

JVC

SCHEMATIC DIAGRAMS

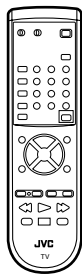
COLOR TELEVISION

BASIC CHASSIS

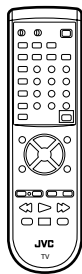
GC

AV-32D202 /AG	AV-32D302 /AG	AV-32D502 /AG
AV-32D202 /AH	AV-32D302 /AH	AV-32D502 /AH
AV-32D202 /AM	AV-32D302 /AM	AV-32D502 /AM
AV-32D202 /AR	AV-32D302 /AR	AV-32D502 /AR

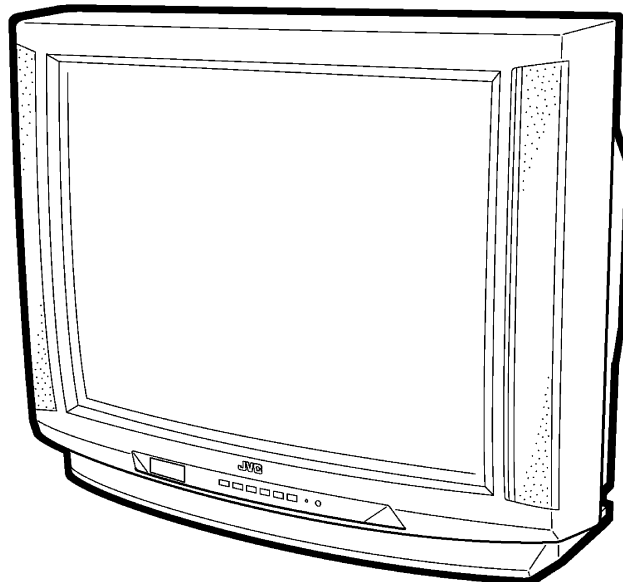
CD-ROM No. SML200201



RM-C303G
[AV-32D202]
[AV-32D302]



RM-C301G
[AV-32D502]



AV-32D202 /AG AV-32D302 /AG AV-32D502 /AG AV-32D202 /AH AV-32D302 /AH AV-32D502 /AH AV-32D202 /AM AV-32D302 /AM AV-32D502 /AM AV-32D202 /AR AV-32D302 /AR AV-32D502 /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 Ω /V
- (4) Oscilloscope sweeping time : H \Rightarrow 20 μ 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 : [Ω]
- k : [k Ω]
- M : [M Ω]

• 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 : [μ 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 [μ 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 : [μ H]
- Others : As specified

(4) Power Supply



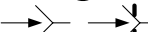
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

* 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

-  : LIVE side ground
-  : ISOLATED(NEUTRAL) side ground
-  : EARTH ground
-  : 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) : (⏏) 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-32D202	AV-32D302	AV-32D502
MAIN PWB PATTERN		P2-17	←	←
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CHANNEL CHART

[US] 2-25
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SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				CHIP TR

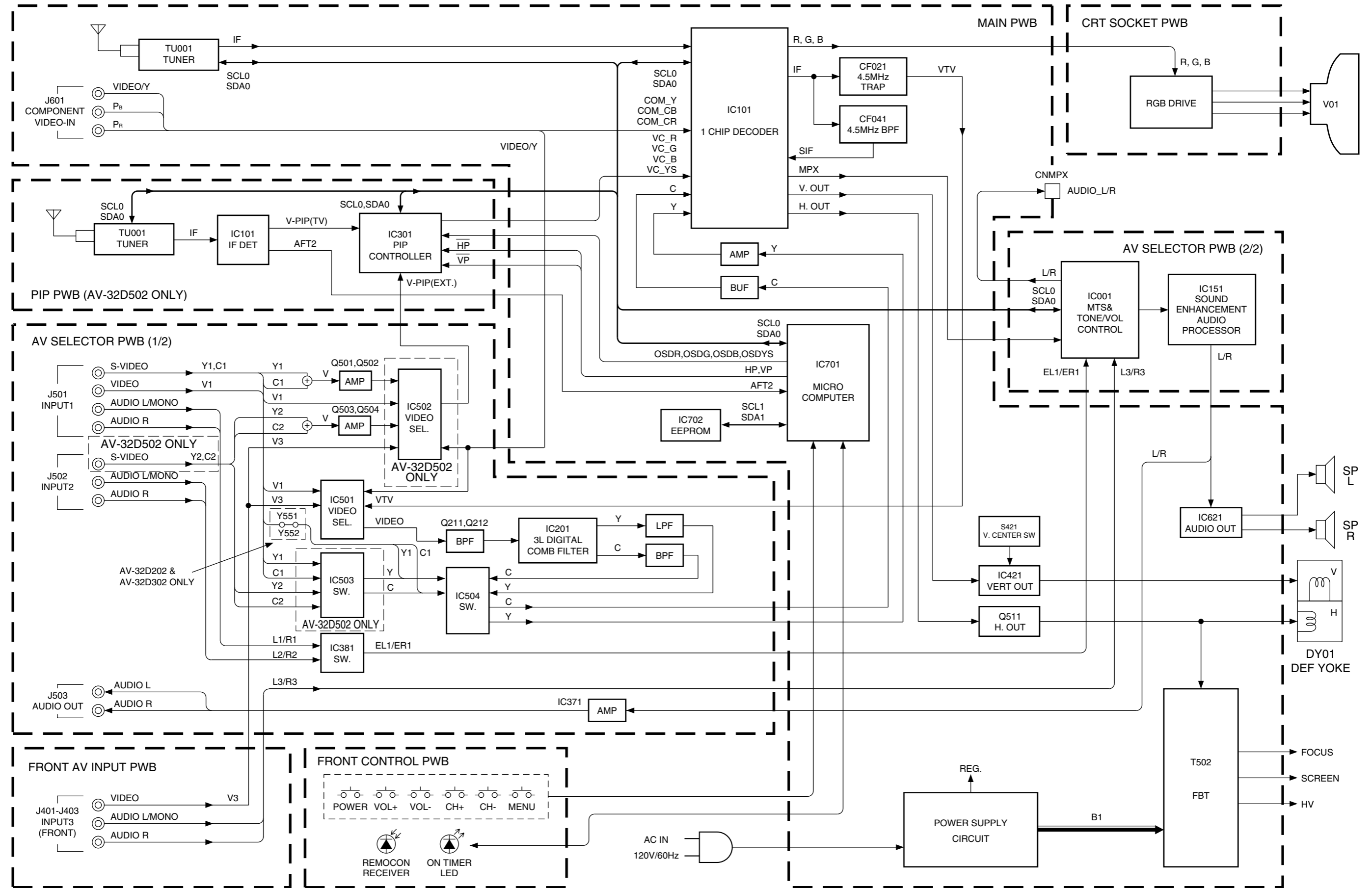
IC

BOTTOM VIEW	FRONT VIEW		TOP VIEW

CHIP IC

TOP VIEW	

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

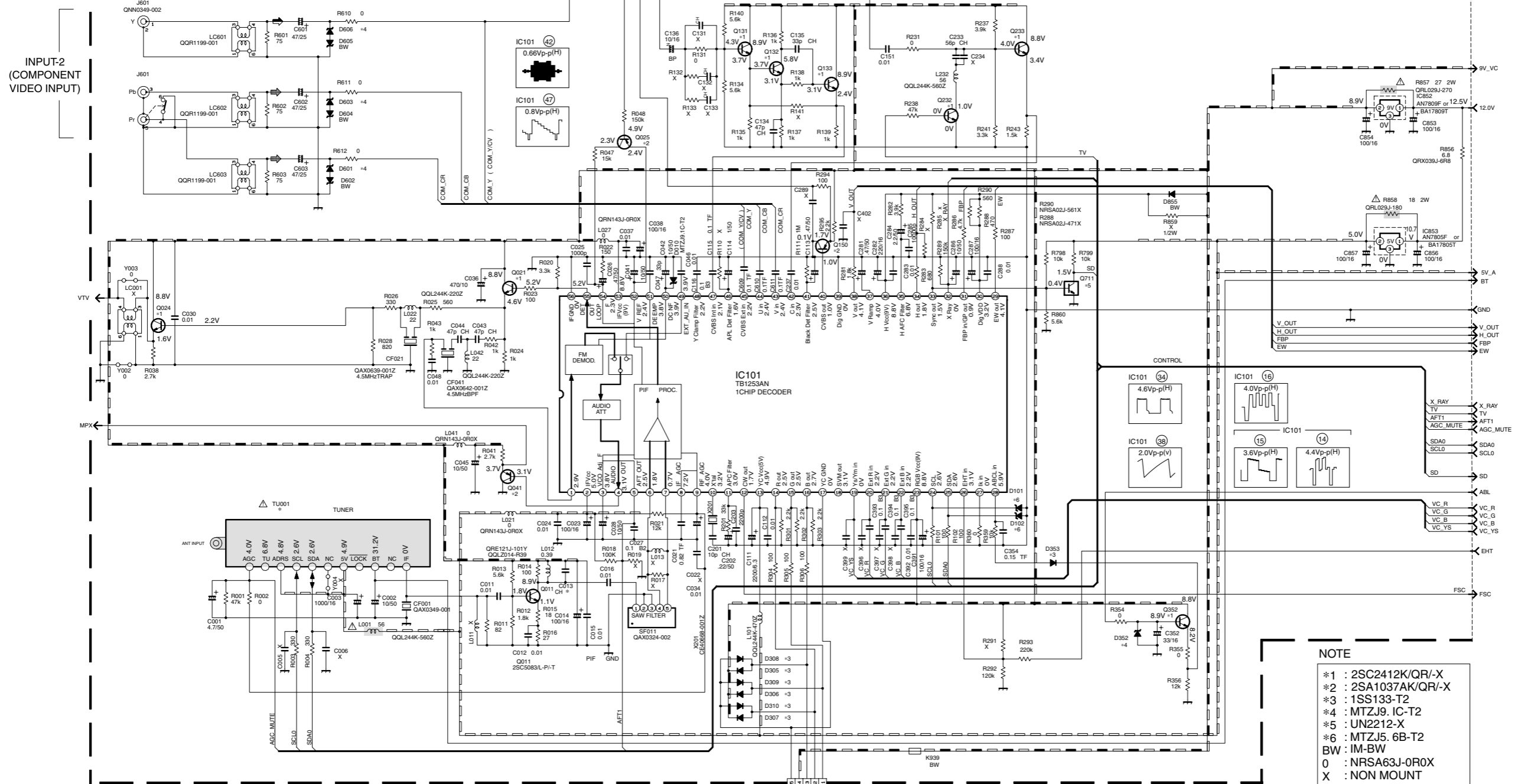
MAIN PWB CIRCUIT DIAGRAM (1/3)

AV-32D202
AV-32D302
AV-32D502

AV-32D202
AV-32D302
AV-32D502

MAIN PWB ASS'Y

- SGC-1003A-M2 (AV-32D502/AG)
- SGC-1004A-M2 (AV-32D502/AH)
- SGC-1005A-M2 (AV-32D502/AM)
- SGC-1006A-M2 (AV-32D502/AR)
- SGC-1011A-M2 (AV-32D202/AG, AV-32D302/AG)
- SGC-1012A-M2 (AV-32D202/AH, AV-32D302/AH)
- SGC-1013A-M2 (AV-32D202/AM, AV-32D302/AM)
- SGC-1014A-M2 (AV-32D202/AR, AV-32D302/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

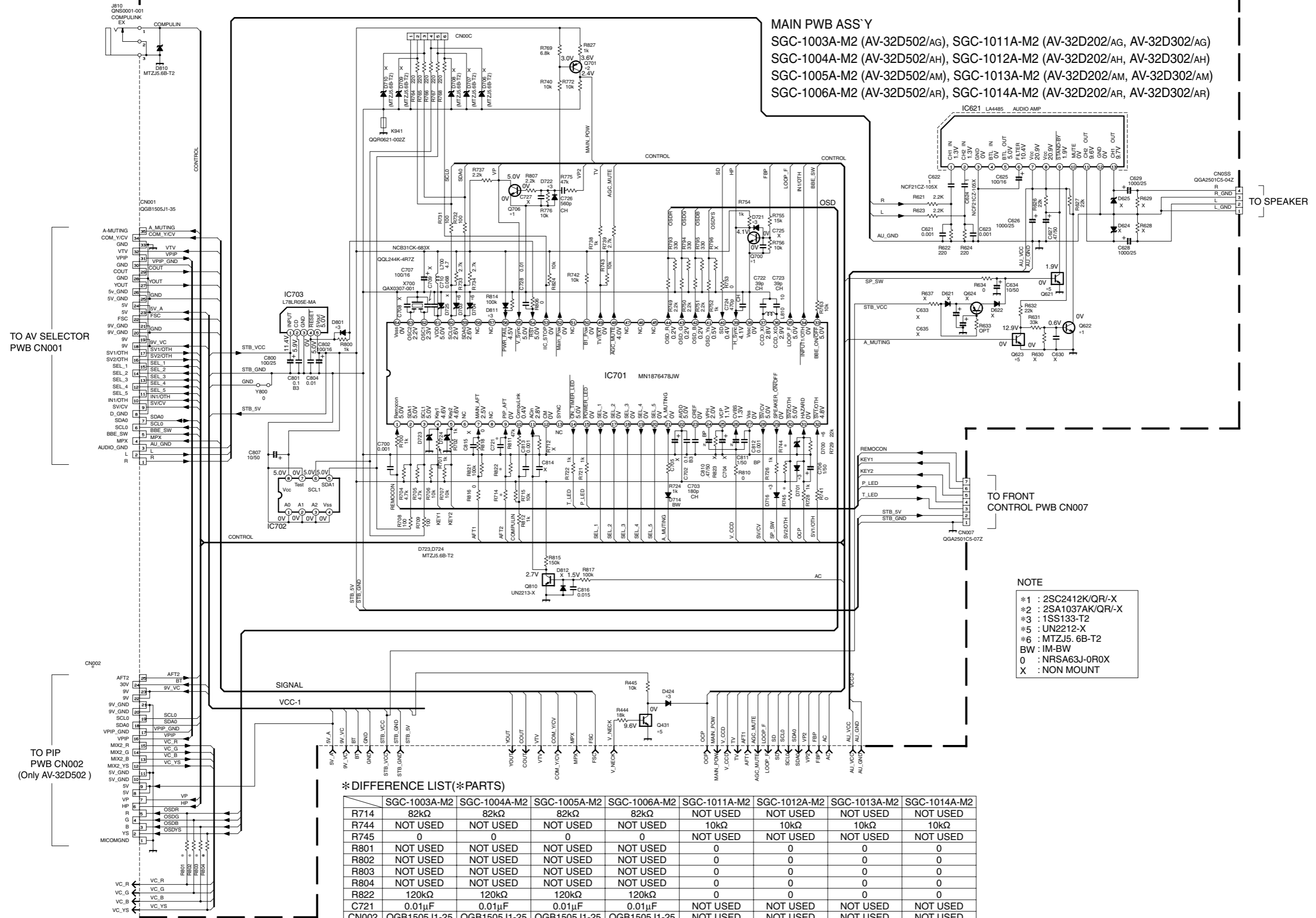
*DIFFERENCE LIST(*PARTS)

	SGC-1003A-M2	SGC-1004A-M2	SGC-1005A-M2	SGC-1006A-M2	SGC-1011A-M2	SGC-1012A-M2	SGC-1013A-M2	SGC-1014A-M2
C013	150pF	150pF	150pF	150pF	NOT USED	NOT USED	NOT USED	NOT USED
△TU001	QAU0247-1	QAU0247-1	QAU0247-1	QAU0247-1	QAU0176-1	QAU0176-1	QAU0176-1	QAU0176-1

MAIN PWB CIRCUIT DIAGRAM (2/3)

AV-32D202
AV-32D302
AV-32D502

AV-32D202
AV-32D302
AV-32D502



MAIN PWB ASS'Y
SGC-1003A-M2 (AV-32D502/AG), SGC-1011A-M2 (AV-32D202/AG, AV-32D302/AG)
SGC-1004A-M2 (AV-32D502/AH), SGC-1012A-M2 (AV-32D202/AH, AV-32D302/AH)
SGC-1005A-M2 (AV-32D502/AM), SGC-1013A-M2 (AV-32D202/AM, AV-32D302/AM)
SGC-1006A-M2 (AV-32D502/AR), SGC-1014A-M2 (AV-32D202/AR, AV-32D302/AR)

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

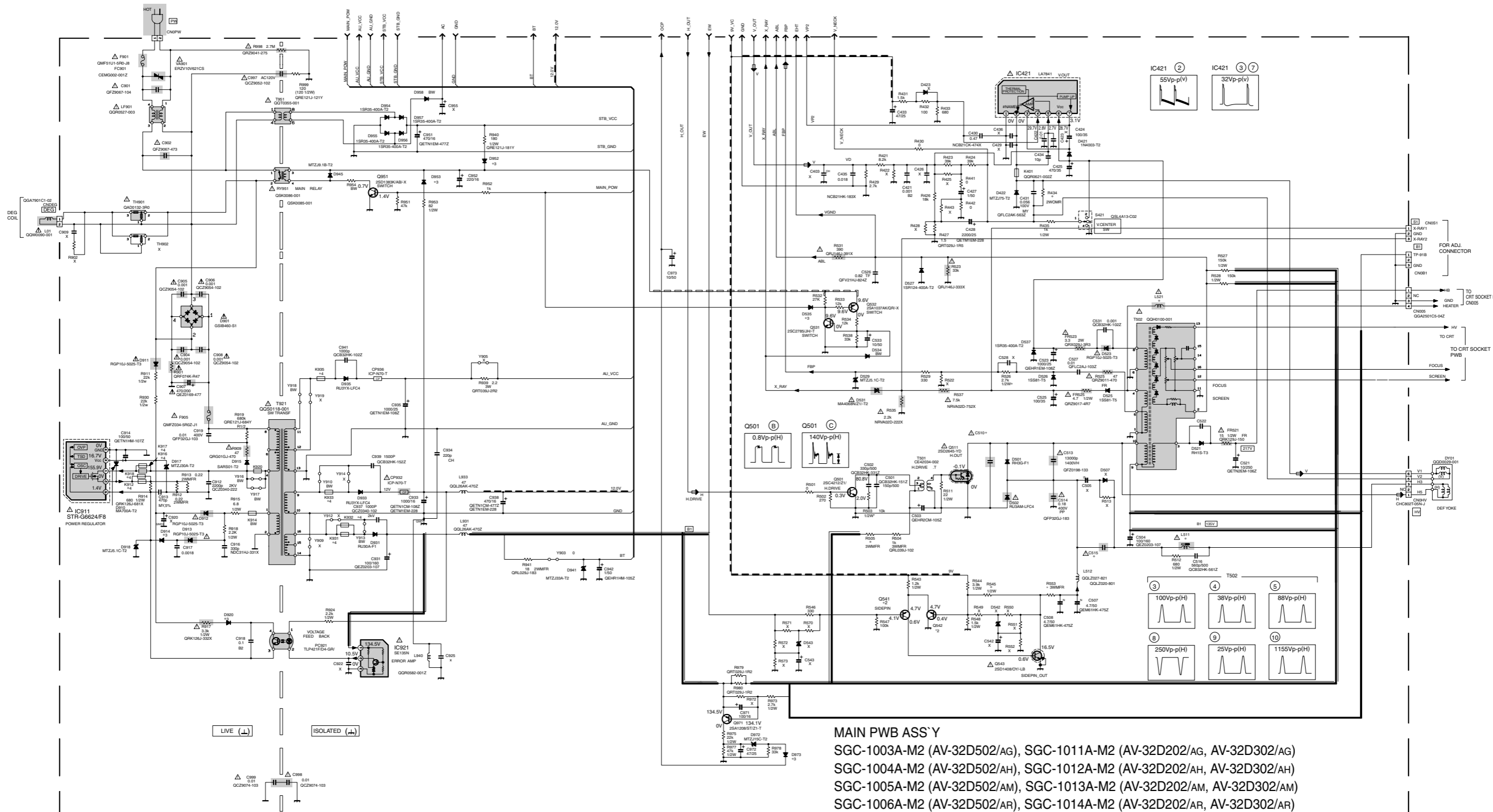
* DIFFERENCE LIST (*PARTS)

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R714	82kΩ	82kΩ	82kΩ	82kΩ	NOT USED	NOT USED	NOT USED	NOT USED
R744	NOT USED	NOT USED	NOT USED	NOT USED	10kΩ	10kΩ	10kΩ	10kΩ
R745	0	0	0	0	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
CN002	QGB1505J1-25	QGB1505J1-25	QGB1505J1-25	QGB1505J1-25	NOT USED	NOT USED	NOT USED	NOT USED

MAIN PWB CIRCUIT DIAGRAM (3/3)

AV-32D202
AV-32D302
AV-32D502

AV-32D202
AV-32D302
AV-32D502



MAIN PWB ASS'Y
 SGC-1003A-M2 (AV-32D502/AG), SGC-1011A-M2 (AV-32D202/AG, AV-32D302/AG)
 SGC-1004A-M2 (AV-32D502/AH), SGC-1012A-M2 (AV-32D202/AH, AV-32D302/AH)
 SGC-1005A-M2 (AV-32D502/AM), SGC-1013A-M2 (AV-32D202/AM, AV-32D302/AM)
 SGC-1006A-M2 (AV-32D502/AR), SGC-1014A-M2 (AV-32D202/AR, AV-32D302/AR)

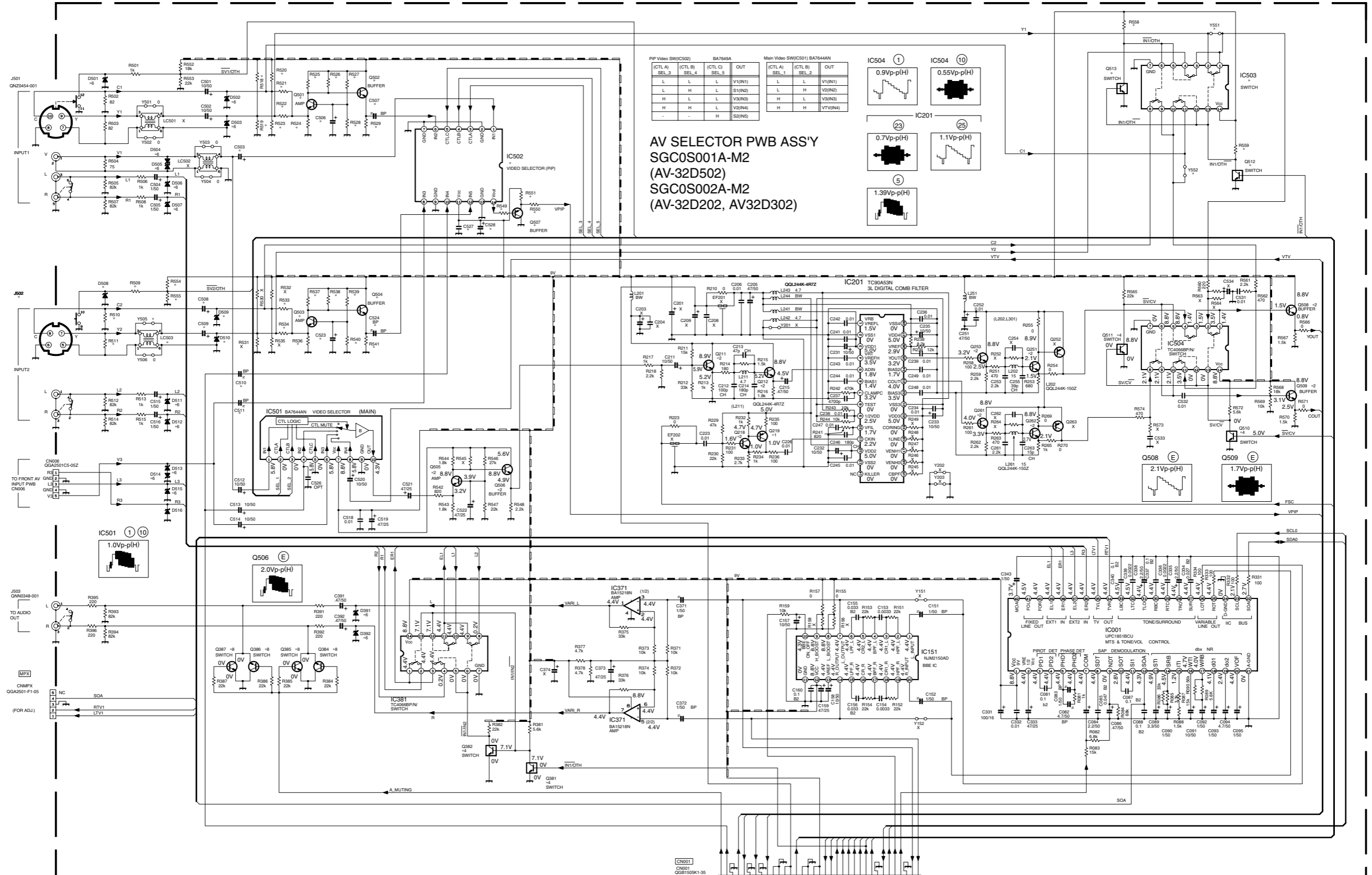
*DIFFERENCE LIST(*PARTS)

	SGC-1003A-M2	SGC-1004A-M2	SGC-1005A-M2	SGC-1006A-M2	SGC-1011A-M2	SGC-1012A-M2	SGC-1013A-M2	SGC-1014A-M2
R434	180Ω	180Ω	220Ω	180Ω	180Ω	180Ω	220Ω	180Ω
R505	820Ω	1kΩ	1kΩ	1kΩ	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 : NRSAG63J-0R0X
 X : NON MOUNT

AV SELECTOR PWB CIRCUIT DIAGRAM



PP Video SW(IC502) BA7649A

CTL A	CTL B	CTL C	OUT
L	L	L	V1(IN1)
L	L	L	S1(IN2)
H	L	L	V3(IN3)
H	H	L	V2(IN4)
-	-	H	S2(IN5)

Main Video SW(IC501) BA7644AN

CTL A	CTL B	OUT
L	L	V1(IN1)
L	H	V2(IN2)
H	L	V3(IN3)
H	H	V4(IN4)
-	-	V5(IN5)

AV SELECTOR PWB ASS'Y
SGC0S001A-M2 (AV-32D502)
SGC0S002A-M2 (AV-32D202, AV32D302)

* DIFFERENCE LIST(*PARTS)

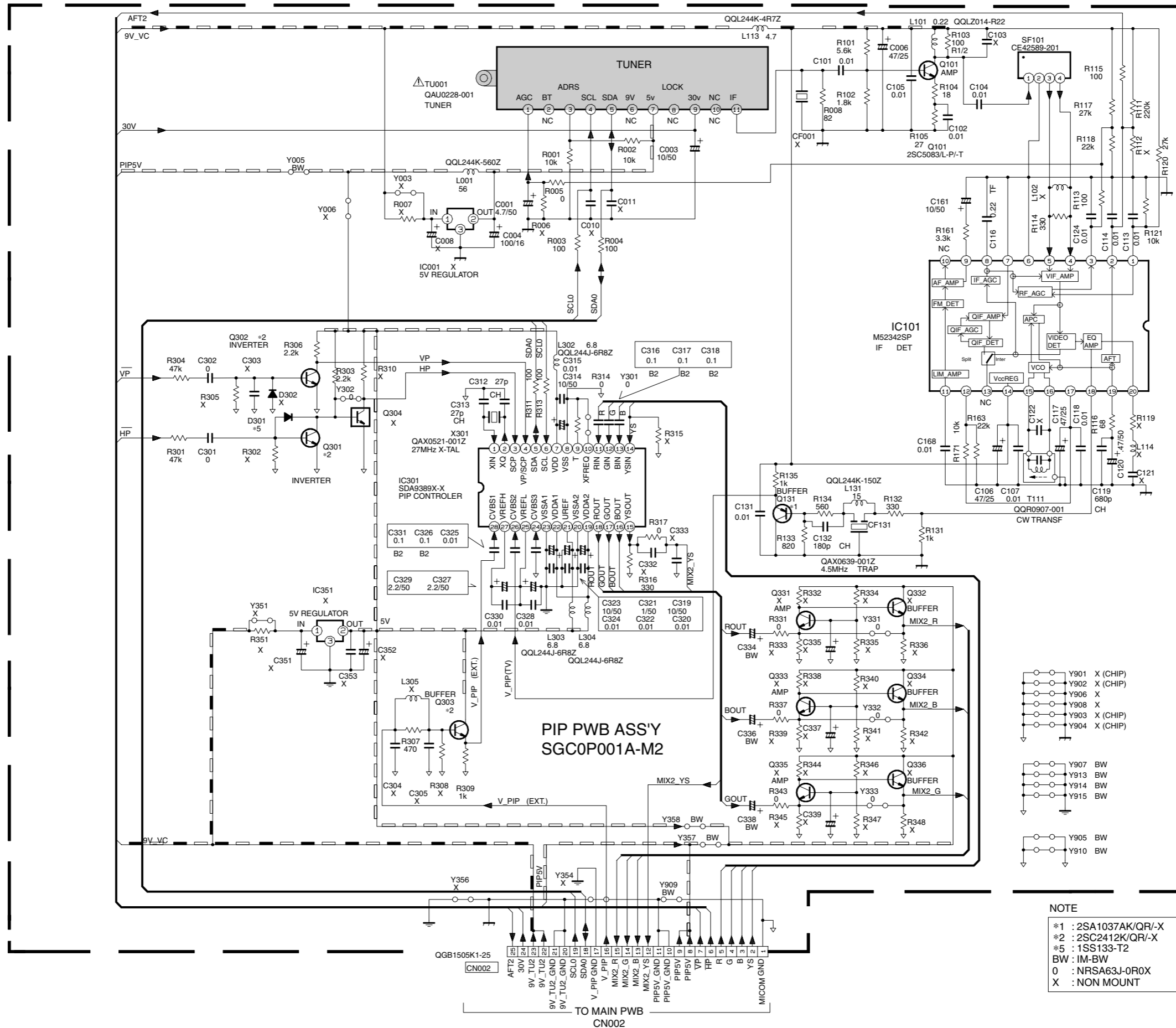
IC502	IC503	Q501	Q502	Q503	Q504	Q507	Q513	D508	D509	D510	R509	R510	R511	R518	R519	R520	R521	R522	
SGC0S001A-M2	BA7649A	TC4066BP/N	+2	+2	+2	+1	+4	+6	+6	+6	1k	82k	82k	NOT USED	NOT USED	15k	10k	15k	NOT USED
SGC0S002A-M2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	15k	10k	15k	NOT USED	NOT USED	

R523	R524	R525	R526	R527	R528	R529	R533	R534	R536	R537	R538	R539	R540	R541	R549	R550	R551	R554	R555
SGC0S001A-M2	NOT USED	1.8k	1.8k	10k	27k	18k	5.6k	1.5k	1.5k	1.8k	1.8k	10k	27k	18k	5.6k	470k	NOT USED	18k	22k
SGC0S002A-M2	10k	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED

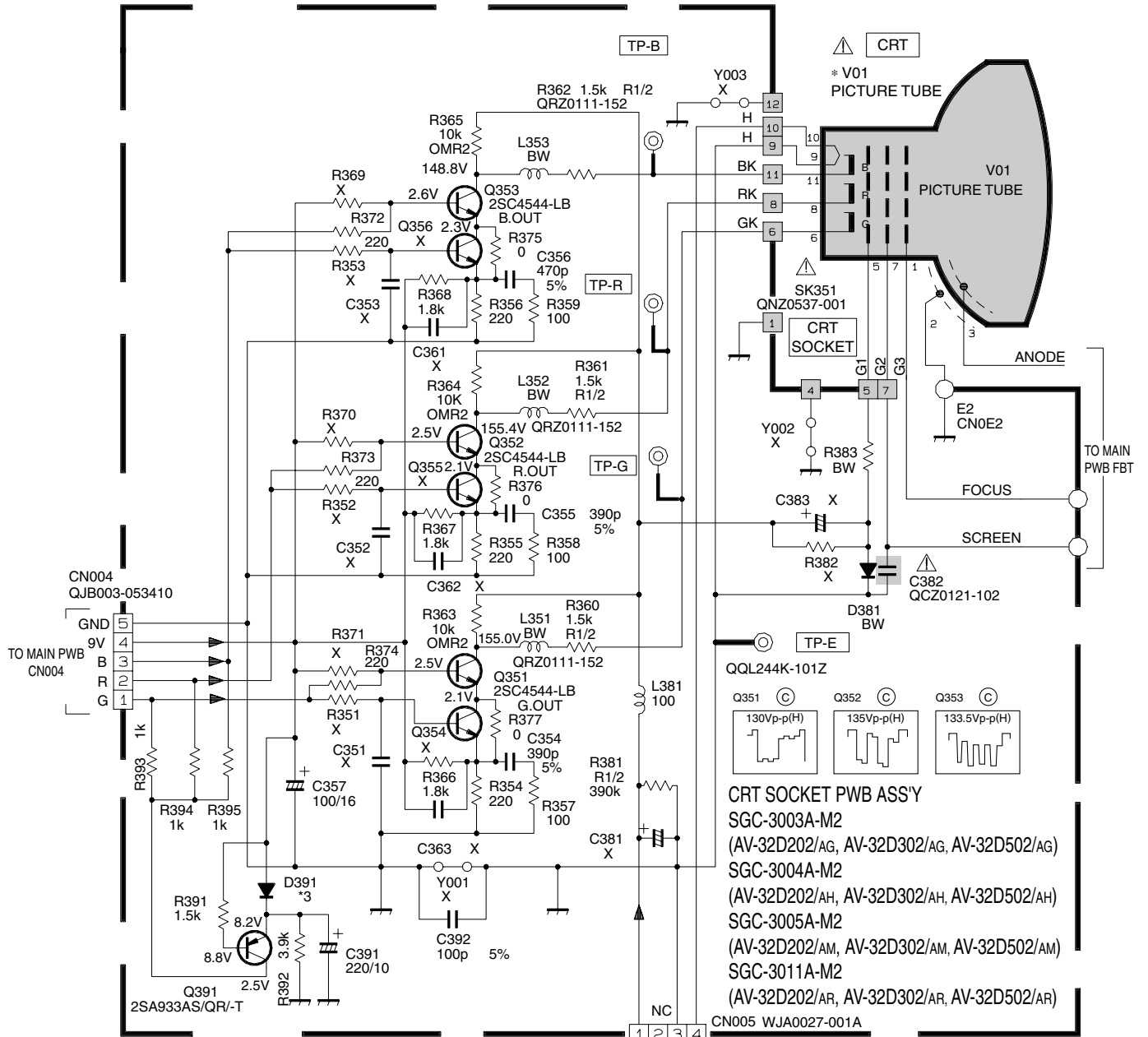
R558	R559	C503	C506	C507	C508	C509	C510	C511	C523	C524	C527	C528	J502	Y505	Y506	Y551	Y552	
SGC0S001A-M2	22k	5.6k	10µ50V	47µ25V	10µ16V	10µ50V	10µ50V	10µ16V	10µ16V	47µ5V	10µ16V	0.01µ	47µ25V	QN20531-1	0	NOT USED	NOT USED	NOT USED
SGC0S002A-M2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	QN20348-1	NOT USED	NOT USED	0	0	

NOTE
*1 : 2SA1037AK/QR/-X
*2 : 2SC2412K/QR/-X
*4 : UN2212-X
*6 : MTZJ9. IC-T2
*8 : DTC323TK-X
BW : IM-BW
X : NRS463J-0R0X
0 : NON MOUNT

PIP PWB CIRCUIT DIAGRAM [AV-32D502]



CRT SOCKET PWB CIRCUIT DIAGRAM



*** DIFFERENCE LIST (*PARTS)**

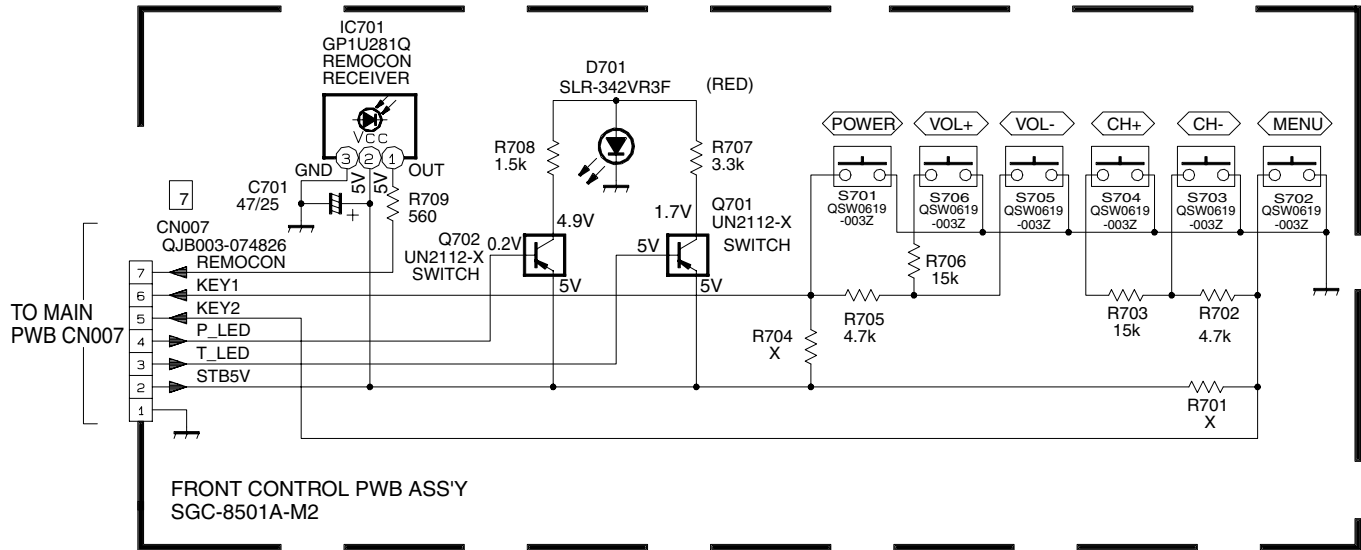
	SGC-3003A-M2	SGC-3004A-M2	SGC-3005A-M2	SGC-3011A-M2
⚠ V01	A80QCF240X14L	A80LJF30X08-G	A80JUA061X06	A80AEJ15X01

NOTE

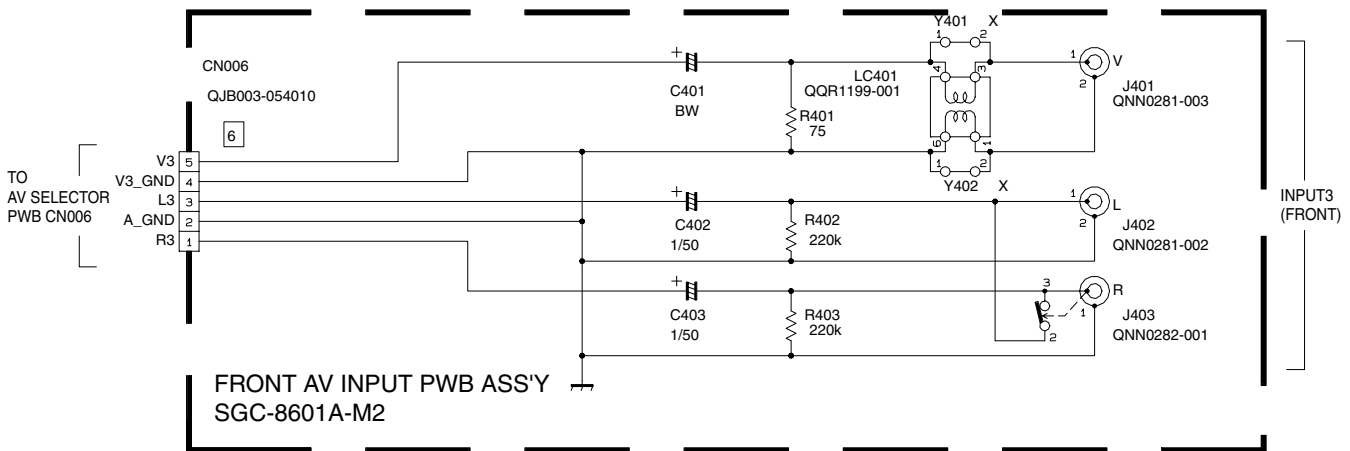
*3 : 1SS133-T2
BW : IM-BW
X : NON MOUNT

FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS

- FRONT CONTROL -



- FRONT AV INPUT -



NOTE

X : NON MOUNT

PATTERN DIAGRAMS
MAIN PWB PATTERN

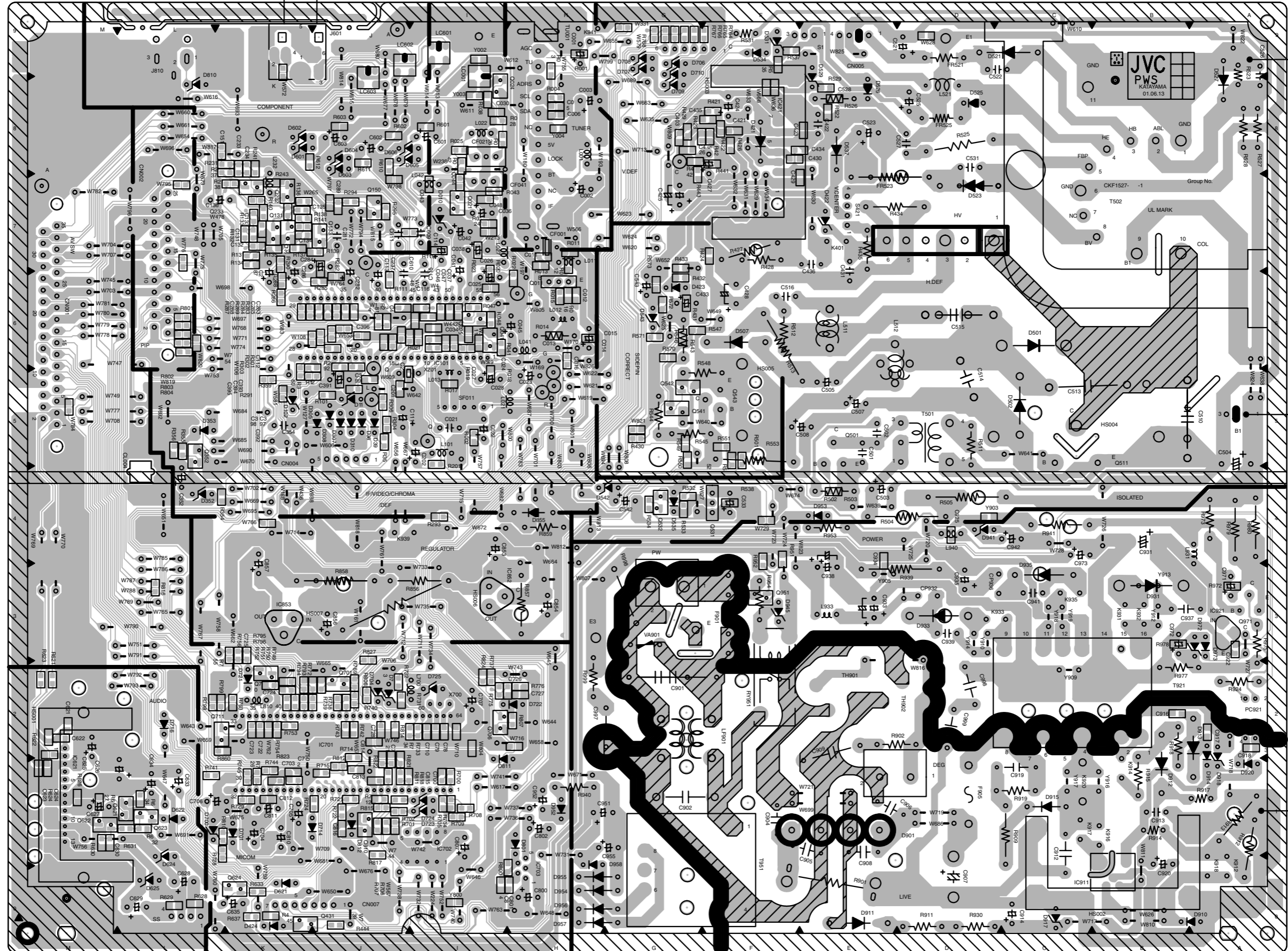
AV-32D202
 AV-32D302
 AV-32D502

AV-32D202
 AV-32D302
 AV-32D502



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)

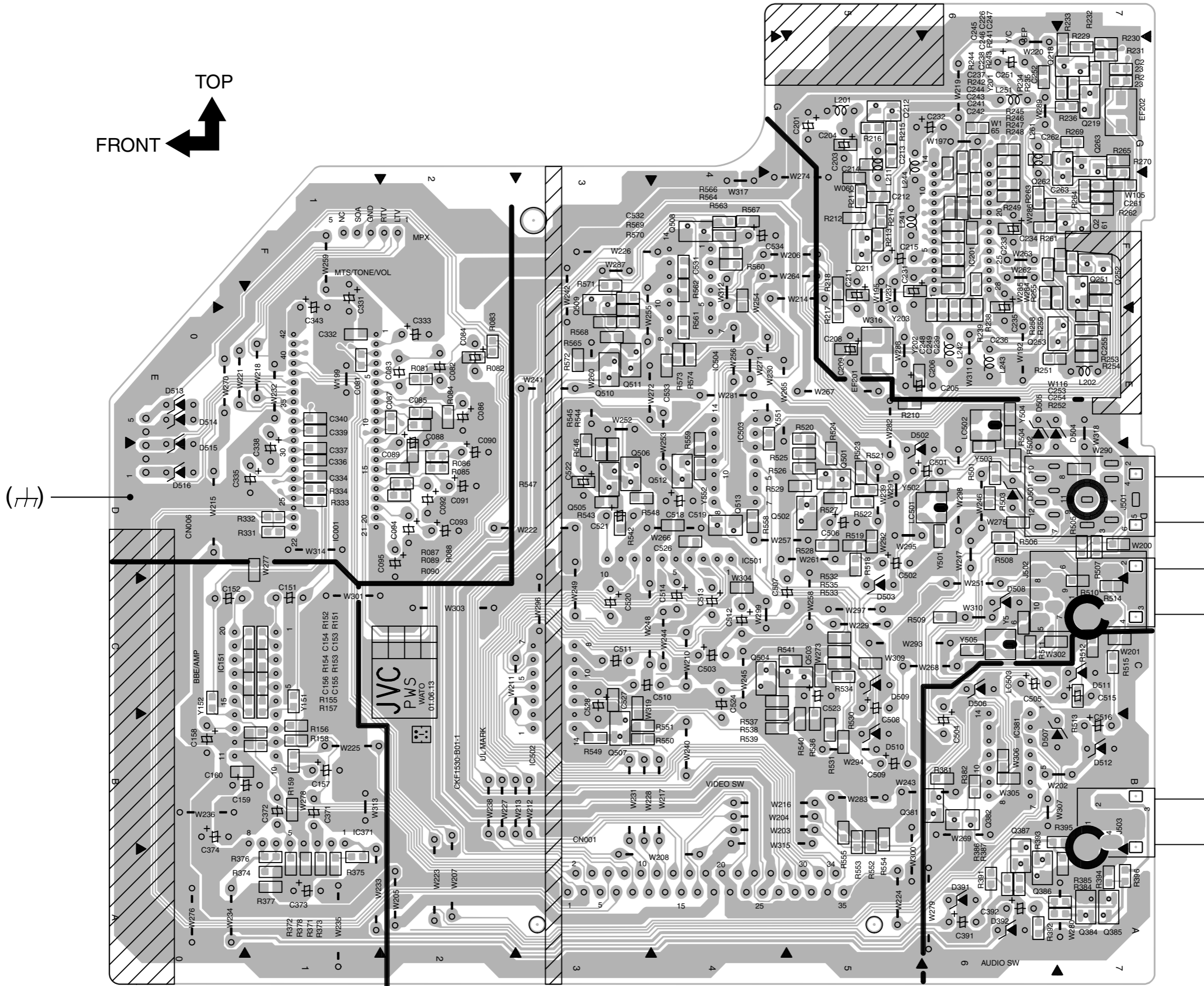
TP-91B(B1)

(T)

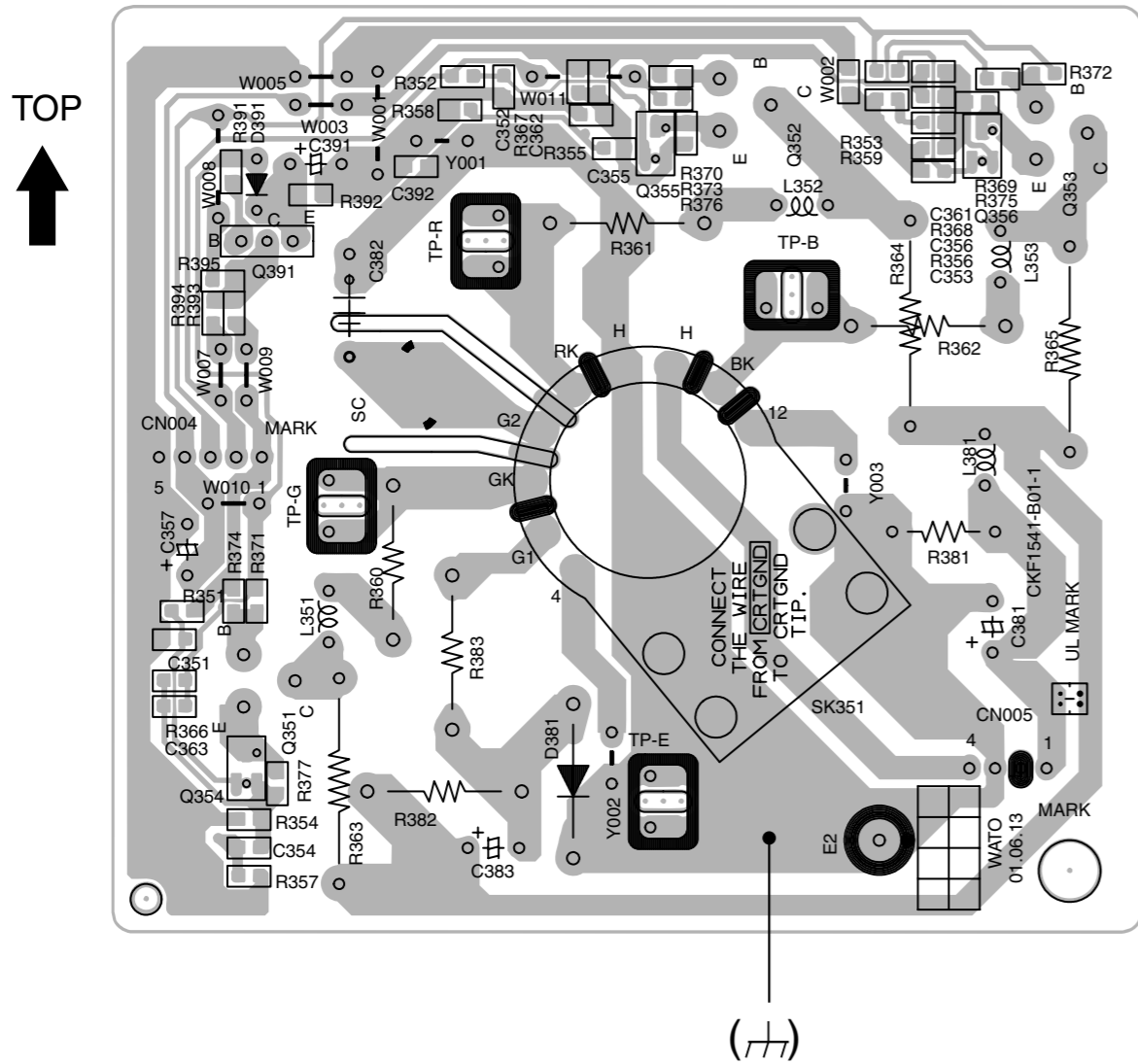
AV SELECTOR PWB PATTERN

AV-32D202
AV-32D302
AV-32D502

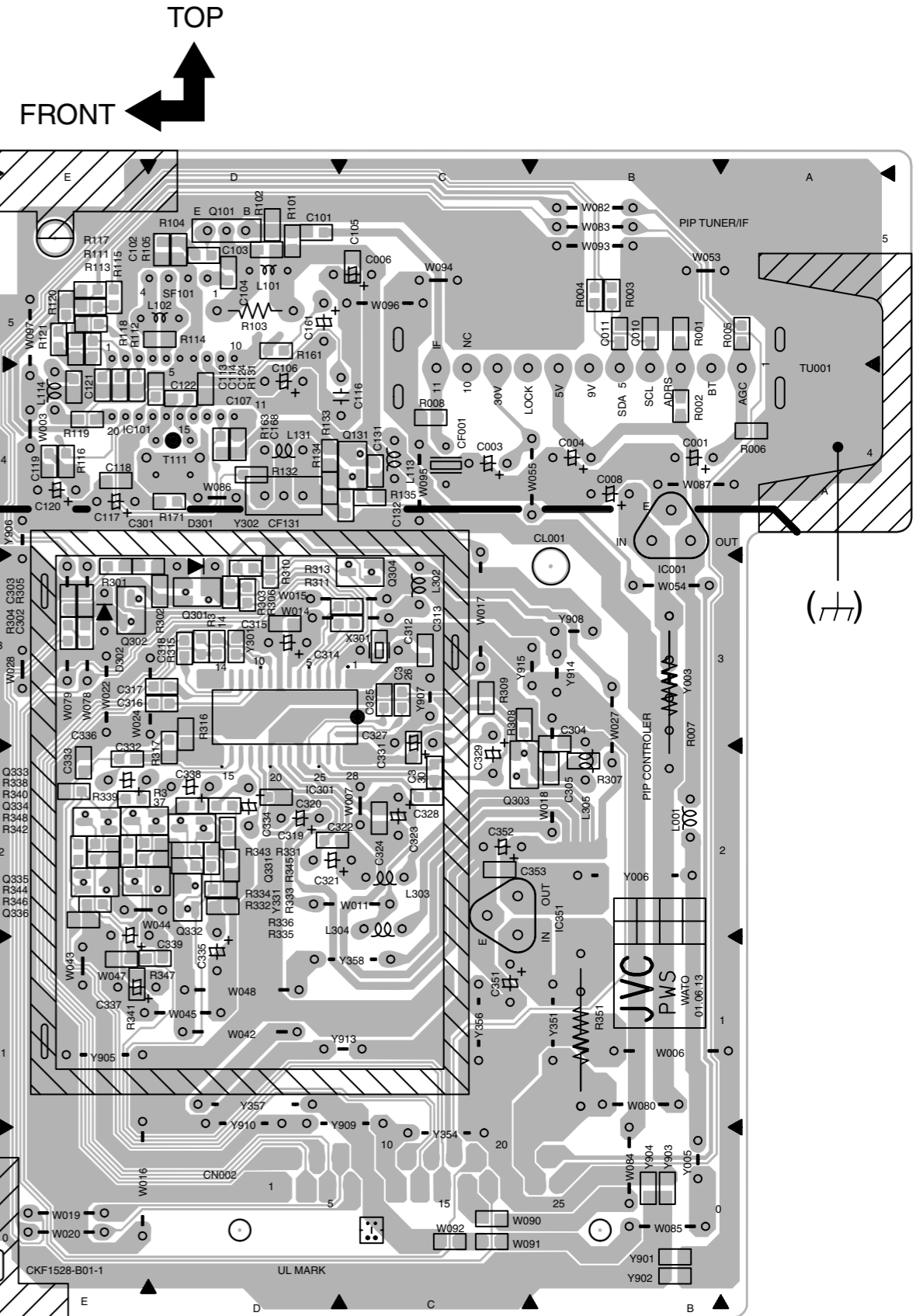
AV-32D202
AV-32D302
AV-32D502



CRT SOCKET PWB PATTERN



PIP PWB PATTERN [AV-32D502]

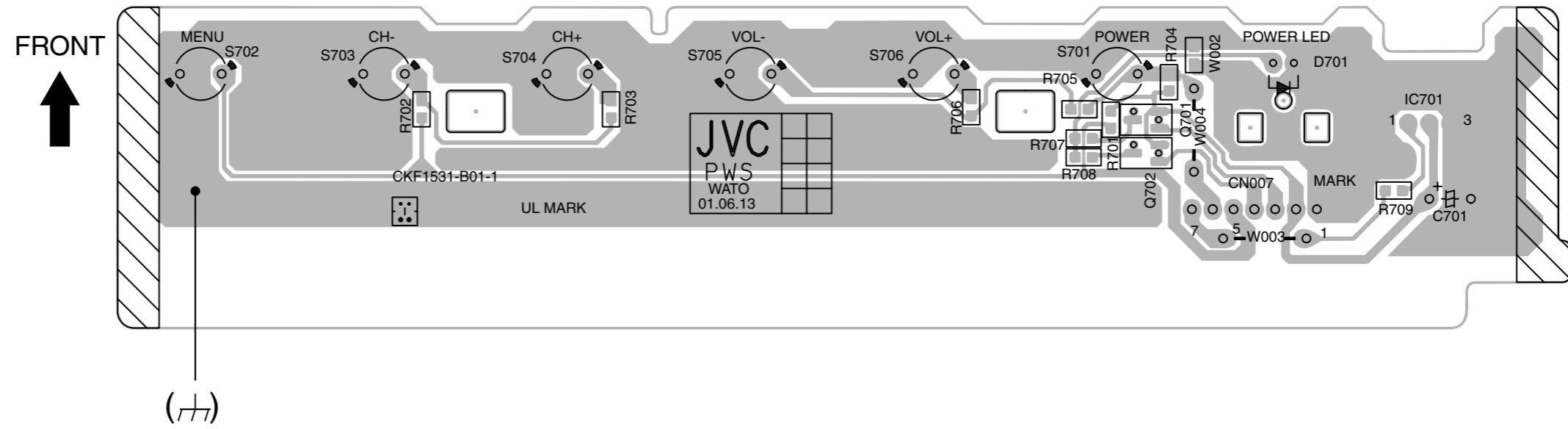


FRONT CONTROL AND FRONT AV INPUT PWB PATTERNS

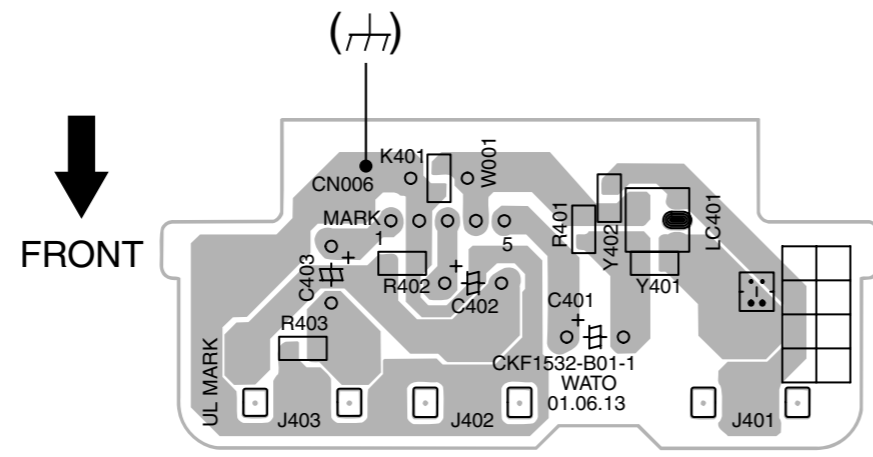
AV-32D202
AV-32D302
AV-32D502

AV-32D202
AV-32D302
AV-32D502

- FRONT CONTROL -



- FRONT AV INPUT -



CHANNEL CHART (US)

MODE		BAND	CHANNEL		TUNER BAND
TV	CATV		REAL	DISP.	
○	○	VL	02	I	
			03		
			04		
			05		
			06		
		VH	07	II	
			08		
			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		
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			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					
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