

# JVC

## SCHEMATIC DIAGRAMS

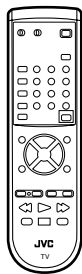
### COLOR TELEVISION

BASIC CHASSIS

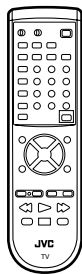
GC

<b>AV-36D202</b> /AH	<b>AV-36D302</b> /AH	<b>AV-36D502</b> /AH
<b>AV-36D202</b> /AM	<b>AV-36D302</b> /AM	<b>AV-36D502</b> /AM
<b>AV-36D202</b> /AR	<b>AV-36D302</b> /AR	<b>AV-36D502</b> /AR
<b>AV-36D202</b> /AY	<b>AV-36D302</b> /AY	<b>AV-36D502</b> /AY

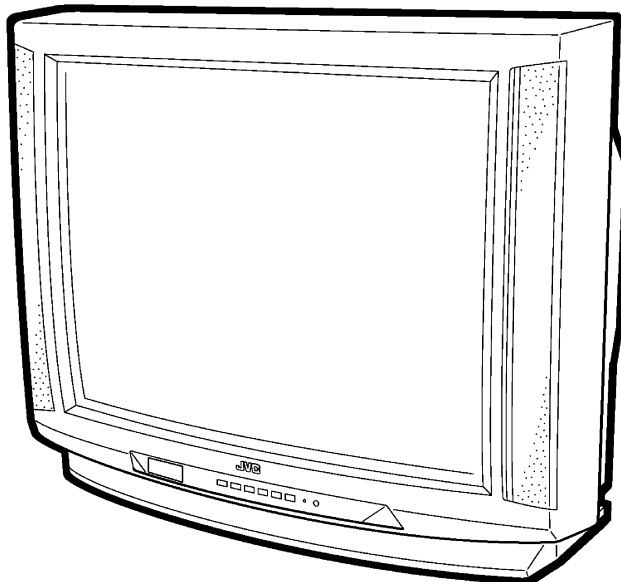
CD-ROM No. SML200201



RM-C303G  
[AV-36D202]  
[AV-36D302]



RM-C301G  
[AV-36D502]



# AV-36D202 /AH AV-36D302 /AH AV-36D502 /AH AV-36D202 /AM AV-36D302 /AM AV-36D502 /AM AV-36D202 /AR AV-36D302 /AR AV-36D502 /AR AV-36D202 /AY AV-36D302 /AY AV-36D502 /AY

## 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



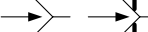
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

\* 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
- $\text{---}\text{---}$  : 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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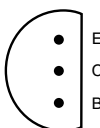

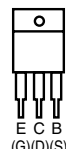

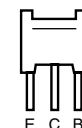
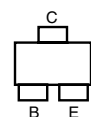
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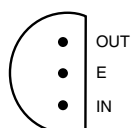
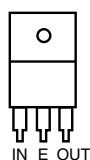
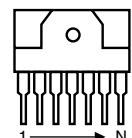
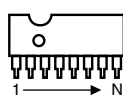
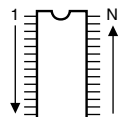
**CHANNEL CHART (CA)** ..... 2-26

## SEMICONDUCTOR SHAPES

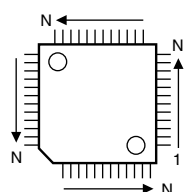
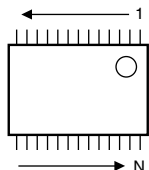
### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

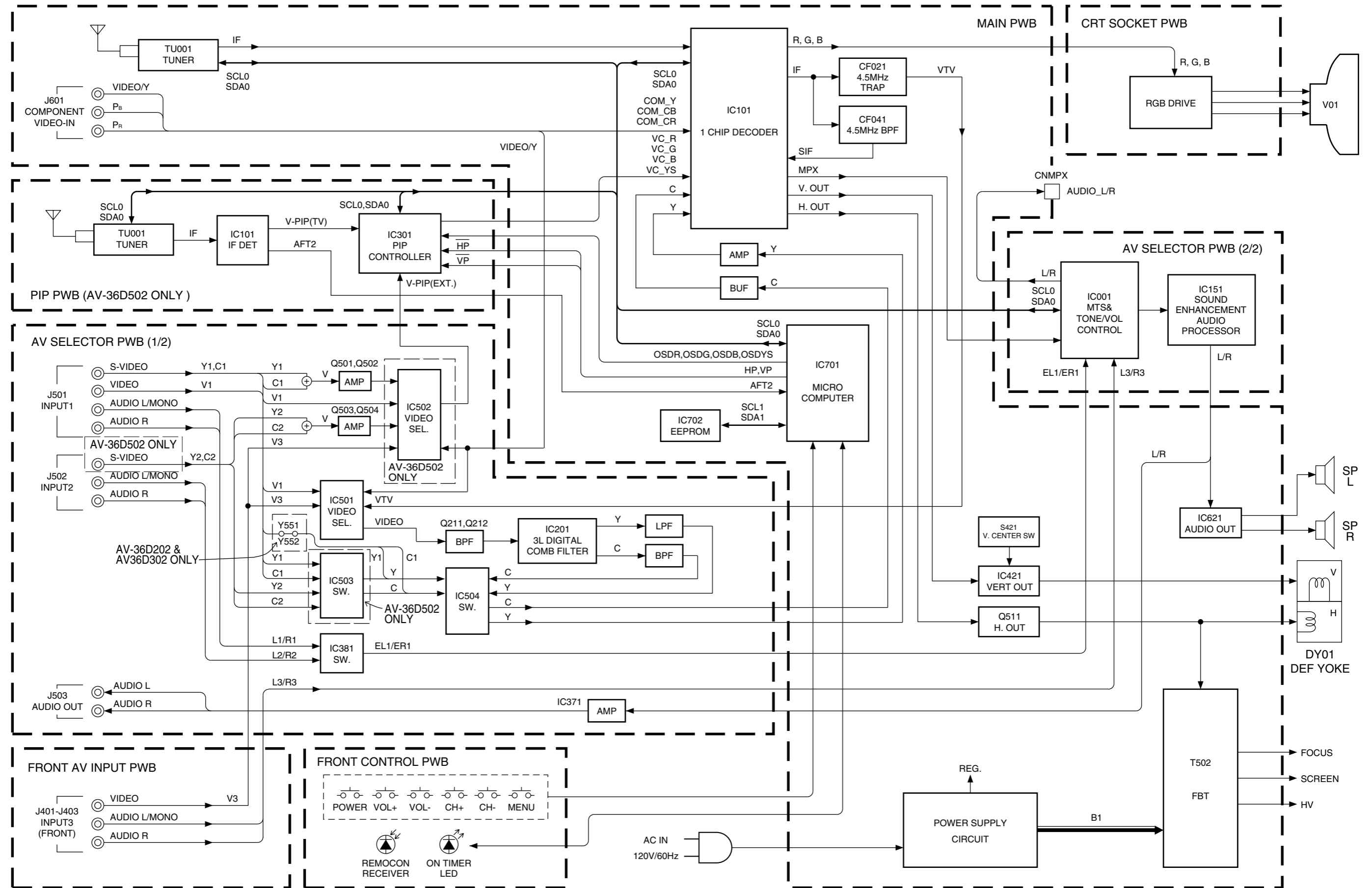
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

### CHIP IC

TOP VIEW	
	

# BLOCK DIAGRAM



# CIRCUIT DIAGRAMS

## MAIN PWB CIRCUIT DIAGRAM (1/3)

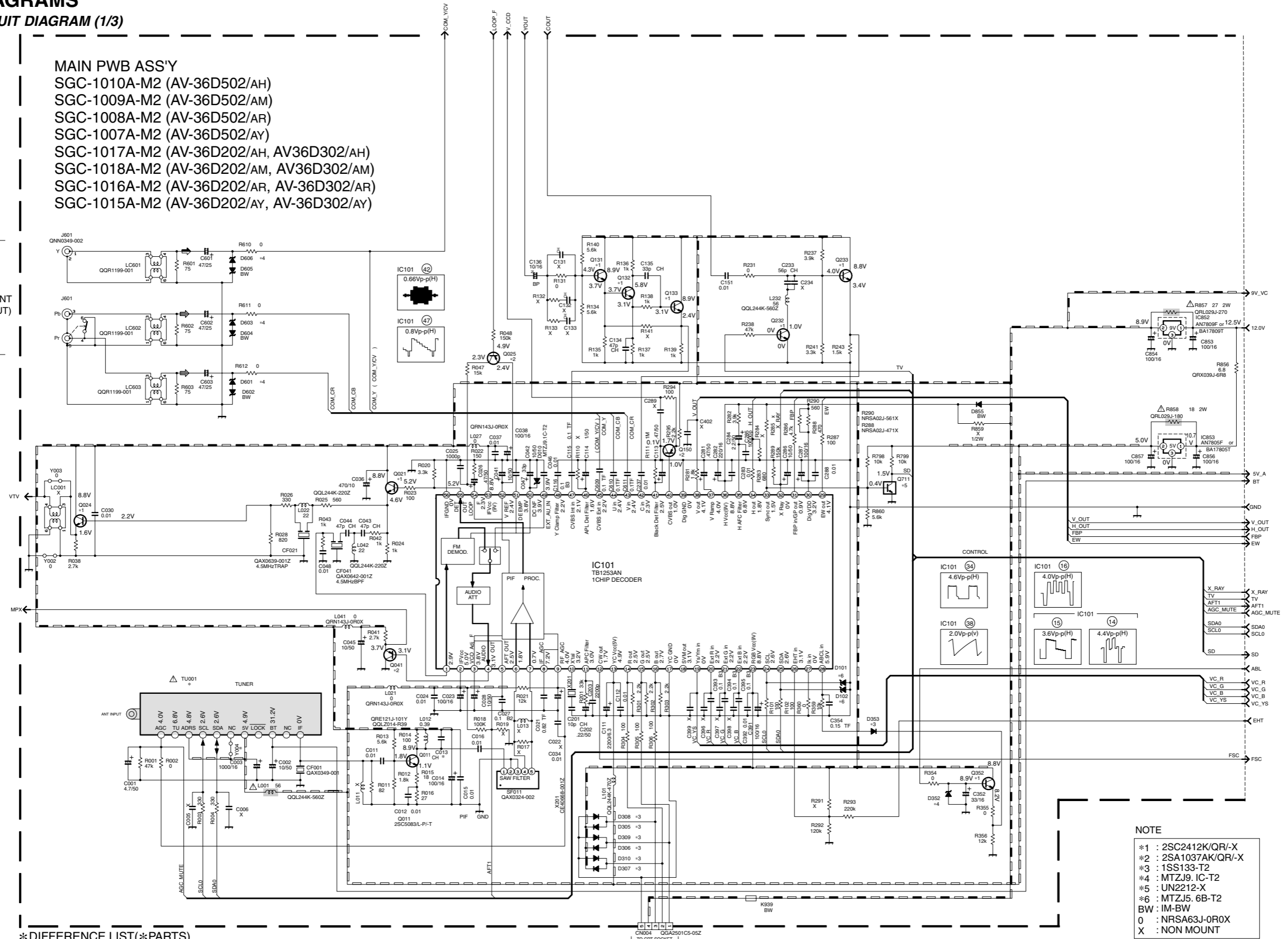
AV-36D202  
AV-36D302  
AV-36D502

AV-36D202  
AV-36D302  
AV-36D502

### MAIN PWB ASS'Y

- SGC-1010A-M2 (AV-36D502/AH)
- SGC-1009A-M2 (AV-36D502/AM)
- SGC-1008A-M2 (AV-36D502/AR)
- SGC-1007A-M2 (AV-36D502/AY)
- SGC-1017A-M2 (AV-36D202/AH, AV36D302/AH)
- SGC-1018A-M2 (AV-36D202/AM, AV36D302/AM)
- SGC-1016A-M2 (AV-36D202/AR, AV-36D302/AR)
- SGC-1015A-M2 (AV-36D202/AY, AV-36D302/AY)

INPUT-2  
(COMPONENT  
VIDEO INPUT)



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

	SGC-1007A-M2	SGC-1008A-M2	SGC-1009A-M2	SGC-1010A-M2	SGC-1015A-M2	SGC-1016A-M2	SGC-1017A-M2	SGC-1018A-M2
C013	150p	150p	150p	150p	X	X	X	X
Y004	0	0	0	0	X	X	X	X
△TU001	QAU247-1	QAU247-1	QAU247-1	QAU247-1	QAU176-1	QAU176-1	QAU176-1	QAU176-1

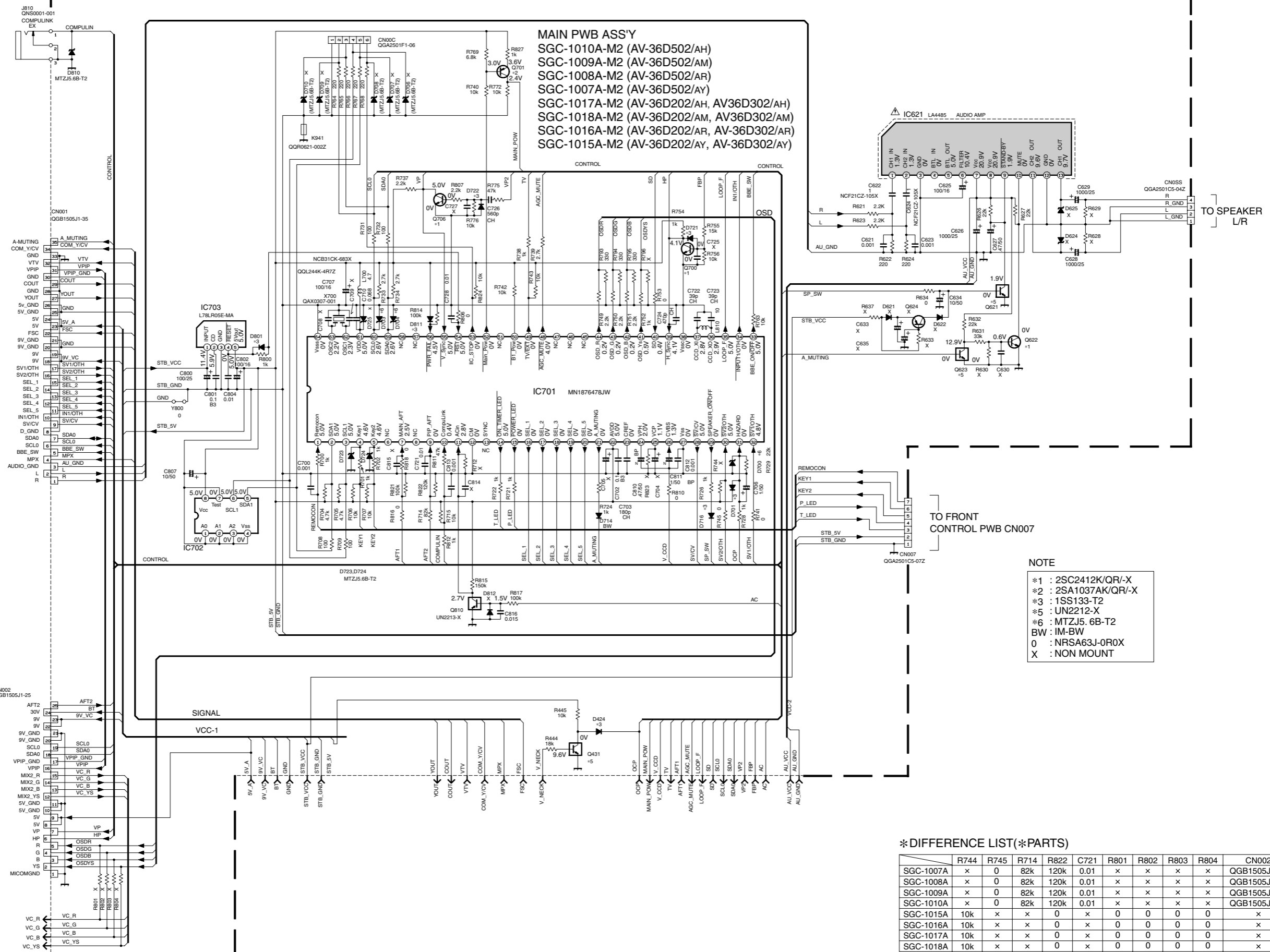
### NOTE

- \*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

MAIN PWB CIRCUIT DIAGRAM (2/3)

AV-36D202  
AV-36D302  
AV-36D502

AV-36D202  
AV-36D302  
AV-36D502



**NOTE**

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

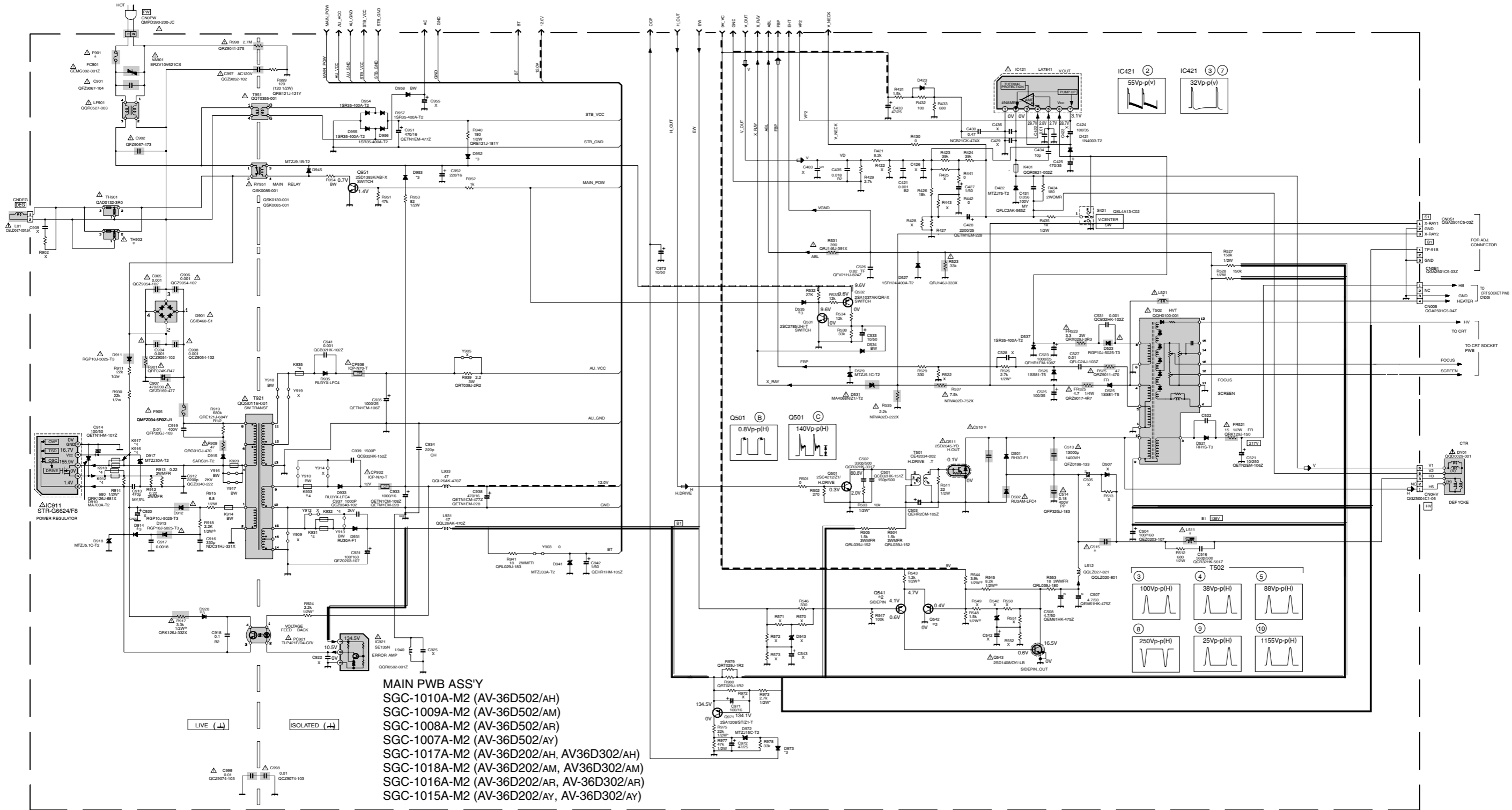
**\*DIFFERENCE LIST(\*PARTS)**

	R744	R745	R714	R822	C721	R801	R802	R803	R804	CN002
SGC-1007A	x	0	82k	120k	0.01	x	x	x	x	QGB1505J1-25
SGC-1008A	x	0	82k	120k	0.01	x	x	x	x	QGB1505J1-25
SGC-1009A	x	0	82k	120k	0.01	x	x	x	x	QGB1505J1-25
SGC-1010A	x	0	82k	120k	0.01	x	x	x	x	QGB1505J1-25
SGC-1015A	10k	x	x	0	x	0	0	0	0	x
SGC-1016A	10k	x	x	0	x	0	0	0	0	x
SGC-1017A	10k	x	x	0	x	0	0	0	0	x
SGC-1018A	10k	x	x	0	x	0	0	0	0	x

MAIN PWB CIRCUIT DIAGRAM (3/3)

AV-36D202  
AV-36D302  
AV-36D502

AV-36D202  
AV-36D302  
AV-36D502



MAIN PWB ASS'Y  
 SGC-1010A-M2 (AV-36D502/AH)  
 SGC-1009A-M2 (AV-36D502/AM)  
 SGC-1008A-M2 (AV-36D502/AR)  
 SGC-1007A-M2 (AV-36D502/AY)  
 SGC-1017A-M2 (AV-36D202/AH, AV36D302/AH)  
 SGC-1018A-M2 (AV-36D202/AM, AV36D302/AM)  
 SGC-1016A-M2 (AV-36D202/AR, AV-36D302/AR)  
 SGC-1015A-M2 (AV-36D202/AY, AV-36D302/AY)

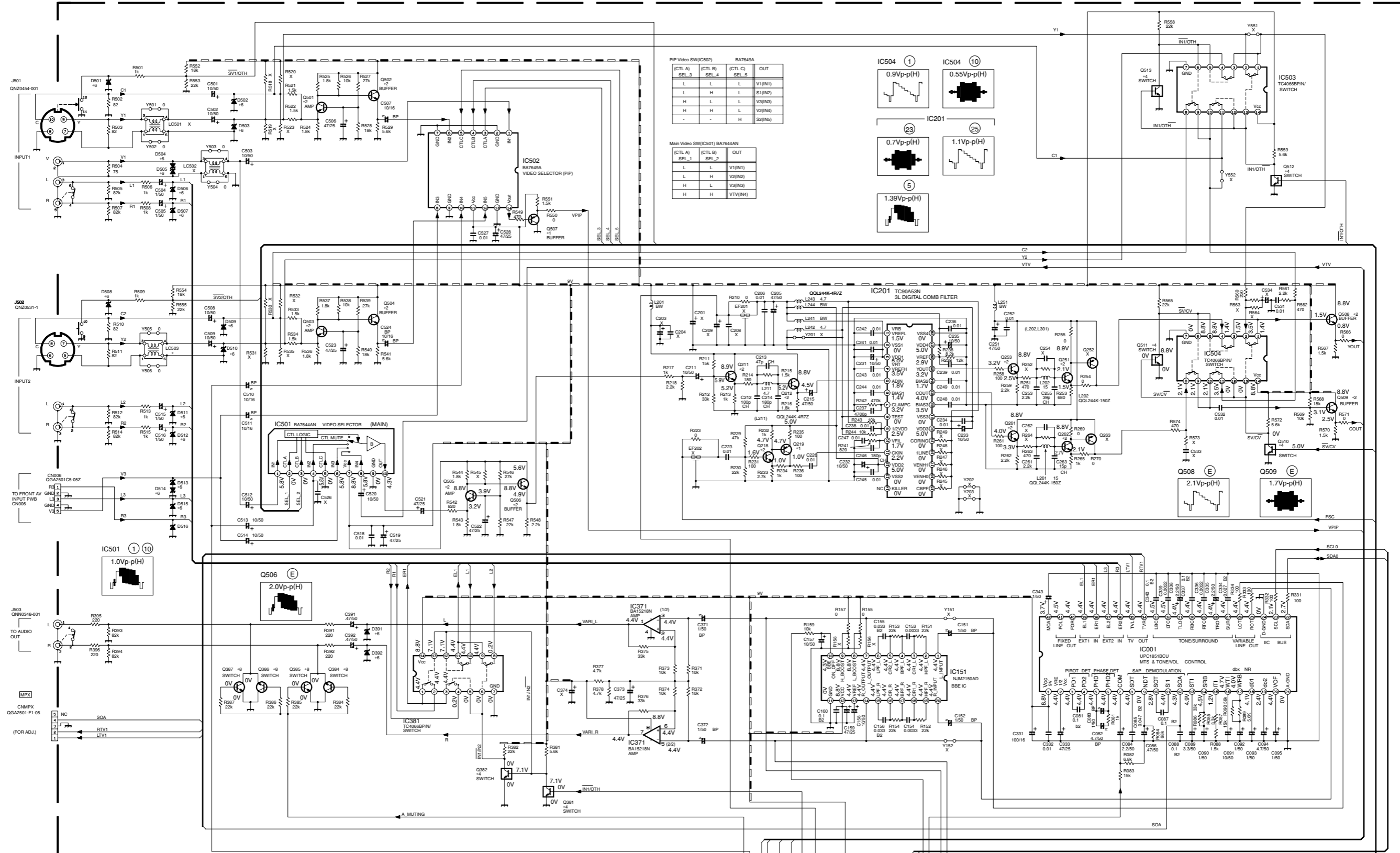
\* DIFFERENCE LIST (\*PARTS)

	SGC-1007A	SGC-1015A	SGC-1008A	SGC-1016A	SGC-1010A	SGC-1017A	SGC-1009A	SGC-1018A
△L521	QQLZ018-600	QQLZ018-600	QQLZ018-560	QQLZ018-560	QQLZ018-560	QQLZ018-560	QQLZ026-540	QQLZ026-540
△L511	CE41029-00A	CE41029-00A	QQR1027-3	QQR1027-3	QQR1027-3	QQR1027-3	CE41029-00A	CE41029-00A
△C510	QFZ0196-532	QFZ0196-532	QFZ0196-532	QFZ0196-532	QFZ0196-532	QFZ0196-532	QFZ0196-582	QFZ0196-582
△C515	QFZ0197-564	QFZ0197-564	QFZ0197-624	QFZ0197-624	QFZ0197-564	QFZ0197-564	QFZ0197-654	QFZ0197-654
△TH902	X	X	X	X	X	X	QAD0132-3R0	QAD0132-3R0
R504	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-821	QRL039J-821
R505	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-102	QRL039J-821	QRL039J-821
R427	QRT029J-1R5	QRT029J-1R5	QRT029J-1R5	QRT029J-1R5	QRT029J-1R0	QRT029J-1R0	QRT029J-1R0	QRT029J-1R0
△F901	QMF51U1-5R0-J8	QMF51U1-5R0-J8	QMF51U1-5R0-J8	QMF51U1-5R0-J8	QMF51U1-5R0-J8	QMF51U1-5R0-J8	QMF51N1-5R0-J5	QMF51N1-5R0-J5

NOTE

BW : IM-BW  
 0 : NRS63J-0R0X  
 X : NON MOUNT  
 \*2 : 2SA1037AK/QR-X  
 \*3 : 1SS133-T2  
 \*4 : QQR0582-001Z

AV SELECTOR CIRCUIT DIAGRAM



AV SELECTOR PWB ASS'Y  
SGC0S001A-M2 (AV-36D502) SGC05002A-M2 (AV-36D202, AV-36D302)

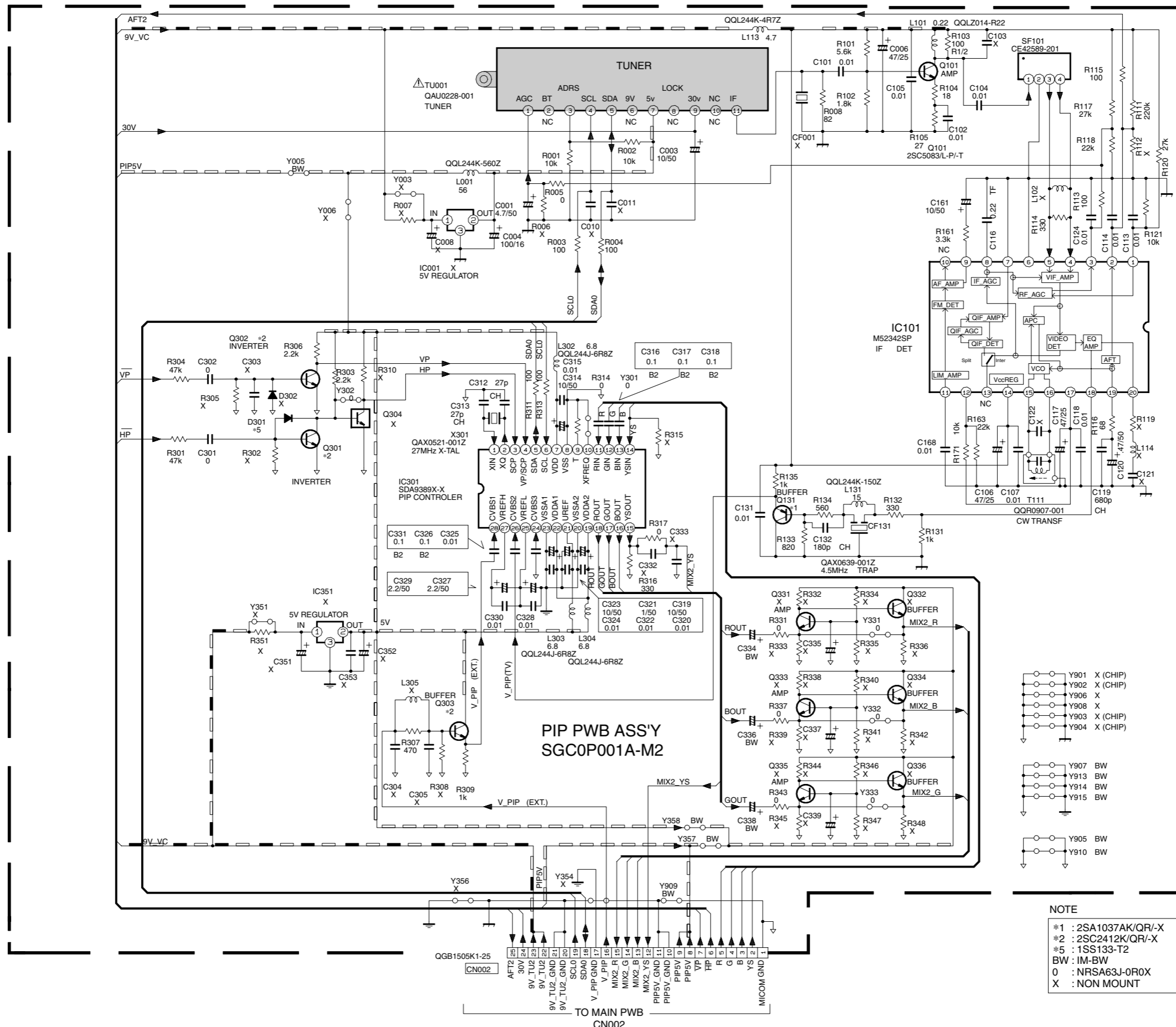
\*DIFFERENCE LIST(\*PARTS)

IC502	C527	C238	R548	Q507	R550	R551	C510	C511	R518	R519	R520	R521	R522	R523	R524	R525	R526	R527	R528		
SGC0S001A	BA7648A	0.01	470	41	0	1.5k	10116	10116	15k	10k	10k	10k	10k	10k	10k	10k	10k	22k	18k	18k	
SGC0S002A																					
R529	Q501	C503	C506	C507	502	R509	R510	R511	R504	R505	R533	R534	R536	R537	R538	R539	R540	R541			
5.6k	F2	F2	10150	4725	10116	1k	82	82	18k	22k	1.5k	1.5k	1.8k	10k	27k	18k	5.6k	5.6k			
SGC0S001A																					
SGC0S002A																					
D508	Y505	Y506	C508	C509	D509	D510	C523	C524	Q503	Q504	IC503	Q512	Q513	R558	R559	Y551	Y552				
1k	0	0	10150	10150	-6	-6	4725	10116	-2	-2	TC4068BP/N	4k	4k	22k	5.6k						
SGC0S001A																					
SGC0S002A																					

NOTE  
 #1 : 2SA1037AK/QR-X  
 #2 : 2SC2412K/QR-X  
 #4 : UN2412-X  
 #4 : UN2412-X  
 #8 : MTZ19 IC-T2  
 #8 : DTC323TK-X  
 BW : IM-BW  
 0 : NRS63J-0R0X  
 X : NON MOUNT



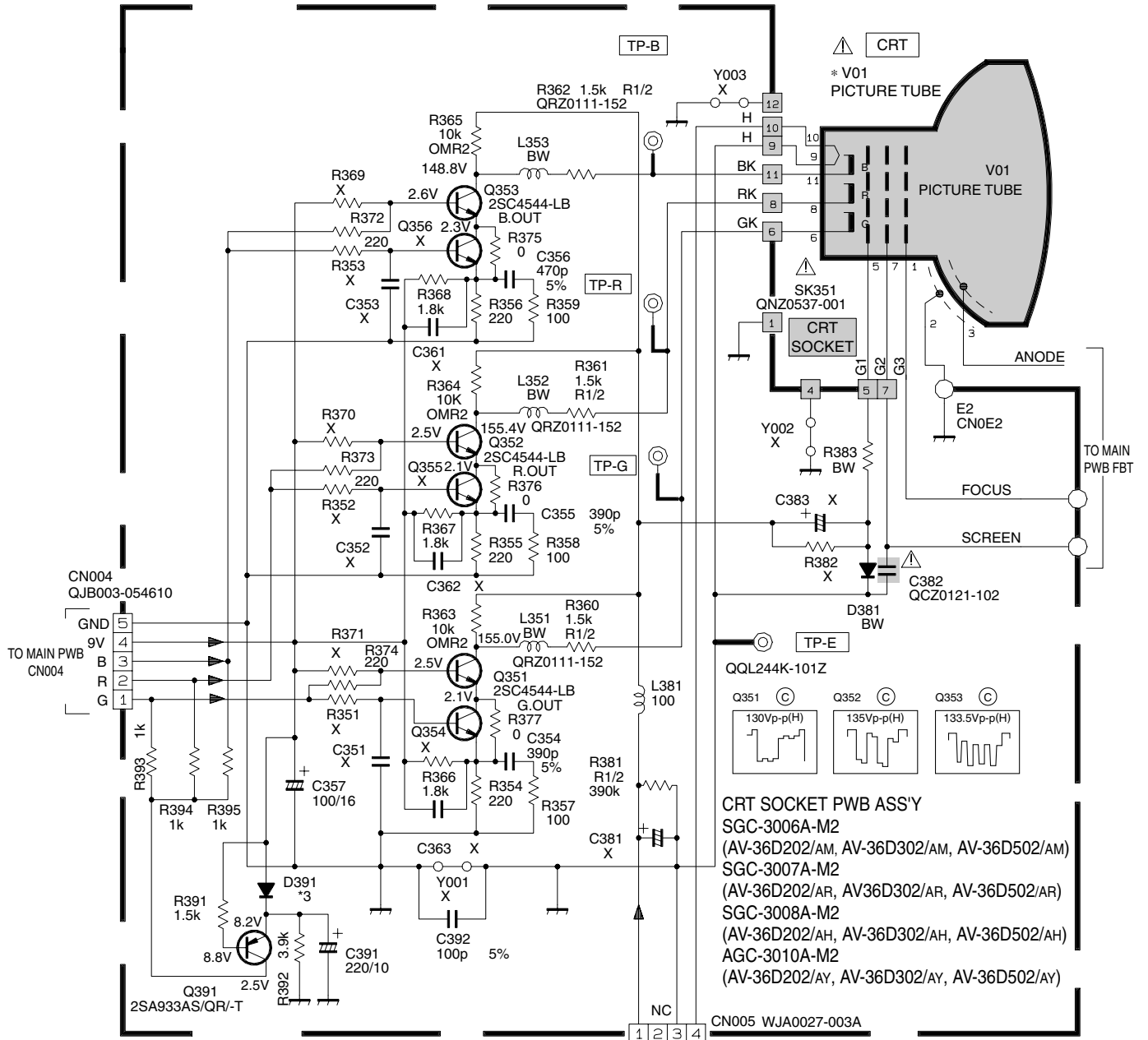
PIP PWB CIRCUIT DIAGRAM [AV-36D502]



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)**

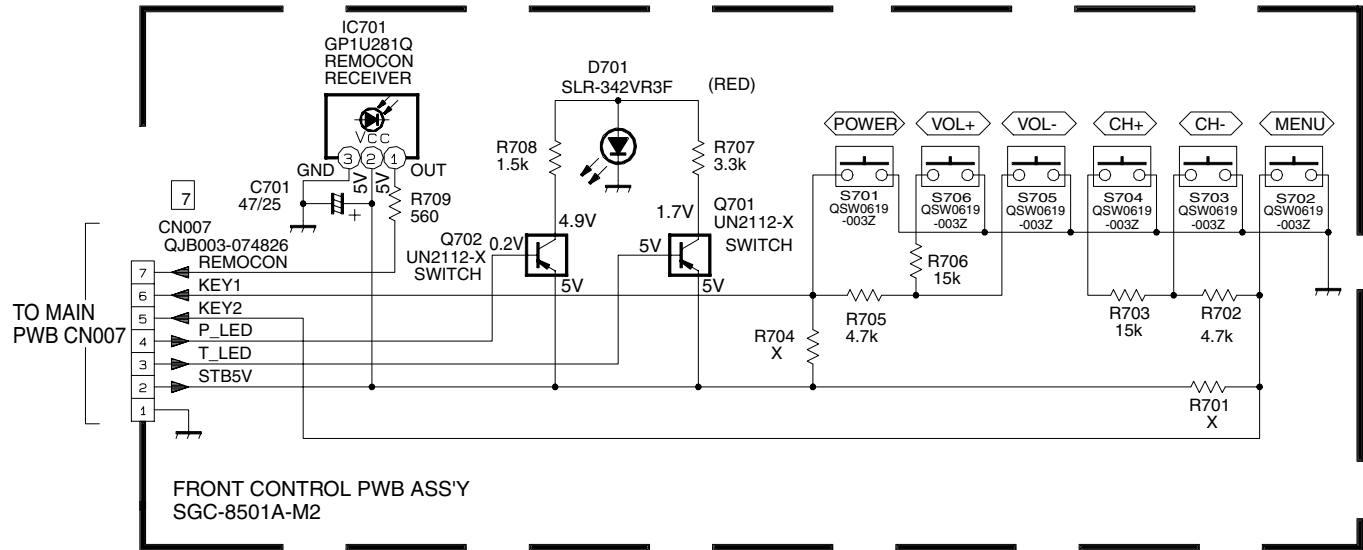
	SGC-3006A	SGC-3007A	SGC-3008A	SGC-3010A
△V01	A90LLD361X15	A90AEJ15X01	A90LPY30X04	A90AHH50X10V/
Y002	X	X	X	BW

**NOTE**

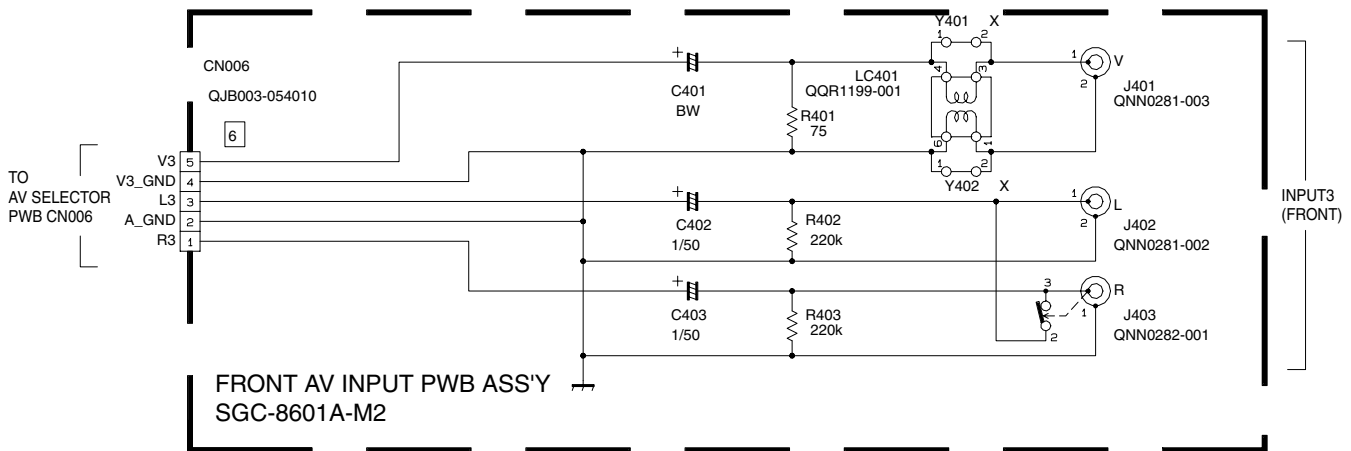
\*3 : 1SS133-T2  
BW : IM-BW  
X : NON MOUNT

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

- FRONT CONTROL -



- FRONT AV INPUT -



NOTE

X : NON MOUNT

**PATTERN DIAGRAMS**  
**MAIN PWB PATTERN**

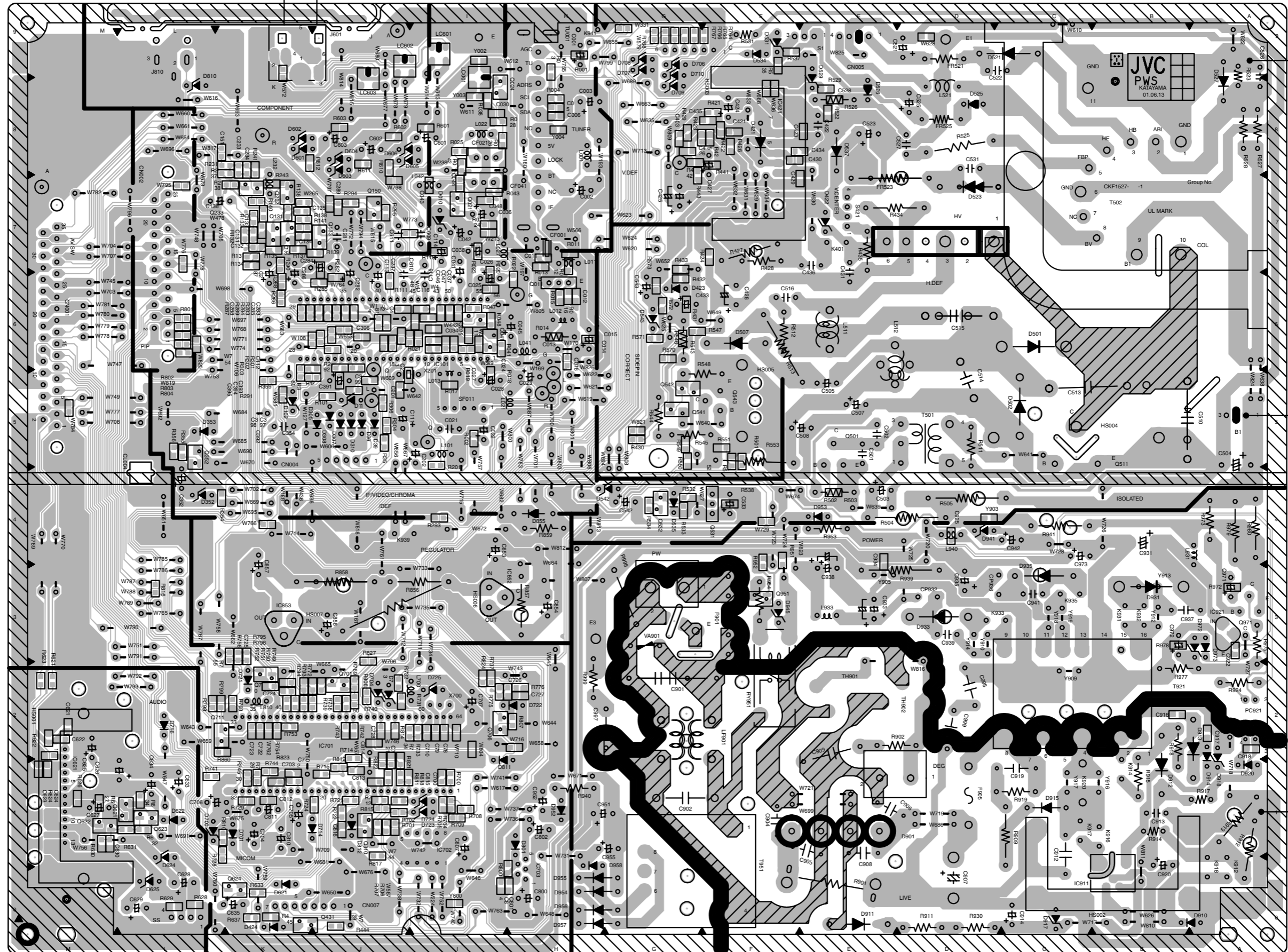
AV-36D202  
 AV-36D302  
 AV-36D502

AV-36D202  
 AV-36D302  
 AV-36D502



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



(+) TP-E

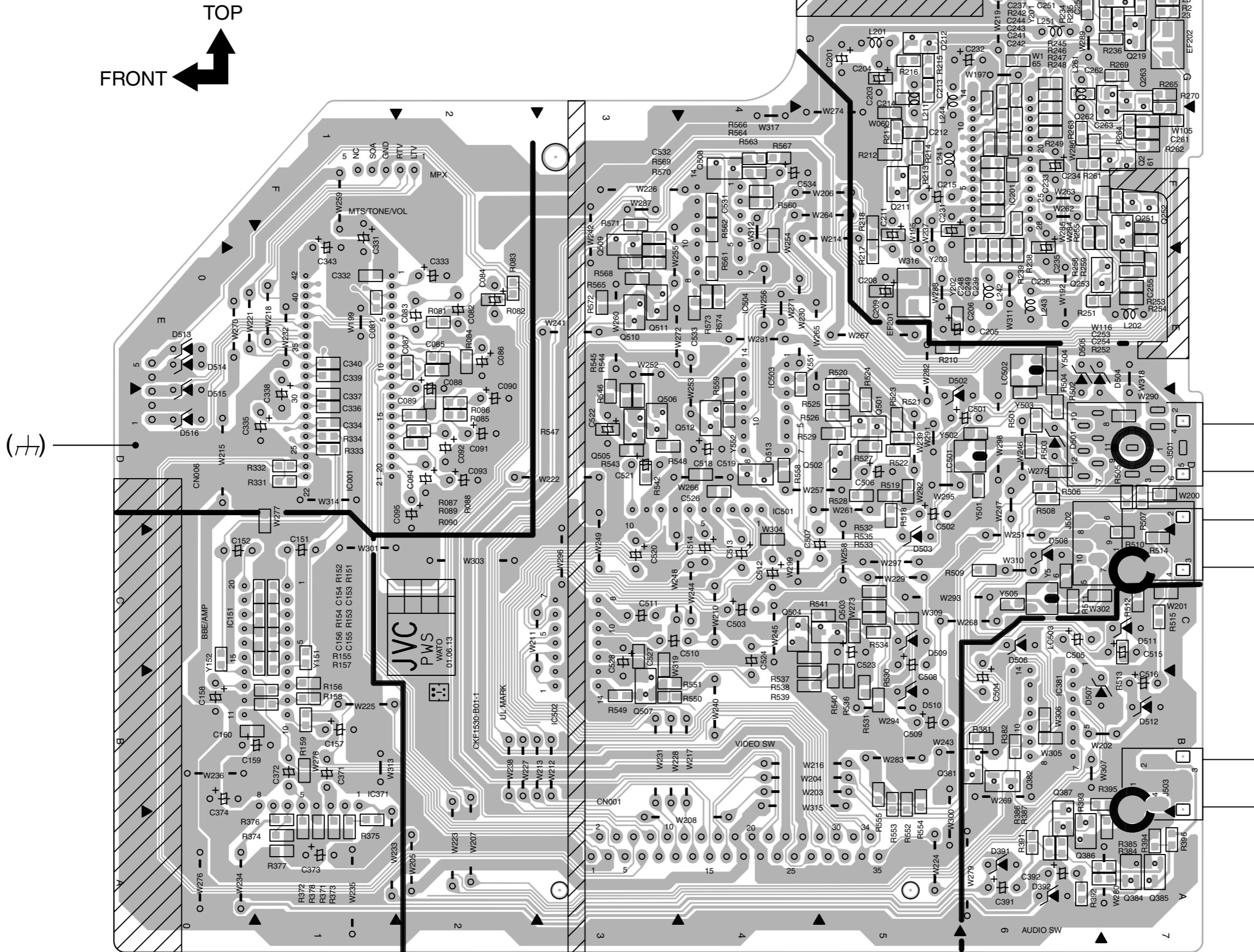
TP-91B(B1)

(-)

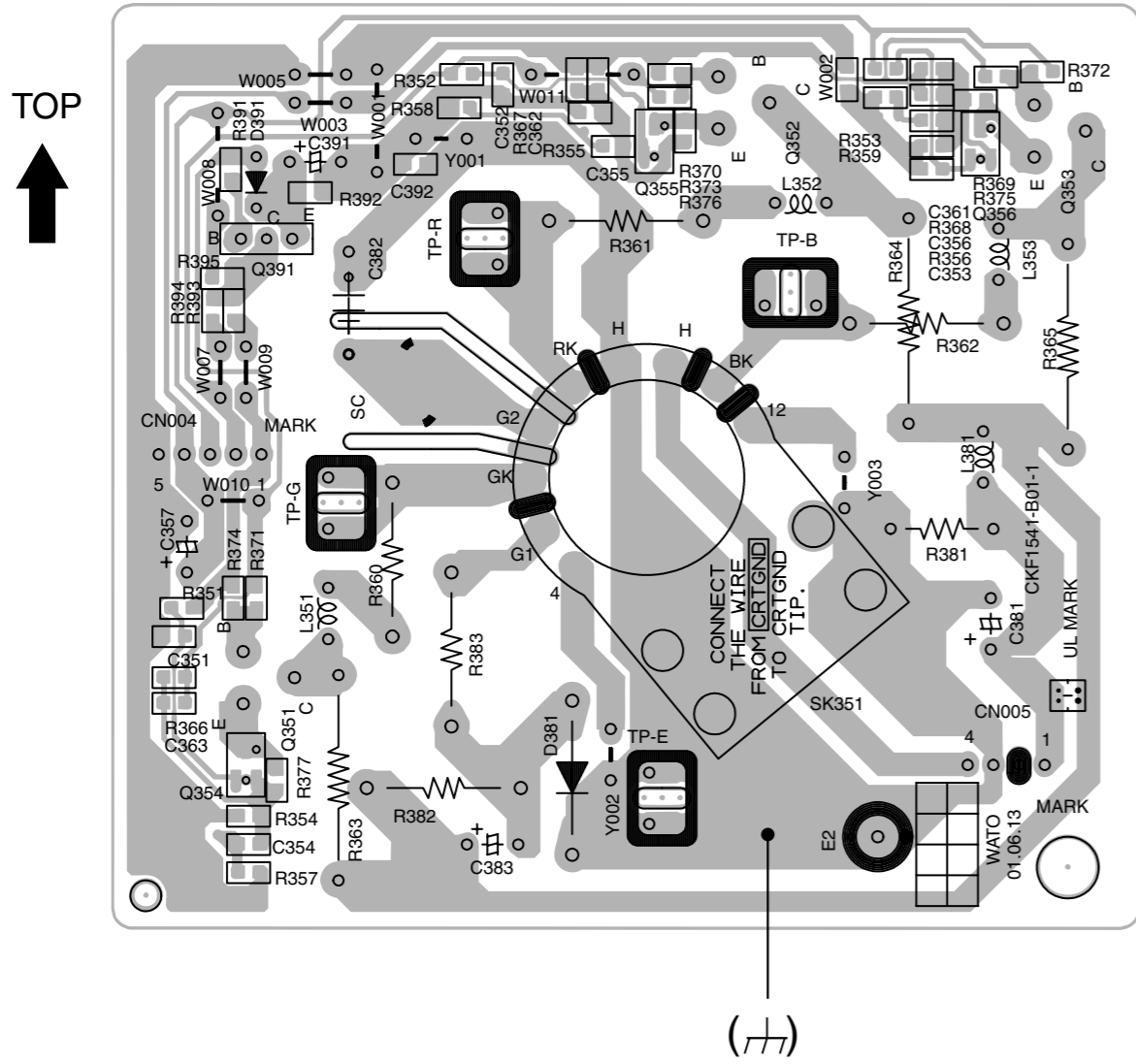
AV SELECTOR PWB PATTERN

AV-36D202  
AV-36D302  
AV-36D502

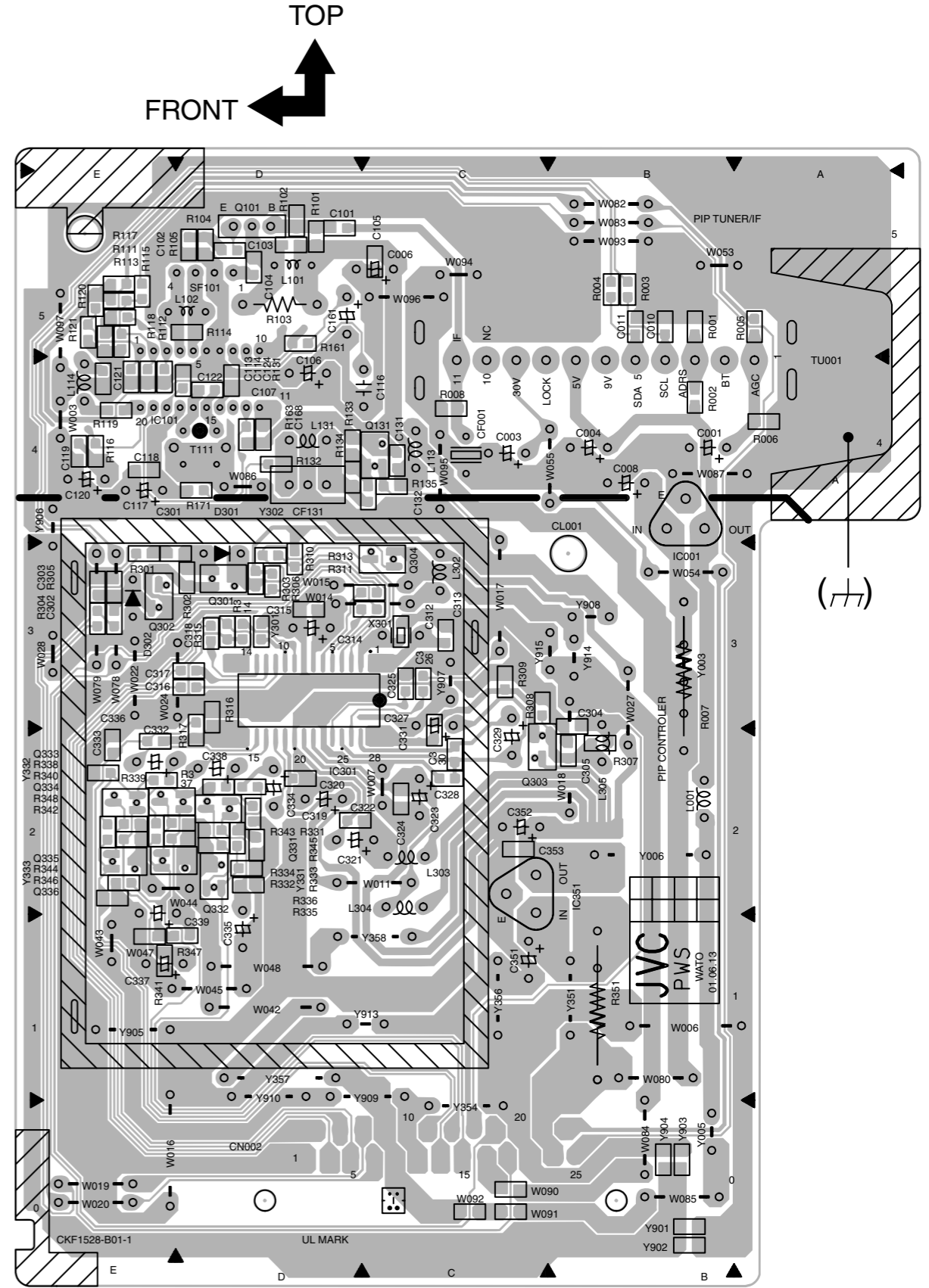
AV-36D202  
AV-36D302  
AV-36D502



**CRT SOCKET PWB PATTERN**



**PIP PWB PATTERN [AV-36D502]**

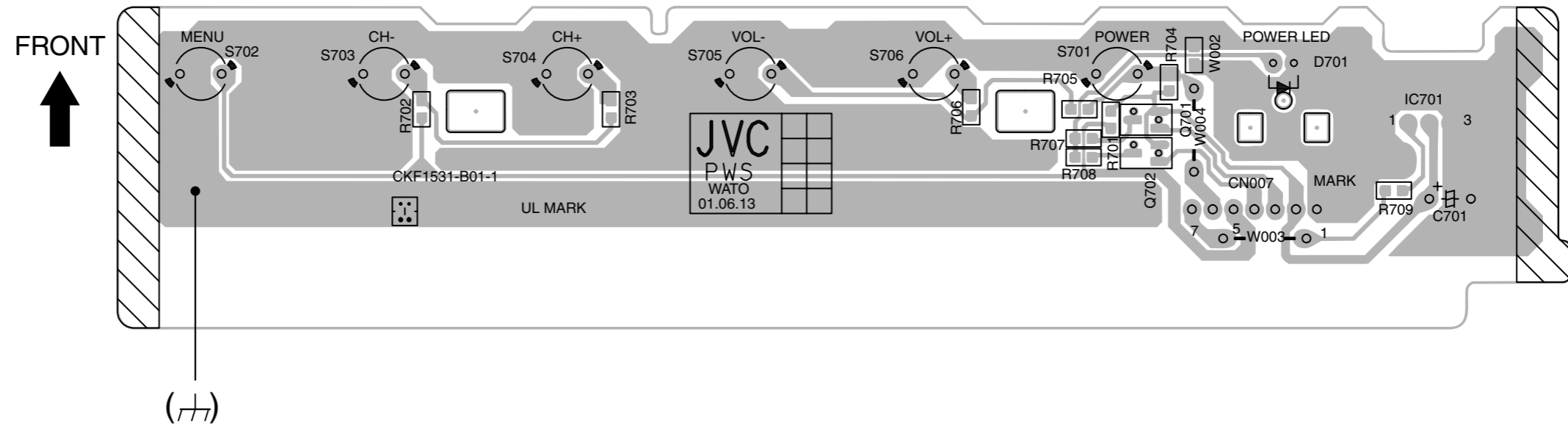


FRONT CONTROL AND FRONT AV INPUT PWB PATTERNS

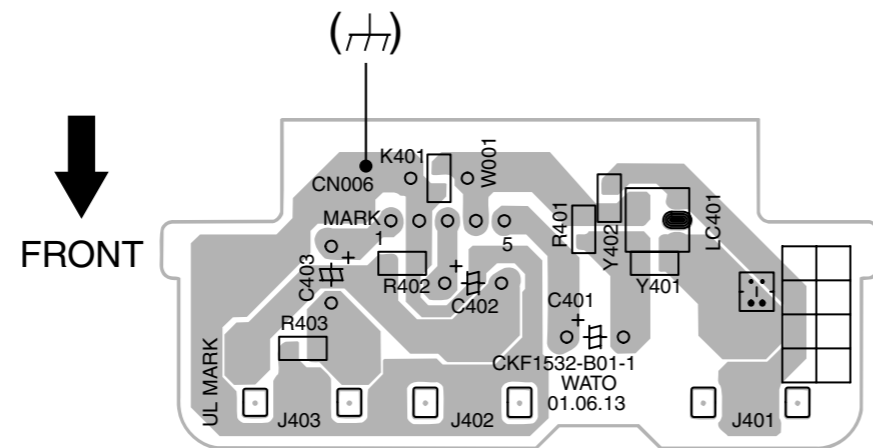
AV-36D202  
AV-36D302  
AV-36D502

AV-36D202  
AV-36D302  
AV-36D502

- 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			
			×		○	MID
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		
			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				
	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	III			
	K 24				
	L 25				
	M 26				
	N 27				
HYPER	O 28	IV			
	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					
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