

JVC

SCHEMATIC DIAGRAMS

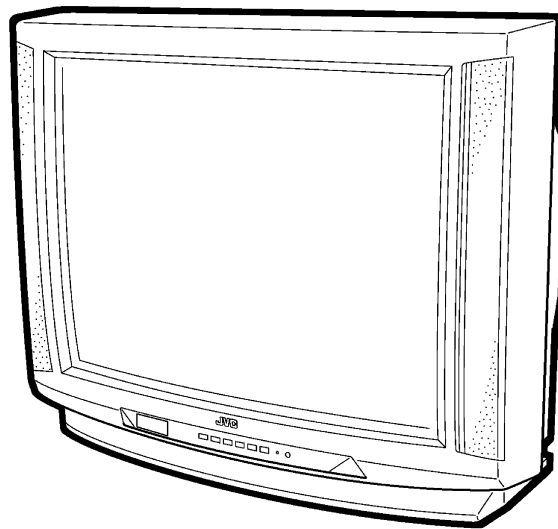
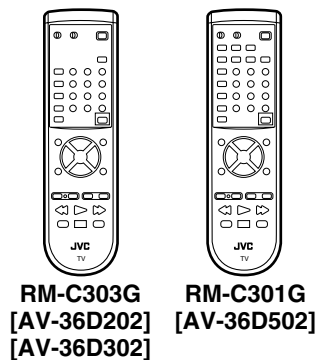
COLOR TELEVISION

BASIC CHASSIS

AC

AV-36D202 /H AV-36D302 /H AV-36D502 /H
AV-36D202 /R AV-36D302 /R AV-36D502 /R
AV-36D202 /Y AV-36D302 /Y AV-36D502 /Y

CD-ROM No. SML200103



AV-36D202 /H AV-36D302 /H AV-36D502 /H
AV-36D202 /R AV-36D302 /R AV-36D502 /R
AV-36D202 /Y AV-36D302 /Y AV-36D502 /Y

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 : 1/10 [W]
- Others : As specified

• Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflamable 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



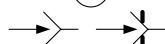
-  : B1
-  : B2(12V)
-  : 9V
-  : 5V

* 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 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.

CONTENTS

SEMICONDUCTOR SHAPES 2-2

BLOCK DIAGRAM 2-3

CIRCUIT DIAGRAMS

P.W.B. name	Model	AV-36D202	AV-36D302	AV-36D502
MAIN PWB CIRCUIT DIAGRAM		P2-5	←	P2-7
MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS		P2-9	←	P2-11
MAIN PWB CIRCUIT DIAGRAM		P2-13	←	←
PIP PWB CIRCUIT DIAGRAM		—	—	P2-15
AV SELECTOR PWB CIRCUIT DIAGRAM		P2-17	←	P2-19
CRT SOCKET PWB CIRCUIT DIAGRAM		P2-21	←	←
LF PWB CIRCUIT DIAGRAM		P2-23	←	←

PATTERN DIAGRAMS

Pattern name	Model	AV-36D202	AV-36D302	AV-36D502
MAIN PWB PATTERN		P2-25	←	←
AV SELECTOR PWB PATTERN		P2-27	←	←
CRT SOCKET AND PIP PWB PATTERNS		P2-29	←	←
FRONT CONTROL, FRONT AV INPUT AND LF PWB PATTERNS		P2-31	←	←

CHANNEL CHART [US] 2-33

[CA] 2-34

SEMICONDUCTOR SHAPES

TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

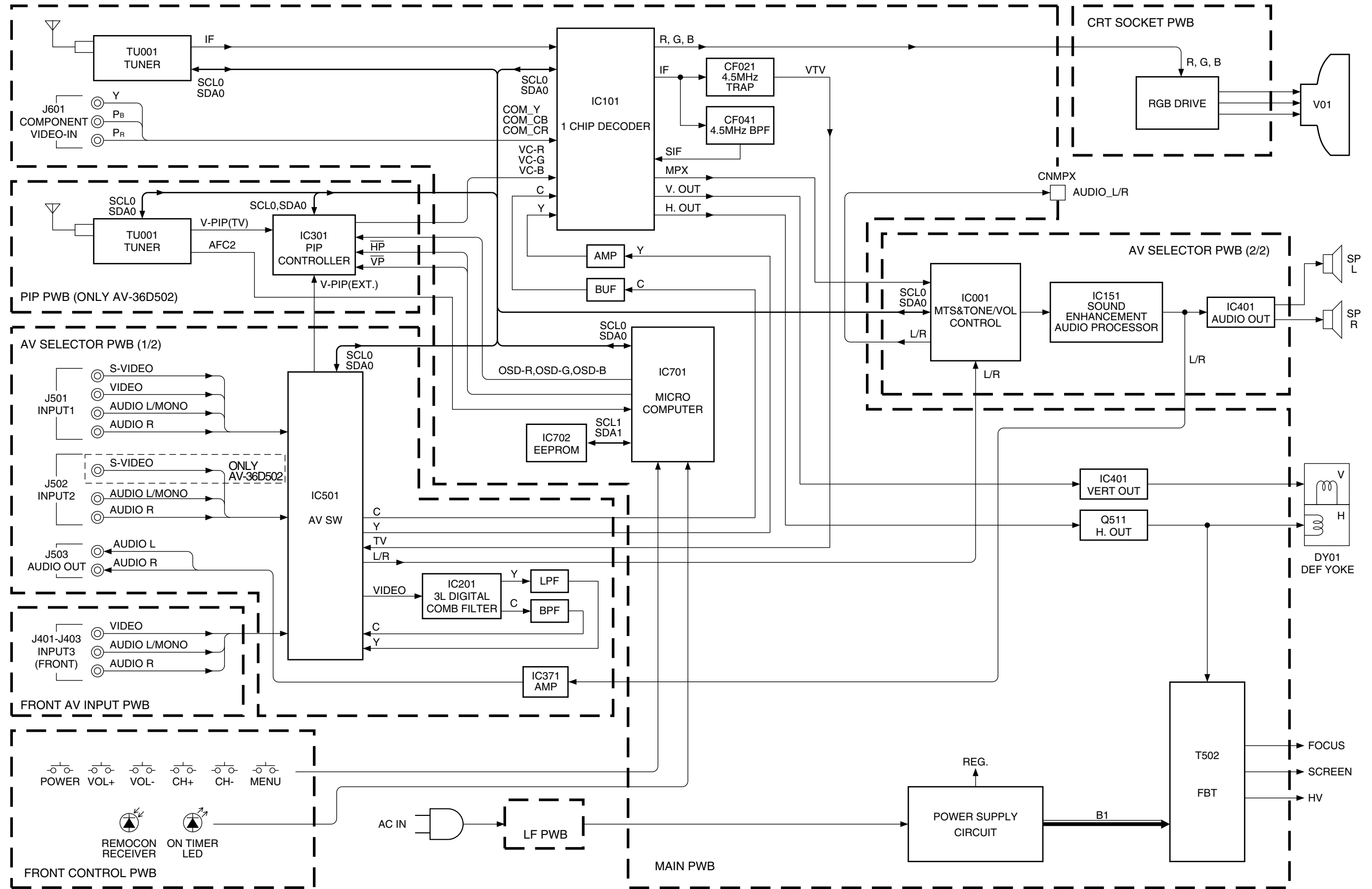
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW

CHIP IC

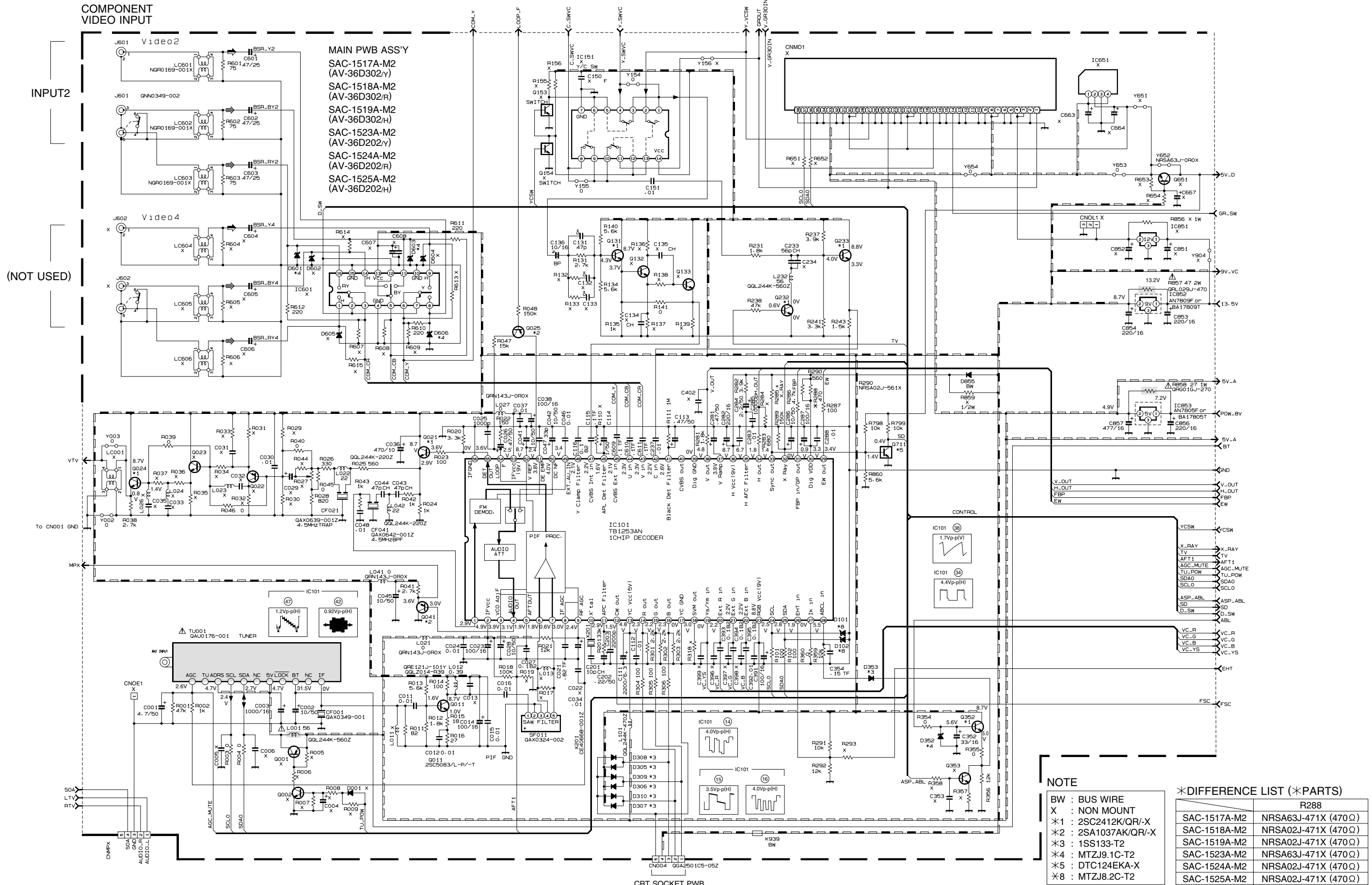
TOP VIEW	

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM [AV-36D202, AV-36D302]



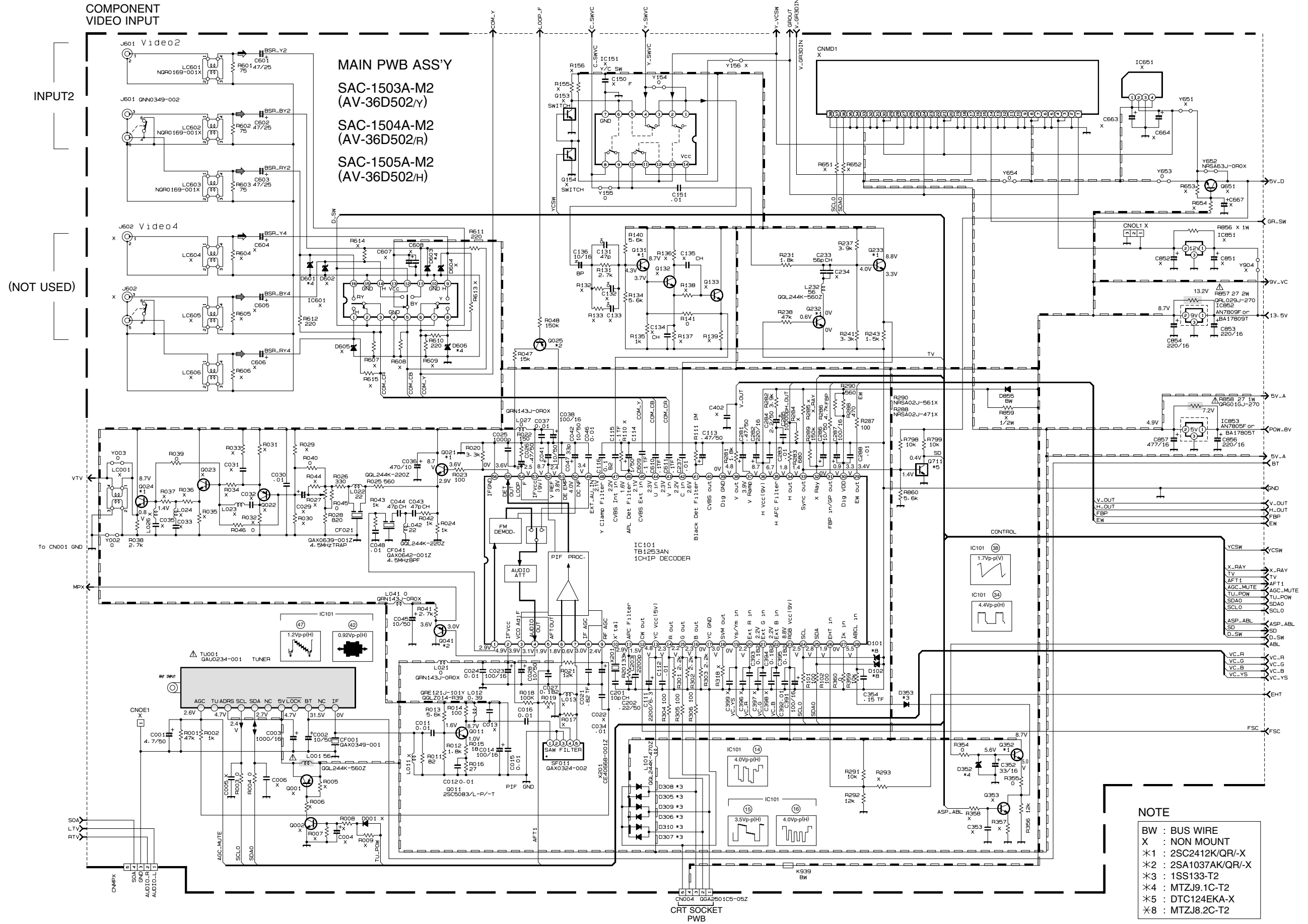
MAIN PWB ASS'Y
 SAC-1517A-M2 (AV-36D302/Y)
 SAC-1518A-M2 (AV-36D302/R)
 SAC-1519A-M2 (AV-36D302/H)
 SAC-1523A-M2 (AV-36D202/Y)
 SAC-1524A-M2 (AV-36D202/R)
 SAC-1525A-M2 (AV-36D202/H)

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

***DIFFERENCE LIST (*PARTS)**

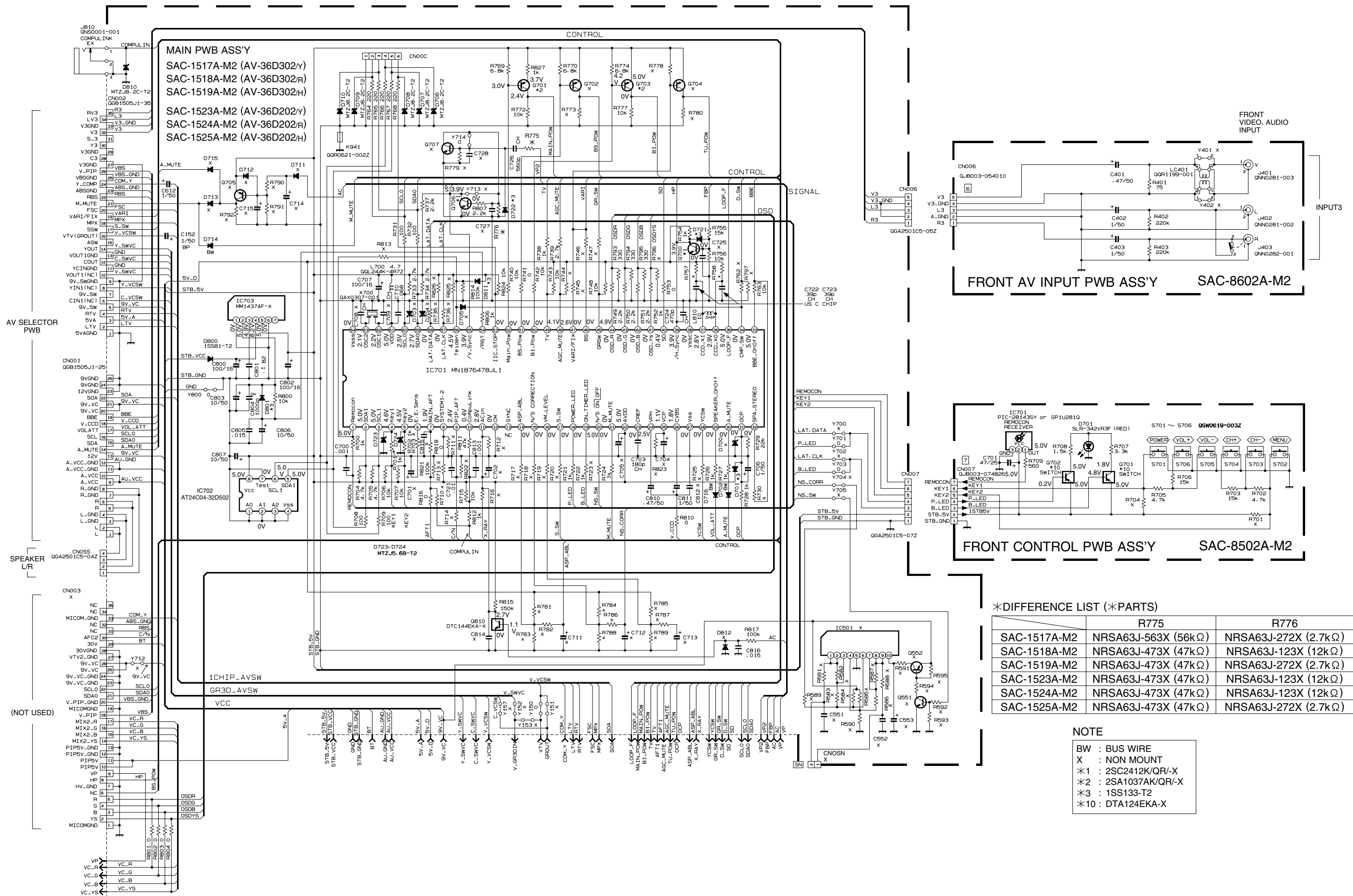
R288	
SAC-1517A-M2	NRSA63J-471X (470Ω)
SAC-1518A-M2	NRSA02J-471X (470Ω)
SAC-1519A-M2	NRSA02J-471X (470Ω)
SAC-1523A-M2	NRSA63J-471X (470Ω)
SAC-1524A-M2	NRSA02J-471X (470Ω)
SAC-1525A-M2	NRSA02J-471X (470Ω)



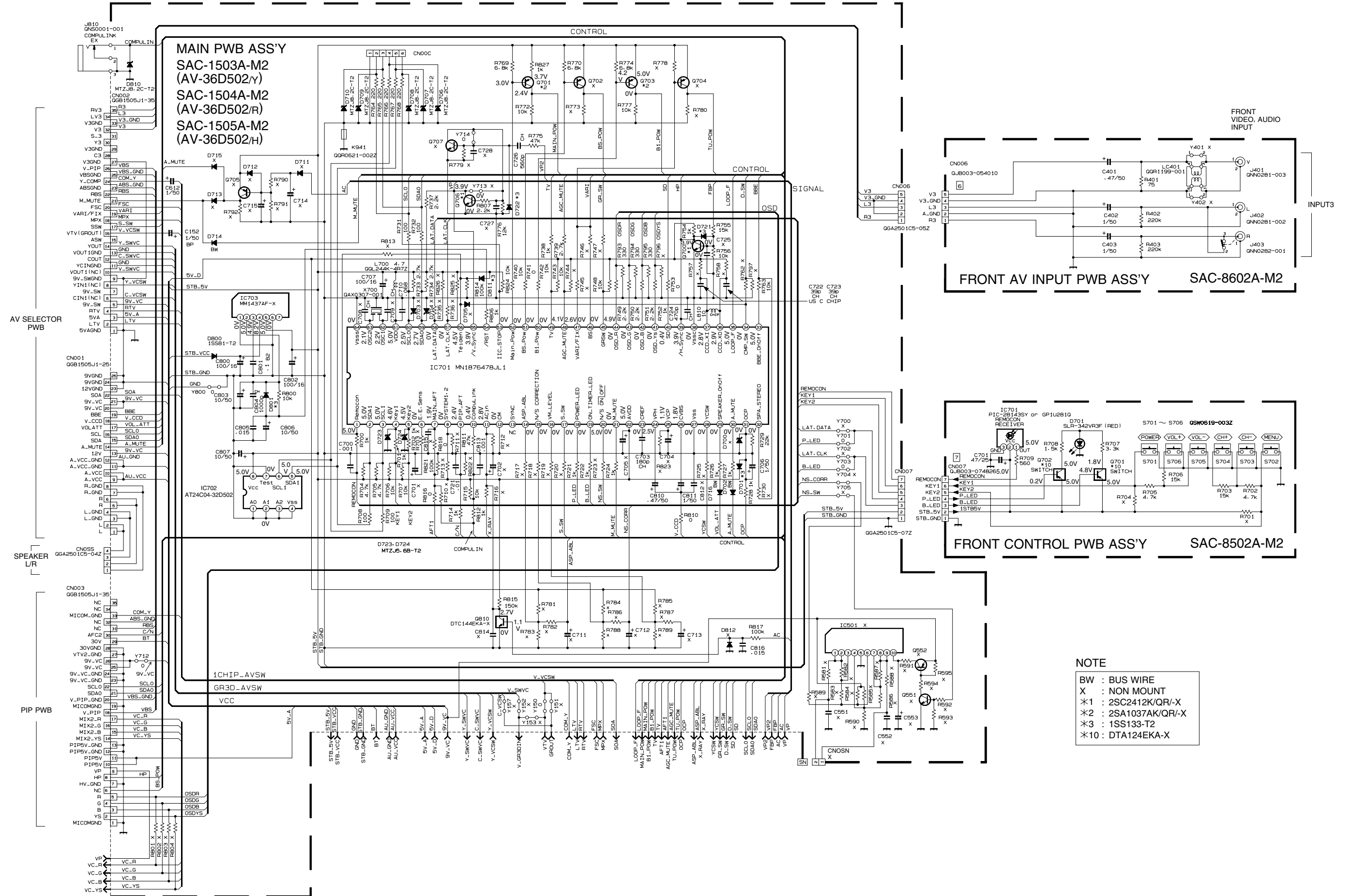
NOTE

- 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-36D202, AV-36D302]



MAIN, FRONT CONTROL AND FRONT AV INPUT PWB CIRCUIT DIAGRAMS [AV-36D502]



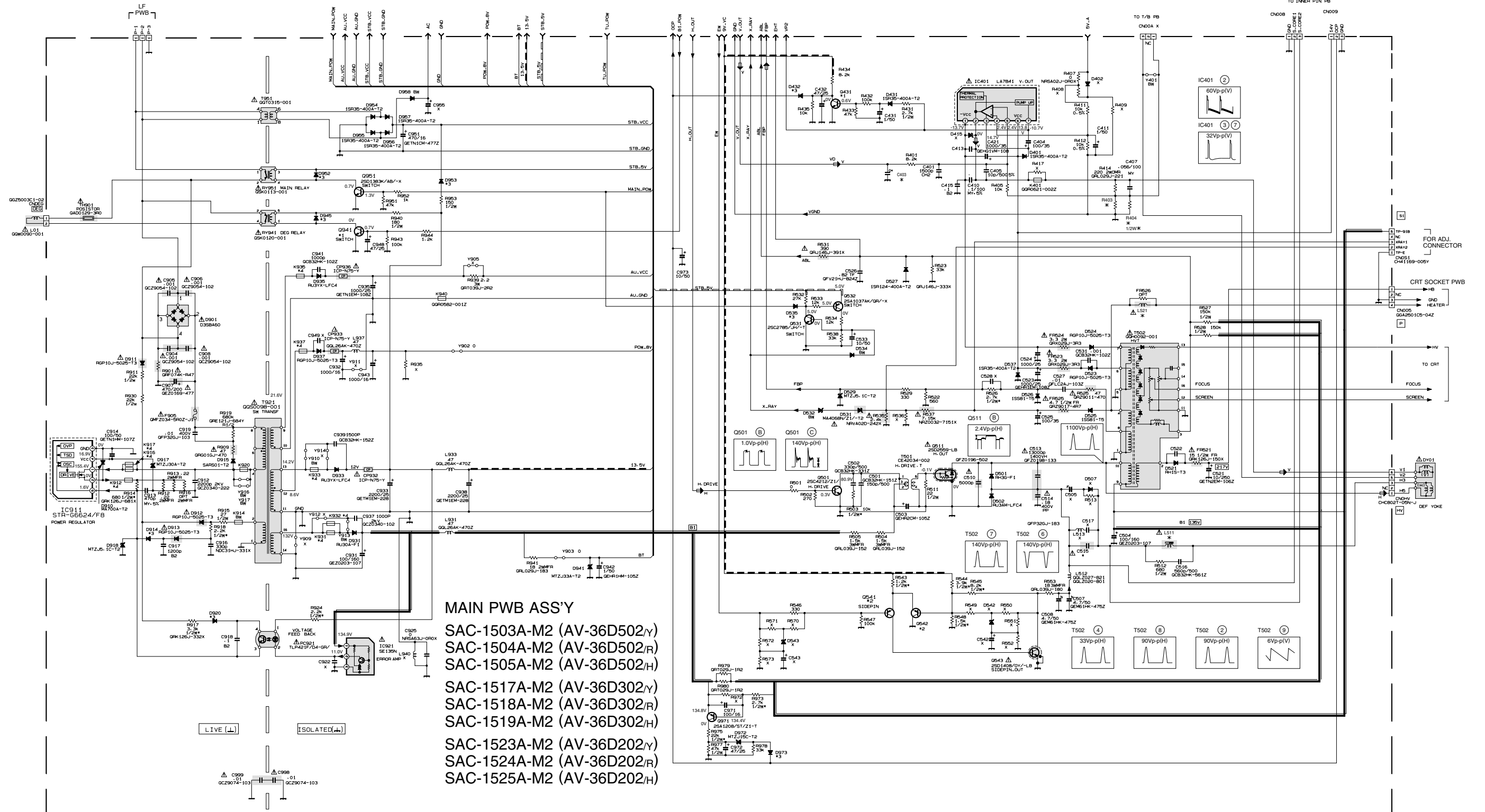
NOTE

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

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



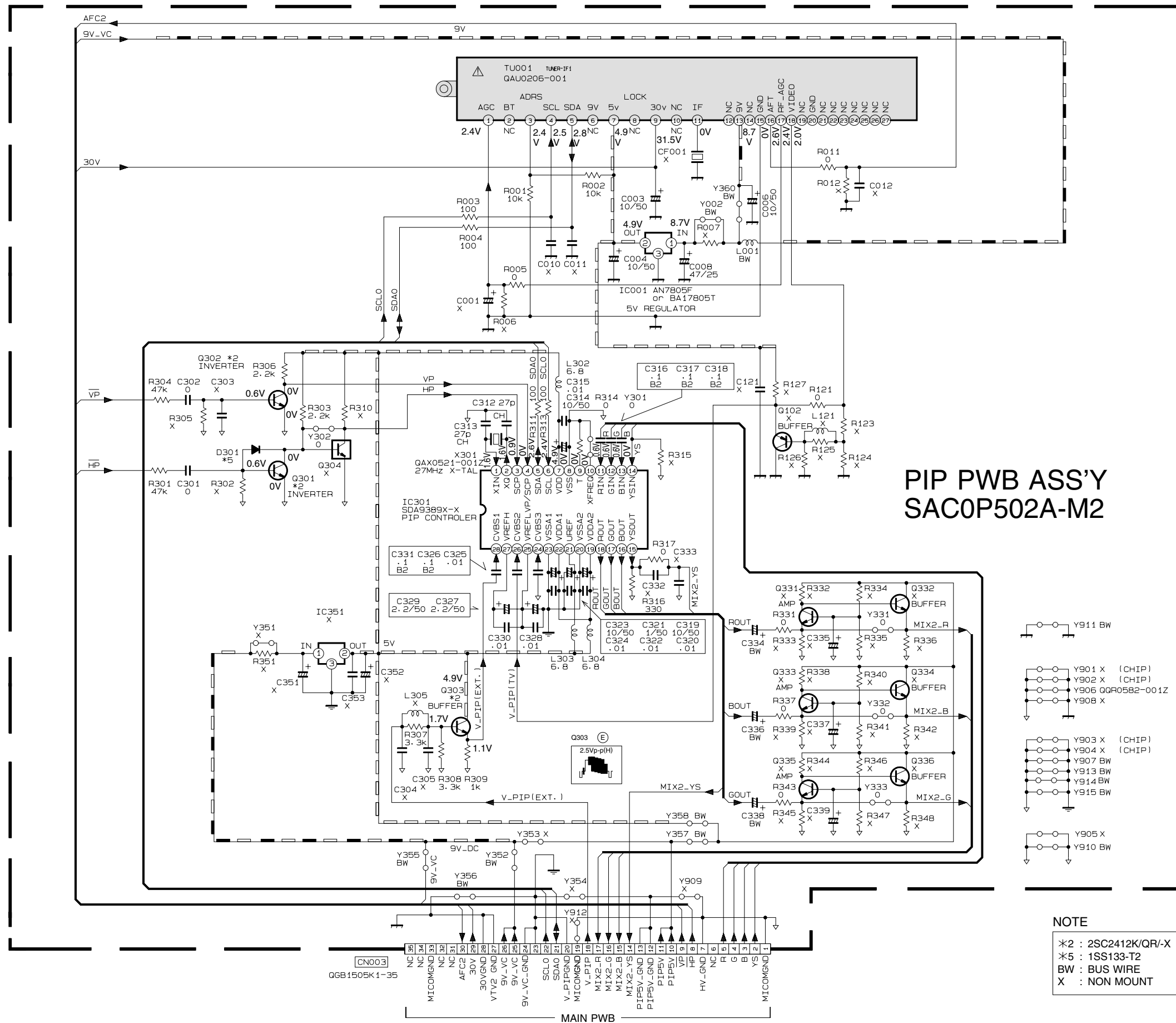
- MAIN PWB ASS'Y
- SAC-1503A-M2 (AV-36D502_N)
 - SAC-1504A-M2 (AV-36D502_R)
 - SAC-1505A-M2 (AV-36D502_H)
 - SAC-1517A-M2 (AV-36D302_N)
 - SAC-1518A-M2 (AV-36D302_R)
 - SAC-1519A-M2 (AV-36D302_H)
 - SAC-1523A-M2 (AV-36D202_N)
 - SAC-1524A-M2 (AV-36D202_R)
 - SAC-1525A-M2 (AV-36D202_H)

*DIFFERENCE LIST (*PARTS)

	R403	R404	C403	C515	L511	L521
SAC-1503A-M2	QRX01GJ-1R5 (1.5Ω)	NOT USED	NCB21HK-273X (0.027μF)	QFZ0197-564 (0.56μF)	CE41029-00A	QLLZ026-500 (50μH)
SAC-1504A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-624 (0.62μF)	QQR1027-003	QLLZ026-430 (43μH)
SAC-1505A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-564 (0.56μF)	QQR1027-003	QLLZ026-430 (43μH)
SAC-1517A-M2	QRX01GJ-1R5 (1.5Ω)	NOT USED	NCB21HK-393X (0.039μF)	QFZ0197-564 (0.56μF)	CE41029-00A	QLLZ026-500 (50μH)
SAC-1518A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-624 (0.62μF)	QQR1027-003	QLLZ026-430 (43μH)
SAC-1519A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-564 (0.56μF)	QQR1027-003	QLLZ026-430 (43μH)
SAC-1523A-M2	QRX01GJ-1R2 (1.2Ω)	NOT USED	NCB21HK-393X (0.039μF)	QFZ0197-564 (0.56μF)	CE41029-00A	QLLZ026-500 (50μH)
SAC-1524A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-624 (0.62μF)	QQR1027-003	QLLZ026-430 (43μH)
SAC-1525A-M2	QRX01GJ-1R0 (1Ω)	QRE121J-100Y (10Ω)	NCB21HK-273X (0.027μF)	QFZ0197-564 (0.56μF)	QQR1027-003	QLLZ026-430 (43μH)

NOTE

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



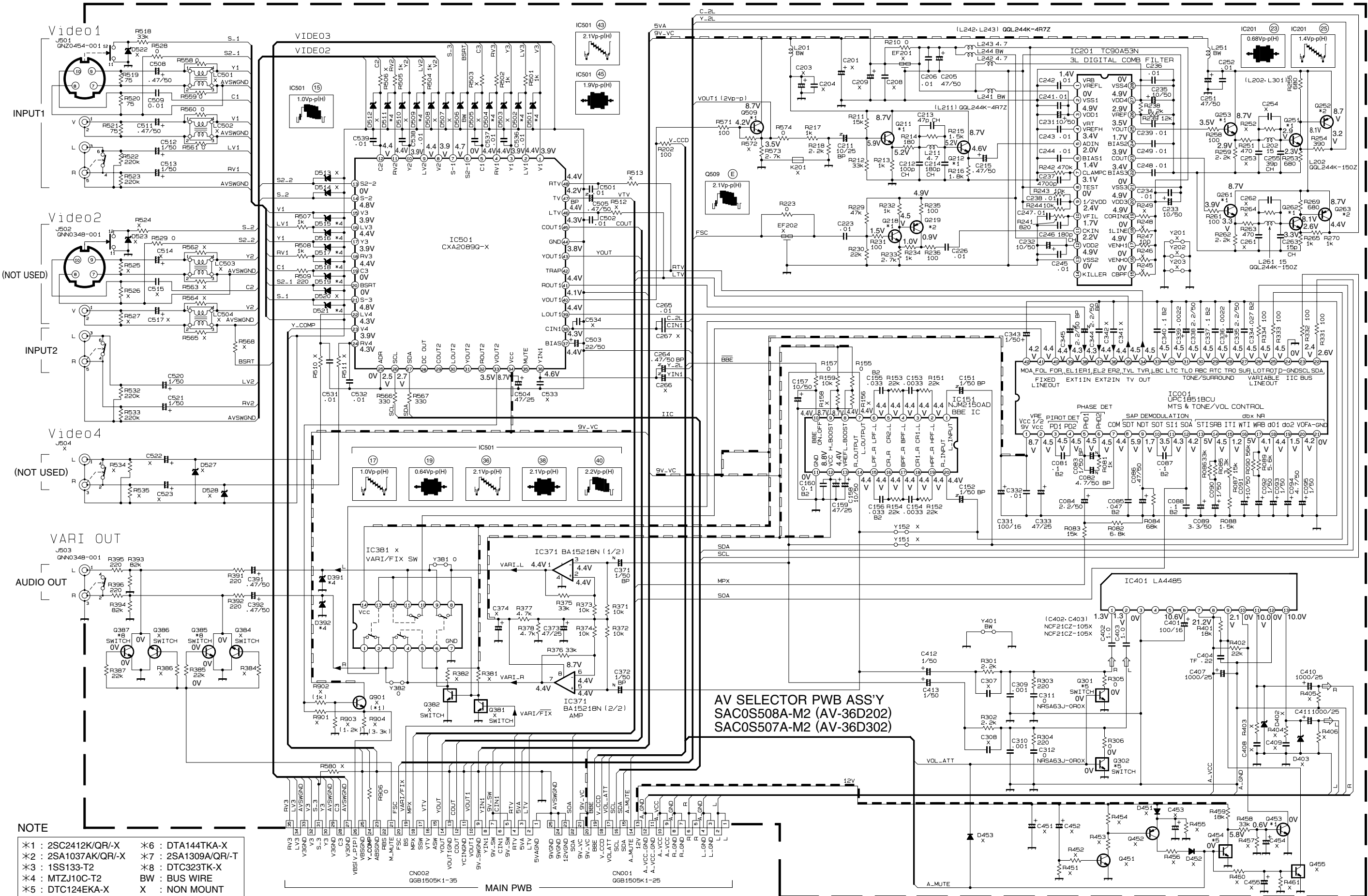
PIP PWB ASS'Y
SAC0P502A-M2

- 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-36D202, AV-36D302]



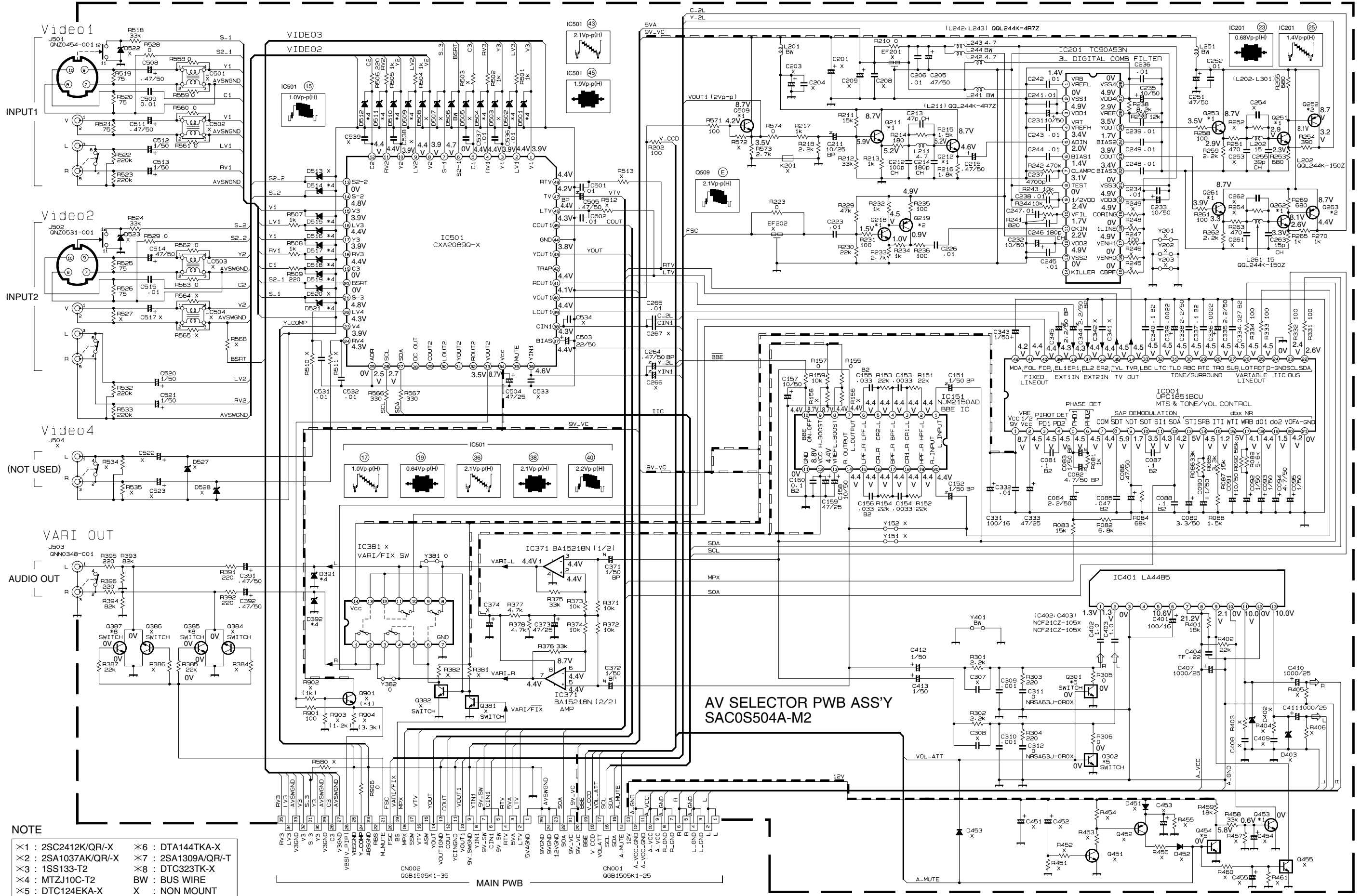
NOTE

*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-36D502]

AV-36D502

AV-36D502



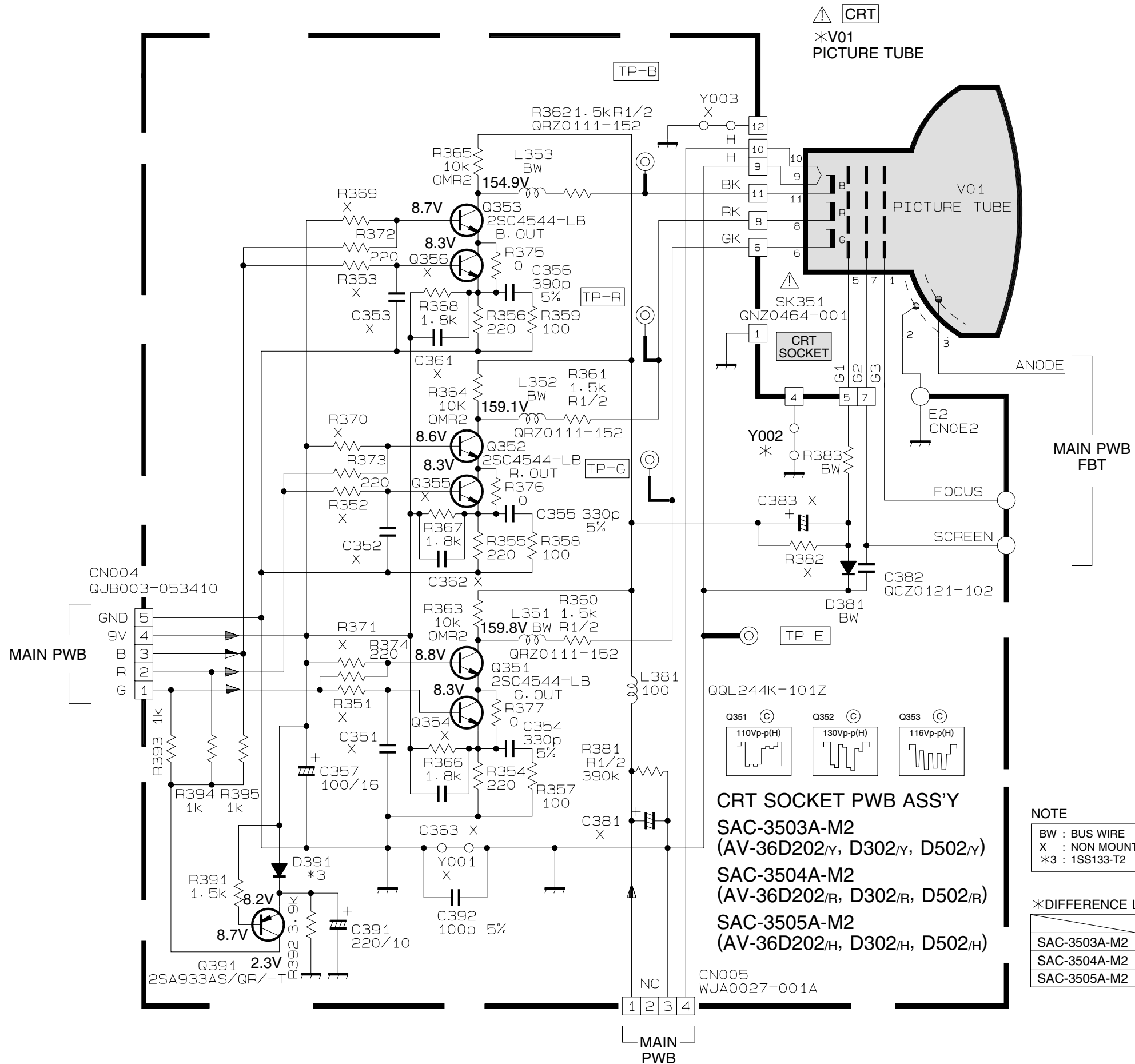
NOTE

*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

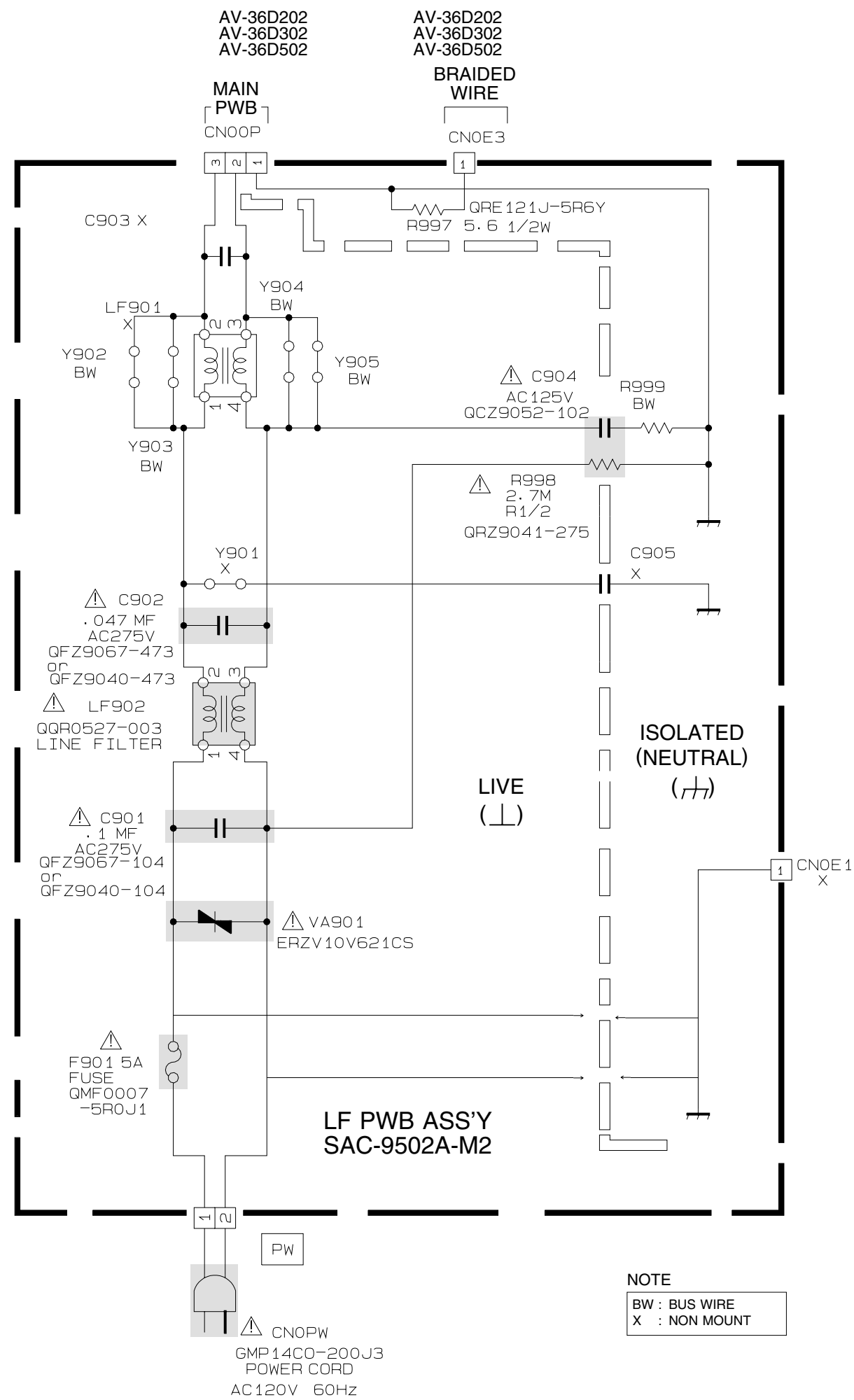
CRT SOCKET PWB CIRCUIT DIAGRAM

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

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



LF PWB CIRCUIT DIAGRAM



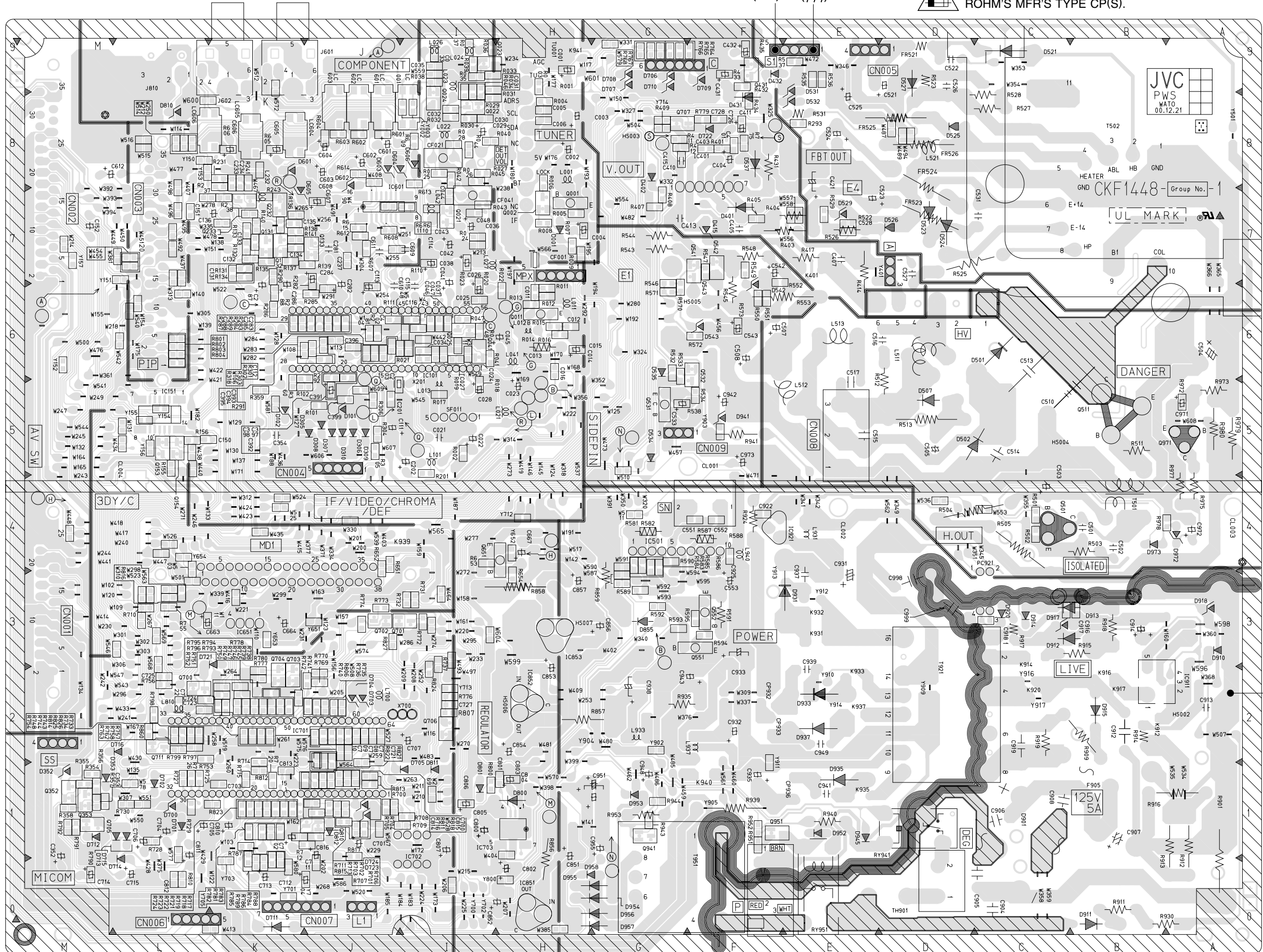
PATTERN DIAGRAMS
MAIN PWB PATTERN

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

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

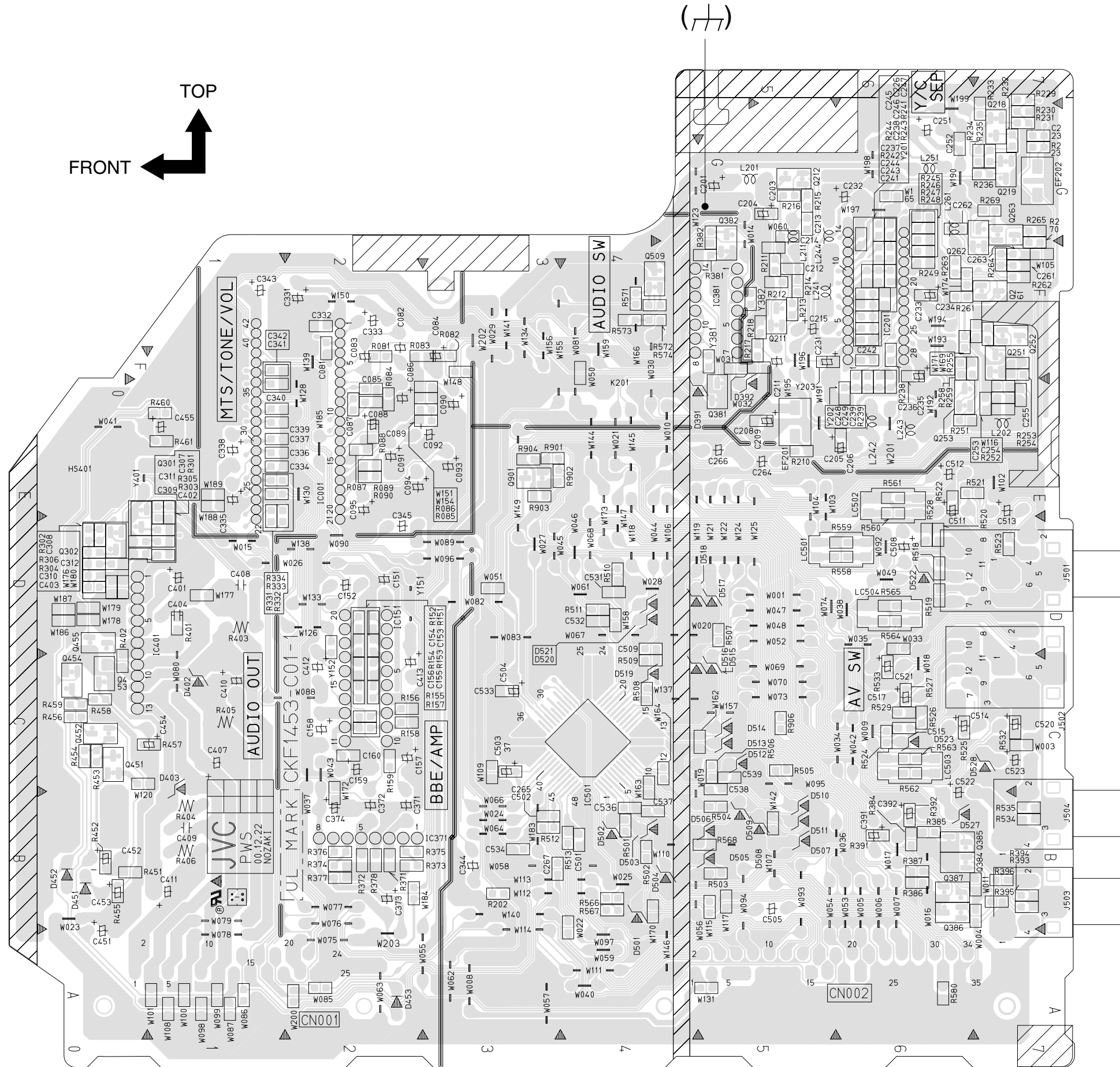


AV SELECTOR PWB PATTERN

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

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

TOP
FRONT

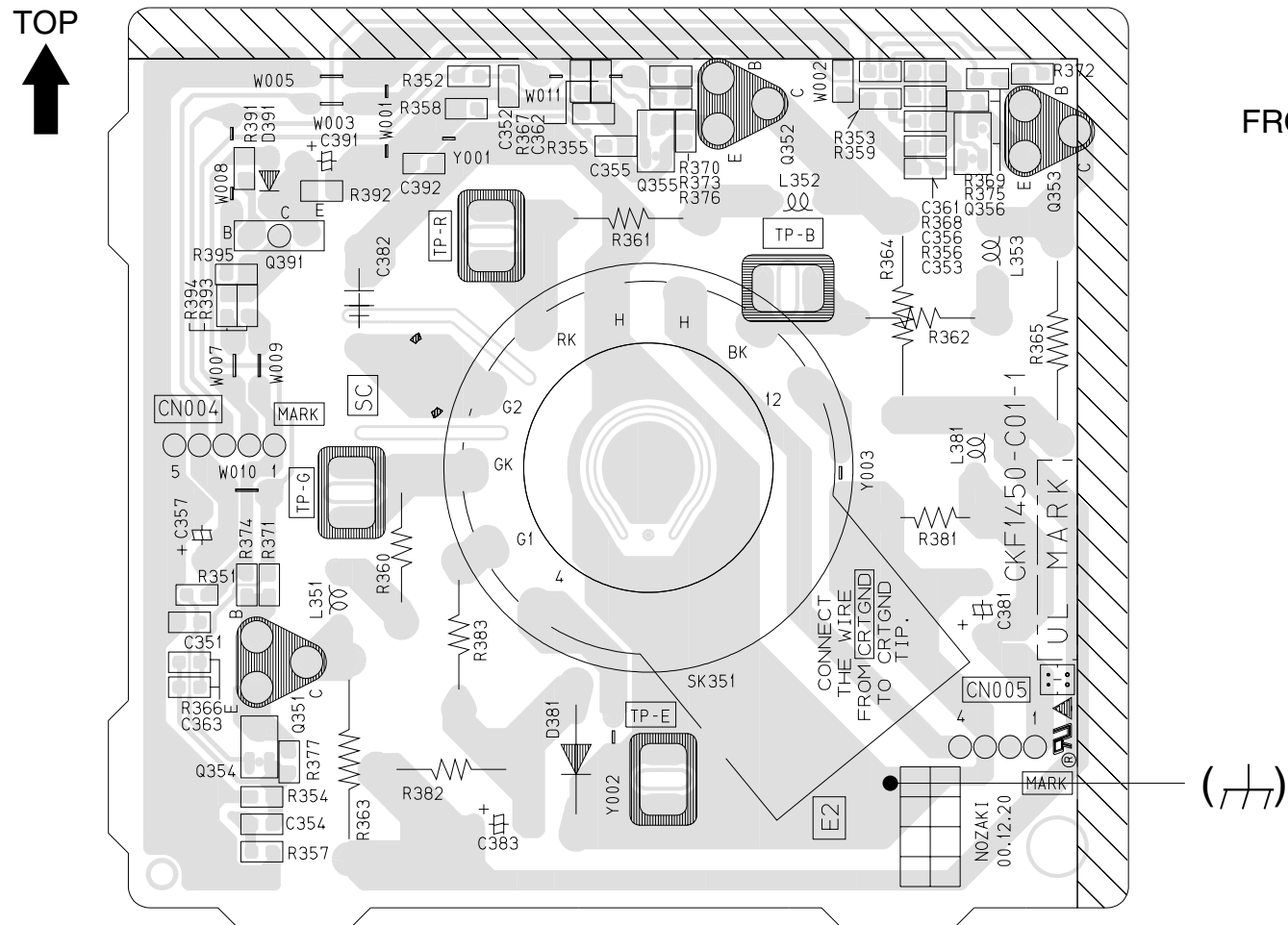


CRT SOCKET AND PIP PWB PATTERNS

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

AV-36D502

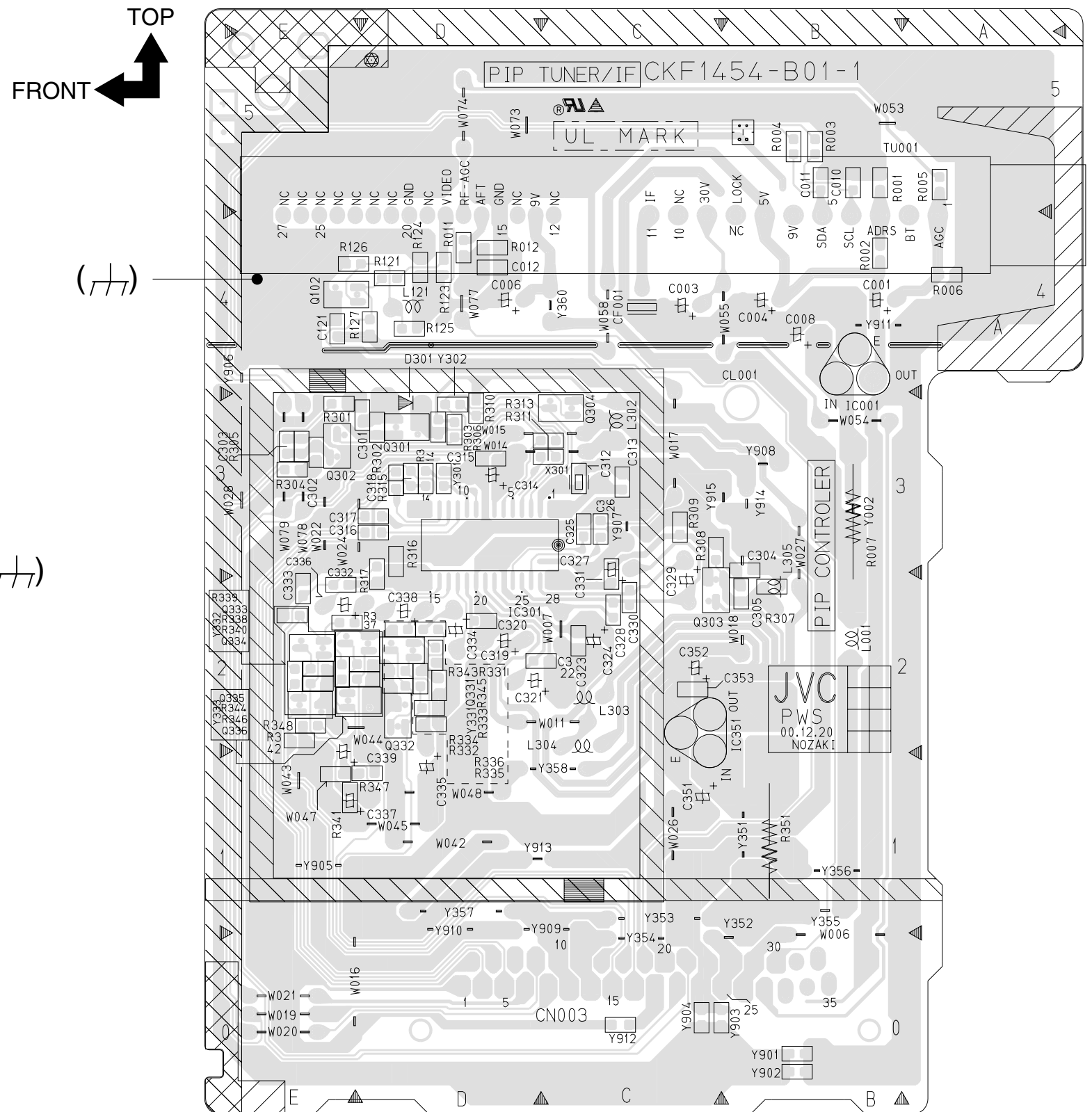
— CRT SOCKET —



No.51798

2-29

— PIP —
[AV-36D502]

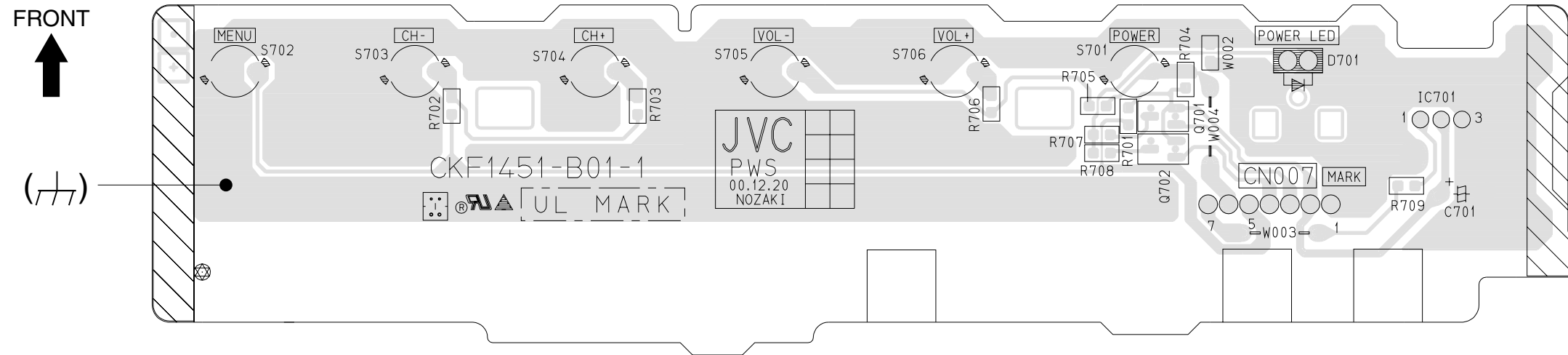


No.51798

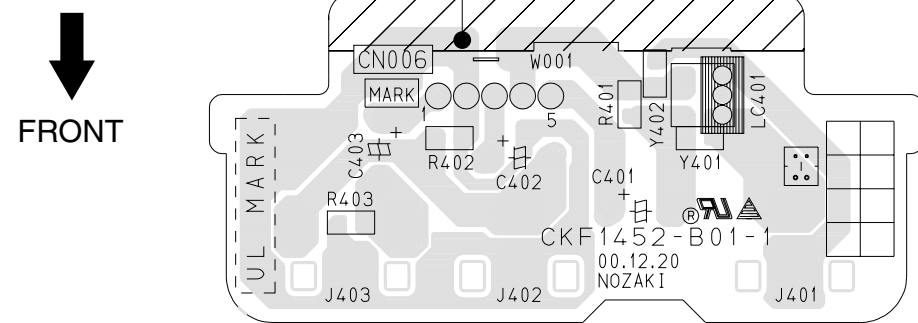
2-30

FRONT CONTROL, FRONT AV INPUT AND LF PWB PATTERNS

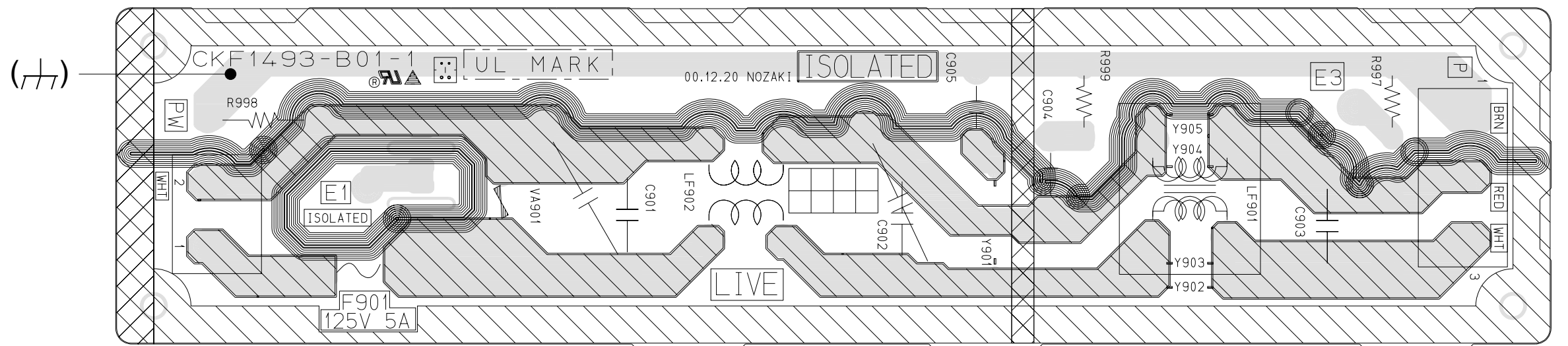
-FRONT CONTROL-



-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	IV		
	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	III
			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			
	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

DIVISION OF JVC AMERICAS CORP.

Head office : 1700 Valley Road, Wayne, New Jersey 07470 (973)315-5000
East Coast : 10 New Maple Avenue, Pine Brook, New Jersey 07058 (973)396-1000
Midwest : 705 Enterprise St. Aurora, Illinois 60504 (630)851-7855
West Coast : 5665 Corporate Avenue, Cypress, California 90630 (714)229-8011
Southwest : 10700 Hammerly, Suite 105, Houston, Texas 77043 (713)935-9331
Hawaii : 2969 Mapunapuna Place, Honolulu, Hawaii 96819 (808)833-5828
Southeast : 1500 Lakes Parkway, Lawrenceville, Georgia 30243 (770)339-2582

JVC CANADA INC.

Head office : 21 Finchdene Square Scarborough, Ontario M1X 1A7 (416)293-1311
Vancouver : 13040 Worster Court Richmond B.C. V6V 2B3 (604)270-1311

JVC®