

# JVC

## SCHEMATIC DIAGRAMS

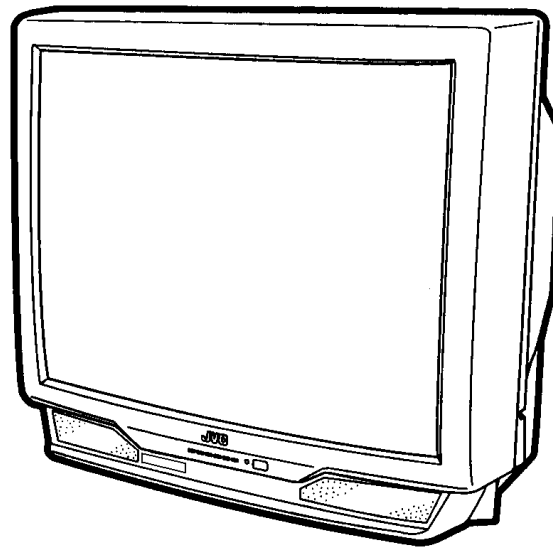
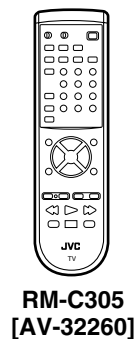
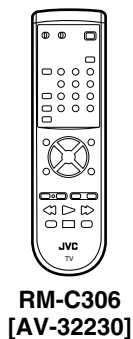
### COLOR TELEVISION

BASIC CHASSIS

GC

**AV-32230 /AG**    **AV-32260 /AG**  
**AV-32230 /AH**    **AV-32260 /AH**  
**AV-32230 /AM**    **AV-32260 /AM**  
**AV-32230 /AR**    **AV-32260 /AR**

CD-ROM No. SML200201



**AV-32230** /AG    **AV-32260** /AG  
**AV-32230** /AH    **AV-32260** /AH  
**AV-32230** /AM    **AV-32260** /AM  
**AV-32230** /AR    **AV-32260** /AR

# STANDARD CIRCUIT DIAGRAM

## ■ NOTE ON USING CIRCUIT DIAGRAMS

### 1. SAFETY

The components identified by the  $\triangle$  symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

### 2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal : Color bar signal
- (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
- (3) Internal resistance of tester : DC 20k $\Omega$ /V
- (4) Oscilloscope sweeping time : H  $\Rightarrow$  20 $\mu$ S/div  
: V  $\Rightarrow$  5mS/div  
: Others  $\Rightarrow$  Sweeping time is specified
- (5) Voltage values : All DC voltage values

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

### 3. INDICATION OF PARTS SYMBOL [EXAMPLE]

- In the PW board : R1209  $\rightarrow$  R209

### 4. INDICATIONS ON THE CIRCUIT DIAGRAM

#### (1) Resistors

##### ● Resistance value

- No unit : [ $\Omega$ ]
- k : [k $\Omega$ ]
- M : [M $\Omega$ ]

##### ● Rated allowable power

- No indication : 1/16 [W]
- Others : As specified

##### ● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

\* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

#### (2) Capacitors

##### ● Capacitance value

- 1 or higher : [pF]
- less than 1 : [ $\mu$ F]

##### ● Withstand voltage

- No indication : DC50[V]
- AC indicated : AC withstand voltage [V]
- Others : DC withstand voltage [V]

\* Electrolytic Capacitors

47/50[Example] : Capacitance value [ $\mu$ F]/withstand voltage[V]

##### ● Type

- No indication : Ceramic capacitor
- MY : Mylar capacitor
- MM : Metalized mylar capacitor
- PP : Polypropylene capacitor
- MPP : Metalized polypropylene capacitor
- MF : Metalized film capacitor
- TF : Thin film capacitor
- BP : Bipolar electrolytic capacitor
- TAN : Tantalum capacitor

#### (3) Coils



- No unit : [ $\mu$ H]
- Others : As specified

#### (4) Power Supply



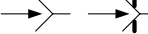
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

\* Respective voltage values are indicated

#### (5) Test point

-  : Test point
-  : Only test point display

#### (6) Connecting method

-  : Connector
-  : Wrapping or soldering
-  : Receptacle

#### (7) Ground symbol

- $\perp$  : LIVE side ground
- $\text{///}$  : ISOLATED(NEUTRAL) side ground
- $\text{≡}$  : EARTH ground
- $\nabla$  : DIGITAL ground

### 5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : ( $\perp$ ) side GND and the ISOLATED(NEUTRAL) : ( $\text{///}$ ) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time with a measuring apparatus ( oscilloscope, etc.). If the above precaution is not respected , a fuse or any parts will be broken.

● Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

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## CIRCUIT DIAGRAMS

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## PATTERN DIAGRAMS

Pattern name	Model	AV-32230	AV-32260
MAIN PWB PATTERN		P2-17	←
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## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

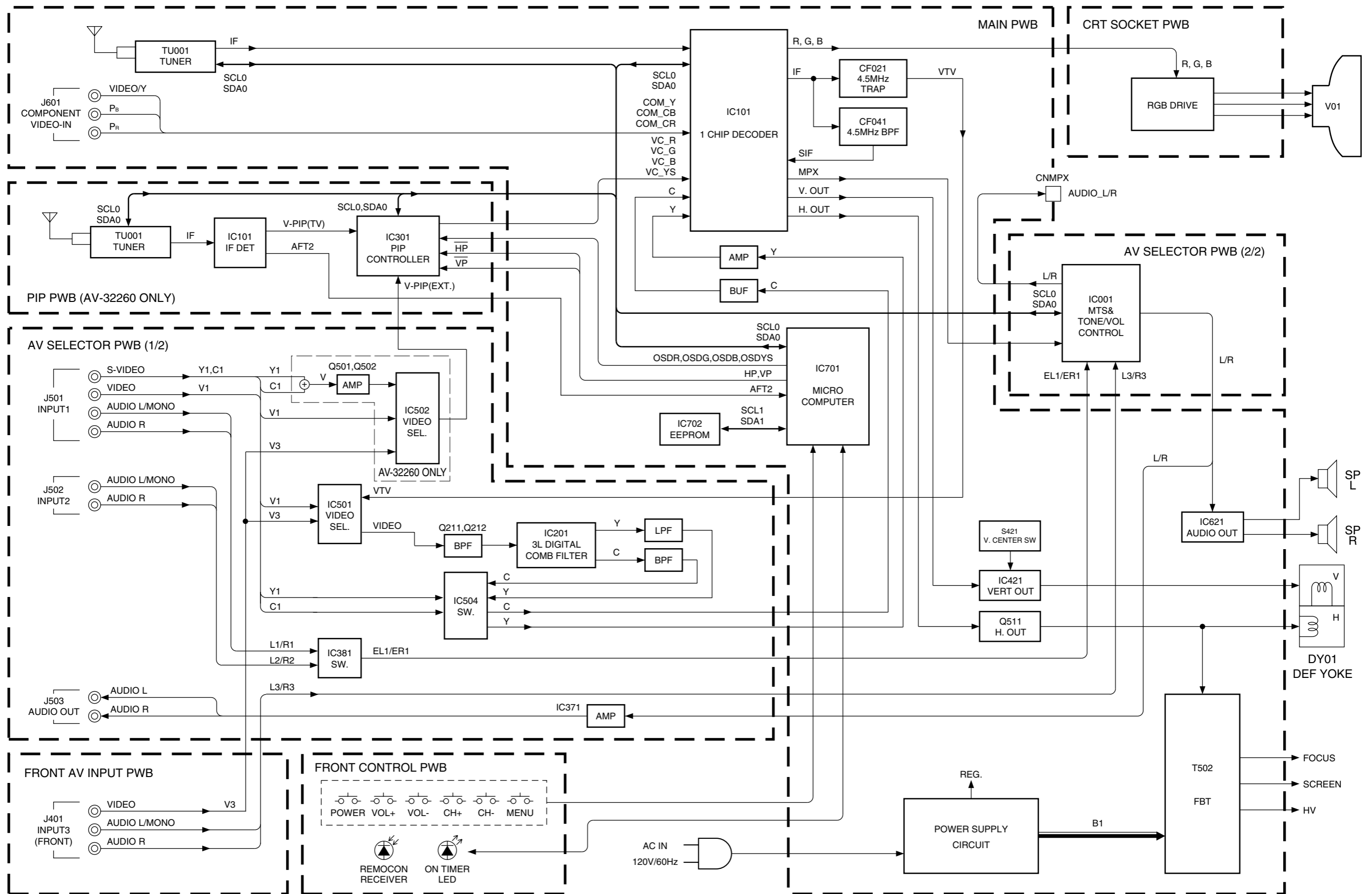
### IC

BOTTOM VIEW	FRONT VIEW		TOP VIEW

### CHIP IC

TOP VIEW	

# BLOCK DIAGRAM



# CIRCUIT DIAGRAMS

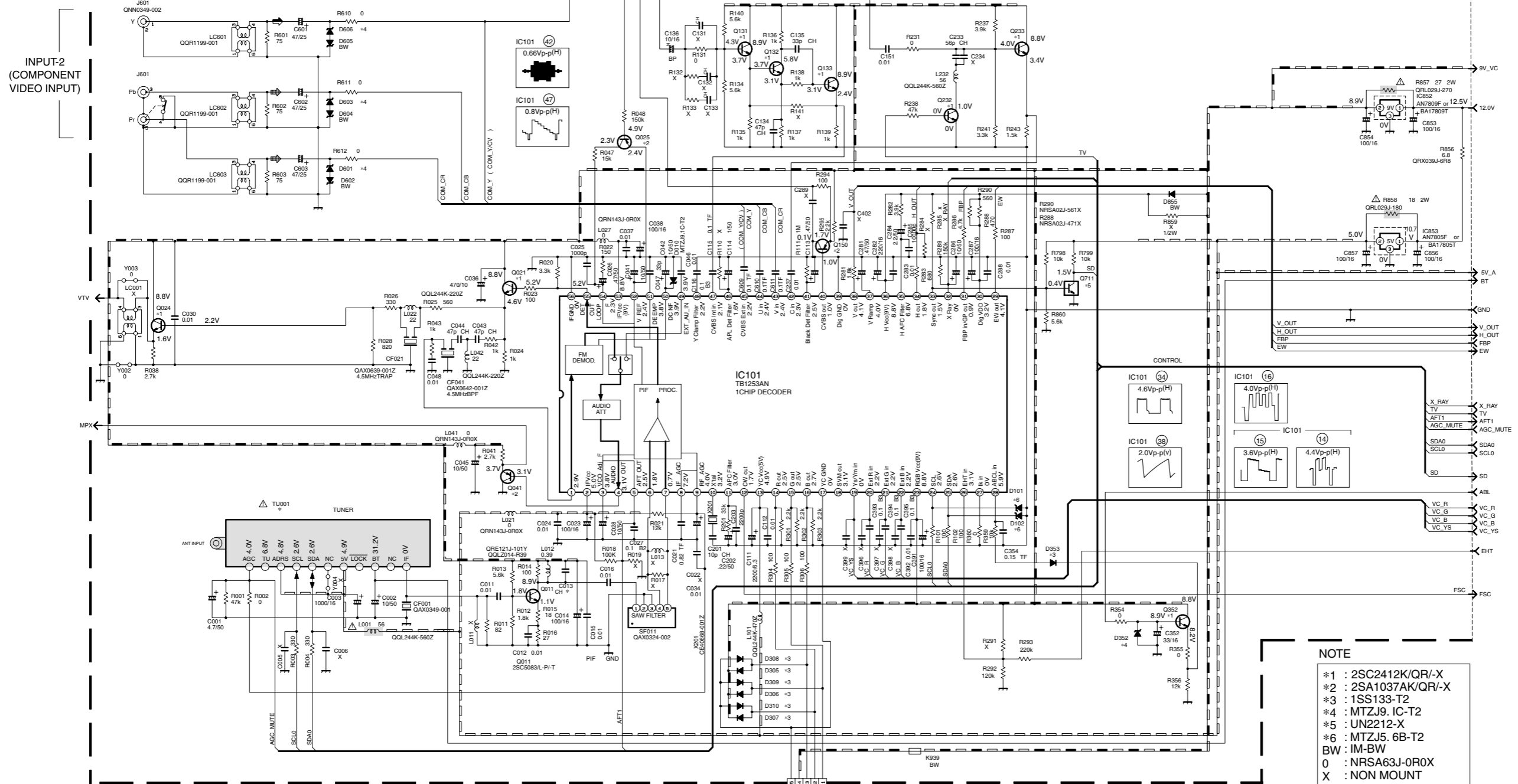
## MAIN PWB CIRCUIT DIAGRAM (1/3)

AV-32230  
AV-32260

AV-32230  
AV-32260

MAIN PWB ASS'Y

- SGC-1021A-M2 (AV-32260/AG)
- SGC-1022A-M2 (AV-32260/AH)
- SGC-1024A-M2 (AV-32260/AM)
- SGC-1023A-M2 (AV-32260/AR)
- SGC-1029A-M2 (AV-32230/AG)
- SGC-1030A-M2 (AV-32230/AH)
- SGC-1032A-M2 (AV-32230/AM)
- SGC-1031A-M2 (AV-32230/AR)



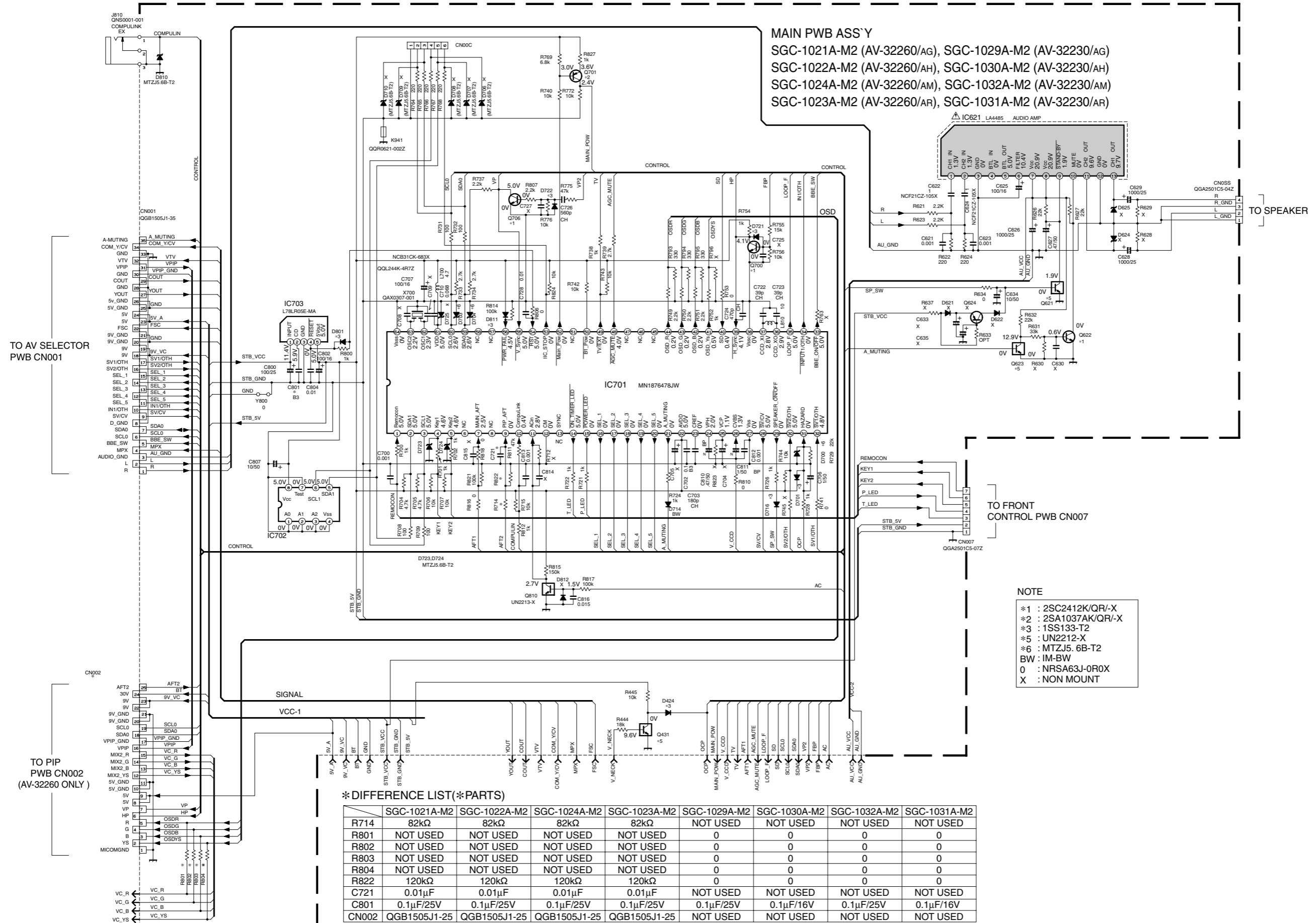
**NOTE**

- \*1 : 2SC2412K/QR/-X
- \*2 : 2SA1037AK/QR/-X
- \*3 : 1SS133-T2
- \*4 : MTZJ9. IC-T2
- \*5 : UN2212-X
- \*6 : MTZJ5. 6B-T2
- BW : IM-BW
- 0 : NRSA63J-0R0X
- X : NON MOUNT

**\*DIFFERENCE LIST(\*PARTS)**

	SGC-1021A-M2	SGC-1022A-M2	SGC-1024A-M2	SGC-1023A-M2	SGC-1029A-M2	SGC-1030A-M2	SGC-1032A-M2	SGC-1031A-M2
C013	150pF	150pF	150pF	150pF	NOT USED	NOT USED	NOT USED	NOT USED
△TU001	QAU0247-001	QAU0247-001	QAU0247-001	QAU0247-001	QAU0176-001	QAU0176-001	QAU0176-001	QAU0176-001

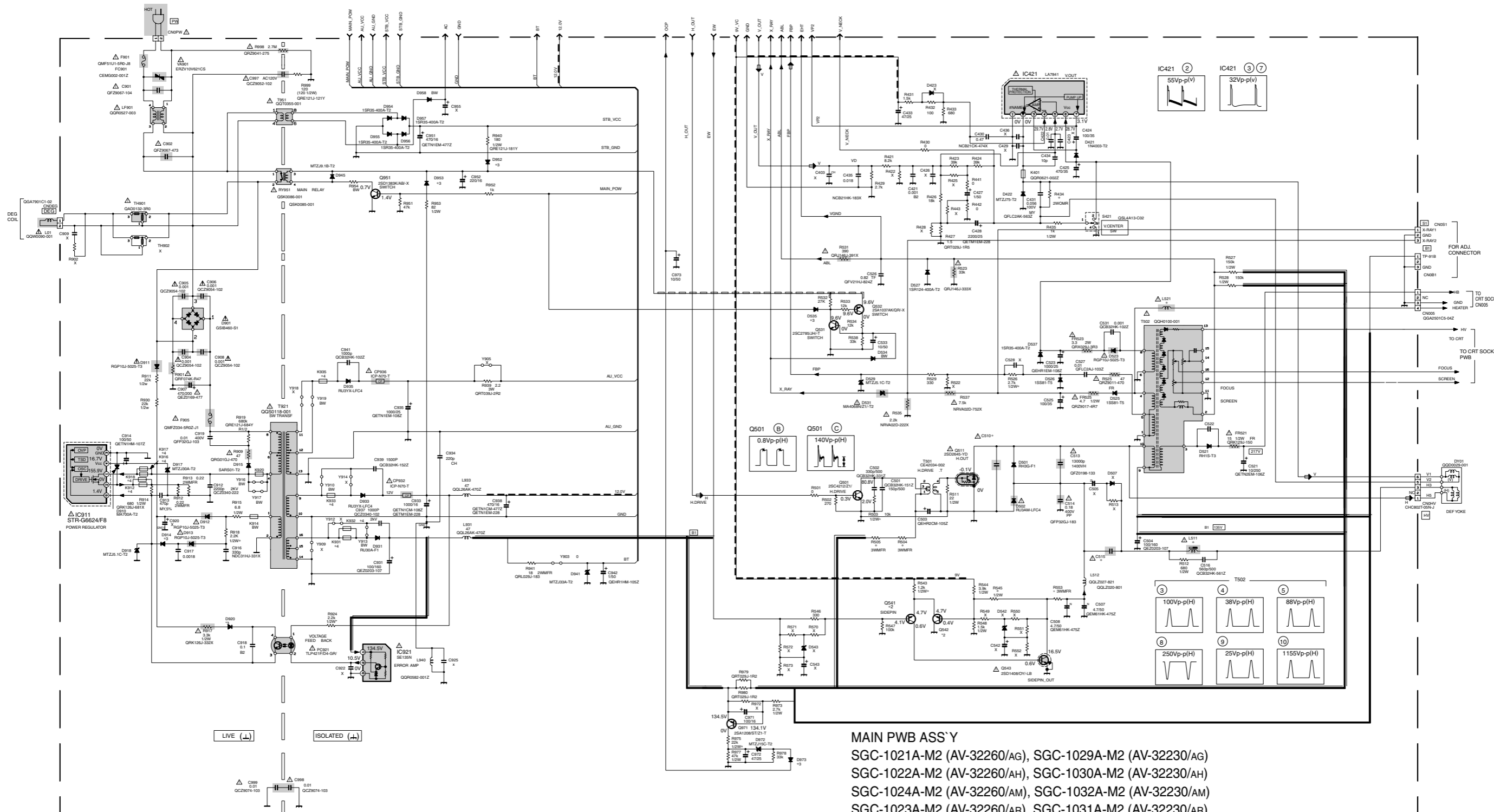
MAIN PWB CIRCUIT DIAGRAM (2/3)



**\* DIFFERENCE LIST (\*PARTS)**

	SGC-1021A-M2	SGC-1022A-M2	SGC-1024A-M2	SGC-1023A-M2	SGC-1029A-M2	SGC-1030A-M2	SGC-1032A-M2	SGC-1031A-M2
R714	82kΩ	82kΩ	82kΩ	82kΩ	NOT USED	NOT USED	NOT USED	NOT USED
R801	NOT USED	NOT USED	NOT USED	NOT USED	0	0	0	0
R802	NOT USED	NOT USED	NOT USED	NOT USED	0	0	0	0
R803	NOT USED	NOT USED	NOT USED	NOT USED	0	0	0	0
R804	NOT USED	NOT USED	NOT USED	NOT USED	0	0	0	0
R822	120kΩ	120kΩ	120kΩ	120kΩ	0	0	0	0
C721	0.01μF	0.01μF	0.01μF	0.01μF	NOT USED	NOT USED	NOT USED	NOT USED
C801	0.1μF/25V	0.1μF/25V	0.1μF/25V	0.1μF/25V	0.1μF/25V	0.1μF/16V	0.1μF/25V	0.1μF/16V
CN002	QGB1505J1-25	QGB1505J1-25	QGB1505J1-25	QGB1505J1-25	NOT USED	NOT USED	NOT USED	NOT USED

MAIN PWB CIRCUIT DIAGRAM (3/3)



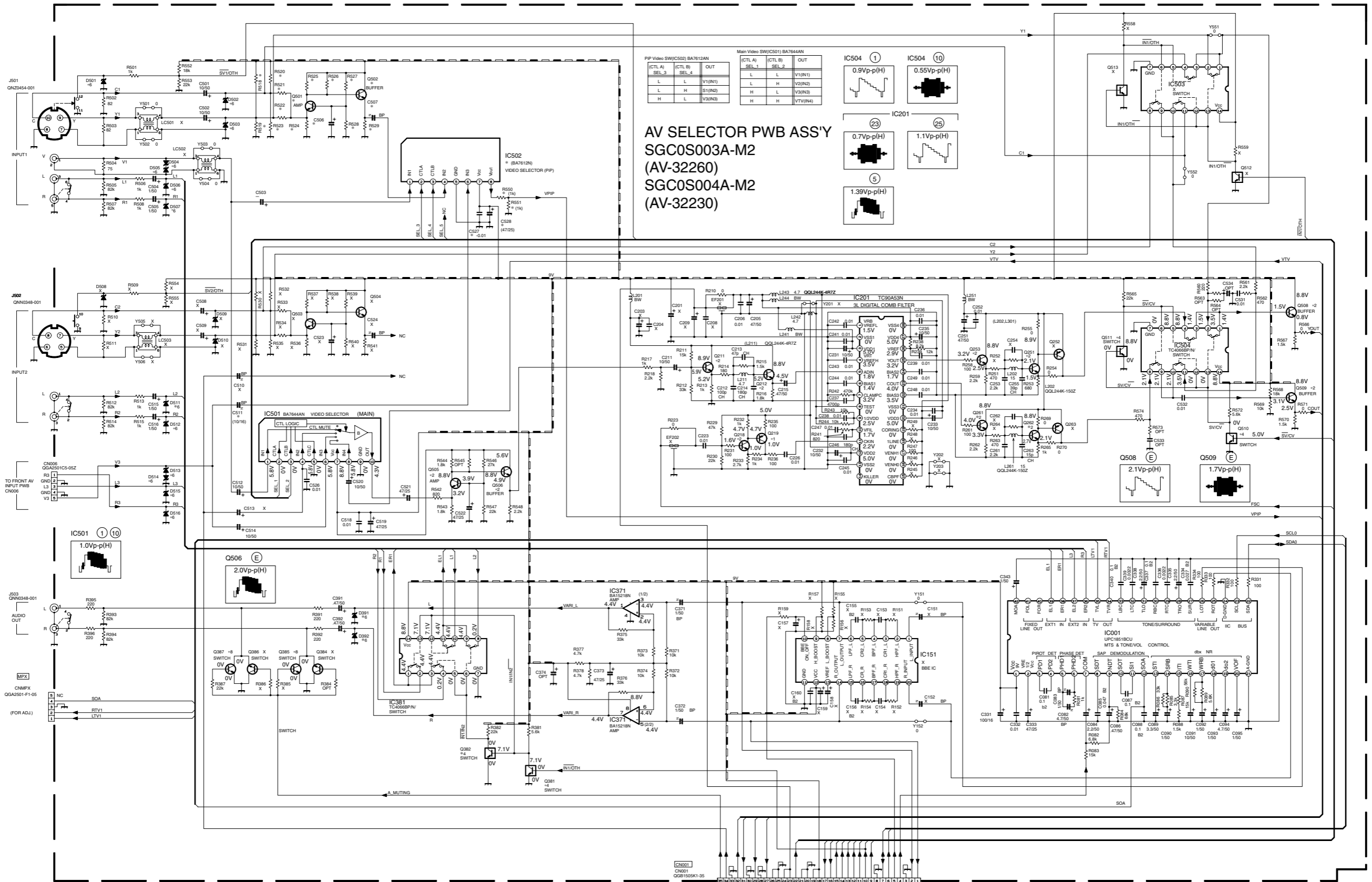
MAIN PWB ASS'Y  
 SGC-1021A-M2 (AV-32260/AG), SGC-1029A-M2 (AV-32230/AG)  
 SGC-1022A-M2 (AV-32260/AH), SGC-1030A-M2 (AV-32230/AH)  
 SGC-1024A-M2 (AV-32260/AM), SGC-1032A-M2 (AV-32230/AM)  
 SGC-1023A-M2 (AV-32260/AR), SGC-1031A-M2 (AV-32230/AR)

\*DIFFERENCE LIST(\*PARTS)

	SGC-1021A-M2	SGC-1022A-M2	SGC-1024A-M2	SGC-1023A-M2	SGC-1029A-M2	SGC-1030A-M2	SGC-1032A-M2	SGC-1031A-M2
R434	180Ω	180Ω	220Ω	180Ω	180Ω	180Ω	220Ω	180Ω
R504	1kΩ	1kΩ	1kΩ	1.5kΩ	1kΩ	1kΩ	1kΩ	1kΩ
R505	820Ω	1kΩ	1kΩ	1.5kΩ	820Ω	1kΩ	1kΩ	1kΩ
R545	8.2kΩ	8.2kΩ	15kΩ	8.2kΩ	8.2kΩ	8.2kΩ	15kΩ	8.2kΩ
R553	18Ω	18Ω	10Ω	18Ω	18Ω	18Ω	10Ω	18Ω
△ C510	6000pF	5300pF	5300pF	5300pF	6000pF	5300pF	5300pF	5300pF
△ C515	0.75μF	0.56μF	0.56μF	0.56μF	0.75μF	0.56μF	0.56μF	0.56μF
△ L511	QQR1027-003	QQR1027-003	QQR1027-003	CE41029-00A	QQR1027-003	QQR1027-003	QQR1027-003	CE41029-00A
△ L521	QQLZ018-560	QQLZ018-560	QQLZ026-640	QQLZ026-540	QQLZ018-560	QQLZ018-560	QQLZ026-640	QQLZ026-540

NOTE  
 \*2 : 2SA1037AK/QR/-X  
 \*3 : 1SS133-T2  
 \*4 : QQR0582-001Z  
 BW : IM-BW  
 0 : NRSA63J-0R0X  
 X : NON MOUNT

AV SELECTOR PWB CIRCUIT DIAGRAM



AV SELECTOR PWB ASS'Y  
SGC0S003A-M2 (AV-32260)  
SGC0S004A-M2 (AV-32230)

PP Video SWIC501 BA7612AN			Main Video SWIC501 BA7644AN		
CTL A)	CTL B)	OUT	CTL A)	CTL B)	OUT
L	L	V1(IN1)	L	L	V1(IN1)
L	H	S1(IN2)	H	L	V3(IN4)
H	L	V3(IN3)	H	H	V1(IN4)

\* DIFFERENCE LIST (\*PARTS)

	IC502	Q501	Q502	R518	R519	R520	R521	R522	R523	R524	R525	R526
SGC0S003A-M2	BA7612N	*2	*2	NOT USED	NOT USED	NOT USED	1.5kΩ	1.5kΩ	NOT USED	1.8kΩ	1.8kΩ	10kΩ
SGC0S004A-M2	NOT USED	NOT USED	NOT USED	15kΩ	10kΩ	15kΩ	NOT USED	NOT USED	10kΩ	NOT USED	NOT USED	NOT USED

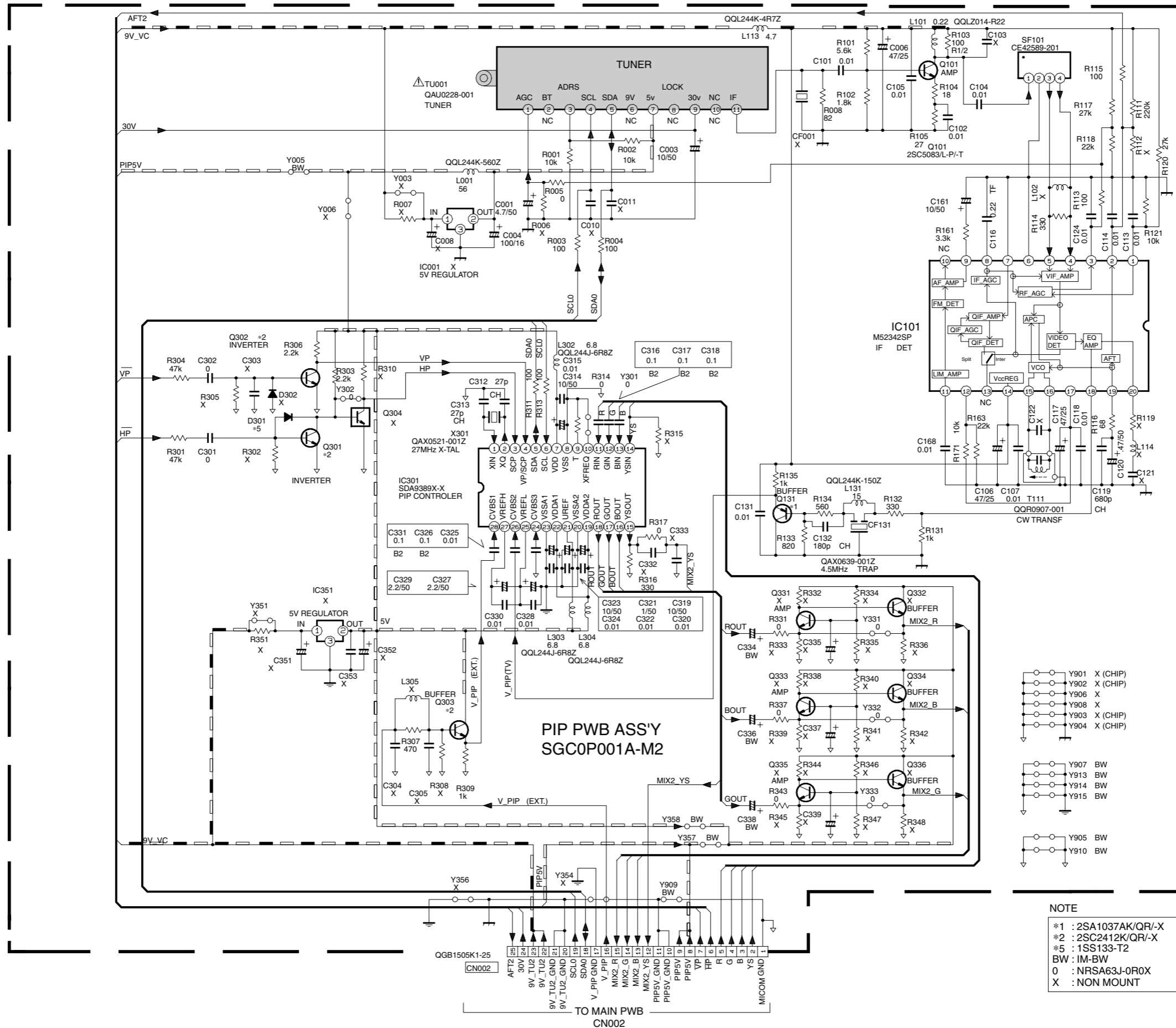
	R527	R528	R529	R550	R551	C503	C506	C507	C511	C527	C528
SGC0S003A-M2	27kΩ	18kΩ	5.6kΩ	1kΩ	1kΩ	10μF/50V	47μF/25V	10μF/16V	10μF/16V	0.01μF	47μF/25V
SGC0S004A-M2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED

NOTE

- #1 : 2SA1037AK/OR/-X
- #2 : 2SC2412K/OR/-X
- #5 : 1SS133-T2
- 0 : IM-BW
- 0 : NRS463J-0R0X
- X : NON MOUNT



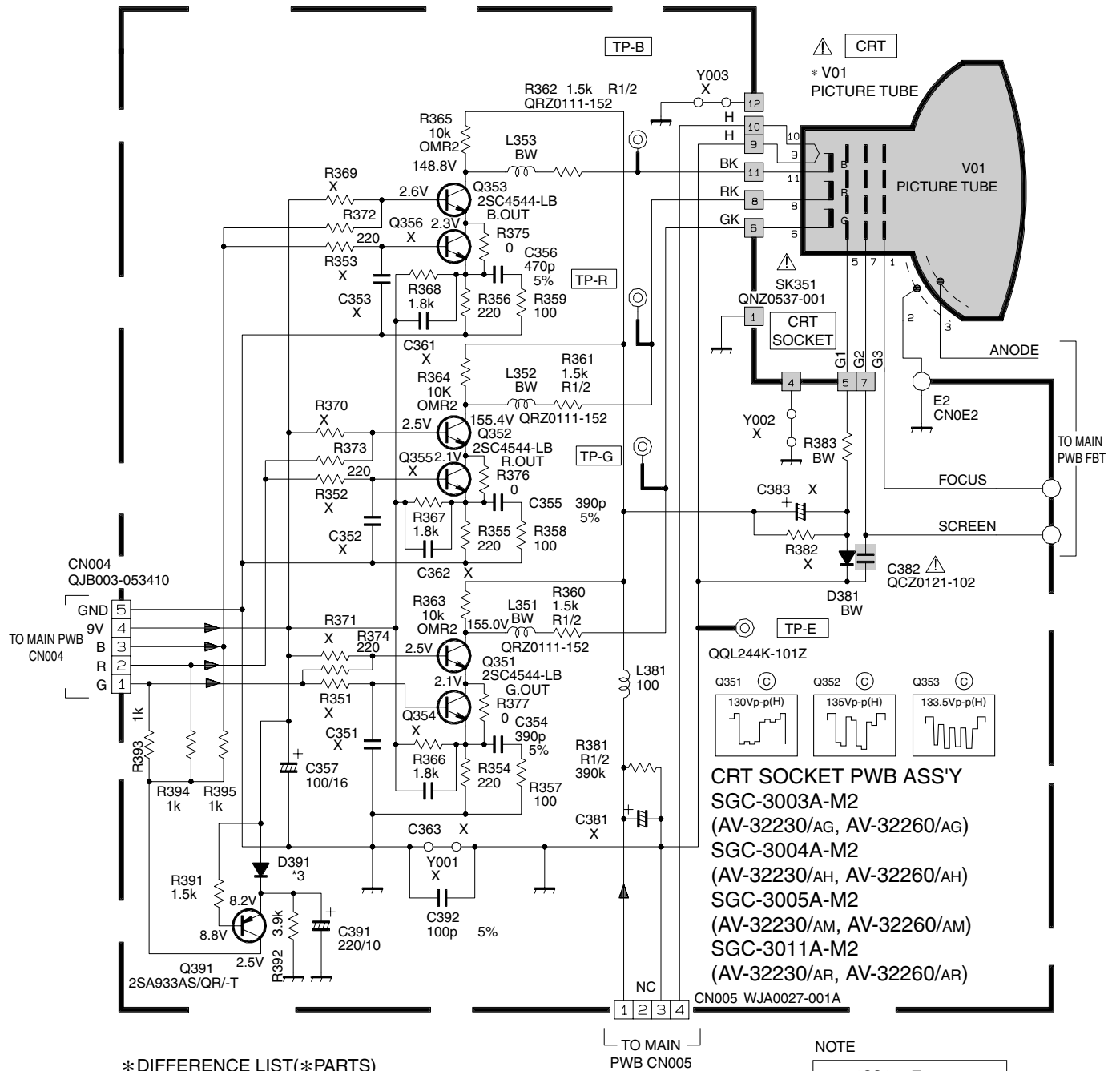
PIP PWB CIRCUIT DIAGRAM [AV-32260]



NOTE

- \*1 : 2SA1037AK/QR/-X
- \*2 : 2SC2412K/QR/-X
- \*5 : 1SS133-T2
- BW : IM-BW
- 0 : NRSA63J-0R0X
- X : NON MOUNT

**CRT SOCKET PWB CIRCUIT DIAGRAM**

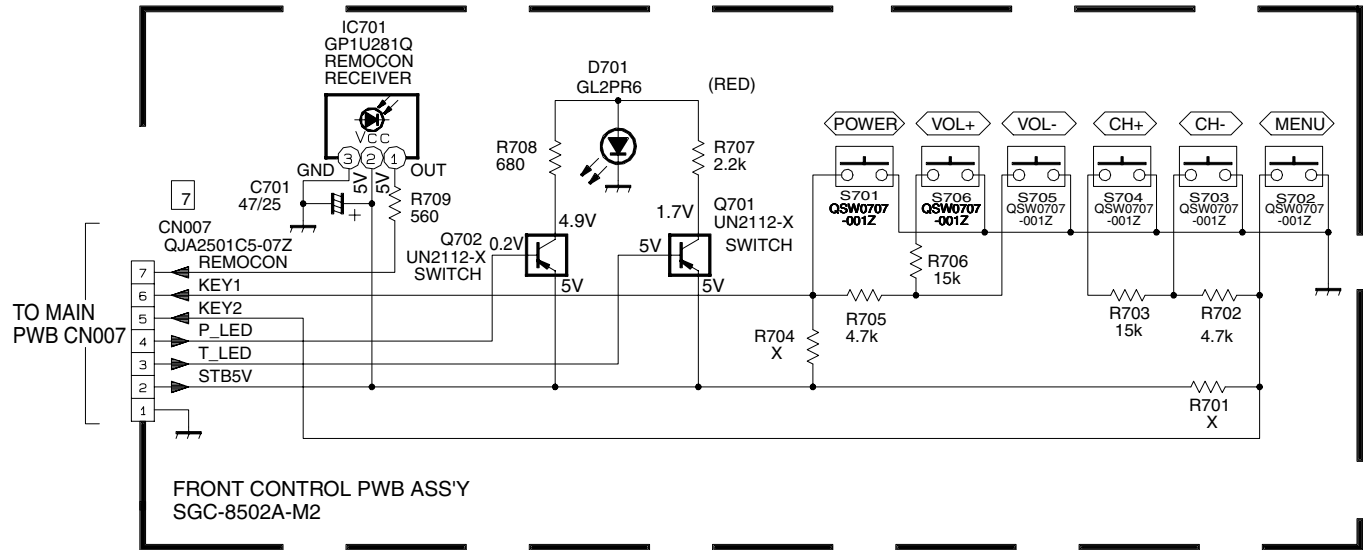


**\*DIFFERENCE LIST(\*PARTS)**

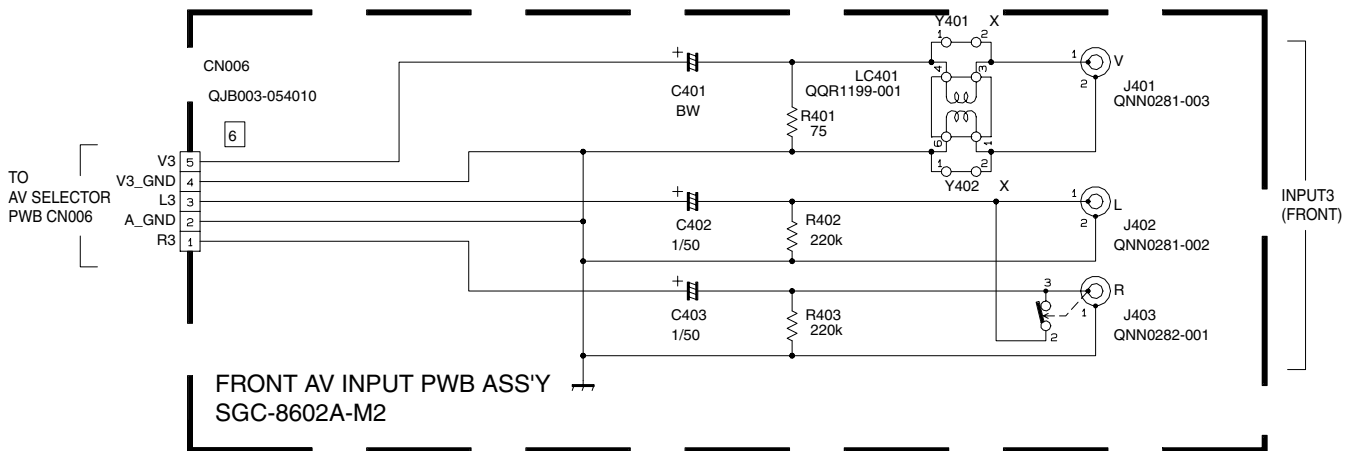
	SGC-3003A-M2	SGC-3004A-M2	SGC-3005A-M2	SGC-3011A-M2
⚠ V01	A80QCF240X14L	A80LJF30X08-G	A80JUA061X06	A80AEJ15X01

**FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS**

- FRONT CONTROL -



- FRONT AV INPUT -



NOTE

X : NON MOUNT

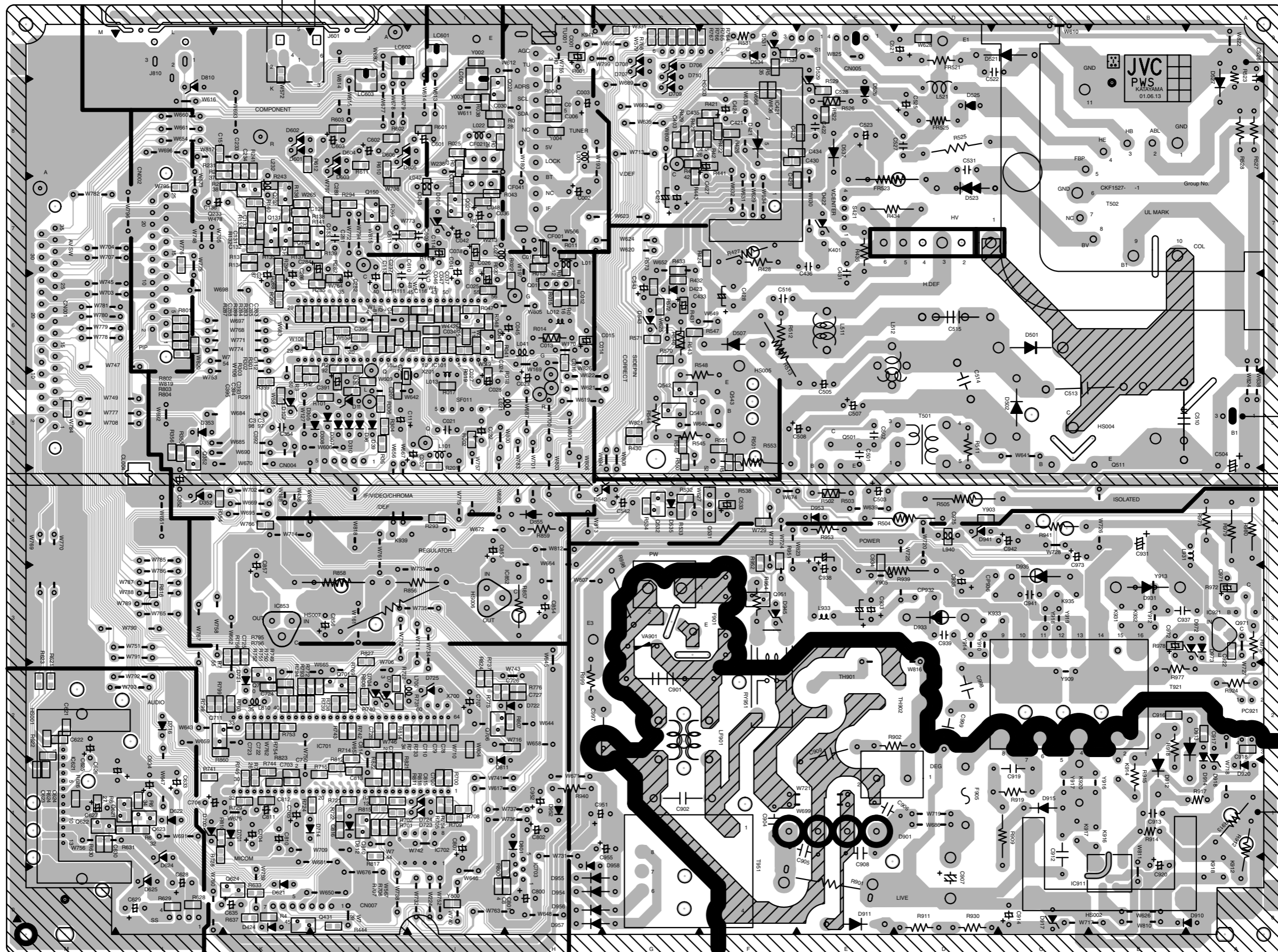
# PATTERN DIAGRAMS

## MAIN PWB PATTERN



CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE (S) AND ROHM'S MFR'S TYPE CP(S).

FRONT



(H)

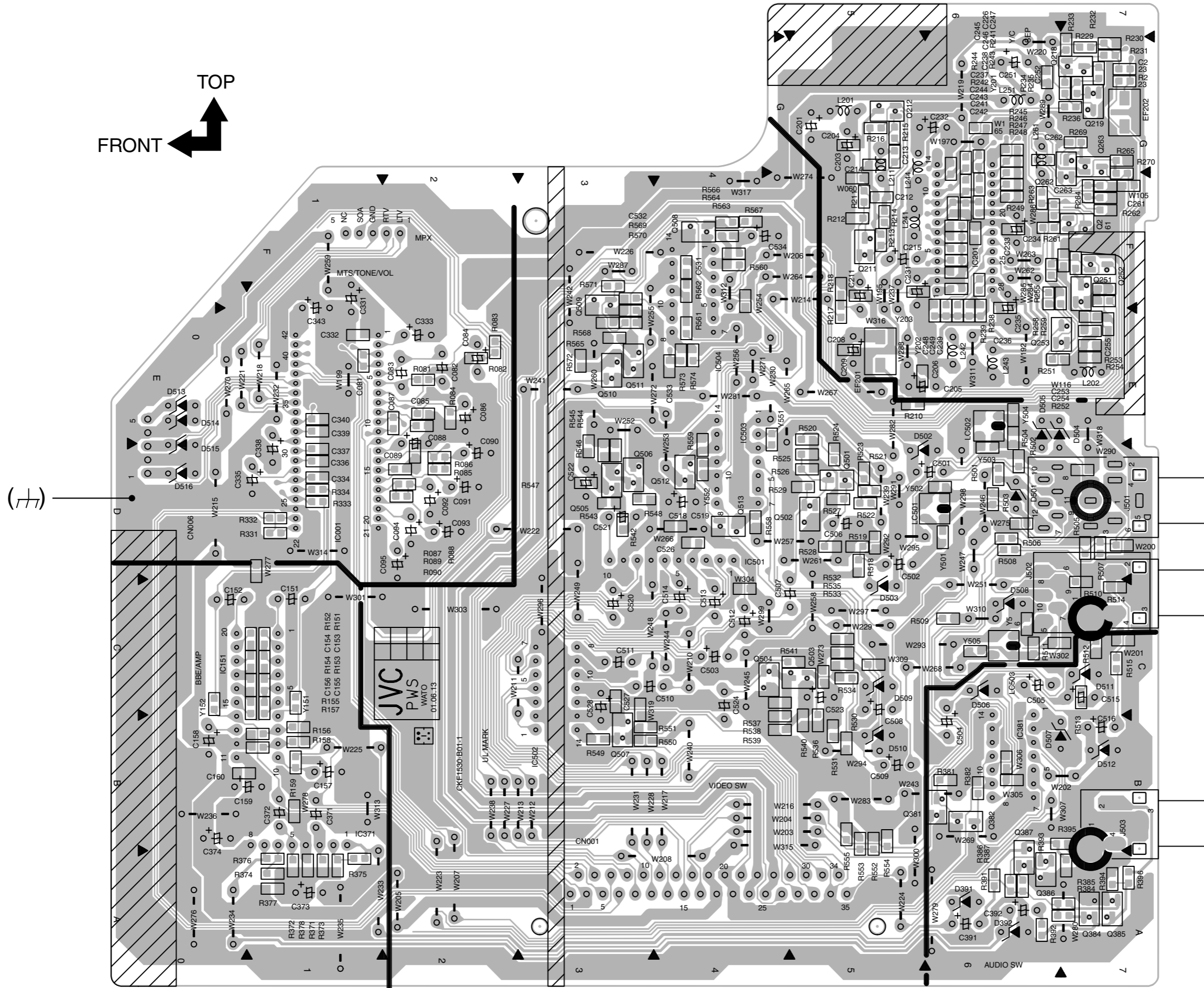
TP-91B(B1)

(T)

AV SELECTOR PWB PATTERN

AV-32230  
AV-32260

AV-32230  
AV-32260



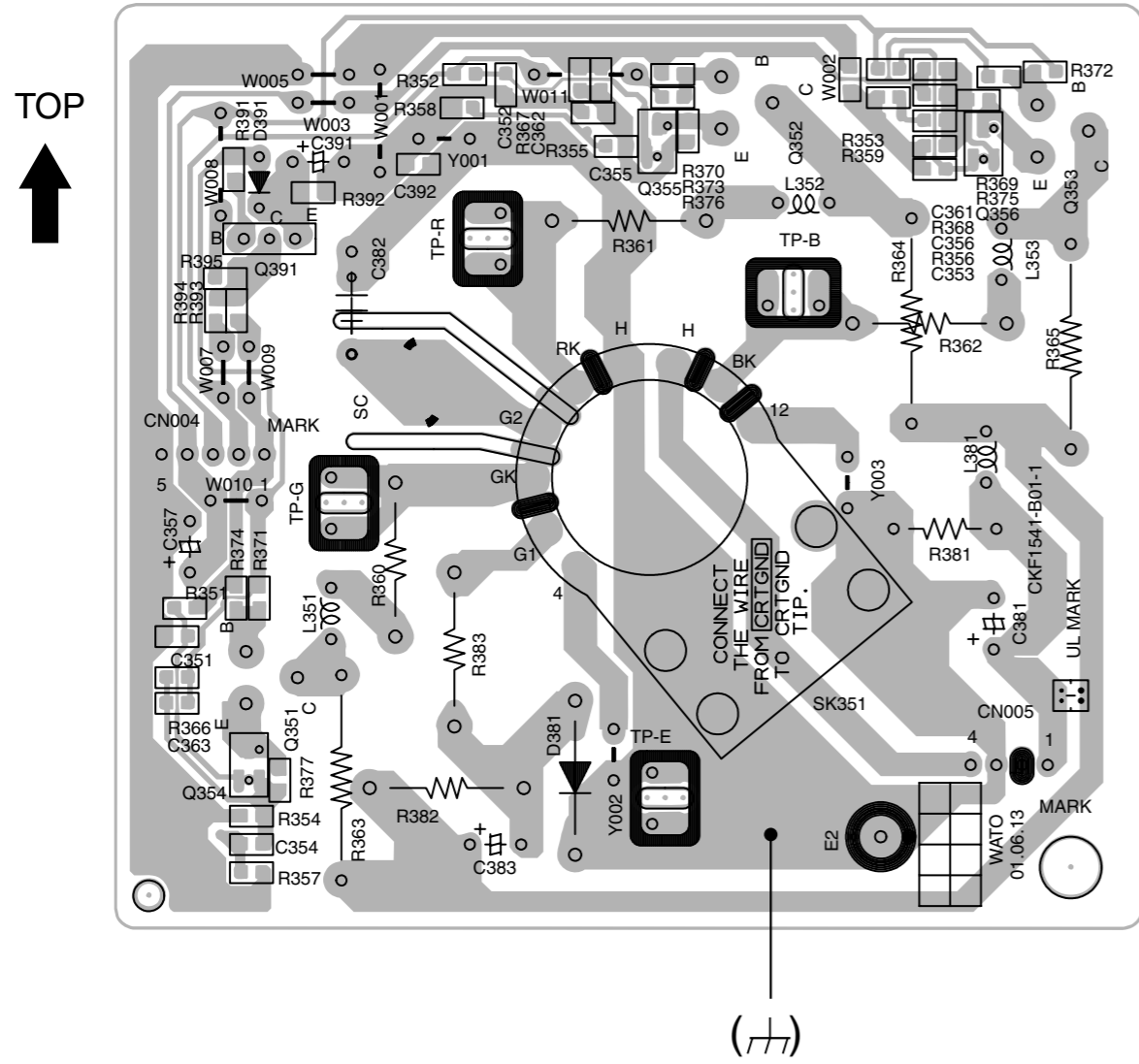
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2-19

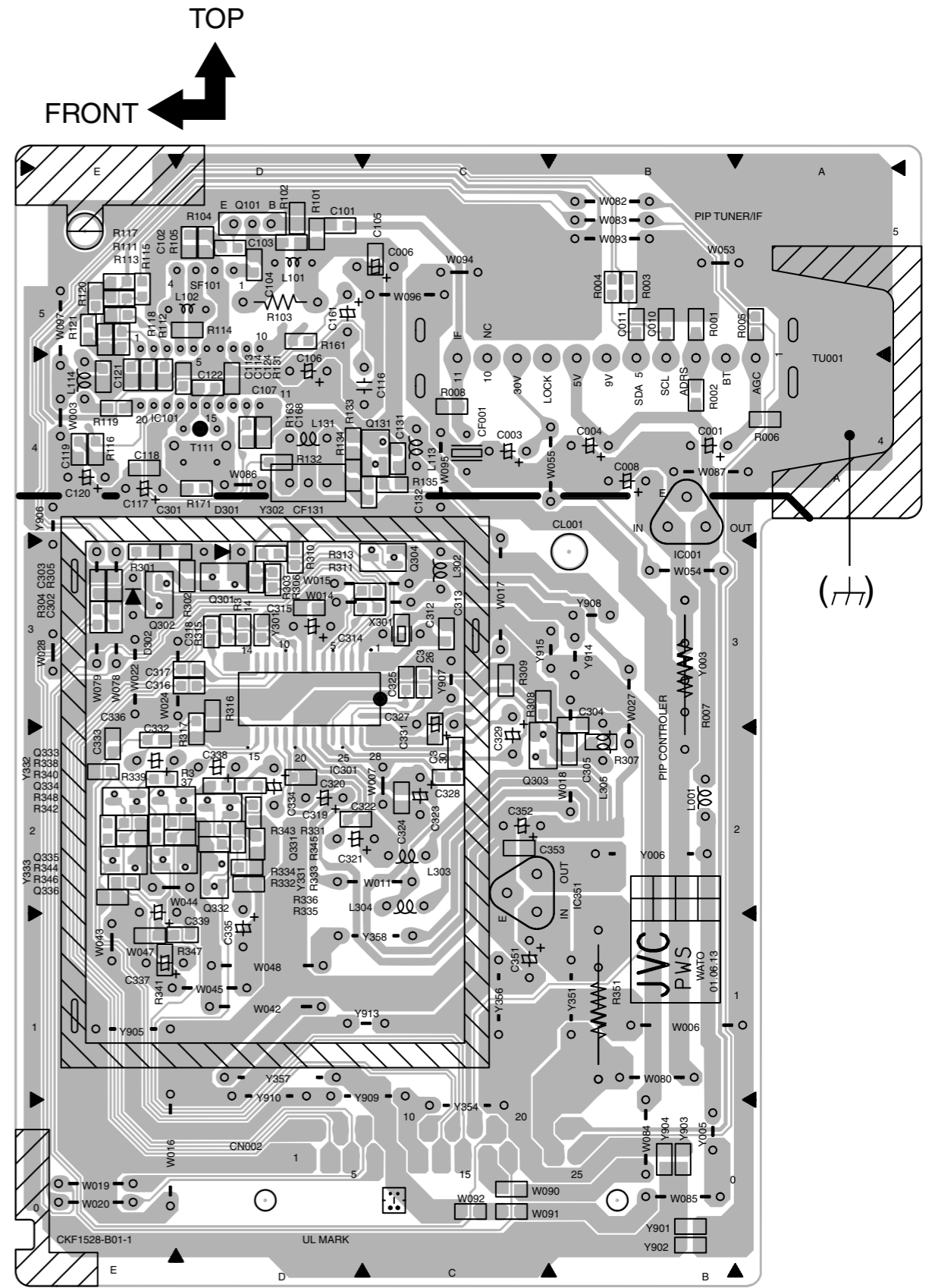
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CRT SOCKET PWB PATTERN

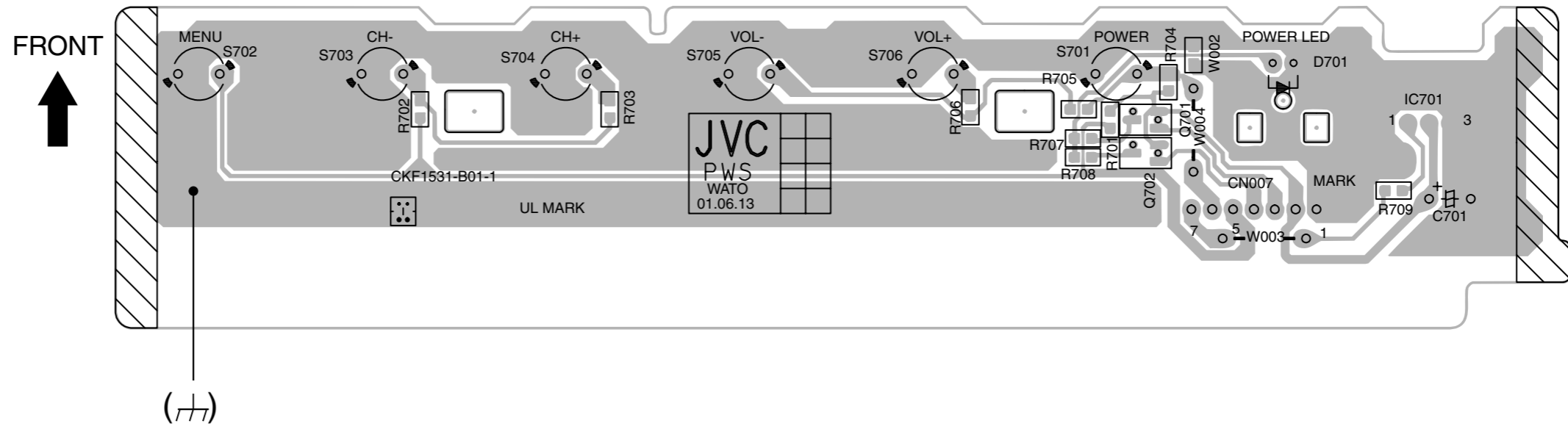


PIP PWB PATTERN [AV-32260]

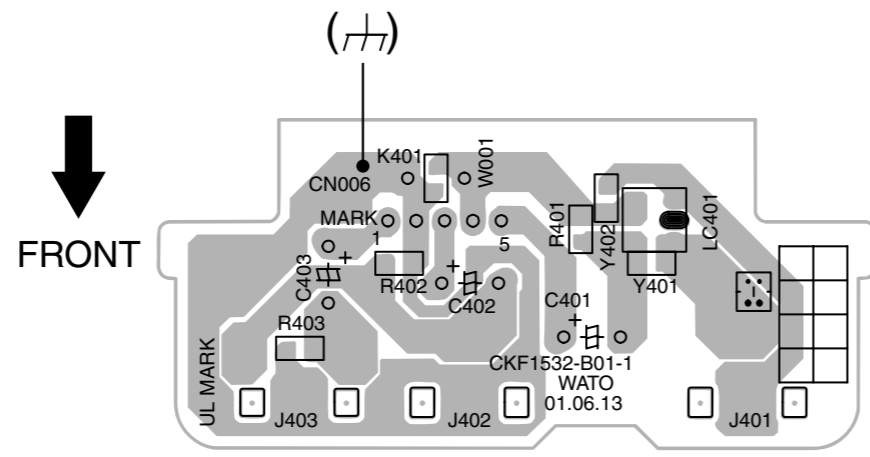


FRONT CONTROL AND FRONT AV INPUT PWB PATTERNS

- FRONT CONTROL -



- FRONT AV INPUT -



### CHANNEL CHART (US)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02	I	
			03		
			04		
			05		
			06		
			07		
		VH	08	II	
			09		
			10		
			11		
			12		
			13		
			×		○
B 15					
C 16					
D 17					
E 18					
F 19					
G 20					
H 21					
I 22					
SUPER	J 23	II			
	K 24				
	L 25				
	M 26				
	N 27				
	O 28				
	P 29				
	Q 30				
	R 31				
	S 32				
	T 33				
	U 34				
V 35					
W 36					
HYPER	W+1 37	IV			
	W+2 38				
	W+3 39				
	W+4 40				
	W+5 41				
	W+6 42				
	W+7 43				
	W+8 44				
	W+9 45				
	W+10 46				
	W+11 47				
	W+12 48				
	W+13 49				
	W+14 50				
	W+15 51				
	W+16 52				
	W+17 53				
	W+18 54				
W+19 55					
W+20 56					
W+21 57					
W+22 58					
W+23 59					
W+24 60					
W+25 61					
W+26 62					
W+27 63					
W+28 64					
ULTRA	W+29 65				
	W+30 66				
	W+31 67				
	W+32 68				
	W+33 69				
	W+34 70				

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35 71	IV	
			W+36 72		
			W+37 73		
			W+38 74		
			W+39 75		
			W+40 76		
			W+41 77		
			W+42 78		
			W+43 79		
			W+44 80		
			W+45 81		
			W+46 82		
			W+47 83		
			W+48 84		
			W+49 85		
			W+50 86		
			W+51 87		
			W+52 88		
			W+53 89		
			W+54 90		
			W+55 91		
			W+56 92		
			W+57 93		
			W+58 94		
			W+59 100		
			W+60 101		
			W+61 102		
			W+62 103		
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			W+64 105		
			W+65 106		
			W+66 107		
			W+67 108		
			W+68 109		
			W+69 110		
			W+70 111		
W+71 112					
W+72 113					
W+73 114					
W+74 115					
W+75 116					
W+76 117					
W+77 118					
W+78 119					
W+79 120					
W+80 121					
W+81 122					
W+82 123					
W+83 124					
W+84 125					
○	×	SUB MID	A-8 01	I	
			A-4 96		
			A-3 97		
			A-2 98		
			A-1 99		
○	×	UHF	14 } 69	IV	
TOTAL 180CH { VHF 124CH { UHF 56CH					
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.					



# CHANNEL CHART (CA)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02	I	
			03		
			04		
			05		
			06		
			07		
		VH	08		
			09		
			10		
			11		
			12		
			13		
			×	○	MID
B 15					
C 16					
D 17					
E 18					
F 19					
G 20					
H 21					
I 22					
SUPER	J 23				
	K 24				
	L 25				
	M 26				
	N 27				
HYPER	O 28	III			
	P 29				
	Q 30				
	R 31				
	S 32				
	T 33				
	U 34				
	V 35				
	W 36				
	W+1 37				
W+2 38					
W+3 39					
W+4 40					
W+5 41					
W+6 42					
W+7 43					
W+8 44					
W+9 45					
W+10 46					
W+11 47					
W+12 48					
W+13 49					
W+14 50					
W+15 51					
W+16 52					
W+17 53					
W+18 54					
W+19 55					
W+20 56					
W+21 57					
W+22 58					
W+23 59					
W+24 60					
W+25 61					
W+26 62					
W+27 63					
W+28 64					
ULTRA	W+29 65	IV			
	W+30 66				
	W+31 67				
	W+32 68				
	W+33 69				
	W+34 70				

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
×	○	ULTRA	W+35 71	IV	
			W+36 72		
			W+37 73		
			W+38 74		
			W+39 75		
			W+40 76		
			W+41 77		
			W+42 78		
			W+43 79		
			W+44 80		
			W+45 81		
			W+46 82		
			W+47 83		
			W+48 84		
			W+49 85		
			W+50 86		
			W+51 87		
			W+52 88		
			W+53 89		
			W+54 90		
			W+55 91		
			W+56 92		
			W+57 93		
			W+58 94		
			W+59 100		
			W+60 101		
			W+61 102		
			W+62 103		
			W+63 104		
			W+64 105		
			W+65 106		
			W+66 107		
			W+67 108		
			W+68 109		
			W+69 110		
			W+70 111		
W+71 112					
W+72 113					
W+73 114					
W+74 115					
W+75 116					
W+76 117					
W+77 118					
W+78 119					
W+79 120					
W+80 121					
W+81 122					
W+82 123					
W+83 124					
W+84 125					
○	×	SUB MID	A-8 01	I	
			A-4 96		
			A-3 97		
			A-2 98		
○	×	UHF	14	IV	
			69		
TOTAL 180CH { VHF 124CH { UHF 56CH					
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.					

# JVC SERVICE & ENGINEERING COMPANY OF AMERICA

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# JVC®

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AV32230AM-UCM #4	AV32260AM-UCM #4
AV32230AR-UCM #4	AV32260AR-UCM #4



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