWER SUPPLY SERVICE Assy (including HV Distributer) which have been adjusted completely in the combined state. (When the voltage abnormally becomes high, the X-ray protection circuit will operate.)

1. CRT Assy R, G, B (Do not dismantle CRT assemblies under any circumstances).
2. Each Lens Assy

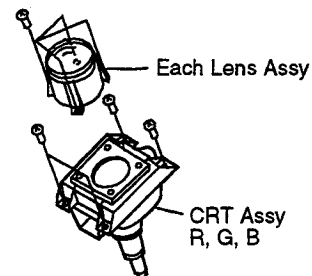


Fig. 2 Component parts for X-ray protection

■ part is charged section.
■ part is the high voltage generating points other than the charged section.

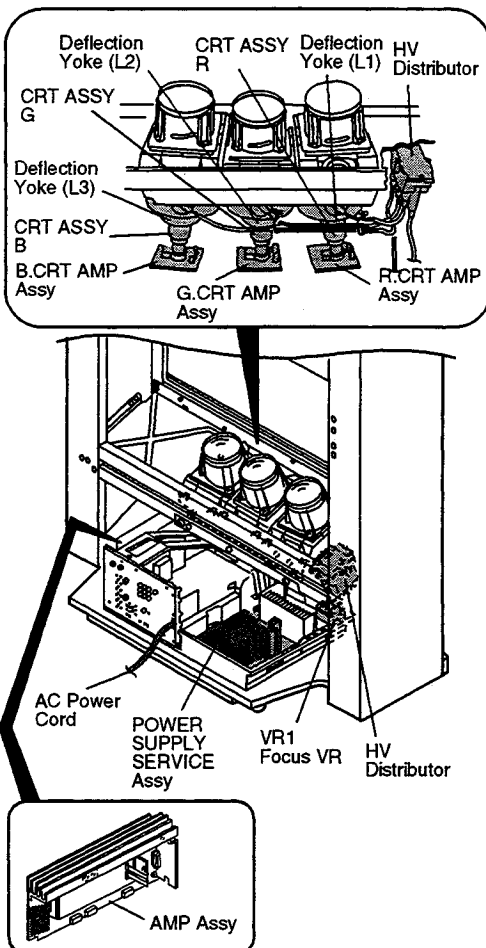


Fig. 1 Charged section and high voltage generating point

2. EXPLODED VIEWS AND PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

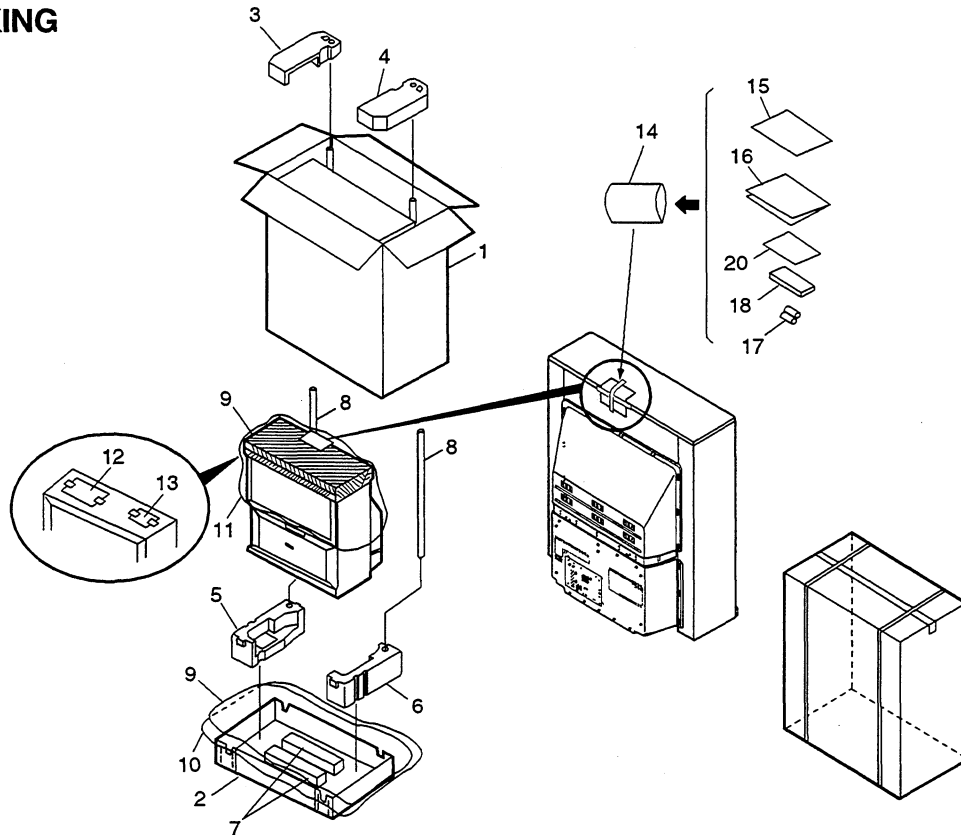
• The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

• Parts marked by ☆ are important parts which relate in X-rays radiation.

If any of these parts need to be replaced, always replace with specified parts.

• Screws adjacent to ▼ mark on the product are used for disassembly.

2.1 PACKING



(1) PARTS LIST

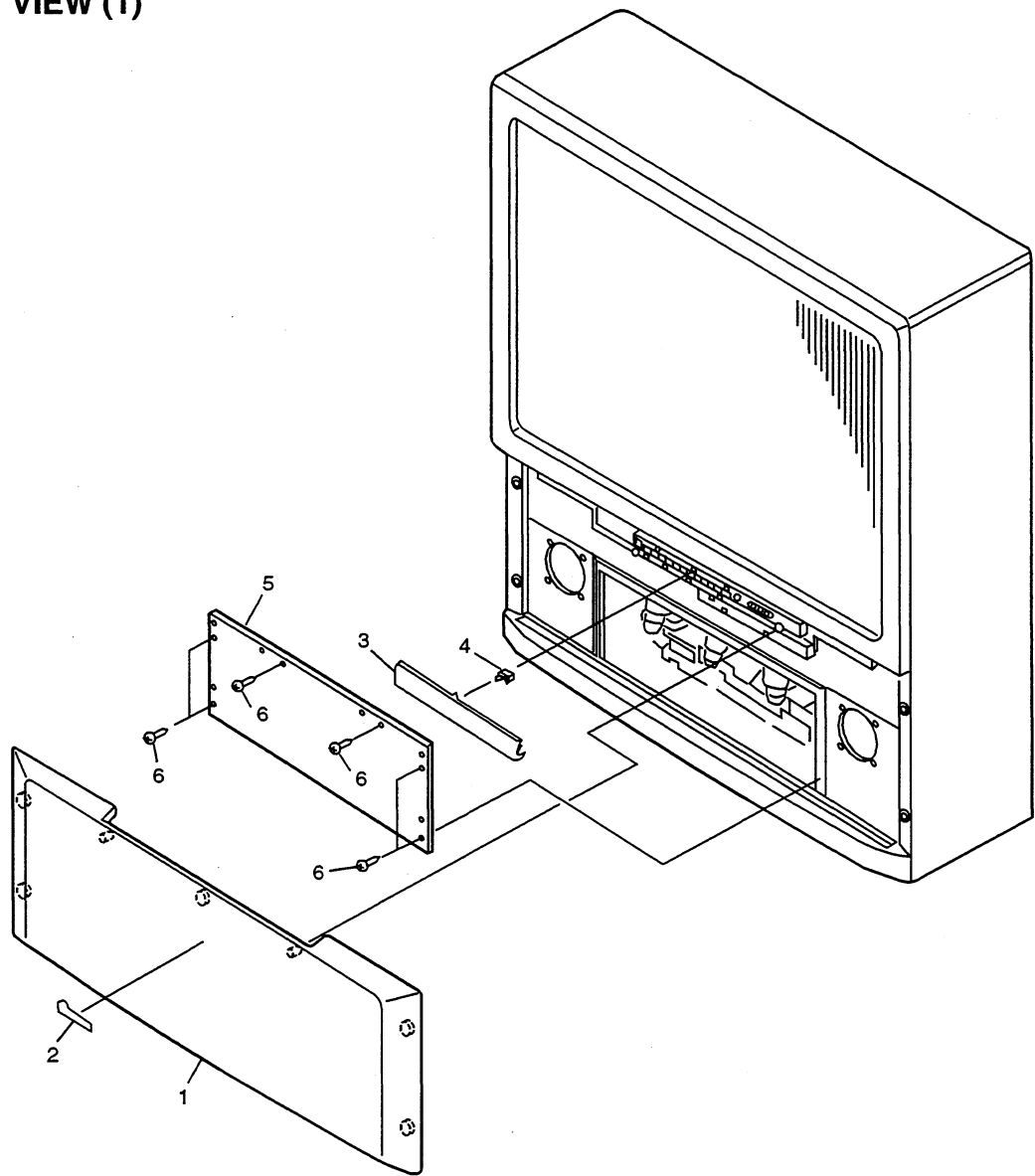
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Upper Carton	See Contrast table (2)		12	CONVER Attention Card	ARM1120
	2	Under Carton	See Contrast table (2)		13	Caster Caution Card	ARM1125
	3	Upper Pad L	AHA2163	NSP	14	Literature Bag	AHG1222
	4	Upper Pad R	AHA2164	NSP	15	Warranty Card	ARY1050
	5	Under Pad L	AHA2165		16	Operating Instructions (English)	ARB1510
	6	Under Pad R	AHA2166	NSP	17	Alkaline Dry Cell Battery (LR6, AA)	AEX1018
	7	Under Cushion	AHA2167		18	Remote Control Unit (CU-SD103)	AXD1429
NSP	8	Paper Tube	See Contrast table (2)		19	Battery Cover	AZA7031
NSP	9	Packing Sheet	AHG1268	NSP	20	Caution Card	ARM1057
NSP	10	Vinyl Sheet	AHG1270				
NSP	11	Vinyl Sheet	AHG1266				

(2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			SD-P50A3-K/KUXC	SD-P55A3-K/KUXC	
	1	Upper Carton	AHD2884	AHD2885	
	2	Under Carton	AHD2887	AHD2888	
	8	Paper Tube	AHB1182	AHB1183	

2.2 FRONT VIEW (1)



(1) PARTS LIST

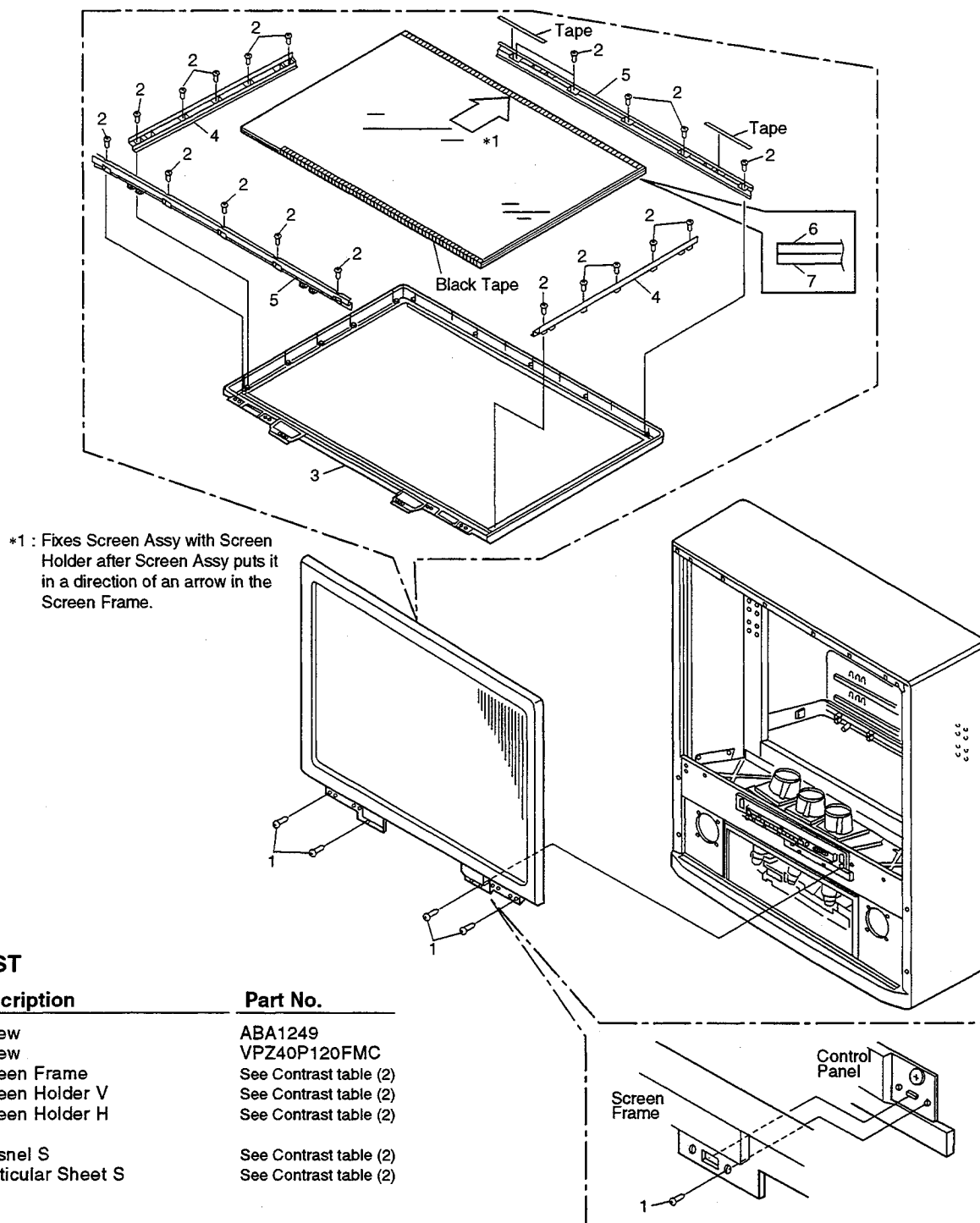
Mark	No.	Description	Part No.
	1	Grille	See Contrast table (2)
	2	Badge	AAM1074
	3	Door	See Contrast table (2)
	4	Catcher	AEC1609
	5	Blind Plate	AMM2765
	6	Screw	ABA1241

(2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			SD-P50A3-K/KUXC	SD-P55A3-K/KUXC	
	1	Grille	AMR2917	AMR2918	
	3	Door	AAN1431	AAN1432	

2.3 SCREEN FRAME BLOCK



(1) PARTS LIST

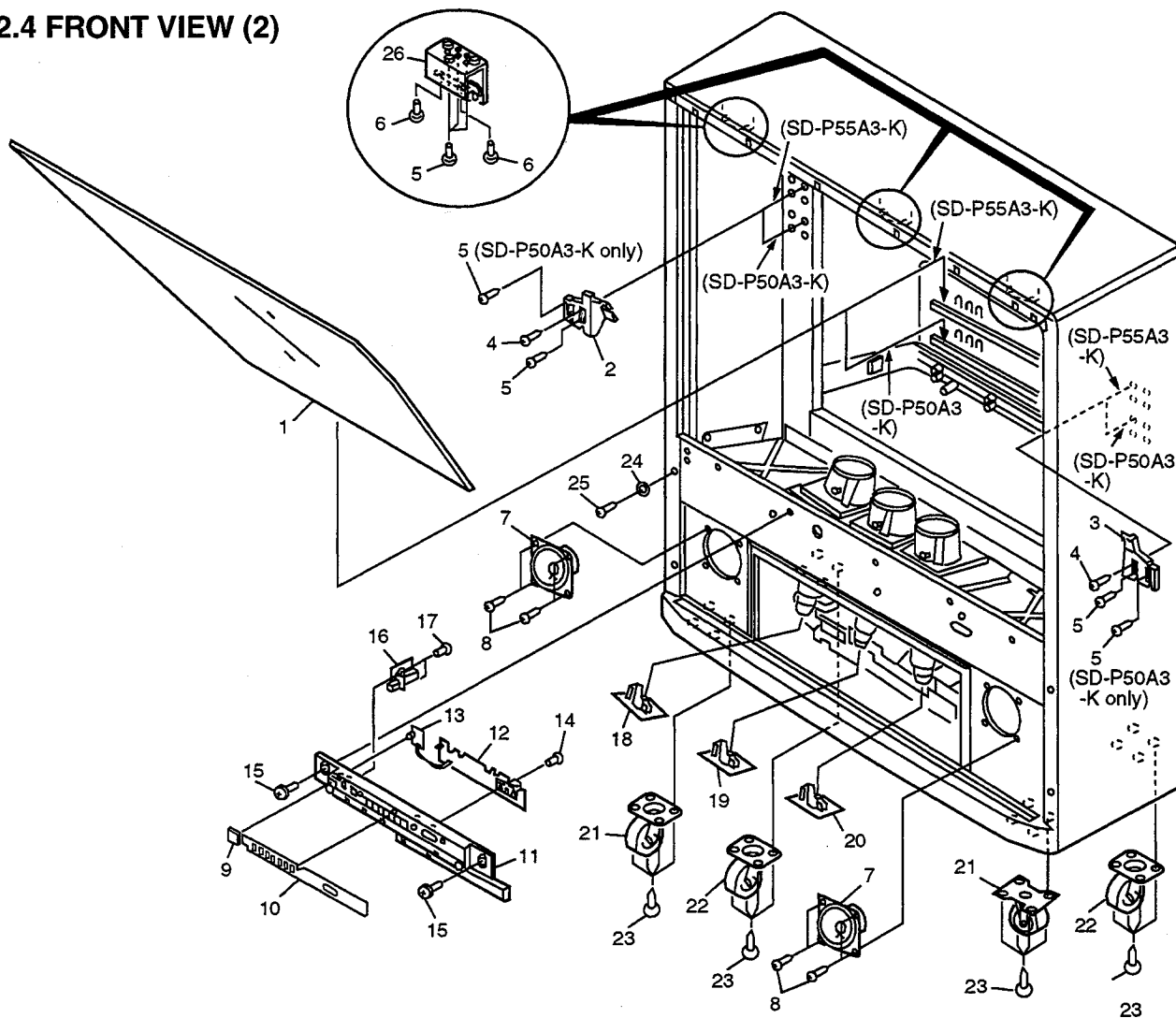
Mark	No.	Description	Part No.
	1	Screw	ABA1249
	2	Screw	VPZ40P120FMC
	3	Screen Frame	See Contrast table (2)
NSP	4	Screen Holder V	See Contrast table (2)
NSP	5	Screen Holder H	See Contrast table (2)
	6	Fresnel S	See Contrast table (2)
	7	Lenticular Sheet S	See Contrast table (2)

(2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			SD-P50A3-K/KUXC	SD-P55A3-K/KUXC	
NSP	3	Screen Frame	AMB2599	AMB2600	
	4	Screen Holder V	ANG2143	ANG2145	
	5	Screen Holder H	ANG2142	ANG2144	
	6	Fresnel S	AMR2979	AMR2980	
	7	Lenticular Sheet S	AMR2976	AMR2977	

2.4 FRONT VIEW (2)



(1) PARTS LIST

Mark	No.	Description	Part No.
	1	Mirror	See Contrast table (2)
	2	Mirror Side Holder L	AMR2921
	3	Mirror Side Holder R	AMR2922
	4	Screw	VPZ40P120FMC
	5	Screw	ABA1124
	6	Screw	ABA1239
	7	Speaker	APV1047
	8	Screw	ABA1240
	9	Indicator Panel	AAK2687
	10	Control Sheet	AAK2686
	11	Control Panel	AMB2602
	12	Front Control Assy	AWZ6186
	13	Indicator Assy	AWZ6187
	14	Screw	ABZ30P120FZK
	15	Screw	ABA1234

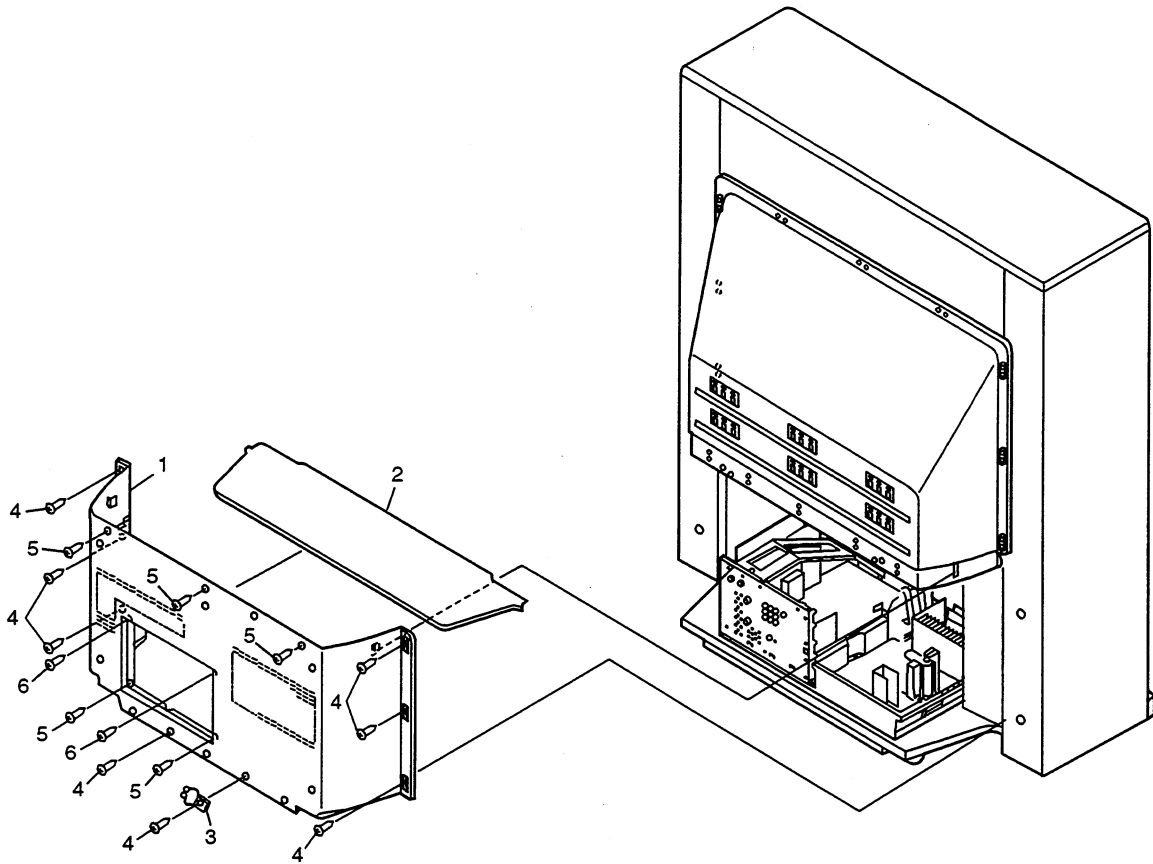
Mark	No.	Description	Part No.
	16	POWER SW Assy	AWZ6188
	17	Screw	BPZ30P120FMC
	18	R. CRT AMP Assy	AWZ6191
	19	G. CRT AMP Assy	AWZ6192
	20	B. CRT AMP Assy	AWZ6193
	21	Caster (Front)	AMR2863
	22	Caster (Rear)	AMR2547
	23	Screw	ABA1126
	24	Magic Tape	AEC1394
	25	Screw	BYC35P160FZB
	26	Mirror Holder	AMR2920

(2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			SD-P50A3-K/KUXC	SD-P55A3-K/KUXC	
	1	Mirror	AMR2937	AMR2938	

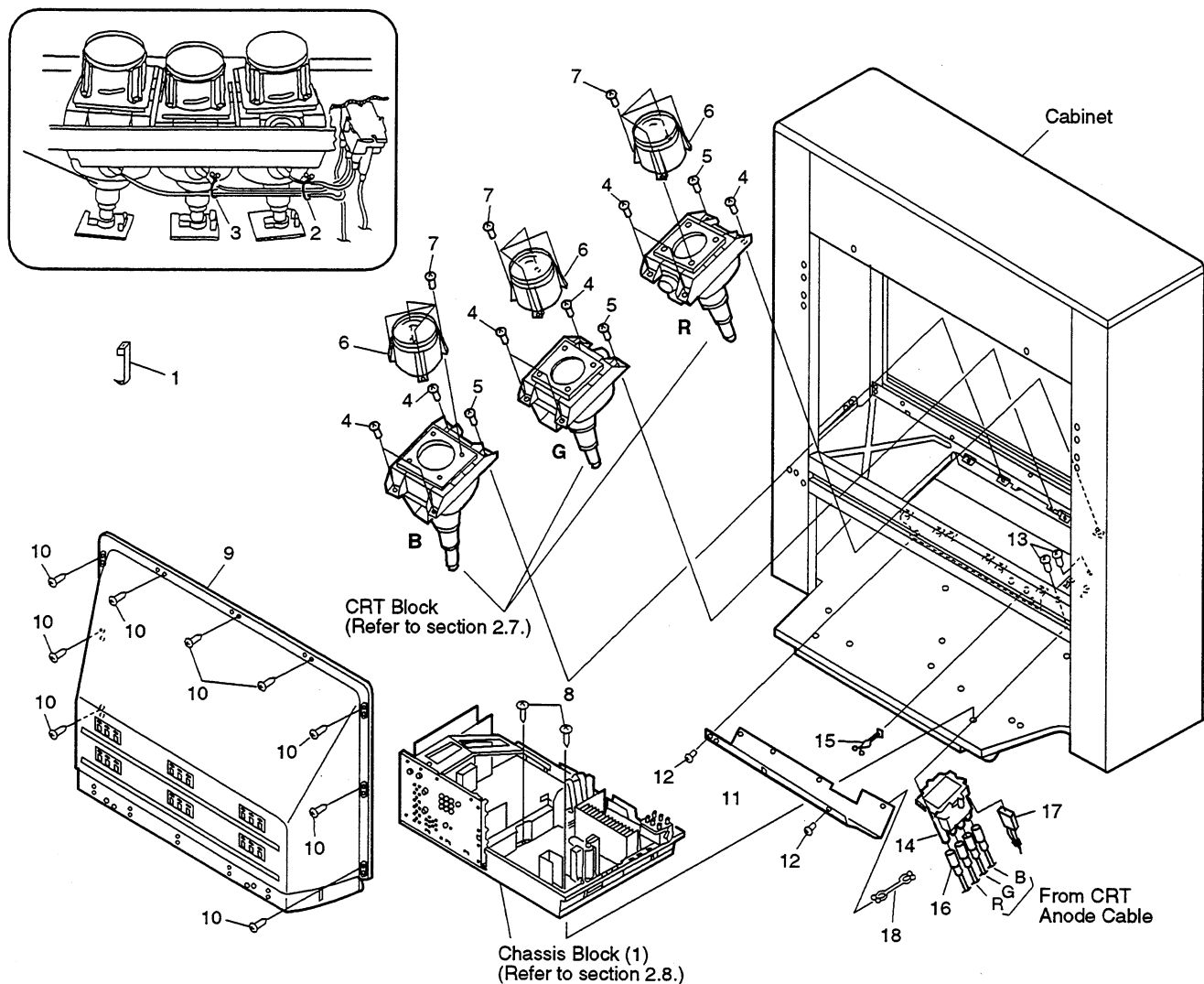
2.5 REAR VIEW (1)



Parts List

Mark	No.	Description	Part No.
	1	Rear Cover	AME2299
NSP	2	Back Cover Panel	AMM2772
NSP	3	Purse Lock	AEC1263
	4	Screw	ABA1240
	5	Screw	ABA1235
	6	Screw	ABA1149

2.6 REAR VIEW (2)

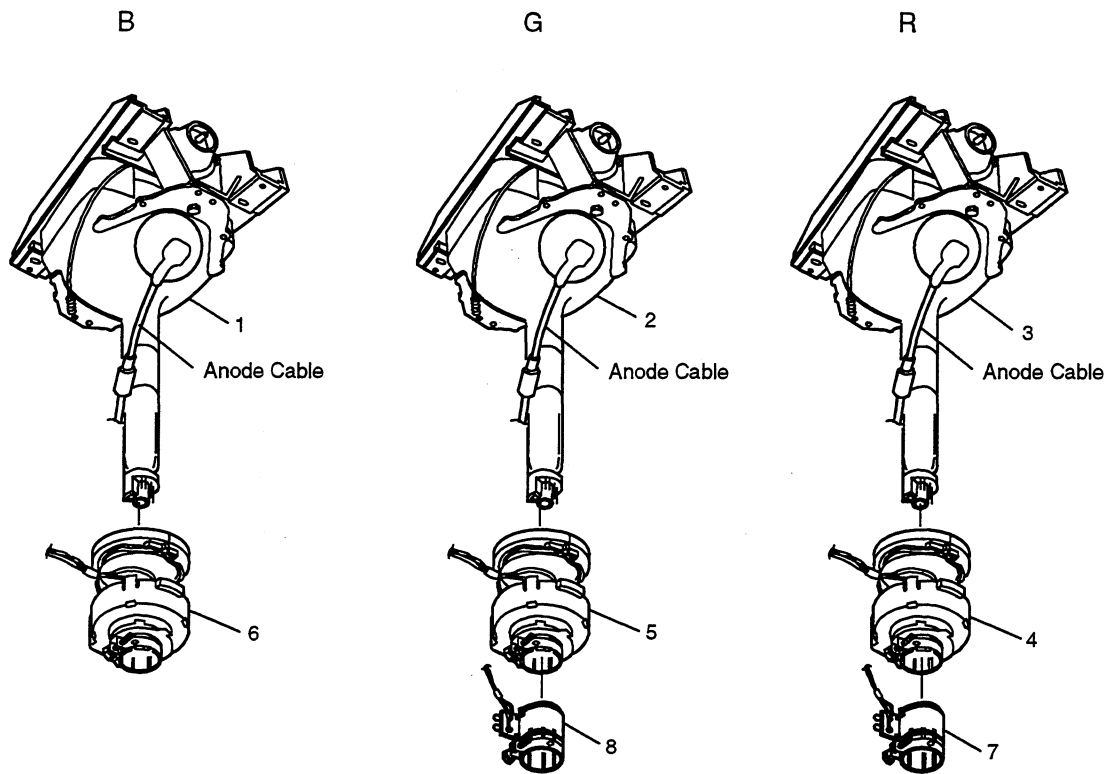


Parts List

Mark	No.	Description	Part No.
NSP	1	Binder	AEC-093
	2	Purse Lock	AEC1540
	3	Purse Lock S	AEC1261
	4	Screw	ABA1168
	5	Screw	FBT40P120FZK
☆	6	Lens Assy	AMR2833
	7	Screw	AMZ40P080FZK
	8	Screw	BYC40P350FZK
	9	Mirror Case	AME2298
	10	Screw	ABA1240

Mark	No.	Description	Part No.
	11	Tray	AMR2936
	12	Screw	ABZ30P120FZK
	13	Screw	VPZ40P120FMC
NSP Δ	14	HV Distributor	AXW1046
NSP	15	Lead Clamper	AEC1611
	16	HV Cable (J26)	ADY1032
	17	HV Return Wire (J27)	ADX2338
	18	Cable Clip	AEC1708

2.7 CRT BLOCK



(1) PARTS LIST

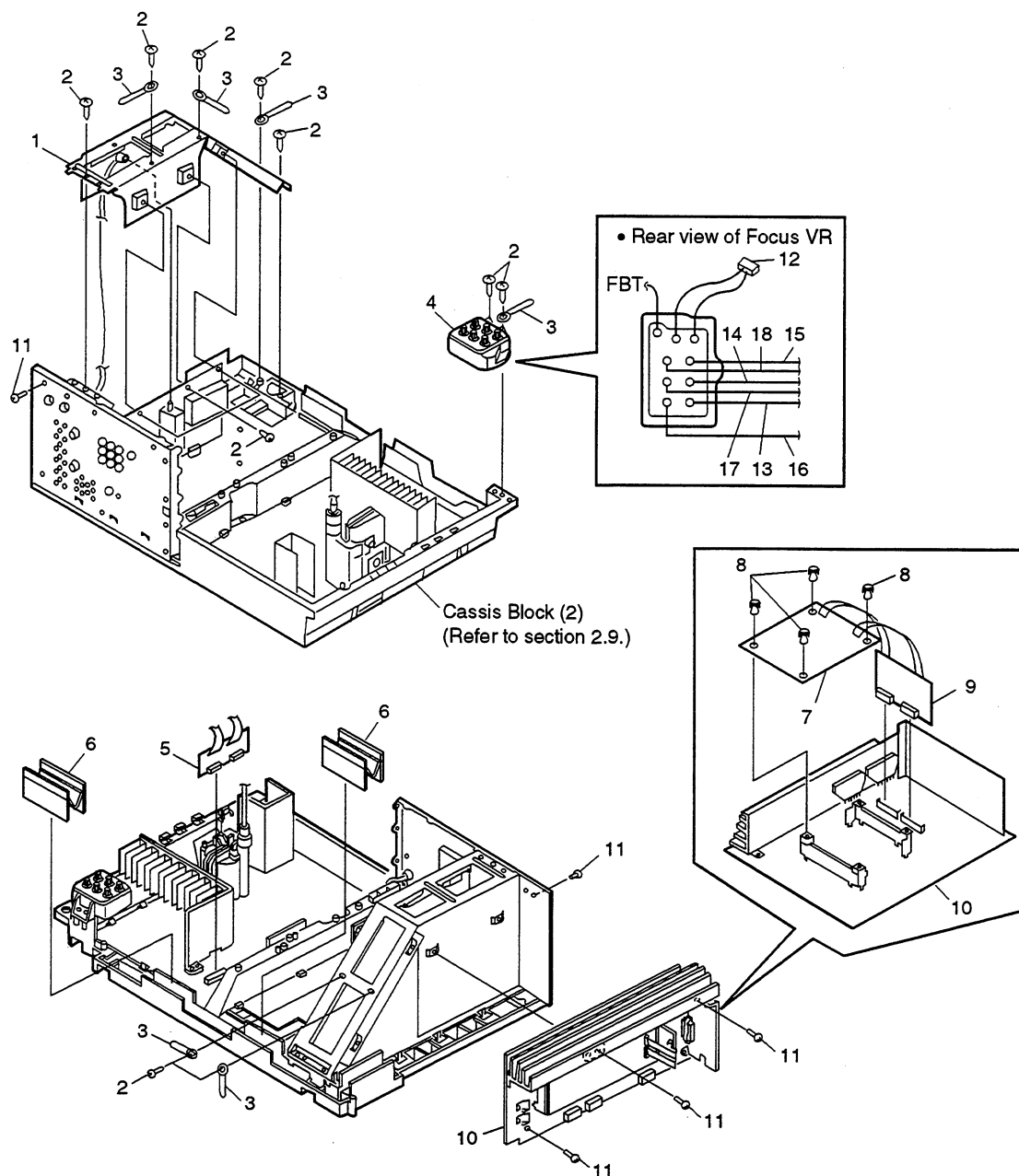
Mark	No.	Description	Part No.
☆	1	CRT Service Assy B	See Contrast table (2)
☆	2	CRT Service Assy G	AWY1388
☆	3	CRT Service Assy R	See Contrast table (2)
△	4	Deflection Yoke (L2)	ATL1130
△	5	Deflection Yoke (L3)	ATL1130
△	6	Deflection Yoke (L4)	ATL1130
△	7	VM Coil (L5)	ATL1133
△	8	VM Coil (L6)	ATL1133

(1) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			SD-P50A3-K/KUXC	SD-P55A3-K/KUXC	
☆	1	CRT Service Assy B	AWY1389	AWY1391	
☆	3	CRT Service Assy R	AWY1387	AWY1390	

2.8 CHASSIS BLOCK (1)

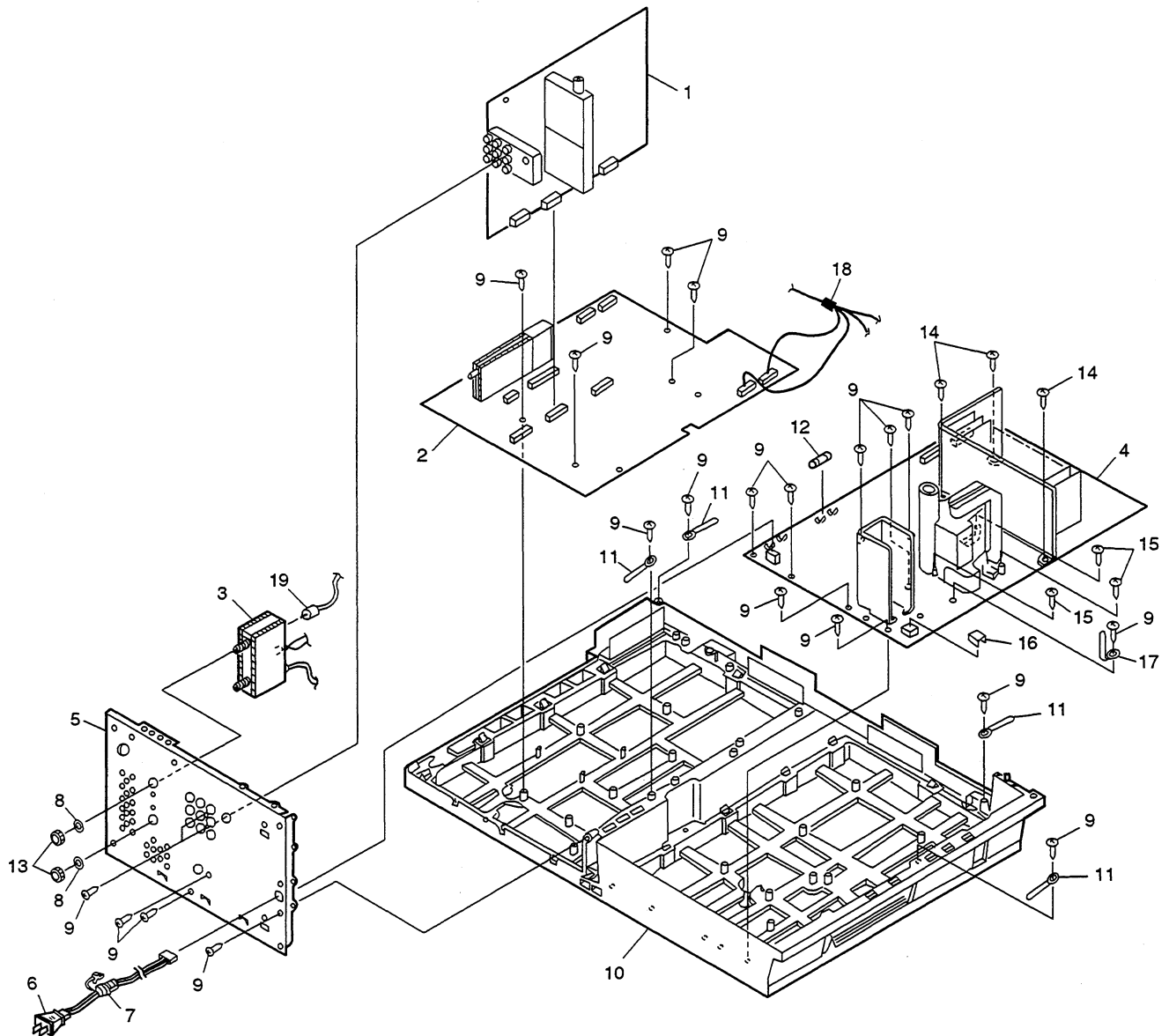


Parts List

Mark	No.	Description	Part No.
NSP	1	PCB Frame	ANG2141
	2	Screw	BBZ30P140FZK
	3	Binder	AEP-215
△	4	Focus VR (VR1)	ACX1096
	5	CONNECTOR A Assy	AWZ6189
	6	Wire Holder	AMR2832
	7	CONVER CONTROL Assy	AWZ6195
	8	Rivet	AEC-441
	9	CONNECTOR B Assy	AWZ6196
	10	AMP Assy	AWZ6190

Mark	No.	Description	Part No.
	11	Screw	ABZ30P120FZK
	12	4P Housing Wire (J11)	ADX2230
	13	1P Lead Wire (J4)	ADX2289
	14	1P Lead Wire (J5)	ADX2290
	15	1P Lead Wire (J6)	ADX2291
	16	1P Lead Wire (J7)	ADX2231
	17	1P Lead Wire (J8)	ADX2232
	18	1P Lead Wire (J9)	ADX2233

2.9 CHASSIS BLOCK (2)

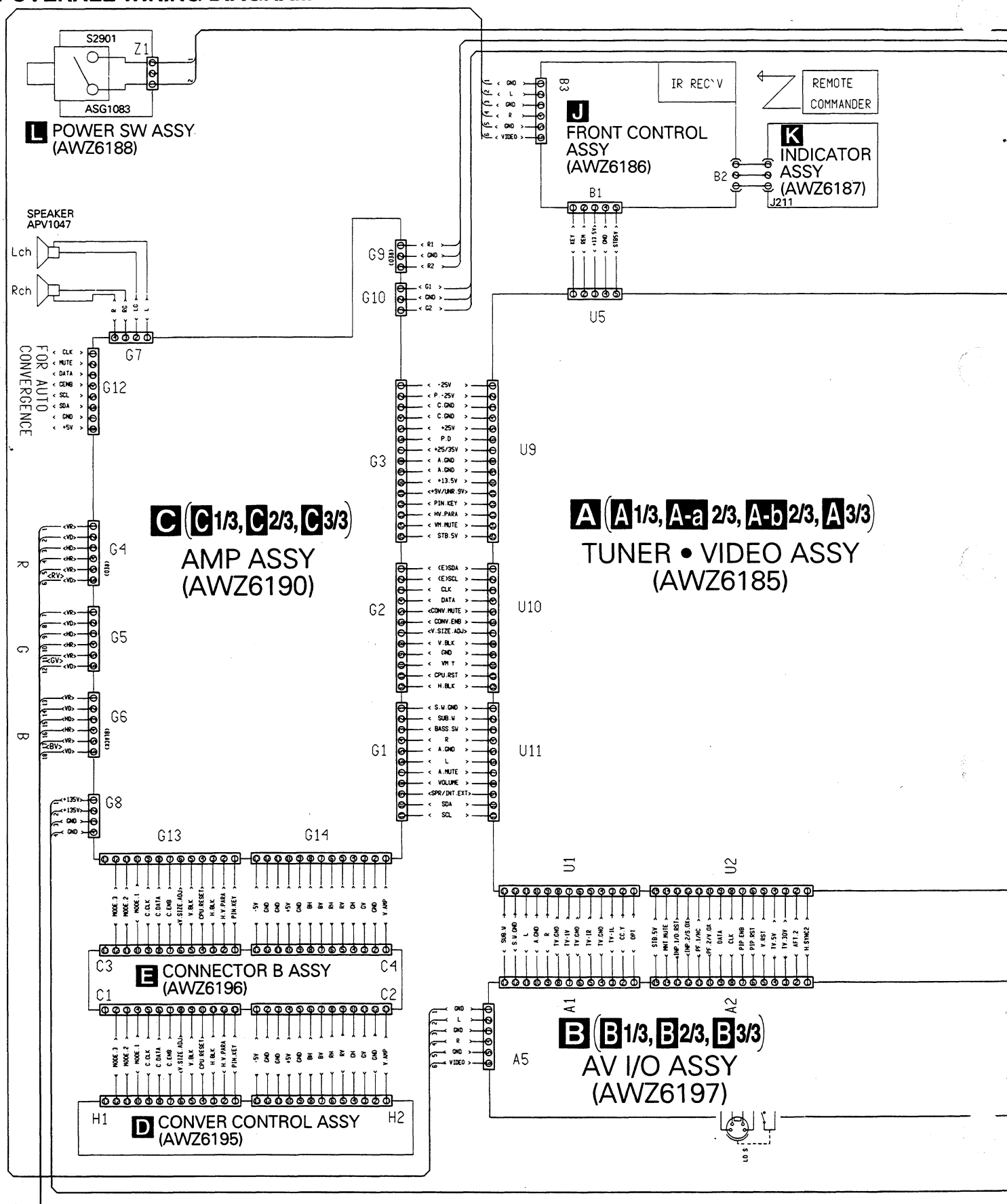


Parts List

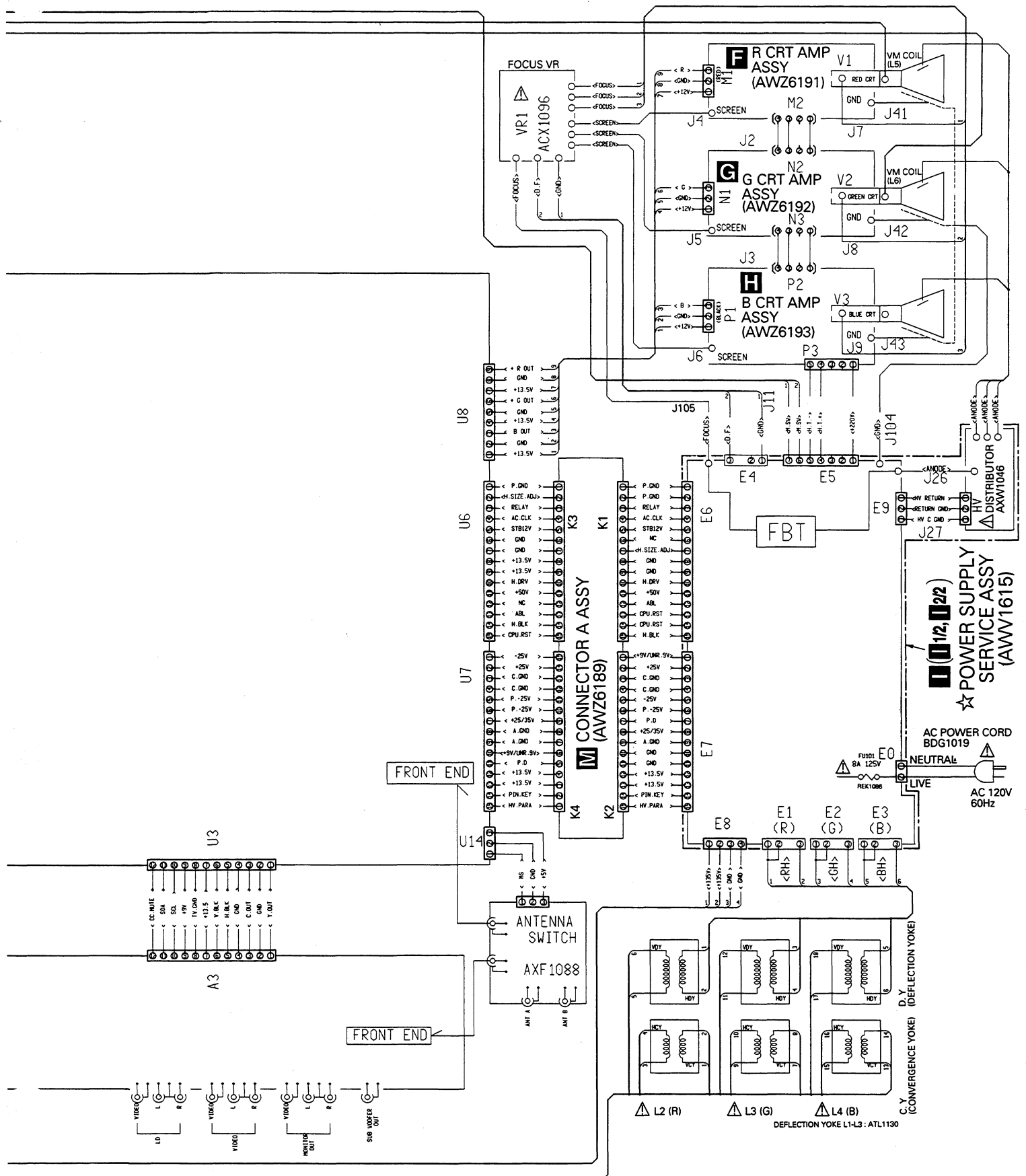
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	AV I/O Assy	AWZ6197		11	Binder	AEP-215
	2	TUNER • VIDEO Assy	AWZ6185	△	12	Fuse (FU102, 0.5A/125V)	AEK1010
	3	RF Switch	AXF1088	13	Nut	ABN-087	
☆	4	POWER SUPPLY SERVICE Assy	AWV1615	14	Screw	ABZ30P120FZK	
	5	Rear Panel	ANC2296	15	Screw	VBZ30P200FMC	
△	6	AC Power Cord	BDG1019	16	Shield Case	ANK1510	
	7	Strain Relief	AEP-113	17	Binder	AEC-826	
	8	Bushing	AEC1661	18	Wire Harness (J8009)	ADX2288	
	9	Screw	BBZ30P140FZK	19	Coaxial Cable	ADE1165	
NSP	10	Chassis	AMA1011				

3. SCHEMATIC DIAGRAM

3.1 OVERALL WIRING DIAGRAM

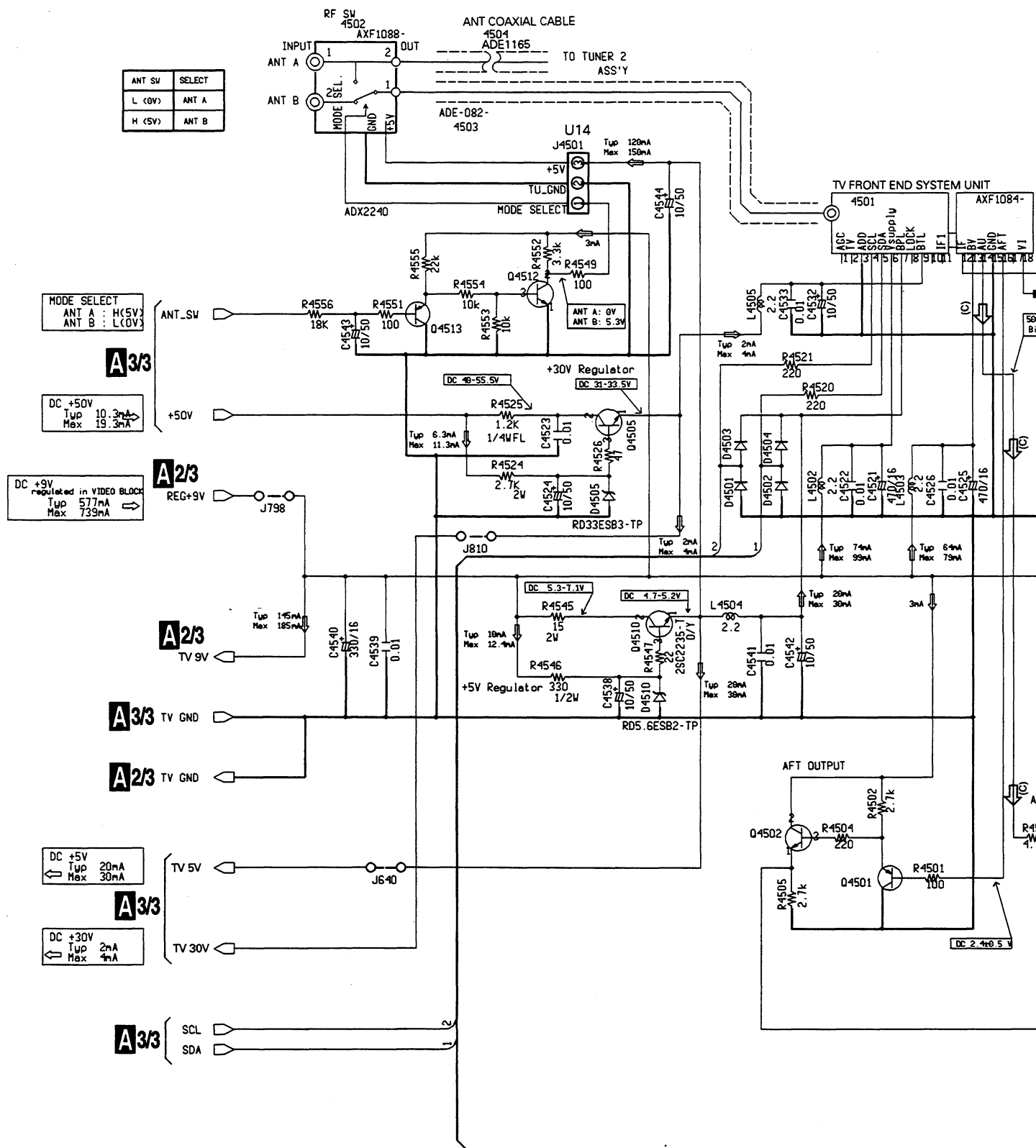


Note : When ordering service parts, be sure to refer to
"EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST"



3.2 TUNER-VIDEO ASSY (1/3)

A TUNER • VIDEO ASSY (1/3) (AWZ6185) • TUNER BLOCK



Notes

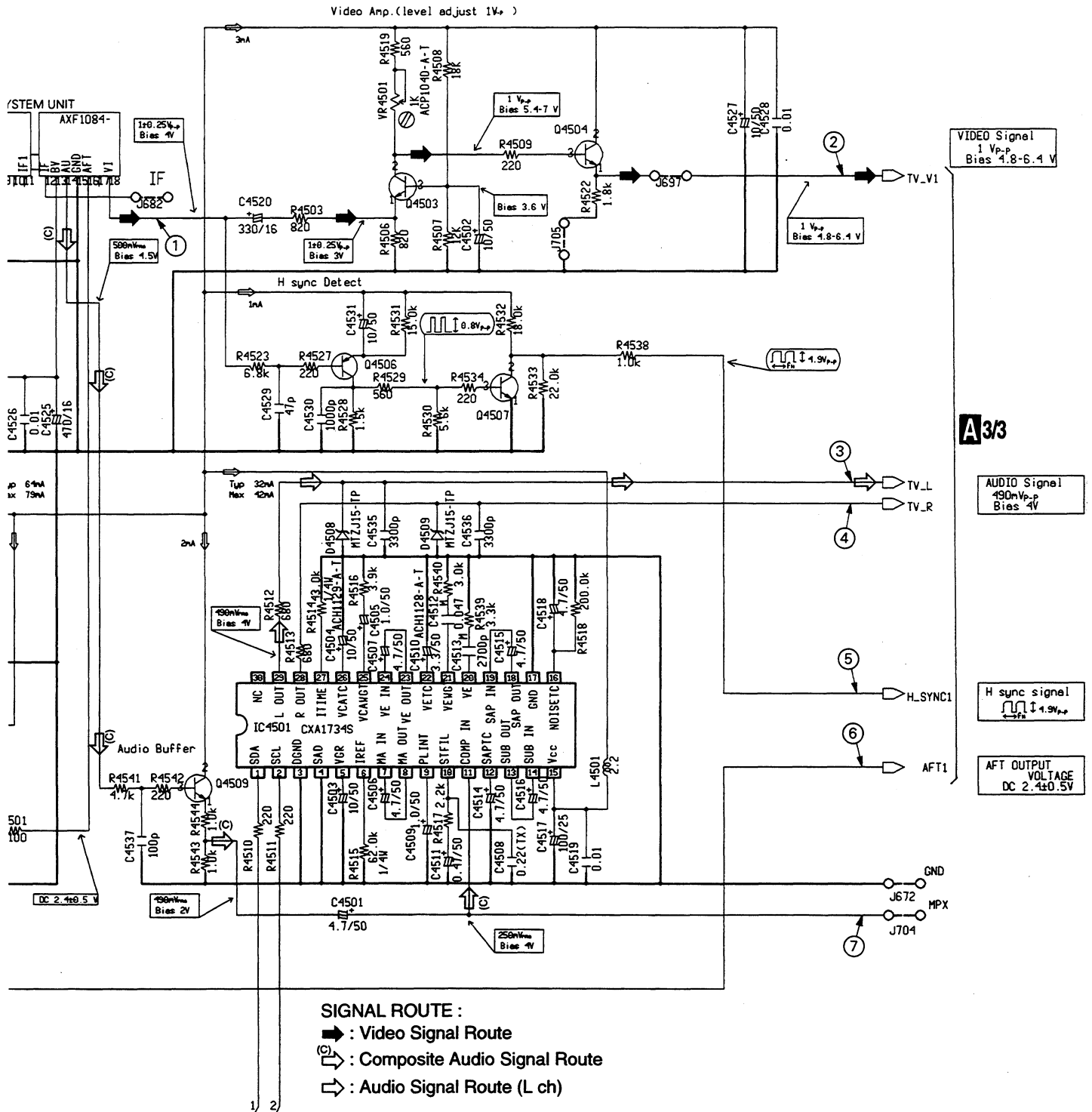
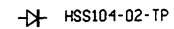
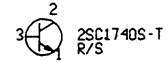
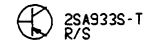
1.RESISTORS

Indicated in Ω
tolerance unless otherwise noted k Ω

2. CAPASITORS

Indicated in capacity(uF)/Voltage unless
otherwise noted p pF

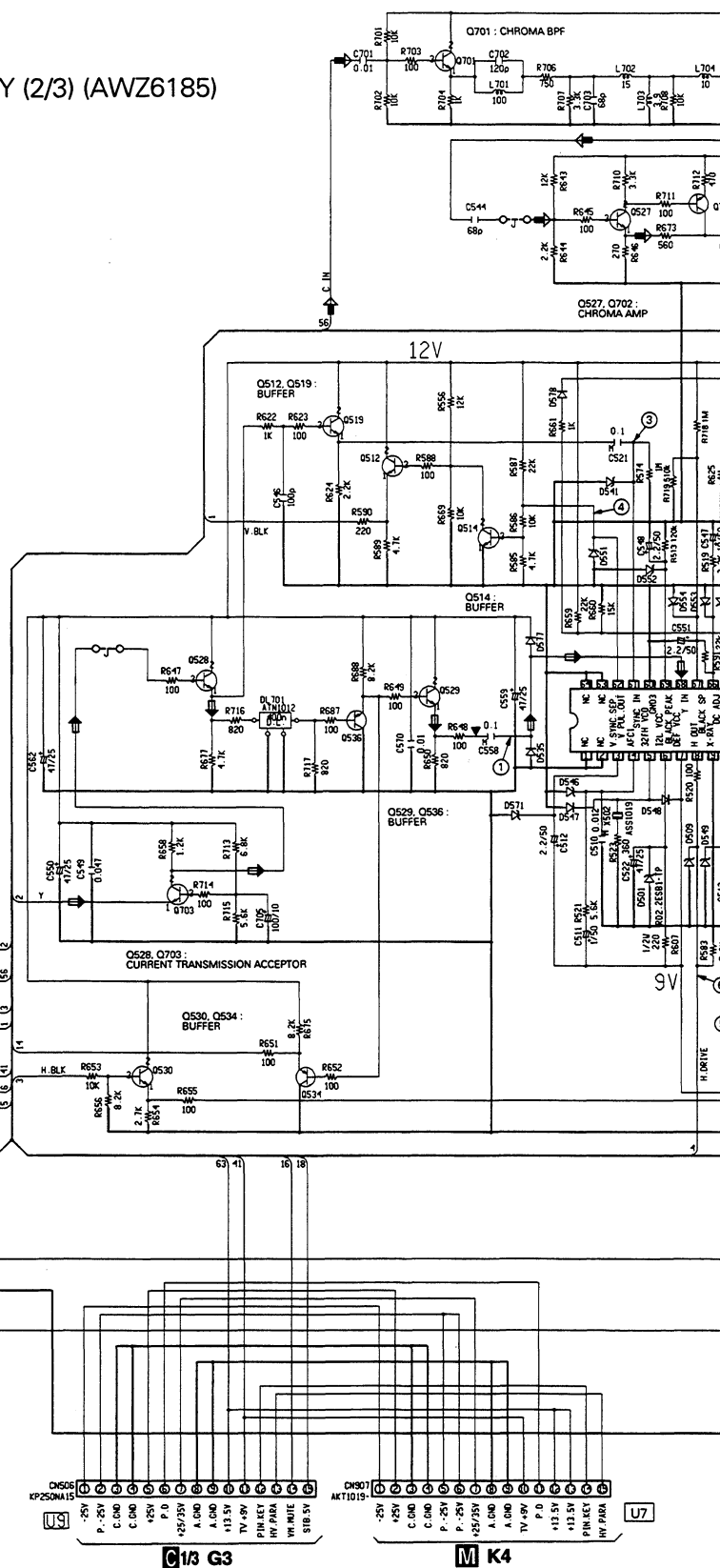
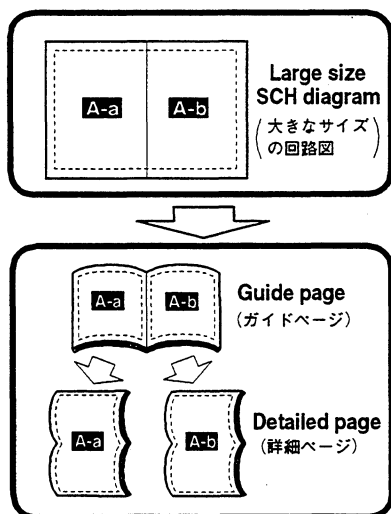
Indication without voltage is 50V except electrolytic capacitor.



3.3 TUNER•VIDEO ASSY (2/3)

A-a

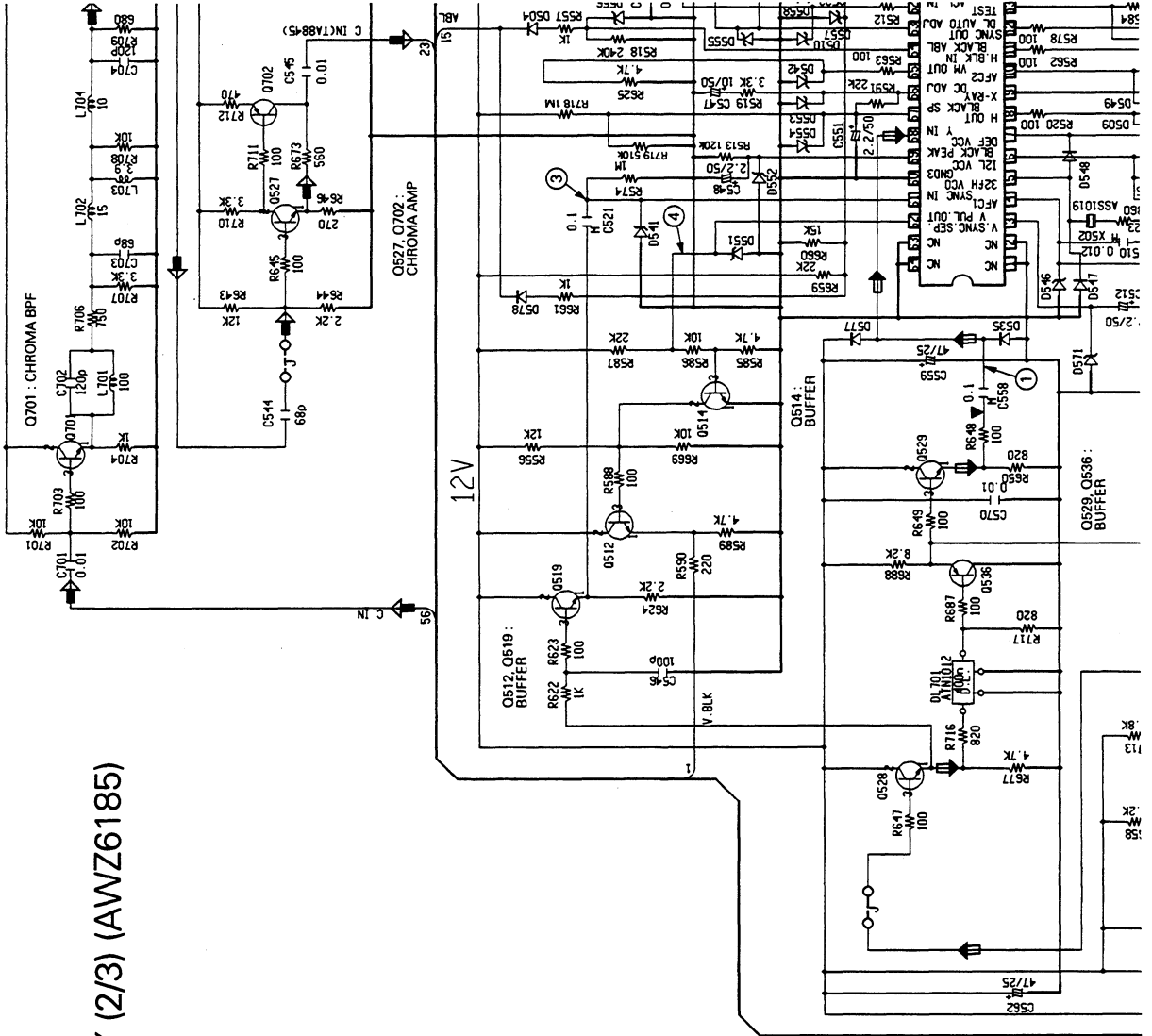
A TUNER • VIDEO ASSY (2/3) (AWZ6185) • VIDEO BLOCK



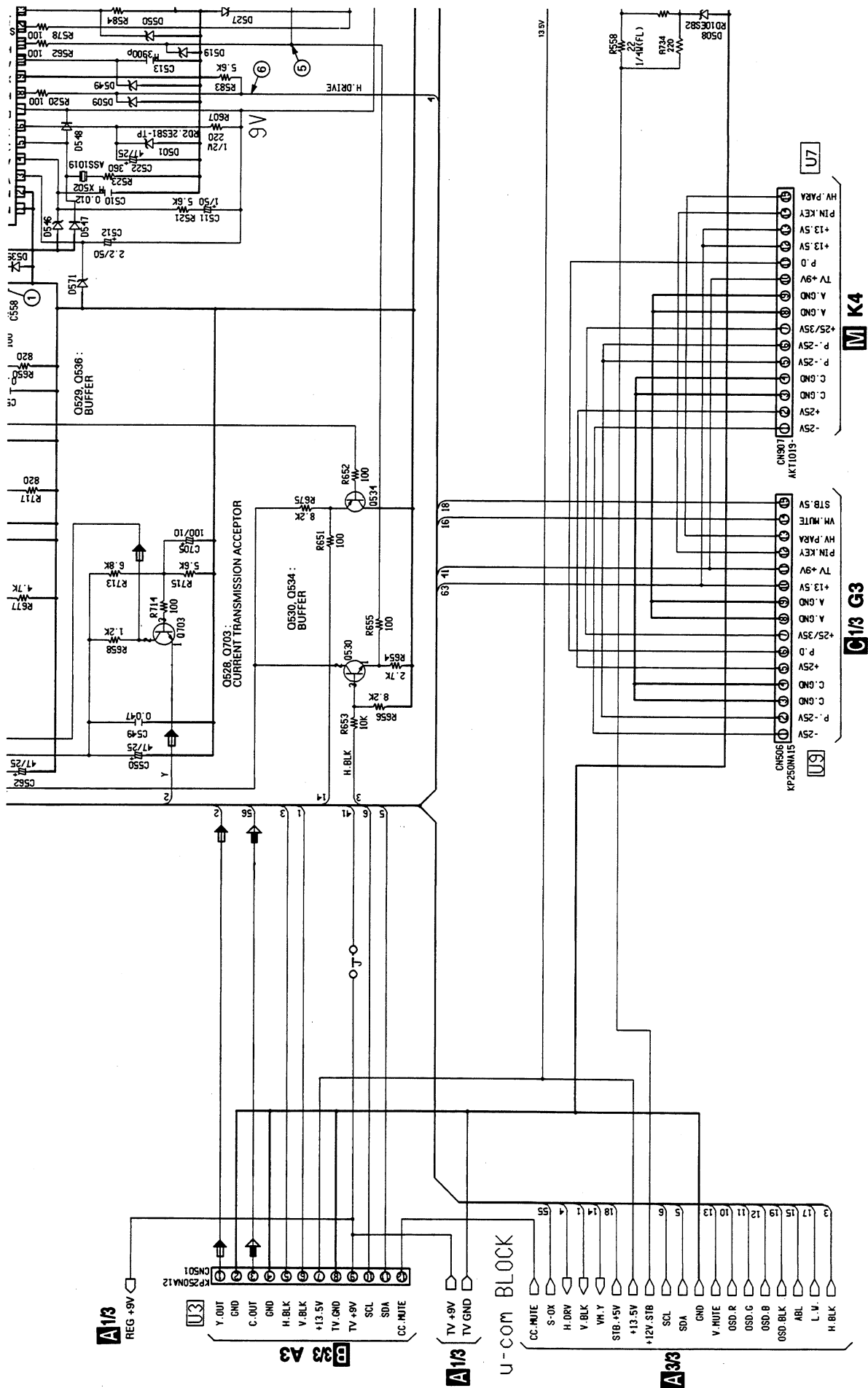


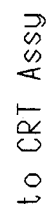
A-aA-b

A TUNER • VIDEO ASSY (2/3) (AWZ6185)
• VIDEO BLOCK

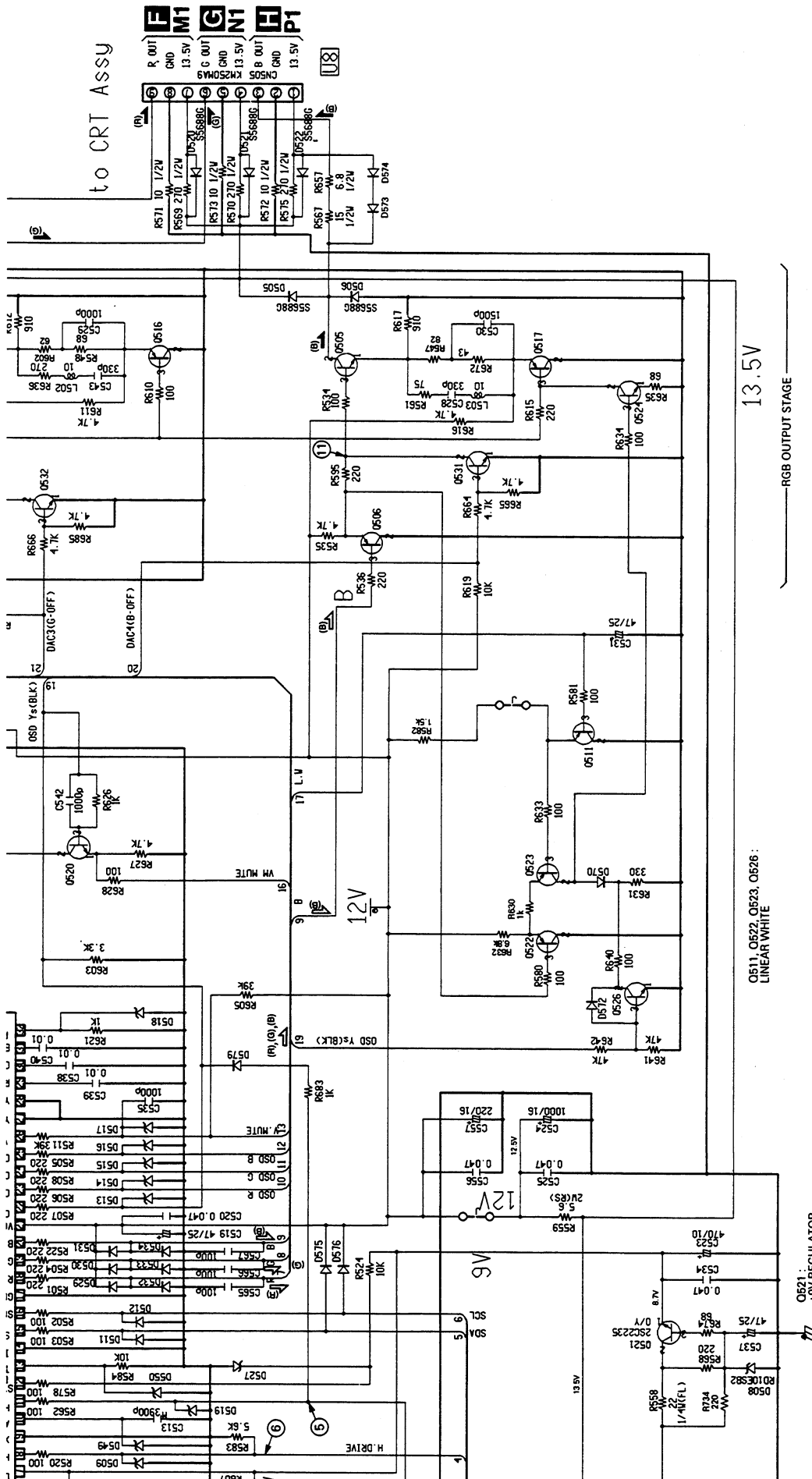


A-a A-b





A-aA-b



NOTE:

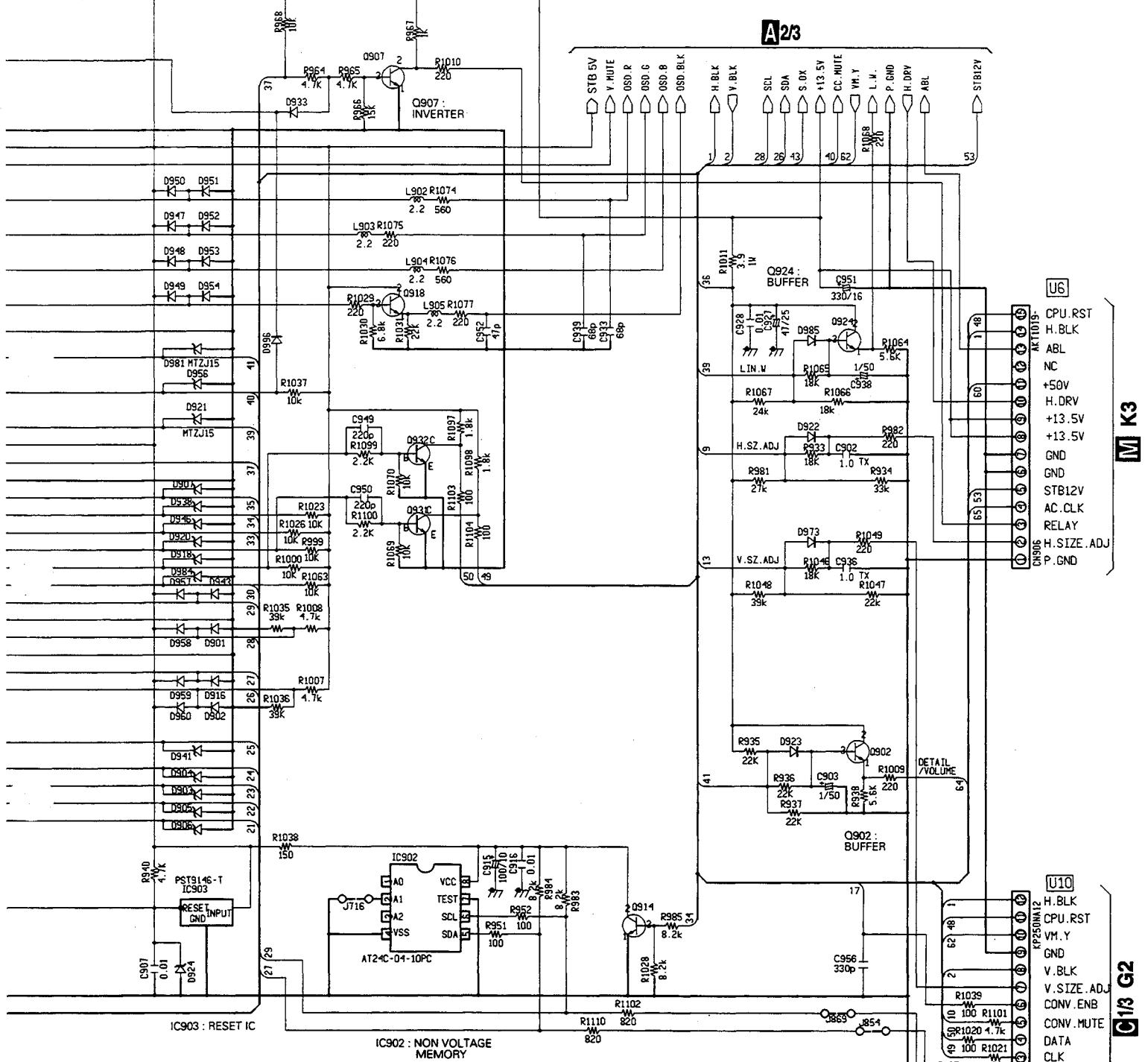
1. RESISTORS indicated in 1/2W, 1/4W, 1WFL, 2WFL 5% tolerance unless otherwise noted K:K, M:M, H:H, (F)×1/10, (G)×1/100, (K)×100, (M)×1000 tolerance
2. CAPACITORS indicated in capacity (F)/(V) unless otherwise noted of indicated without voltage is 50V except electrolytic capacitor

Q511, Q522, Q523, Q526 :
HSS104-02
2SA933S

Q521 :
MTJ15
2SC1740S



A TUNER • VIDEO ASSY (3/3) (AWZ6185)
• UCOM BLOCK



- Notes
1. RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
 2. CAPACITORS
Indicated in capacity (uF)/Voltage unless
otherwise noted p F
Indication without voltage is 50V except electrolytic capacitor

3.5 AV I/O ASSY (1/3)

B AV I/O ASSY (1/3) (AWZ6197)

• TUNER 2 BLOCK

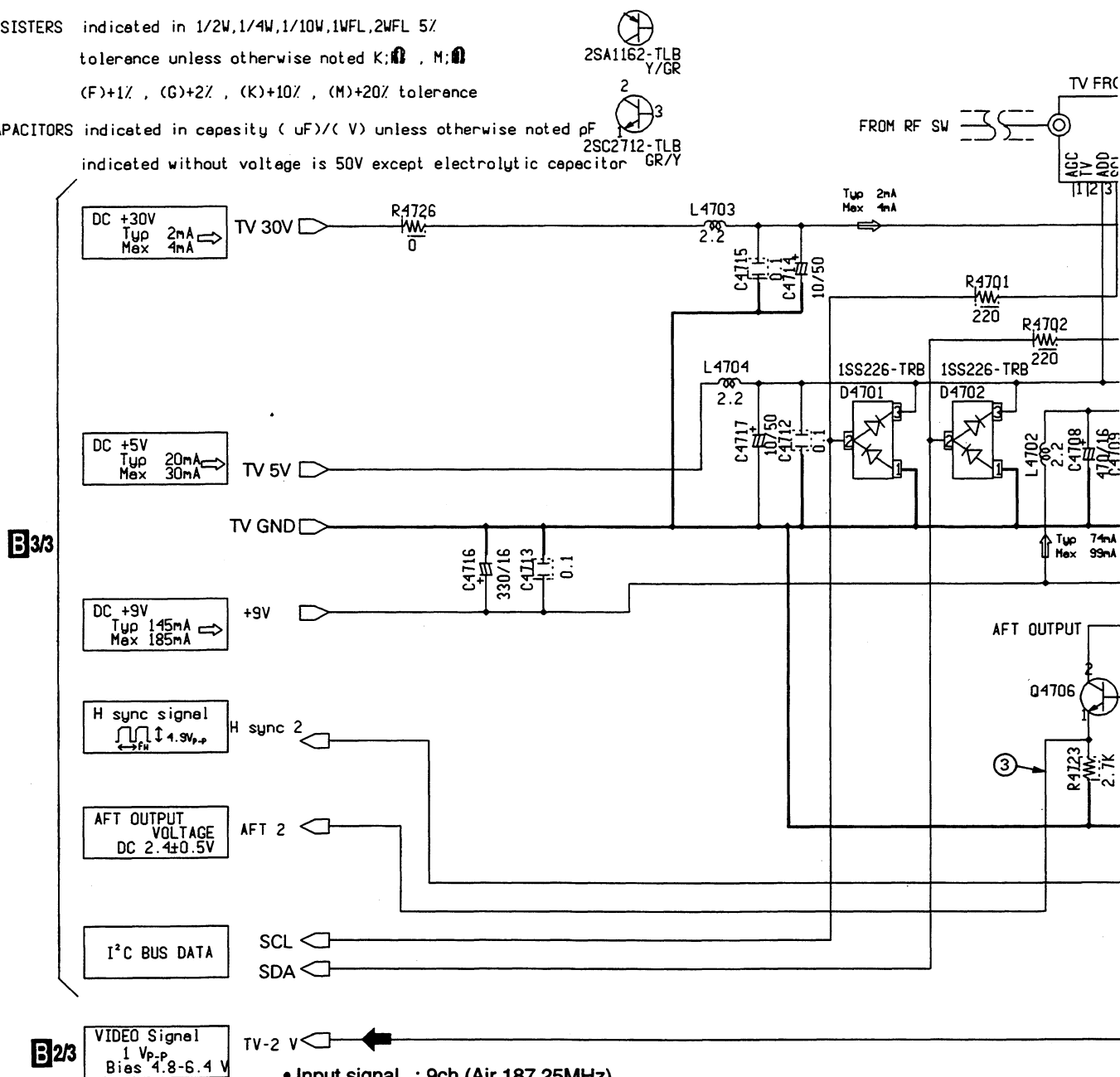
1.RESISTERS indicated in 1/2W,1/4W,1/10W,1WFL,2WFL 5%

tolerance unless otherwise noted K;  , M; 

(F)+1% , (G)+2% , (K)+10% , (M)+20% tolerance

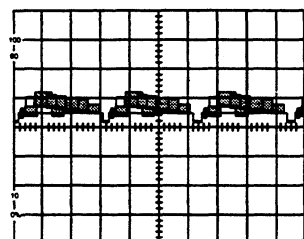
2.CAPACITORS indicated in capacity (uF)/(V) unless otherwise noted pF

indicated without voltage is 50V except electrolytic capacitor GR/Y

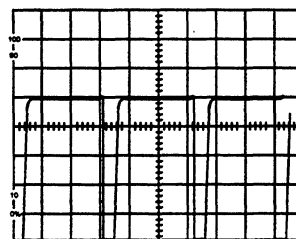


- Input signal : 9ch (Air 187.25MHz)
- Video signal : Color bar (87.5% Mod., 1kHz ± 25kHz dev.), 60dBμ input
- Range : DC range (Unless otherwise noted)

① TV FRONT END pin 18 (VI)
V : 1V/div, H : 20μsec/div



② Foot of R4716 (H SYNC 2)
V : 1V/div, H : 20μsec/div

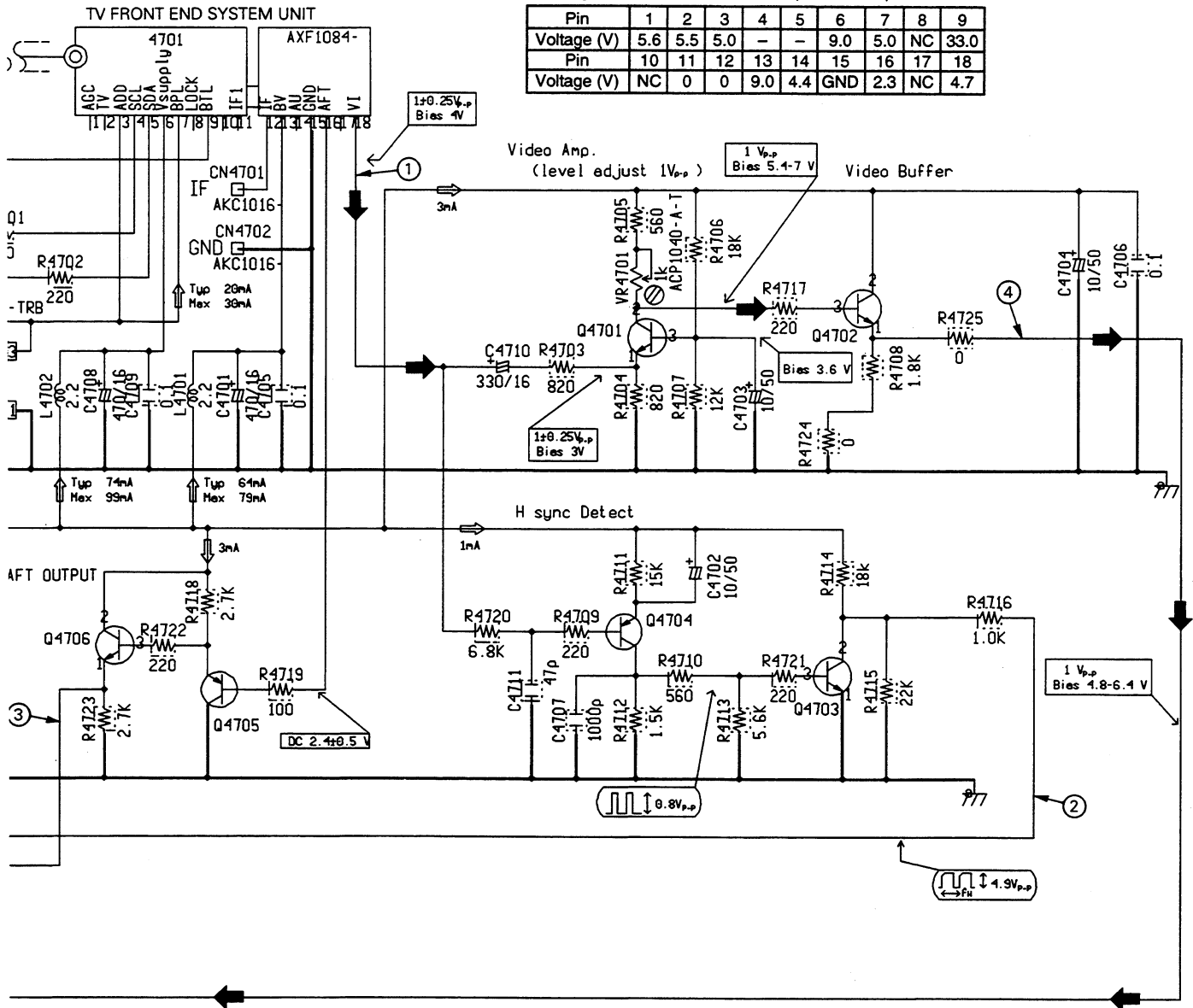


SIGNAL ROUTE :

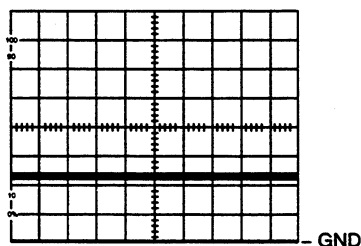
➡ : Video Signal Route

Voltage of TV FRONT END (AXF1084)

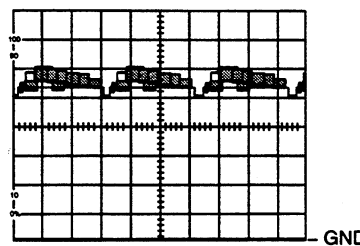
Pin	1	2	3	4	5	6	7	8	9
Voltage (V)	5.6	5.5	5.0	-	-	9.0	5.0	NC	33.0
Pin	10	11	12	13	14	15	16	17	18
Voltage (V)	NC	0	0	9.0	4.4	GND	2.3	NC	4.7



③ Q4706 Emitter (AFT 2)
V: 1V/div, H: 20μsec/div



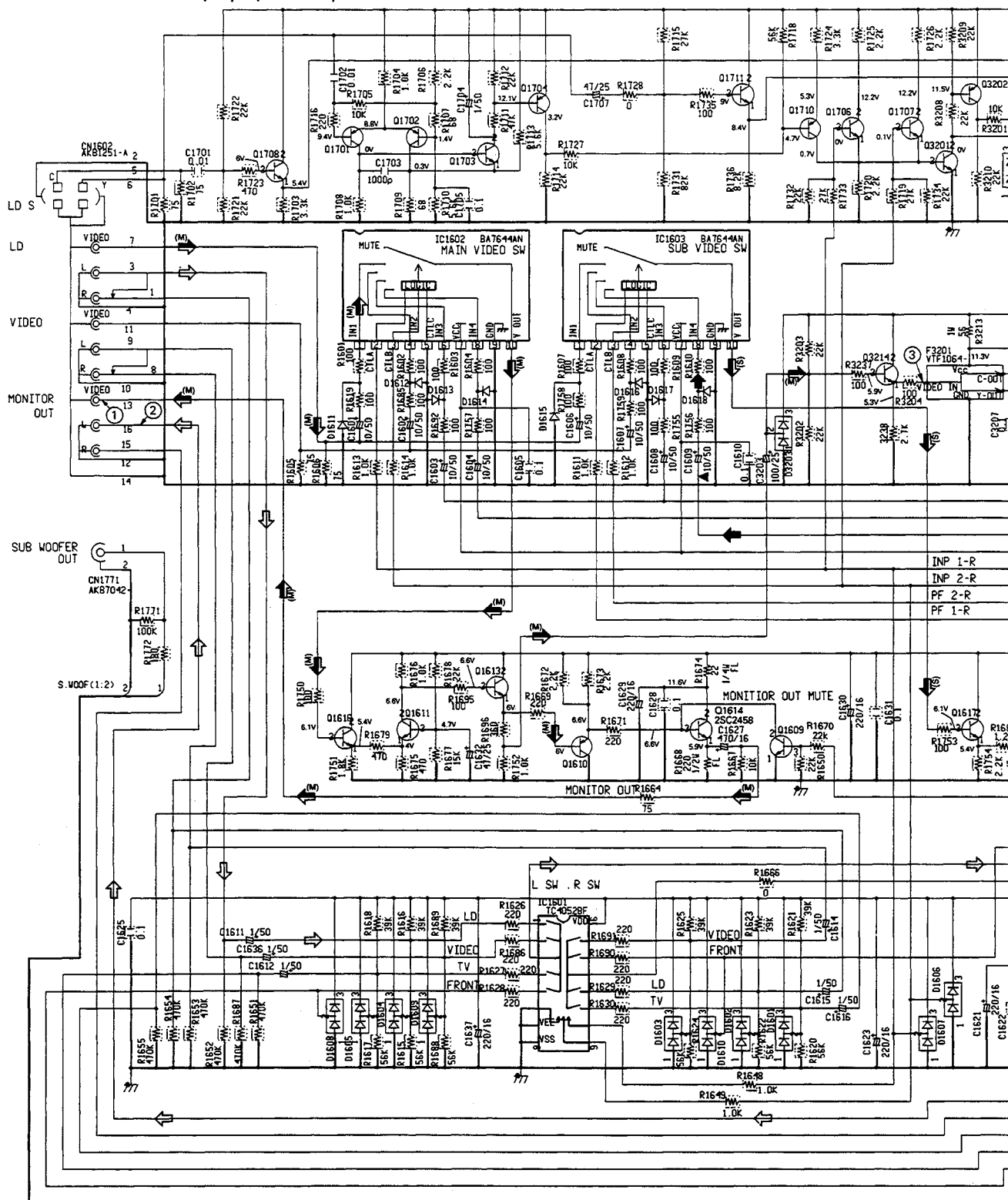
④ Foot of R4725 (TV 2 V)
V: 1V/div, H: 20μsec/div



3.6 AV I/O ASSY (2/3)

B AV I/O ASSY (2/3) (AWZ6197)

- AV I/O, Y/C SEP, S INPUT AND SUB WOOFER BLOCKS



NOTE

1. RESISTORS Indicated in 1/2W, 1/4W, 1/10W, 1WFL, 2WFL +5% tolerance unless otherwise noted k:k ,M:M
2. CAPACITORS Indicated in capacity (F)/(V) unless otherwise noted pf.

Indicated without voltage is 50V except electrolytic capacitor.



2SC2712-TLB



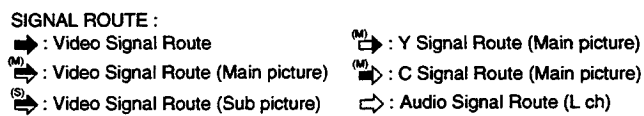
2SA1162-TLB



1SS226-TRB

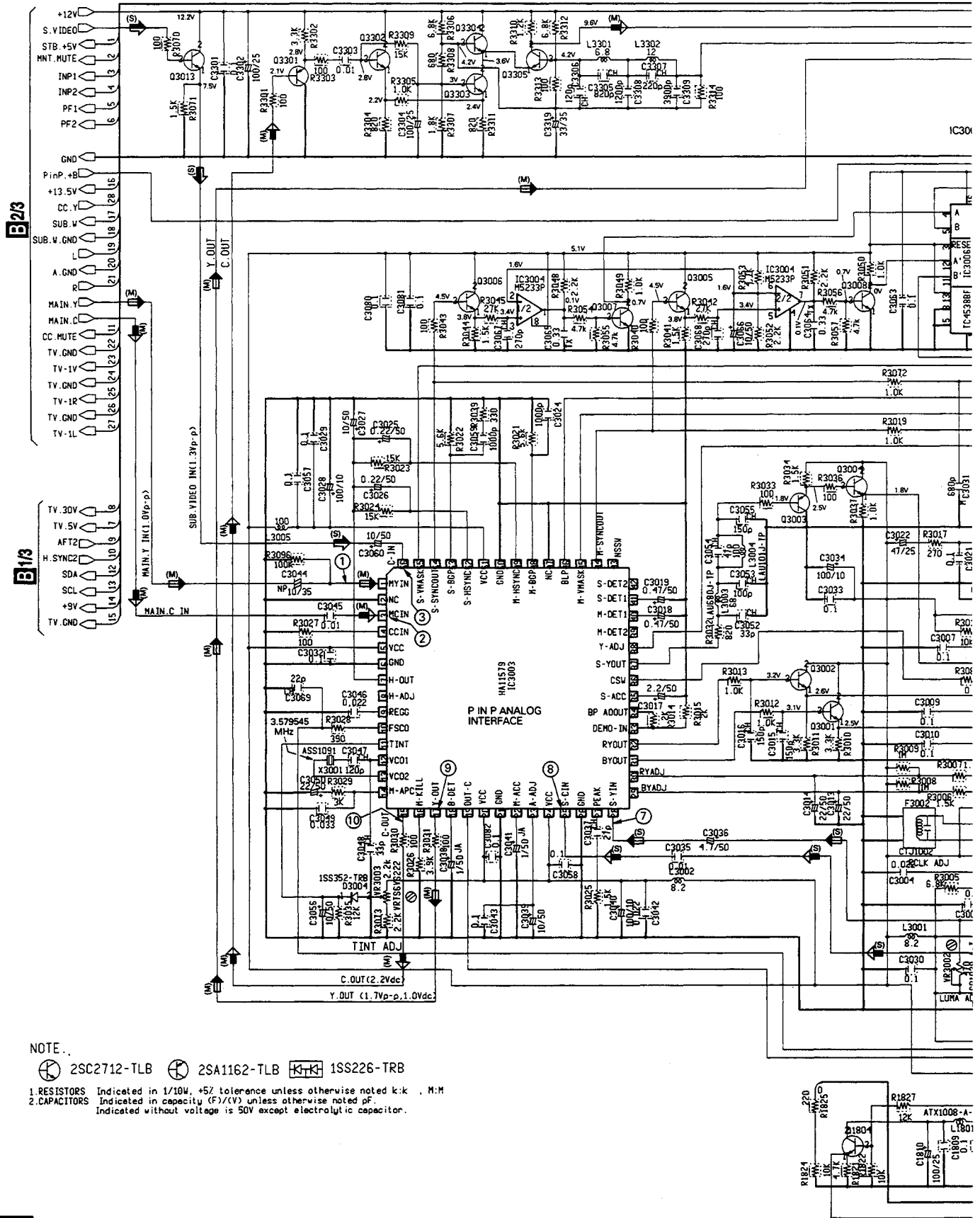


1SS352-TRB

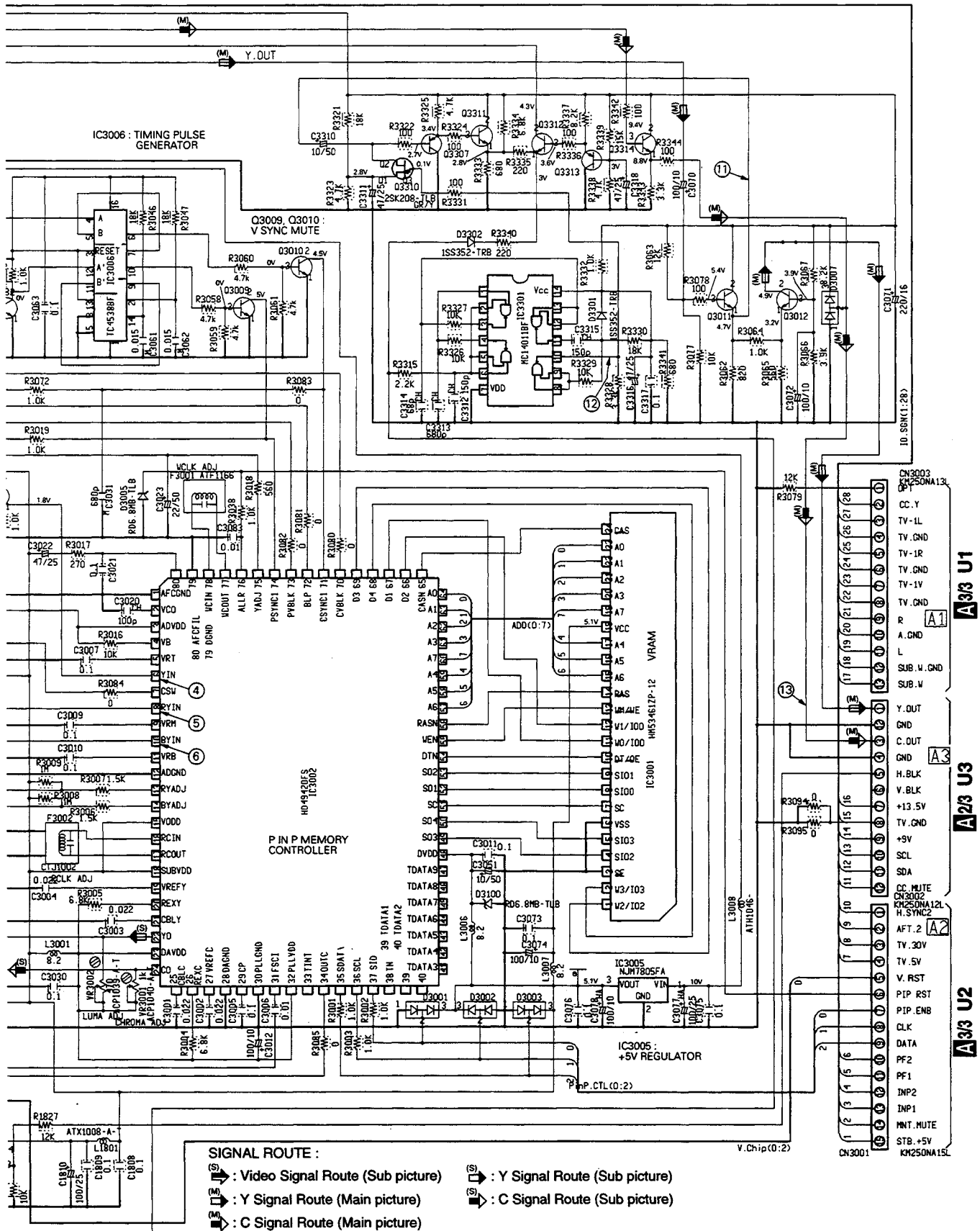


3.7 AV I/O ASSY (3/3)

B AV I/O ASSY (3/3) (AWZ6197)
• P IN P AND CNR BLOCKS



NOTE.
1. RESISTORS Indicated in 1/10W, +5% tolerance unless otherwise noted k:k , M:M
2. CAPACITORS Indicated in capacity (F)/(V) unless otherwise noted pF.
Indicated without voltage is 50V except electrolytic capacitor.

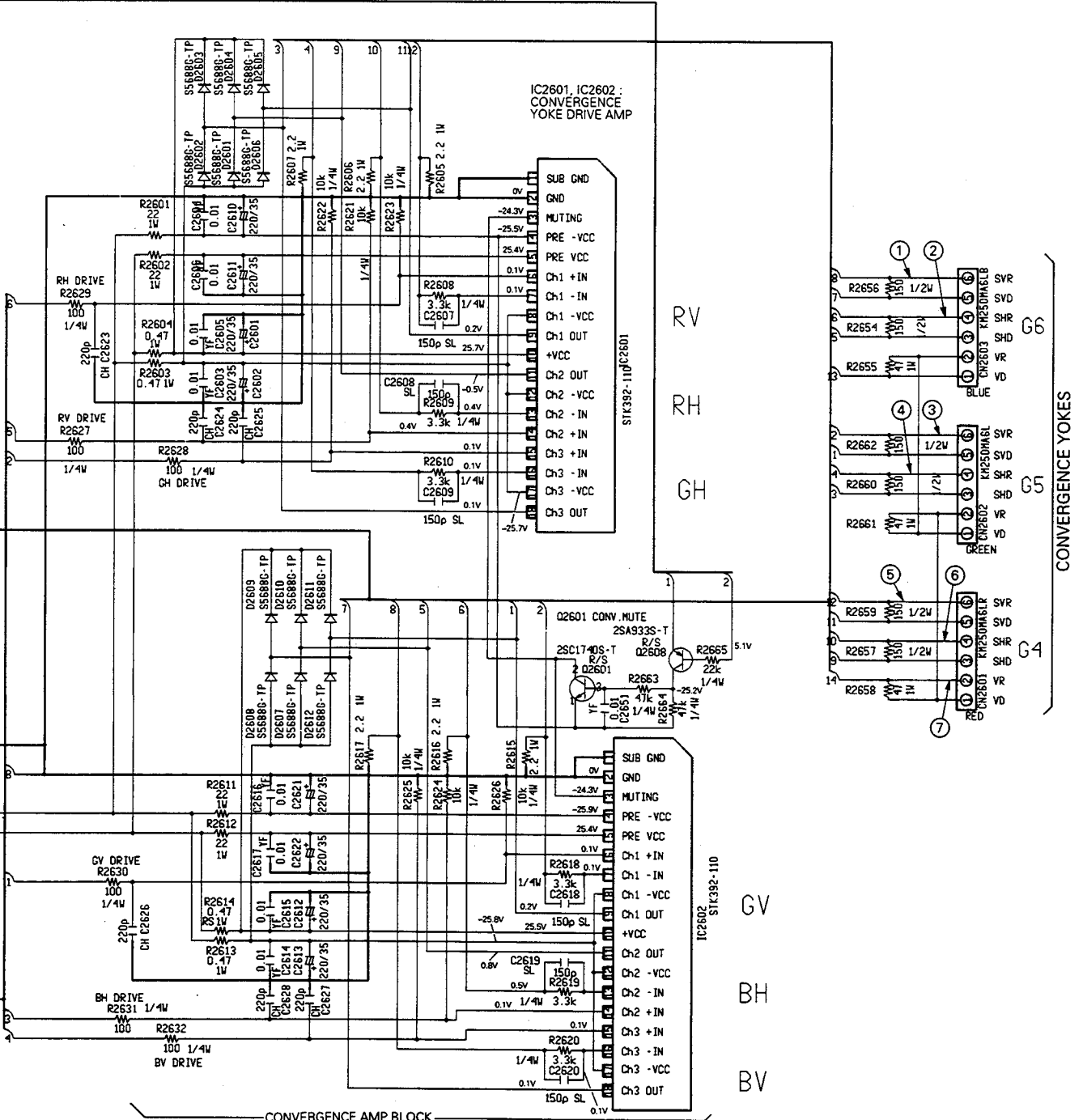


3.8 AMP ASSY (1/3)



C AMP ASSY (1/3) (AWZ6190)

- CONVER AMP AND V. DEFLECTION BLOCKS



Notes

1. RESISTERS

(RS):METAL OXIDE FILM RESISTER

(RT):CEMENT RESISTER

(RN):METAL FILM RESISTER

(FL):NON FLAMMABLE RESISTER

THE OTHERS: CARBON FILM RESISTOR (1/4 W)

Figures in parentheses

show the rated wattage.

Those unspecified ones are of $1/4W$.

K:K Ω ,M:M Ω ,Unspecified ones are of Ω

2. CAPACITORS

(HA):Aluminium electrolytic capacitors

$p:pF$, Unspecified ones are of uF

Capacity/Voltage

Unspecified ones are of 50V

3.9 AMP ASSY (2/3)

Notes

1.RESISTORS

Indicated in ohm, 1/4W, $\pm 5\%$
tolerance unless otherwise noted k;k ohm,M;M ohm

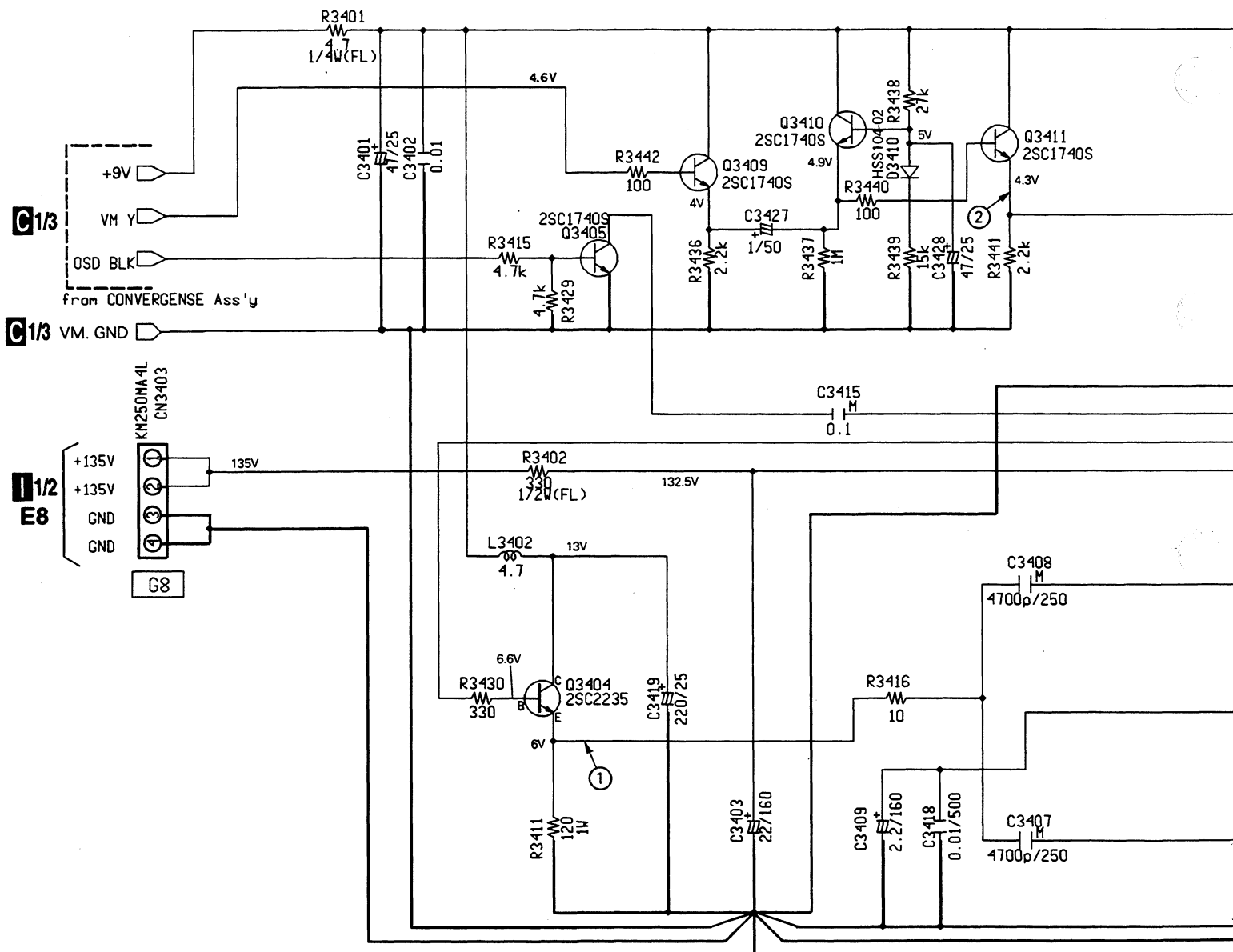
2.CAPASITORS

Indicated in capacity(μ F)/Voltage unless
otherwise noted,p;pF.

Indication without voltage is 50V except electrolytic capacitor

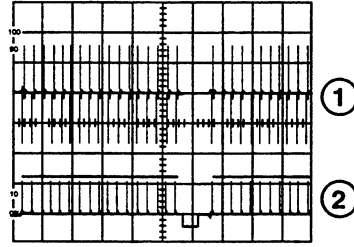
C AMP ASSY (2/3) (AWZ6190)

• VELOCITY MODULATION BLOCK

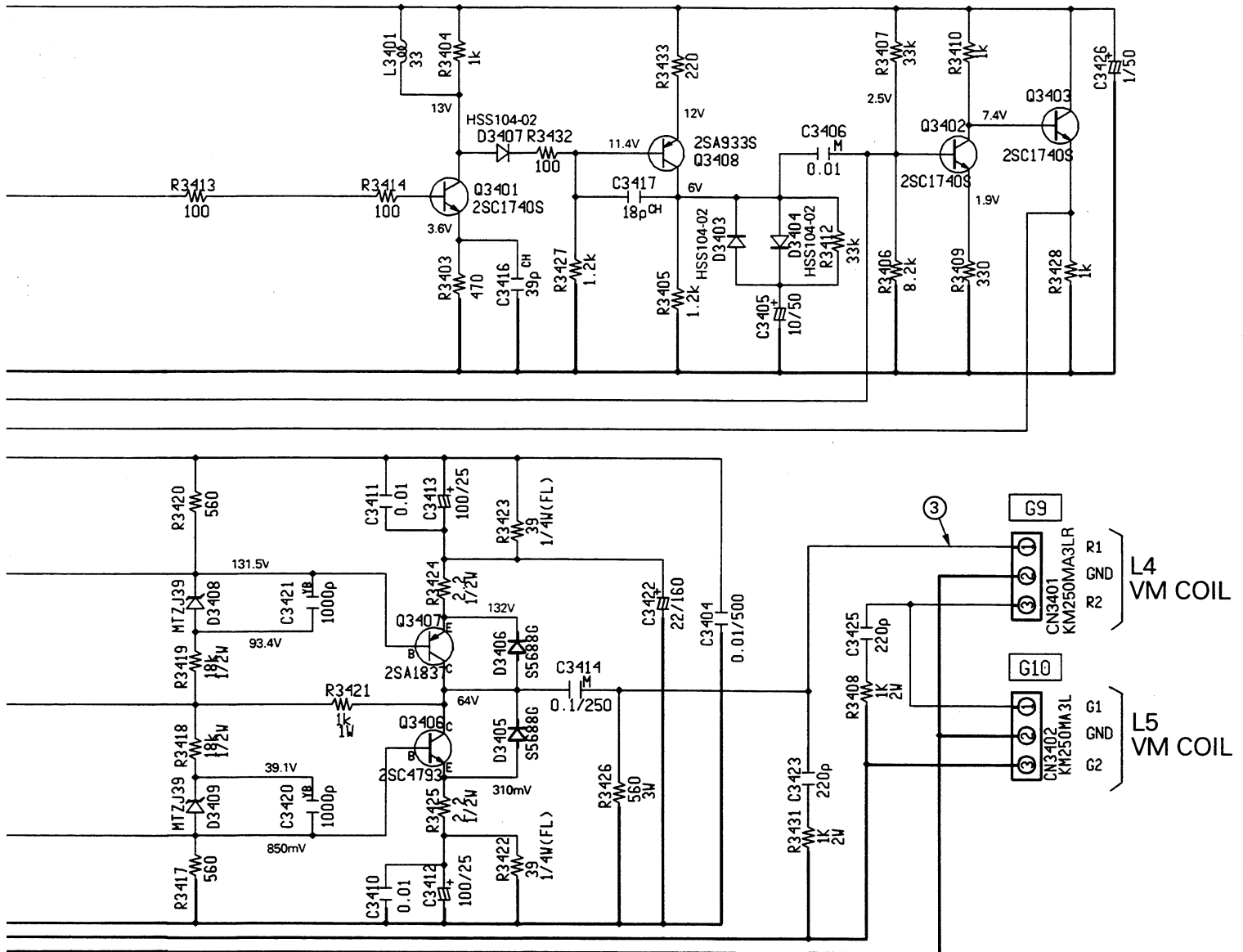
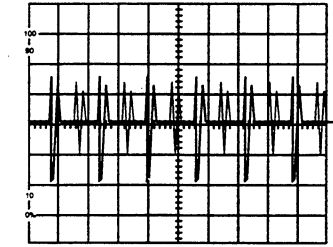


• Signal input : Cross-hatch

- ① Upper: Q3404 Emitter
V : 1V/div, H : 10 μ sec/div
② Lower: Q3411 Emitter
V : 0.5V/div, H : 10 μ sec/div
•AC range

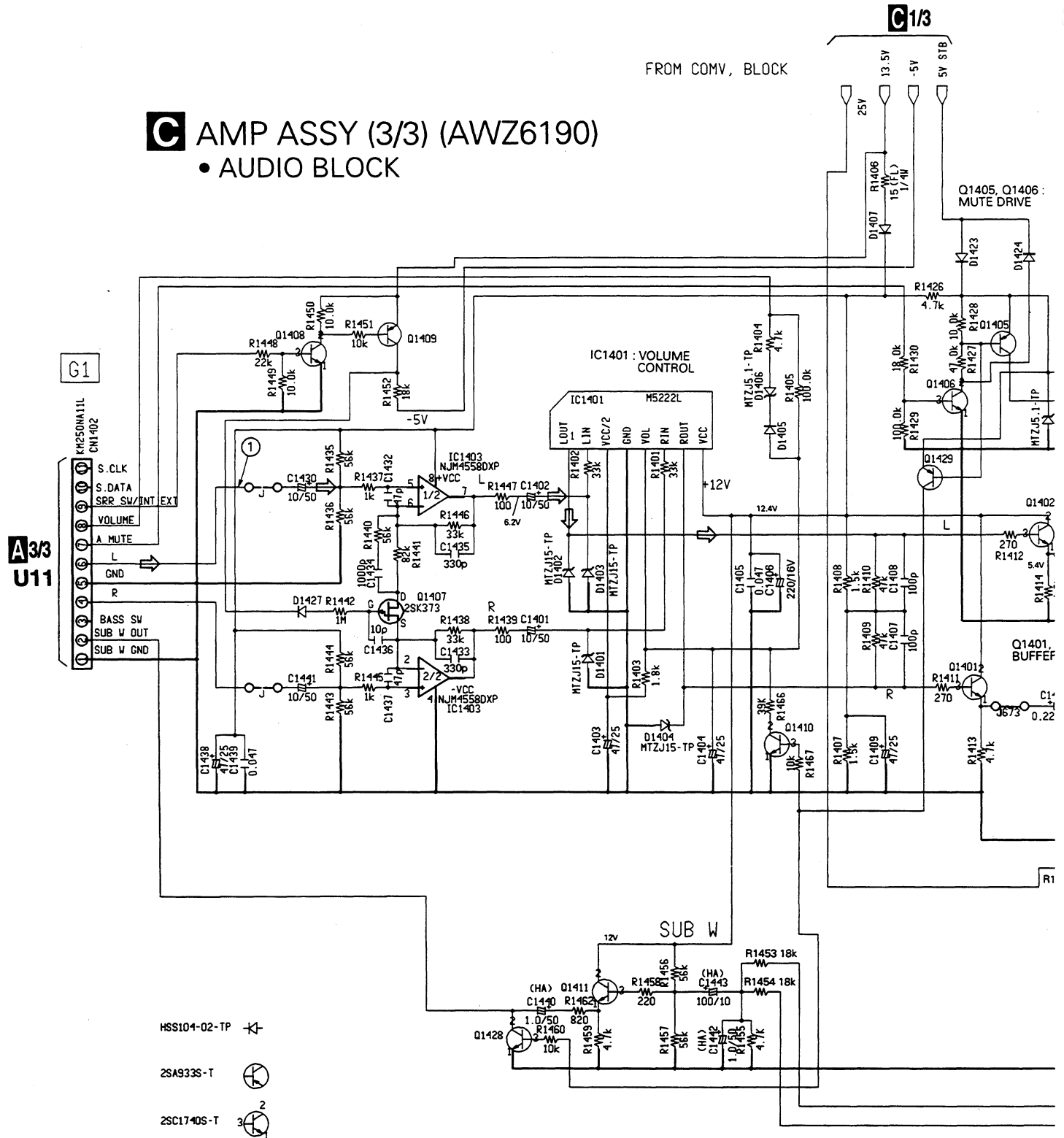


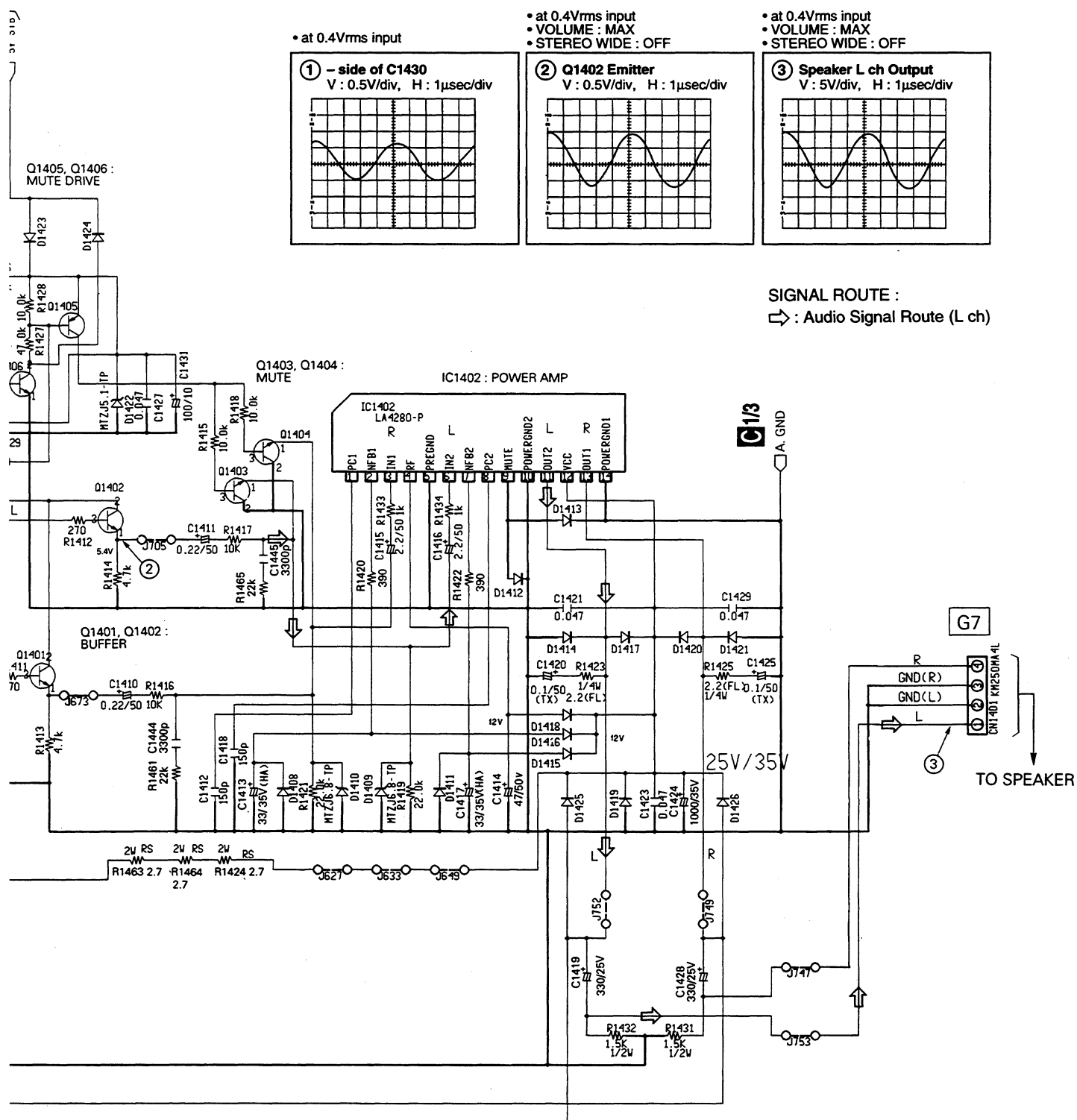
- ③ G9- pin 3
V : 20V/div, H : 2 μ sec/div
•AC range



3.10 AMP ASSY (3/3)

C AMP ASSY (3/3) (AWZ6190) - AUDIO BLOCK

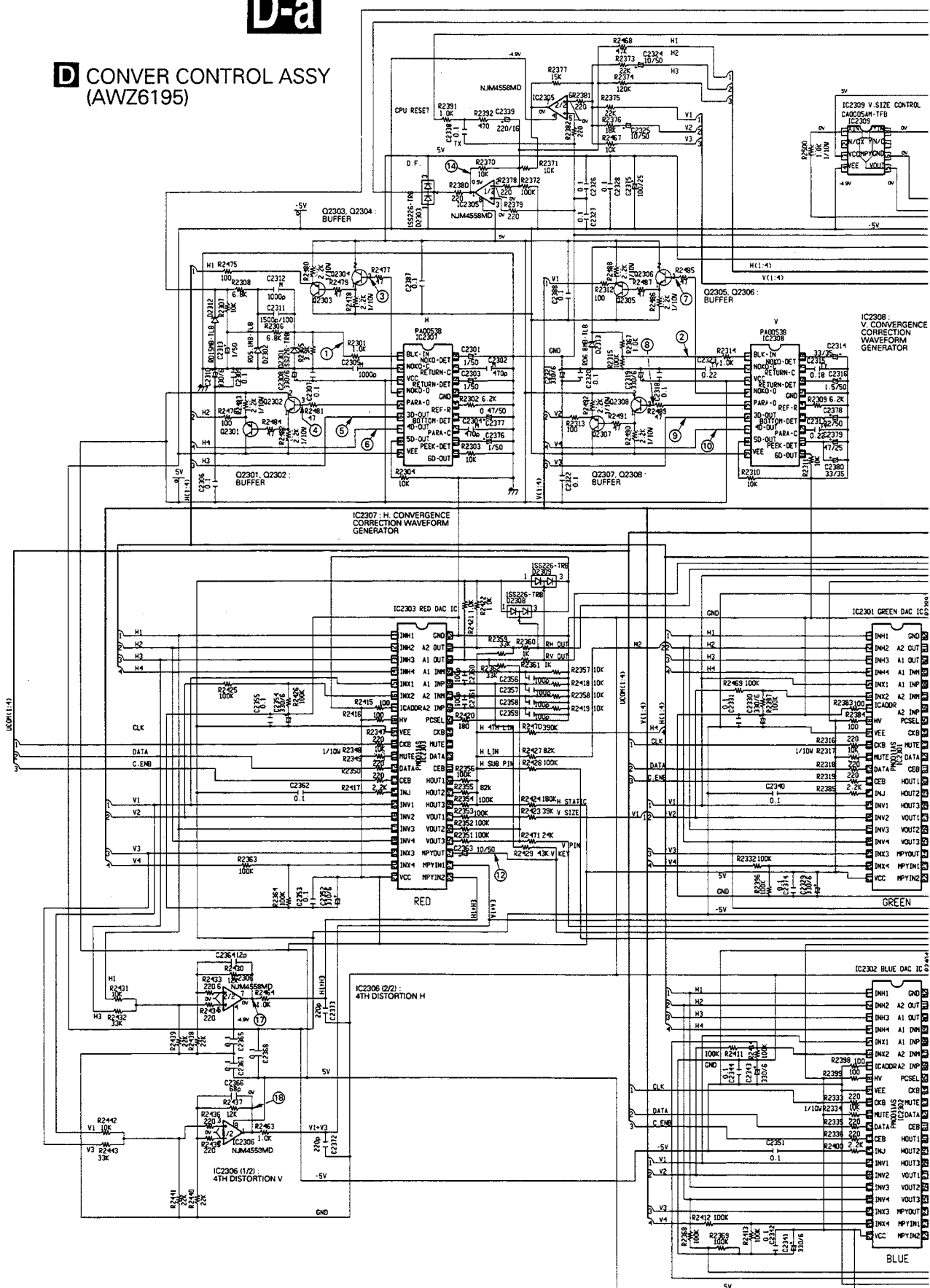




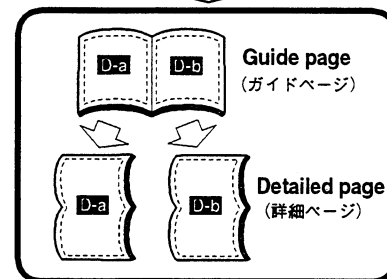
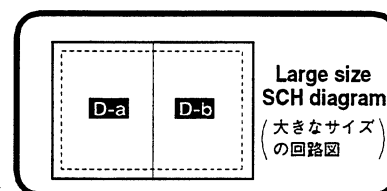
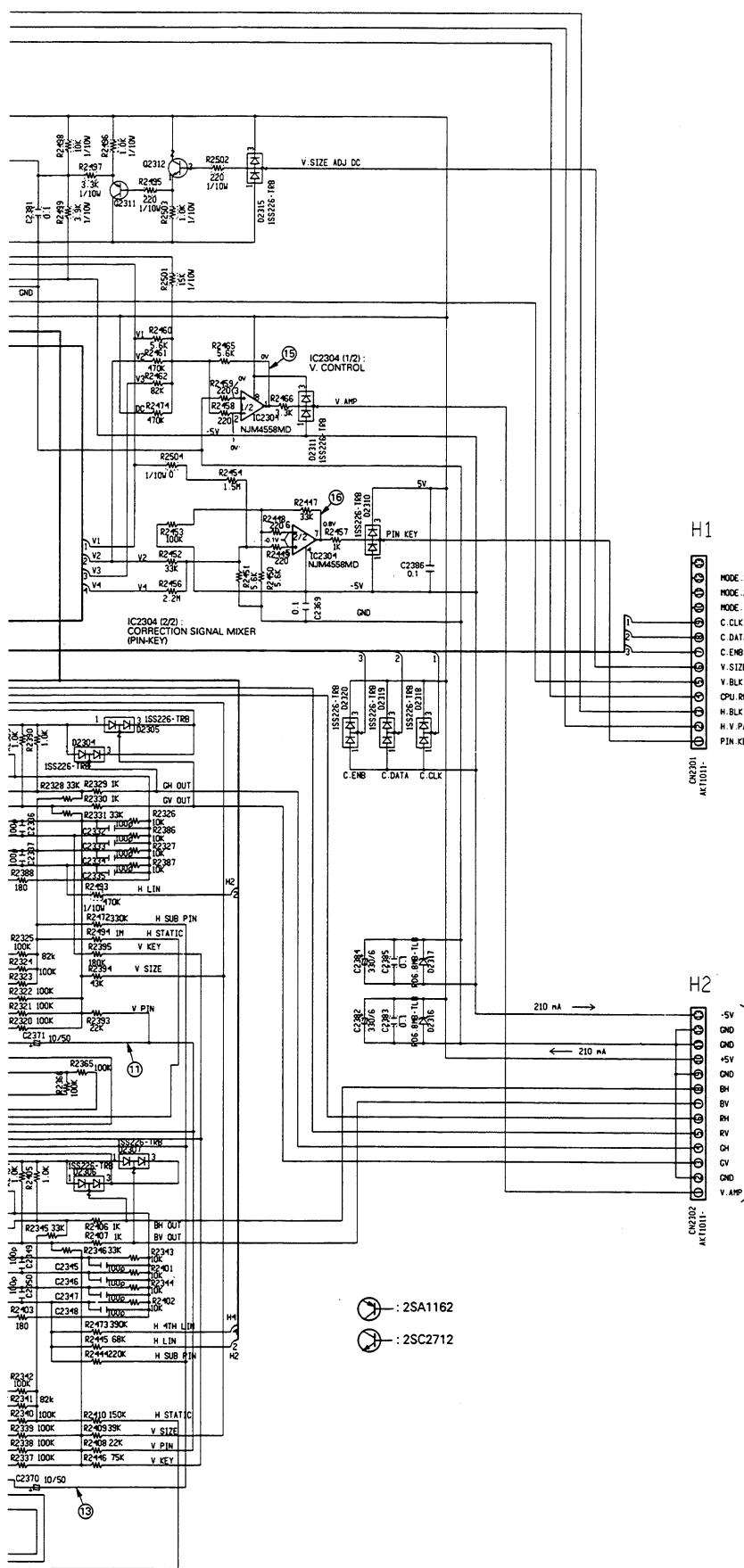
3.11 CONVER CONTROL AND CONNECTOR B ASSEMBLIES

D-a

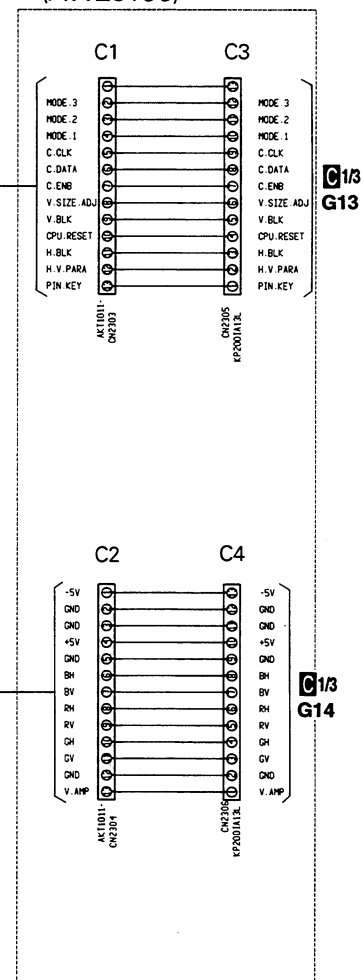
D CONVER CONTROL ASSY
(AWZ6195)



D-b

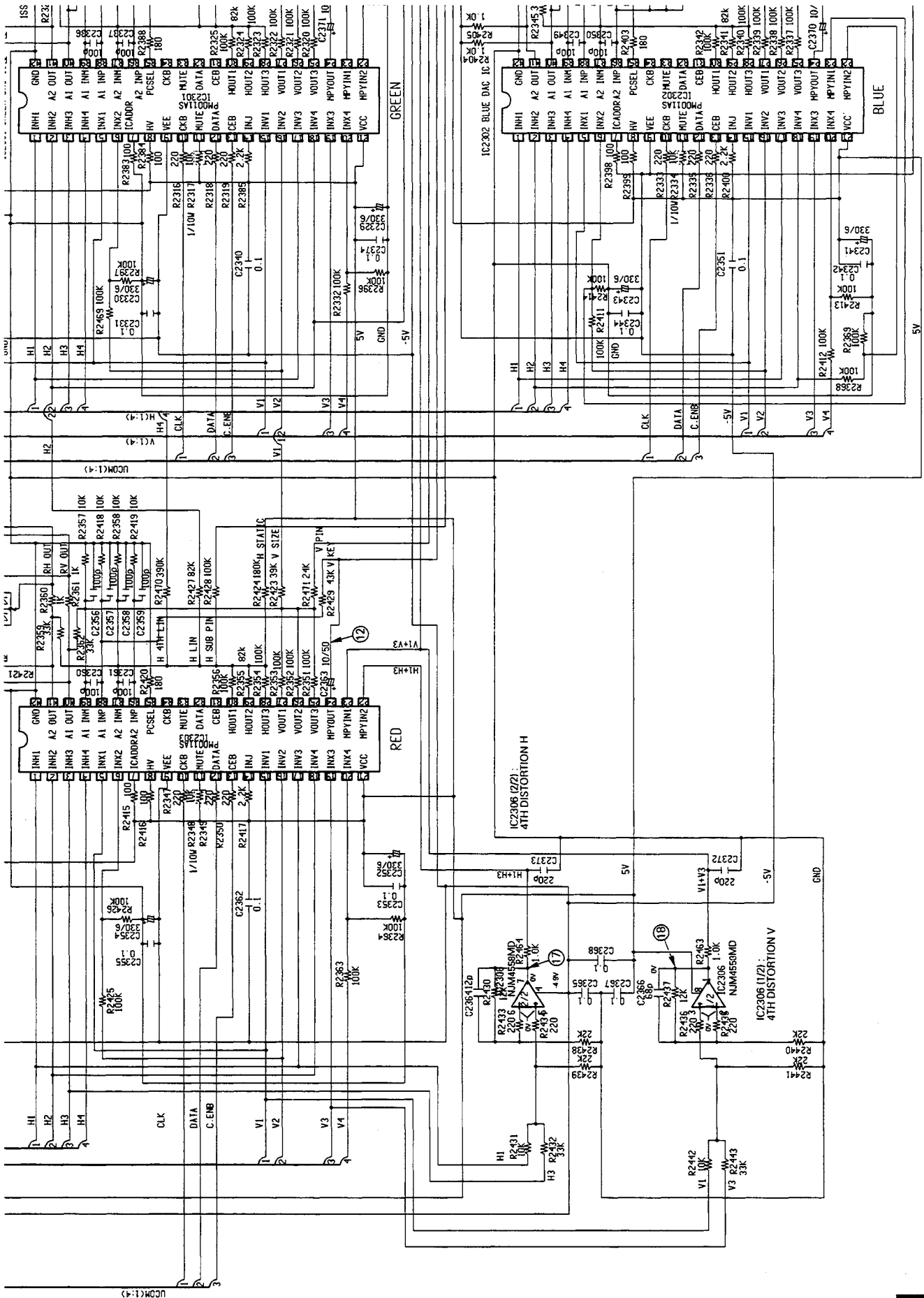


E CONNECTOR B ASSY (AWZ6196)





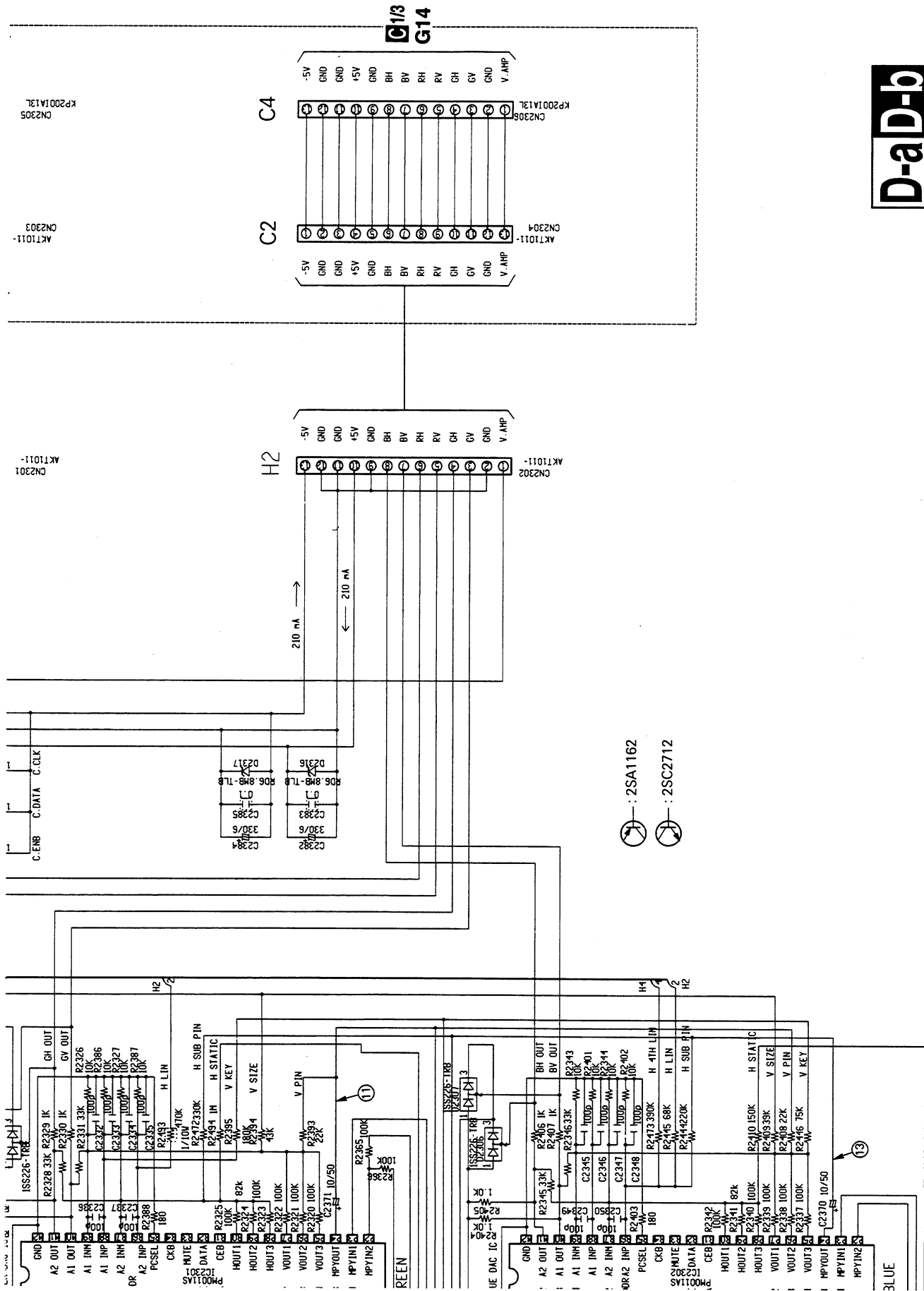
D-aD-b



D-a

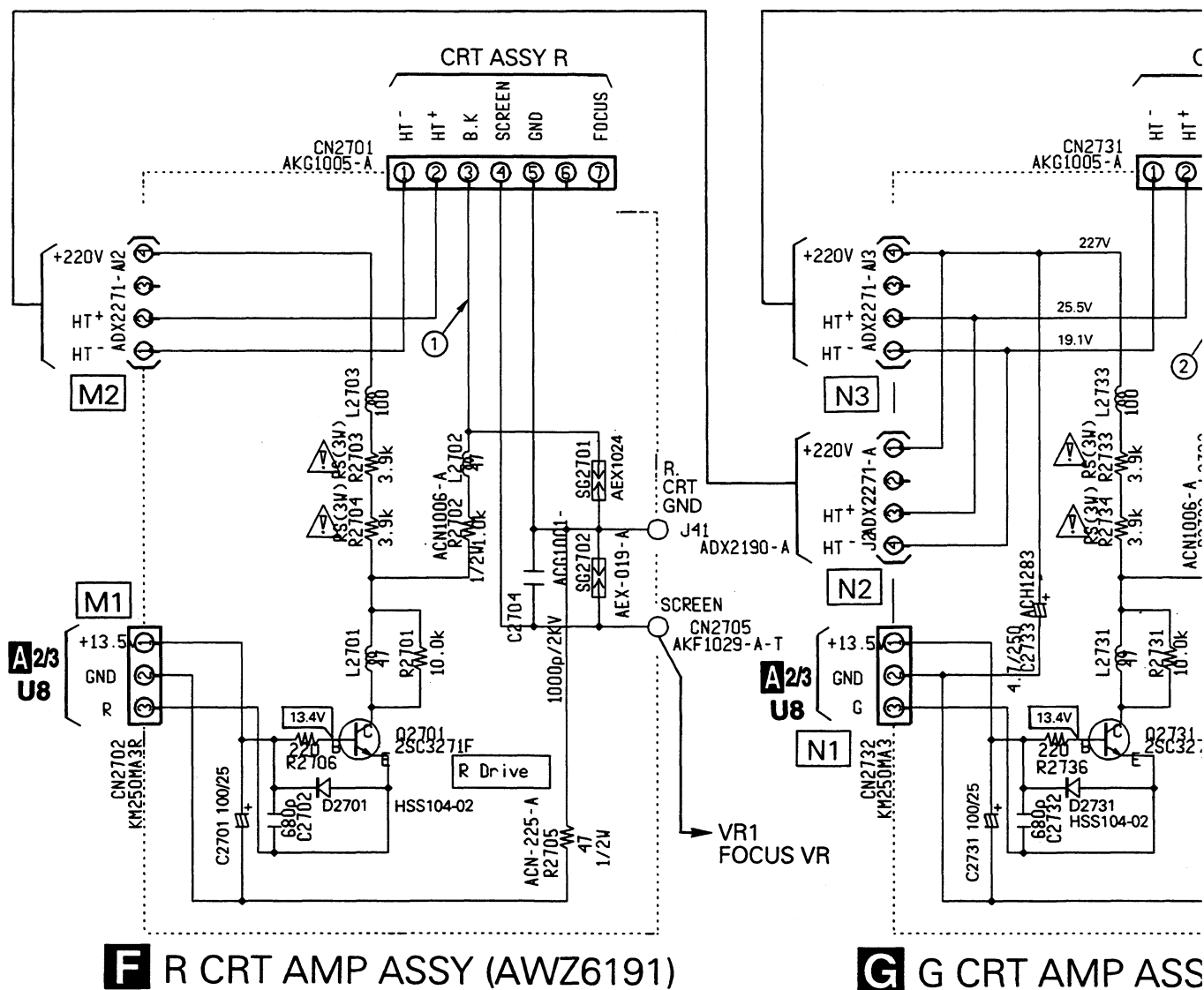


D-a D-b



D-b E

3.12 R, G AND B CRT AMP ASSEMBLIES



1. RESISTORS

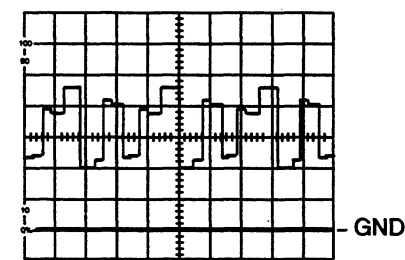
Indicated in $\frac{1}{4}W, 1/8W, 5\%$ tolerance unless otherwise noted
K:K M:M Ω

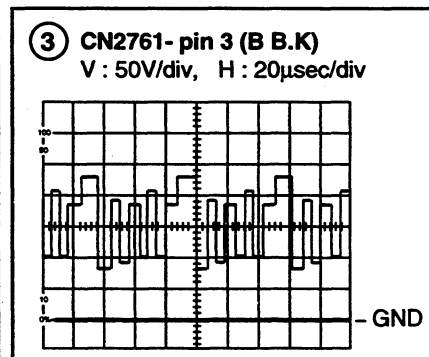
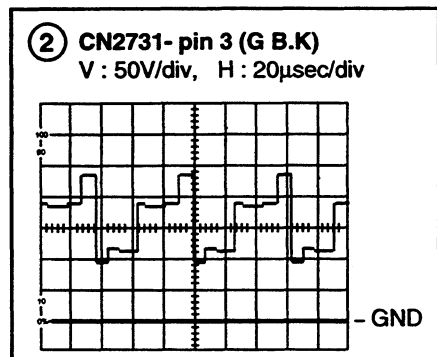
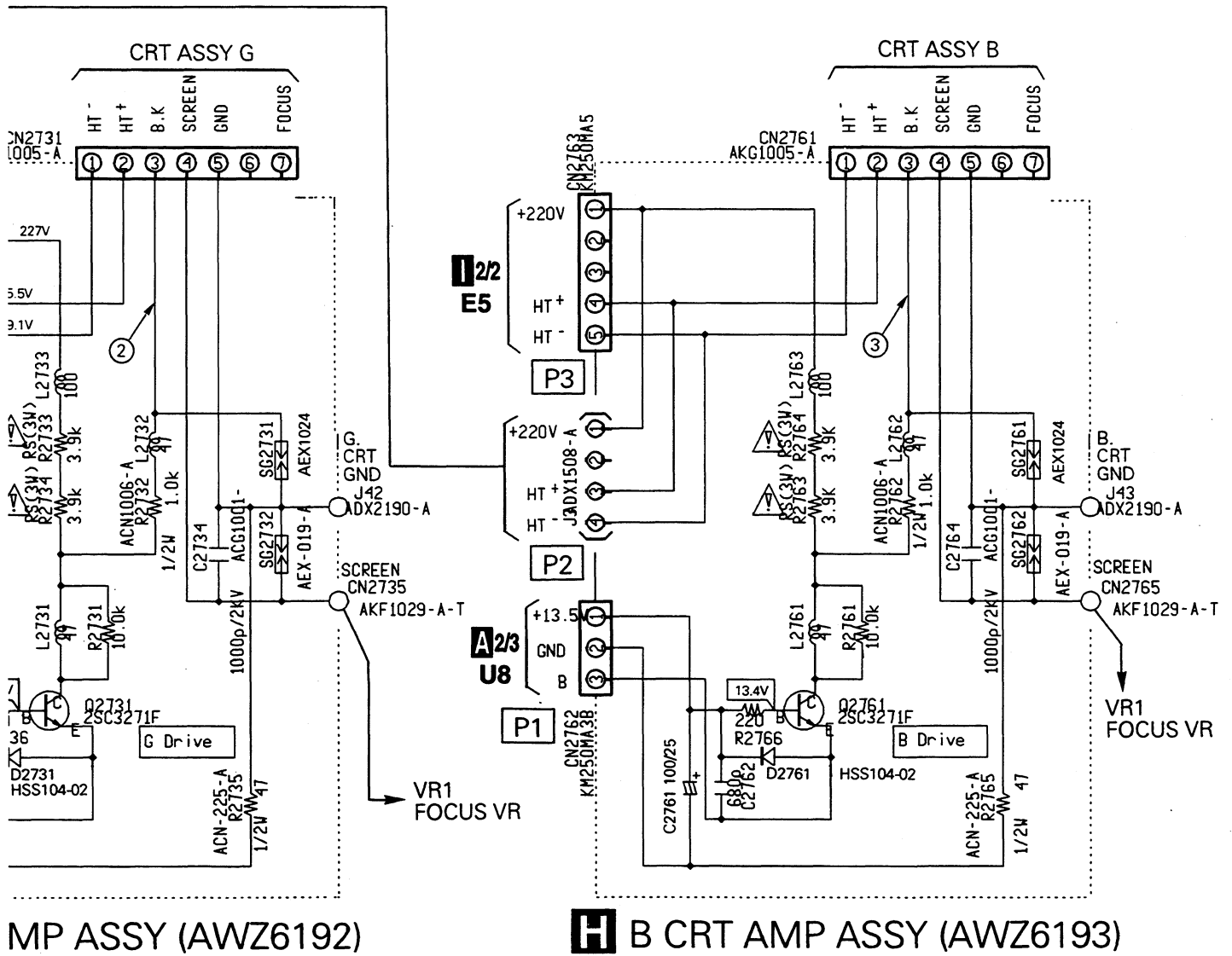
2. CAPACITORS

Indicated in capacity (F)/voltage (V) unless otherwise noted p:pF.
Indication without voltage is 50V except electrolytic capacitor.

- C2703, 2733, 2763 : ACH-378-0
- C2704, C2734, C2764 : ACG1001-A-F

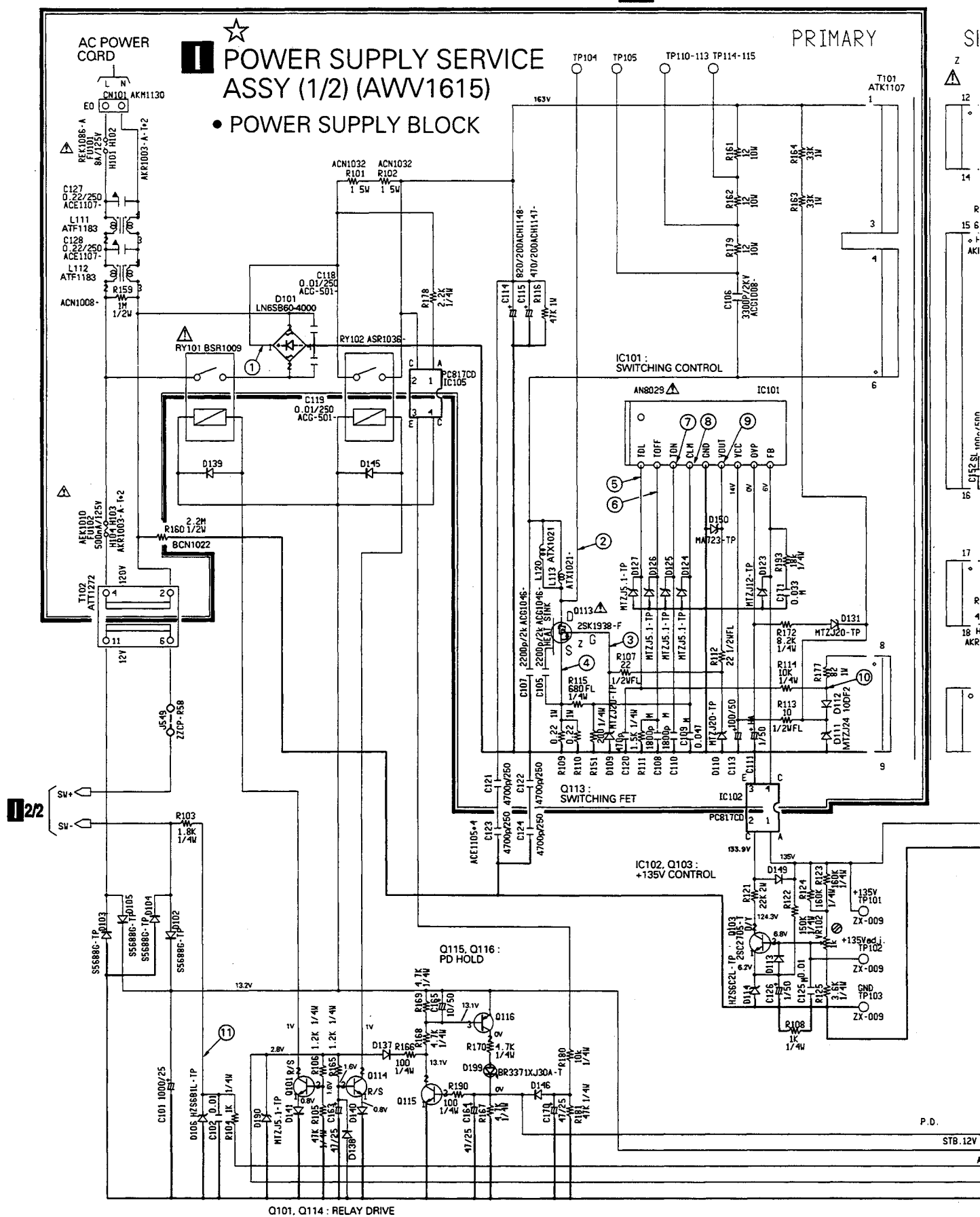
① CN2701- pin 3 (R B.K)
V: 50V/div, H: 20 μ sec/div

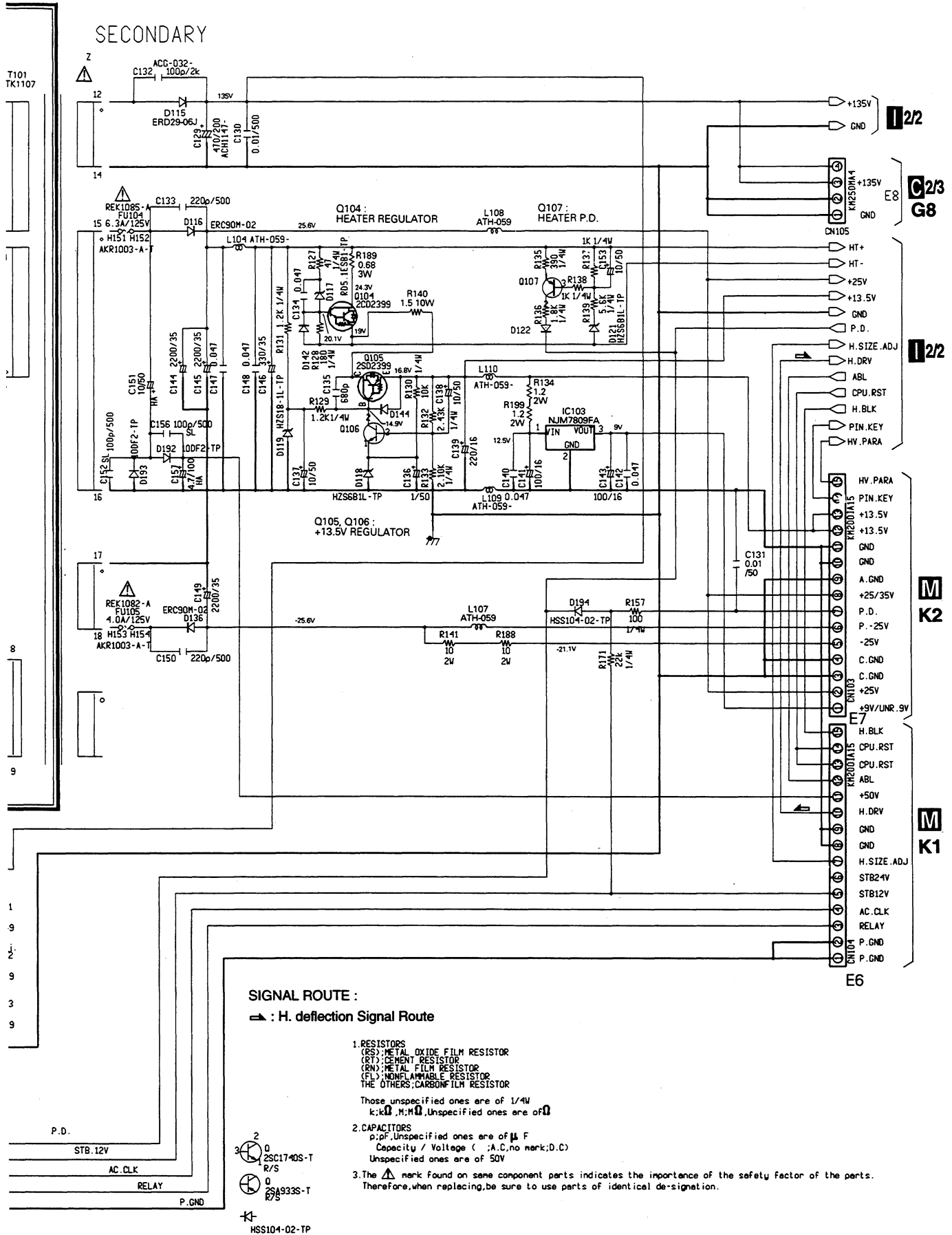




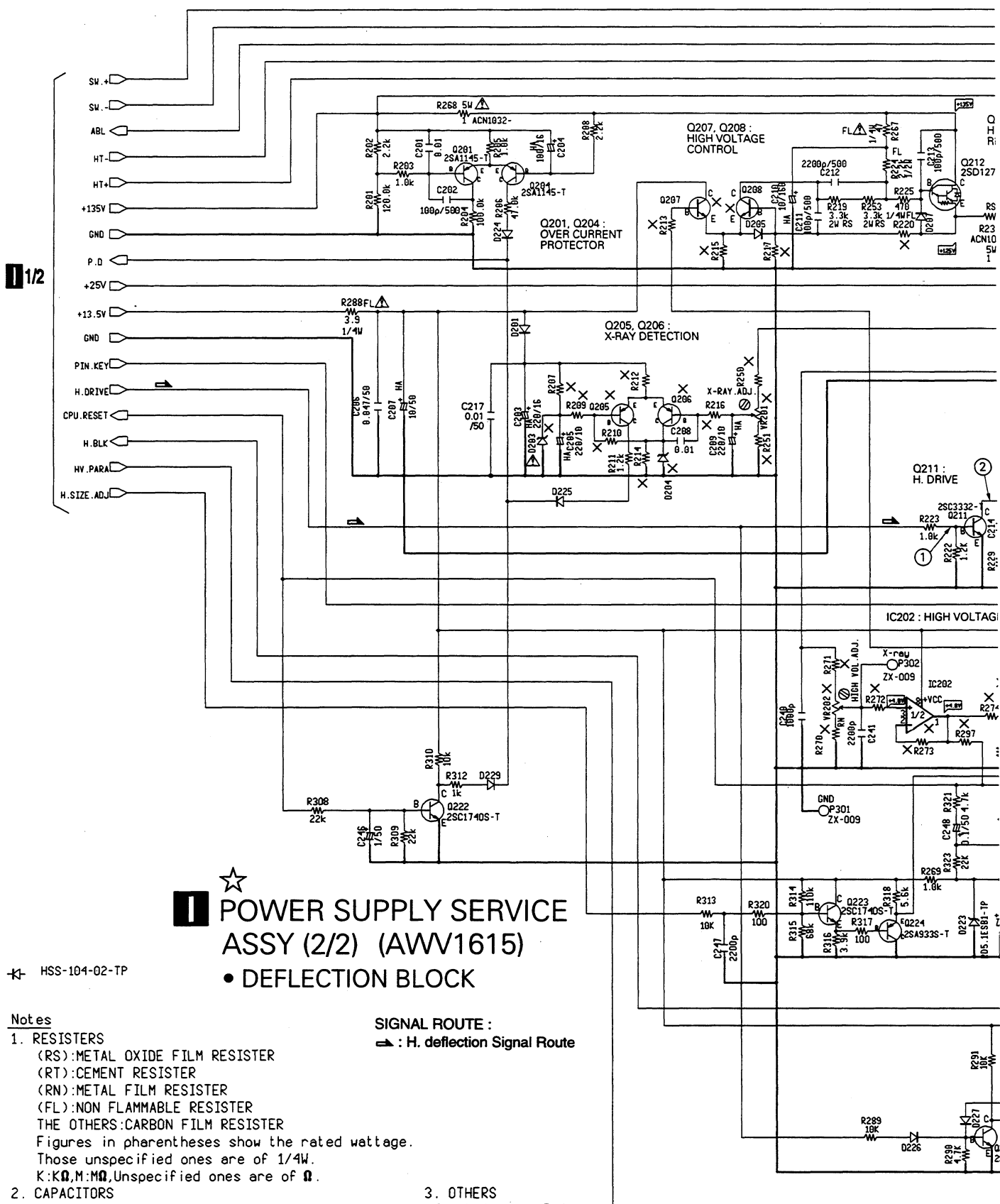
3.13 POWER SUPPLY SERVICE ASSY (1/2)

CHARGED SECTION





3.14 POWER SUPPLY SERVICE ASSY (2/2)



Notes

1. RESISTERS
(RS):METAL OXIDE FILM RESISTER
(RT):CEMENT RESISTER
(RN):METAL FILM RESISTER
(FL):NON FLAMMABLE RESISTER
THE OTHERS:CARBON FILM RESISTER
Figures in parentheses show the rated wattage.
Those unspecified ones are of 1/4W.
K:K Ω ,M:M Ω ,Unspecified ones are of Ω .
2. CAPACITORS
p:pF,Unspecified ones are of μ F
Capacity/Voltage
Unspecified ones are of 50V

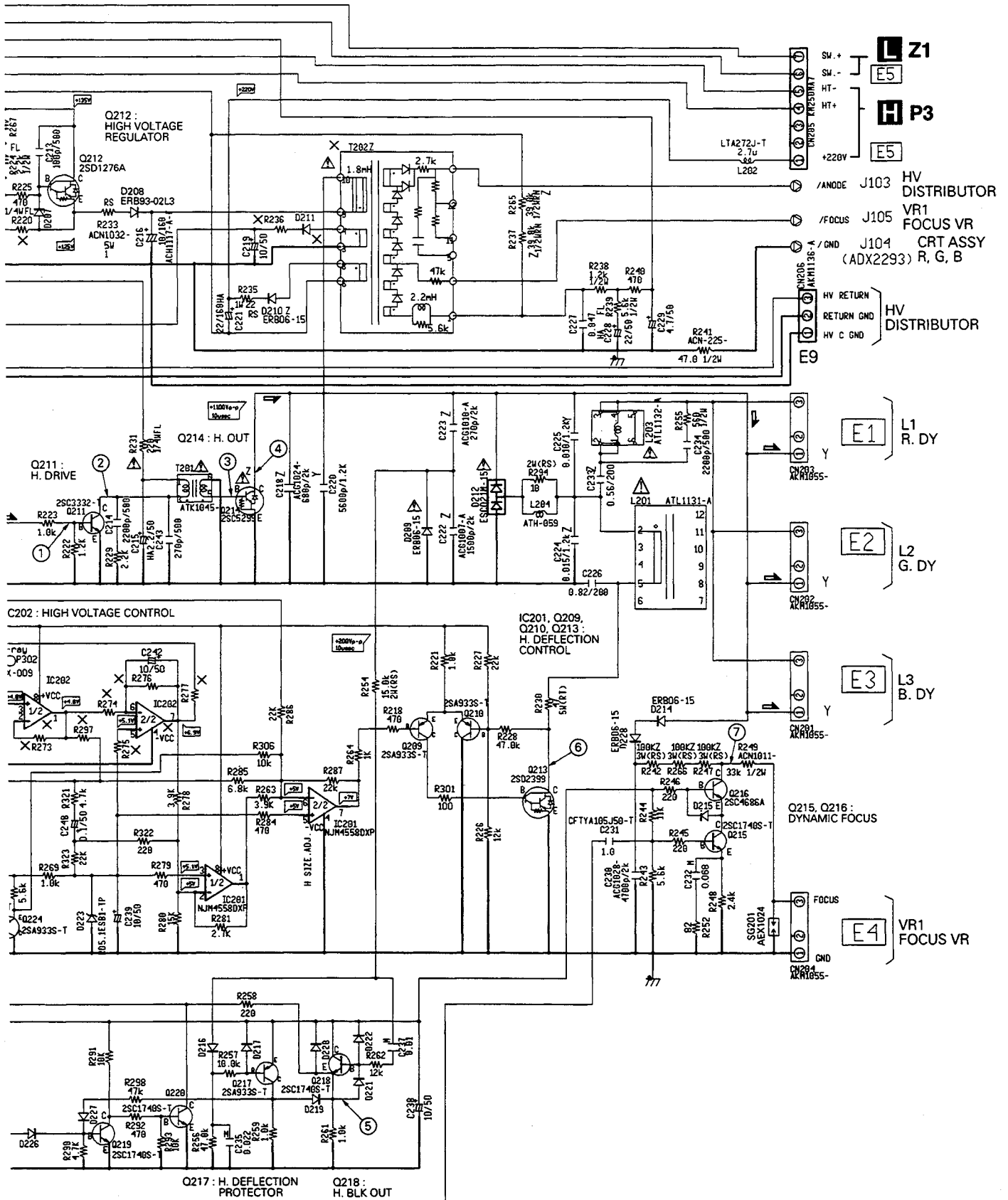
SIGNAL ROUTE :

 : H. deflection Signal Route

3. OTHERS

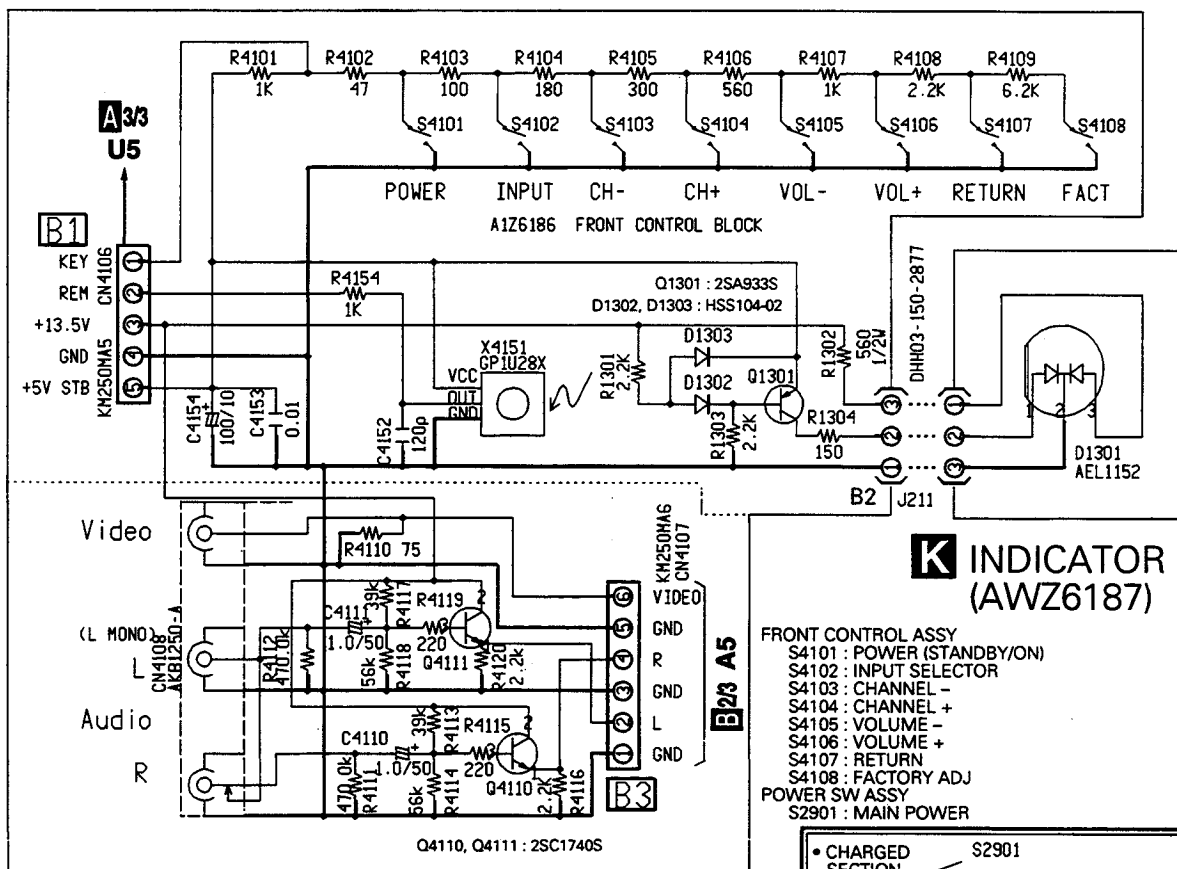
⊙ : Adjusting Point

The Δ mark found on same component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



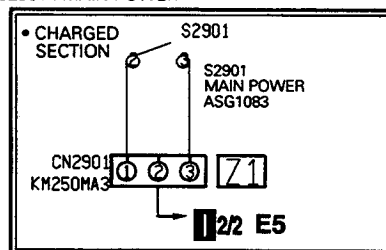
3.15 FRONT CONTROL, INDICATOR, POWER SW AND CONNECTOR A ASSEMBLIES

J FRONT CONTROL ASSY (AWZ6186)



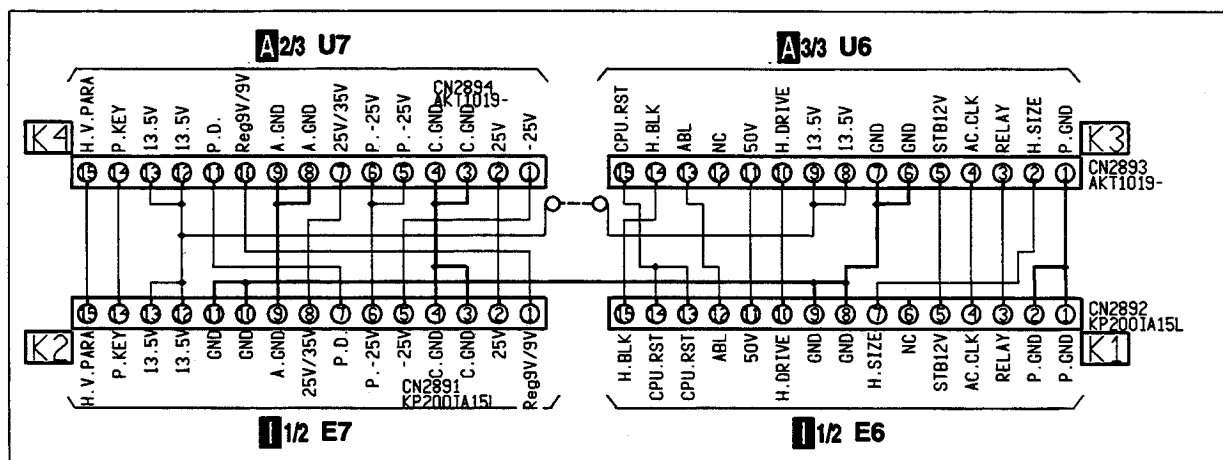
K INDICATOR ASSY (AWZ6187)

FRONT CONTROL ASSY
 S4101 : POWER (STANDBY/ON)
 S4102 : INPUT SELECTOR
 S4103 : CHANNEL -
 S4104 : CHANNEL +
 S4105 : VOLUME -
 S4106 : VOLUME +
 S4107 : RETURN
 S4108 : FACTORY ADJ
 POWER SW ASSY
 S2901 : MAIN POWER



L POWER SW ASSY (AWZ6188)

M CONNECTOR A ASSY (AWZ6189)

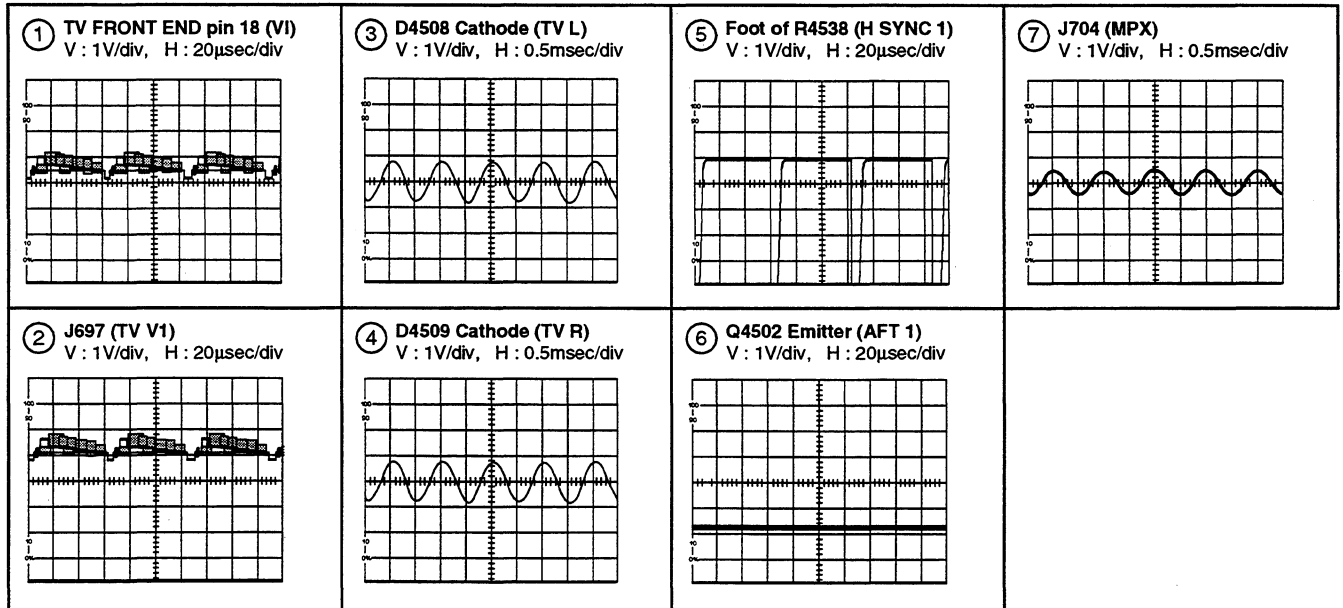


3.16 WAVEFORMS AND VOLTAGES

A 1/3 TUNER • VIDEO ASSY (1/3)

• TUNER BLOCK

- Input signal : 9ch (Air 187.25MHz)
- Video signal : Color bar (87.5% Mod., 1kHz $\pm$ 25kHz dev.), 60dB μ input
- Range : DC range (Unless otherwise noted)



TV FRONT END (AXF1084)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	5.4	10	NC
2	5.4	11	0
3	GND	12	0
4	-	13	9
5	-	14	4.5
6	9	15	GND
7	5	16	2.2
8	NC	17	NC
9	33	18	4.7

IC4501 (CXA1734S)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	-	10	5.2	19	4	28	4
2	-	11	4	20	4	29	4
3	GND	12	4.4	21	4	30	NC
4	GND	13	4	22	1.8		
5	1.3	14	4	23	4		
6	1.3	15	9	24	4		
7	4	16	3	25	4		
8	4	17	GND	26	2		
9	6.4	18	4	27	1.3		

A 2/3 TUNER • VIDEO ASSY (2/3)

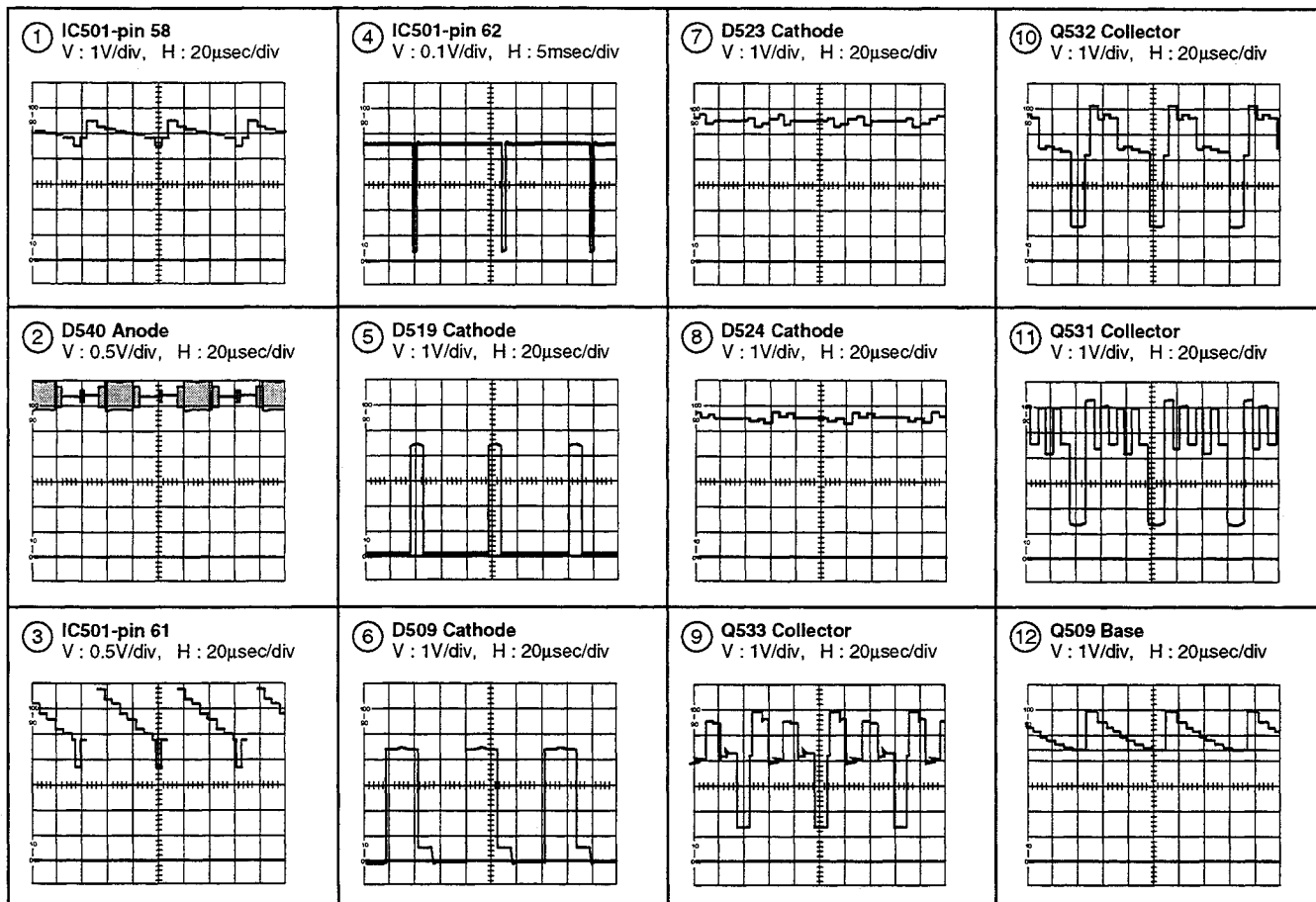
• VIDEO BLOCK

IC501 (TA8845BN)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	9	0	17	0	25	0	33	0	41	9.3	49	0
2	0	10	5.4	18	3.4	26	1.7	34	5.5	42	6.3	50	6.5
3	5.2	11	0.8	19	3.6	27	0	35	5.5	43	9.2	51	4.9
4	7.2	12	7.1	20	3.5	28	0	36	0	44	0	52	6.5
5	NC	13	1.1	21	12.5	29	4.5	37	9.2	45	0	53	5.7
6	2.4	14	0	22	0	30	4.4	38	9.2	46	9.1	54	3.3
7	8.7	15	4.2	23	0	31	4.5	39	4.9	47	3.1	5	8.7
8	2.1	16	4.2	24	0	32	1.9	40	6.2	48	12.5	56	4.8
												57	4.8
												58	4.8
												59	5
												60	0
												61	2.6
												62	4.4
												63	0
												64	0

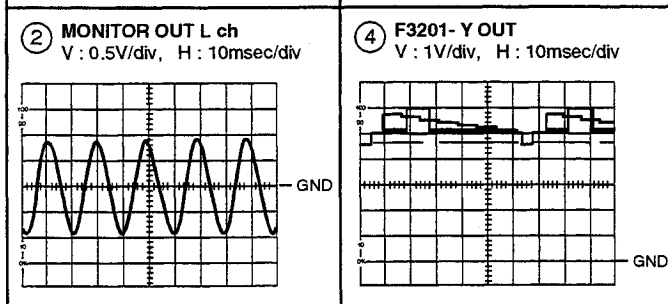
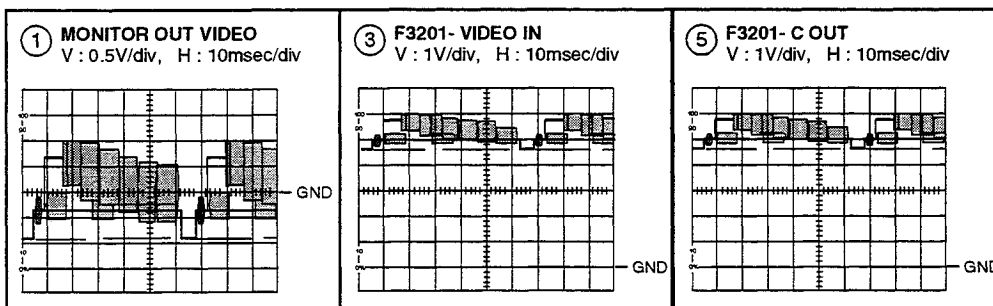
SD-P50A3-K, SD-P55A3-K

- Input signal : Color bar (87.5% Mod., 1kHz $\pm$ 25kHz dev.)
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)



B 2/3 AV I/O ASSY (2/3)

- AV I/O, Y/C SEP, S INPUT AND SUB WOOFER BLOCKS



IC3201 (MC14066BF)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	4.3	8	8.4
2	4.3	9	8.4
3	4.3	10	8.4
4	5.4	11	8.4
5	0	12	12.2
6	0	13	12.2
7	0	14	12.2

IC1602 (BA7644AN)

Pin No.	Voltage (V)
1	7.5
2	0.2
3	0.2
4	7.5
5	0
6	7.5
7	12.2
8	7.5
9	0
10	6.1

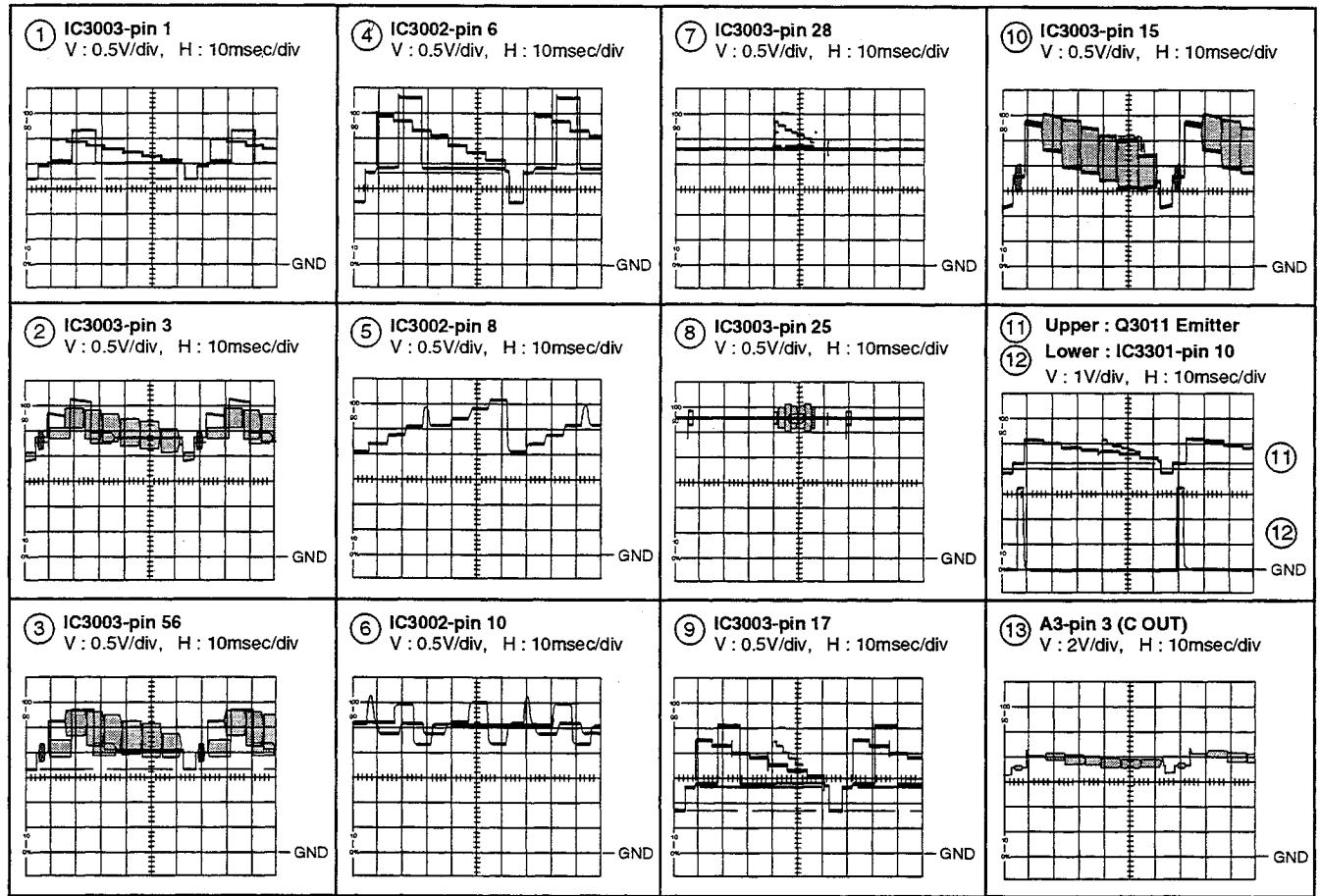
IC1603 (BA7644AN)

Pin No.	Voltage (V)
1	7.5
2	0
3	0
4	7.5
5	0
6	7.5
7	12.2
8	7.5
9	0
10	6.1

IC1601 (TC4052BF)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	6.8	9	0.2
2	7.2	10	0.2
3	6.8	11	7.2
4	7.1	12	6.9
5	7.2	13	6.9
6	0	14	7.2
7	0	15	7.2
8	0	16	12.2

B 3/3 AV I/O ASSY (3/3) • P IN P, V-CHIP AND CNR BLOCKS



IC3002 (HD49420FS)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	11	1.8	21	2.5	31	2.3	41	—	51	—	61	—
2	1.5	12	0	22	2.5	32	5.1	42	—	52	—	62	—
3	5.1	13	5.1	23	5.1	33	—	43	—	53	—	63	—
4	1.5	14	5.1	24	4.6	34	5.1	44	—	54	—	64	—
5	3.4	15	5.1	25	2.5	35	5	45	—	55	—	65	—
6	2.3	16	2.5	26	3.7	36	5	46	—	56	—	66	—
7	4.2 (*1) 0 (*2)	17	2.6	27	3.6	37	4.7	47	—	57	—	67	—
8	2.6	18	5.1	28	0	38	—	48	5	58	—	68	—
9	5.2	19	3.7	29	2.5	39	—	49	—	59	—	69	—
10	2.6	20	3.6	30	0	40	—	50	—	60	—	70	—
												71	4.1
												72	0.1
												73	—
												74	4.1
												75	2.4(*3) 2 (*4)
												76	0
												77	2.5
												78	2.4
												79	0
												80	2.1

Note : (*1) : Main picture display ON, (*2) : Main picture display OFF
 (*3) : Sub picture display ON, (*4) : Sub picture display OFF

IC3003 (HA11579)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	2.1	9	3.6	17	1.7	25	2.7	33	1.7	41	0.5(*1) 1.9(*2)	49	1.6
2	0	10	3.5	18	3	26	0	34	2.5	42	—	50	0
3	2.5	11	2.6	19	—	27	2.3	35	3	43	—	51	4.9
4	0	12	3.8	20	5.1	28	2.3	36	4.2	44	4.3	52	1.6
5	5.2	13	2.6	21	0	29	2.5	37	2.3	45	0	53	—
6	0	14	2.8	22	2.8	30	2.5	38	2.4	46	0	54	4.4
7	1.9	15	2.2	23	2	31	3.2	39	—	47	0	55	—
8	1.9	16	1.6	24	5.1	32	3.2	40	0.5(*1) 1.9(*2)	48	—	56	2.3

Note : (*1) : Main picture display ON
 (*2) : Main picture display OFF

IC3301
(MC14011BF)

Pin No.	Voltage (V)
1	4
2	1
3	4
4	4
5	1
6	1
7	0
8	4.7
9	4.7
10	0.1
11	0.4
12	4.4
13	4.4
14	4.8

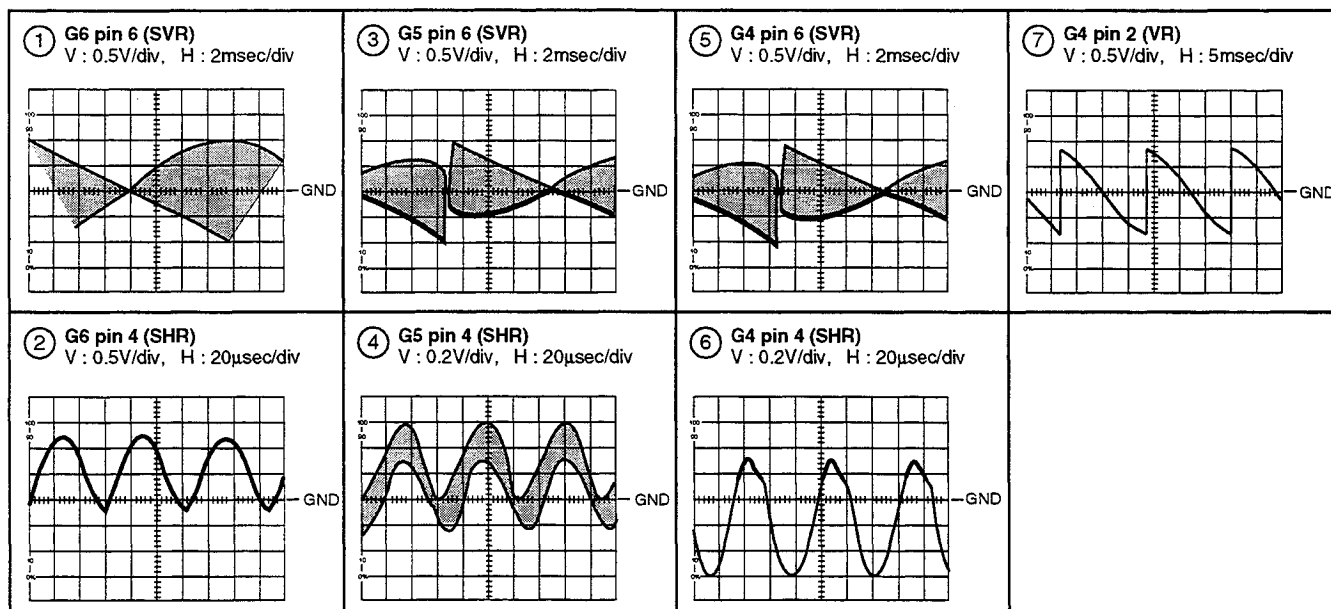
IC3006
(TC4538BF)

Pin No.	Voltage (V)
1	0
2	5
3	5.1
4	0
5	5
6	0
7	5
8	0
9	5
10	0
11	5
12	0
13	5.1
14	5
15	0
16	5.1

C 1/3 AMP ASSY (1/3)

• CONVER AMP AND V. DEFLECTION BLOCKS

- Input signal : Color bar
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)

**D** CONVER CONTROL ASSY

IC2301 (PM0011AS)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	15	0	29	0.1
2	-1	16	-0.8	30	0.1
3	0	17	0	31	5
4	-1	18	-1	32	4
5	0	19	0	33	5
6	-0.4	20	-0.5	34	5
7	0	21	5	35	0
8	5	22	-0.5	36	0
9	-4.8	23	0	37	0
10	5	24	0.1	38	0.1
11	5	25	-0.1	39	0.1
12	4	26	0.1	40	0.1
13	5	27	0.1	41	0.1
14	-2	28	0.1	42	0.1

IC2302 (PM0011AS)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	15	0	29	0.1
2	-1	16	-0.8	30	0.1
3	0	17	0	31	5
4	-1	18	-1	32	4
5	0	19	0	33	5
6	-0.4	20	-0.5	34	5
7	0	21	5	35	0
8	5	22	0	36	0
9	-4.8	23	0	37	0
10	5	24	0.1	38	0
11	5	25	-0.2	39	0
12	4	26	0.1	40	0
13	5	27	0.1	41	-0.4
14	-2	28	0.1	42	0

IC2303 (PM0011AS)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	15	0	29	0.1
2	-1	16	-0.8	30	-0.1
3	0	17	0	31	5
4	-1	18	-1	32	4
5	0	19	0	33	5
6	-0.4	20	-0.5	34	5
7	0	21	5	35	0
8	5	22	-0.5	36	0
9	-4.8	23	-0.4	37	0
10	5	24	0.2	38	0
11	5	25	-0.2	39	0
12	4	26	0.1	40	0.1
13	5	27	0.1	41	0.6
14	-2	28	0.1	42	0

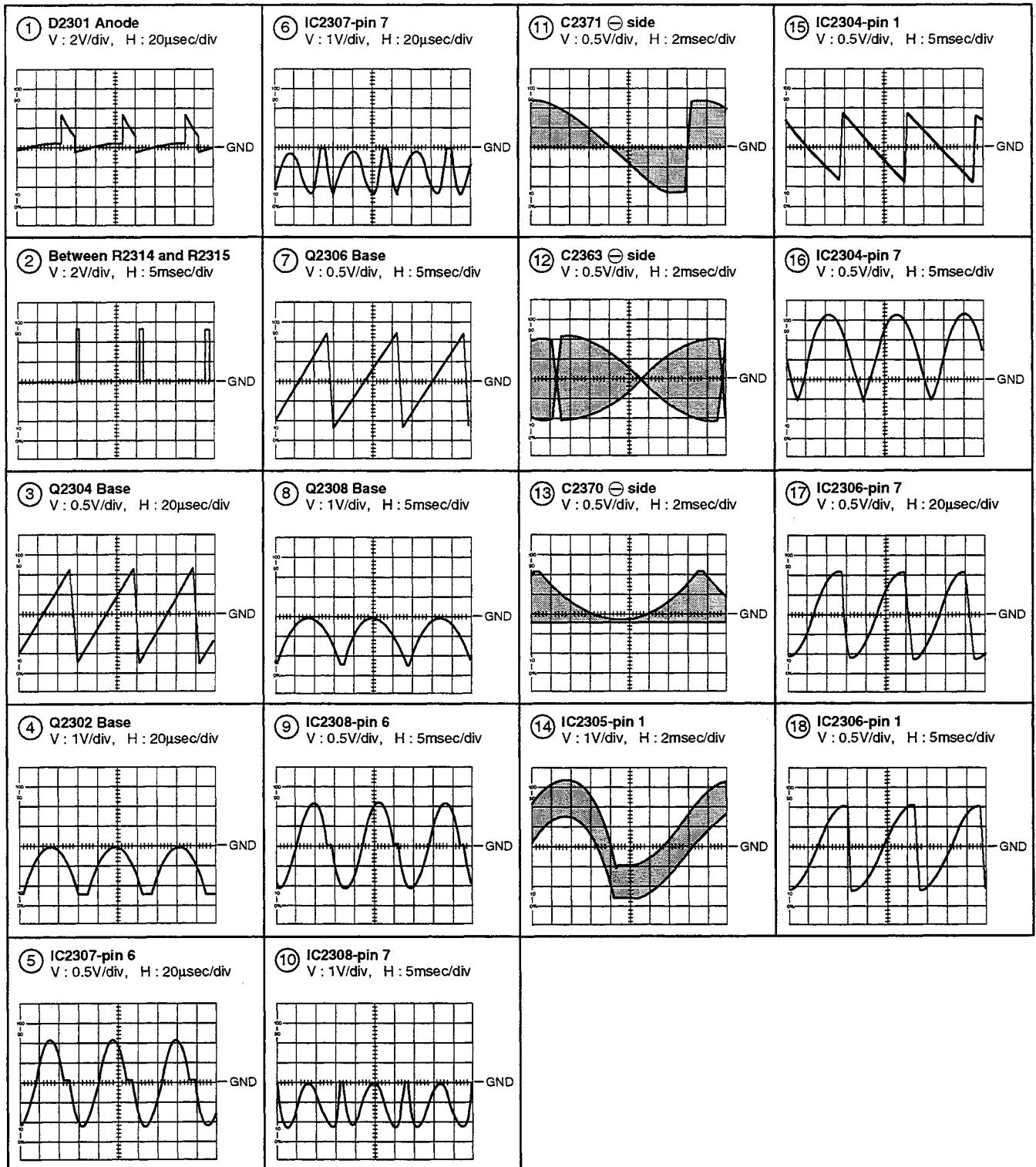
IC2307 (PA0053B)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0.4	7	-1	13	0.3
2	1.1	8	0	14	1.2
3	5	9	-4.9	15	0
4	0	10	0.2	16	-2.1
5	-1	11	0.5	17	1.2
6	0	12	-1	18	-1.5

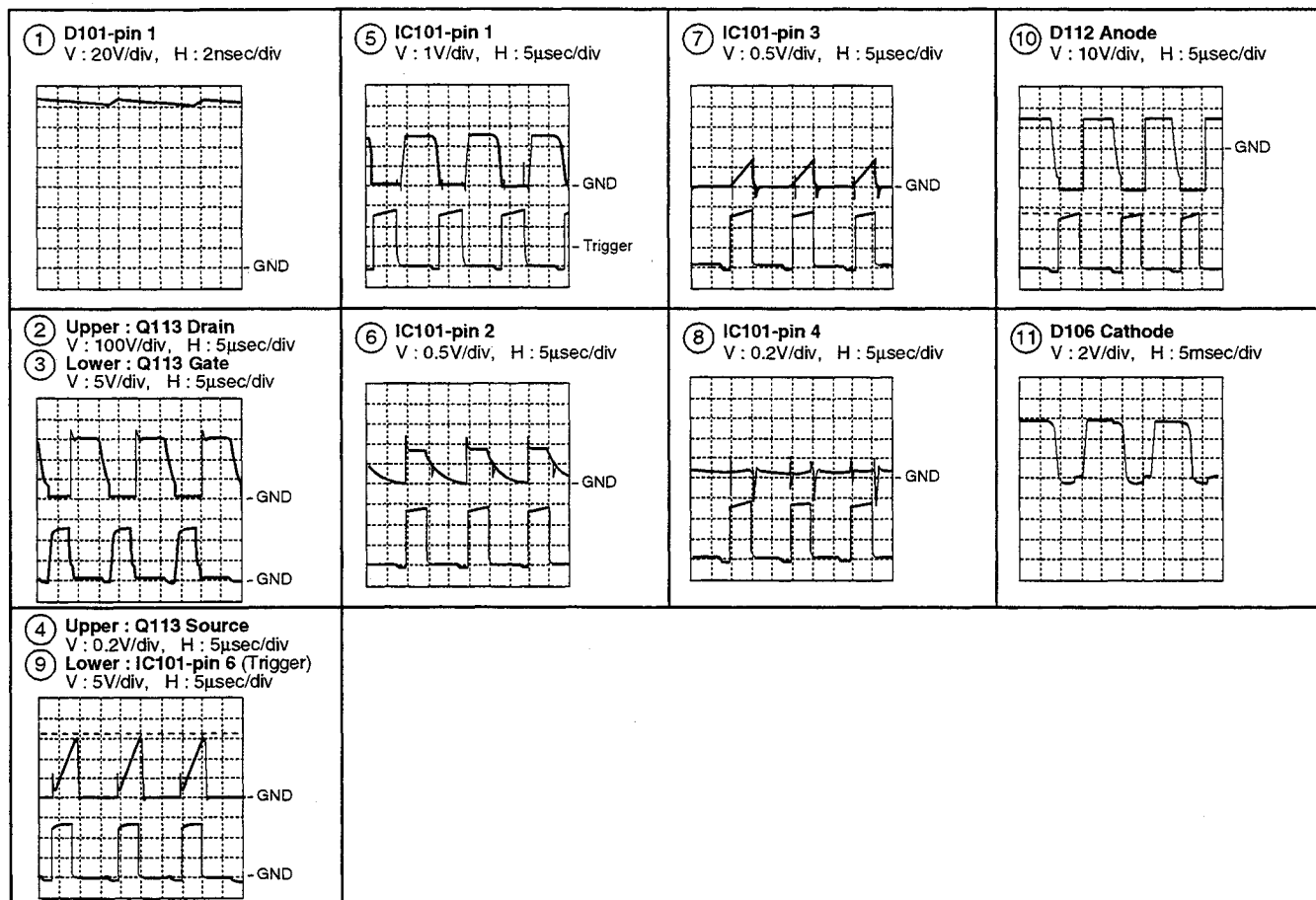
IC2308 (PA0053B)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0.2	7	-1.1	13	0.4
2	1.2	8	0	14	1.2
3	5	9	-4.9	15	0
4	0	10	0.2	16	-0.6
5	-0.8	11	0.5	17	1.2
6	0	12	-0.8	18	-1.5

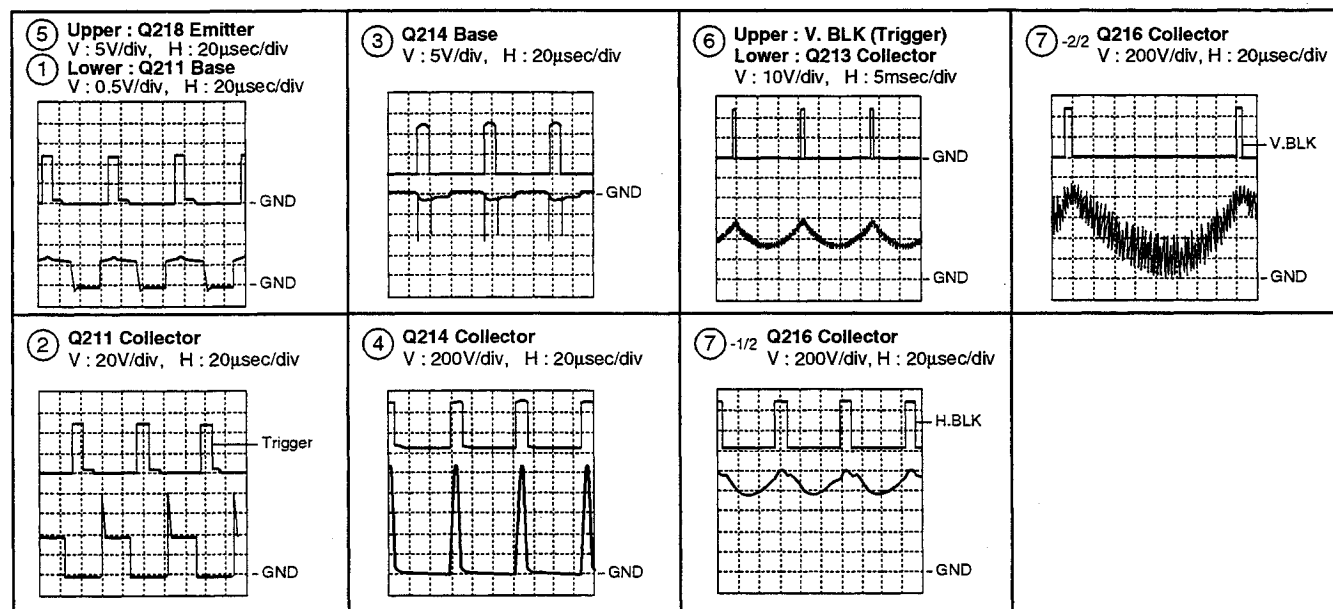
- Input signal : Color bar
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)



1/2 POWER SUPPLY SERVICE ASSY (1/2) • POWER SUPPLY BLOCK



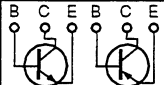
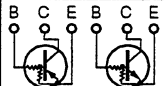
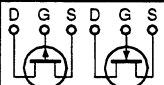
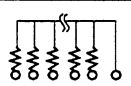
2/2 POWER SUPPLY SERVICE ASSY (2/2) • DEFLECTION BLOCK



4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

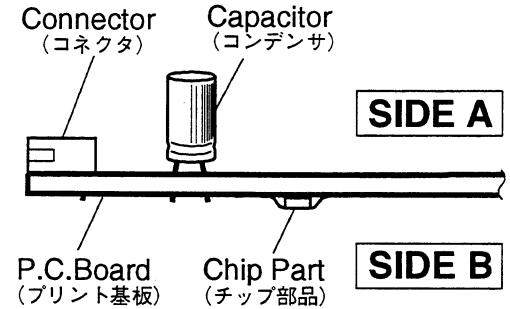
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

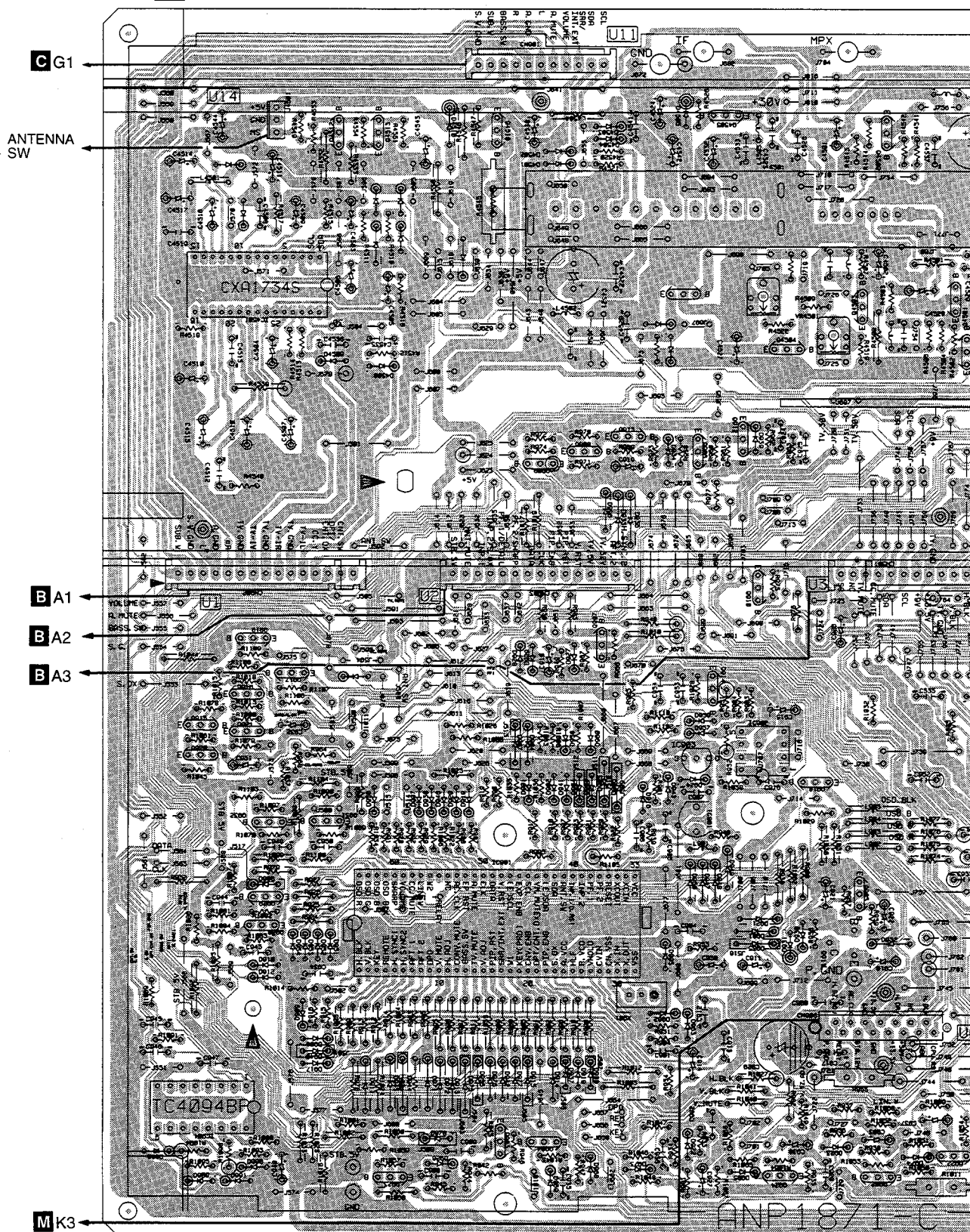
3. The parts mounted on this PCB include all necessary parts for several destinations.

For further information for respective destinations, be sure to check with the schematic diagram.

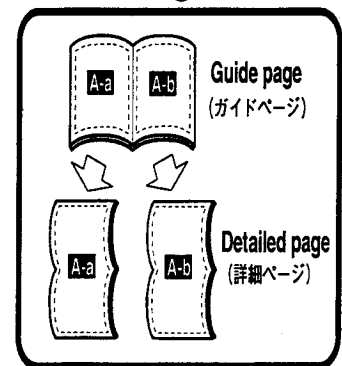
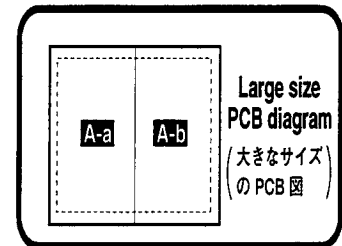
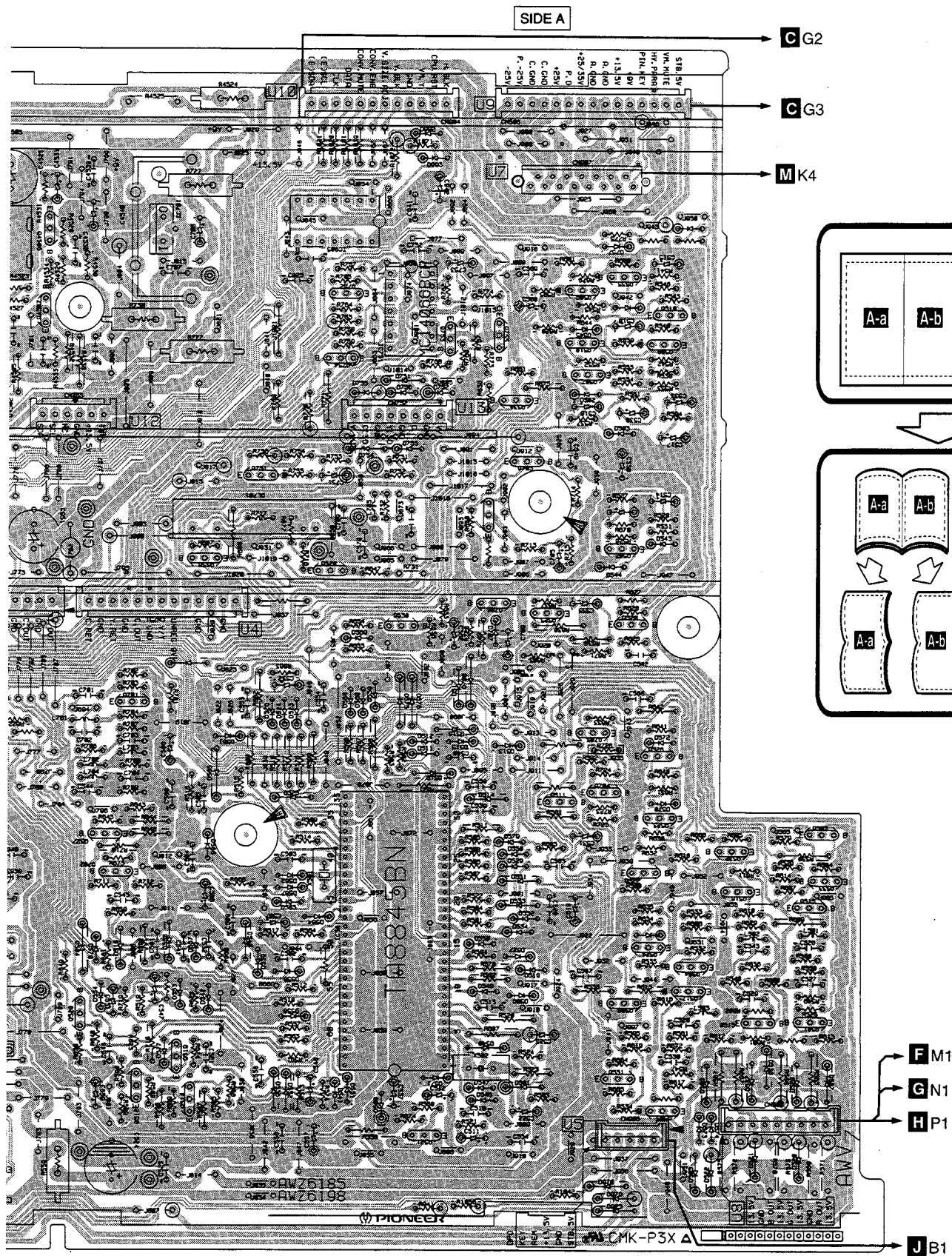
4. View point of PCB diagrams.



4.1 TUNER • VIDEO ASSY (GUIDE PAGE)

A TUNER • VIDEO ASSY

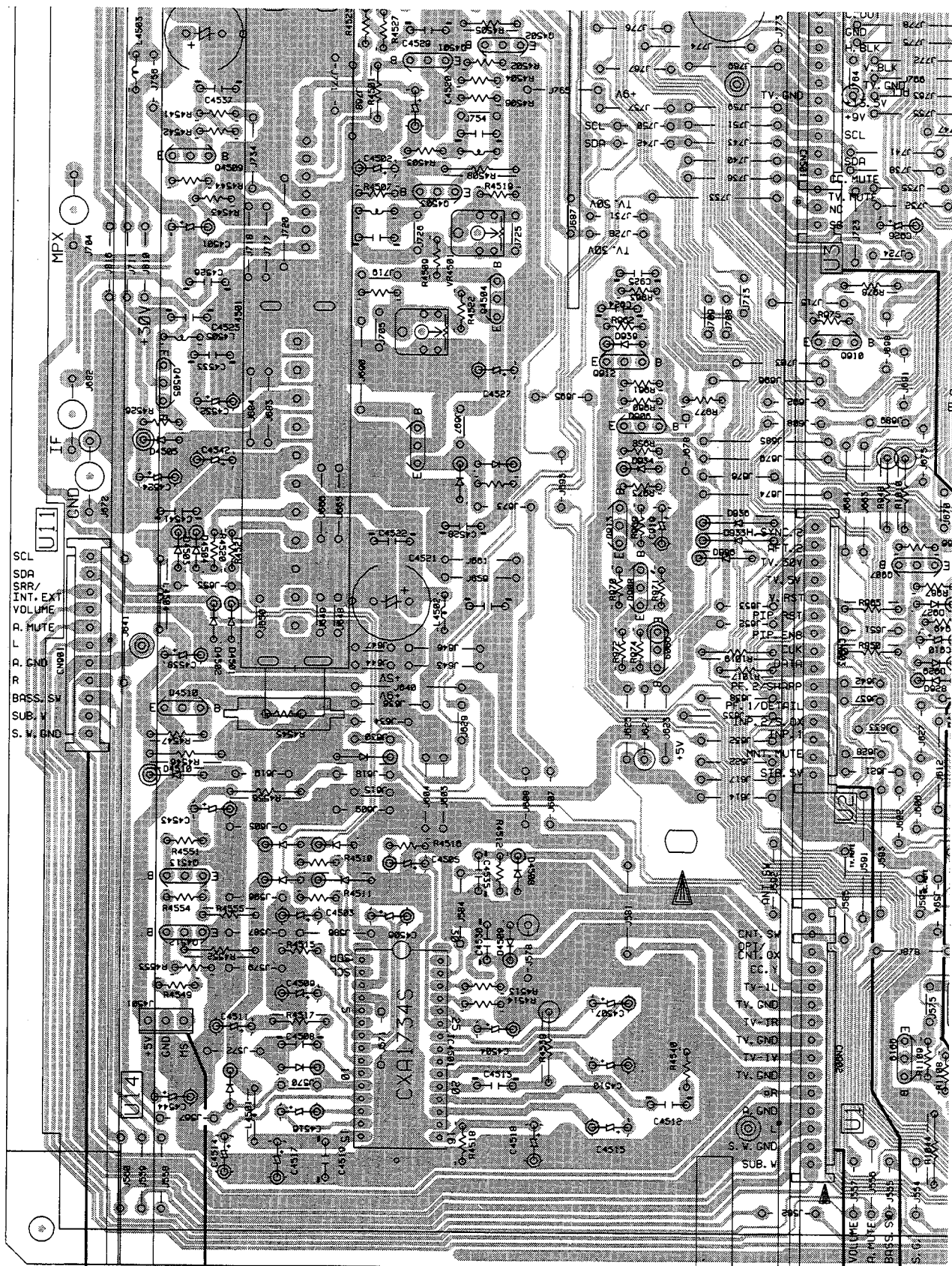
IC4501	Q4512	Q4513	Q4510	Q909	Q908	Q913	TC901	VR4501	Q4503	Q4509	Q45
Q915 - Q917						Q907	Q906	Q4505	Q4504		
Q919 - Q921	Q929 - Q932						Q914	Q912	Q910		
IC904		Q923	IC901				IC903	IC902	Q918	Q905	
			Q903	Q904					Q924	Q911	Q902
											Q922



01 Q4502 Q4506 Q4507 IC701 IC905 Q752 IC751 Q753 Q755 Q507 - Q510
Q527 Q701 Q536 Q751 Q528 Q754 Q530 Q706 Q534 Q703 Q518 Q535 Q502 Q526 Q532 Q503
Q702 Q519 IC501 Q525 Q531 Q520 Q522 - Q524 Q516 Q515 Q533
Q529 Q512 Q514 Q521 Q511 Q705 Q704 Q504 - Q506 Q517 Q513 Q501

A-a

A TUNER • VIDEO ASSY



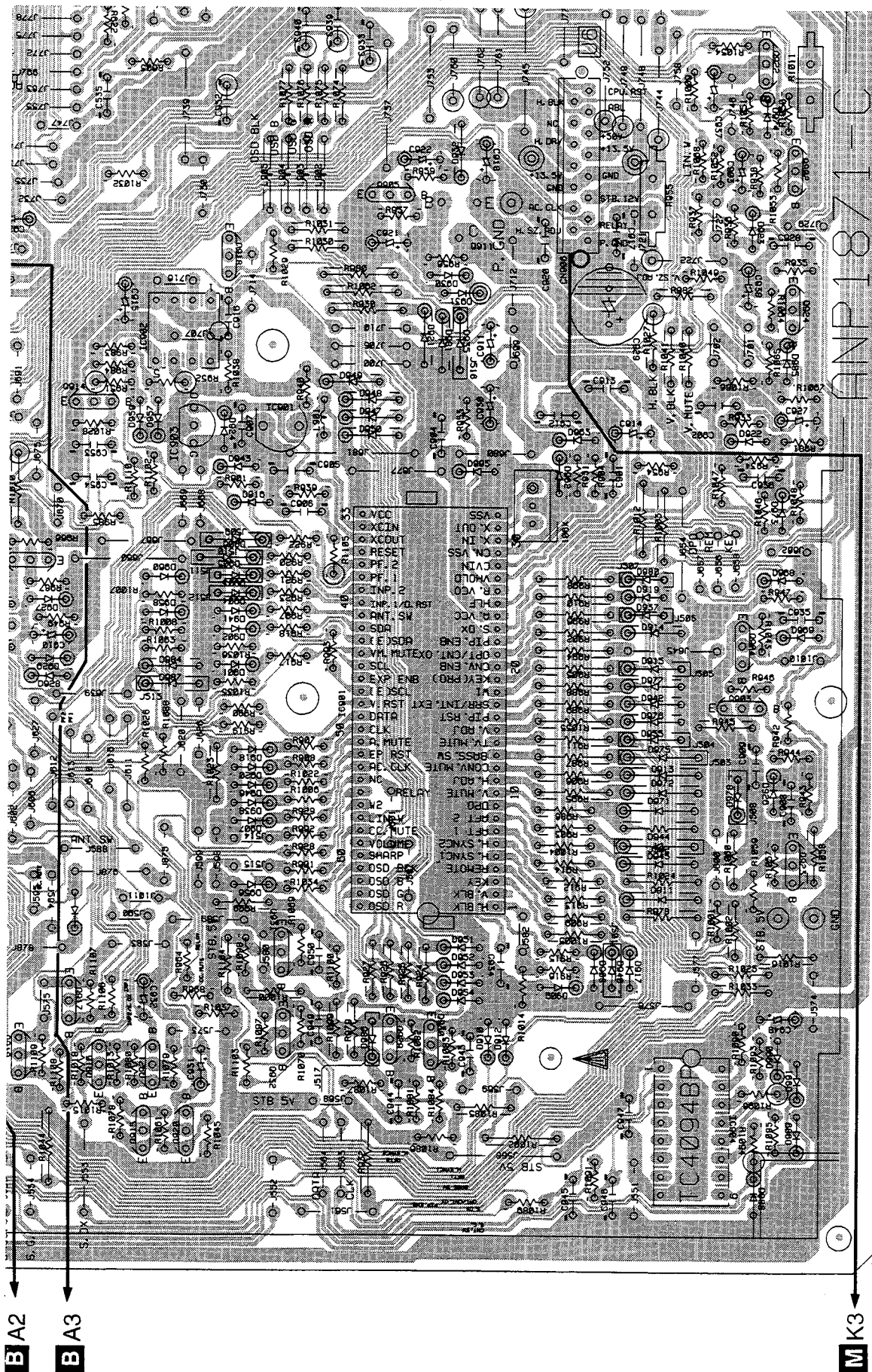
C G1

ANTENNA SW

B A1

B A2

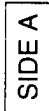
A-a

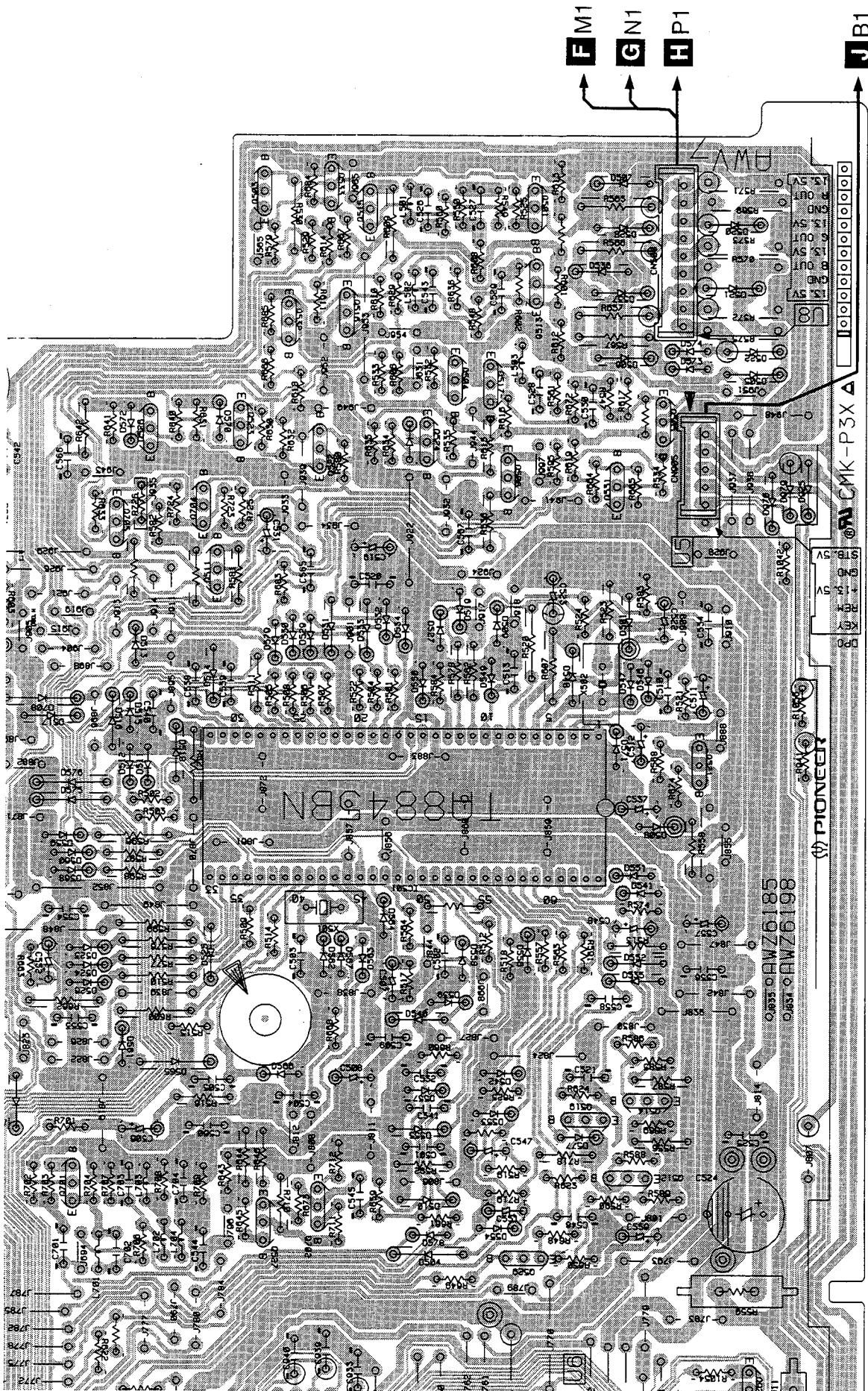


TC901 VR4501

IC4501	Q4512	Q4513	Q4510	Q909	Q908	Q913	Q906	Q4505	Q4504	Q4503	Q4509	Q4501
Q915 - Q917						Q907		Q914	Q912	Q910		
Q919 - Q921	Q929 - Q932							IC903	IC902	Q918	Q905	
IC904		Q923							Q924	Q911	Q902	Q922

A-a A-b

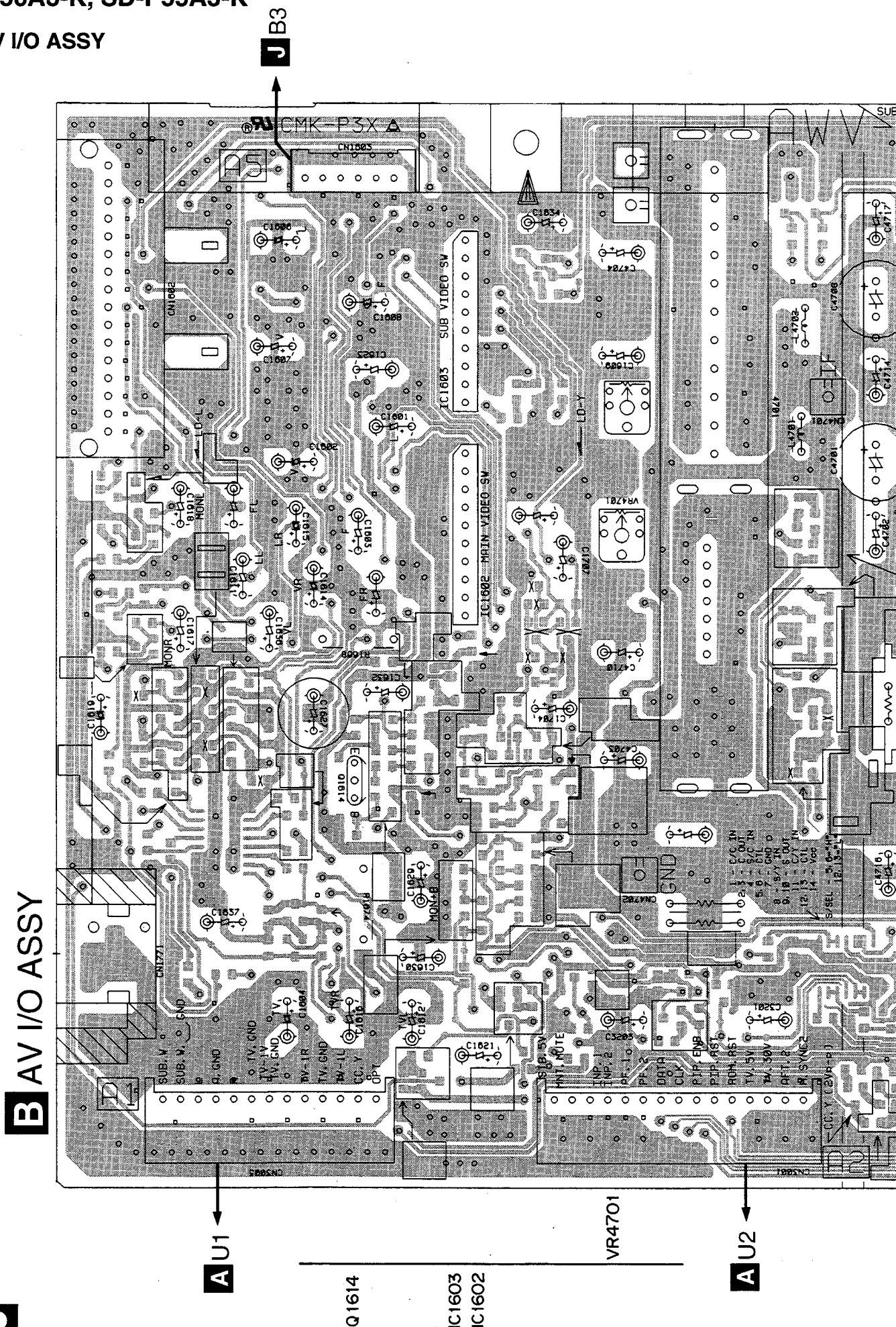


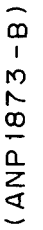


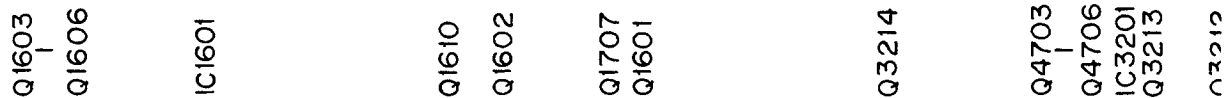
A-a A-b

[illegible]

A-b



**B**



SIDE A

Q3213

Q3212

Q3206

Q3013

Q3208 Q3210

Q3005

Q3006

Q3014

Q3301 IC3003

Q1801

Q1802

Q3001

Q3004

Q1804

Q1805

Q3302

Q3314

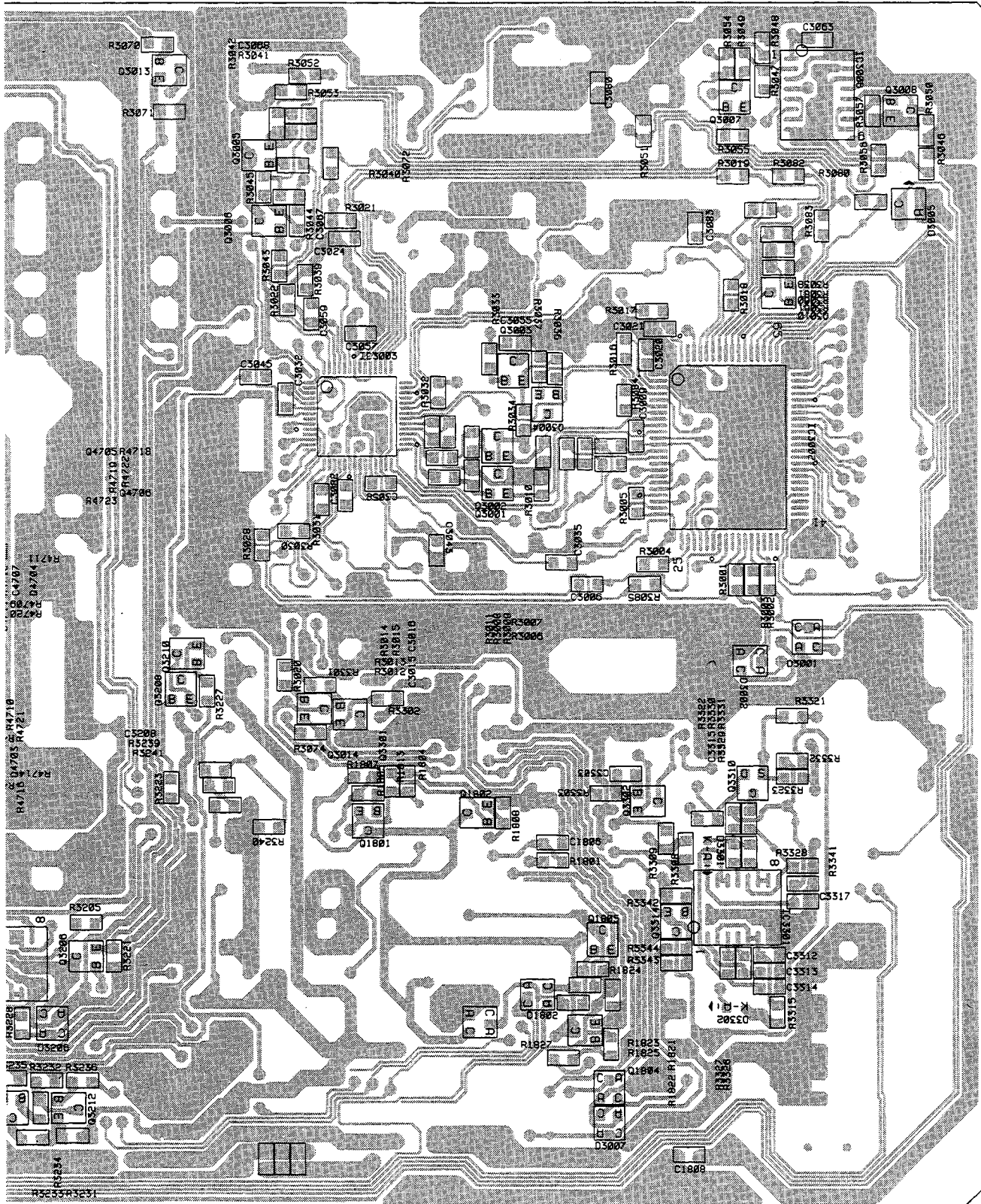
IC3301 Q3007

Q3310 IC3002

Q3010

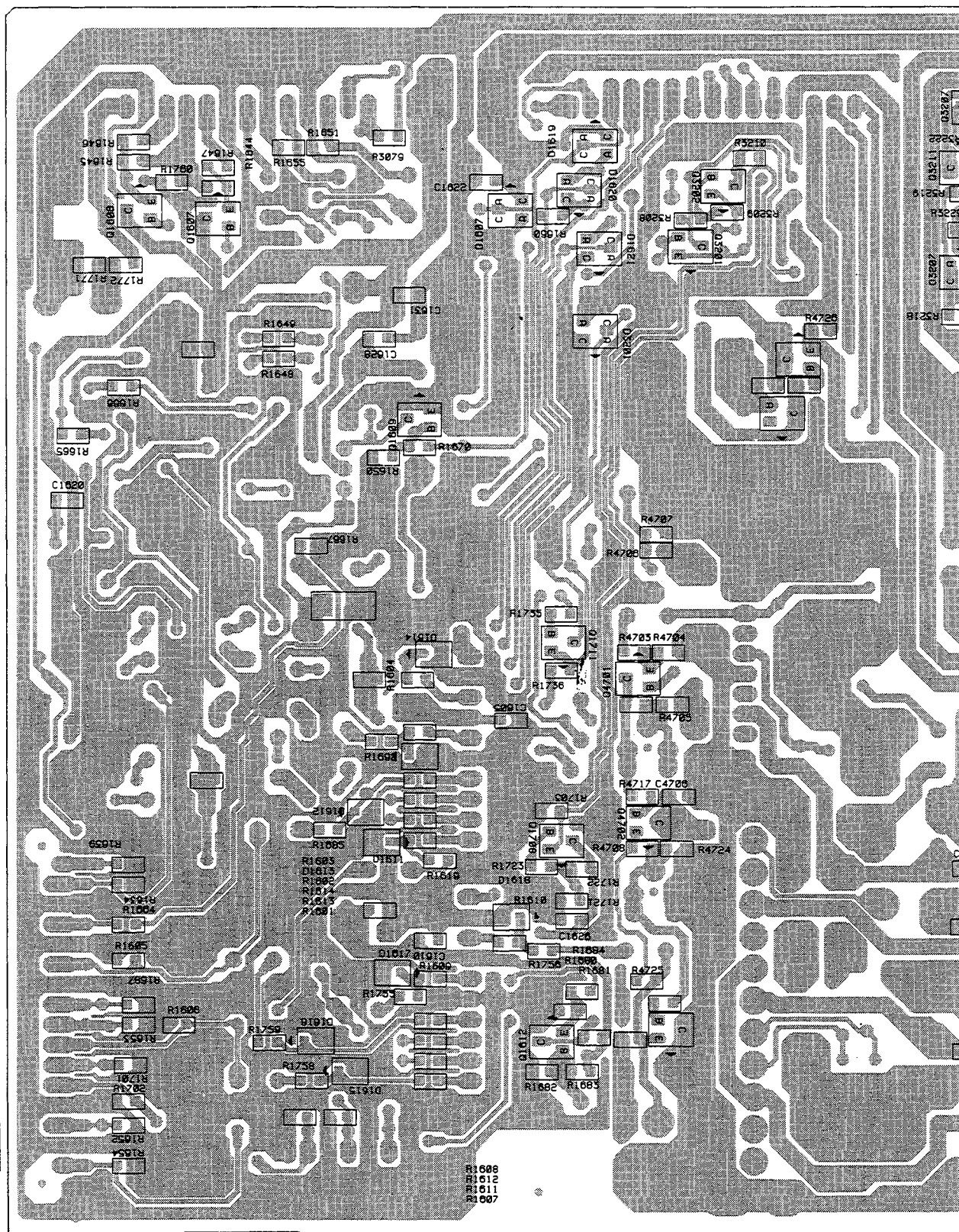
IC3006

Q3008



(ANP1873-B)

AV I/O ASSY



Q1608

Q1607

Q1609

Q1612
Q1708
Q1711

Q4701
Q4702

Q3201

Q3202

Q3211

Q3211
Q3207

Q3205

Q3203

Q3209

Q3204

Q3011

Q3012

Q3303

Q3305

Q3307

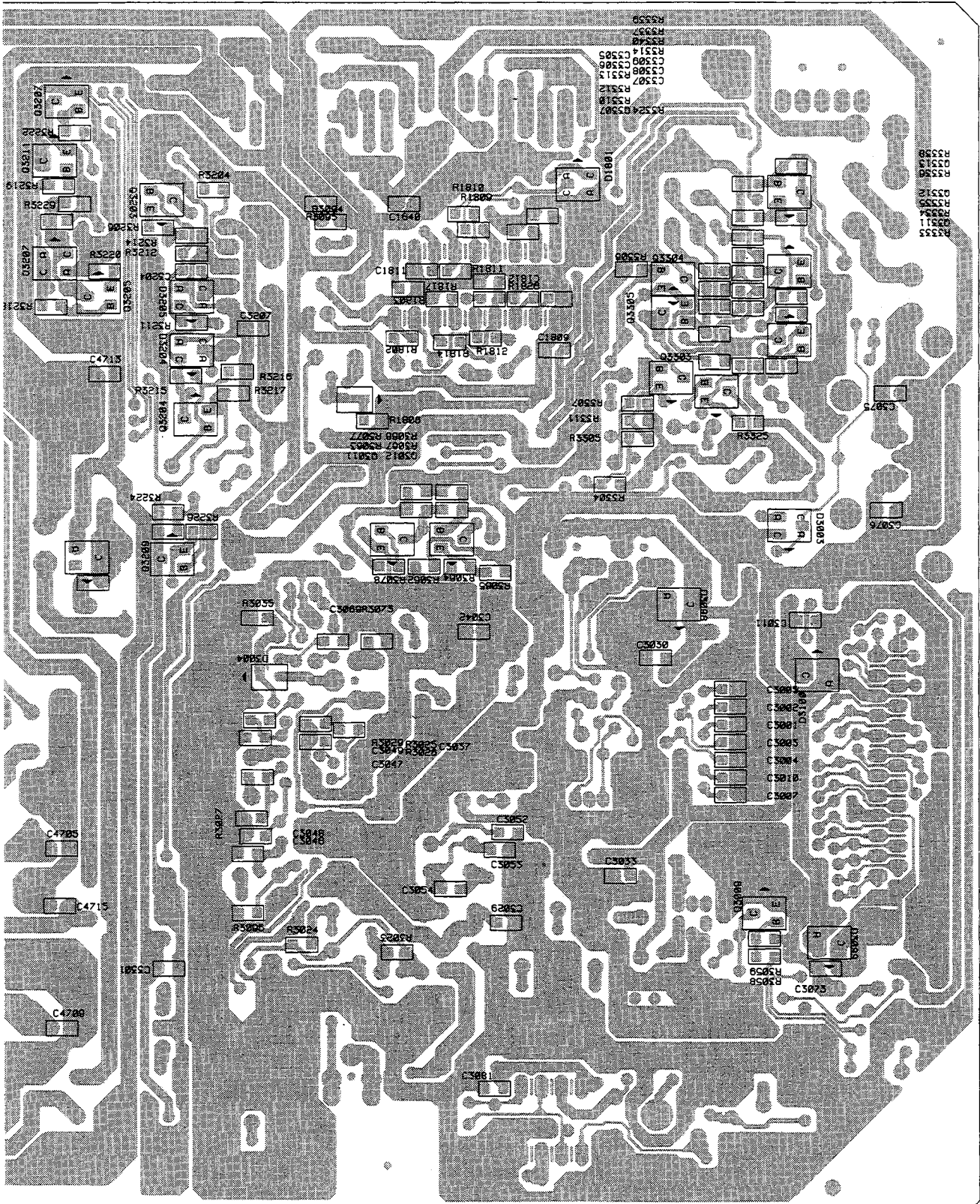
Q3009

Q3311

Q3313

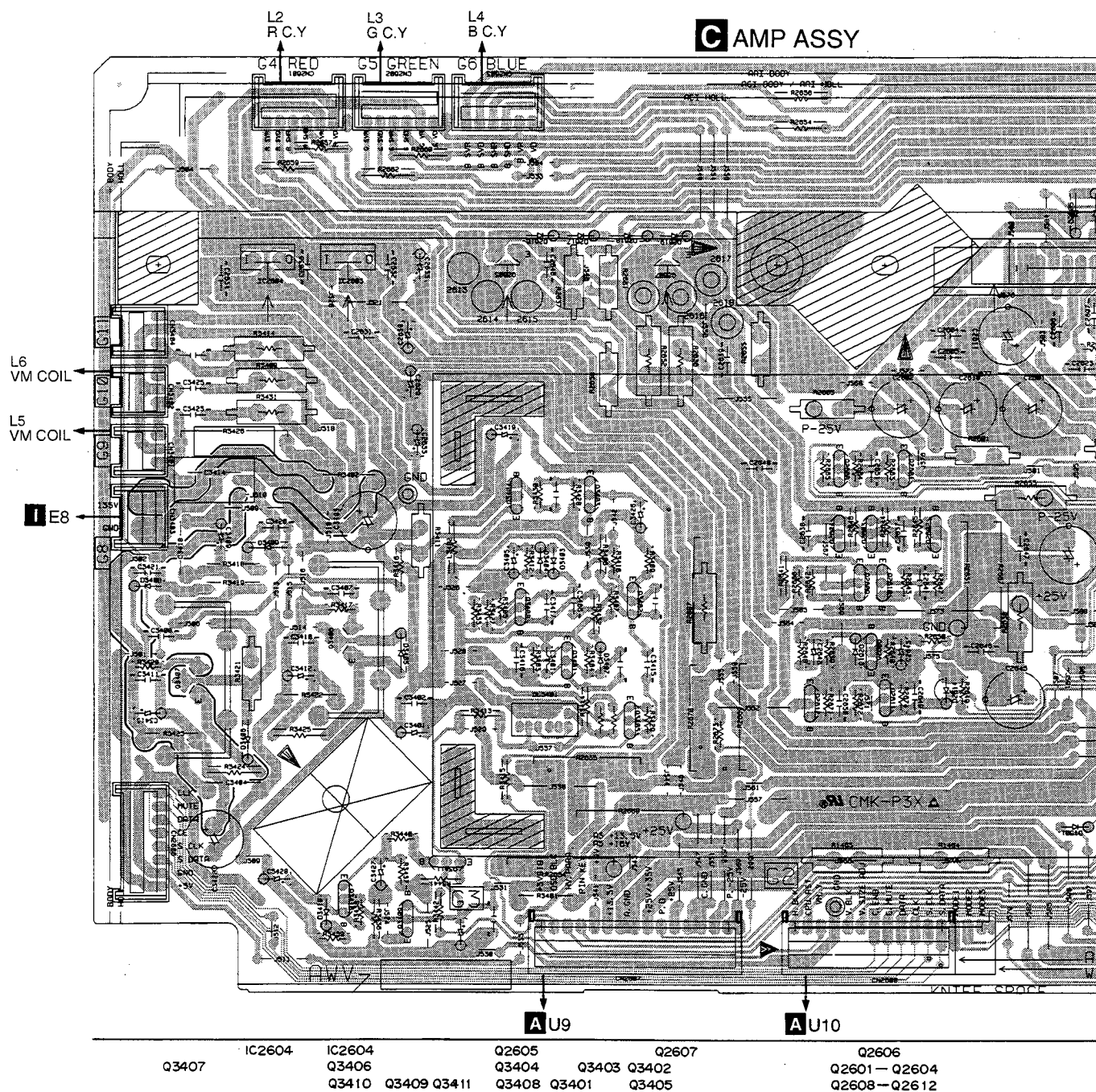
SIDE B

(ANP1873-B)



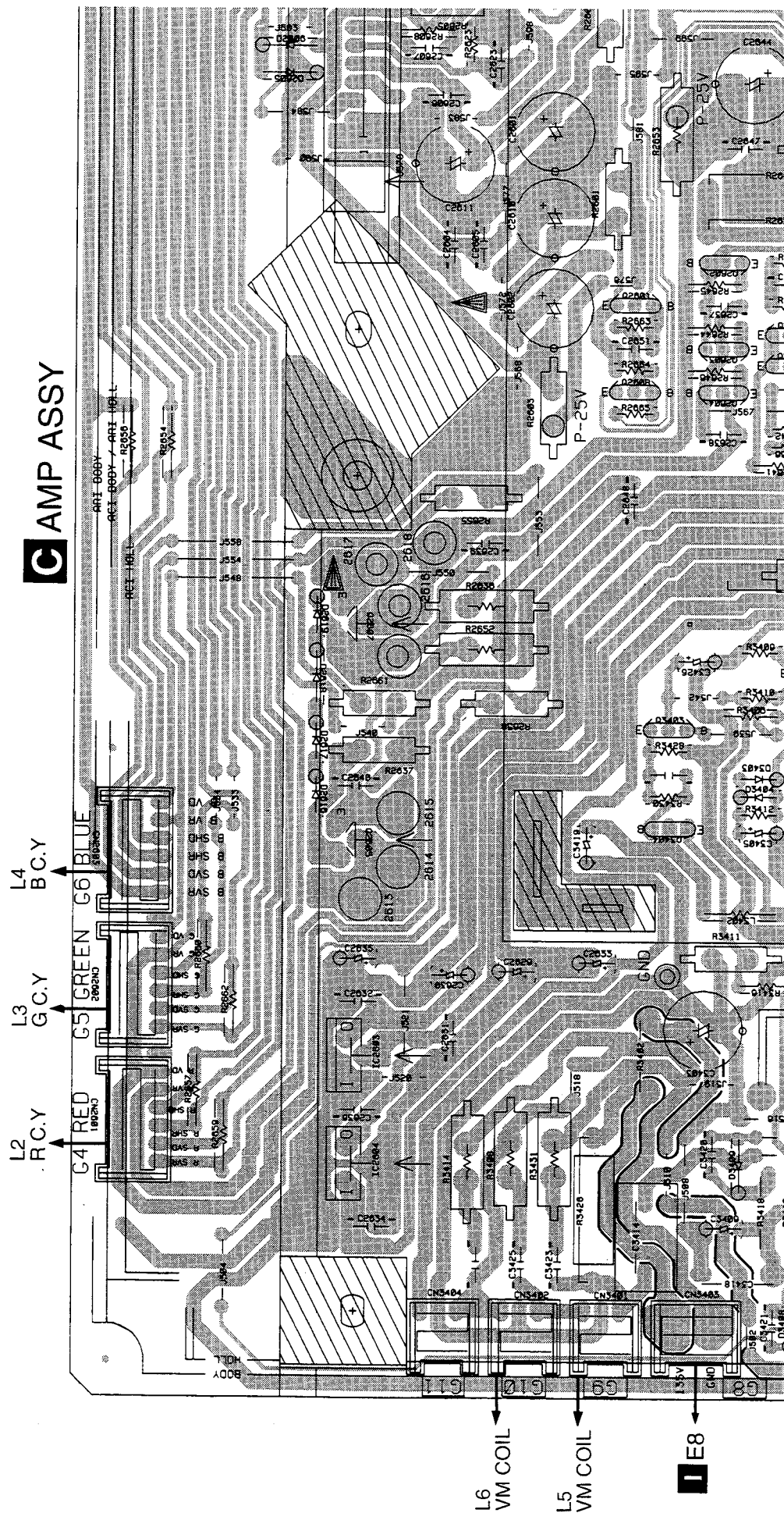
4.3 AMP ASSY (GUIDE PAGE)

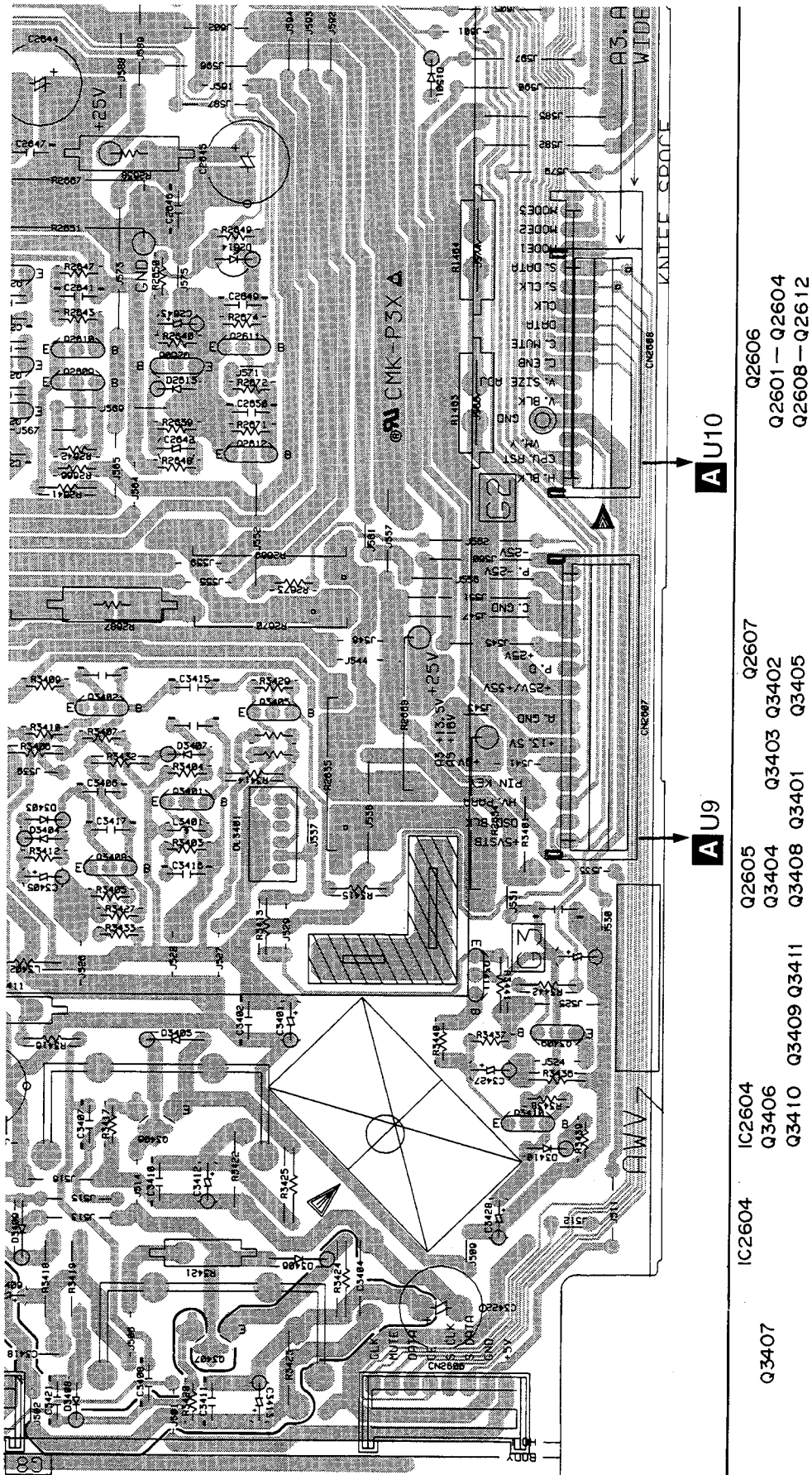
□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)



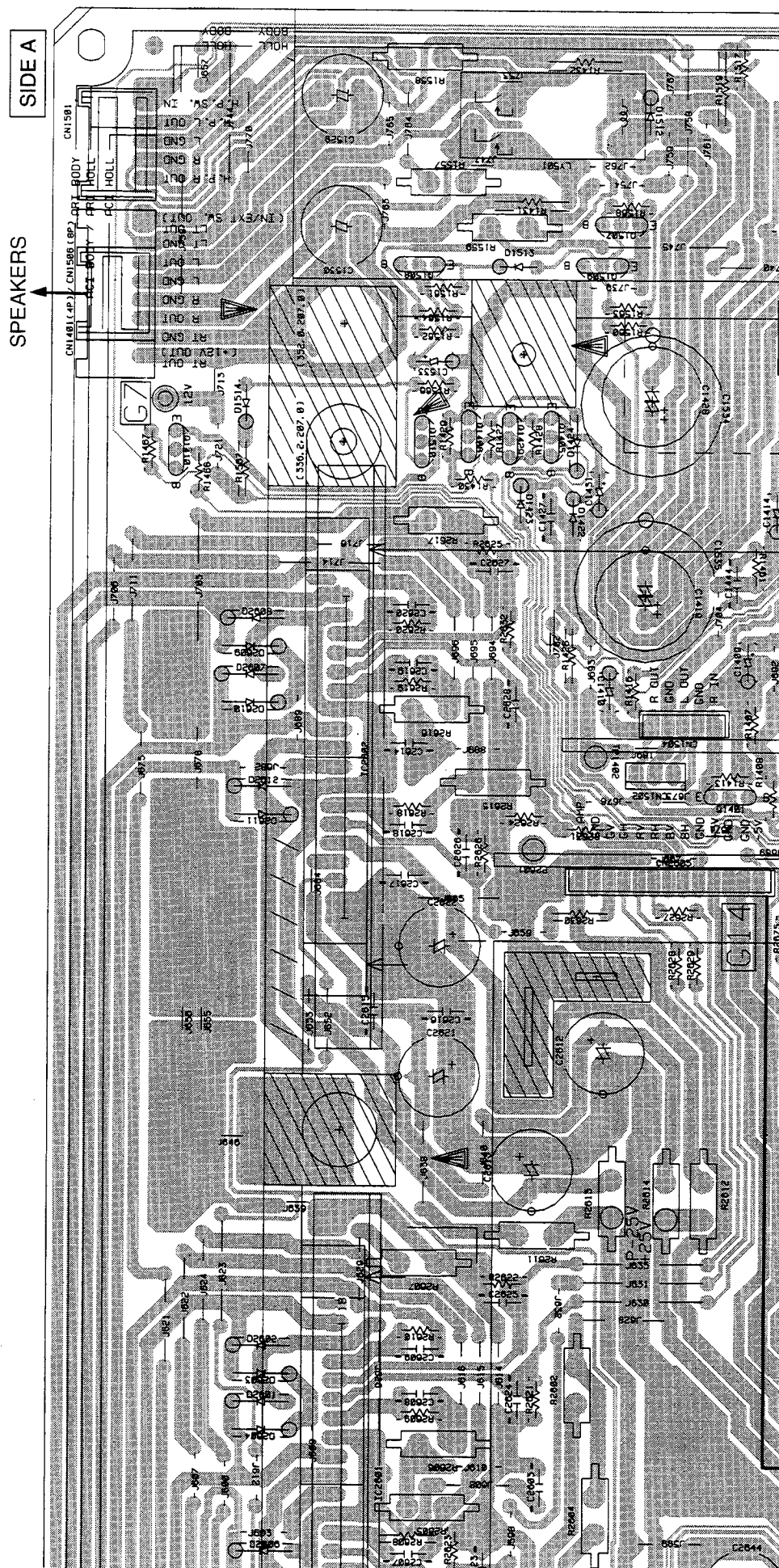
**□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTG THE CHARGED SECTION)**

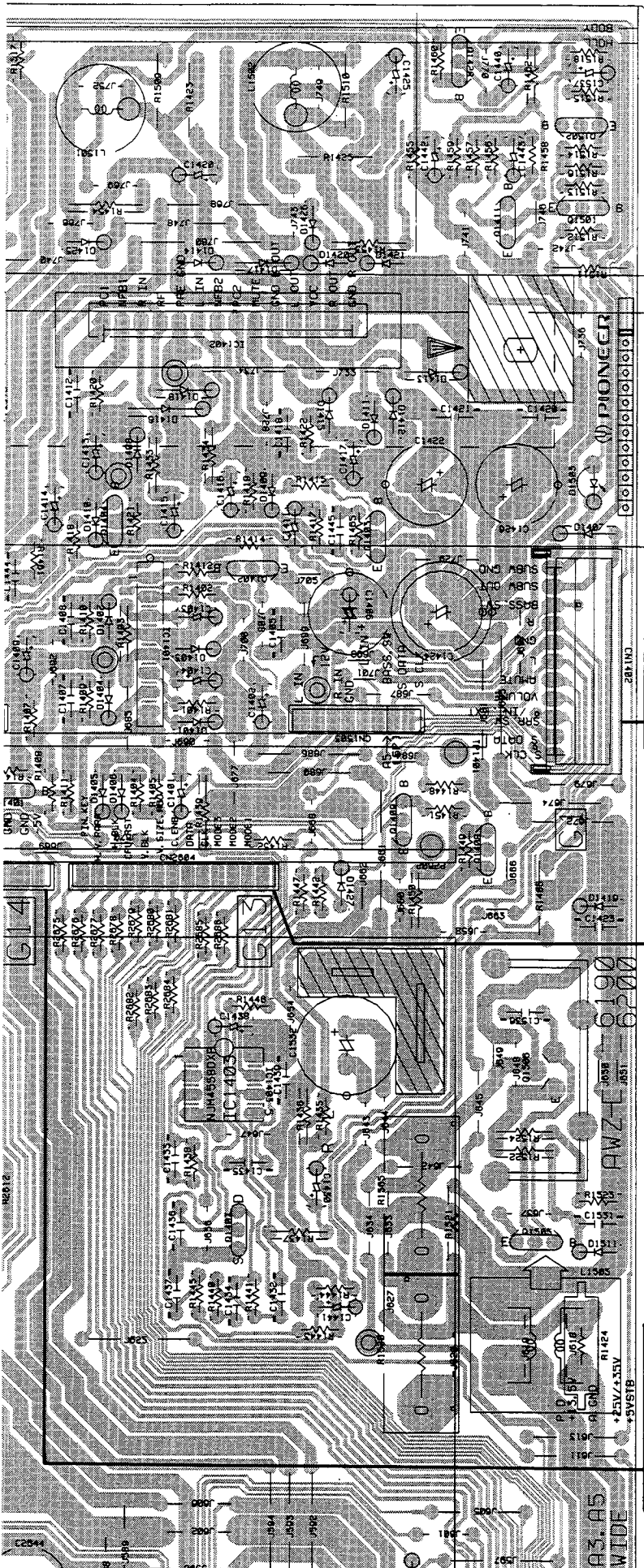
CAMP ASSY





**□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTG THE CHARGED SECTION)**





(ANP1872-B)

A U11**E** C3**E** C4

IC2601

IC2602

Q1410

Q1507-Q1509

Q1402 Q1411

Q1407
Q1505IC1403
Q1506

Q1408 Q1409

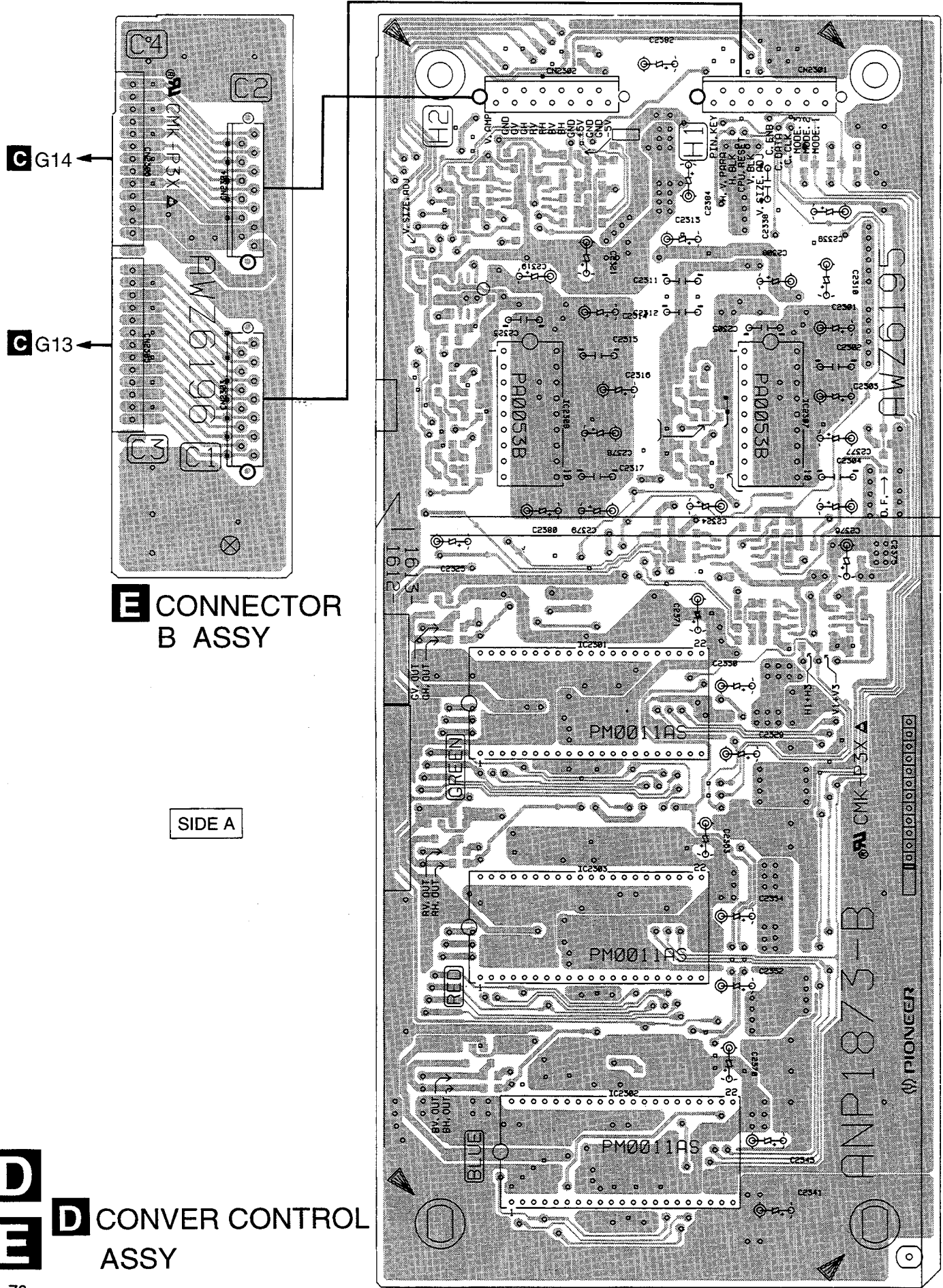
IC1401

Q1402-Q1404 Q1510
Q1406 Q1429 Q1405

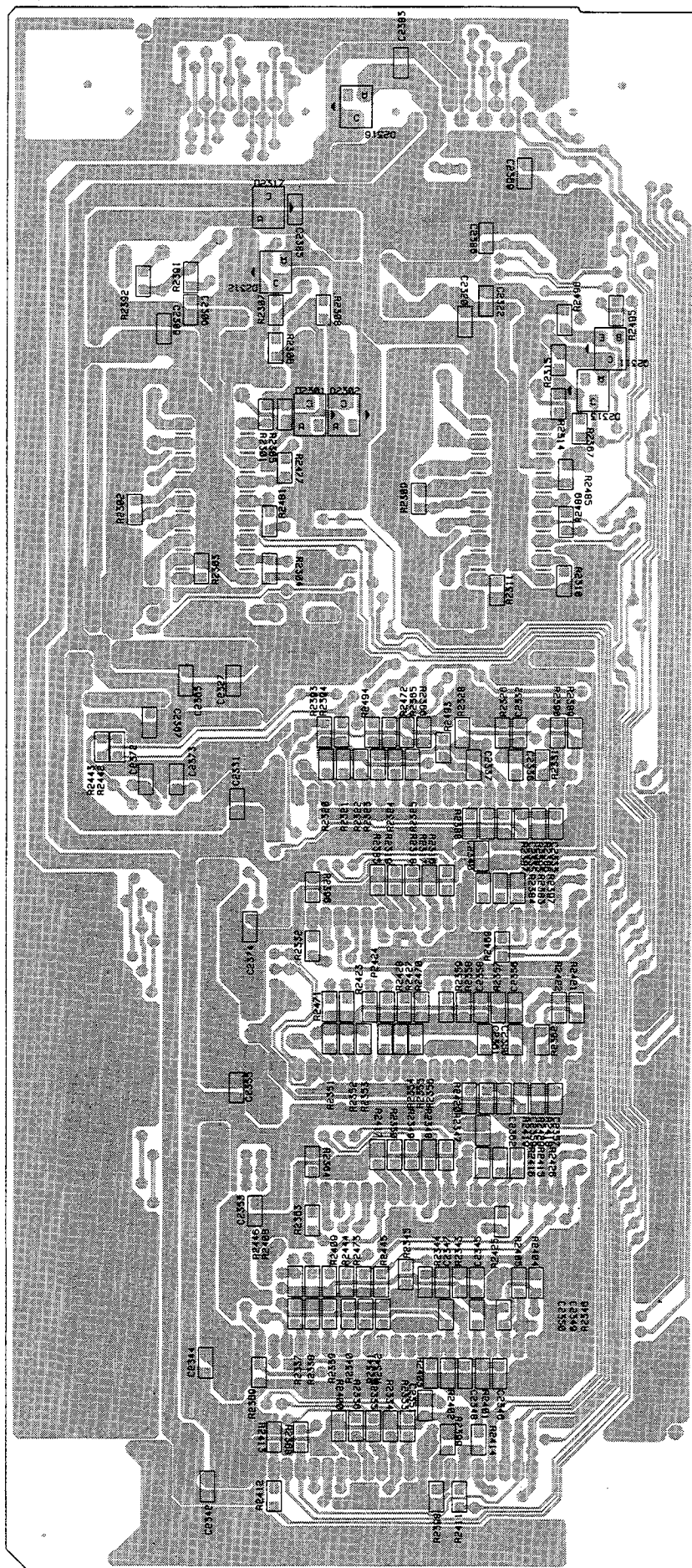
Q1501 Q1502

Q1428

4.4 CONVER CONTROL AND CONNECTOR B ASSEMBLIES

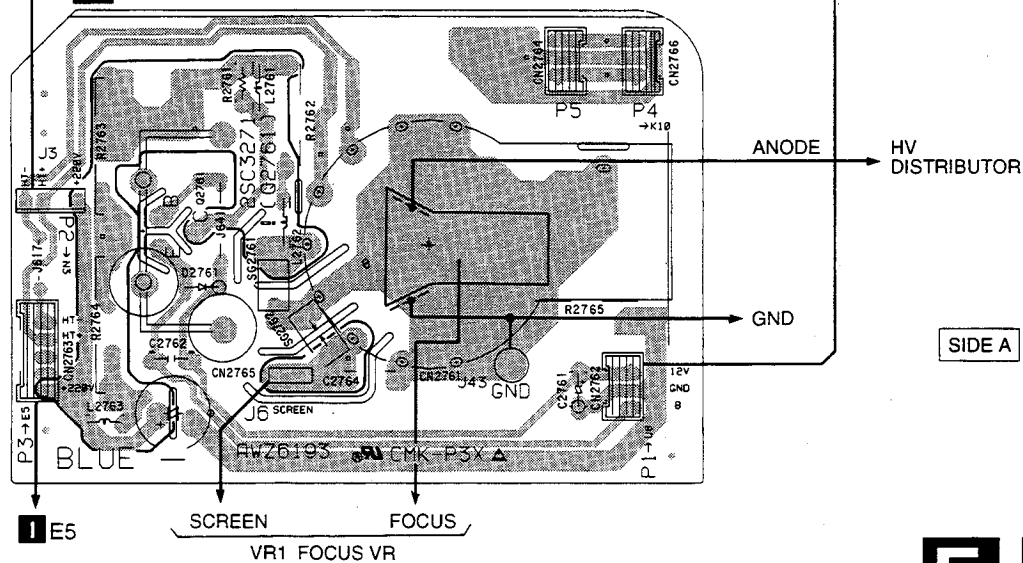


SIDE B



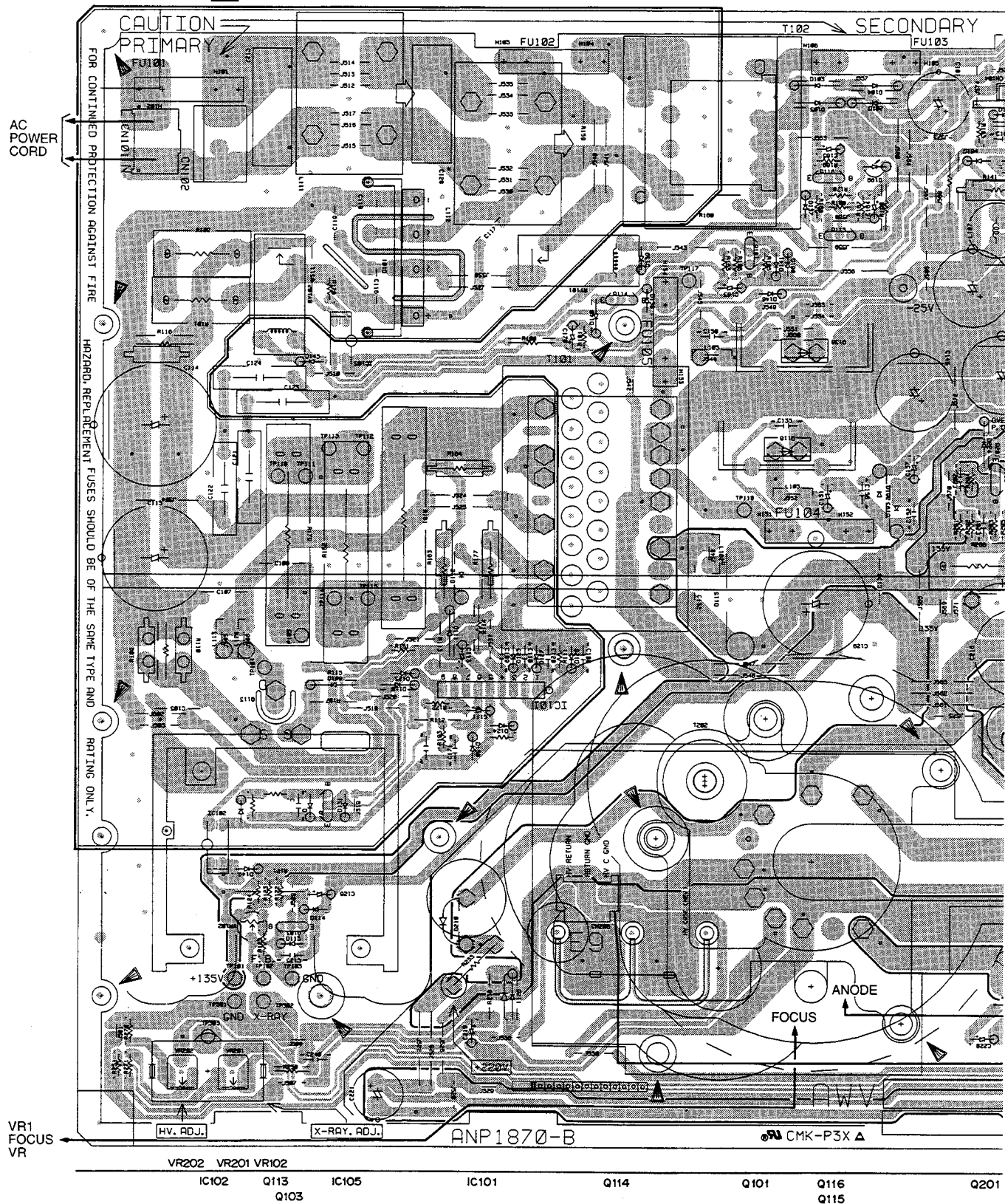
(ANP 1873-B)

SD-P50A3-K, SD-P55A3-K

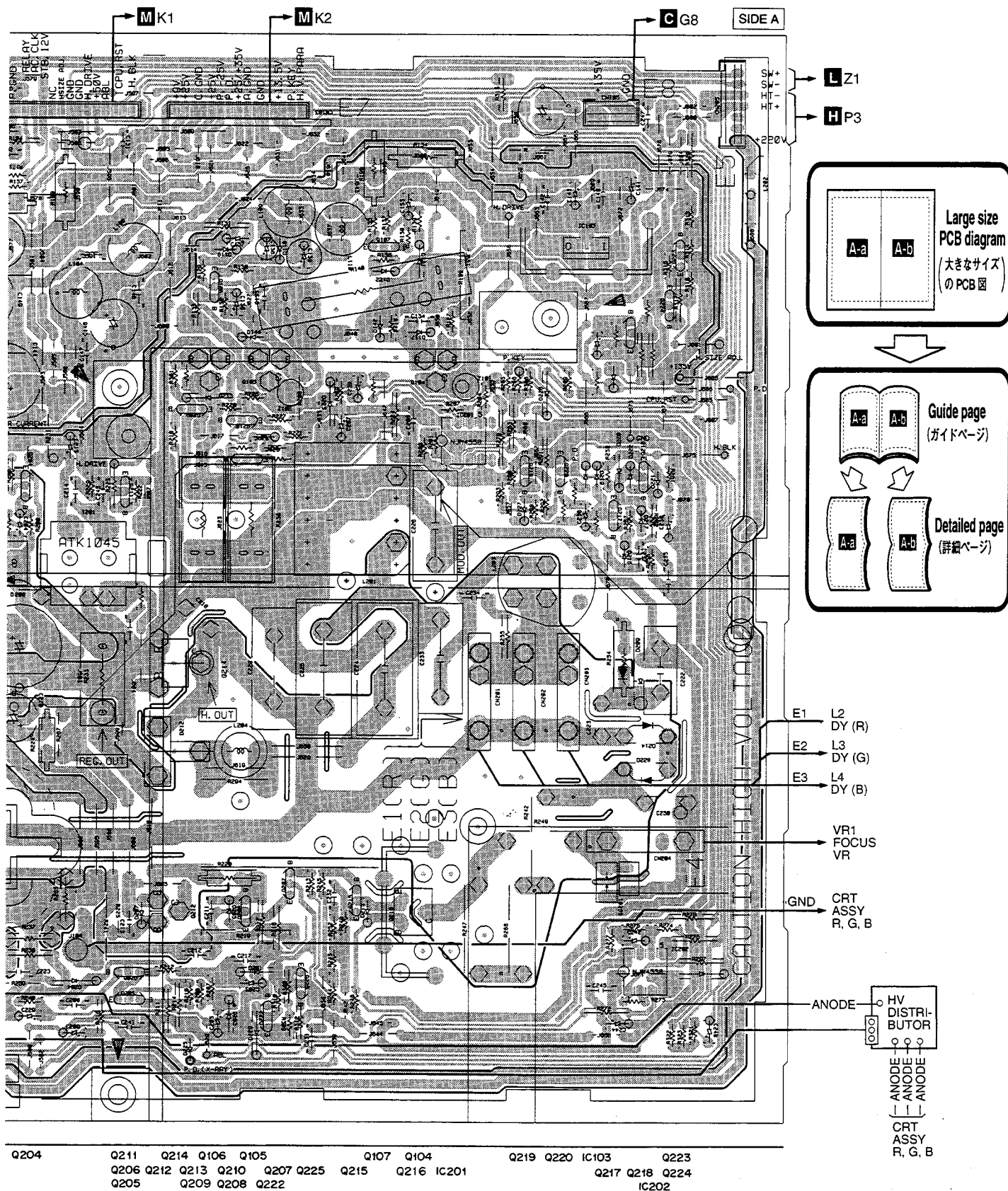
F R CRT AMP ASSY

(GUIDE PAGE)

 : CHARGED SECTION



□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)



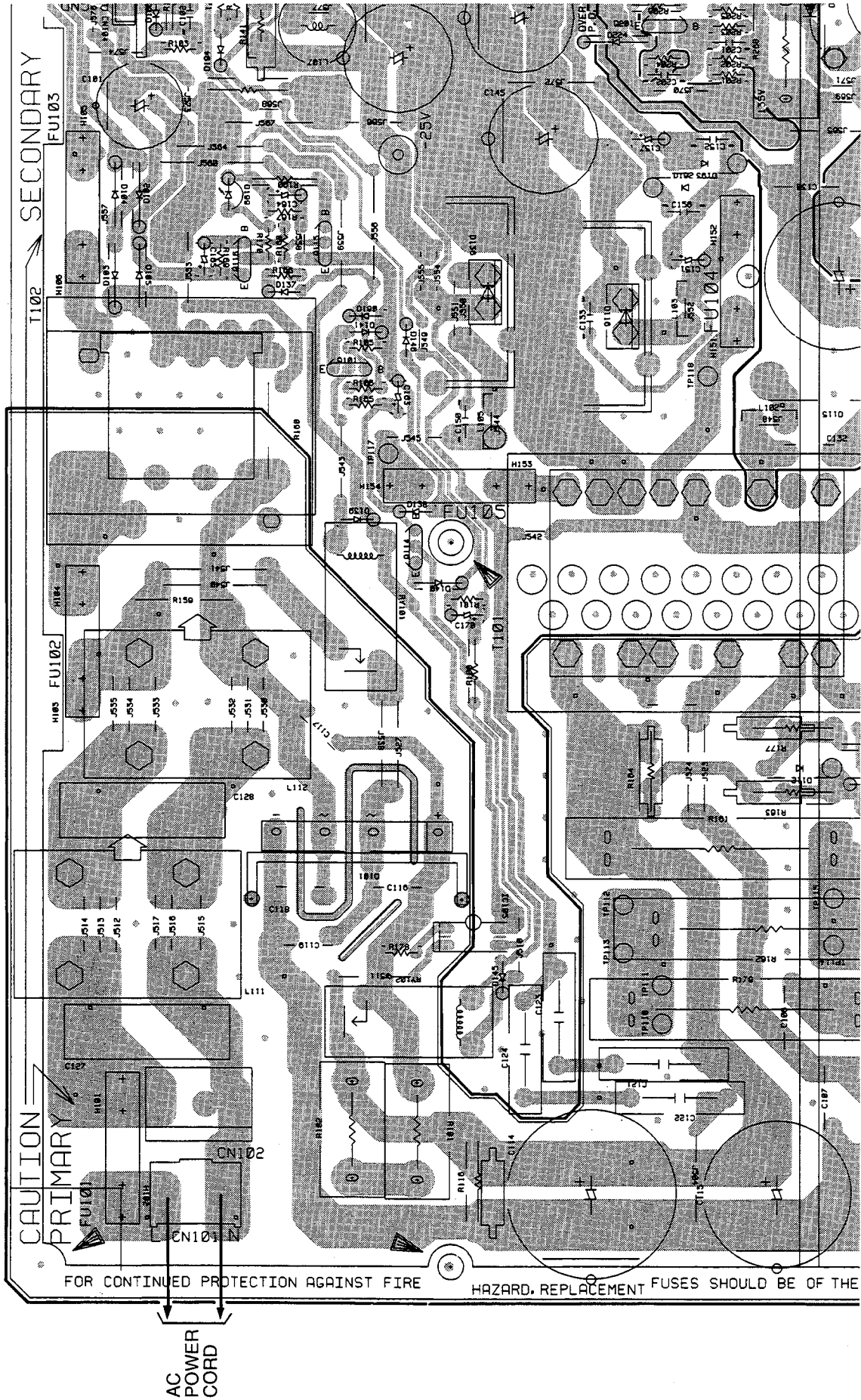
I-a I-b

□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)

POWER SUPPLY SERVICE ASSY



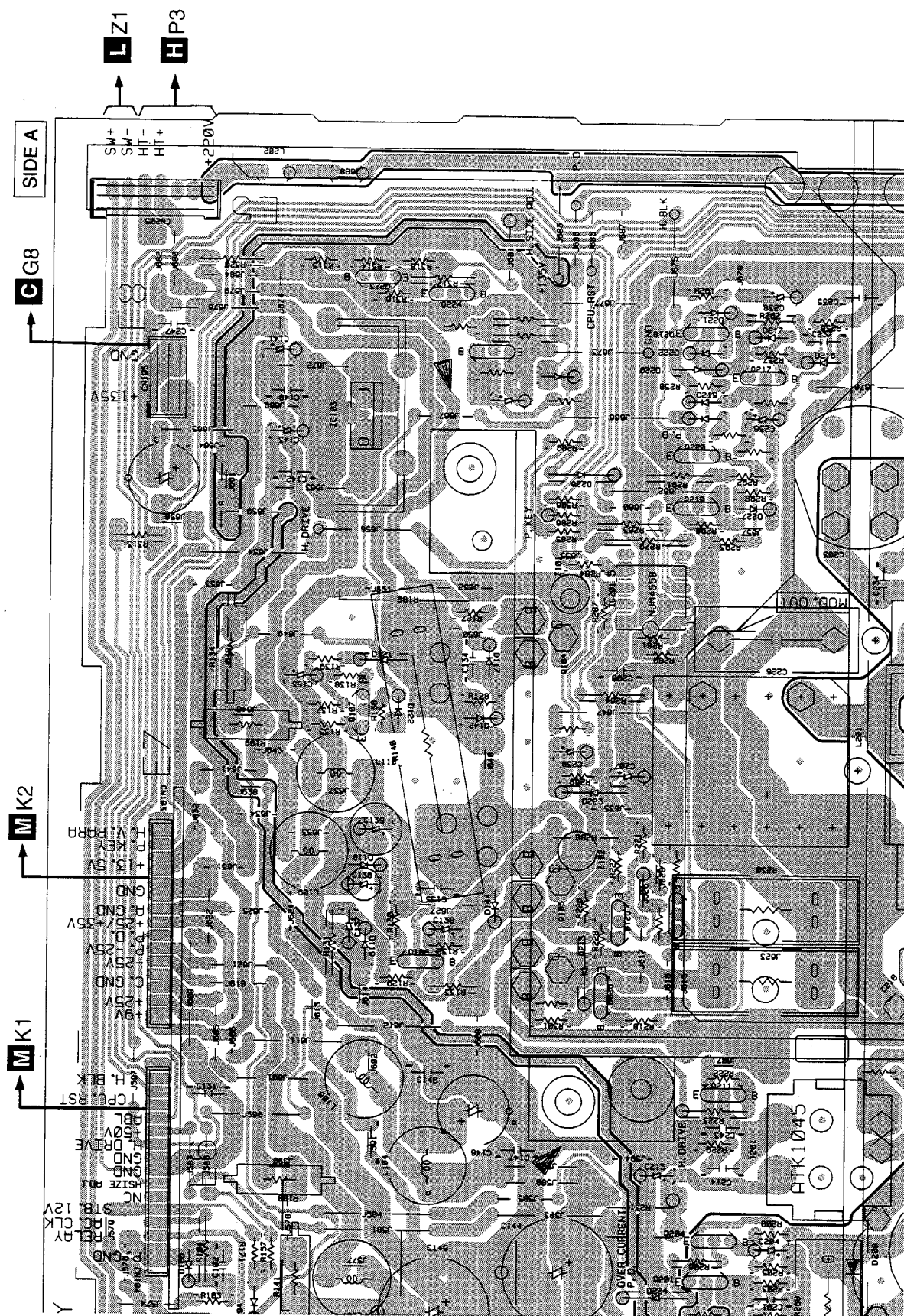
: CHARGED SECTION



FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE

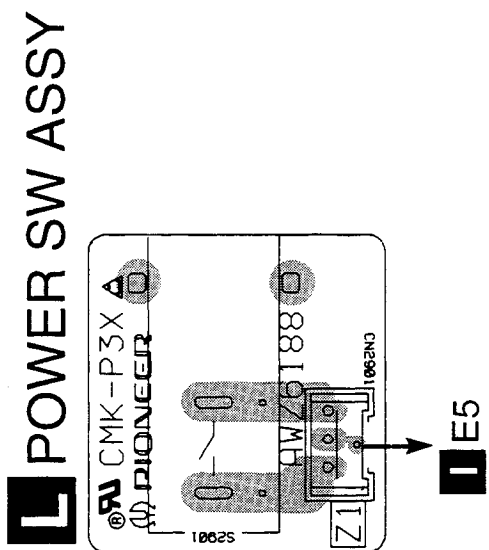
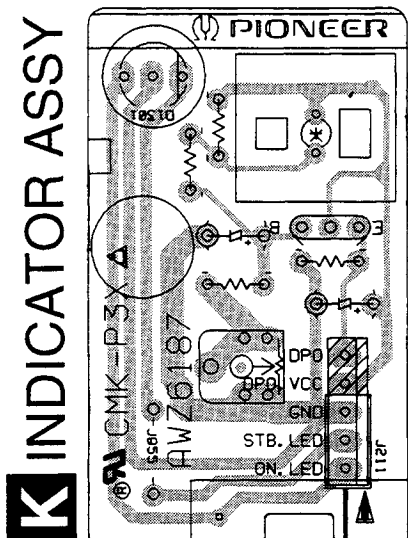
I-a



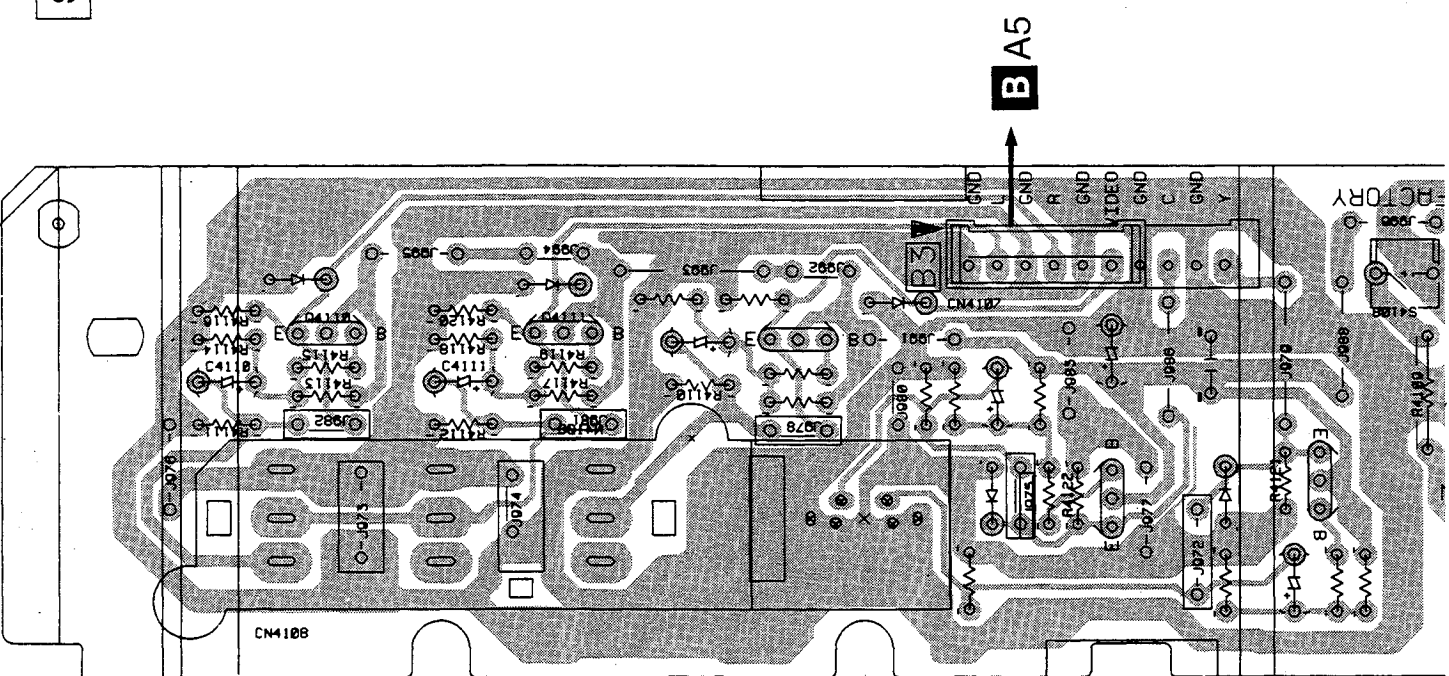


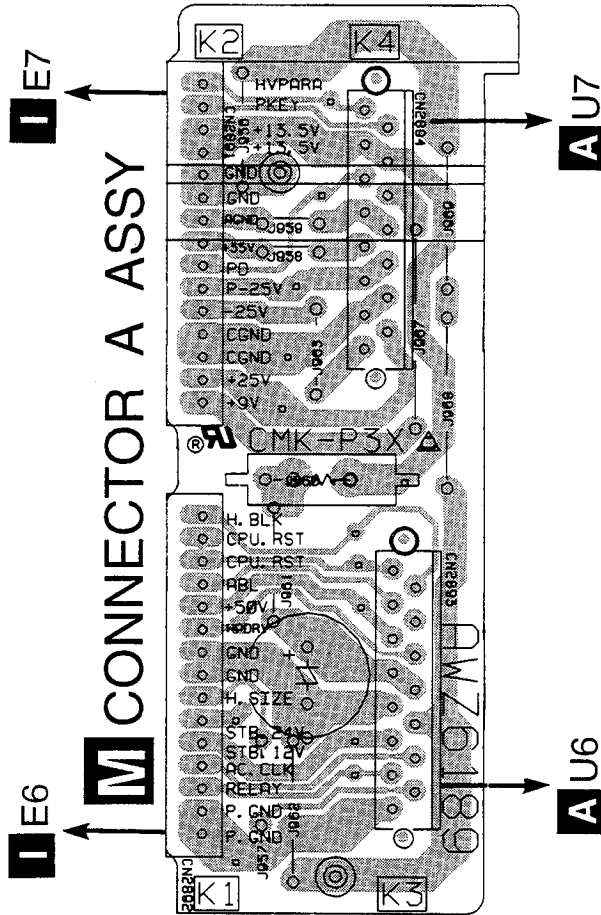
4.7 FRONT CONTROL, INDICATOR, POWER SW
AND CONNECTOR A ASSEMBLIES

SIDE A



I E5





(ANP1871-C)

5. PCB PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

• The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

• When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω $\rightarrow$ 56 $\times$ 10¹ $\rightarrow$ 561 RD1/4PU $\boxed{5} \boxed{6} \boxed{1} J$

47k Ω $\rightarrow$ 47 $\times$ 10³ $\rightarrow$ 473 RD1/4PU $\boxed{4} \boxed{7} \boxed{3} J$

0.5 Ω $\rightarrow$ R50 RN2H $\boxed{R} \boxed{5} \boxed{0} K$

1 Ω $\rightarrow$ 1R0 RS1P $\boxed{1} \boxed{R} \boxed{0} K$

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω $\rightarrow$ 562 $\times$ 10¹ $\rightarrow$ 5621 RN1/4PC $\boxed{5} \boxed{6} \boxed{2} \boxed{1} F$

• Parts marked by $\star$ are important parts which relate in X-rays radiation.

If any of these parts need to be replaced, always replace with specified parts.

• Parts marked by $\times$ are important parts which relate in X-rays radiation. If a failure occurs in any of these parts, replace the printed circuit board assembly where the relevant part has already been adjusted as a working component. Do not replace the actual part itself.

If any part marked by $\times$ is replaced, there is danger of being exposed to X-rays.

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
LIST OF ASSEMBLIES							
NSP		TUNER-VIDEO ASSY	AWV1609		D547, D548, D562, D563, D570		HSS104-02
		└ TUNER-VIDEO ASSY	AWZ6185		D572-D579, D901, D902, D916		HSS104-02
		└ FRONT CONTROL ASSY	AWZ6186		D922, D923, D926-D930		HSS104-02
		└ INDICATOR ASSY	AWZ6187		D932-D934, D936, D939, D943		HSS104-02
		└ POWER SW ASSY	AWZ6188		D947-D954, D957-D960		HSS104-02
		└ CONNECTOR A ASSY	AWZ6189				
NSP		AMP ASSY	AWV1611		D962, D963, D973, D985, D996		HSS104-02
		└ AMP ASSY	AWZ6190		D4508, D4509, D509, D510		MTZJ15
		└ R CRT AMP ASSY	AWZ6191		D513-D519, D523-D527		MTZJ15
		└ G CRT AMP ASSY	AWZ6192		D541, D542, D546, D549-D561		MTZJ15
		└ B CRTAMP ASSY	AWZ6193		D564-D569, D571, D909, D921		MTZJ15
NSP		AV I/O-CNVR. ASSY	AWV1613				
		└ CONVER CONTROL ASSY	AWZ6195		D972, D981		MTZJ15
		└ CONNECTOR B ASSY	AWZ6196		D903-D908, D910-D914		MTZJ6. 8
		└ AV I/O ASSY	AWZ6197		D917-D920, D924, D925		MTZJ6. 8
					D937, D938, D940-D942		MTZJ6. 8
					D945, D946, D956, D971		MTZJ6. 8
$\star$		POWER SUPPLY SERVICE ASSY	AWV1615		D976, D977, D979, D984		MTZJ6. 8
					D992, D993, D995		MTZJ6. 8
					D508		RD10ESB2
					D501		RD2. 2ESB1
					D4505		RD33ESB3
					D931		RD5. 1ESB2
					D4510		RD5. 6ESB2
					D505-D507, D520-D522, D528		S5688G
					D536, D537		S5688G

A TUNER-VIDEO ASSY SEMICONDUCTORS

IC902	AT24C04-10PC
IC4501	CXA1734S
IC901	PD5395A
IC903	PST9146
IC501	TA8845BN
Q4501, Q4506, Q4513, Q503, Q504	2SA933S
Q506, Q509-Q511, Q515-Q517	2SA933S
Q522, Q523, Q534, Q536, Q702	2SA933S
Q912, Q913, Q920, Q921	2SA933S
Q4502-Q4505, Q4507, Q4509, Q4512	2SC1740S
Q501, Q502, Q505, Q507, Q508	2SC1740S
Q512-Q514, Q518-Q520	2SC1740S
Q524-Q533, Q535, Q701, Q703	2SC1740S
Q902-Q910, Q914-Q919, Q924	2SC1740S
Q931, Q932	2SC1740S
Q4510, Q521	2SC2235
Q911	2SD880
D4501-D4504, D502-D504	HSS104-02
D511, D512, D529-D535	HSS104-02
D539, D540, D543-D545	HSS104-02

COILS

L501-L503, L704	LAU100J
L701	LAU101J
L702	LAU150J
L4501-L4505, L902-L905	LAU2R2J
L703	LAU3R9J
L901	LAU8R2J

CAPACITORS

C4510 (3.3 μ F, 50V)	ACH1128
C4504 (10 μ F, 50V)	ACH1129
TC901	ACM-020
C503	CCCCH100D50
C905	CCCCH270J50
C4537, C546, C565-C567	CCCSL101J50
C527, C702, C704	CCCSL121J50
C949, C950	CCCSL221J50
C4529, C933, C939, C940, C952	CCCSL470J50
C544, C703, C933, C939	CCCSL680J50

SD-P50A3-K, SD-P55A3-K

Mark	No.	Description	Part No.
	C913		CCDSL221J50
	C4502, C4503, C4524, C4527		CEAS100M50
	C4531, C4532, C4538, C4542-C4544		CEAS100M50
	C514, C533, C547, C555, C926		CEAS100M50
	C931, C932		CEAS100M50
	C705, C915, C918, C930		CEAS101M10
	C4517		CEAS101M25
	C524		CEAS102M16
	C4505, C4509, C511, C517, C518		CEAS10M50
	C903, C914, C919, C921, C938		CEAS10M50
	C557		CEAS221M16
	C506, C512, C548, C551, C552		CEAS2R2M50
	C4520, C4540, C951		CEAS331M16
	C922		CEAS3R3M50
	C508, C515, C519, C522, C531		CEAS470M25
	C537, C550, C559, C562, C568		CEAS470M25
	C927		CEAS470M25
	C523		CEAS471M10
	C4521, C4525		CEAS471M16
	C929		CEAS471M25
	C4501, C4506, C4507, C4514-C4516		CEAS4R7M50
	C4518, C516		CEAS4R7M50
	C910, C911		CEASR10M50
	C4511, C507, C536		CEASR47M50
	C902, C936		CFTXA105J50
	C4508		CFTXA224J50
	C4530, C529, C535, C542, C906		CKCYB102K50
	C545, C701		CKCYB103K50
	C530		CKCYB152K50
	C908, C955		CKCYB222K50
	C526, C528, C543, C956		CKCYB331K50
	C4535, C4536		CKCYB332K50
	C505		CKCYB472K50
	C901		CKCYB561K50
	C4519, C4522, C4523, C4526, C4528		CKCYF103Z50
	C4533, C4539, C4541, C538-C541		CKCYF103Z50
	C570, C907, C909, C916, C917		CKCYF103Z50
	C920, C924, C928		CKCYF103Z50
	C509, C520, C525, C534, C549		CKCYF473Z50
	C556, C560, C569, C904, C925		CKCYF473Z50
	C934		CKCYF473Z50
	C912		COMA102J50
	C502, C532		COMA103J50
	C501, C521, C558		COMA104J50
	C510		COMA123J50
	C504		COMA183J50
	C4513		COMA272J50
	C513		COMA392J50
	C4512		COMA473J50
	C553, C554		COMA683J50
RESISTORS			
	R565, R566, R571-R573		RD1/2PM100J
	R567		RD1/2PM150J
	R607		RD1/2PM221J
	R569, R570, R575		RD1/2PM271J
	R4546		RD1/2PM331J
	R657		RD1/2PM6R8J
	R4525		RD1/4LMF122J
	R558		RD1/4LMF220J
	R4514		RN1/4PC4302F
	R4515		RN1/4PC6202F

Mark	No.	Description	Part No.
	R1011, R955		RS1MMF3R9J
	R4545		RS2MMF150J
	R4524		RS2MMF272J
	R559		RS2MMF5R6J
	VR4501 (1kΩ)		ACP1040
	Other Resistors		RD1/4PU□□□J
OTHERS			
	DL701 DELAY LINE		ATN1012
	PLUG CORD		ADE-082
	J4501 3P HOUSING WIRE		ADX2240
	SHIELD PLATE		ANK1500
	X901 CERAMIC RESONATOR		ASS1015
	X502 CERAMIC RESONATOR		ASS1019
	X501 CRYSTAL RESONATOR (3.579545MHz)		ASS1091
	CN905 PLUG 5-P		KM250MA5
	CN505 PLUG 9-P		KM250MA9
	CN901 11P SOCKET		KP250NA11
	CN501, CN904 12P SOCKET		KP250NA12
	CN902 13P SOCKET		KP250NA13
	CN506, CN903 15P SOCKET		KP250NA15
	TV FRONT END SYSTEM UNIT		AXF1084
	RF SWITCH		AXF1088

B AV I/O ASSY SEMICONDUCTORS

IC1602, IC1603	BA7644AN
IC3003	HA11579
IC3002	HD49420FS
IC3001	HM53461ZP-12
IC3004	M5233P
IC3301	MC14011BF
IC3201	MC14066BF
IC3005	NJM7805FA
IC1601	TC4052BF
IC3006	TC4538BF
Q1602-Q1604, Q1610, Q1701, Q1702	2SA1162
Q1704, Q1710, Q3003, Q3202, Q3208	2SA1162
Q3211, Q3212, Q3301, Q3307, Q3313	2SA1162
Q4704, Q4705	2SA1162
Q1614	2SC2458
Q1601, Q1605-Q1609, Q1611-Q1613	2SC2712
Q1615-Q1617, Q1703, Q1706-Q1708	2SC2712
Q1711, Q1804, Q3001, Q3002	2SC2712
Q3004-Q3013, Q3201, Q3203-Q3207	2SC2712
Q3209, Q3210, Q3213, Q3214	2SC2712
Q3302-Q3305, Q3311, Q3312, Q3314	2SC2712
Q4701-Q4703, Q4706	2SC2712
Q3310	2SK208
D1601-D1610, D1619-D1622	1SS226
D3001-D3003, D3007, D3201-D3207	1SS226
D4701, D4702	1SS226
D1611-D1618, D3004, D3301, D3302	1SS352
D3005, D3100	RD6. 8MB

COILS AND FILTERS

F3001	ATF1166
L3008	ATH1046
L1801	ATX1008
F3002	CTJ1002
L3201	LAU100J

Mark	No.	Description	Part No.
	L3004, L3005		LAU101J
	L3302		LAU120J
	L4701-L4704		LAU2R2J
	L3003		LAU680J
	L3301		LAU6R8J
	L3001, L3002, L3006, L3007		LAU8R2J
	F3201		VTF1064
CAPACITORS			
	C3020, C3053		CCSQCH101J50
	C3047, C3306		CCSQCH121J50
	C3015, C3016, C3055, C3312, C3315		CCSQCH151J50
	C3069		CCSQCH220J50
	C3307		CCSQCH221J50
	C3037		CCSQCH270J50
	C3067, C3068		CCSQCH271J50
	C3048, C3052		CCSQCH330J50
	C3054		CCSQCH470J50
	C3314		CCSQCH680J50
	C3313		CCSQCH681J50
	C3305		CCSQCH821J50
	C3308		CCSQL122J50
	C3208		CCSQL151J50
	C4711		CCSQL470J50
	C3044		CEANP100M35
	C1601-C1604, C1606-C1609, C3027		CEAS100M50
	C3039, C3051, C3056, C3060, C3066		CEAS100M50
	C3310, C4702-C4704, C4714, C4717		CEAS100M50
	C3012, C3028, C3034, C3040, C3070		CEAS101M10
	C3072, C3074		CEAS101M10
	C1810, C3201, C3203, C3205, C3302		CEAS101M25
	C3304		CEAS101M25
	C1611, C1612, C1614-C1618, C1636		CEAS10M50
	C1704		CEAS10M50
	C3013, C3014, C3023, C3050		CEAS220M50
	C1619, C1621, C1623, C1629, C1630		CEAS221M16
	C1637, C1641, C3071		CEAS221M16
	C3017		CEAS2R2M50
	C3319		CEAS330M35
	C4710, C4716		CEAS331M16
	C1632, C1634, C1707, C3022, C3206		CEAS470M25
	C3311, C3316, C3318		CEAS470M25
	C1627, C4701, C4708		CEAS471M16
	C3036		CEAS4R7M50
	C3025, C3026		CEASR22M50
	C3018, C3019		CEASR47M50
	C3078		CEHAQ101M10
	C3077		CEHAQ101M25
	C3038, C3041		CEJA10M50
	C3064, C3065		CFTXA334J50
	C3309		CKSQYB392K50
	C1703, C3024, C3059, C4707		CKSQYF102Z50
	C1701, C1702, C3006, C3035, C3045		CKSQYF103Z50
	C3083, C3202, C3204, C3303		CKSQYF103Z50
	C1605, C1610, C1620, C1622		CKSQYF104Z50
	C1625, C1626, C1628, C1631, C1640		CKSQYF104Z50
	C1705, C1808, C1809, C3005, C3007		CKSQYF104Z50
	C3009-C3011, C3021, C3029, C3030		CKSQYF104Z50
	C3032, C3033, C3043, C3057, C3058		CKSQYF104Z50
	C3063, C3073, C3075, C3076		CKSQYF104Z50
	C3080-C3082, C3207, C3301, C3317		CKSQYF104Z50
	C4705, C4706, C4709, C4712, C4713		CKSQYF104Z50
	C4715		CKSQYF104Z50

Mark	No.	Description	Part No.
	C3001-C3004, C3042, C3046		CKSQYF223Z50
	C3049		CKSQYF333Z50
	C3061, C3062		CQMA153J50
	C3031		CQMA681J50

RESISTORS

R1674	RD1/4LMF220J
R1668	RS1/2S221J
R3213	RS1MMF560J
R3068, R3069, R3100	RS2MMF3R9J
R1699	RS2MMF5R6J
VR3002 (470Ω)	ACP1039
VR3001, VR4701 (1kΩ)	ACP1040
VR3003	VRTS6VS222
Other Resistors	RS1/10S□□□J

OTHERS

CN1602	PIN JACK (9P)	AKB1251
CN1771	PIN JACK 1-P	AKB7042
	HEAT SINK M	ANH-697
X3001	CRYSTAL RESONATOR (3.579545MHz)	ASS1091
CN1603	PLUG 6-P	KM250MA6
CN3002	12P PLUG	KM250NA12L
CN3003	13P PLUG	KM250NA13L
CN3001	PLUG 15-P	KM250NA15L
	TV FRONT END SYSTEM UNIT	AXF1084
	SCREW	PBZ30P080FMC

C AMP ASSY
SEMICONDUCTORS

IC1402	LA4280-P
IC1401	M5222L
IC1403	NJMA558DXP
IC2604	NJM78M05FA
IC2603	NJM79M05FA
IC2601, IC2602	STK392-110
Q3407	2SA1837
Q1405, Q1409, Q1429, Q2608-Q2610	2SA933S
Q3408	2SA933S
Q2607	2SB950A
Q1401-Q1404, Q1406, Q1408	2SC1740S
Q1410, Q1411, Q1428, Q2601-Q2604	2SC1740S
Q2606, Q2611, Q2612, Q3401-Q3403	2SC1740S
Q3405, Q3409-Q3411	2SC1740S
Q3404	2SC2235
Q3406	2SC4793
Q2605	2SD1276A
Q1407	2SK373
D2614	BR3371XJ30A
D1405, D1407, D1408, D1411-D1421	HSS104-02
D1423-D1427, D2613, D2616-D2619	HSS104-02
D3403, D3404, D3407, D3410	HSS104-02
D1401-D1404	MTZJ15
D3408, D3409	MTZJ39
D1406, D1422	MTZJ5.1
D1409, D1410	MTZJ6.8
D2601-D2612, D3405, D3406	S5688G

COILS

L3401	LAU330J
L3402	LAU4R7J

SD-P50A3-K, SD-P55A3-K

Mark	No.	Description	Part No.
CAPACITORS			
	C1436		CCCCH100D50
	C2607-C2609, C2618-C2620		CCCCH151J50
	C3417		CCCCH180J50
	C2623-C2628		CCCCH221J50
	C3416		CCCCH390J50
	C1432, C1437		CCCCH470J50
	C1407, C1408		CCCSL101J50
	C1412, C1418, C2639, C2640, C2648		CCCSL151J50
	C3423, C3425		CCCSL221K2H
	C2642		CEANP100M35
	C1401, C1402, C1430, C1441, C3405		CEAS100M50
	C1431, C1443		CEAS101M10
	C2629, C2633, C3412, C3413		CEAS101M25
	C1424		CEAS102M35
	C1440, C1442, C3426, C3427		CEAS10M50
	C1406		CEAS221M16
	C3419		CEAS221M25
	C2601, C2602, C2610-C2613		CEAS221M35
	C2621, C2622, C2644, C2645		CEAS221M35
	C1415, C1416		CEAS2R2M50
	C1413, C1417		CEAS330M35
	C1419, C1428		CEAS331M25
	C2630, C2635		CEAS331M6R3
	C1403, C1404, C1409, C1438, C2643		CEAS470M25
	C3401, C3428		CEAS470M25
	C1414		CEAS470M50
	C1420, C1425		CEASR10M50
	C1410, C1411		CEASR47M50
	C3403, C3422		CEHAQ220M2C
	C3409		CEHAQ2R2M2C
	C1434, C2637, C2638, C2641		CKCYB102K50
	C3420, C3421		CKCYB102K50
	C1444, C1445		CKCYB332K50
	C1433, C1435		CKCYB331K50
	C2603-C2606, C2614-C2617		CKCYF103Z50
	C2631, C2632, C2634, C2636		CKCYF103Z50
	C2646, C2647, C2649-C2651, C3402		CKCYF103Z50
	C3410, C3411		CKCYF103Z50
	C1405, C1421, C1423, C1427, C1429		CKCYF473Z50
	C1439		CKCYF473Z50
	C3404, C3418		CKDYE103P2H
	C3406		CQMA103J50
	C3415		CQMA104J50
	C3414		CQMA104K2E
	C3407, C3408		CQMA472K2E
RESISTORS			
	R3402		RD1/2LMF331J
	R2654, R2656, R2657, R2659, R2660		RD1/2PM151J
	R2662		RD1/2PM151J
	R1431, R1432		RD1/2PM152J
	R3418, R3419		RD1/2PM183J
	R3424, R3425		RD1/2PM2R2J
	R1406		RD1/4LMF150J
	R1423, R1425		RD1/4LMF2R2J
	R3422, R3423		RD1/4LMF390J
	R3401		RD1/4LMF4R7J
	R3421		RS1MMF102J
	R3411		RS1MMF121J
	R2601, R2602, R2611, R2612		RS1MMF220J
	R2605-R2607, R2615-R2617		RS1MMF2R2J
	R2655, R2658, R2661		RS1MMF470J

Mark	No.	Description	Part No.
	R2637		RS1MMF562J
	R2603, R2604, R2613, R2614		RS1MMFR47J
	R3408, R3431		RS2MMF102J
	R2636, R2652		RS2MMF2R2J
	R1424, R1463, R1464		RS2MMF2R7J
	R2638, R2653		RS2MMF4R7J
	R2634, R2635, R2668-R2670, R2687		RS3LMF120J
	R2651		RS3LMF1R8J
	R2667		RS3LMF2R2J
	R3426		RS3LMF561J
	Other Resistors		RD1/4PU□□□□
OTHERS			
	SCREW		ABA1227
	PLATE SPRING		ANG1569
	HEAT SINK M		ANH-697
	AUDIO HEAT SINK		ANH1533
	SCREW		BBZ30P080FCU
	CN2604, CN2605 13P PLUG		KM2001A13
	CN3402 PLUG 3-P		KM250MA3L
	CN3401 PLUG 3-P		KM250MA3LR
	CN1401, CN3403 PLUG 4-P		KM250MA4L
	CN2602 PLUG 6-P		KM250MA6L
	CN2601 PLUG 6-P		KM250MA6LR
	CN2606 L-PLUG(8P)		KM250MA8L
	CN1402 11P PLUG		KM250NA11L
	CN2608 12P PLUG		KM250NA12L
	CN2607 PLUG 15-P		KM250NA15L
	SCREW		PBZ30P080FMC
D CONVER CONTROL ASSY			
SEMICONDUCTORS			
	IC2309		CA0005AM
	IC2304-IC2306		NJM4558MD
	IC2307, IC2308		PA0053B
	IC2301-IC2303		PM0011AS
	Q2301, Q2303, Q2305, Q2307, Q2311		2SA1162
	Q2302, Q2304, Q2306, Q2308, Q2312		2SC2712
	D2301, D2303-D2311, D2315		1SS226
	D2318-D2320		1SS226
	D2312		RD15MB
	D2302		RD5.1MB
	D2313, D2316, D2317		RD6.8MB
CAPACITORS			
	C2332-C2337, C2345-C2350		CCSQSL101J50
	C2356-C2361		CCSQSL101J50
	C2364		CCSQSL120J50
	C2372, C2373		CCSQSL221J50
	C2366		CCSQSL680J50
	C2324, C2325, C2363, C2370, C2371		CEAS100M50
	C2375		CEAS101M25
	C2301, C2303, C2313, C2376		CEAS10M50
	C2316		CEAS1R5M50
	C2378		CEAS220M50
	C2339		CEAS221M16
	C2314, C2380		CEAS330M35
	C2308, C2310, C2319, C2321		CEAS331M6R3
	C2329, C2330, C2341, C2343, C2352		CEAS331M6R3
	C2354, C2382, C2384		CEAS331M6R3
	C2379		CEAS470M25
	C2377		CEASR47M50
	C2338		CFTXA104J50
	C2315		CFTYA184J50

Mark	No.	Description	Part No.
	C2317, C2323		CFTYA224J50
	C2306, C2307, C2309, C2318, C2320		CKSQYF104Z50
	C2322, C2326-C2328, C2331, C2340		CKSQYF104Z50
	C2342, C2344, C2351, C2353, C2355		CKSQYF104Z50
	C2362, C2365, C2367-C2369, C2374		CKSQYF104Z50
	C2381, C2383, C2385-C2388		CKSQYF104Z50
	C2305, C2312		QMA102J50
	C2302, C2304		QMA471J50
	C2311		CQPA152J2A
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	CN2301, CN2302 CABLE HOLDER		AKT1011

E CONNECTOR B ASSY

OTHERS

CN2303, CN2304 CABLE HOLDER	AKT1011
CN2305, CN2306 13P SOCKET	KP2001A13L

F R CRT AMP ASSY

SEMICONDUCTORS

Q2701	2SC3271F
D2701	HSS104-02

COILS

L2703	LAU101J
L2701, L2702	LAU470J

CAPACITORS

C2704 (1000pF, 2kV)	ACG1001
C2701	CEAS101M25
C2702	CKCYB681K50

RESISTORS

R2705 (47Ω, 1/2W)	ACN-225
R2702 (1kΩ, 1/2W)	ACN1006
△ R2703, R2704	RS3LMF392J
Other Resistors	RD1/4PU□□□J

OTHERS

SG2702 SPARK GAP	AEX-019
SG2701 SPARK GAP	AEX1024
CN2701 CRT SOCKET	AKG1005
HEAT SINK M	ANH1541
CN2702 PLUG 3-P	KM250MA3R
SCREW	PMB30P100FMC

G G CRT AMP ASSY

SEMICONDUCTORS

Q2731	2SC3271F
D2731	HSS104-02

COILS

L2733	LAU101J
L2731, L2732	LAU470J

CAPACITORS

C2734 (1000pF, 2kV)	ACG1001
C2733 (4.7μF, 250V)	ACH1283
C2731	CEAS101M25
C2732	CKCYB681K50

Mark	No.	Description	Part No.
RESISTORS			
	R2735 (47Ω, 1/2W)		ACN-225
	R2732 (1kΩ, 1/2W)		ACN1006
△	R2733, R2734		RS3LMF392J
	Other Resistors		RD1/4PU□□□J
OTHERS			
	SG2732 SPARK GAP		AEX-019
	SG2731 SPARK GAP		AEX1024
	J2, J3 LEAD WITH 4P HOUSING		ADX2271
	CN2731 CRT SOCKET		AKG1005
	HEAT SINK M		ANH1541
	CN2732 PLUG 3-P		KM250MA3
	SCREW		PMB30P100FMC

H B CRT AMP ASSY

SEMICONDUCTORS

Q2761	2SC3271F
D2761	HSS104-02

COILS

L2763	LAU101J
L2761, L2762	LAU470J

CAPACITORS

C2764 (1000pF, 2kV)	ACG1001
C2761	CEAS101M25
C2762	CKCYB681K50

RESISTORS

R2765 (47Ω, 1/2W)	ACN-225
R2762 (1kΩ, 1/2W)	ACN1006
△ R2763, R2764	RS3LMF392J
Other Resistors	RD1/4PU□□□J

OTHERS

SG2762 SPARK GAP	AEX-019
SG2761 SPARK GAP	AEX1024
CN2761 CRT SOCKET	AKG1005
HEAT SINK M	ANH1541
CN2762 PLUG 3-P	KM250MA3B
CN2763 PLUG 5-P	KM250MA5
SCREW	PMB30P100FMC

I POWER SUPPLY SERVICE ASSY

SEMICONDUCTORS

△	IC101	AN8029
×	IC201, IC202	NJM4558DXP
	IC103	NJM7809FA
	IC102, IC105	PC817CD
	Q201, Q204	2SA1145
×	Q205, Q206	
	Q107, Q116	2SA933S
	Q209, Q210, Q217, Q224	2SA933S
×	Q101, Q106, Q114, Q115, Q207	2SC1740S
	Q215, Q218-Q220, Q223	2SC1740S
×	Q103, Q208	2SC2705
	Q211	2SC3332
	Q216	2SC4686A
△	Q214	2SC5299
	Q212	2SD1276A
	Q104, Q105, Q213	2SD2399

SD-P50A3-K, SD-P55A3-K

Mark	No.	Description	Part No.
△	Q113		2SK1938
	D112, D192, D193		10DF2
×	D199		BR3371XJ30A
△	D211		ERA22-02
	D209		ERB06-15
	D210, D214, D228		ERB06-15
	D208		ERB93-02L3
	D116, D136		ERC90M-02
△	D115		ERD29-06J
	D212		ESC021M-15
	D113, D122, D137-D142		HSS104-02
	D144-D146, D149, D194, D201		HSS104-02
	D205, D207, D215-D217		HSS104-02
	D219-D222, D224-D227		HSS104-02
	D119		HZS18-1L
	D106, D118, D121		HZS6B1L
	D114		HZS6C2L
	D101		LN6SB60-4000
	D150		MA723
	D123		MTZJ12
×	D204		MTZJ20
	D109, D110, D131		MTZJ24
	D111		MTZJ5.1
	D124-D127, D190		RD5.1ESB1
	D117		
△×	D203		RD5.1ESB1
	D223		S5688G
	D102-D105		
COILS			
	L111, L112		ATF1183
	L104, L107-L110, L204		ATH-059
△	L201		ATL1131
△	L203		ATL1132
	L113, L120		ATX1021
	L202		LTA272J
TRANSFORMERS			
△	T101		ATK1107
	T102		ATT1272
△	T201		ATK1045
△×	T202		
RELAYS			
	RY102		ASR1036
△	RY101		BSR1009
CAPACITORS			
△	C121-C124 (4700pF, 250V)		ACE1105
	C127, C128 (0.22μF, 250V)		ACE1107
	C132 (100pF, 2kV)		ACG-032
	C118, C119 (0.01μF, 250V)		ACG-501
	C222 (1500pF, 2kV)		ACG1007
	C106 (3300pF, 2kV)		ACG1008
	C223 (270pF, 2kV)		ACG1010
	C218 (680pF, 2kV)		ACG1024
	C230 (4700pF, 2kV)		ACG1028
	C105, C107 (2200pF, 2kV)		ACG1046
	C216 (10μF, 160V)		ACH1117
	C115, C129 (470μF, 200V)		ACH1147
	C114 (820μF, 200V)		ACH1148
	C152, C156, C202, C211, C213		CCCSL101K2H
	C133, C150		CCCSL221K2H
	C243		CCCSL271K2H
	C219, C238, C239, C242		CEAS100M50
	C246		CEAS1R0M50

Mark	No.	Description	Part No.
	C229		CEAS4R7M50
	C248		CEASR10M50
	C210		CEHAQ100M2C
	C137, C138, C151, C153, C165		CEHAQ100M50
	C207		CEHAQ100M50
	C141, C143, C204		CEHAQ101M16
	C113		CEHAQ101M50
	C101		CEHAQ102M25
	C111, C126, C136		CEHAQ1R0M50
	C221		CEHAQ220M2C
	C228		CEHAQ220M50
	C205, C209		CEHAQ221M10
	C139, C203		CEHAQ221M16
	C144, C145, C149		CEHAQ222M35
	C215		CEHAQ2R2M50
	C146		CEHAQ331M35
	C163, C164, C170		CEHAQ470M25
	C157		CEHAQ4R7M2A
	C225		CFPA103J3C
	C224		CFPA153J3C
	C220		CFPA562J3C
	C233		CFPMA564J2E
	C226		CFPMA824J2E
	C231		CFTYA105J50
	C240		CKCYB102K50
	C201, C208, C217		CKCYB103K50
	C212, C214, C234		CKCYB222K2H
	C241, C247		CKCYB222K50
	C120		CKCYB471K50
	C135		CKCYB681K50
	C102		CKCYF103Z50
	C134, C140, C142, C147, C148		CKCYF473Z50
	C206, C227		CKCYF473Z50
	C130		CKDYE103P2H
	C131		CKDYF103Z50
	C125, C237		CQMA103J50
	C108, C110		CQMA182J50
	C235		CQMA223J50
	C171		CQMA333J50
	C109		CQMA473J50
	C232		CQMA683J50
RESISTORS			
	R241 (47Ω, 1/2W)		ACN-225
	R159 (1MΩ, 1/2W)		ACN1008
	R249 (33kΩ, 1/2W)		ACN1011
△	R101, R102, R233 (1Ω, 5W)		ACN1032
	R268 (1Ω, 5W)		ACN1032
	R160 (2.2MΩ, 1/2W)		BCN1022
	R113		RD1/2LMF100J
	R107, R112		RD1/2LMF220J
	R224		RD1/2LMF222J
	R239		RD1/2LMF562J
×	R238		RD1/2PM122J
	R215		RD1/2PM361J
	R255		RD1/2PM561J
△	R231		RD1/4LMF221J
	R236		RD1/4LMF2R2J
△	R288		RD1/4LMF3R9J
△	R267		RD1/4LMF470J
	R225		RD1/4LMF471J
	R115		RD1/4LMF681J
	R237, R265		RN1/2PC3902F

Mark	No.	Description	Part No.
	R123, R124		RN1/4PC1603F
	R133		RN1/4PC2101F
	R132		RN1/4PC2431F
	R125		RN1/4PC3601F
	R270		RN1/4PC7502F
	R235		RS1LMF220J
	R163, R164		RS1MMF333J
	R116		RS1MMF473J
×	R220		
	R177		RS1MMF820J
	R109, R110		RS1MMFR22J
	R294		RS2LMF100J
	R121		RS2LMF223J
	R141, R188		RS2MMF100J
	R254		RS2MMF153J
	R134, R199		RS2MMF1R2J
	R242, R247, R266		RS3LMF104J
	R219		RS3LMF682J
	R189		RS3LMFR68J
	R161, R162, R179		RT10PZ120K
	R140		RT10PZ1R5K
	R230		RT5PZ470K
×	R207		
×	R209		
×	R214		
×	R215		
×	R212		
×	R213		
×	R210		
×	R236		
×	R272		
×	R273		
×	R274		
×	R275		
×	R276		
×	R277		
×	R297		
×	R216		
×	R217		
×	R218		
×	R250		
×	R251		
×	R270		
×	R271		
×	VR201 (1k Ω)		
×	VR202 (22k Ω)		
	VR102		VRTS6VS102
	Other Resistors		RD1/4PU□□□J
OTHERS			
	SG201 SPARK GAP		AEX1024
	J27 HV RETURN WIRE		ADX2338
	J26 HV CABLE		ADY1032
	NYLON BINDER		AEC-093
	CN201-CN204 PLUG 3-P		AKM1055
	CN101 PLUG 2-P		AKM1130
	H101-H104, H151-H154		AKR1003
	HEAT SINK M		ANH-697
	HEAT SINK		ANH-880
	HEAT SINK B		ANH1021
	HEAT SINK		ANH1371
	SW HEAT SINK		ANH1505
△ NSP	HV DISTRIBUTOR		AXW1046

Mark	No.	Description	Part No.
	SCREW		BBZ30P080FCU
	SCREW		BBZ30P100FZK
	CN103, CN104 15P PLUG		KM2001A15
	CN105 PLUG 4-P		KM250MA4
	CN205 PLUG 7-P		KM250MA7
	SCREW		PBH30P120FN1
	SCREW		PBZ30P080FMC
	SCREW		VPZ40P100FMC
△	FU102 FUSE (500mA/125V)		AEK1010
△	FU105 FUSE (4A/125V)		REK1082
△	FU104 FUSE (6.3A/125V)		REK1085
△	FU101 FUSE (8A/125V)		REK1086

J FRONT CONTROL ASSY SEMICONDUCTORS

Q1301	2SA933S
Q4110, Q4111	2SC1740S
D1302, D1303	HSS104-02

SWITCHES

S4101-S4108	VSG1009
-------------	---------

CAPACITORS

C4152	CCCSL121J50
C4154	CEAS101M10
C4110, C4111	CEJA1R0M50
C4153	CKCYF103Z50

RESISTORS

R1302	RD1/2PMF561J
Other Resistors	RD1/4PU□□□J

OTHERS

CN4108 PIN JACK (3P)	AKB1250
CN4106 PLUG 5-P	KM250MA5
CN4107 PLUG 6-P	KM250MA6

K INDICATOR ASSY SEMICONDUCTOR

D1301	AEL1152
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L POWER SW ASSY

SWITCH

S2901	ASG1083
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OTHERS

CN2901 PLUG 3-P	KM250MA3
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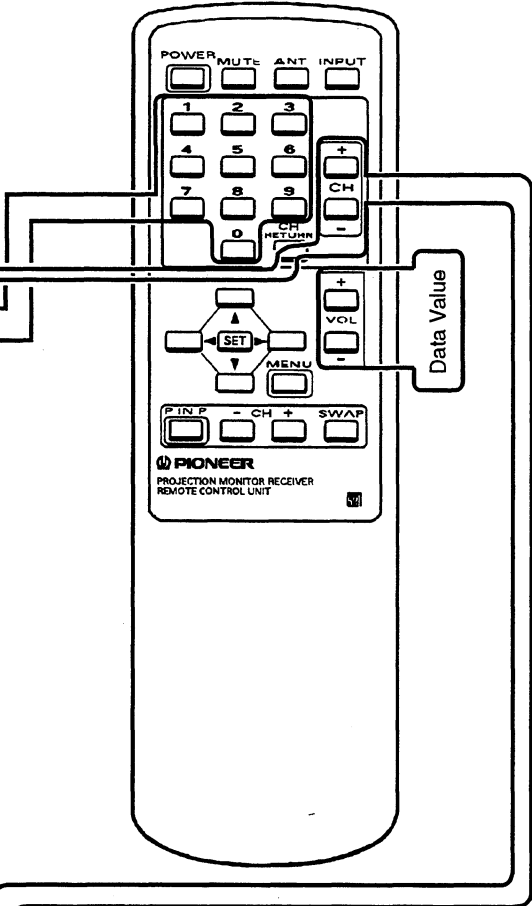
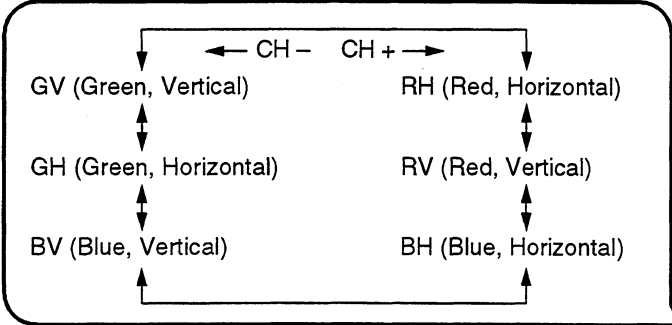
M CONNECTOR A ASSY

OTHERS

CN2891, CN2892 15P SOCKET	KP2001A15L
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6. ADJUSTMENT

■ Key Indication of the Remote Control Unit



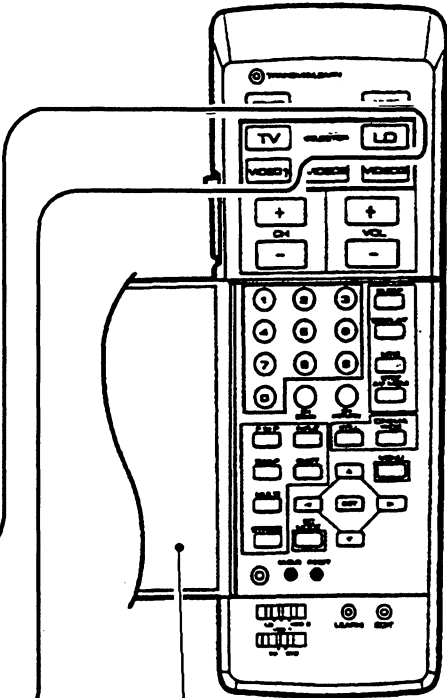
• Adjustment Items

Adjustment		Adjustment Name	Numeric Keys	Adjustment Items	Type					
RANGE	OFFSET				GH	GV	RH	RV	BH	BV
	○	CUT-R	0	STATIC	○	○	○	○	○	○
○		VOL0	1	SKEW	○	○	○	○	○	○
○		Color	2	BOW ↓ 4TH BOW	○	○	○	○	○	○
○	○	Tint	3	SUB KEY	○	○	○	○	○	○
○	○	Contrast	4	KEY ↓ MID KEY	○	○	○	○	○	○
○	○	Bright	5	MS PIN ↓ SUB PIN ↓ 4S PIN ↓ SC PIN	○	○	○	○	○	○
○	○	Sharpness	6	PIN ↓ MID PIN ↓ 4TH PIN	○	○	○	○	○	○
○		VOL20	7	LIN ↓ 4TH LIN	○	○	○	○	○	○
○		VOL30	8	SIZE	○	○	○	○	○	○
○	○	DRV-G	9	SUB LIN	○	○	○	○	○	○
○		STEREO WIDE ON / OFF			○	○	○	○	○	○
○	○	DRV-B			○	○	○	○	○	○

VR : Adjust GH, GV with semifixed VR

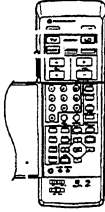
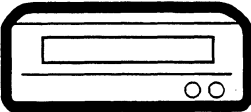
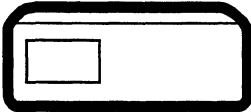
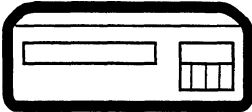
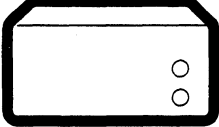
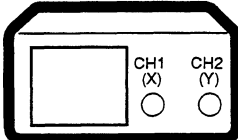
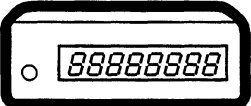
OFFSET → CH+ : CUT-G
CONVER → CH- : CUT-B

(To output Red, Green and Blue separately)
TV : To output Red ON/OFF
LD : To output Green ON/OFF
VIDEO1 : To output Blue ON/OFF

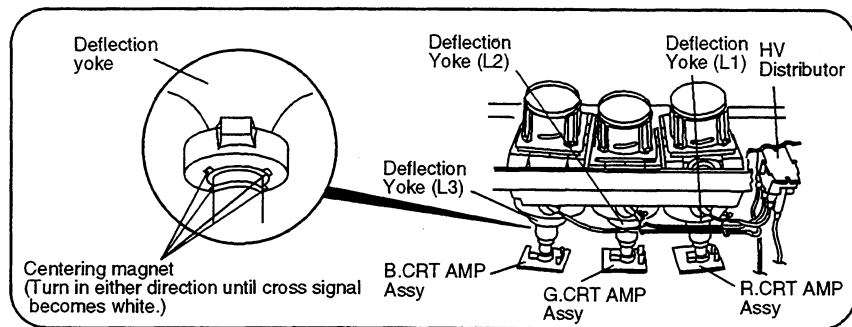


(The upper cover is opened)

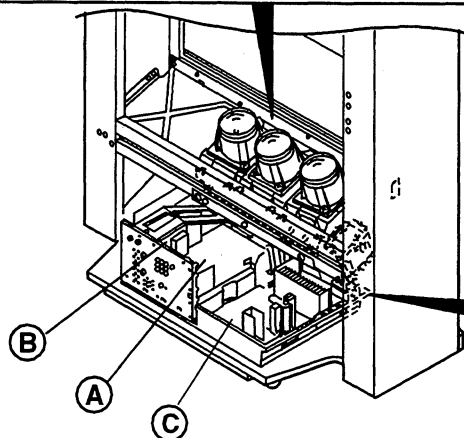
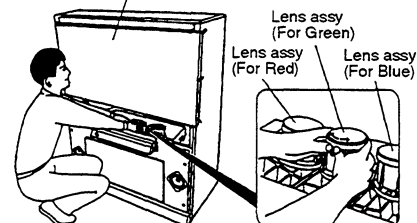
■ Jigs and Measuring Instruments

 Remote control unit AXD1429 (CU-SD103)	 Remote control unit for servicing AXD1352 (CU-SD076)	 ⊖ Screwdriver	 ⊖ Adjustment screwdriver
 Color bar generator	 D. DC Voltmeter	 LD Player	 Monoscope
 Dual-trace oscilloscope	 Frequency counter		

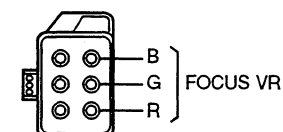
■ Assembly Adjustment Location and Items



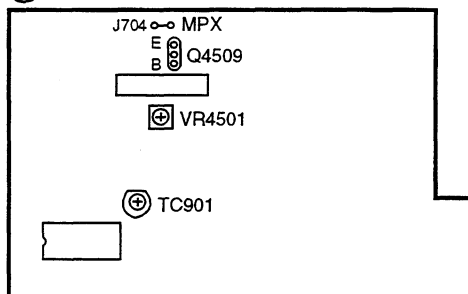
Translucent paper such as tracing paper



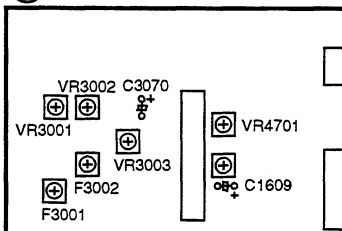
Focus VR (VR1)



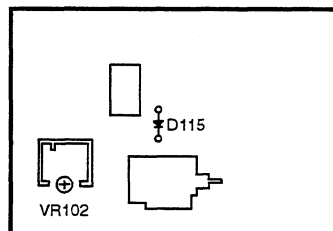
Ⓐ TUNER•VIDEO ASSY



Ⓑ AV I/O ASSY

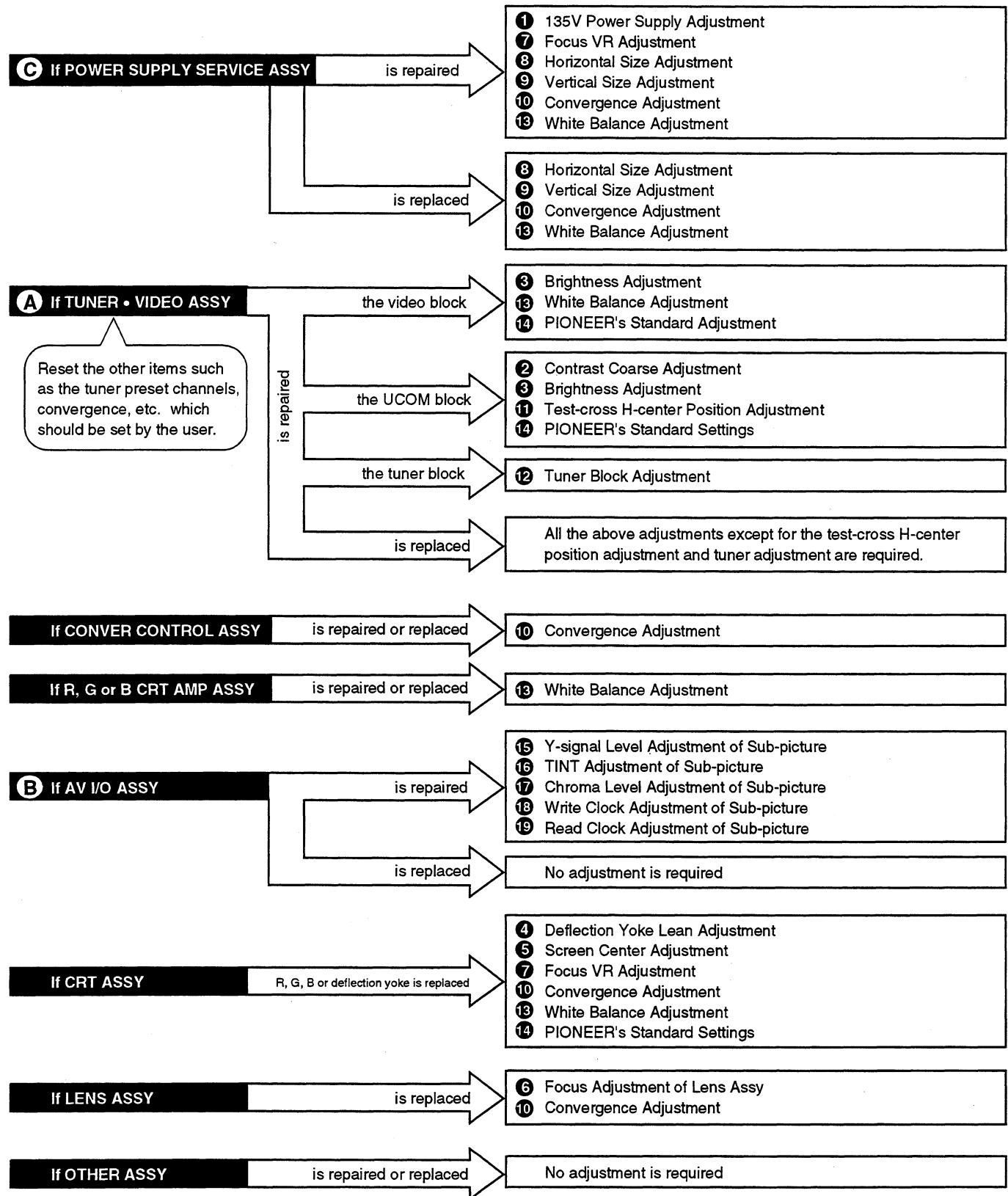


Ⓒ POWER SUPPLY SERVICE ASSY



- | | |
|---|---|
| 1 135V Power Supply Adjustment | 14 PIONEER's Standard Settings |
| 2 Contrast Coarse Adjustment | 15 Y-signal Level Adjustment of Sub-picture (Adjustment for P IN P) |
| 3 Brightness Adjustment (PIONEER's Standard Settings) | 16 TINT Adjustment of Sub-picture (Adjustment for P IN P) |
| 4 Deflection Yoke Lean Adjustment | 17 Chroma Level Adjustment of Sub-picture (Adjustment for P IN P) |
| 5 Screen Center Adjustment | 18 Write Clock Adjustment of Sub-picture (Adjustment for P IN P) |
| 6 Focus Adjustment of Lens Assy | 19 Read Clock Adjustment of Sub-picture (Adjustment for P IN P) |
| 7 Focus VR Adjustment | |
| 8 Horizontal Size Adjustment | |
| 9 Vertical Size Adjustment | |
| 10 Convergence Adjustment | |
| 11 Test Cross H-Center Position Adjustment | |
| 12 Tuner Block Adjustment | |
| 13 White Balance Adjustment | |

Assembly Adjustment Location Guide



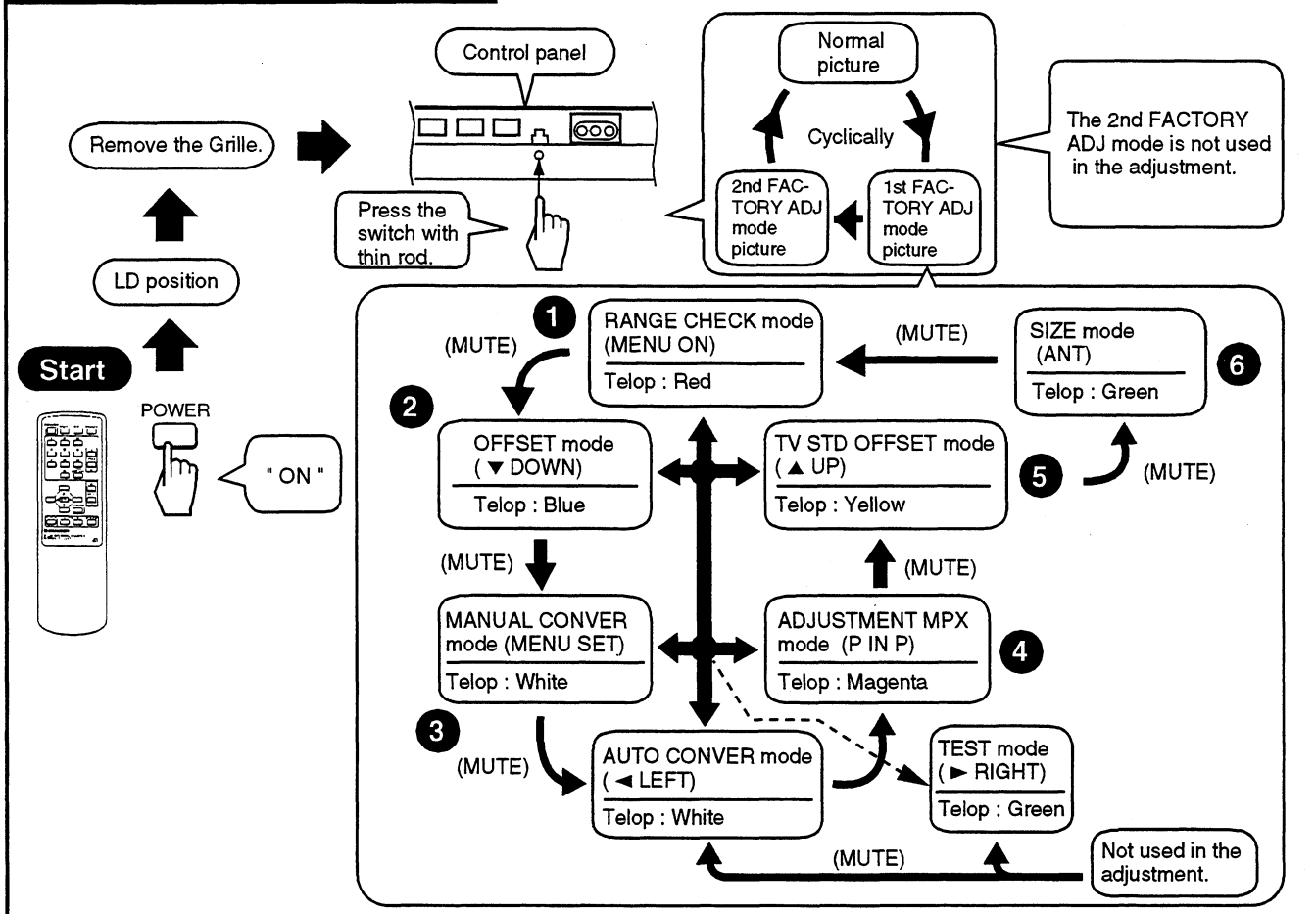
■ Factory Adjustment Mode

Start Start adjusting

1st FAC Select 1st FACTORY ADJ mode, then adjust.

Select 1st FACTORY ADJ Mode

Selecting the mode for adjustment operations.



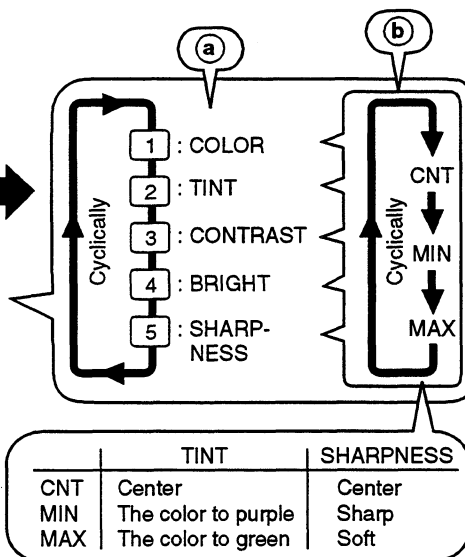
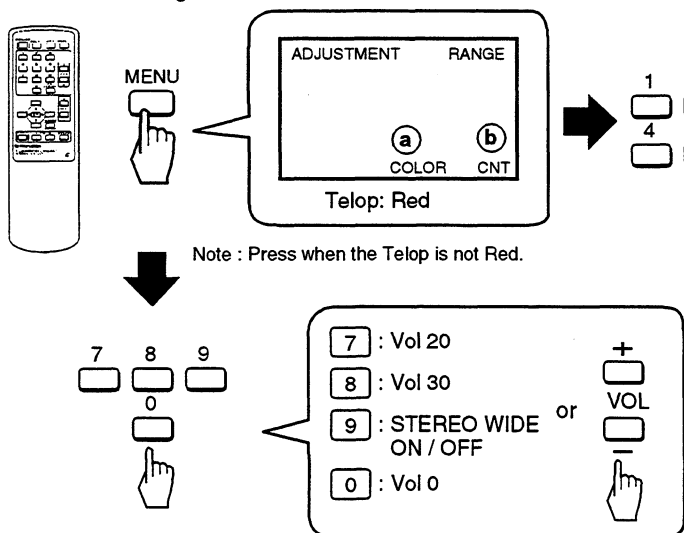
① Adjustment Range Mode

Picture quality, etc.. Change amount check made operating.

Start

1st FAC

Range mode

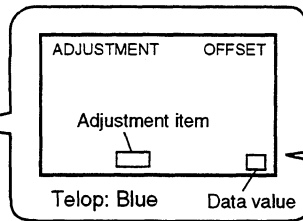
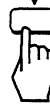
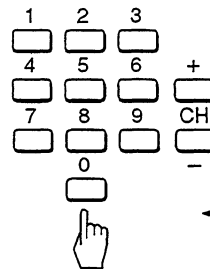


② Adjustment OFFSET Mode

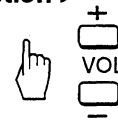
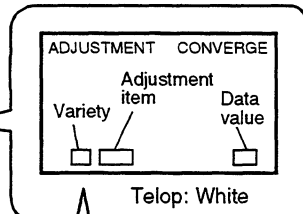
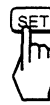
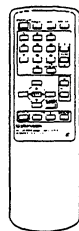
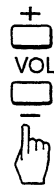
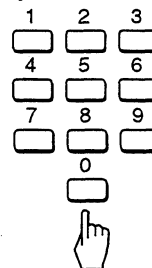
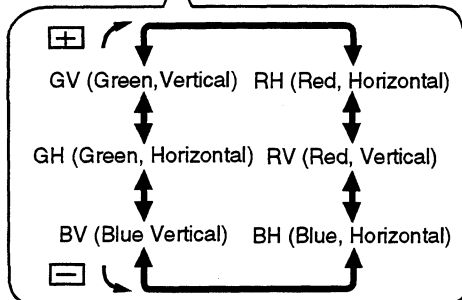
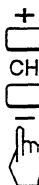
This mode is to set the standard picture quality for a normal picture.

Start**1st FAC**

(DOWN)

**< Adjustment item section >**

0 : CVTR	8 : DRV-G
1 : COLOR	9 : DRV-B
2 : TINT	CH+ : CUT-G
3 : CONTR	CH- : CUT-B
4 : BRITE	
5 : SHARP	

< Data value section >**③ Convergence Setting Mode****Start****1st FAC****< Adjustment item section > < Data value section >****< Variety section >****• GH, RH, BH**

0 : STATIC	6 : PIN → MID PIN → 4TH PIN
1 : SKEW	7 : LIN → 4TH LIN
2 : BOW → 4TH BOW	8 : SIZE
3 : SUB KEY	9 : SUB LIN
4 : KEY	
5 : SUB PIN → M S PIN → SUB PIN → 4 S PIN	

• GV, RV, BV

0 : STATIC	6 : PIN → MID PIN → 4TH PIN
1 : SKEW	7 : LIN
2 : BOW	8 : SIZE
3 : SUB KEY	9 : SUB LIN
4 : KEY → MID KEY	
5 : SUB PIN → S C PIN	

4 Adjustment MPX Mode

For adjusting the TV tuner MPX decoder section

Start

1st FAC



ADJUSTMENT MPX			
1 ATT	9	5 SAP LPF	8
2 ST VCO	27	6 WIDE BAND	12
3 SAP VCO	10	7 SPECTRAL	23
4 ST LPF	20		
00001			

Telop: Magenta



1	2	3
4	5	6
7	8	9
	0	

Auto adjust

1 ATT	9	5 SAP LPF	8
2 ST VCO	29	6 WIDE BAND	12
3 SAP VCO	9	7 SPECTRAL	21
4 ST LPF	30		
00001			

COMPLETE!

"NG"

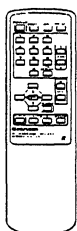
1 ATT	9	5 SAP LPF	8
2 ST VCO	25	6 WIDE BAND	12
3 SAP VCO	8	7 SPECTRAL	23
4 ST LPF	30		
00001			

TRY AGAIN!

5 TV Standard Mode

Start

1st FAC



ADJUSTMENT TV STANDARD	
(a)	(b)
COLOR	-3

Telop: Yellow



1	2	3
4	5	

1 : COLOR	-3
2 : TINT	0
3 : CONTRAST	0
4 : BRIGHT	8
5 : SHARP	-10

(b) is fixed in this value in factory products.

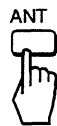
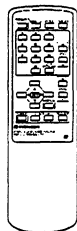
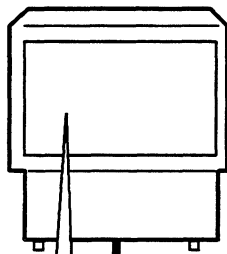
+
VOL
-

Data value

6 Adjustment SIZE Mode

Start

1st FAC



ADJUSTMENT SIZE	
(a)	(b)
H SIZE	-10

Telop: Green

1	2
---	---

1 : H. SIZE	-10
2 : V. SIZE	12

+
VOL
-

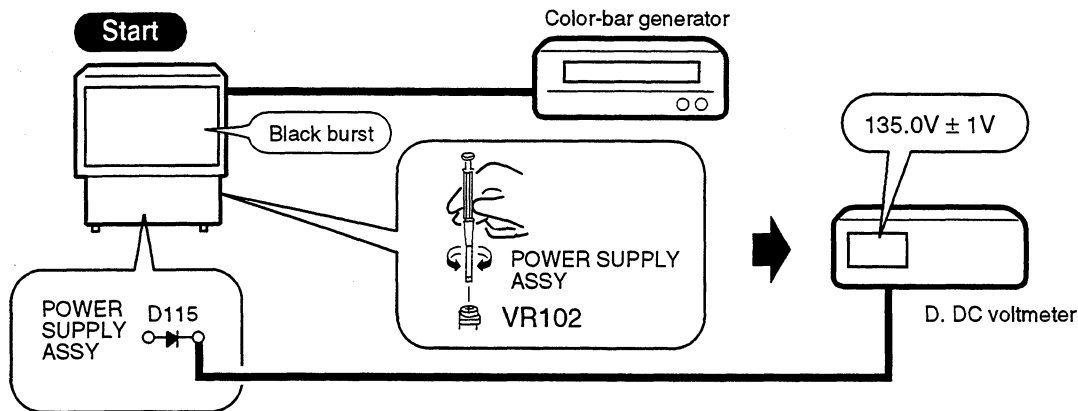
Data value

Set the vertical and horizontal sizes to 91%.

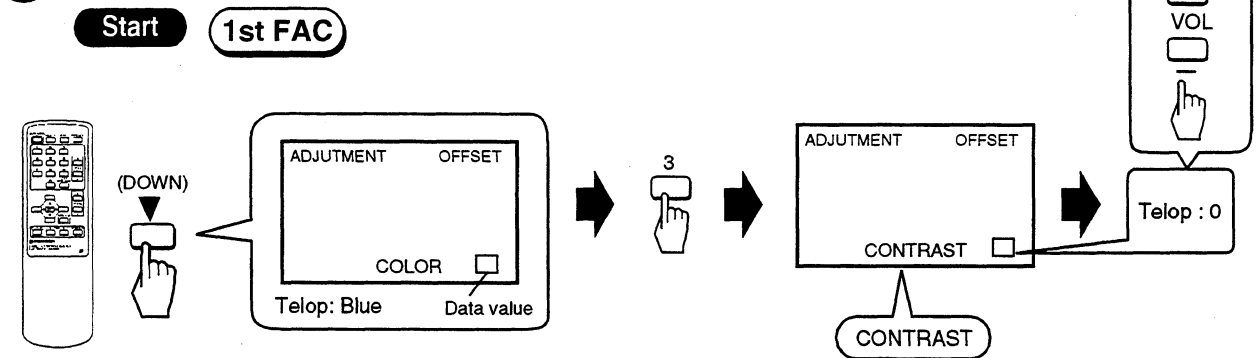
Monoscope

■ Assembly Adjustment

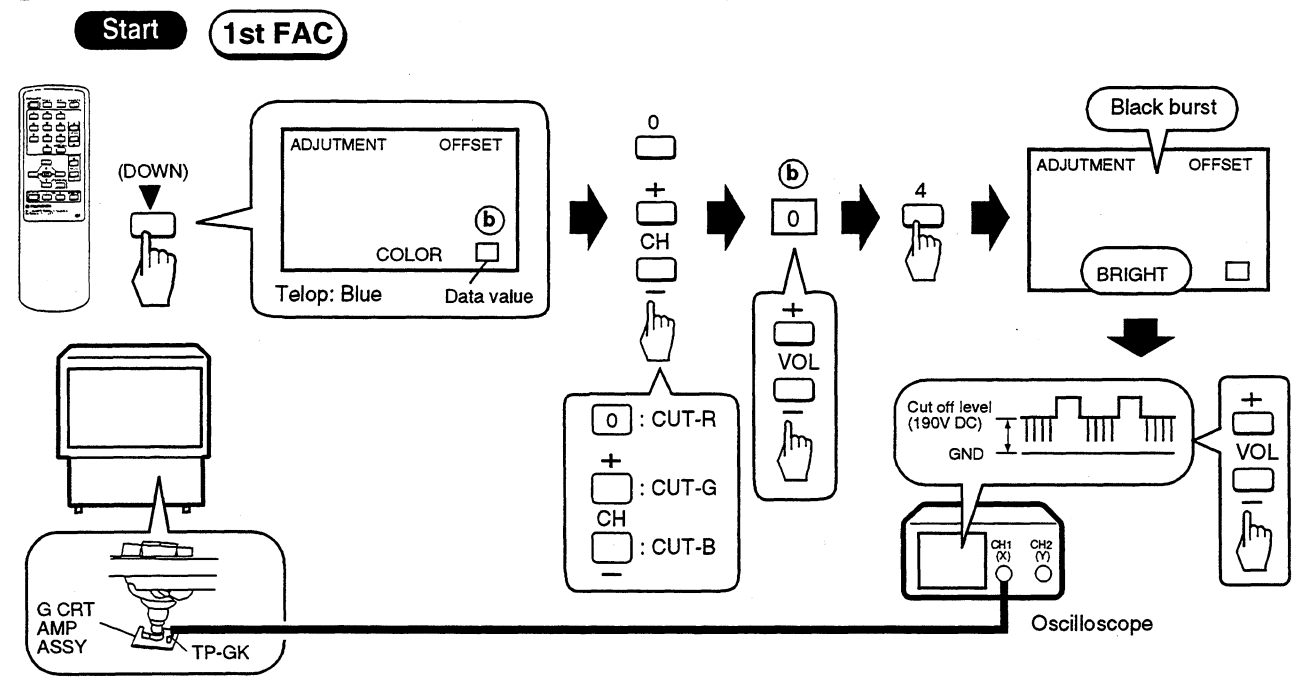
1 135V Power Supply Adjustment



2 Contrast Coarse Adjustment

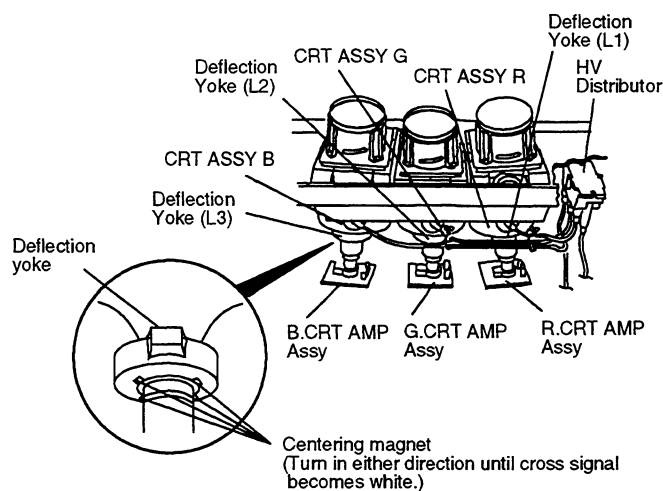
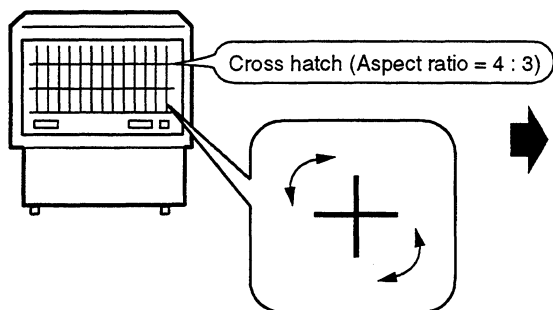


3 Brightness Adjustment (PIONEER's Standard Setting)



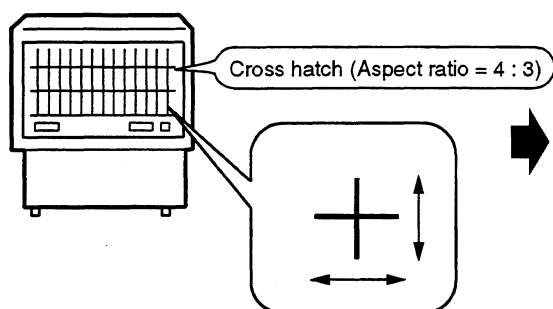
4 Deflection Yoke Lean Adjustment

Start

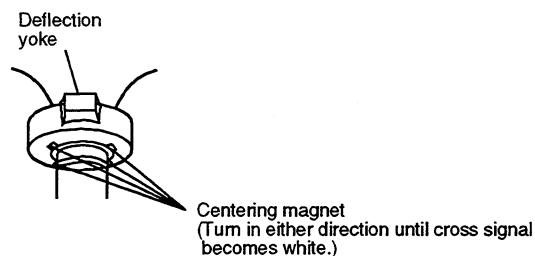


5 Screen Center Adjustment

Start

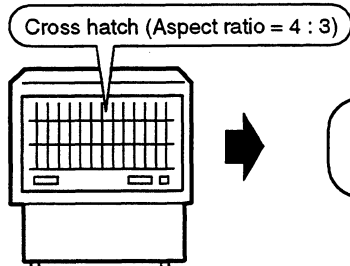


- For red or blue adjustment, turn 1st FACTORY ADJ mode ON and then OFF to place the convergence POSITION at the center of the adjustable range.
- Move the centering magnet of the deflection yoke for the replaced color so that the horizontal and vertical lines at the center of the screen align with the lines for a color not replaced.

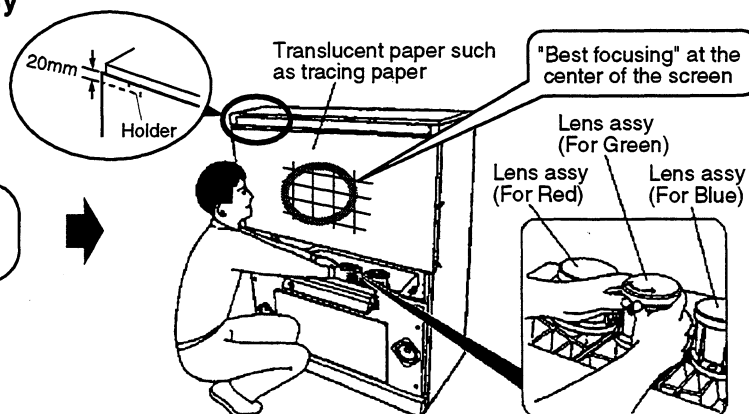


6 Focus Adjustment of Lens Assy

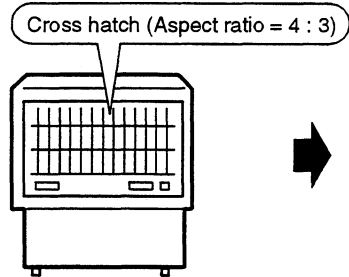
Start



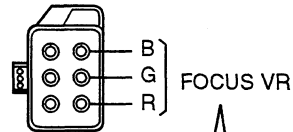
Remove the screen frame.



7 Focus VR Adjustment



Focus VR (VR1)

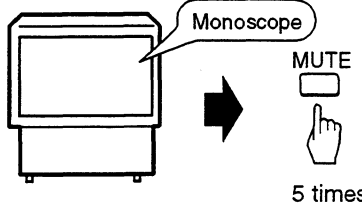


Turn the Focus VR for best focusing.

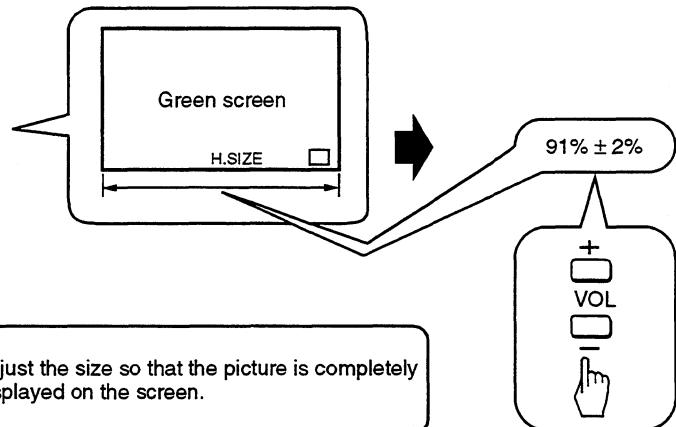
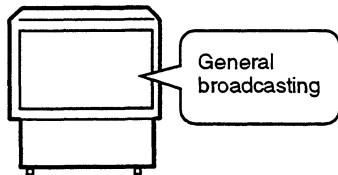
8 Horizontal Size Adjustment

Start

1st FAC



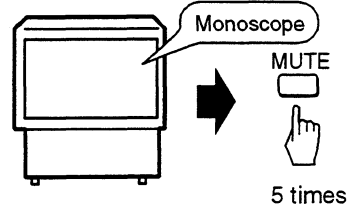
or



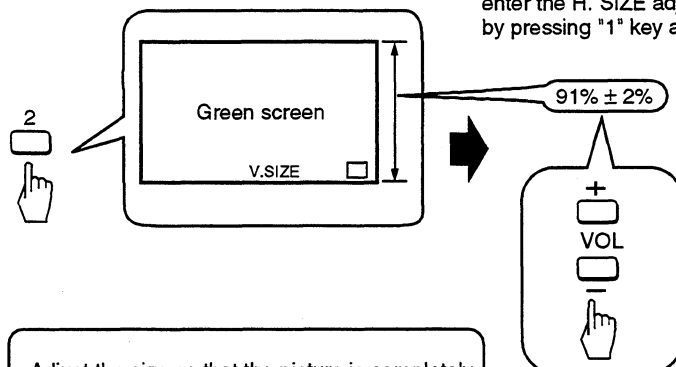
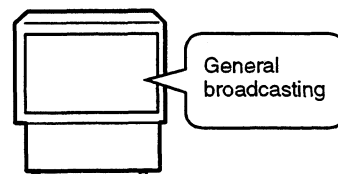
9 Vertical Size Adjustment

Start

1st FAC



or



Note :
After the V. SIZE adjustment,
enter the H. SIZE adjustment
by pressing "1" key and readjust.

Note :
After the H. SIZE adjustment,
enter the V. SIZE adjustment
by pressing "2" key.

10 Convergence adjustment

10 -1 Green line adjustment (1st FAC)

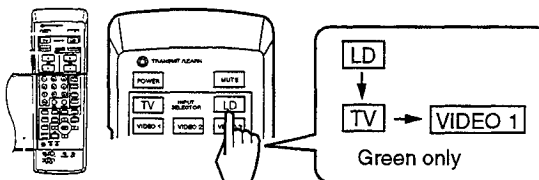
- Adjustment in the horizontal direction

Start

- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

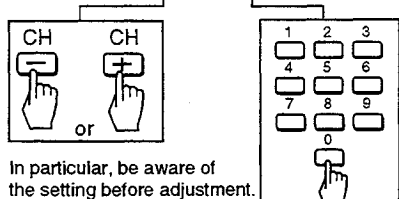
Note :

The convergence for this device must be adjusted for each screen size normal cinema and full cinema.

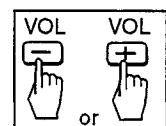


- Use the remote control unit CU-SD076 for servicing.

- Select the Adjustment item
GH - STATIC



- Adjust the Data value



Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	GH - STATIC				Move the center vertical line at the center of the screen.
	GH - SKEW				Adjust so that the center vertical line is not leaned.
	GH - BOW				Adjust so that the bowed center vertical line at the center of the screen to a straight line.
	GH - 4TH BOW				Adjust so that the wavy center vertical line at the center of the screen to a straight line.
Line-interval Adjustment	GH - LIN				Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and correct the size.
	GH - 4TH LIN				
	GH - SIZE				
	GH - SUB LIN				

Note :
 ———— : Line which does not move at all ———— : Center vertical line ———— : Line which hardly moves
 - - - - - : Line which does not move out of the screen

• Select the Adjustment item
GH - SUB KEY

CH CH
or

In particular, be aware of the setting before adjustment.

• Adjust the Data value

VOL -

VOL +

or

Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	GH - SUB KEY				Adjust so that the vertical lines in the right and left sections of the screen are not leaned.
	GH - KEY				
Distortion Adjustment	GH - SUB PIN				Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight.
	GH - M S PIN				
	GH - 4S PIN				
	GH - PIN				
	GH - MID PIN				
	GH - 4TH PIN				

Note : : Line which does not move

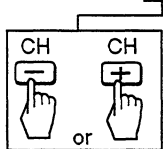
: Center vertical line

10 -2 Green line adjustment (1st FAC)

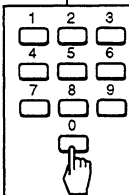
- Adjustment in the vertical direction

Start

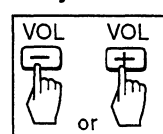
- Select the Adjustment item
GV - STATIC



In particular, be aware of the setting before adjustment.



- Adjust the Data value



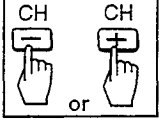
Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

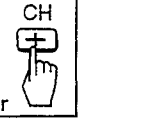
Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	GV - STATIC				Move the center horizontal line at the center of the screen.
	GV - SKEW				Adjust so that the center horizontal line is not leaned.
	GV - BOW				Adjust so that the bowed center horizontal line at the center of the screen to a straight line.
Line-interval Adjustment	GV - LIN				Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and correct the size.
	GV - SIZE				
	GV - SUB LIN				

Note :
 ▷—▷ : Line which does not move at all c—c' : Center horizontal line ▷—▷ : Line which hardly moves
 ▷-----▷ : Line which does not move out of the screen

• **Select the Adjustment item**
GV - SUB KEY



CH

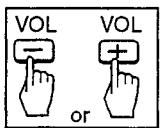


CH

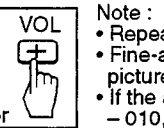
or

In particular, be aware of the setting before adjustment.

• **Adjust the Data value**



VOL

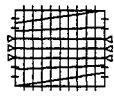
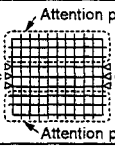
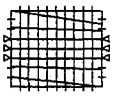
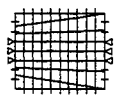
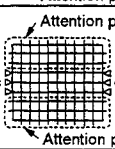
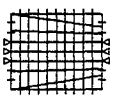
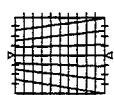
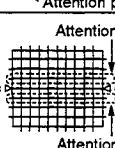
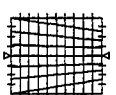
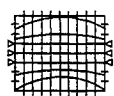
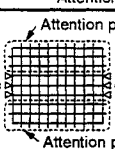
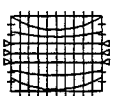
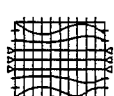
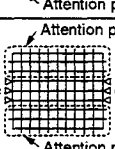
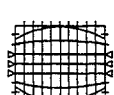
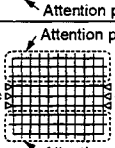
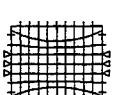
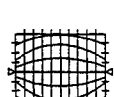
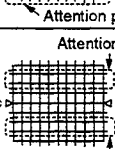
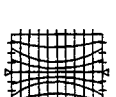
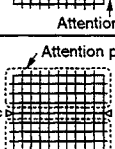
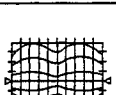


VOL

or

Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	GV - SUB KEY				Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned.
	GV - KEY				
	GV - MID KEY				
Distortion Adjustment	GV - SUB PIN				Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight.
	GV - SC PIN				
	GV - PIN				
	GV - MID PIN				
	GV - 4TH PIN				

Note :  : Line which does not move

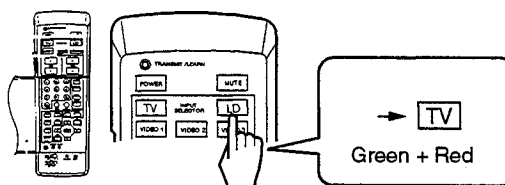
 : Center vertical line

10 -3 Red line adjustment**1st FAC**

- Adjustment in the horizontal direction

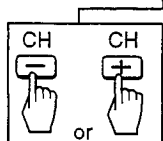
Start

- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

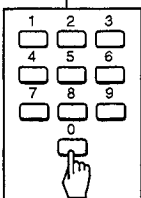


- Use the remote control unit CU-SD076 for servicing.

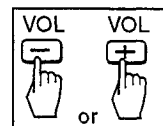
- **Select the Adjustment item**
RH - STATIC



In particular, be aware of the setting before adjustment.



- **Adjust the Data value**



- Note :
- Repeat the adjustments until you attain the optimum state.
 - Fine-adjust over the entire picture to obtain the optimum picture.
 - If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	RH - STATIC				Converge the center vertical line in the green vertical line.
	RH - SKEW				Adjust so that the center vertical line is not leaned.
	RH - BOW				Adjust so that the bowed center vertical line at the center of the screen to a straight line.
	RH - 4TH BOW				Adjust so that the wavy center vertical line at the center of the screen to a straight line.
Line-interval Adjustment	RH - LIN				Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and converge them in the green vertical lines.
	RH - 4TH LIN				
	RH - SIZE				
	RH - SUB LIN				

Note : : Line which does not move at all : Line which does not move out of the screen : Center vertical line : Line which hardly moves

• **Select the Adjustment item**
RH - SUB KEY

CH or CH

or

In particular, be aware of the setting before adjustment.

• **Adjust the Data value**

VOL or VOL

Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	RH - SUB KEY				Adjust so that the vertical lines in the right and left sections of the screen are not leaned.
	RH - KEY				
Distortion Adjustment	RH - SUB PIN				Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight.
	RH - M S PIN				
	RH - 4S PIN				
	RH - PIN				
	RH - MID PIN				
	RH - 4TH PIN				

Note : : Line which does not move

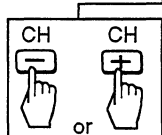
: Center vertical line

10 -4 Red line adjustment**1st FAC**

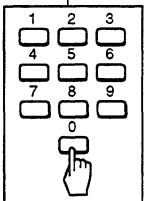
- Adjustment in the vertical direction

Start

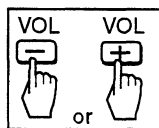
- Select the Adjustment item
RV - STATIC



In particular, be aware of the setting before adjustment.



- Adjust the Data value



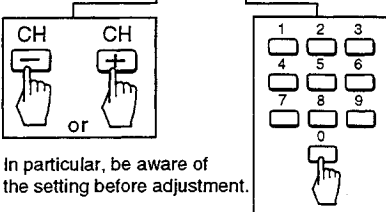
Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	RV - STATIC				Converge the center horizontal line in the green horizontal line.
	RV - SKEW				Adjust so that the center horizontal line is not leaned.
	RV - BOW				Adjust so that the bowed center horizontal line at the center of the screen to a straight line.
Line-interval Adjustment	RV - LIN				Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and converge them in the green horizontal lines.
	RV - SIZE				
	RV - SUB LIN				

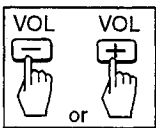
Note : : Line which does not move at all : Line which does not move out of the screen : Center horizontal line : Line which hardly moves

• **Select the Adjustment item**
RV - SUB KEY



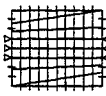
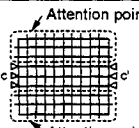
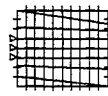
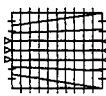
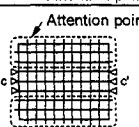
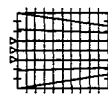
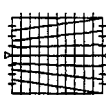
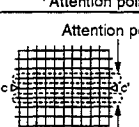
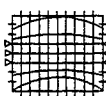
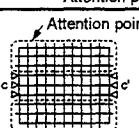
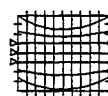
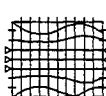
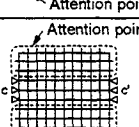
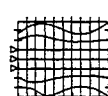
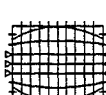
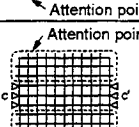
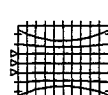
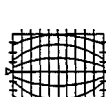
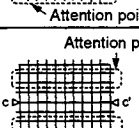
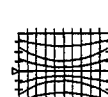
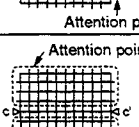
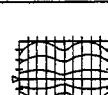
In particular, be aware of the setting before adjustment.

• **Adjust the Data value**



Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to - 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	RV - SUB KEY				Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned.
	RV - KEY				
	RV - MID KEY				
Distortion Adjustment	RV - SUB PIN				Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight.
	RV - SC PIN				
	RV - PIN				
	RV - MID PIN				
	RV - 4TH PIN				

Note :  : Line which does not move

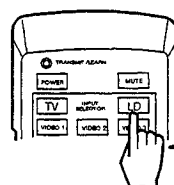
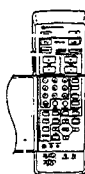
 : Center vertical line

10 -5 Blue line adjustment**1st FAC**

- Adjustment in the horizontal direction

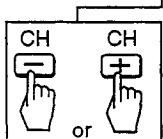
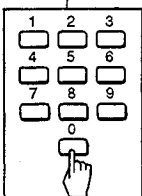
Start

- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

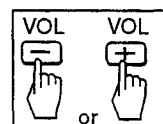
To output
Green + Red + Blue

- Use the remote control unit CU-SD076 for servicing.

- Select the Adjustment item
BH - STATIC

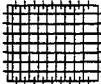
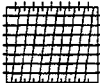
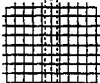
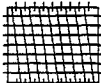
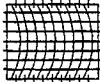
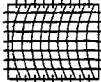
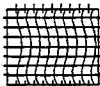
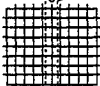
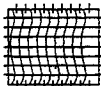
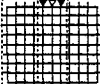
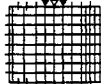
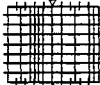
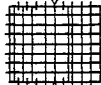
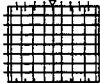
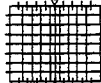
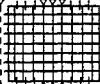
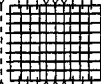
In particular, be aware of
the setting before adjustment.

- Adjust the Data value



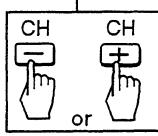
Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

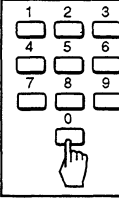
Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	BH - STATIC				Converge the center vertical line in the green vertical line.
	BH - SKEW				Adjust so that the center vertical line is not leaned.
	BH - BOW				Adjust so that the bowed center vertical line at the center of the screen to a straight line.
	BH - 4TH BOW				Adjust so that the wavy center vertical line at the center of the screen to a straight line.
Line-interval Adjustment	BH - LIN				Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and converge them in the green vertical lines.
	BH - 4TH LIN				
	BH - SIZE				
	BH - SUB LIN				

Note : : Line which does not move at all : Center vertical line : Line which hardly moves
 : Line which does not move out of the screen

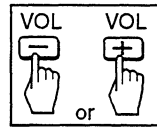
• Select the Adjustment item
BH - SUB KEY



In particular, be aware of the setting before adjustment.



• Adjust the Data value



Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to - 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	BH - SUB KEY				Adjust so that the vertical lines in the right and left sections of the screen are not leaned.
	BH - KEY				
Distortion Adjustment	BH - SUB PIN				Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight.
	BH - M S PIN				
	BH - 4S PIN				
	BH - PIN				
	BH - MID PIN				
	BH - 4TH PIN				

Note : : Line which does not move

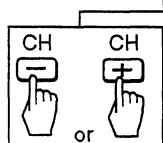
: Center vertical line

10 -6 Blue line adjustment**1st FAC**

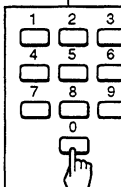
- Adjustment in the vertical direction

Start

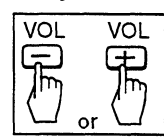
- Select the Adjustment item
BV - STATIC



In particular, be aware of the setting before adjustment.



- Adjust the Data value



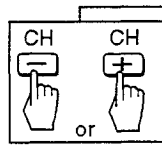
Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

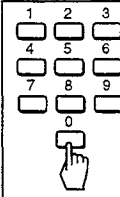
Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Center-line Adjustment	BV - STATIC				Converge the center horizontal line in the green horizontal line.
	BV - SKEW				Adjust so that the center horizontal line is not leaned.
	BV - BOW				Adjust so that the bowed center horizontal line at the center of the screen to a straight line.
Line-interval Adjustment	BV - LIN				Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and converge them in the green horizontal lines.
	BV - SIZE				
	BV - SUB LIN				

Note : : Line which does not move at all : Line which does not move out of the screen : Center horizontal line : Line which hardly moves

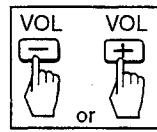
• Select the Adjustment item
BV - SUB KEY



In particular, be aware of the setting before adjustment.



• Adjust the Data value



Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to -010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

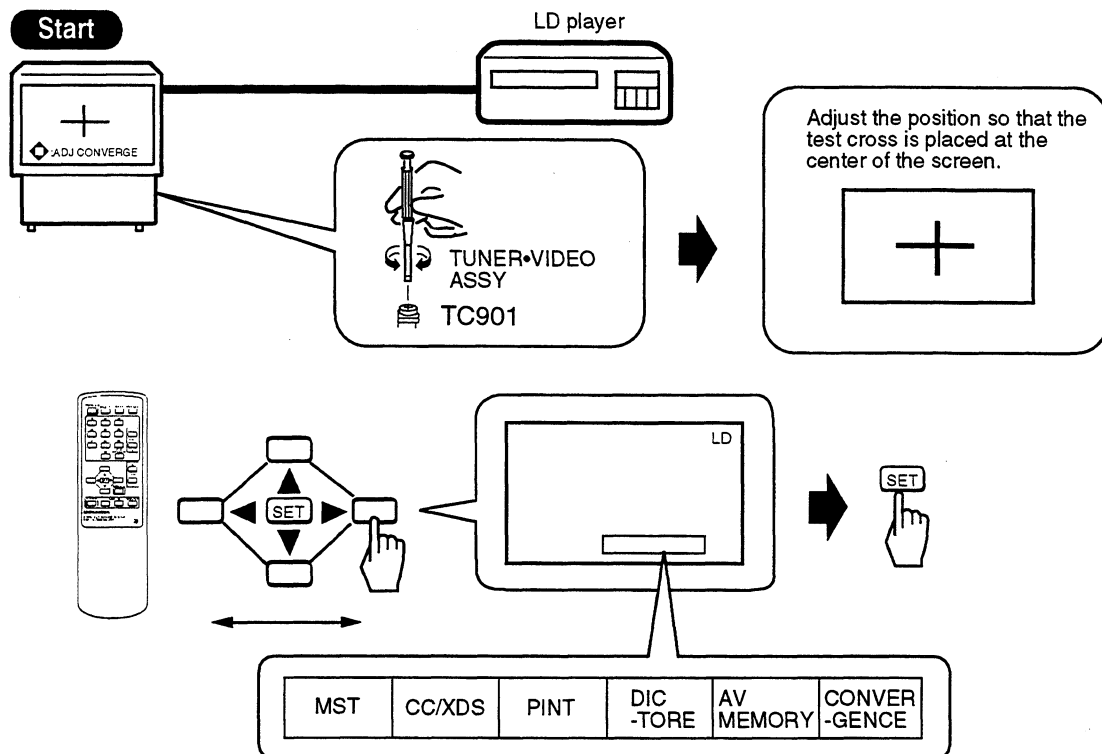
Adjustment Item		Cross-hatch Picture			Adjustment Point
		Deviated	Optimum	Deviated	
Lean Adjustment	BV - SUB KEY				Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned.
	BV - KEY				
	BV - MID KEY				
Distortion Adjustment	BV - SUB PIN				Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight.
	BV - SC PIN				
	BV - PIN				
	BV - MID PIN				
	BV - 4TH PIN				

Note : : Line which does not move

: Center vertical line

11 Test Cross H-center Position Adjustment

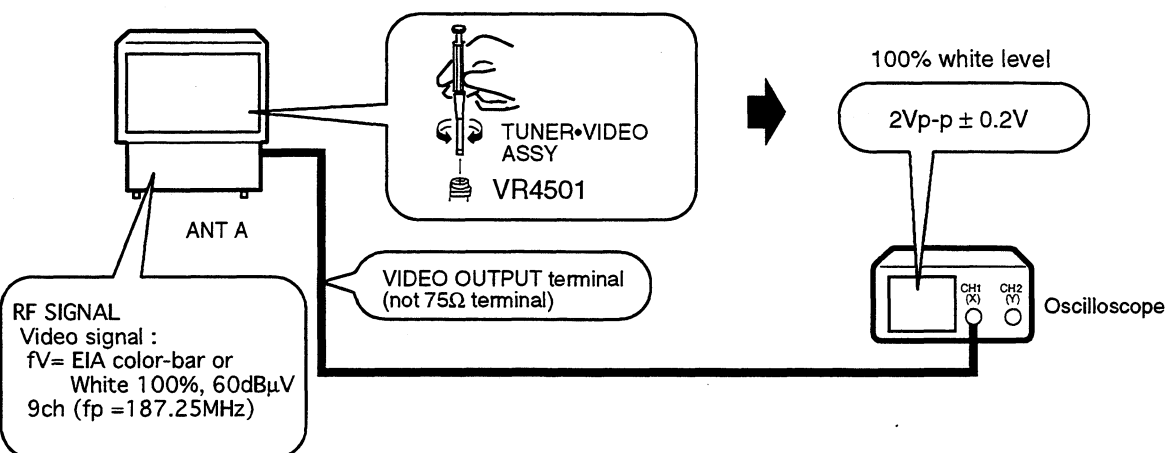
Start

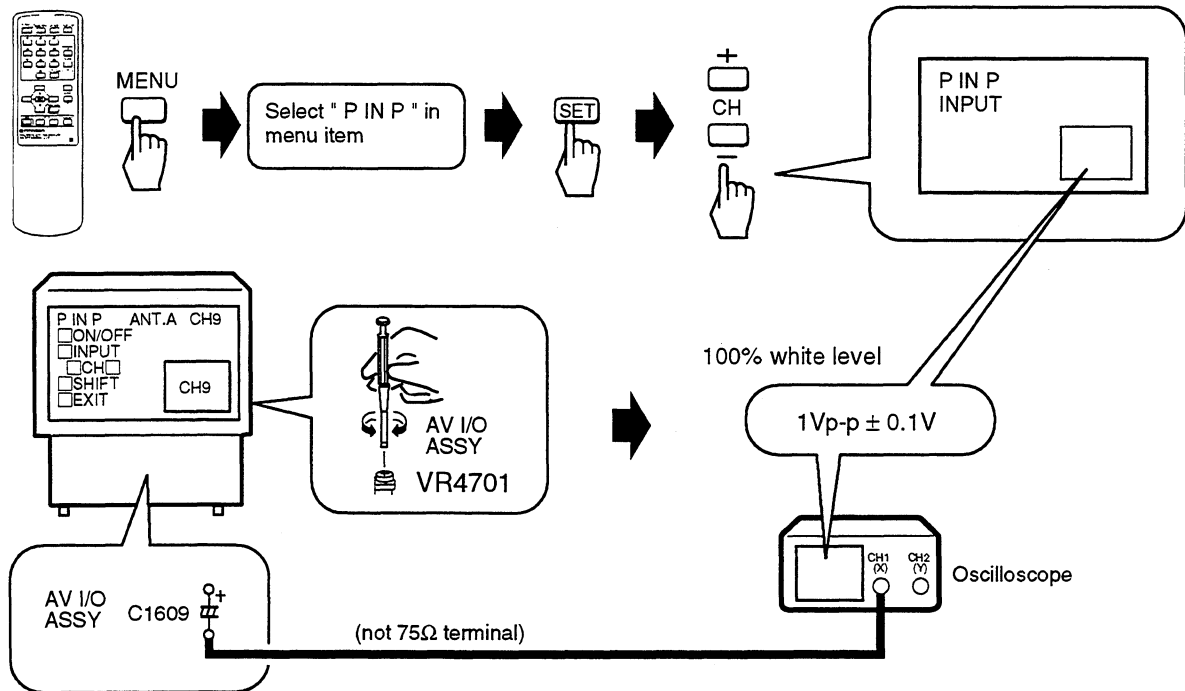
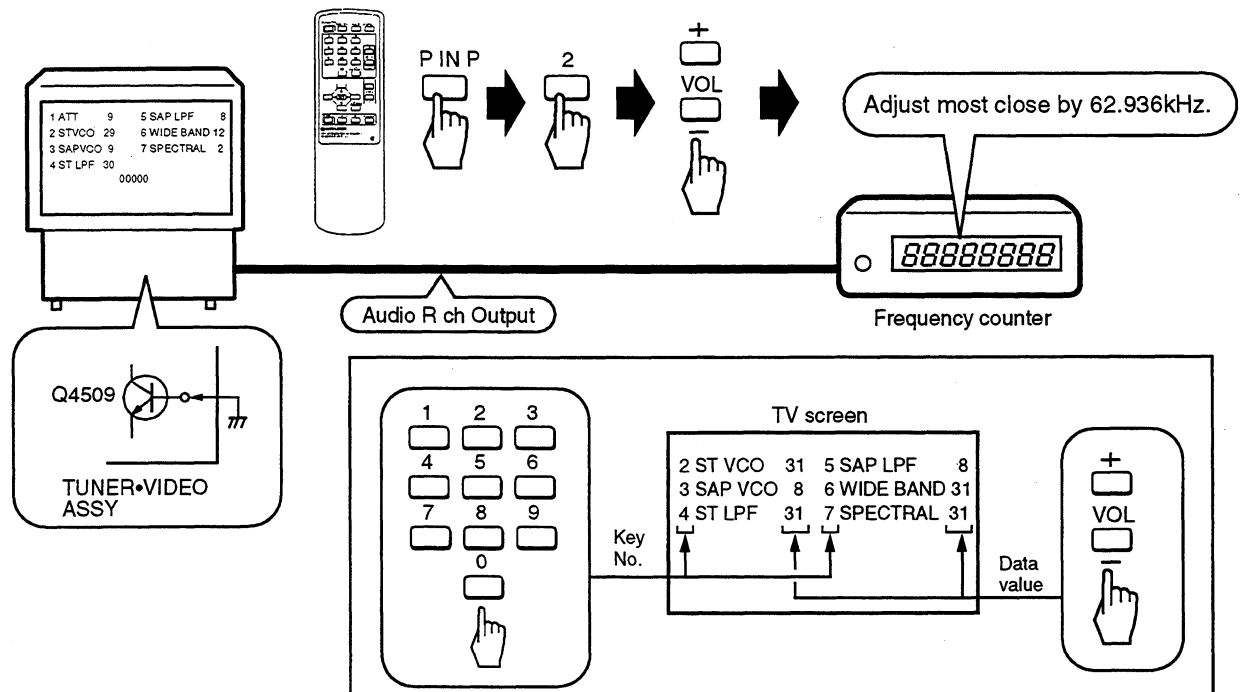


12 Tuner Block Adjustment

12-1 Video Level Adjustment ①

Start



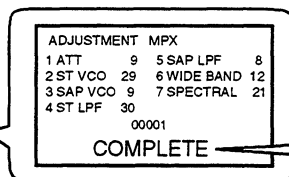
12 -2 Video Level Adjustment ②**Start****12 -3 Stereo VCO Adjustment****Start****1st FAC**

12 -4 SAP VCO Adjustment

Note : • Perform this adjustment after the ⑫ -3 adjustment.

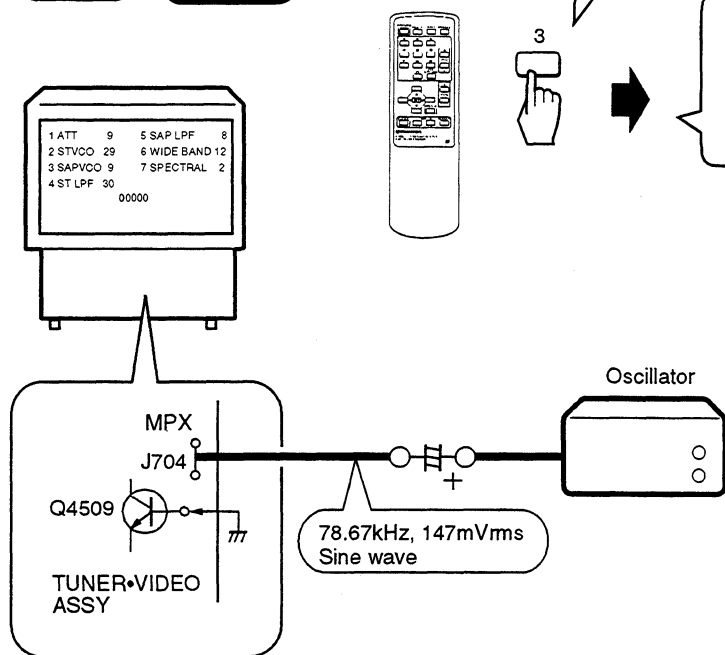
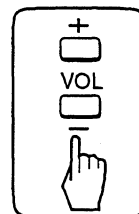
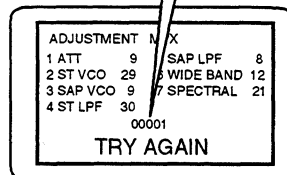
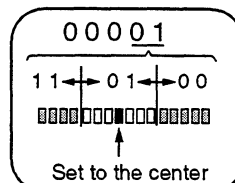
Start**1st FAC**

Auto adjust



"COMPLETE"

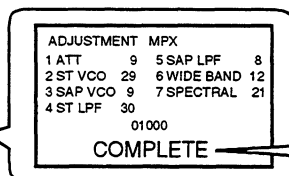
If "TRY AGAIN" is displayed, adjust again as follows.

**12 -5 STEREO LPF Adjustment**

Note : • Perform this adjustment after the ⑫ -4 adjustment.

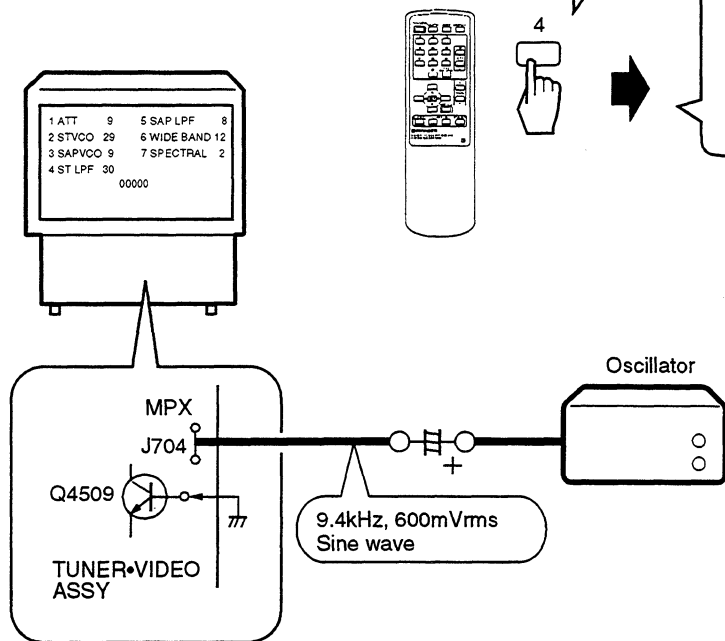
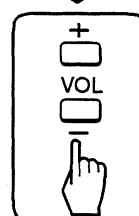
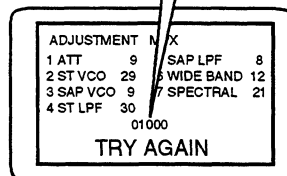
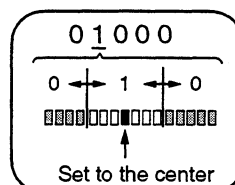
Start**1st FAC**

Auto adjust



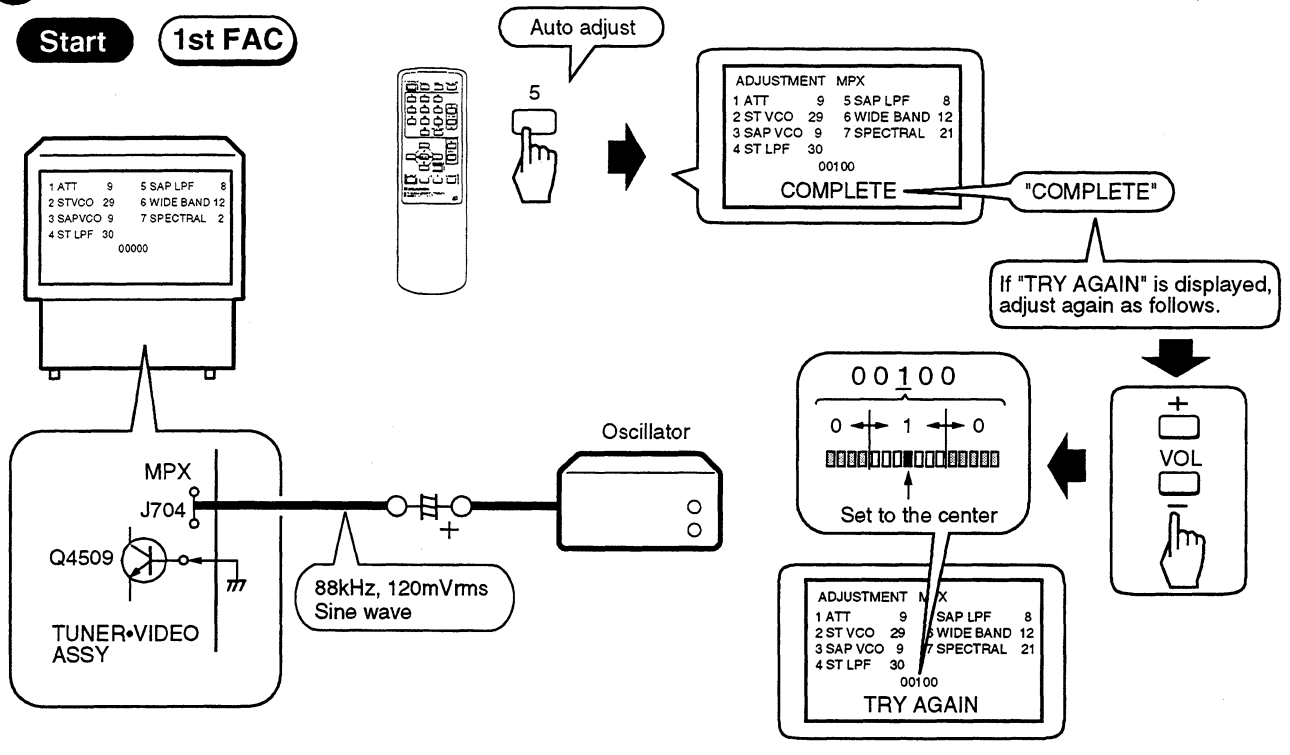
"COMPLETE"

If "TRY AGAIN" is displayed, adjust again as follows.



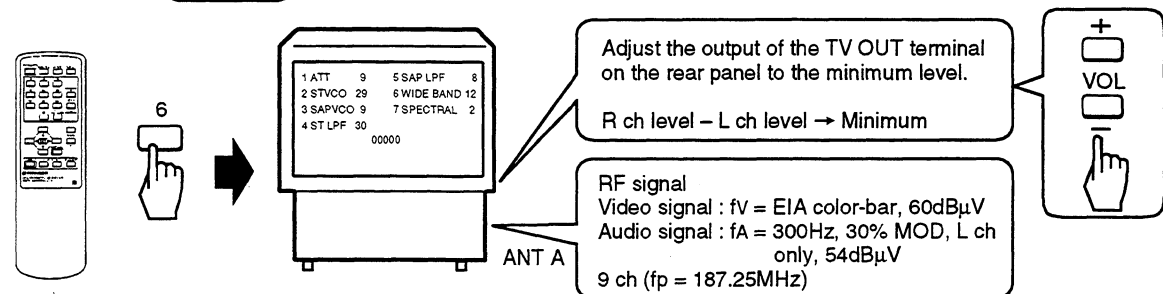
12 -6 SAP LPF Adjustment

Note : • Perform this adjustment after the ⑫ -5 adjustment.

Start**1st FAC****12 -7 Separation Adjustment (WIDE BAND)**

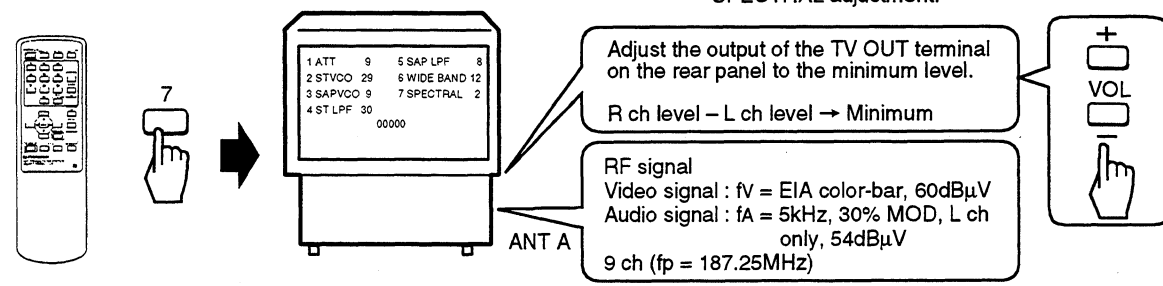
Note :

- Perform this adjustment after the ⑫ -6 adjustment.
- After this adjustment, be sure to perform the ⑫ -8 adjustment.

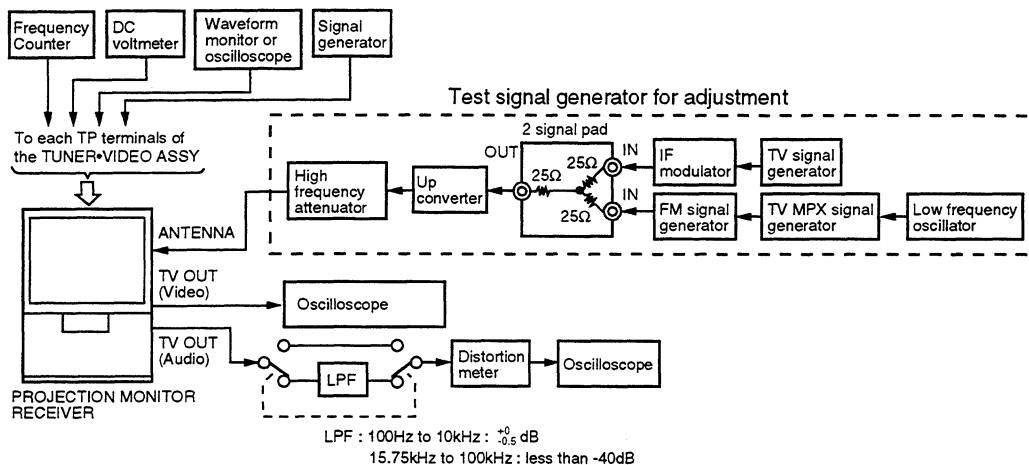
Start**1st FAC****12 -8 Separation Adjustment (SPECTRAL)**

Note :

- Repeat step ⑫ -7 and ⑫ -8 till the best separation.
- When performing the separation adjustment, be sure to perform WIDE BAND adjustment first.
- If performing the WIDE BAND adjustment, be sure to perform SPECTRAL adjustment.

Start**1st FAC**

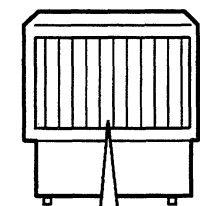
● Connection diagram for adjusting the tuner section :



13 White Balance Adjustment

Start

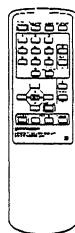
1st FAC



Color-bar signal without color signal

Adjust the DRV-G and DRV-B so that the bright part of the screen becomes white.

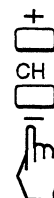
Adjust the CUT-R and CUT-B so that the dark part of the screen become gray.



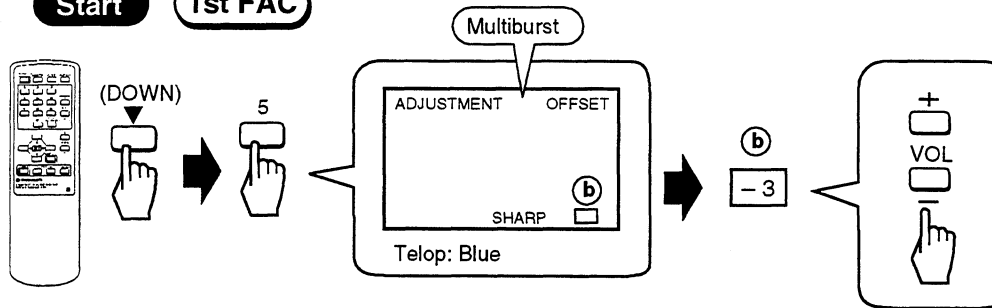
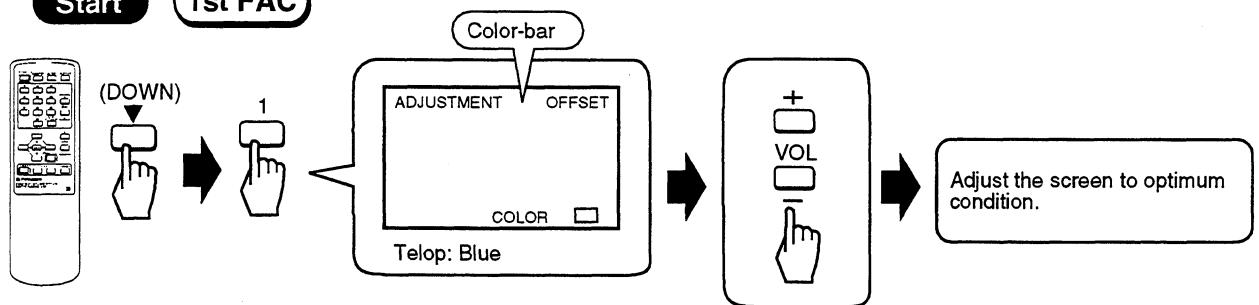
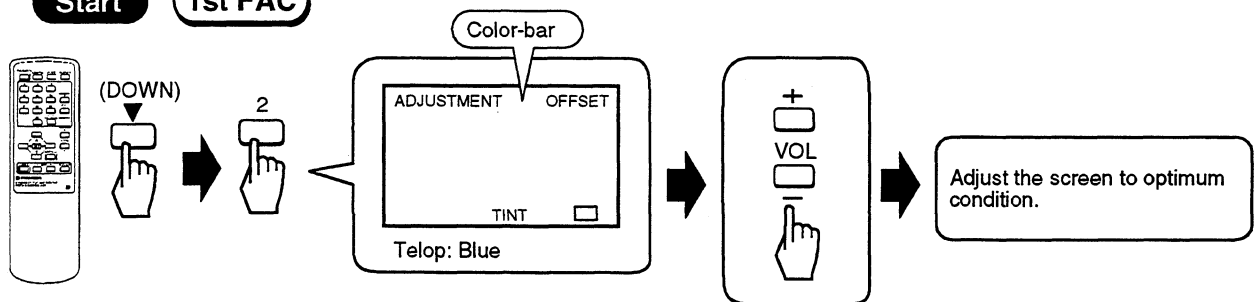
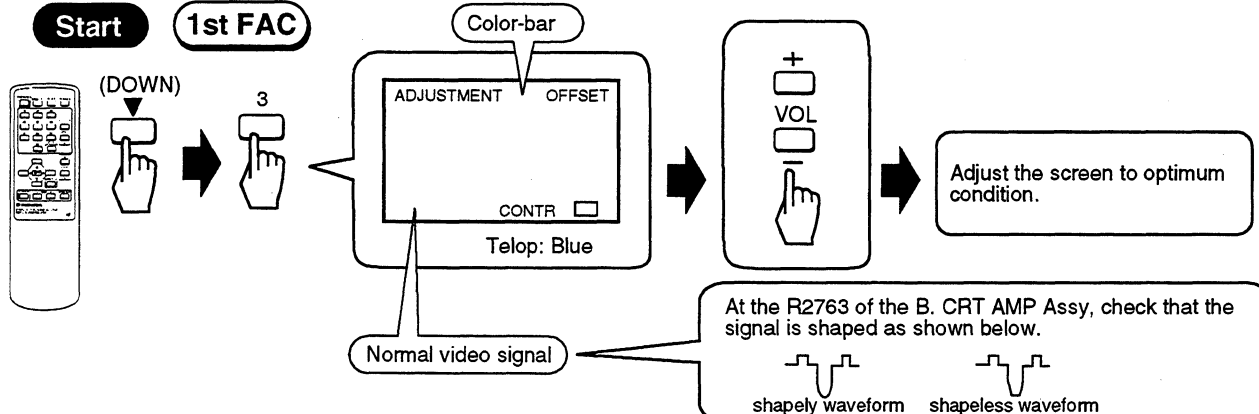
(DOWN)



8 : DRV-G
9 : DRV-B

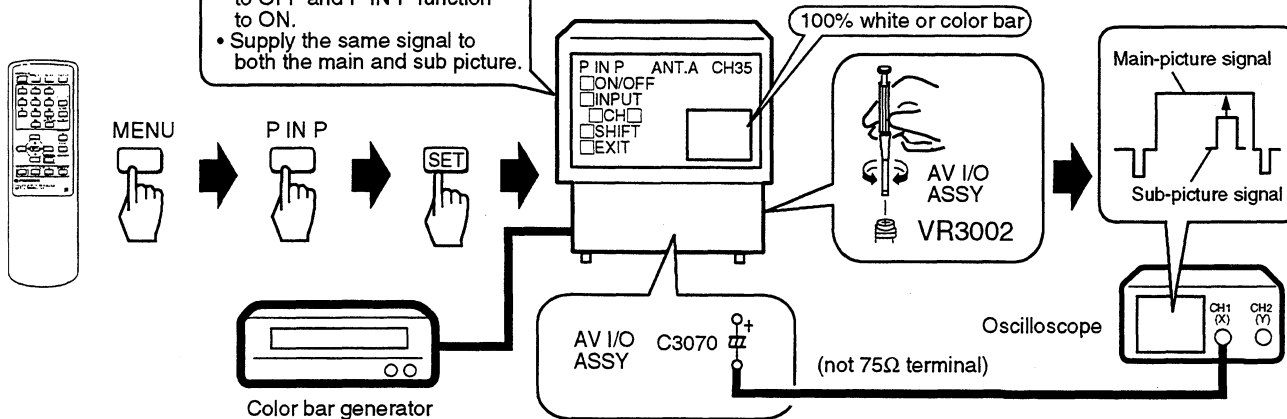


0 : CUT-R
CH + : CUT-G
CH - : CUT-B

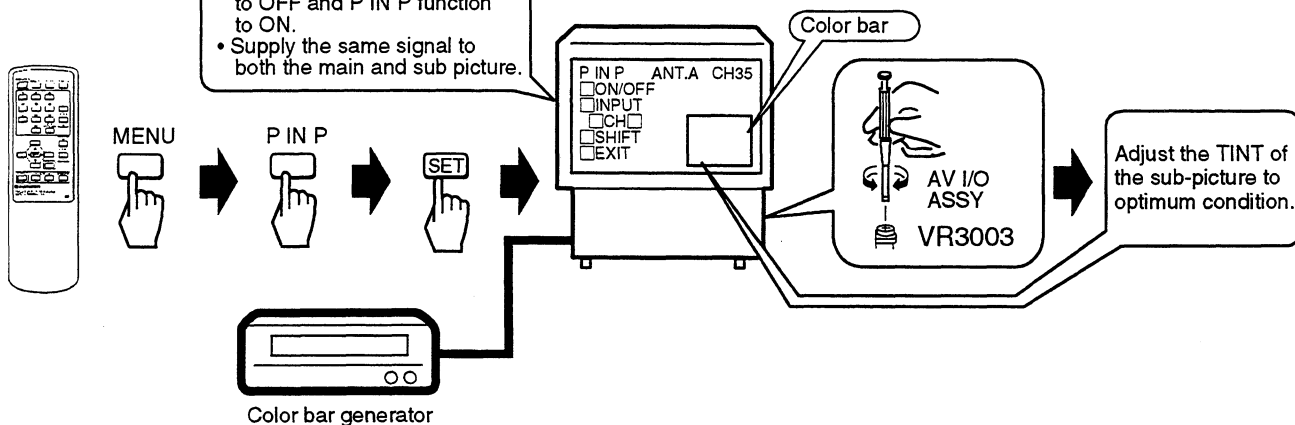
14 PIONEER's Standard Settings**14 -1 Sharpness Adjustment****Start****1st FAC****14 -2 Color Adjustment****Start****1st FAC****14 -3 Tint Adjustment****Start****1st FAC****14 -4 Contrast Adjustment****Start****1st FAC**

15 Y-signal Level Adjustment of Sub-picture (Adjustment for P IN P)**Start**

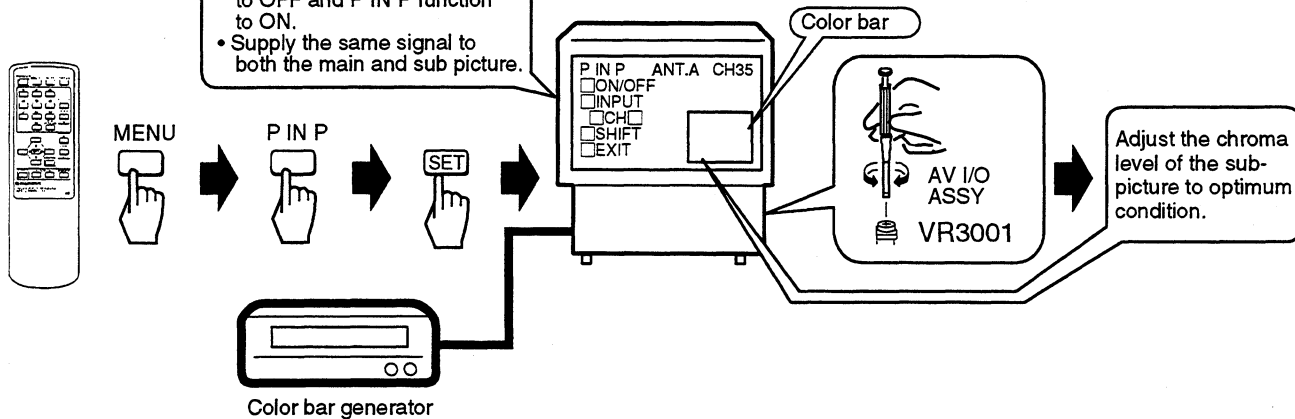
- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

**16 TINT Adjustment of Sub-picture (Adjustment for P IN P)****Start**

- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

**17 Chroma Level Adjustment of Sub-picture (Adjustment for P IN P)****Start**

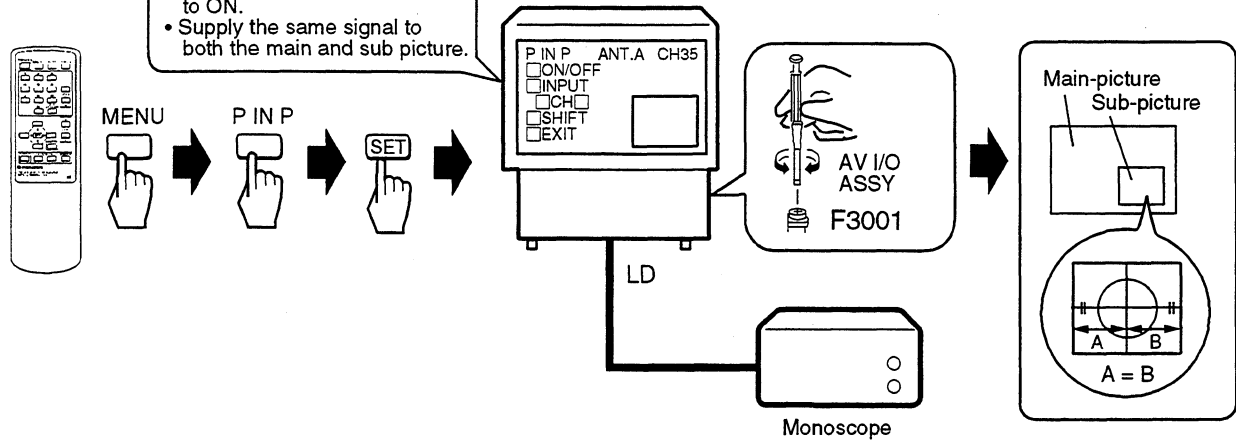
- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.



18 Write Clock Adjustment of Sub-picture (Adjustment for P IN P)

Start

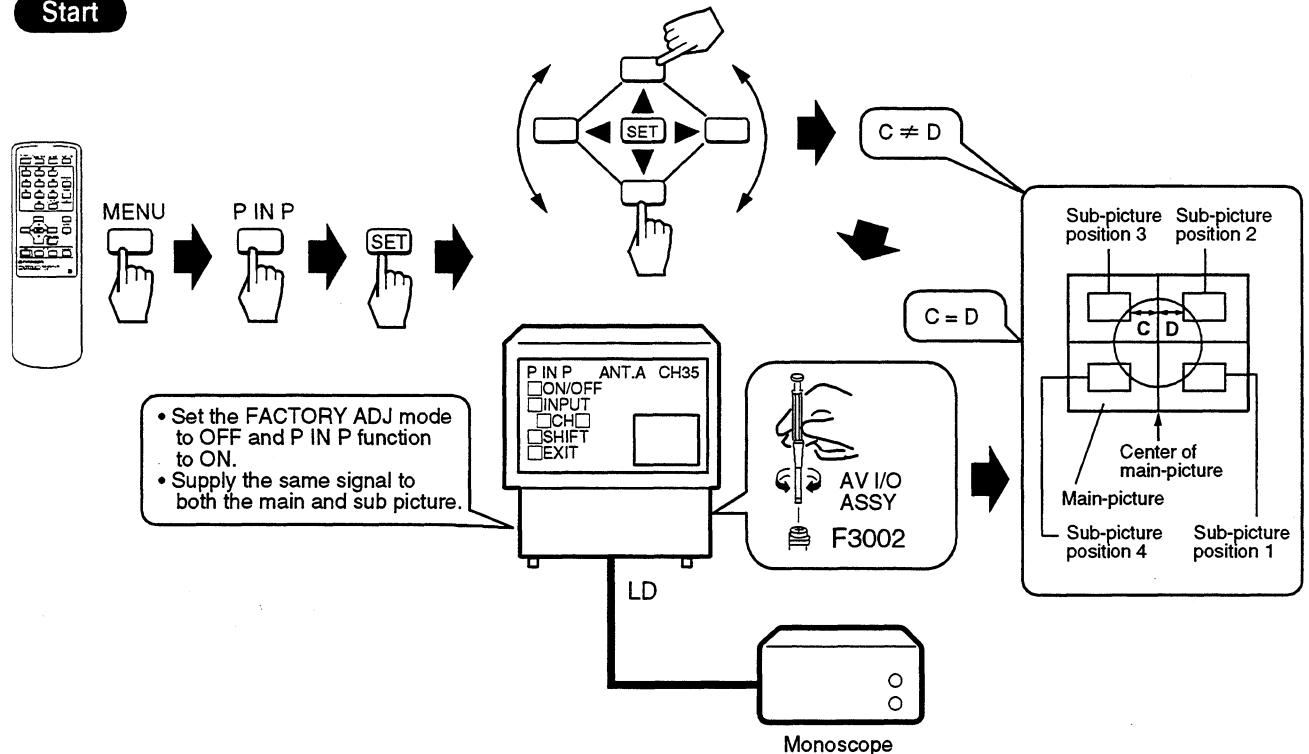
- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.



19 Read Clock Adjustment of Sub-picture (Adjustment for P IN P)

Start

- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.



7. GENERAL INFORMATION

7.1 PARTS

7.1.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in schematic diagrams.

■ PD5395A (TUNER•VIDEO ASSY : IC901)

• System Control Microcomputer

• Pin Function

No.	Pin Name	I/O	Active	Function	No.	Pin Name	I/O	Active	Function
1	H BLK	I	H	Sync. signal input for OSD	33	VCC	—	—	+5V power supply
2	V BLK	I	H		34	OSC1	I	—	Clock input / output for display
3	KEY	I	—	Main unit key scan signal input Analog voltage input	35	OSC2	Co	—	
4	REMOTE	I	L	Remote control signal input Decipher the PIONEER's SR signal	36	RESET	I	L	System reset Reset when L is input for more than 0.95μsec. (OSC=4.19MHz)
5	H SYNC1	I	—	H. sync. count input for tuner 1 reception When number of H-SYNC lasts eight rounds of continuation by a state of 12 - 18 during 1 msec, it judges the broadcast to be it. When other state lasts six rounds of continuation, it judge it to be broadcast nothing.	37	PF2/ N.C	Co	—	P IN P sub-picture switching signal
6	H SYNC2	I	—	H. sync. count input for tuner 2 reception	38	PF1/ N.C	Co	—	
7	AFT1	Ci	—	AFT analog voltage input for tuner 1	39	INP2/ N.C	Co	—	P IN P main-picture switching signal
8	AFT2	Ci	—	AFT analog voltage input for tuner 2	40	INP1 / D.RST	Co / Ci	—	P IN P main-picture switching signal
9	N.C	—	—	Non connection	41	ANT SW.	Co	—	Antenna input A and B switching signal H:ANT. A , L:ANT. B
10	V. MUTE	Co	H	Video mute output (Input signal switch, power ON / OFF etc.)	42	SDA	Ni/o	H	I ² C serial data input/output
11	H.SIZE.ADJ	No	H	PWM output for H. deflection size control	43	(E)SDA	Ni/o	H	I ² C serial data input/output (for E ² ROM)
12	CONV MUTE	No	L	Mute output for convergence amp IC (STK392-110) H:OFF , L:ON	44	VM.MUTE	No	H	Velocity modulation switching signal output H:ON , L:OFF
13	BASS SW	No	L	Not used (Bass boost switching signal output H:OFF, L:ON)	45	SCL	Ni/o	H	I ² C serial transfer clock
14	N.C	—	—	Non connection	46	N.C	—	—	Non connection
15	V.SIZE.ADJ	No	H	PWM output for V. deflection size control	47	(E)SCL	Ni/o	H	I ² C serial clock input/output (for E ² ROM)
16	PIP.RST	No	H	Reset signal output for P IN P IC (HD49420FS) H:ON , L:OFF	48	V.RST	No	H	Not used
17	SRR.SW	Co	H	Switching signal output for matrix surround H:ON , L:OFF	49	DATA	Co	L	Serial data output (P IN P, convergence)
18	PORT W1	No	—	Not used (Pulse output for checking microcomputer operation)	50	CLK	Co	L	Serial clock output (P IN P, convergence)
19	N.C	—	—	Non connection	51	A MUTE	Co	H	Audio mute output H:ON, L:OFF
20	CONV.ENB	No	L	Data enable signal output of convergence IC (PM0011A)	52	ROM RST	Co	H	Reset output for E ² PROM
21	OPTION	Ni	—	Not used	53	AC CLK	Ci	H	AC clock detection input Use for AC power OFF detection (Reset process for three AC wave are lacked)
22	PIP.ENB	No	H	Data enable signal output for P IN P IC	54	PORT W2	No	—	Not used (Pulse output for checking microcomputer operation)
23	S.OX	Ni	—	Not used (Signal input for S input detection H:COMP. V input , L:Y/C input)	55	RELAY	No	L	Power supply relay control signal output H:OFF, L:ON
24	AVCC	—	—	Analog power supply Apply +5V.	56	N.C	—	—	Non connection
25	HLF	—	—	Connect the external parts for CCD timing signal generating circuit	57	LIN.WHITE	No	H	PWM output for linear white level control
26	RVCO	—	—	Connect the external parts for CCD reference voltage generating circuit	58	C.C.MUTE	No	H	Not used
27	VHOLD	—	—		59	VOLUME	No	H	PWM output for audio level control
28	CVIN	I	—	Video signal input for CCD (2.0Vp-p)	60	N.C	—	—	Non connection
29	CVSS	I	—	Connect to Vss	61	OSD BLK	Co	H	Signal output for OSD mute and velocity modulation mute
30	XIN	I	—	Input / Output pins of main clock generating circuit Connect a 8.0MHz ceramic oscillator.	62	OSD B	Co	H	Video output for OSD
31	XOUT	Co	—		63	OSD G	Co		
32	VSS	—	—	Supplies 0V to Vss.	64	OSD R	Co		

I:Input O:Output Ci:CMOS input Co:CMOS output No:N ch open-drain output Ni:N ch open-drain input

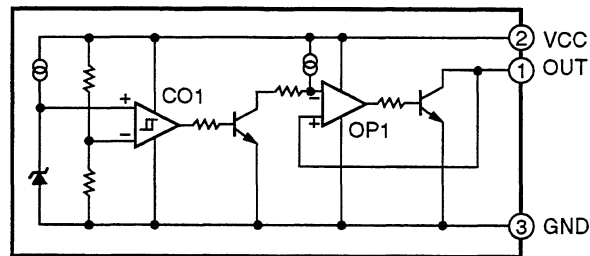
• Main-picture and P IN P sub-picture switching signal logic

FUNCTION	Main-picture		Sub-picture	
	INP1	INP2	PF1	PF2
LD/DVD	H	H	H	H
VIDEO	L	H	L	H
VIDEO F.	H	L	H	L
TV	L	L	L	L

■ PST9146 (TUNER•VIDEO ASSY : IC903)

• System Reset IC

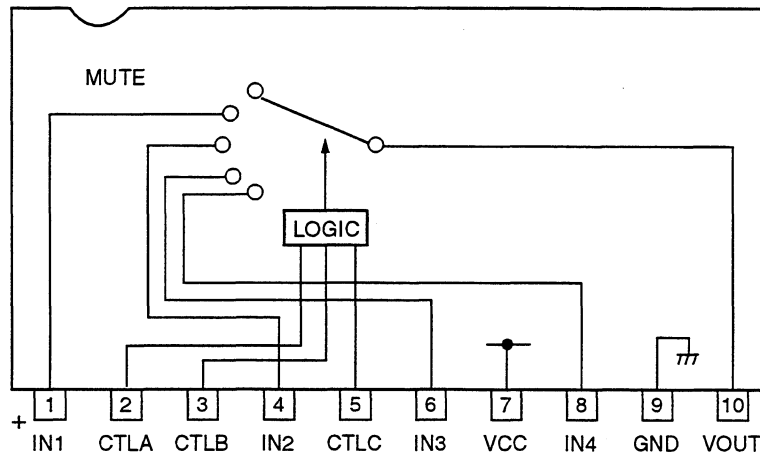
• Block Diagram



■ BA7644AN (AV I/O ASSY : IC1602, IC1603)

• Video and Audio Signal Switch

• Block Diagram



• Truth Table

Pin No.	2	3	5	10
—	CTLA	CTLB	CTLC	VOUT
1	L(OPEN)	L(OPEN)	L(OPEN)	IN1
4	L(OPEN)	H	L(OPEN)	IN2
6	H	L(OPEN)	L(OPEN)	IN3
8	H	H	L(OPEN)	IN4
—	*	*	H	MUTE

* : Either L (OPEN) or H approve

PM0011AS (CONVER CONTROL ASSY : IC2301 - IC2303)

• Digital / Analog Convergence Correction IC

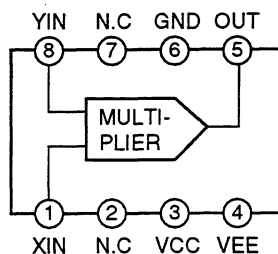
• Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	INH1	I	Signal input for H 1st	22	MPYIN2	I	Multiplicator input 2
2	INH2	I	Signal input for H 2nd	23	MPYIN1	I	Multiplicator input 1
3	INH3	I	Signal input for H 3rd	24	MPYOUT	O	Multiplicator output
4	INH4	I	Signal input for H 4th	25	VOUT3	O	DA output 3 for V
5	INX1	I	Signal input for H 5th (for business)	26	VOUT2	O	DA output 2 for V
6	INX2	I	Signal input for H 6th (for business)	27	VOUT1	O	DA output 1 for V
7	ICADDR	I	Address input	28	HOUT3	O	DA output 3 for H
8	HV	—	H, V selection	29	HOUT2	O	DA output 2 for H
9	VEE	—	-5V power supply	30	HOUT1	O	DA output 1 for H
10	CLKB	I	Clock input (internal connection with pin 34)	31	CEB	—	Enable (internal connection with pin 13)
11	MUTEB	I	Mute input (internal connection with pin 33) MUTE=0V	32	DATA	—	Data (internal connection with pin 12)
12	DATA	I	Data input (internal connection with pin 32)	33	MUTEB	I	Mute input (internal connection with pin 11) MUTE=0V
13	CEB	I	Enable input (internal connection with pin 31)	34	CLKB	I	Clock input (internal connection with pin 10)
14	INJ	—	Injector Connect a 2kΩ resistor between this pin and VCC (+5V).	35	PCSEL	—	Mode switch For business : -5V , For generally : 0V
15	INV1	I	Signal input for V 1st	36	A2INP	I	OP amp 2 + input
16	INV2	I	Signal input for V 2nd	37	A2INM	I	OP amp 2 - input
17	INV3	I	Signal input for V 3rd	38	A1INP	I	OP amp 1 + input
18	INV4	I	Signal input for V 4th	39	A1INM	I	OP amp 1 - input
19	INX3	I	Signal input for V 5th (for business)	40	A1OUT	O	OP amp 1 output
20	INX4	I	Signal input for V 6th (for business)	41	A2OUT	O	OP amp 2 output
21	VCC	—	+5V power supply	42	GND	—	Ground

CA0005AM (CONVER CONTROL ASSY : IC2309)

• Single 2 Inputs Analog Multiplicator IC

• Block Diagram



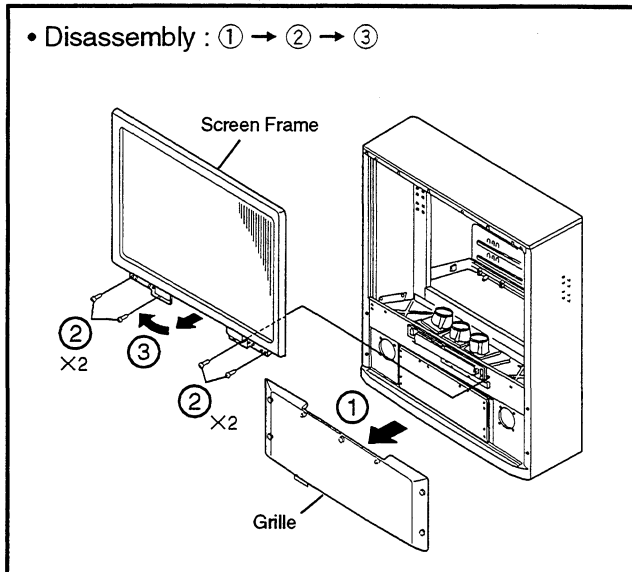
• Pin Function

No.	Pin Name	I/O	Function
1	XIN	I	X input
2	N.C	—	Non connection
3	VCC	—	Power supply
4	VEE	—	Power supply
5	OUT	O	Output
6	GND	—	Ground
7	N.C	—	Non connection
8	YIN	I	Y input

7.2 DISASSEMBLY / ASSEMBLY

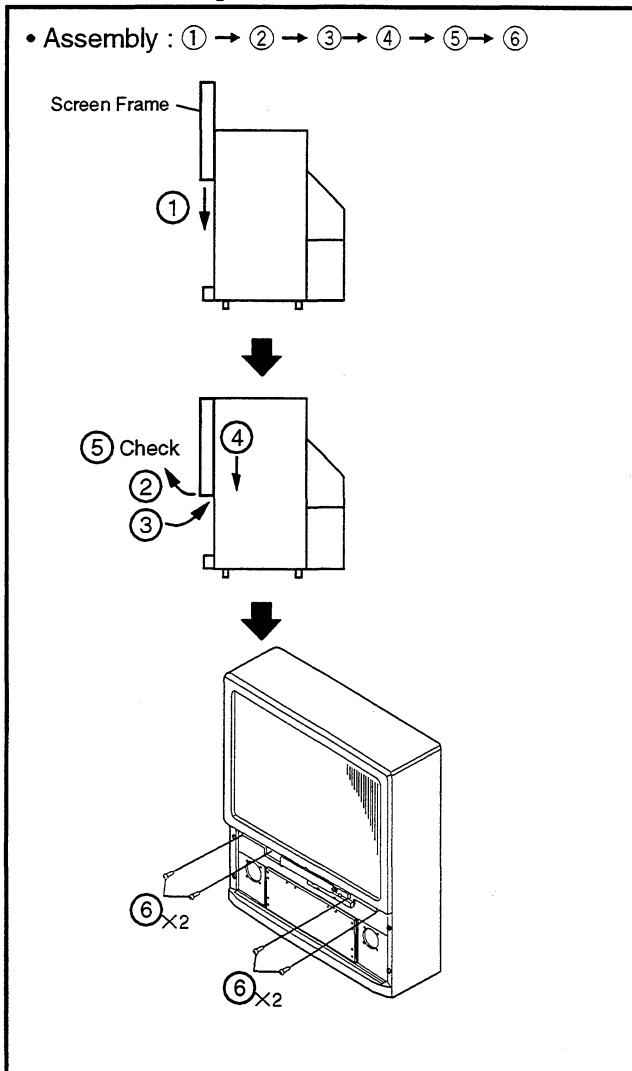
7.2.1 Disassembling the Screen Frame

- Disassembly : ① → ② → ③



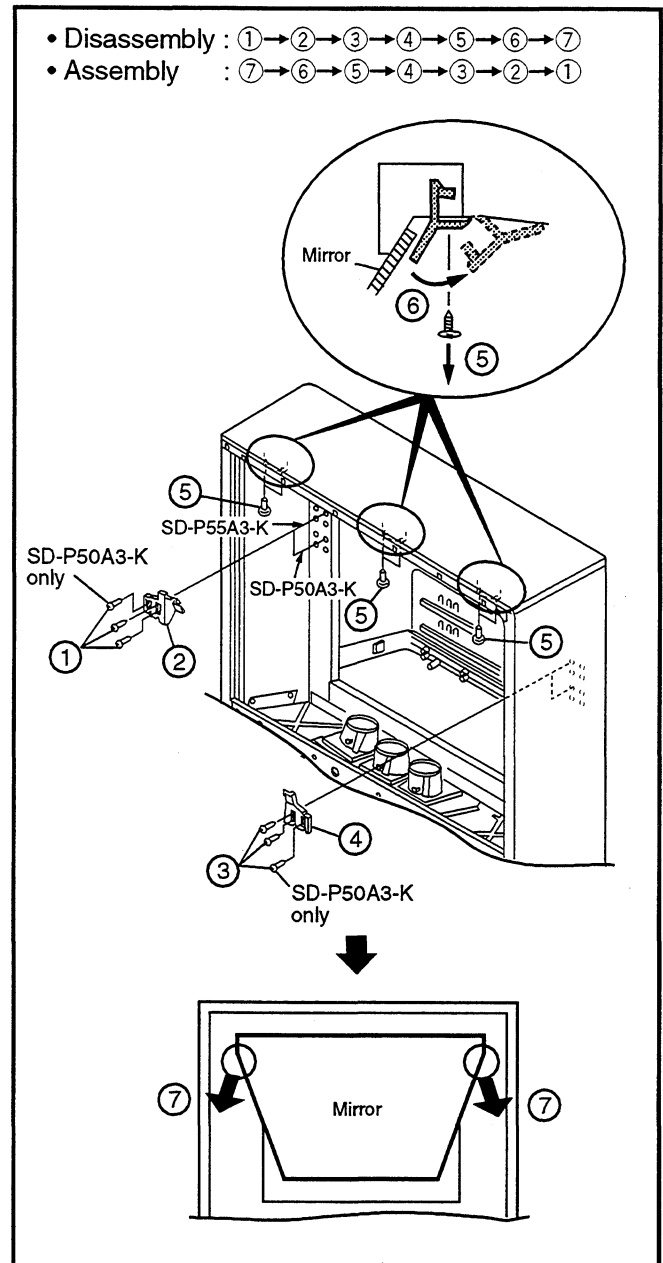
7.2.2 Assembling the Screen Frame

- Assembly : ① → ② → ③ → ④ → ⑤ → ⑥



7.2.3 Mirror

- Disassembly : ① → ② → ③ → ④ → ⑤ → ⑥ → ⑦
• Assembly : ⑦ → ⑥ → ⑤ → ④ → ③ → ② → ①



7.3 REPLACEMENT

7.3.1 CRT Assy

- (1) Remove four screws ① to remove the CRT Assy, and remove the R, G or B CRT AMP Assy, VM Coil and Deflection Yoke (②).
- (2) Unhook two Purse Locks ③ from Anode Cables.
- (3) Remove two screws ④ to remove the HV Distributor and pull out the Anode Cable (⑤).

Caution : Refer to caution contents written with "Caution at Removing the Anode Cable From the HV Distributor" on page 115.

- (4) Install the replacement CRT Assy to the CRT Stand and assemble the Deflection Yoke, VM Coil and R, G or B CRT AMP Assy.
- (5) Plug the Anode Cable into the HV Distributor and assemble the HV Distributor to the CRT Stand.
- (6) Perform the Anode Cable wiring.

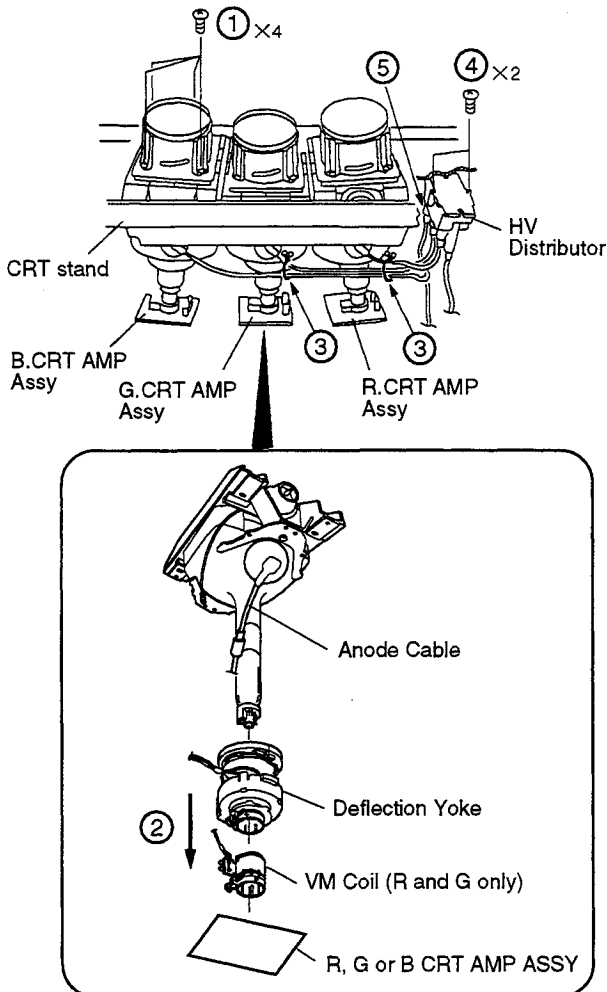


Fig. 1 Replace the CRT Assy

7.3.2 POWER SUPPLY SERVICE Assy

The POWER SUPPLY SERVICE Assy seems to be Fig. 2 is constituted.

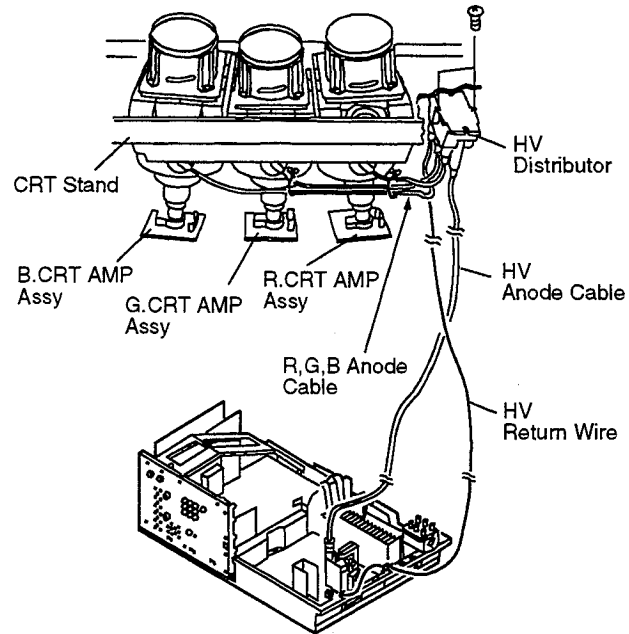


Fig. 2 Replace the POWER SUPPLY SERVICE Assy

When replacing the POWER SUPPLY SERVICE Assy, replace the POWER SUPPLY Assy and HV Distributor together.

- (1) Remove fixing screws which chassis is fixed in the cabinet from rear side of the cabinet and pull out the chassis.
- (2) Remove two screws to remove the HV Distributor in the CRT Stand.
- (3) Solve the wiring of periphery of the POWER SUPPLY Assy, disconnect cords, lead wires and connectors etc. connected to the POWER SUPPLY Assy.
- (4) Remove R, G and B Anode Cables from the HV Distributor.
- (5) Replace the POWER SUPPLY Assy and fixes it in the chassis.
- (6) Connect cords, lead wires and connector etc. to the POWER SUPPLY Assy and does wiring.
- (7) Inserts Anode Cable etc. avoided with step (4) in the HV Distributor.
- (8) Fixes the HV Distributor in the CRT Stand.
- (9) Fixes the chassis in the cabinet.

• **Caution at Removing the Anode Cable From the HV Distributor**

Anode Cable between the Flyback Transformer (FBT) is connected to the CRT through the HV Distributor.

When replacing the CRT or POWER SUPPLY SERVICE Assy, your hands may be injured when pull out direct Anode Cable from HV Distributor fixed in the CRT Stand.

When removing the R, G and B Anode Cables, HV Anode Cable etc. from the HV Distributor, remove HV Distributor from the CRT Stand, and remove it after putting it in the place where is flat, became stable.

7.4 MEASURING METHOD

Disconnect the FBT anode cable as shown in Fig. 3.

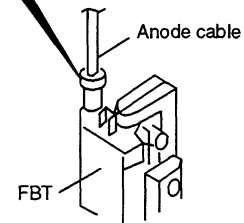
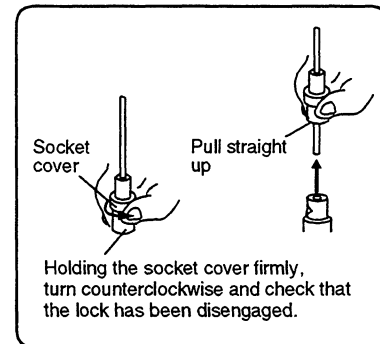
Measure at the point where the cable enters the FBT.

Caution : Take extra precaution when measuring the voltage.

High voltage are also present in surrounding circuit boards. (CRT AMP Assy, POWER SUPPLY SERVICE Assy).

SERVICEMAN WARNING

Before removing the Anode Cable. turn off the power, unplug the AC plug and let the unit discharge for more than 1 minute.



Note :
When reconnecting the cable, proceed in the reverse order. After reconnecting, tug on the cable to check that it is secure.

Fig. 3

7.5 WIRING DIAGRAM

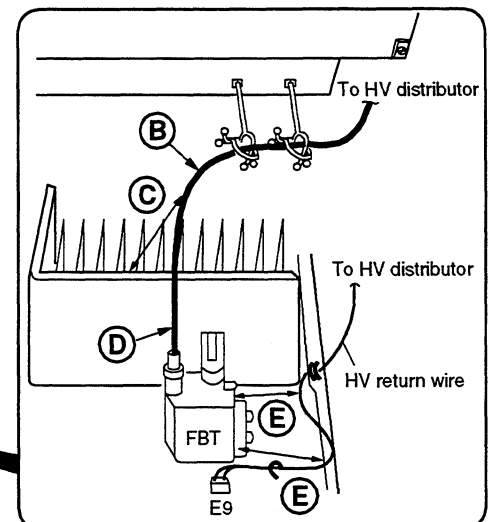
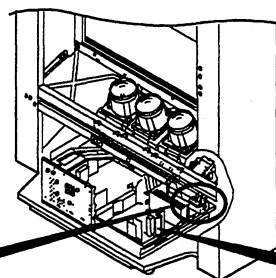
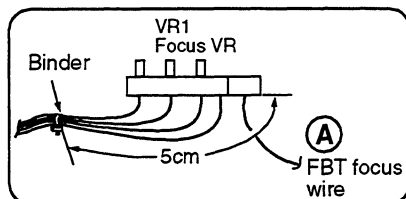
Reconnect any disconnected lead wires of the Projection monitor receiver.

The important points for connection of the lead wires are as shown below.

You may find that they were connected differently. Be sure reconnect the lead wires as they were.

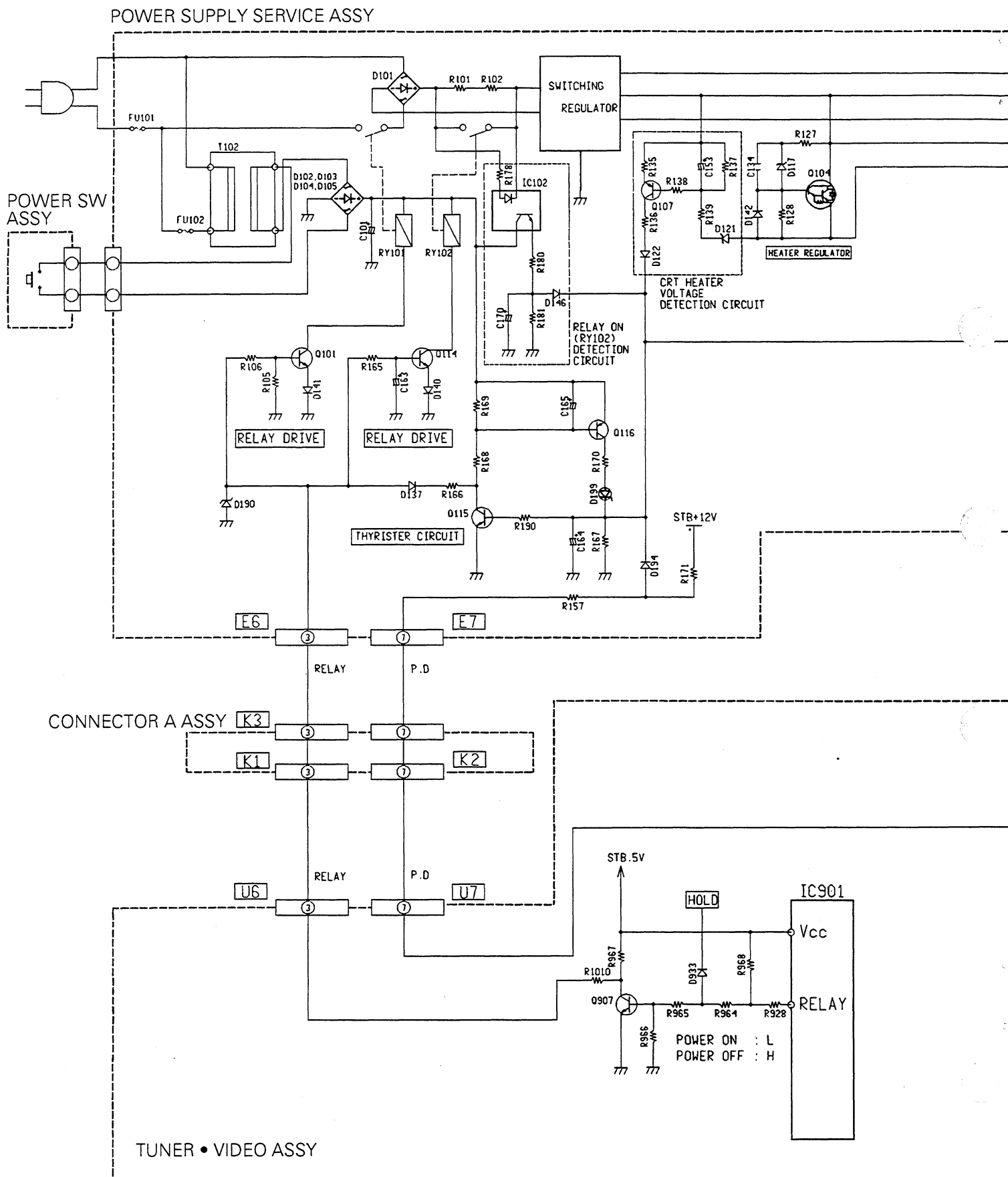
Note :

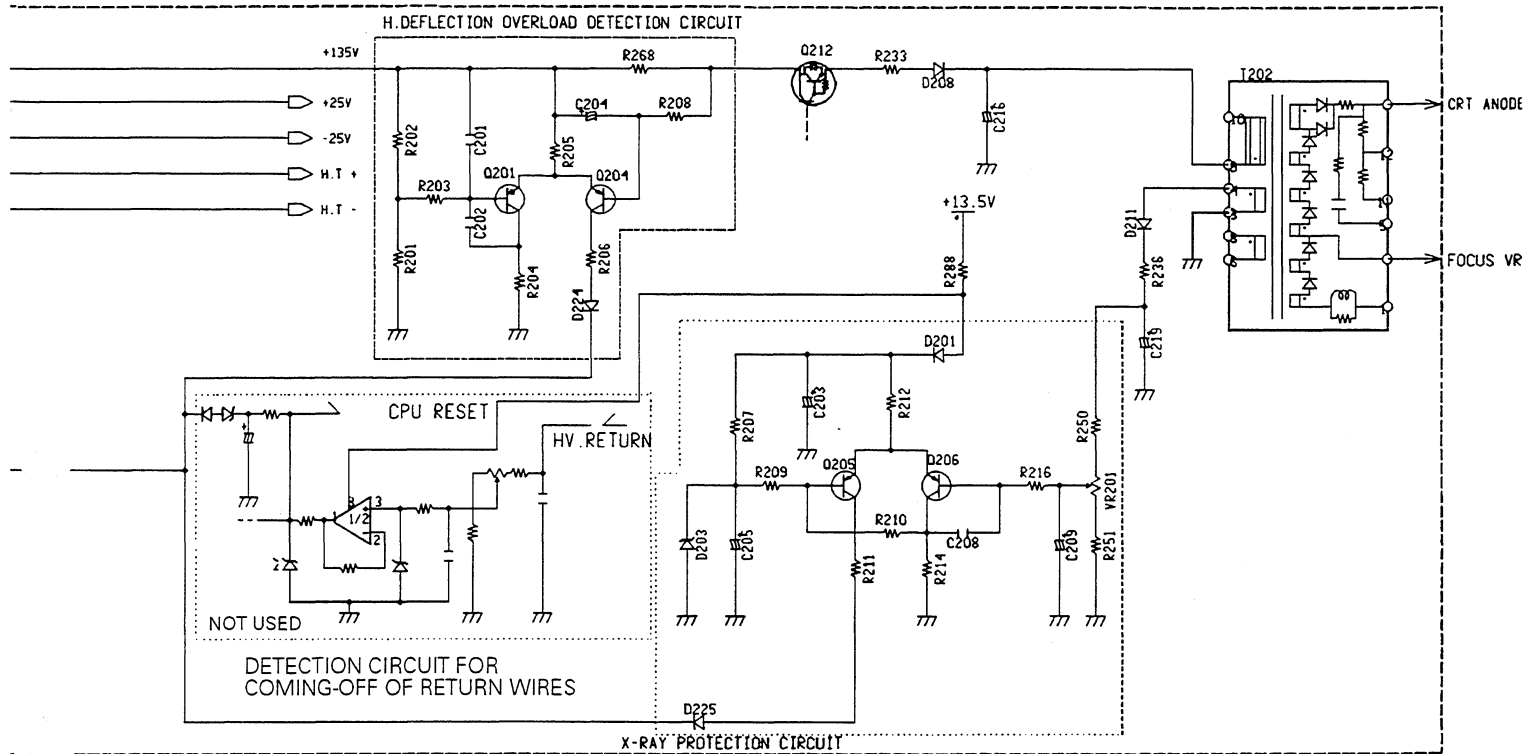
- (A) : FBT focus wire and other parts should be at least 15mm away from any other parts.
- (B) : Loop with a radius of 30mm or more.
- (C) : The anode cable and other parts should be at least 15mm away from any other parts.
- (D) : Loop with a radius of 50mm or more.
- (E) : HV return wire and FBT should be at least 15mm away from any other parts.



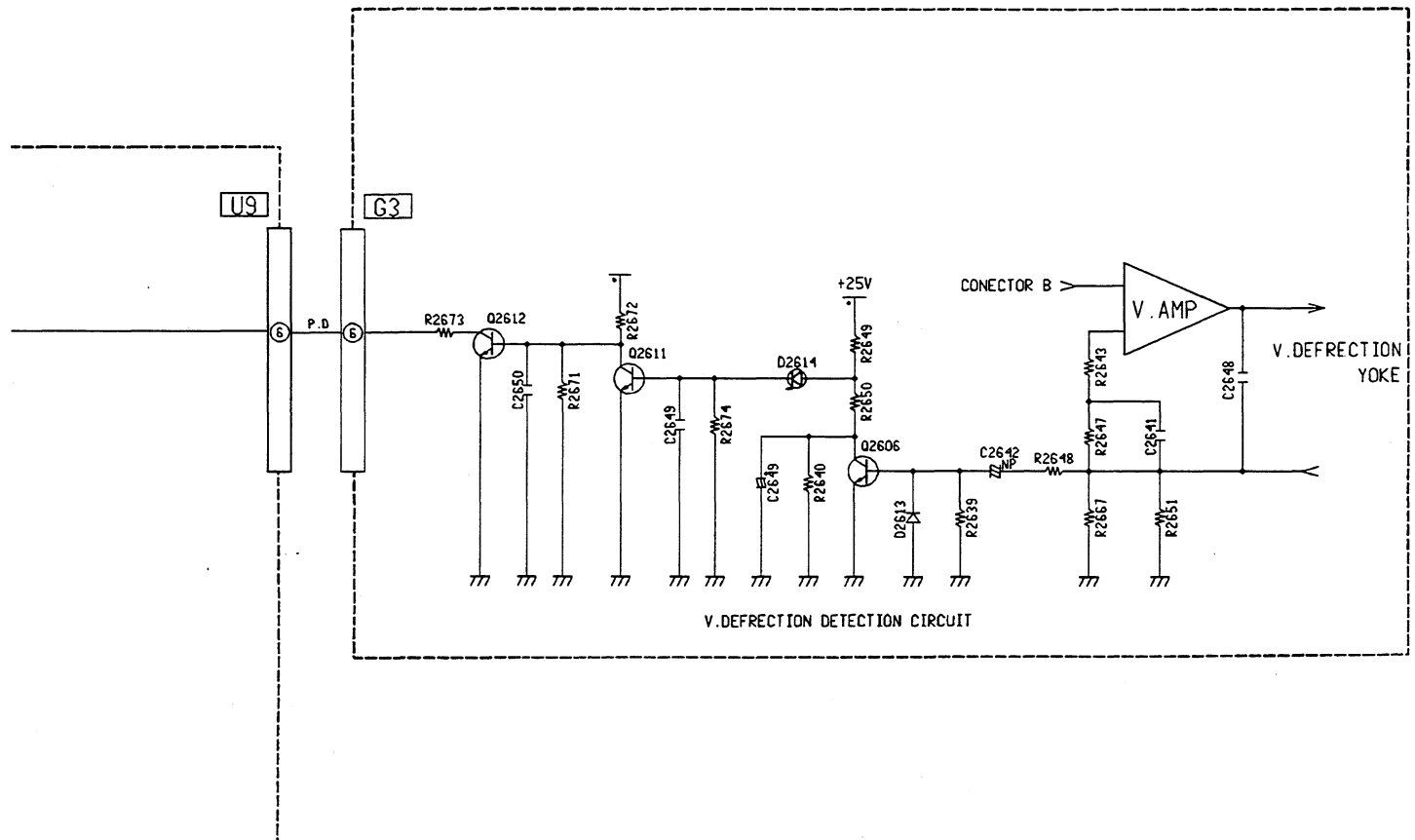
7.6 BLOCK DIAGRAM

7.6.1 PROTECTION BLOCK

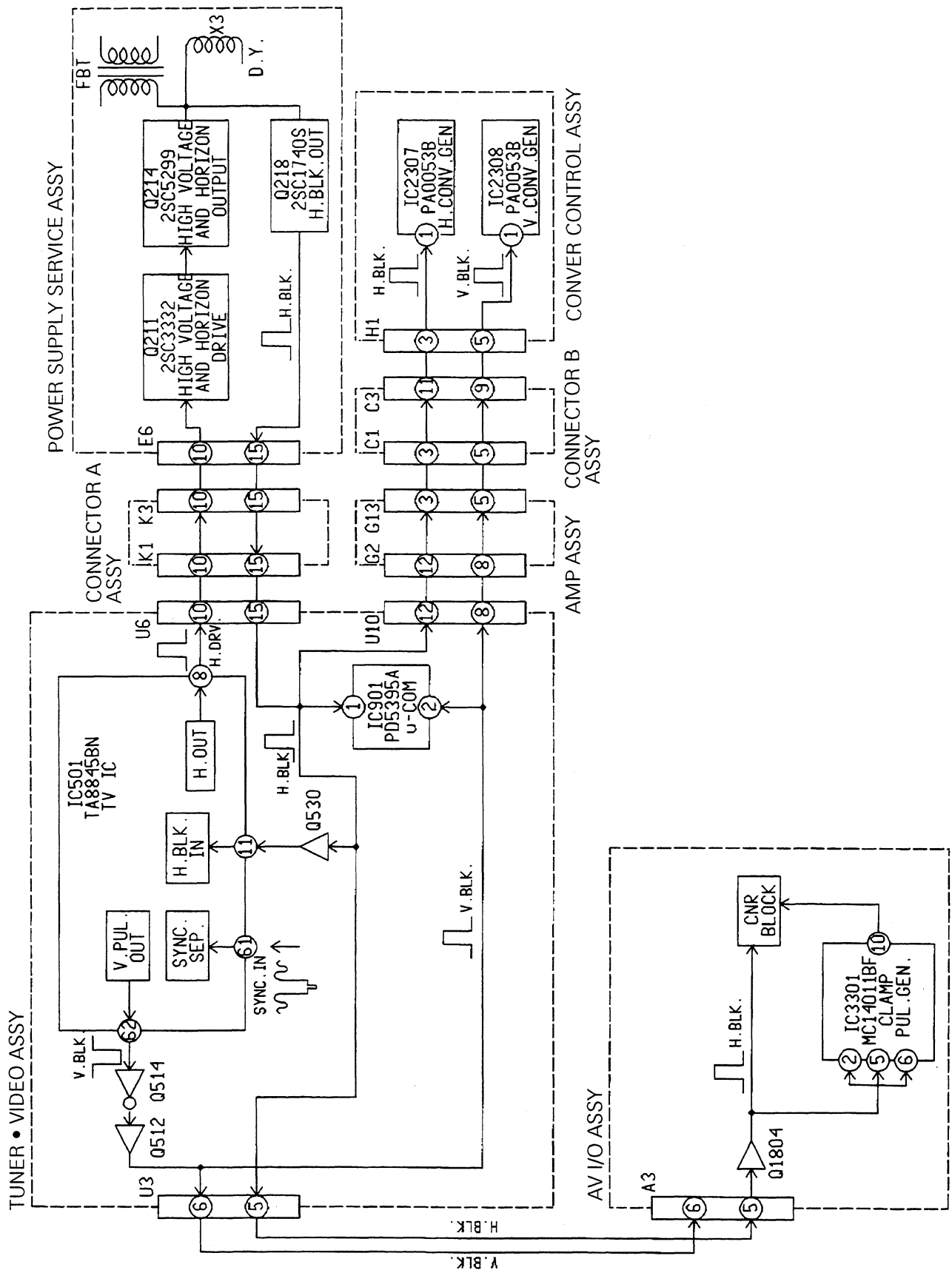




AMP (CONVERGENCE, AUDIO, V. AMP, VM) ASSY



7.6.2 H.V. BLOCK AND CIRCUIT BLOCK



8. PANEL FACILITIES AND SPECIFICATIONS

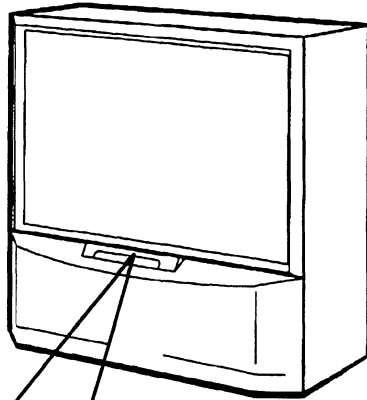
■ PANEL FACILITIES

• FRONT PANEL

A flip-down door conceals the control panel. Push gently and release, to open the door. To close the door, lift it back up into place.

NOTE:

If you accidentally pull the door, it may not shut properly. Push the door back in to shut it.



① POWER STANDBY/ON indicator

② MAIN POWER switch

Press once to turn on the power (STANDBY MODE). Press again to turn off the power.

③ REMOTE SENSOR

This sensor picks up infrared signals from the remote control unit.

④ POWER switch (STANDBY/ON)

Press once to turn on the power. Press again to turn off the power.

⑤ INPUT SELECTOR button

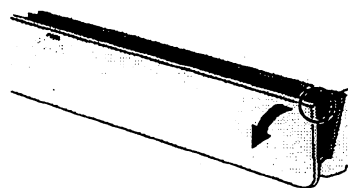
Press to select your program source; TV, Videodisc player and VIDEO. Each press of the INPUT SELECTOR changes the selection to the next source.

⑥ CHANNEL buttons

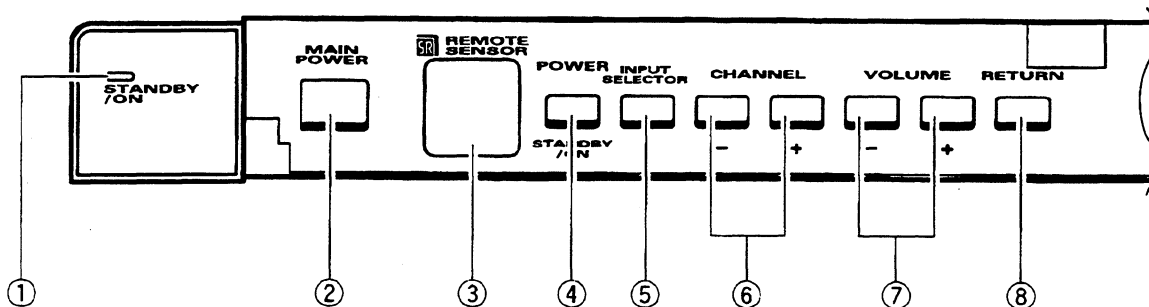
Press plus (+) or minus (-) to tune to a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ VOLUME buttons

Press plus (+) button to increase the volume, press minus (-) button to decrease it.



In some cases, the door may only open slightly when pushed. In such cases, open the door with your finger as shown in the figure below.



⑧ RETURN button

Press to set the Projection Monitor to its initial mode instantly if either sound or picture disappear from the speaker system or the screen during adjustment.

- Adjust the Projection Monitor again after pressing the RETURN button, as all settings have been cleared.

When the RETURN button is pressed, the Projection Monitor is set as follows:

PICTURE: Parameters, set to 0.

VOLUME: Remains at the last setting.

P-IN-P/MUTE/VNR: Set to OFF.

INPUT SELECTOR: Set to TV.

TV CHANNEL: Remains at the last channel set.

MTS: Remains at the last setting.

CC: OFF

COLOR TEMP: NORMAL

AV MEMORY: STANDARD

- When this button is pressed during the outer point convergence, the outer point convergence returns to the initial mode

⑨ VIDEO F. INPUT

These inputs are for Video Movie and VCR. Use RCA-type pin plug cords (the same as those used in Hi-Fi systems) for connections. When the audio source to be connected is monaural, connect the source to the L-(MONO) jack.

NOTE:

On rare occasions, an electrical discharge may occur inside the CRT. It makes a short, sharp pop and either no sound is produced or the volume level changes by itself. The Picture-in-Picture function will be cancelled automatically if an electrical discharge occurs when this function is engaged. However, VNR resume automatically when an electrical discharge occurs. When other abnormal functioning is suspected, turn off the power of the unit with the ①MAIN POWER switch, and after some time, turn on the power with ①MAIN POWER switch and ②POWER switch. If the abnormal functioning cannot be corrected, contact an authorized PIONEER service center.

CAUTION:

Do not press any operation button on the Projection Monitor or the remote control unit while recording. Signals from the MONITOR OUTPUT jacks may be temporarily interrupted when a button is pressed.

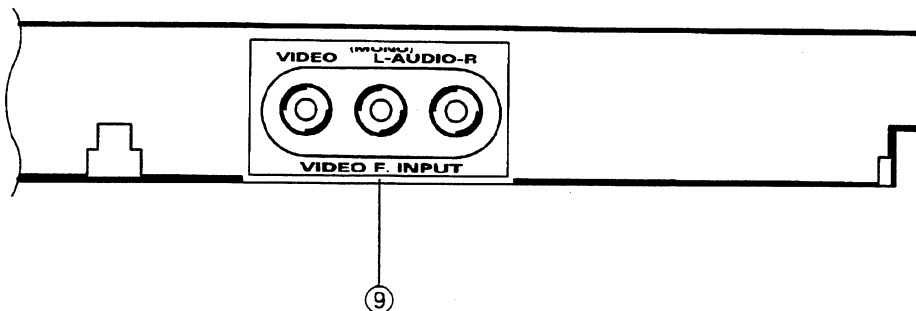
ATTENTION

The Projection Monitor Receiver will not function properly in the following cases.

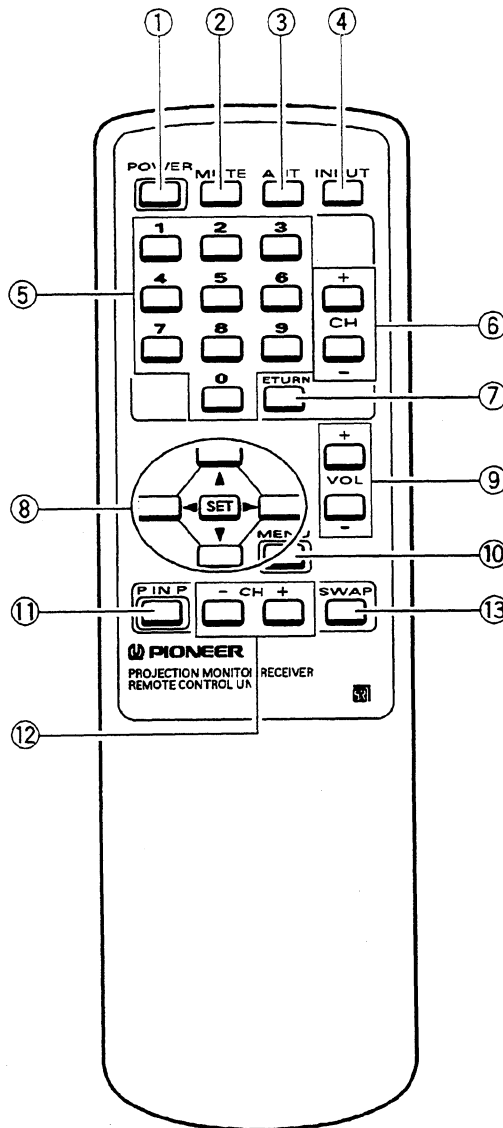
- Lightning storms.
- High static electricity environment.
- Poor voltage regulation in the power source.

If the Projection Monitor does not operate properly, reset it as follows:

1. Unplug from the power supply for approximately 1 minute.
2. Plug the power cord in a receptacle again to reset it.



• REMOTE CONTROL UNIT



① **POWER button (STANDBY/ON)**
Turns the power of the monitor on and off.

② **MUTE button**
Press to temporarily turn off the sound. Press again to return to the previous volume level. The volume display will turn red while the mute function is set and will disappear from screen when the mute function is canceled.

③ **ANT (antenna selector) button**
Press to switch between ANTENNA-A and ANTENNA-B when you wish to watch TV.

④ **INPUT button**
Press the button to select the source you wish to watch.

⑤ **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

⑥ **CH (channel) +, - buttons**
Press plus (+) or minus (-) to tune in a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ **CH RETURN (channel return) button**
Press to switch between the current channel and the channel you were watching immediately before.

⑧ **Select / Adjust / Set buttons (SET, ◀, ▶, ▲, ▼)**
◀, ▶, ▲, ▼: Press to select, adjust or set items on the menu screen.
SET: Press to activate the selected function.

⑨ **VOL (volume) +, - buttons**
Press plus (+) button to increase the volume, press minus (-) button to decrease it.
Volume level will appear on the screen as numbers and a bar graph. '63' indicates the maximum volume level.
The display will disappear from the screen after 2 seconds.
* Volume display will change color automatically according to the selected input mode.

⑩ **MENU button**
Press to turn on the menu screen for use in function selection. Press again to return to normal TV screen.

⑪ **P I N P button**
Press to turn the Picture-in-Picture function on and off.

⑫ **CH (Channel) +, - buttons**
These buttons can be operated when the Picture-in-Picture function is turned on and the sub picture is in the TV input mode only. Press plus (+) or minus (-) button to tune in a higher or lower channel of the sub picture.
Only the preset channels can be tuned in using these buttons.

⑬ **SWAP button**
When the Picture-in-Picture function is turned on, press to switch between main picture and sub picture.
When ANT A broadcasts are seen on the Main picture, SWAP can be performed.
When ANT B broadcasts are seen on the Main picture, SWAP cannot be performed.

