

JVC

SCHEMATIC DIAGRAMS

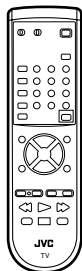
COLOR TELEVISION

BASIC CHASSIS

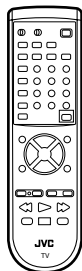
AC

AV-32D202 /G AV-32D302 /G AV-32D502 /G
AV-32D202 /H AV-32D302 /H AV-32D502 /H
AV-32D202 /M AV-32D302 /M AV-32D502 /M

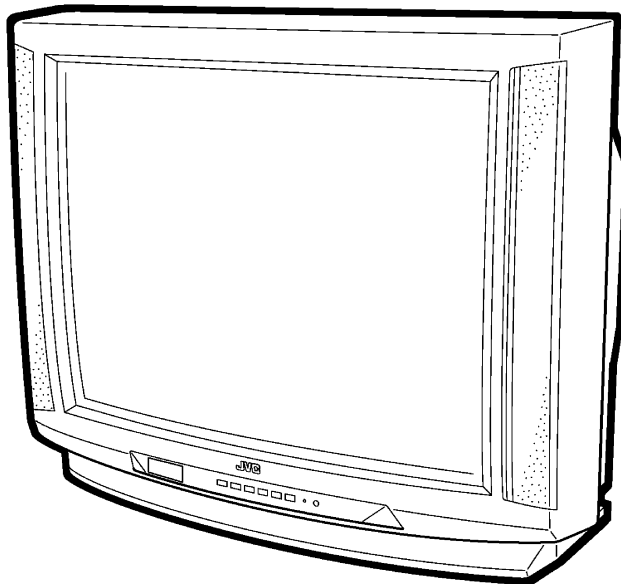
CD-ROM No. SML200103



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



RM-C301G
[AV-32D502]




AV-32D202 /G AV-32D302 /G AV-32D502 /G
AV-32D202 /H AV-32D302 /H AV-32D502 /H
AV-32D202 /M AV-32D302 /M AV-32D502 /M

STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the  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 20kΩ/V
- (4) Oscilloscope sweeping time : H ⇒ 20μS/div
: V ⇒ 5mS/div
: Others ⇒ 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 → R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

• Resistance value

- No unit : [Ω]
- k : [kΩ]
- M : [MΩ]

• Rated allowable power

- No indication : 1/10 [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 : [μF]

• Withstand voltage

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

* Electrolytic Capacitors

47/50[Example] : Capacitance value [μF]/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 : [μH]
- Others : As specified

(4) Power Supply



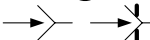
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

* 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 : () 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 with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. 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

P.W.B. name	Model	AV-32D202	AV-32D302	AV-32D502
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LF PWB CIRCUIT DIAGRAM		P2-23	←	←

PATTERN DIAGRAMS

Pattern name	Model	AV-32D202	AV-32D302	AV-32D502
MAIN PWB PATTERN		P2-25	←	←
AV SELECTOR PWB PATTERN		P2-27	←	←
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CHANNEL CHART [US] 2-33

[CA] 2-34

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

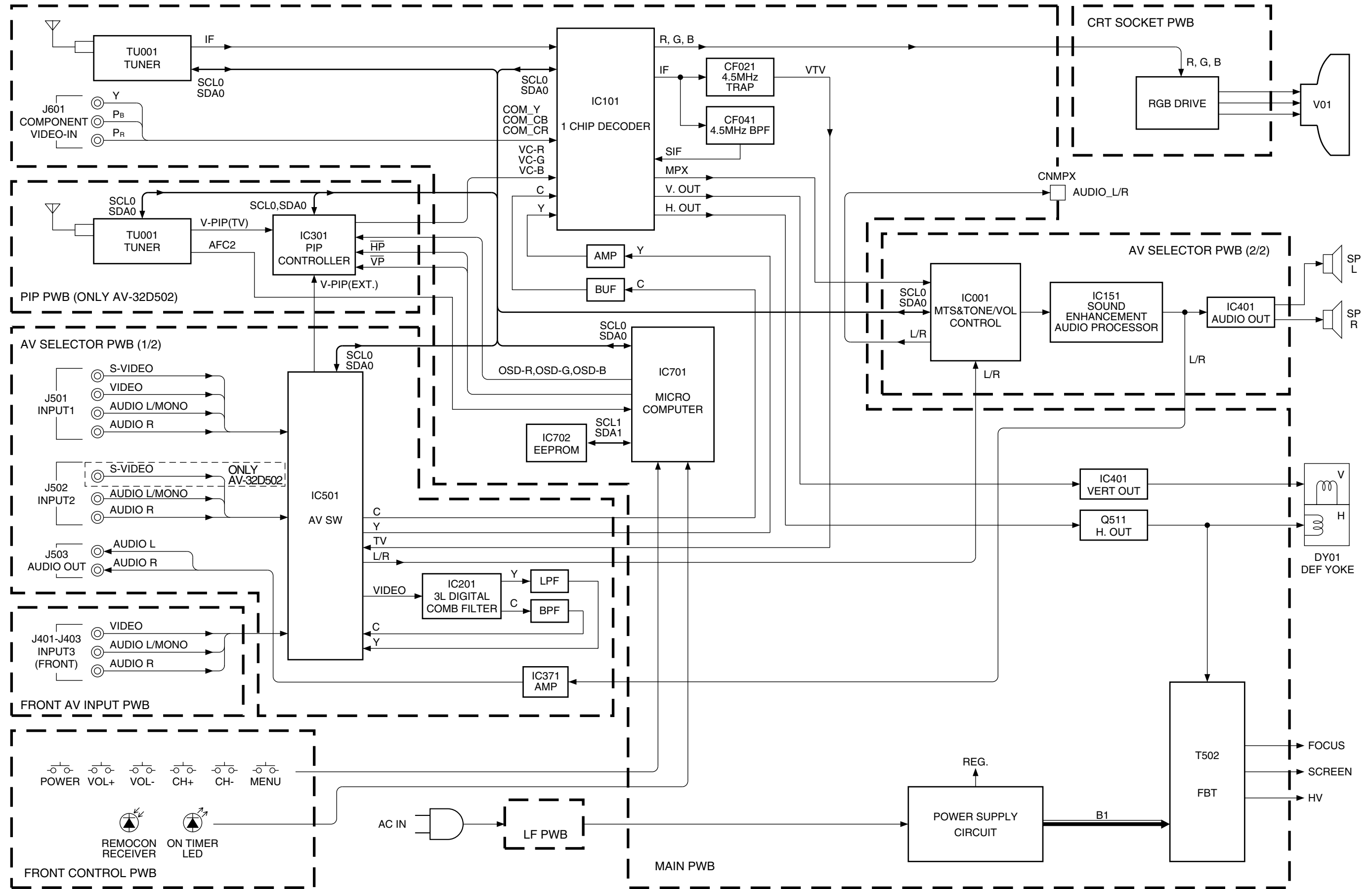
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

CHIP IC

TOP VIEW	

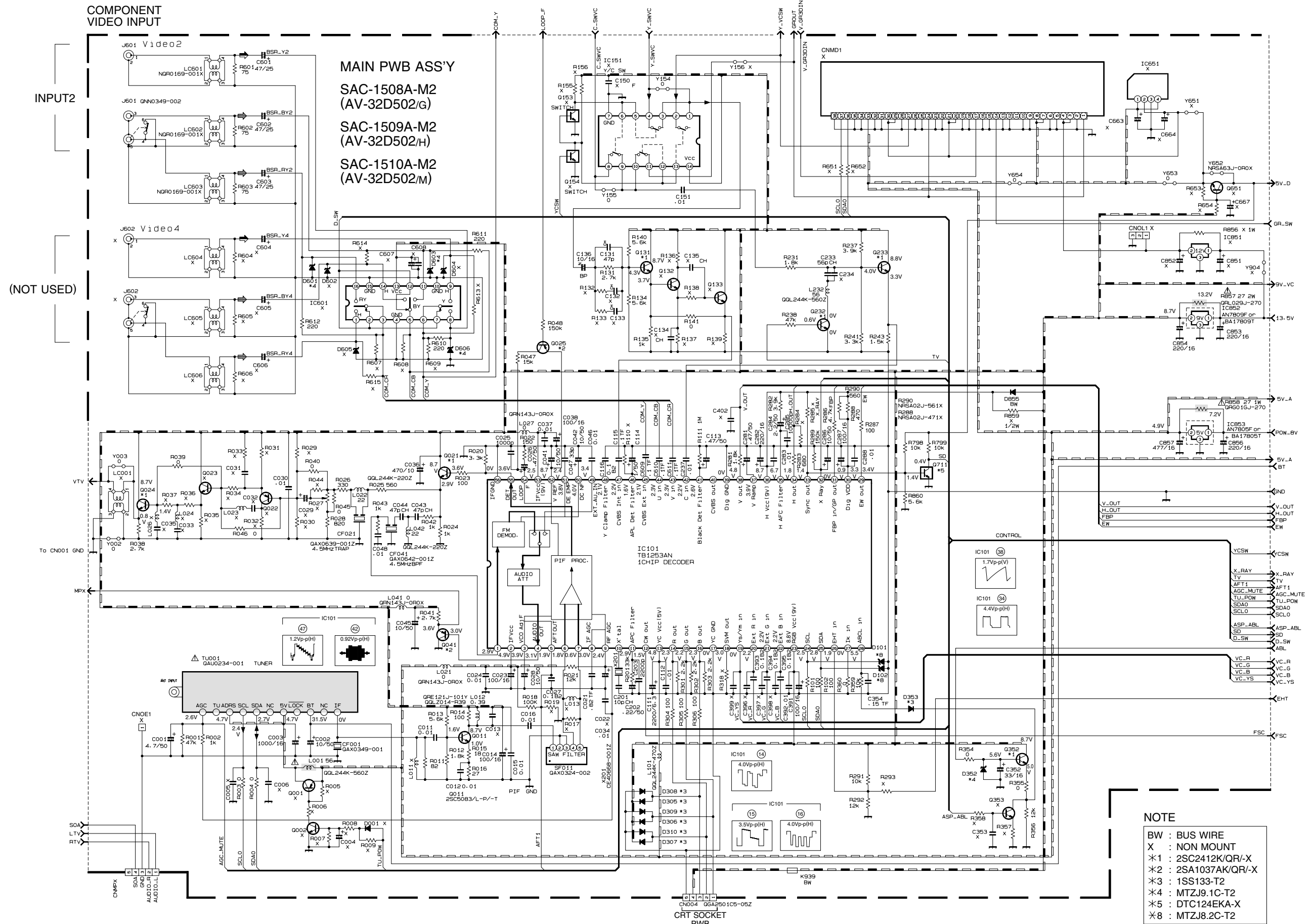
BLOCK DIAGRAM



MAIN PWB CIRCUIT DIAGRAM [AV-32D502]

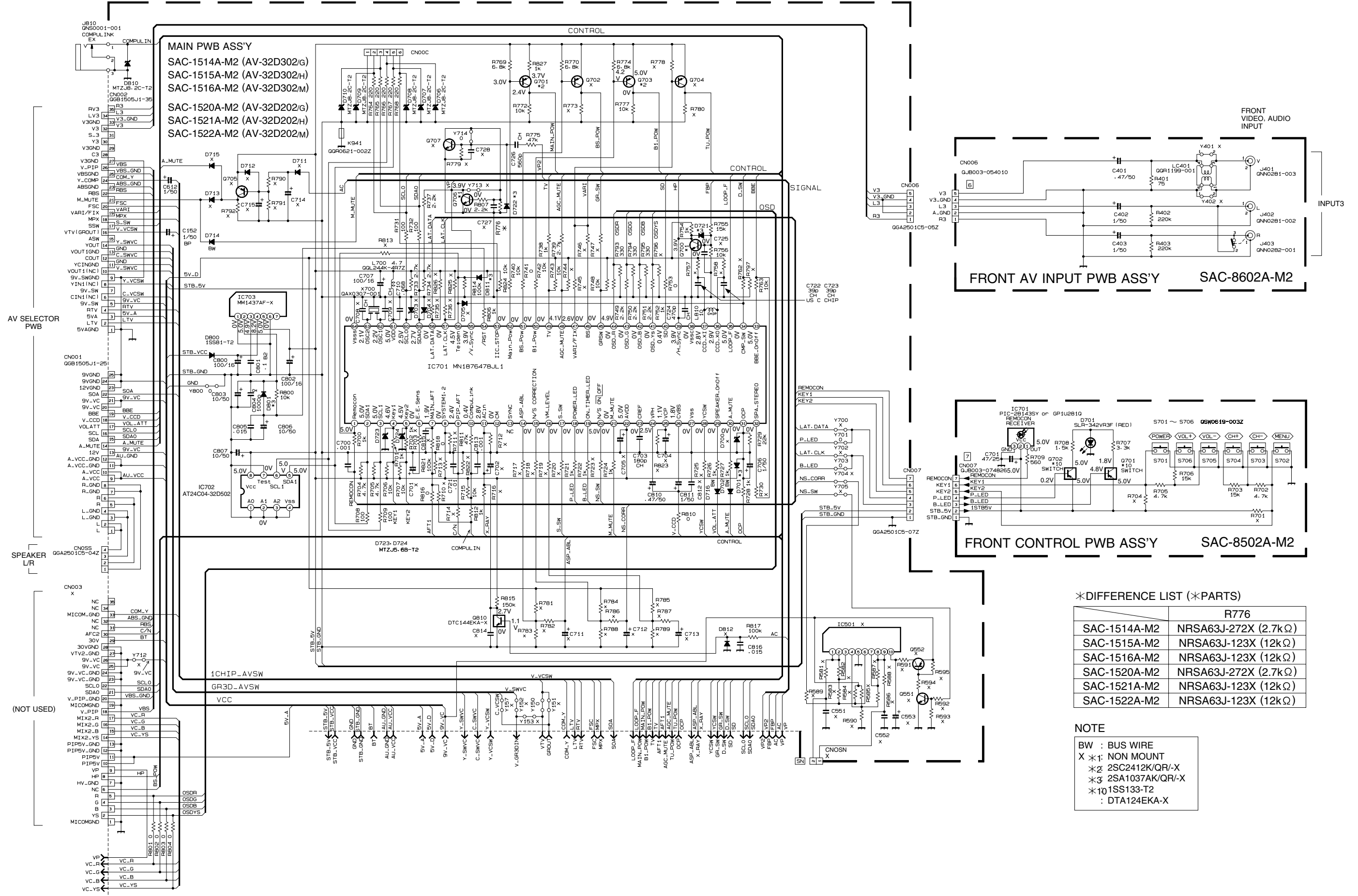
AV-32D502

AV-32D502



- NOTE**
- BW : BUS WIRE
 - X : NON MOUNT
 - *1 : 2SC2412K/QR-X
 - *2 : 2SA1037AK/QR-X
 - *3 : 1SS133-T2
 - *4 : MTZJ9.1C-T2
 - *5 : DTC124EKA-X
 - *8 : MTZJ8.2C-T2

MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS [AV-32D202, AV-32D302]

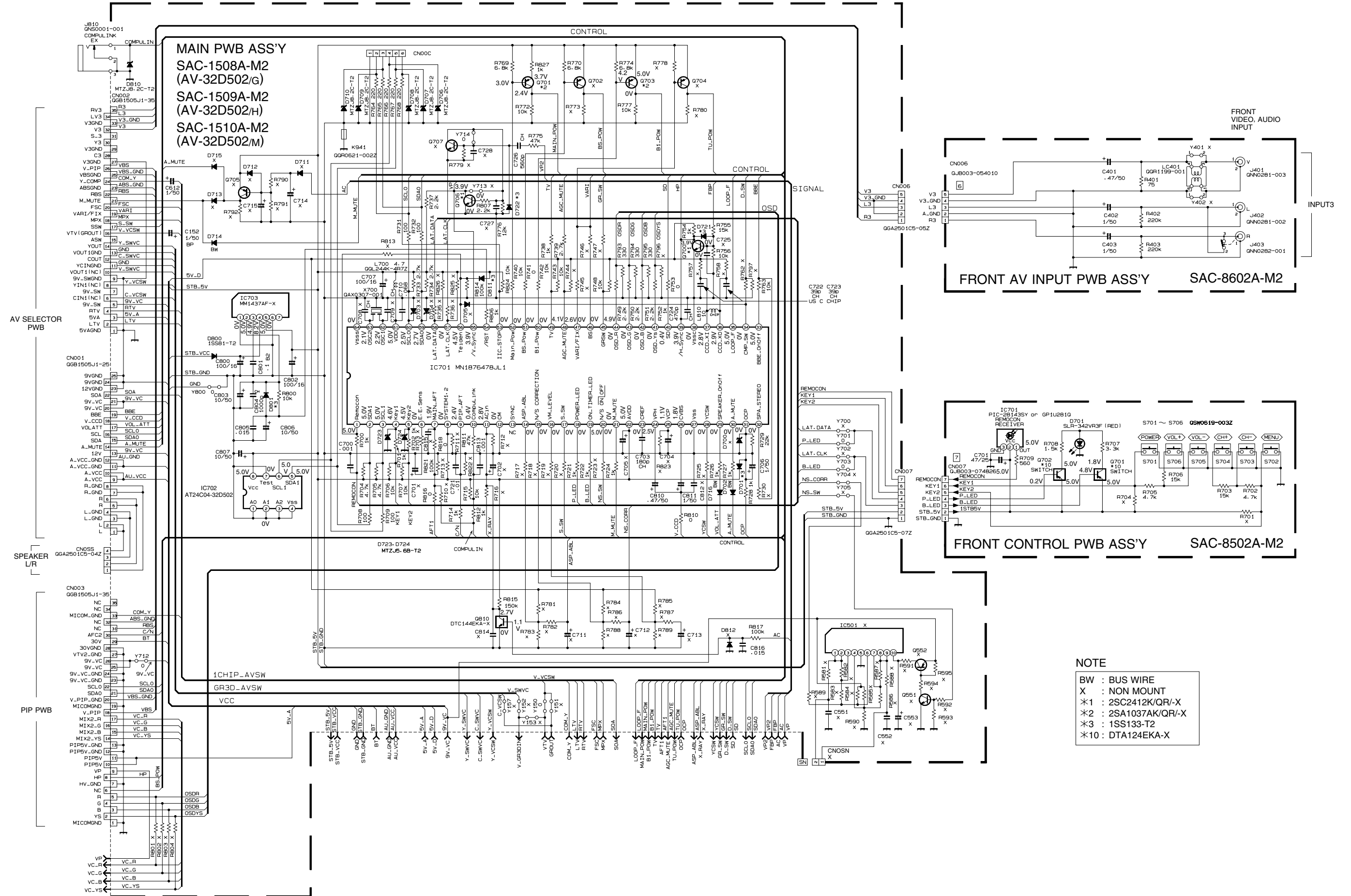


*DIFFERENCE LIST (*PARTS)

	R776
SAC-1514A-M2	NRSA63J-272X (2.7kΩ)
SAC-1515A-M2	NRSA63J-123X (12kΩ)
SAC-1516A-M2	NRSA63J-123X (12kΩ)
SAC-1520A-M2	NRSA63J-272X (2.7kΩ)
SAC-1521A-M2	NRSA63J-123X (12kΩ)
SAC-1522A-M2	NRSA63J-123X (12kΩ)

NOTE
 BW : BUS WIRE
 X *1: NON MOUNT
 *2 2SC2412K/QR-/X
 *3 2SA1037AK/QR-/X
 *10 1SS133-T2
 : DTA124EKA-X

MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS [AV-32D502]



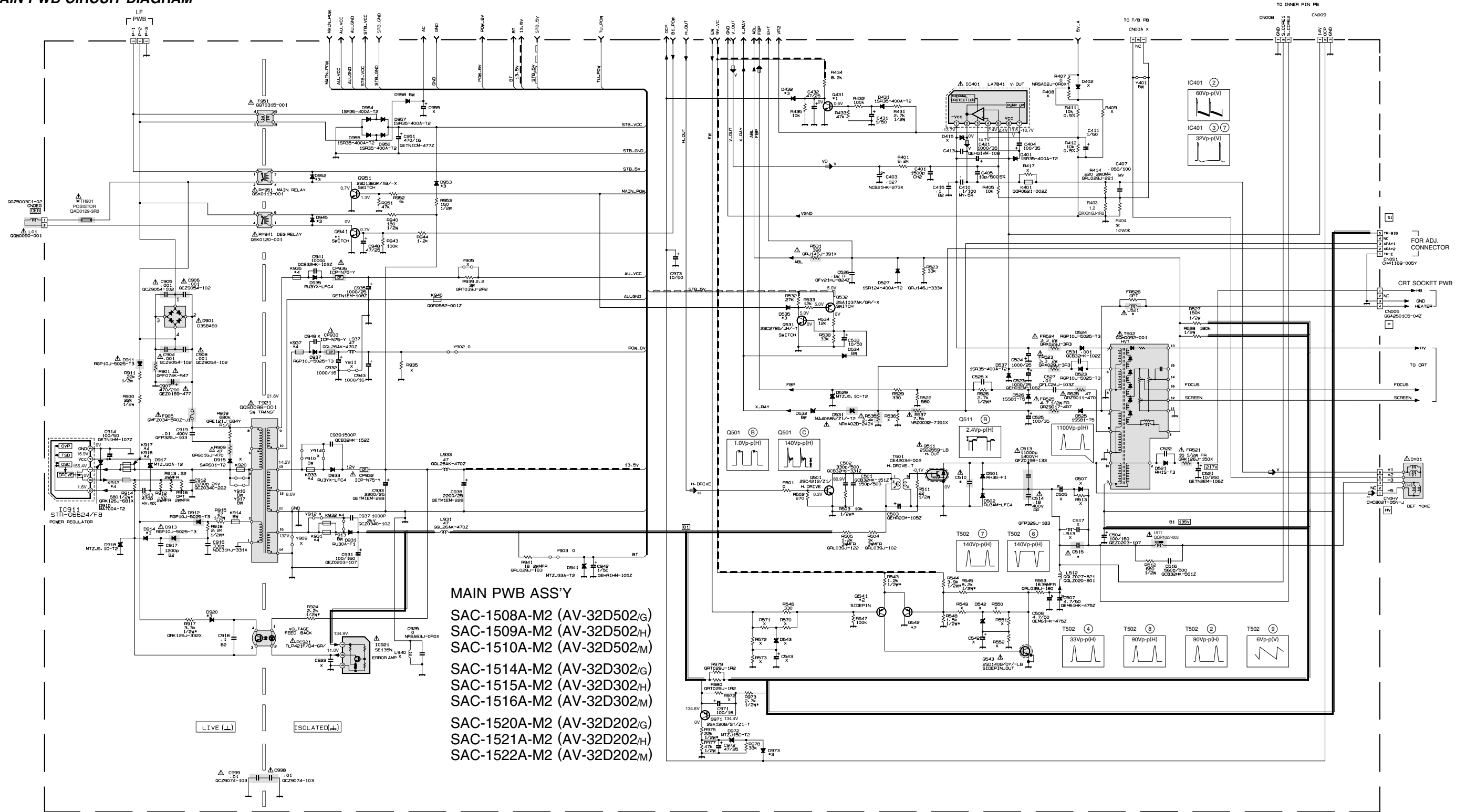
NOTE

- BW : BUS WIRE
- X : NON MOUNT
- *1 : 2SC2412K/QR-/X
- *2 : 2SA1037AK/QR-/X
- *3 : 1SS133-T2
- *10 : DTA124EKA-X

MAIN PWB CIRCUIT DIAGRAM

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

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



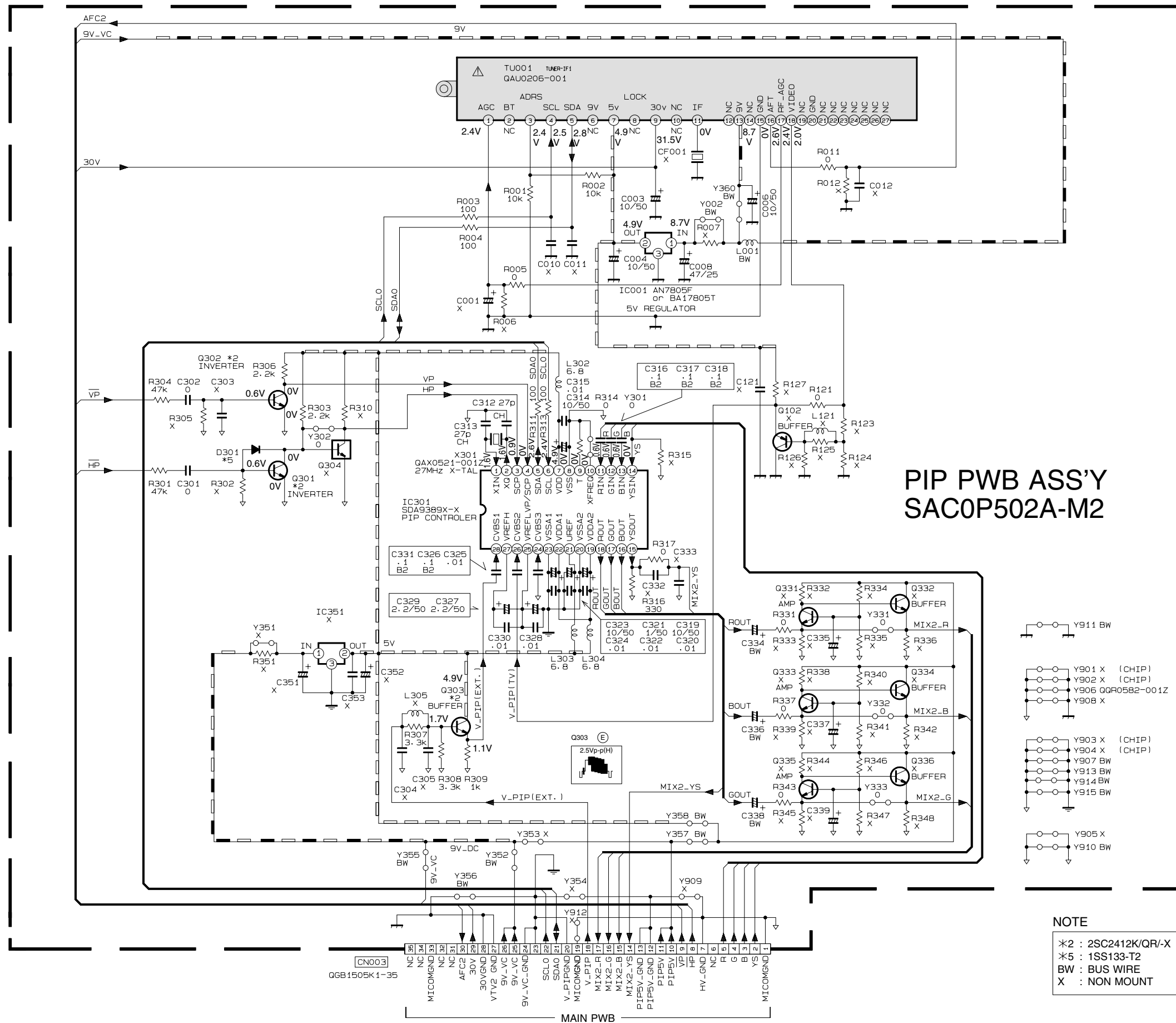
- MAIN PWB ASS'Y
- SAC-1508A-M2 (AV-32D502(G))
 - SAC-1509A-M2 (AV-32D502(H))
 - SAC-1510A-M2 (AV-32D502(M))
 - SAC-1514A-M2 (AV-32D302(G))
 - SAC-1515A-M2 (AV-32D302(H))
 - SAC-1516A-M2 (AV-32D302(M))
 - SAC-1520A-M2 (AV-32D202(G))
 - SAC-1521A-M2 (AV-32D202(H))
 - SAC-1522A-M2 (AV-32D202(M))

*DIFFERENCE LIST (*PARTS)

	R404	L521	C510	C515
SAC-1508A-M2	NOT USED	QQLZ026-410 (41 μH)	QFZ0196-602 (6000pF)	QFZ0197-754 (0.75 μF)
SAC-1509A-M2	QRE121J-100Y (10 Ω)	QQLZ026-460 (46 μH)	QFZ0196-502 (5000pF)	QFZ0197-754 (0.75 μF)
SAC-1510A-M2	QRE121J-100Y (10 Ω)	QQLZ018-540 (54 μH)	QFZ0196-402 (4000pF)	QFZ0197-564 (0.56 μF)
SAC-1514A-M2	NOT USED	QQLZ026-410 (41 μH)	QFZ0196-602 (6000pF)	QFZ0197-754 (0.75 μF)
SAC-1515A-M2	QRE121J-100Y (10 Ω)	QQLZ026-460 (46 μH)	QFZ0196-502 (5000pF)	QFZ0197-564 (0.56 μF)
SAC-1516A-M2	QRE121J-100Y (10 Ω)	QQLZ018-540 (54 μH)	QFZ0196-402 (4000pF)	QFZ0197-564 (0.56 μF)
SAC-1520A-M2	NOT USED	QQLZ026-410 (41 μH)	QFZ0196-602 (6000pF)	QFZ0197-754 (0.75 μF)
SAC-1521A-M2	QRE121J-100Y (10 Ω)	QQLZ026-460 (46 μH)	QFZ0196-502 (5000pF)	QFZ0197-564 (0.56 μF)
SAC-1522A-M2	QRE121J-100Y (10 Ω)	QQLZ018-540 (54 μH)	QFZ0196-402 (4000pF)	QFZ0197-564 (0.56 μF)

NOTE

- BW : BUS WIRE
- X : NON MOUNT
- *1 : 2SC2412K/QR/-X
- *2 : 2SA1037AK/QR/-X
- *3 : 1SS133-T2
- *4 : QQR0582-001Z



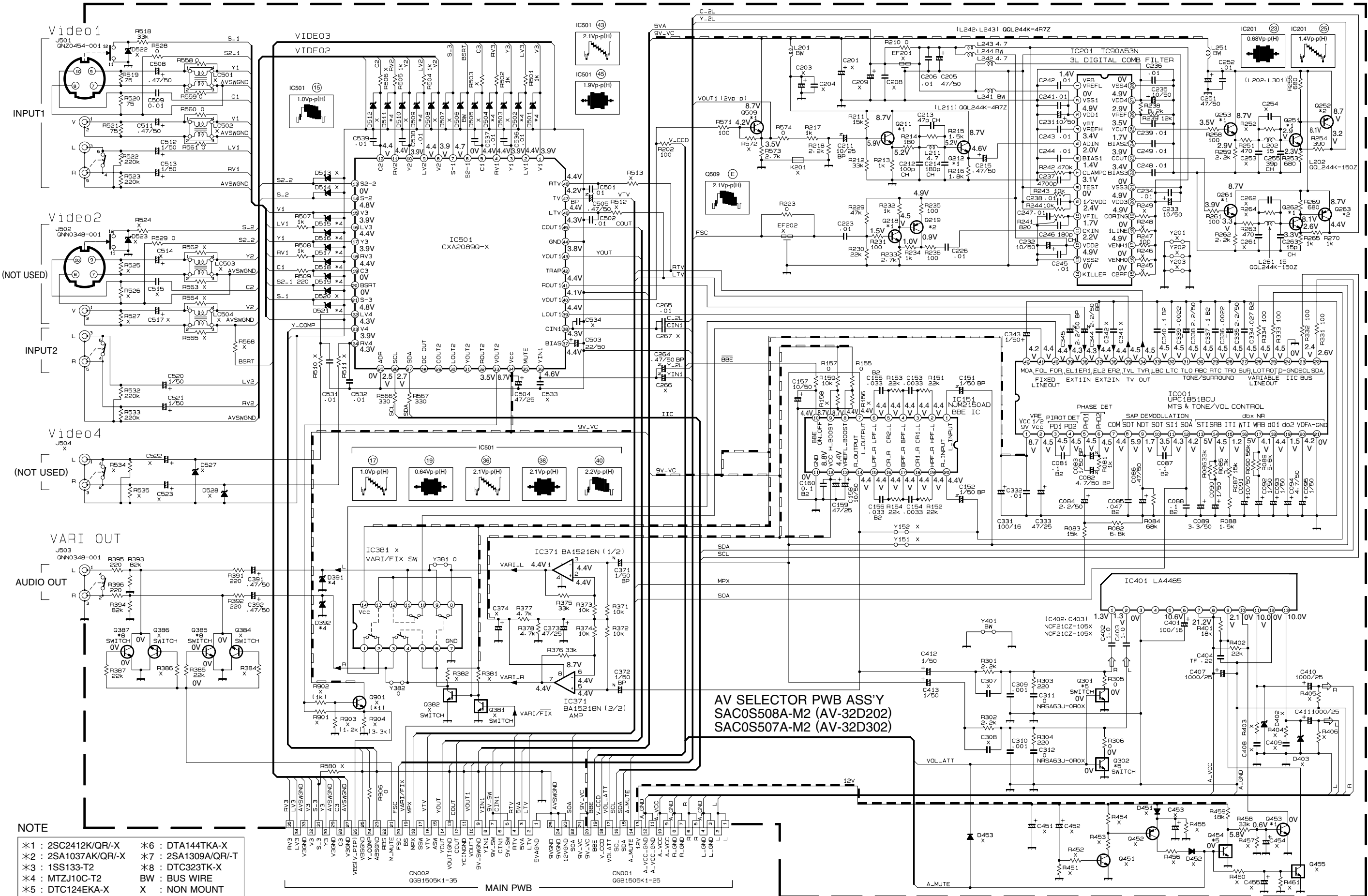
PIP PWB ASS'Y
SAC0P502A-M2

- Y911 BW
- Y901 X (CHIP)
- Y902 X (CHIP)
- Y906 QQR0582-001Z
- Y908 X
- Y903 X (CHIP)
- Y904 X (CHIP)
- Y907 BW
- Y913 BW
- Y914 BW
- Y915 BW
- Y905 X
- Y910 BW

NOTE

- *2 : 2SC2412K/QR-X
- *5 : 1SS133-T2
- BW : BUS WIRE
- X : NON MOUNT

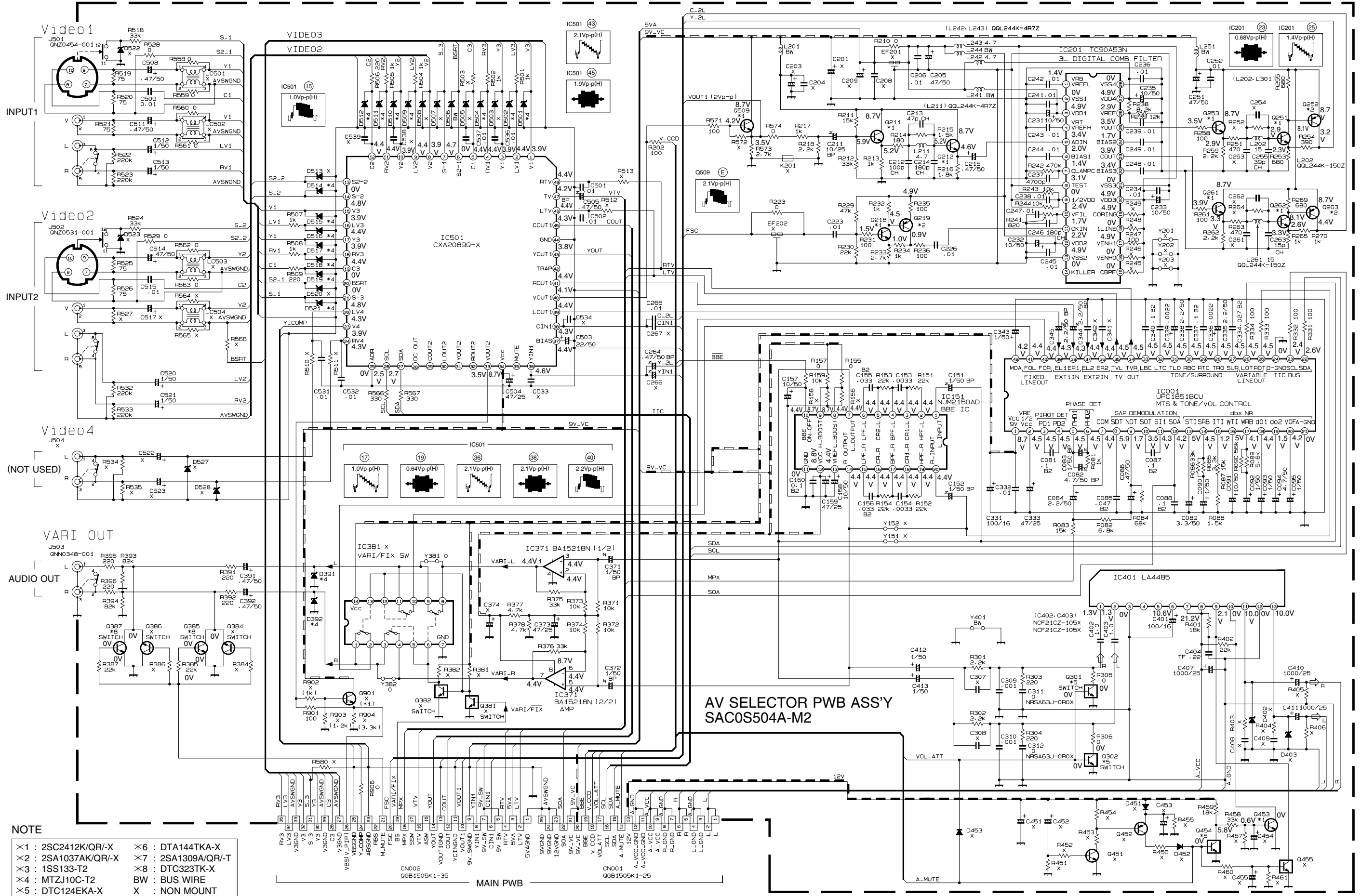
AV SELECTOR PWB CIRCUIT DIAGRAM [AV-32D202, AV-32D302]



NOTE

*1 : 2SC2412K/QR-X	*6 : DTA144TKA-X
*2 : 2SA1037AK/QR-X	*7 : 2SA1309A/QR-T
*3 : 1SS133-T2	*8 : DTC323TK-X
*4 : MTZJ10C-T2	BW : BUS WIRE
*5 : DTC124EKA-X	X : NON MOUNT

AV SELECTOR PWB CIRCUIT DIAGRAM [AV-32D502]



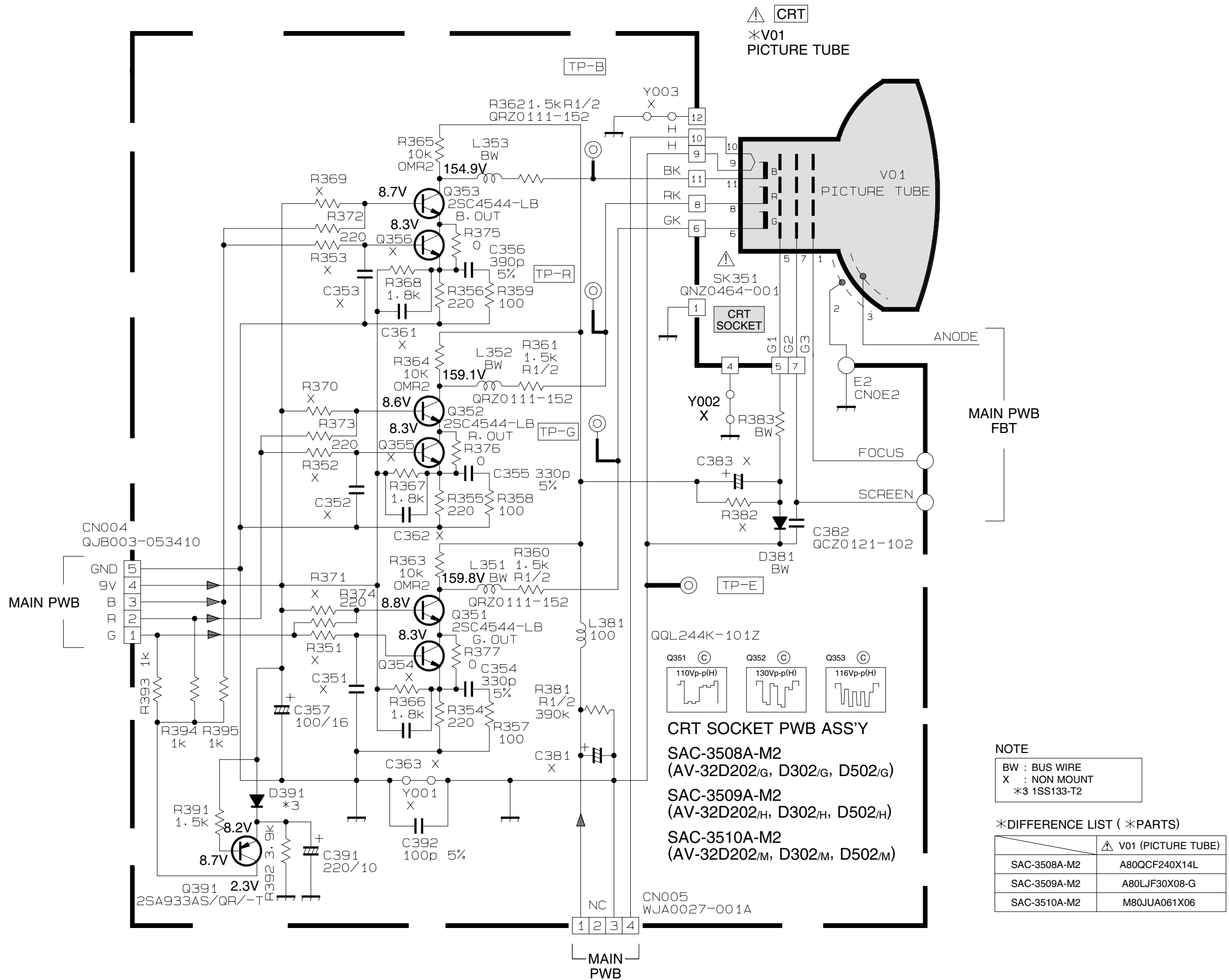
NOTE

*1 : 2SC2412K/QR-X	*6 : DTA144TKA-X
*2 : 2SA1037AK/QR-X	*7 : 2SA1309A/QR-T
*3 : 1SS133-T2	*8 : DTC323TK-X
*4 : MTZJ10C-T2	BW : BUS WIRE
*5 : DTC124EKA-X	X : NON MOUNT

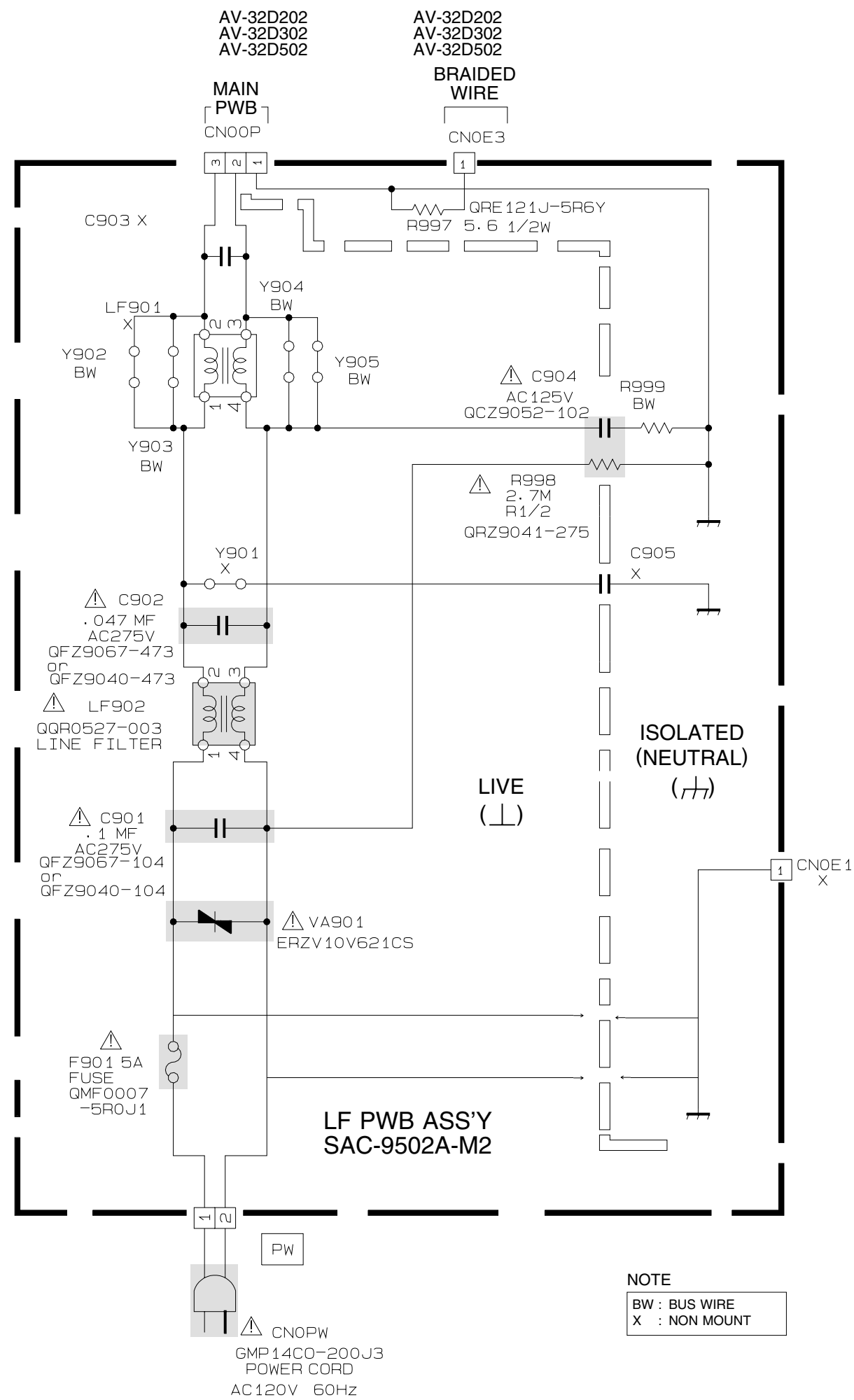
CRT SOCKET PWB CIRCUIT DIAGRAM

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

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



LF PWB CIRCUIT DIAGRAM



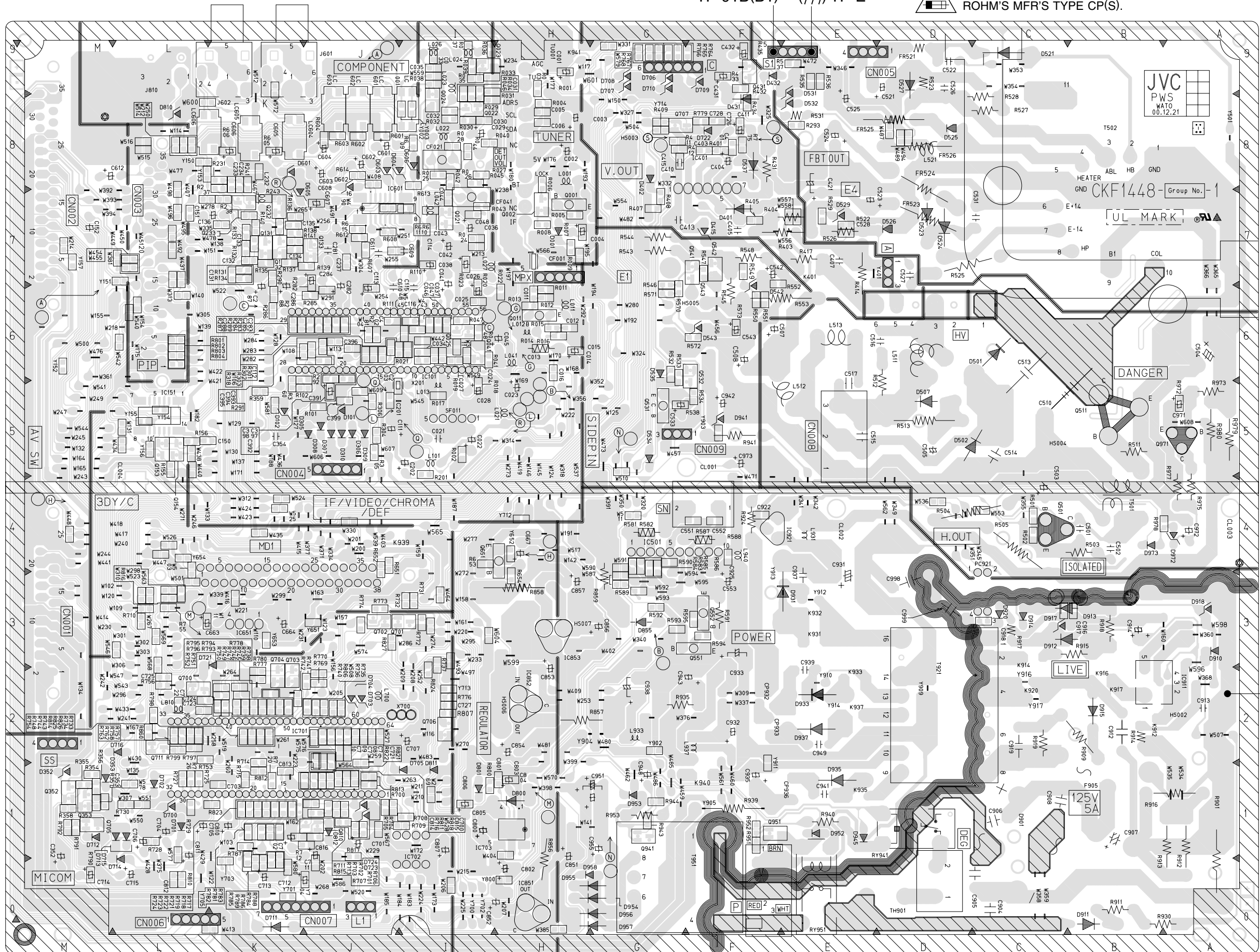
PATTERN DIAGRAMS
MAIN PWB PATTERN

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

TP-91B(B1) (H) TP-E
 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).

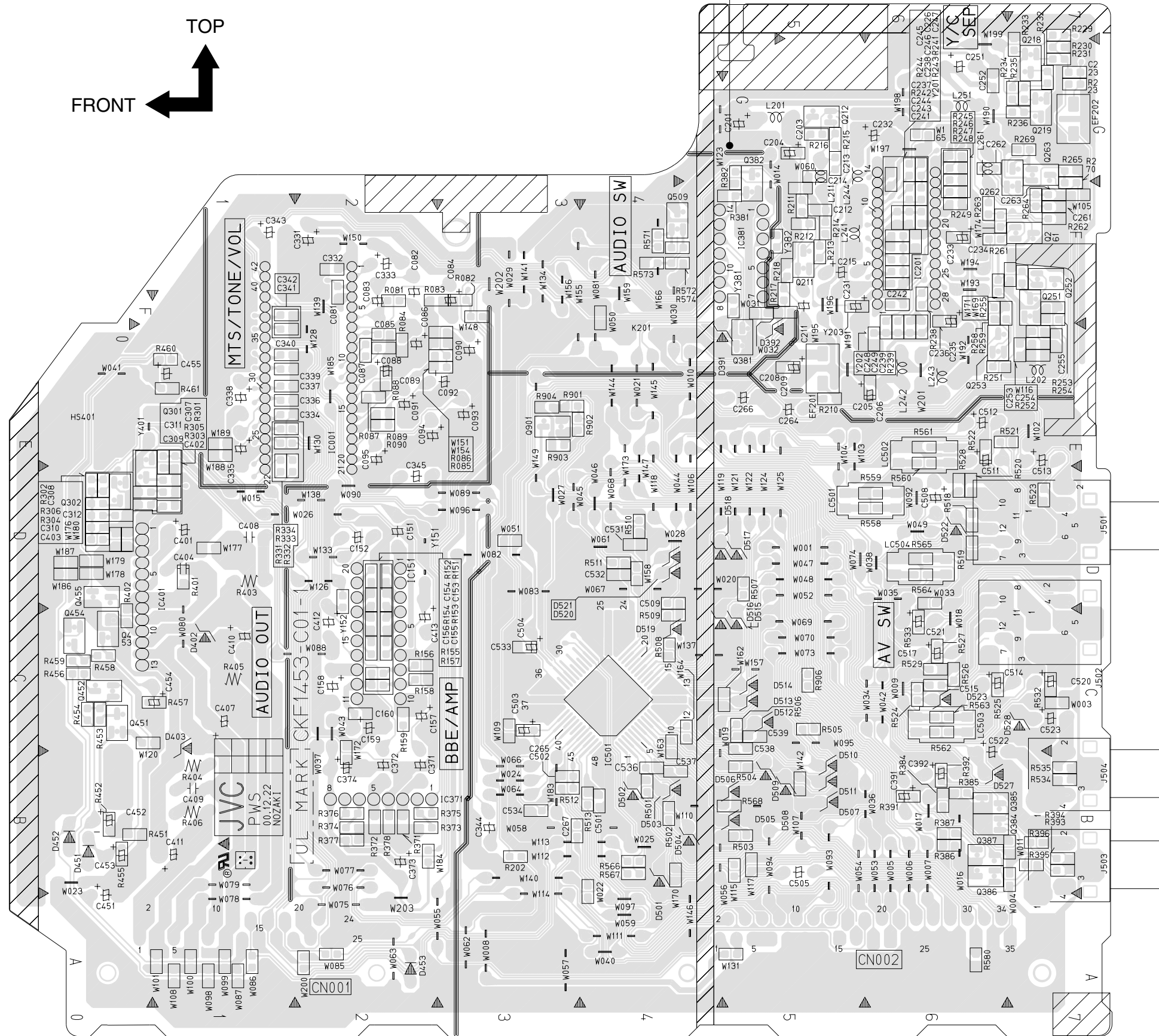
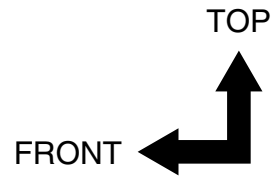


FRONT

AV SELECTOR PWB PATTERN

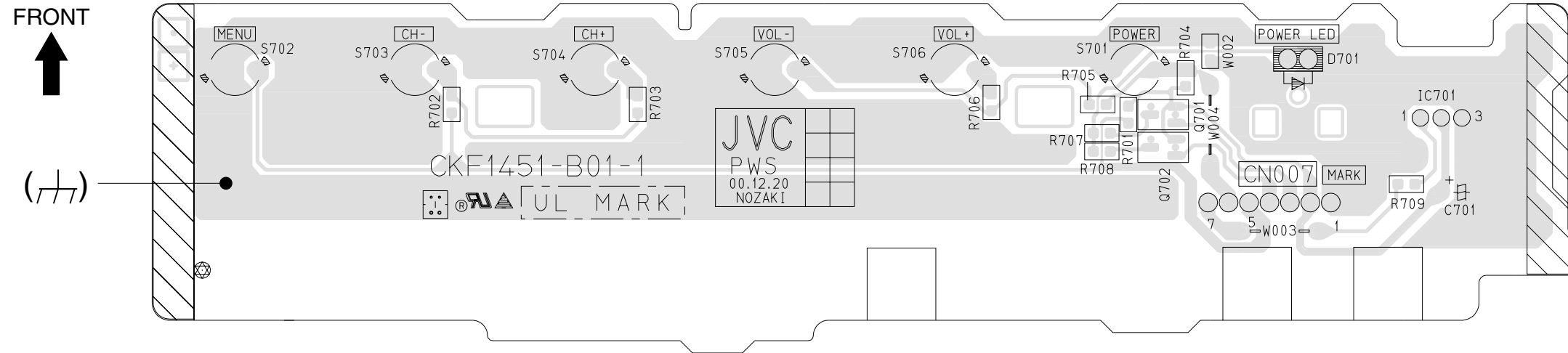
AV-32D202
AV-32D302
AV-32D502

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

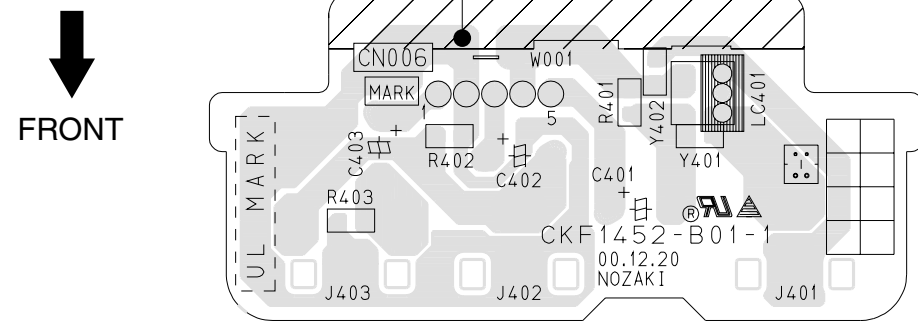


FRONT CONTROL, FRONT AV INPUT AND LF PWB PATTERNS

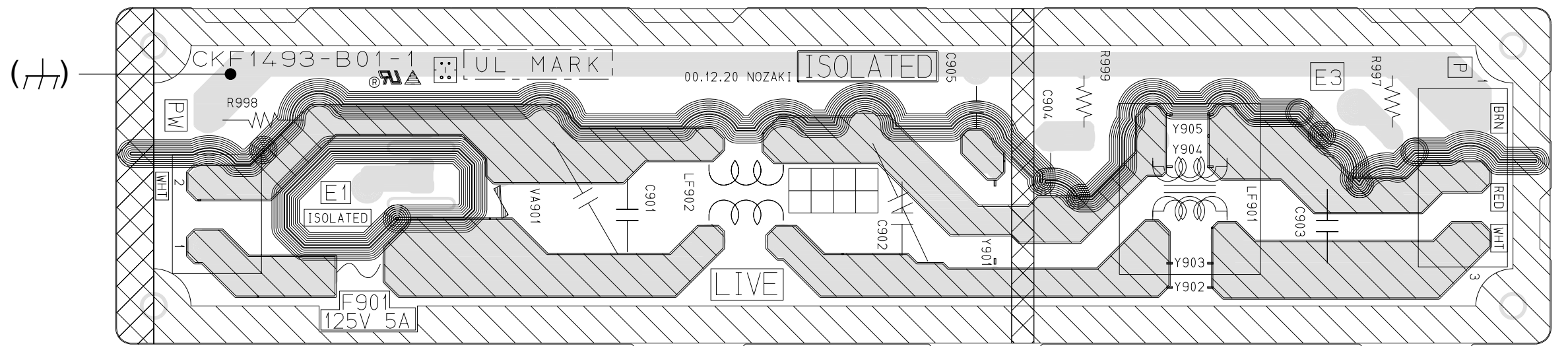
-FRONT CONTROL-



-FRONT AV INPUT-



-LF-



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			

CHANNEL CHART (CA)

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.					

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		III
	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			
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	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.					

JVC SERVICE & ENGINEERING COMPANY OF AMERICA

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