

# JVC

## SCHEMATIC DIAGRAMS

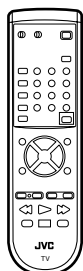
### COLOR TELEVISION

BASIC CHASSIS
AC

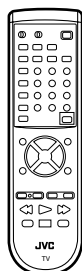
# AV-32F702 /Z

# AV-32F802 /Z

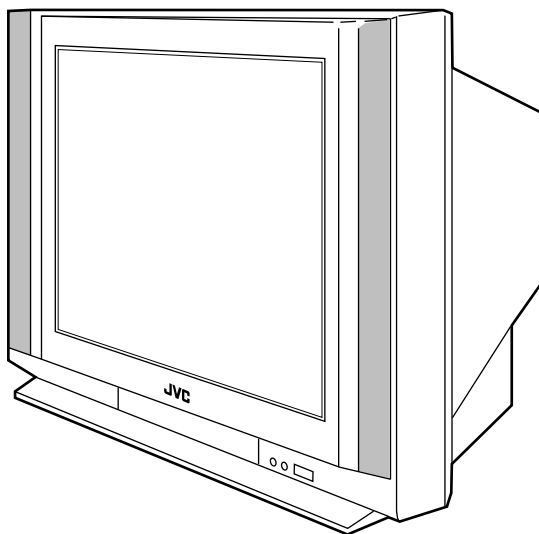
CD-ROM No. SML200106



**RM-C303G**  
[AV-32F702]



**RM-C301G**  
[AV-32F802]






# AV-32F702 /Z AV-32F802 /Z 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 : 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 : [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

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## PATTERN DIAGRAMS

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## SEMICONDUCTOR SHAPES

### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

### IC

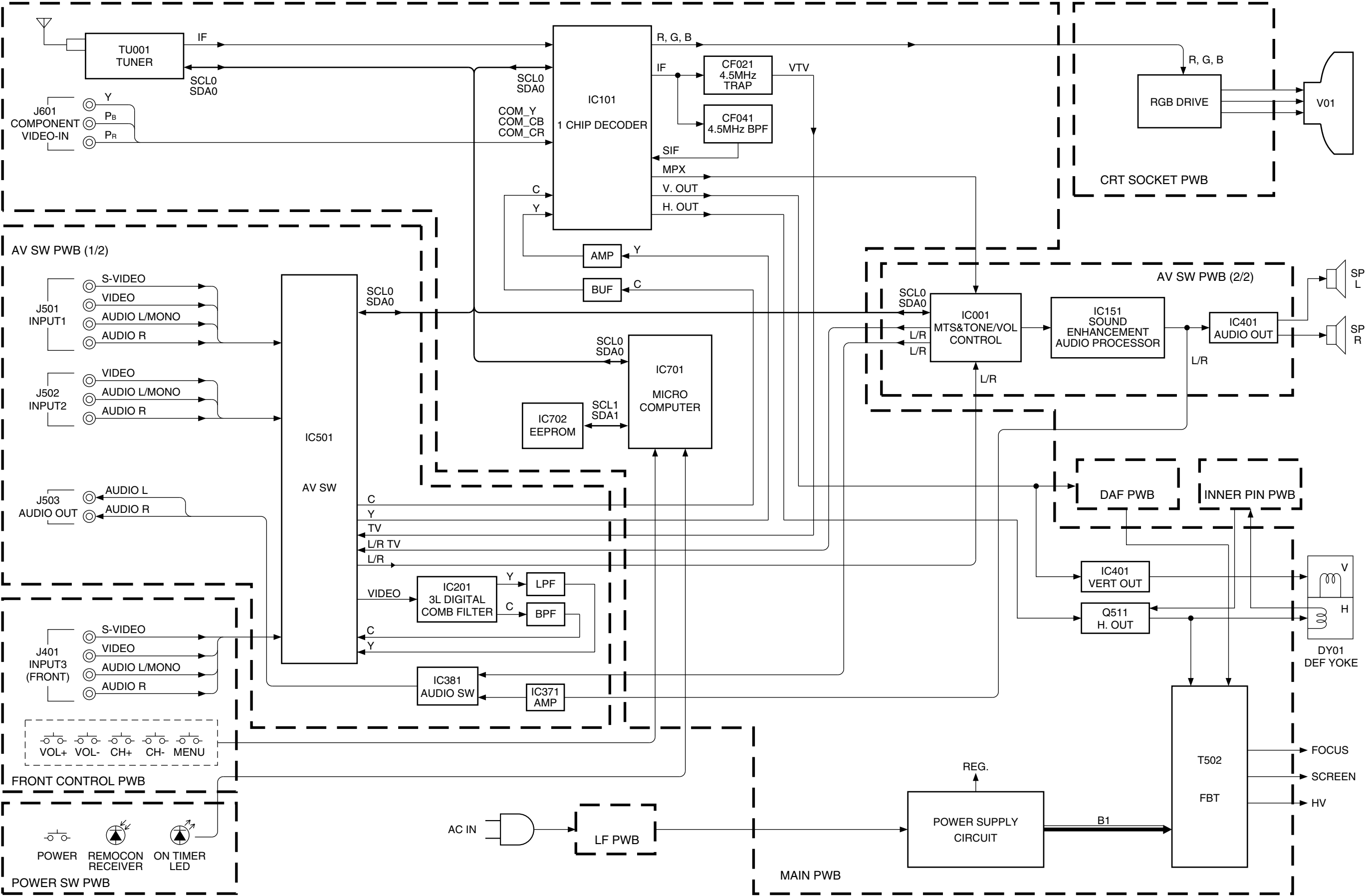
BOTTOM VIEW	FRONT VIEW			TOP VIEW

### CHIP IC

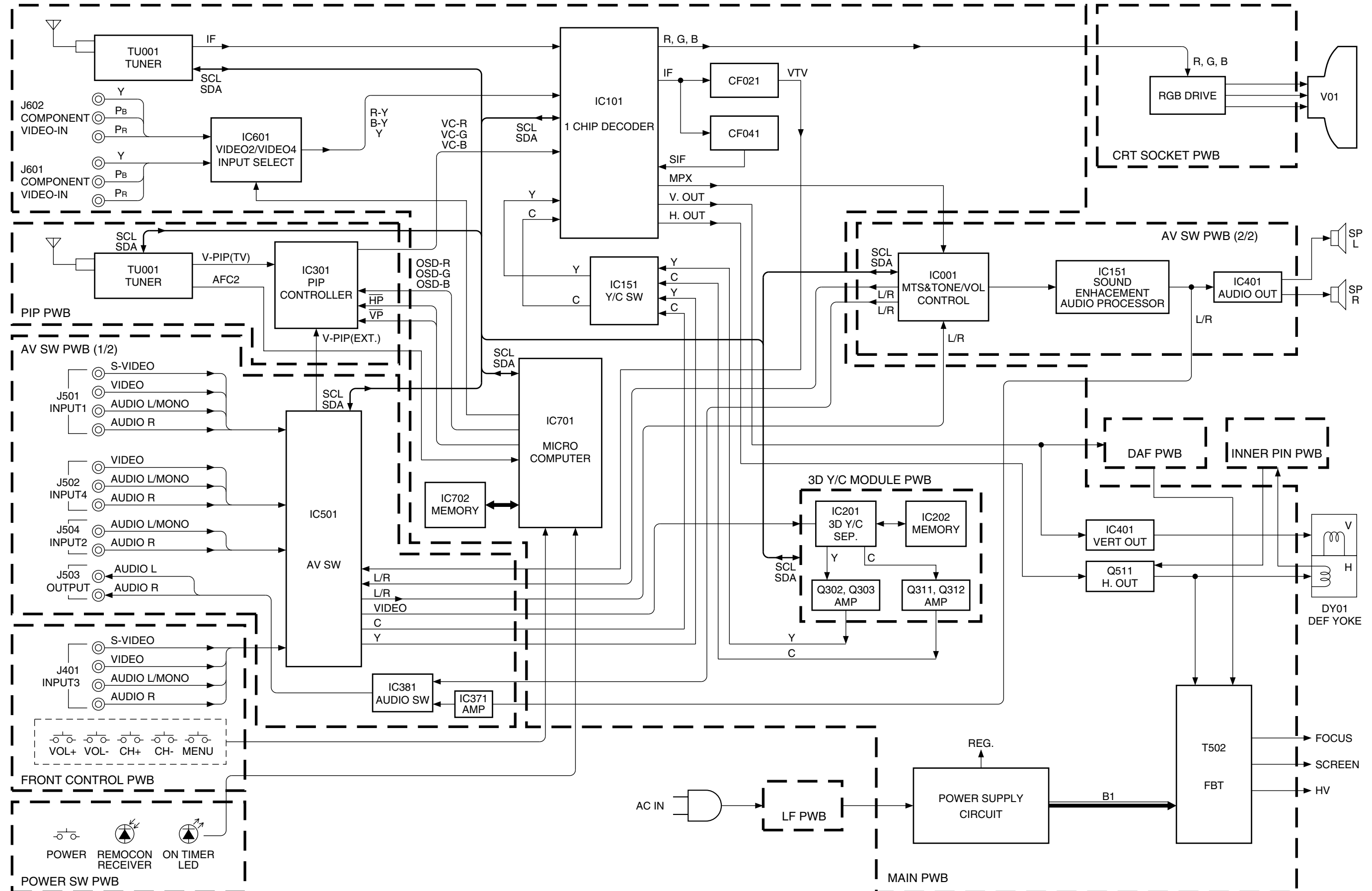
TOP VIEW		



**BLOCK DIAGRAM**  
AV-32F702 BLOCK DIAGRAM

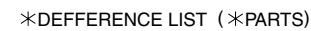




**BLOCK DIAGRAM****AV-32F802 BLOCK DIAGRAM**



COMPONENT  
VIDEO INPUT



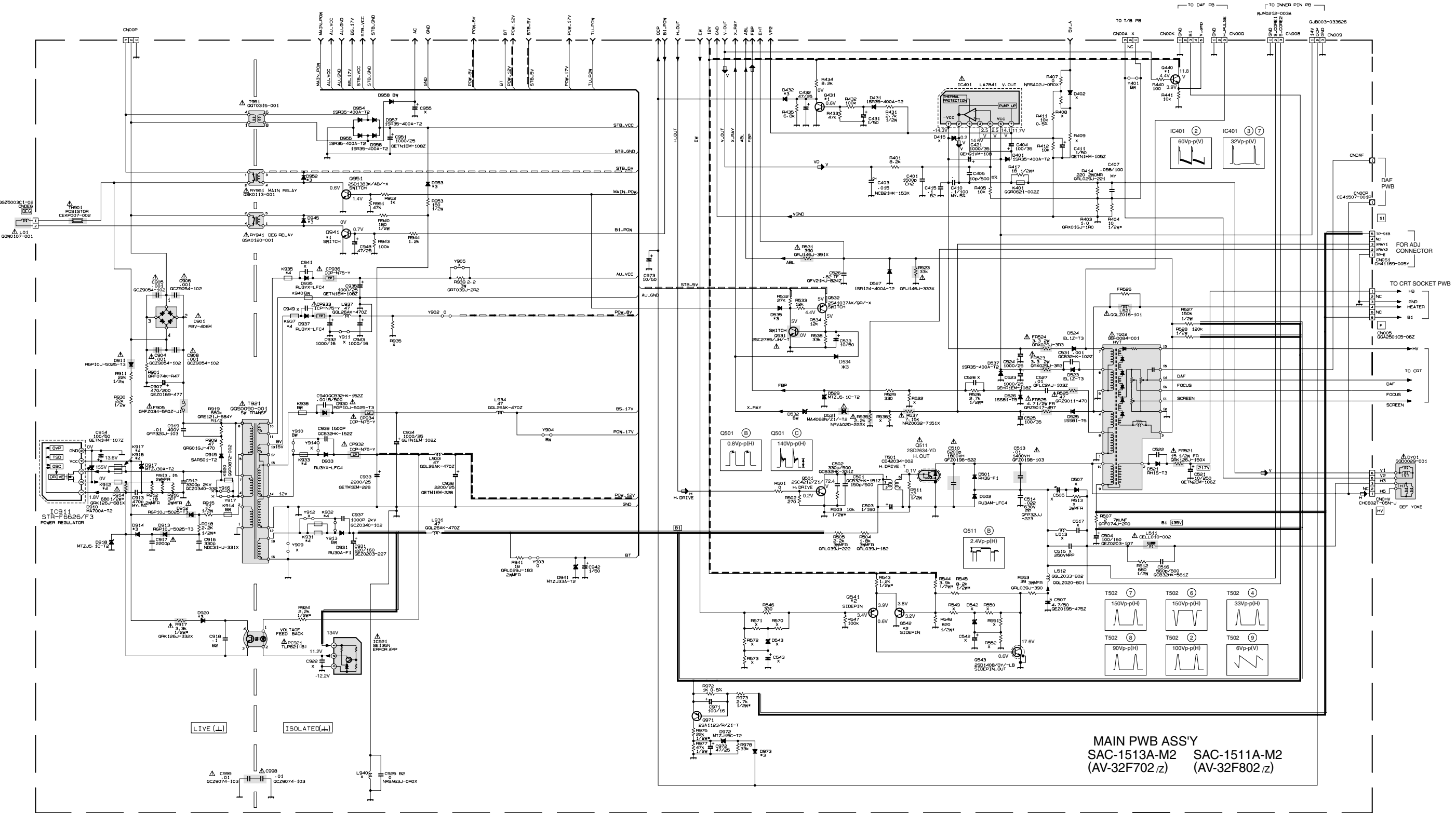
	IC151	Q153, Q154	R155	R156	C150	J602	R652	C604-C606	C607	C608	C663, C664	IC851	R857	R858	LC604-LC606	IC601	IC651	D602, D604, D605	R604-R606	R607-R609	R610-R612	R651	
SAC-1513A-M2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	QRG029-470	QRG029-270	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	220	NOT USED	
SAC-1511A-M2	QAU0234-001	TC4066BP/N-XE	DTC124EKA-X	22k	5.6k	NCF21CZ-105X	QNN0394-002	0	47	470	0.01	47	AN7812F	QRG029-330	QRG029-180	NQR0169-001X	M52055FP-X	PQ3RD13	MTZJ9.1C-T2	75	3.3k	NOT USED	0



MAIN PWB CIRCUIT DIAGRAM

AV-32F702  
AV-32F802

AV-32F702  
AV-32F802



MAIN PWB ASS'Y  
SAC-1513A-M2  
(AV-32F702/z)

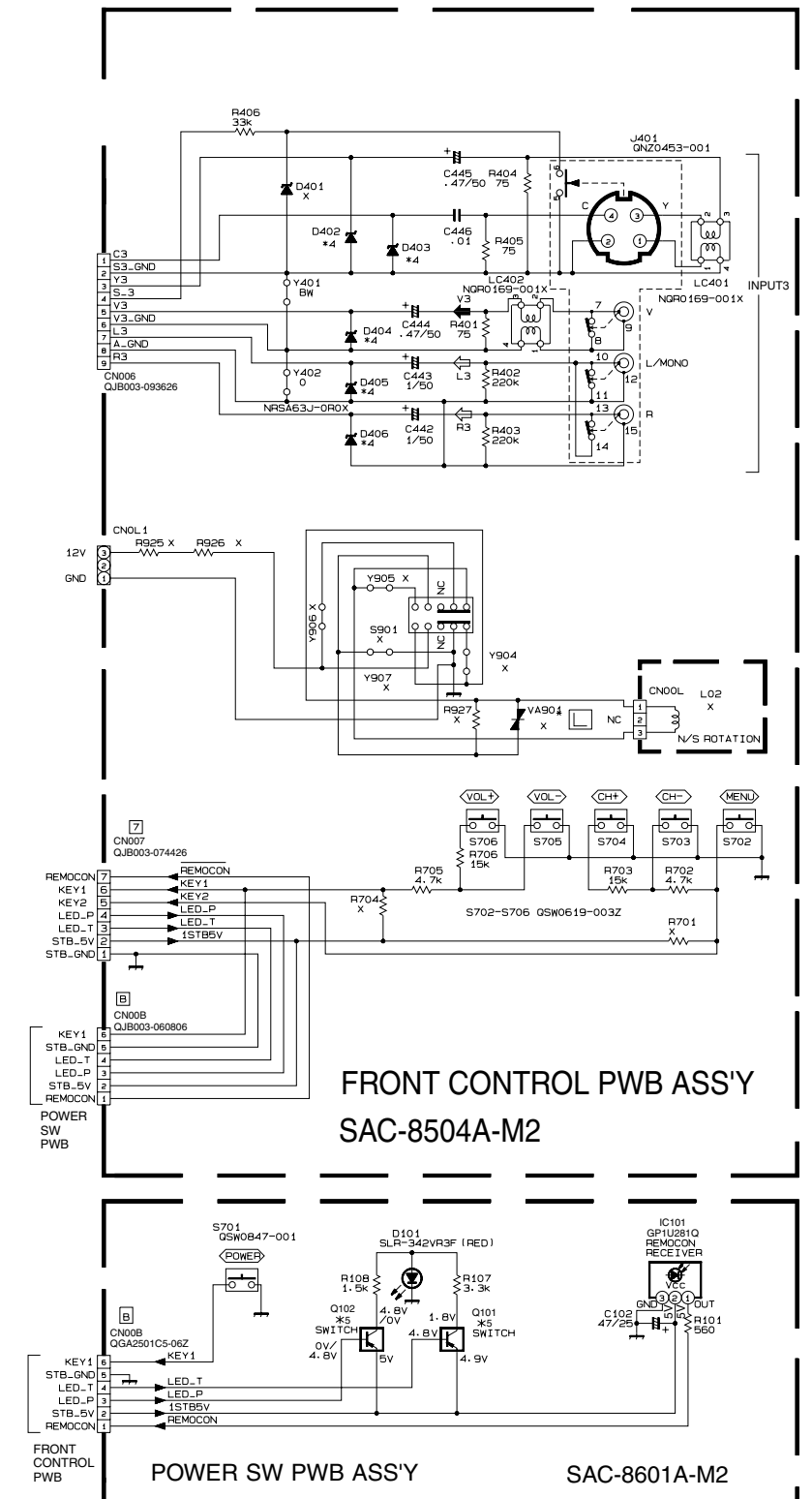
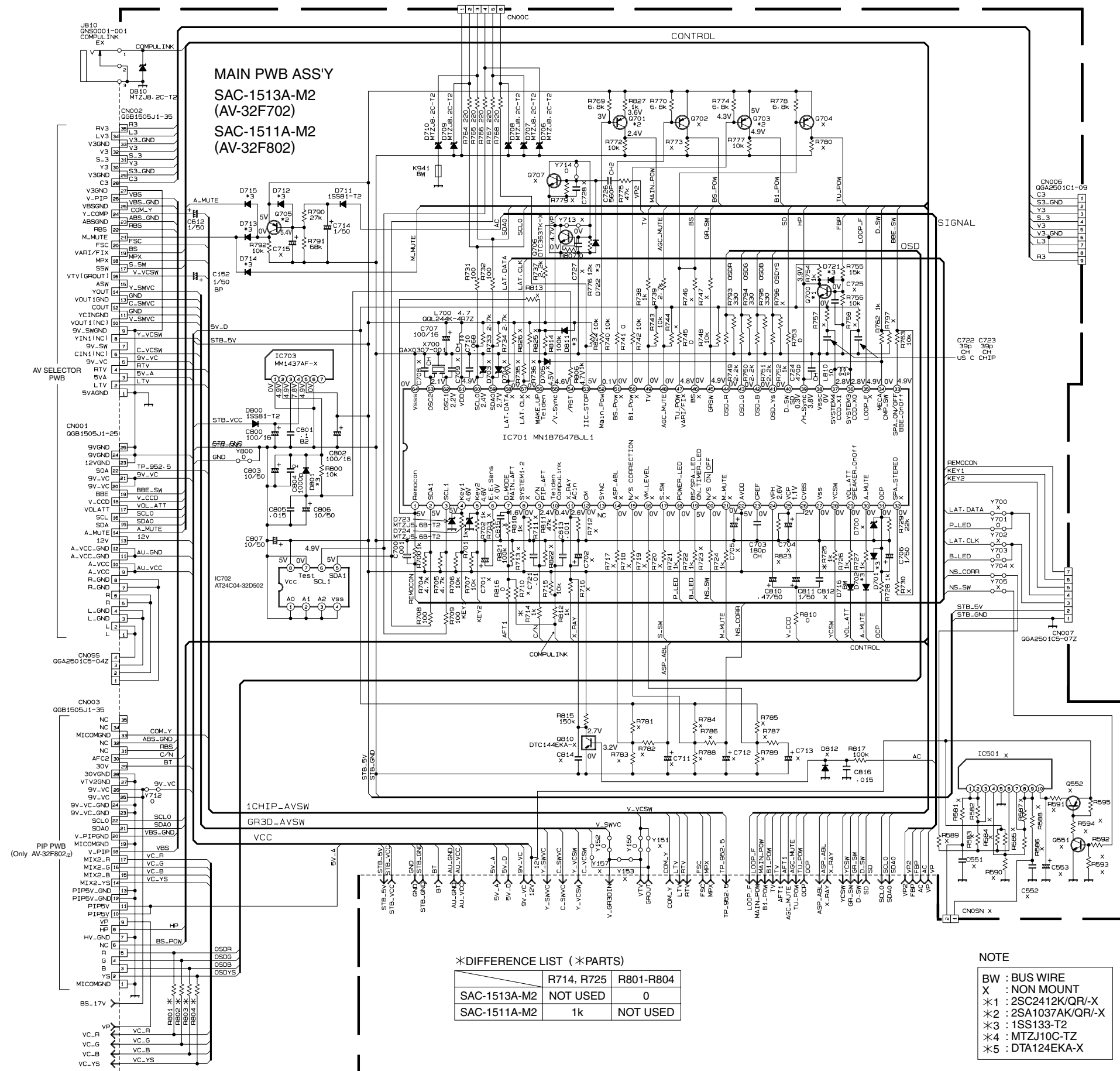
SAC-1511A-M2  
(AV-32F802/z)

NOTE

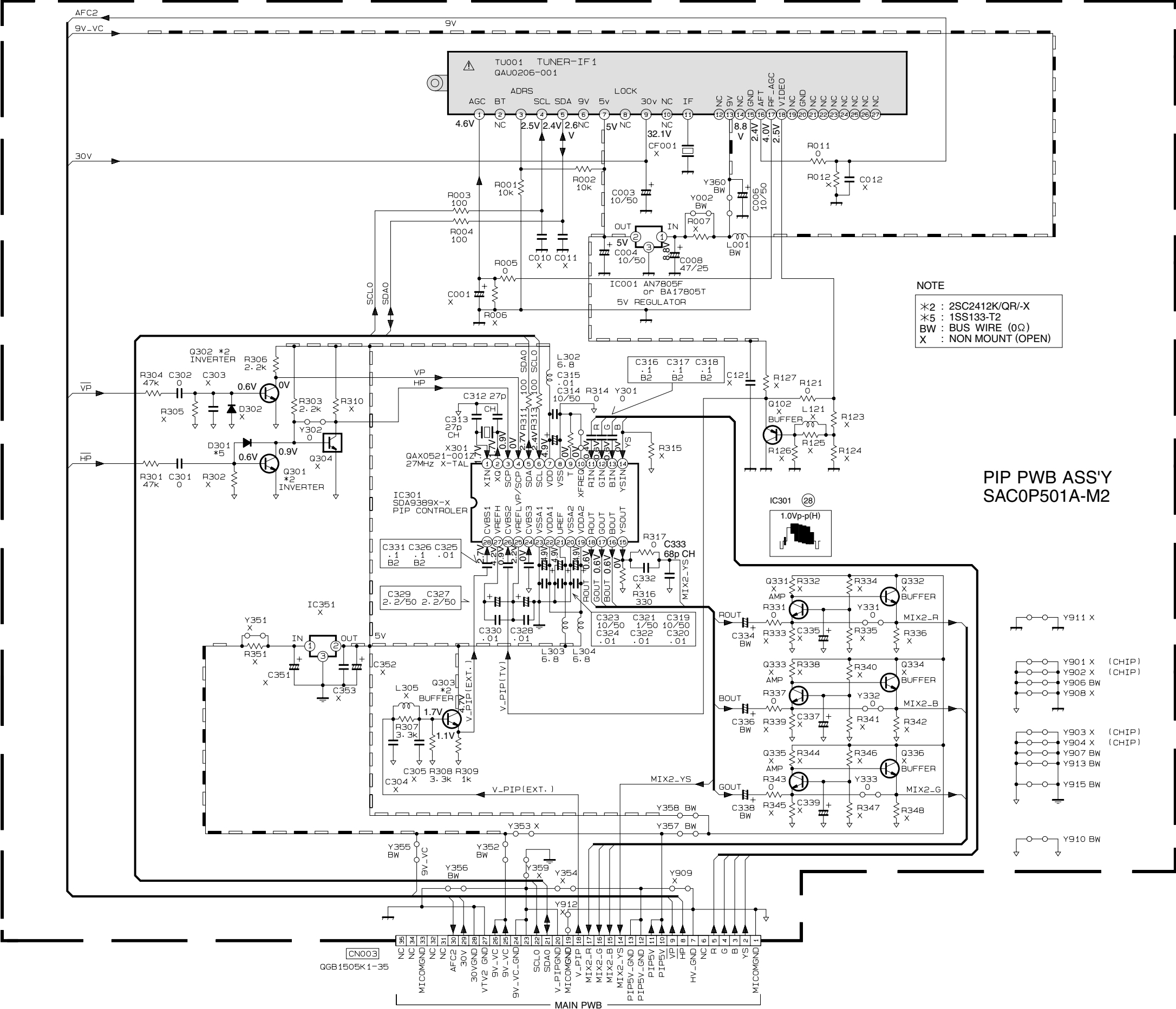
- BW : BUS WIRE
- X : NON MOUNT
- \*1 : 2SC2412K/QR-/X
- \*2 : 2SA1037AK/QR-/X
- \*3 : 1SS133-T2
- \*4 : QQR0582-001Z



MAIN, FRONT CONTROL AND POWER SW CIRCUIT DIAGRAMS

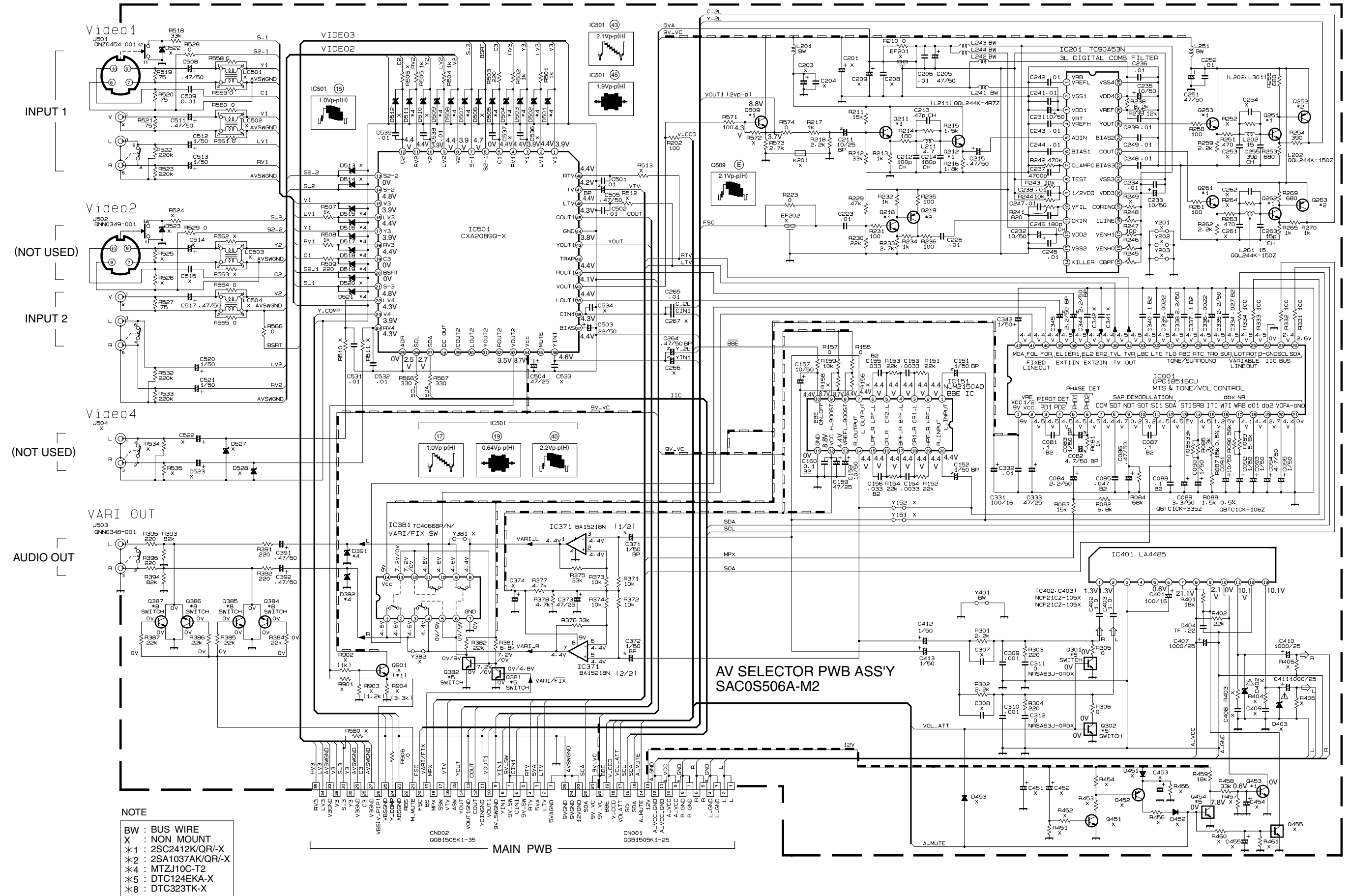








## AV SELECTOR PWB CIRCUIT DIAGRAM [AV-32F702]





**NOTE**

BW : BUS WIRE X : NON MOUNT *1 : 2SC2412K/QR/-X *4 : MTZJ10C-T2 *5 : DTC124EKA-X *8 : DTC323TK-X
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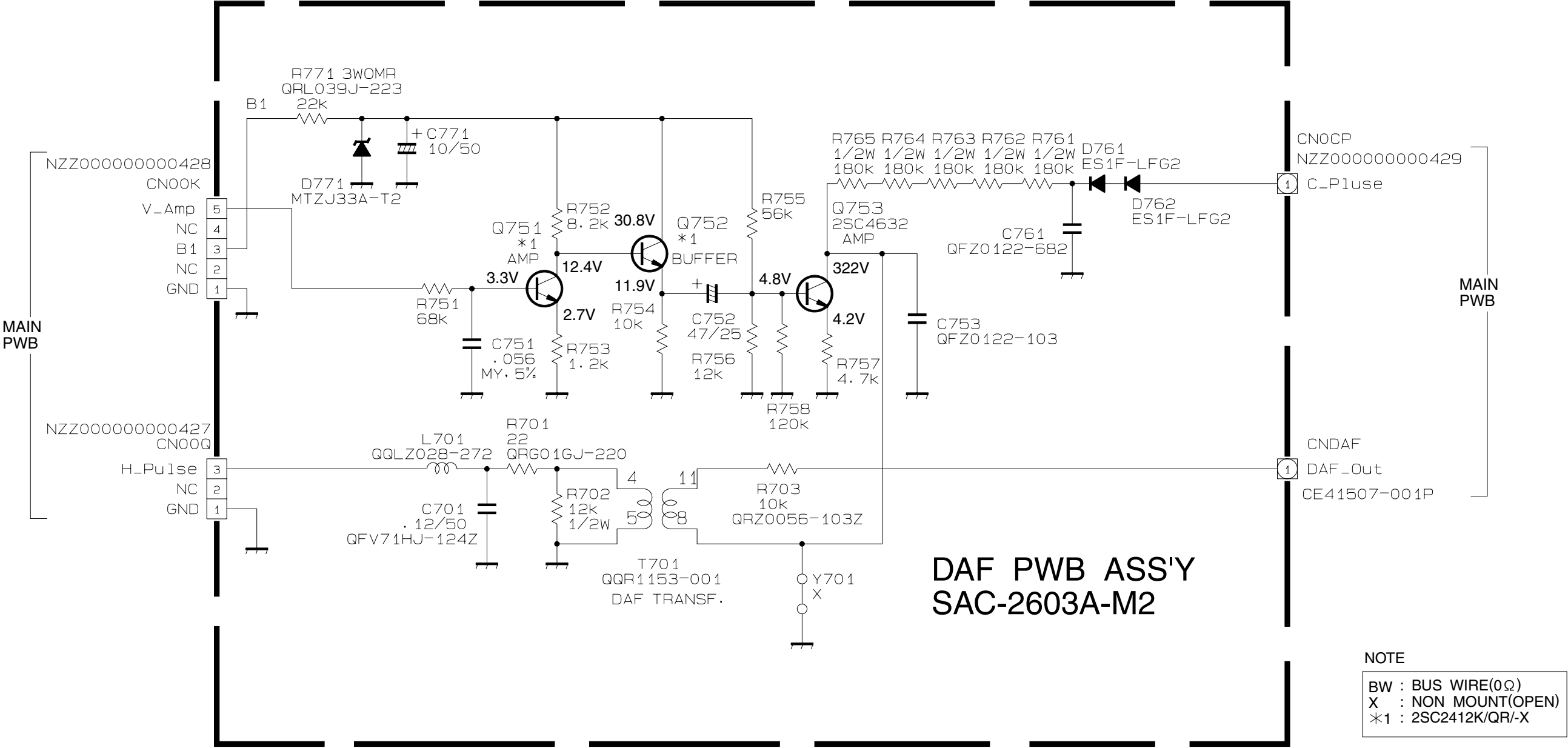


The schematic diagram illustrates the internal circuitry of the CRT socket power board assembly (SAC-3511A-M2) for the A80ERF031X13 monitor. The board is connected to the main power board (MAIN PWB) via a 7-pin connector (CN004) and a 6-pin connector (CN005). The main power board provides Y-VM, Ys, R, GND, G, 12V, and B signals. The heater is connected to the main power board via a 6-pin connector (CN005) and a 135V line. The CRT socket is connected to the main power board via a 6-pin connector (CN005) and a 135V line. The CRT socket is also connected to the monitor's internal components, including the CRT, VM COIL (TO CRT NECK), and various electronic components like resistors, capacitors, and transistors. The diagram includes a detailed view of the CRT socket and its connections to the monitor's internal components. The schematic shows the internal circuitry of the board, including the heater, CRT socket, and various electronic components like resistors, capacitors, and transistors. It also includes a detailed view of the CRT socket and its connections to the monitor's internal components.

NOTE

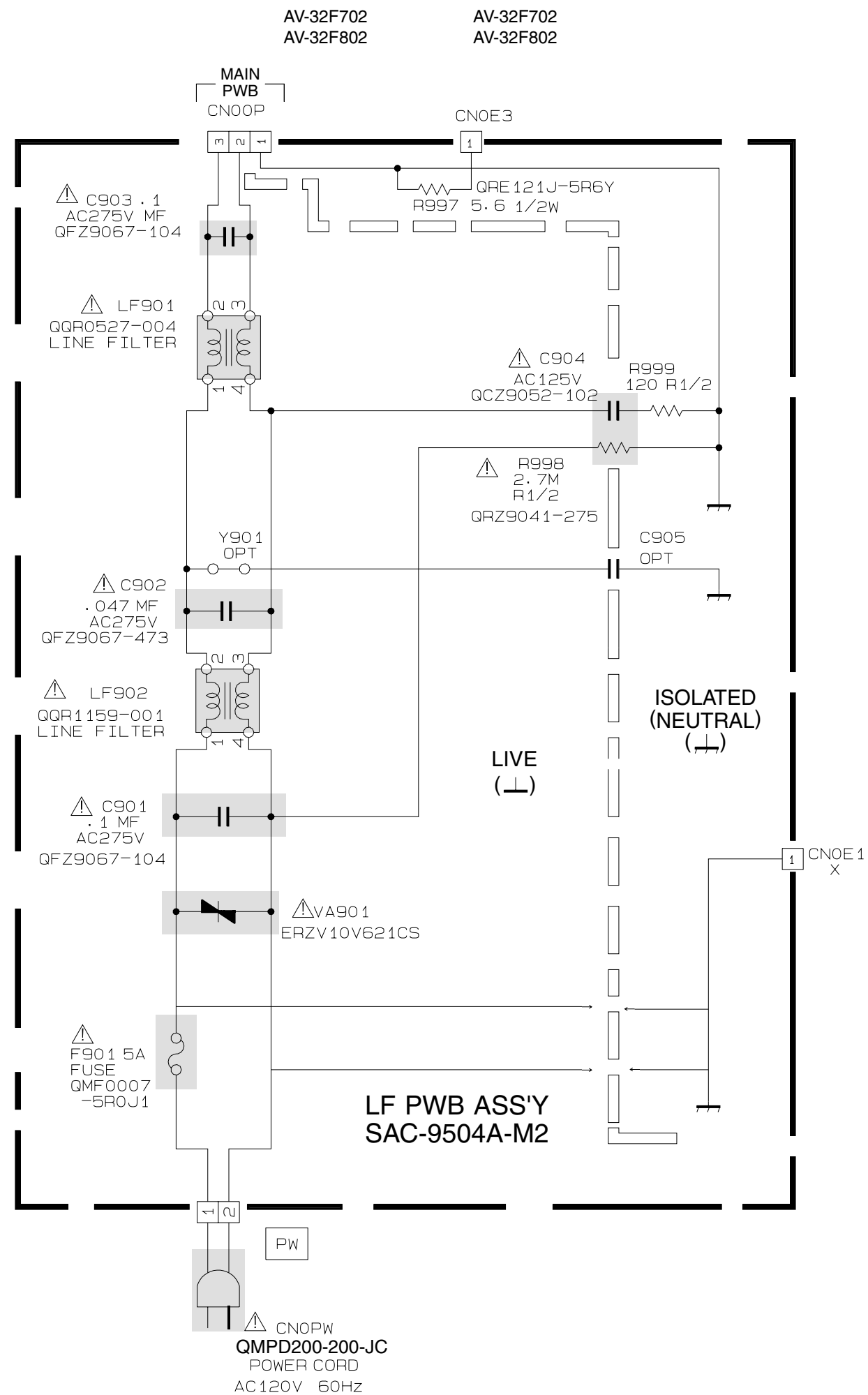
BW	: BUS WIRE (0Ω)
X	: NON MOUNT (OPEN)
*1	: 2SC1740S/QR/-T
*2	: 2SA933AS/QR/-T
*3	: 1SS133-T



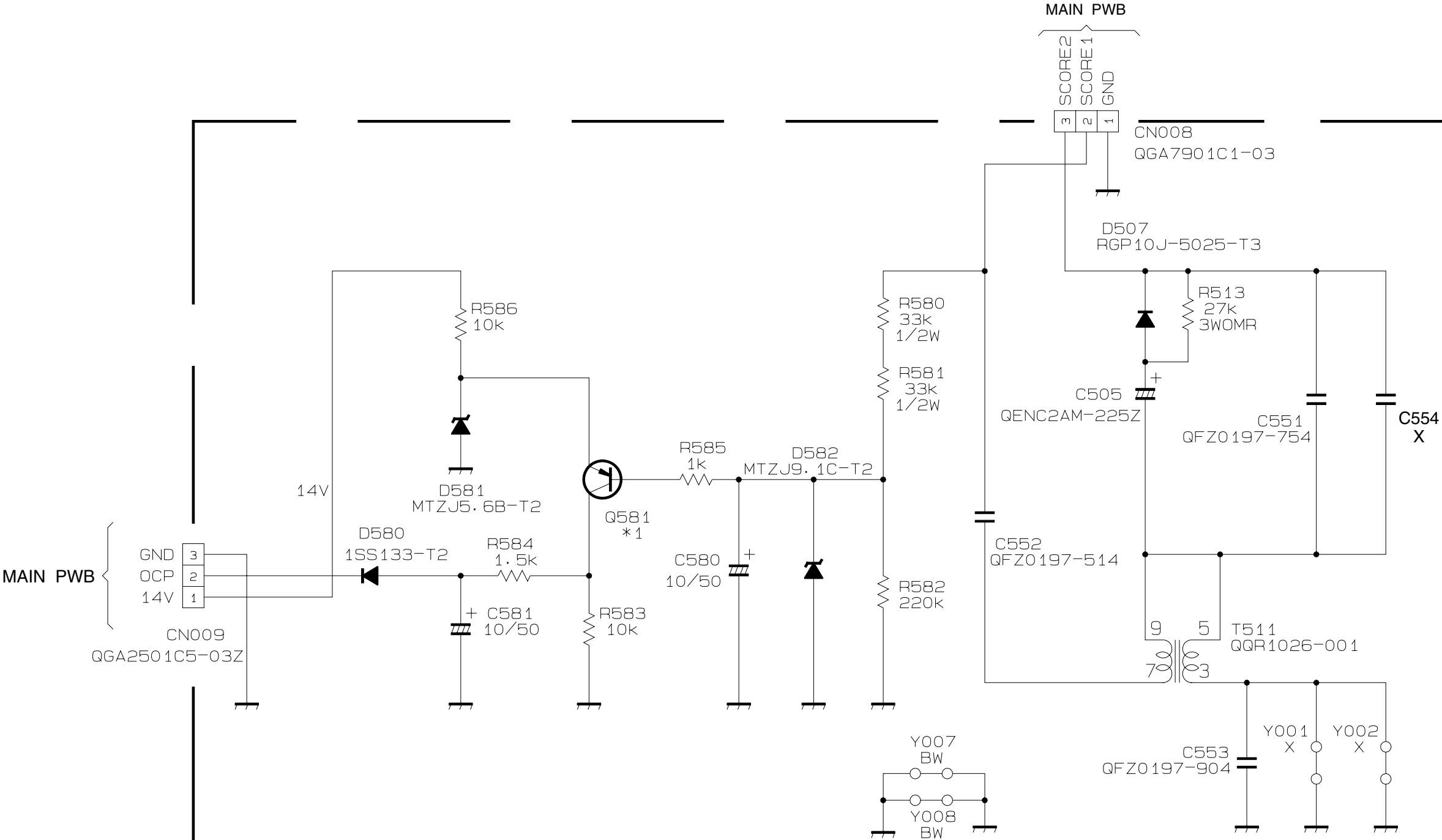




LF PWB CIRCUIT DIAGRAM







INNER PIN PWB ASS'Y  
SAC-2701A-M2

NOTE

X : NON MOUNTED

BW : BUS WIRE

\*1 : 2SA1037AK/QR/-X



# **PATTERN DIAGRAMS** **MAIN PWB PATTERN DIAGRAM**

AV-32F702  
 AV-32F802

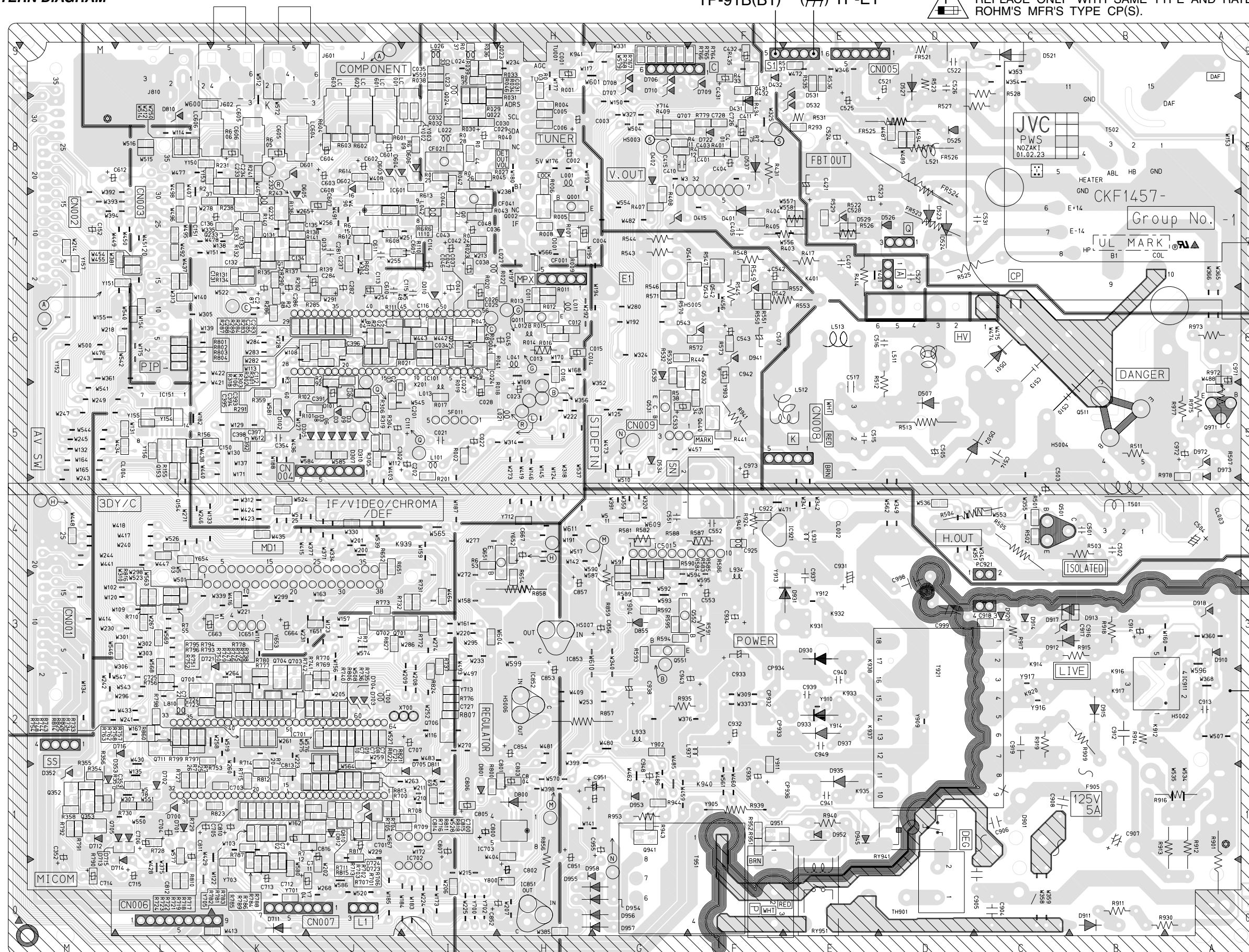
AV-32F702  
 AV-32F802

TP-91B(B1) (TP-E1



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

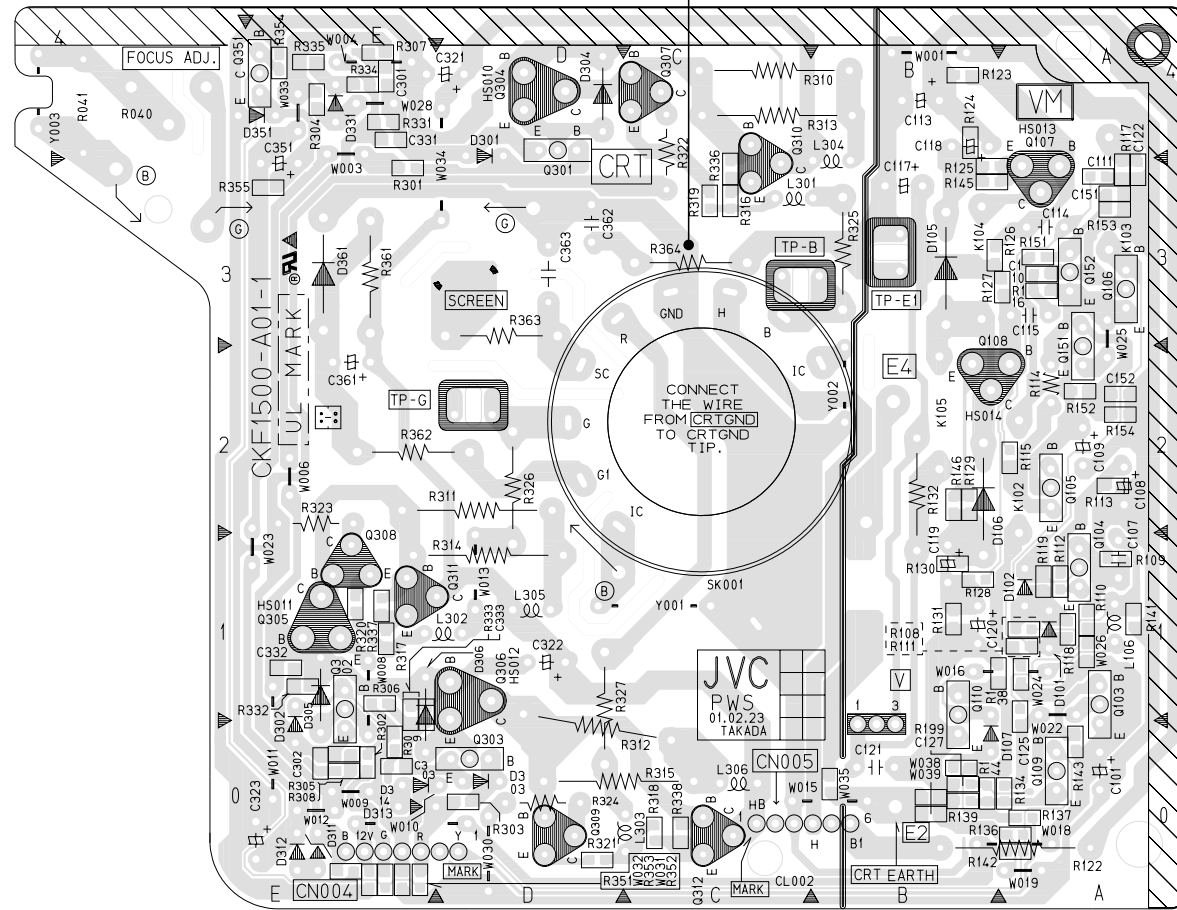




## CRT SOCKET AND PIP PWB PATTERNS

— **CRT SOCKET** —

TOP



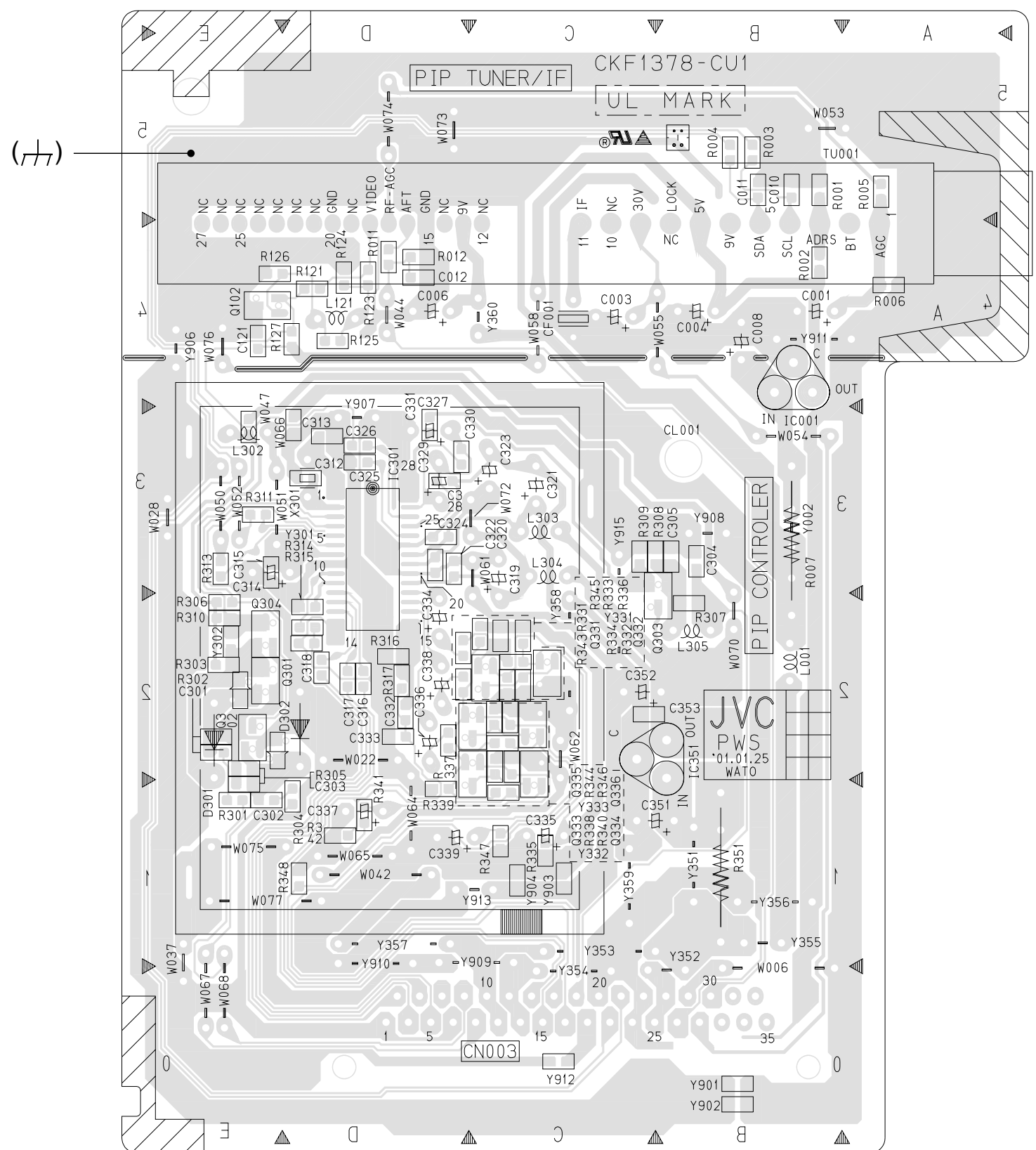
No.51811

2-29

— PIP —  
[AV-32F802]

FRONT

TOP



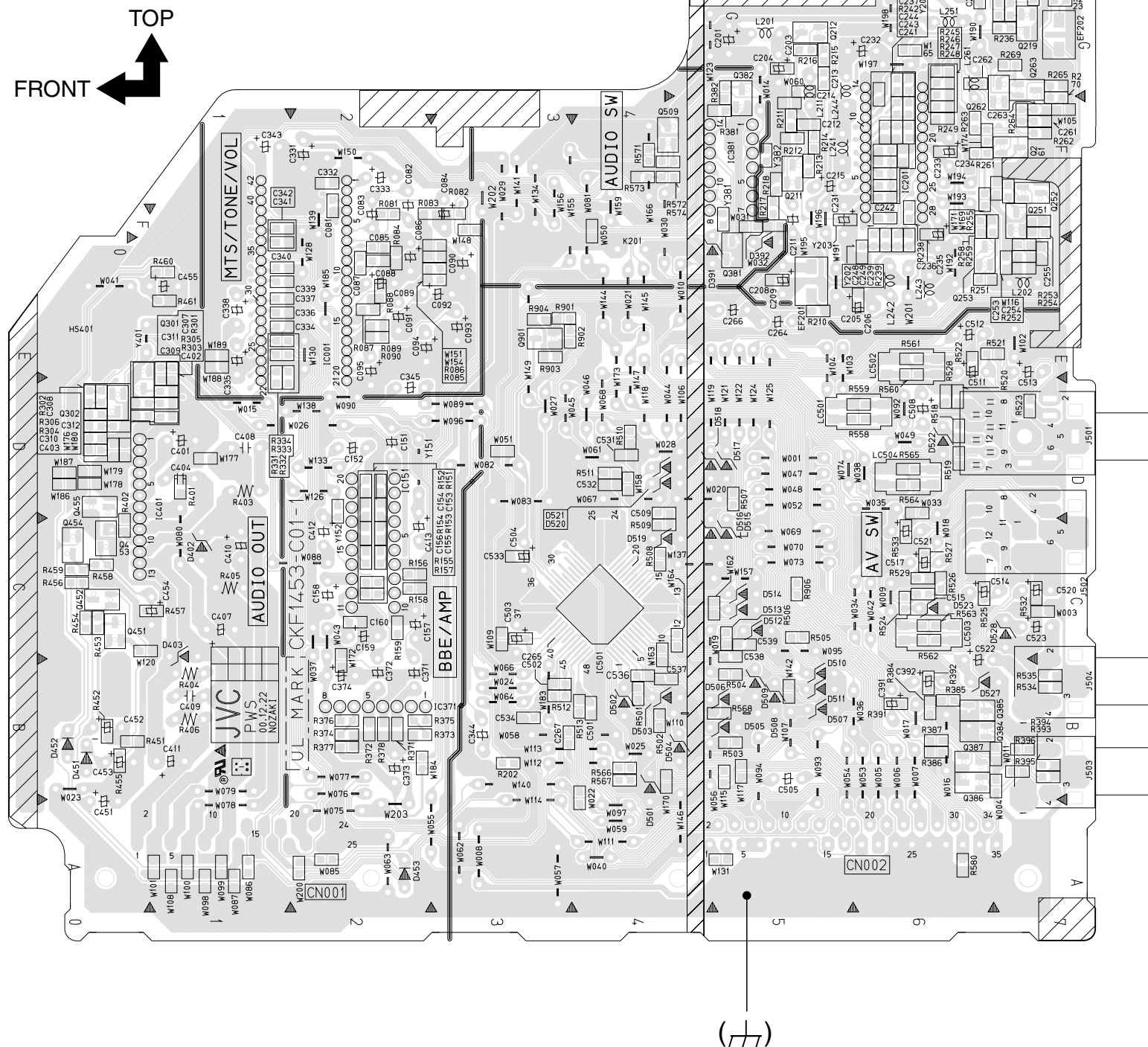
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2-30



AV SELECTOR AND FRONT CONTROL PWB PATTERNS

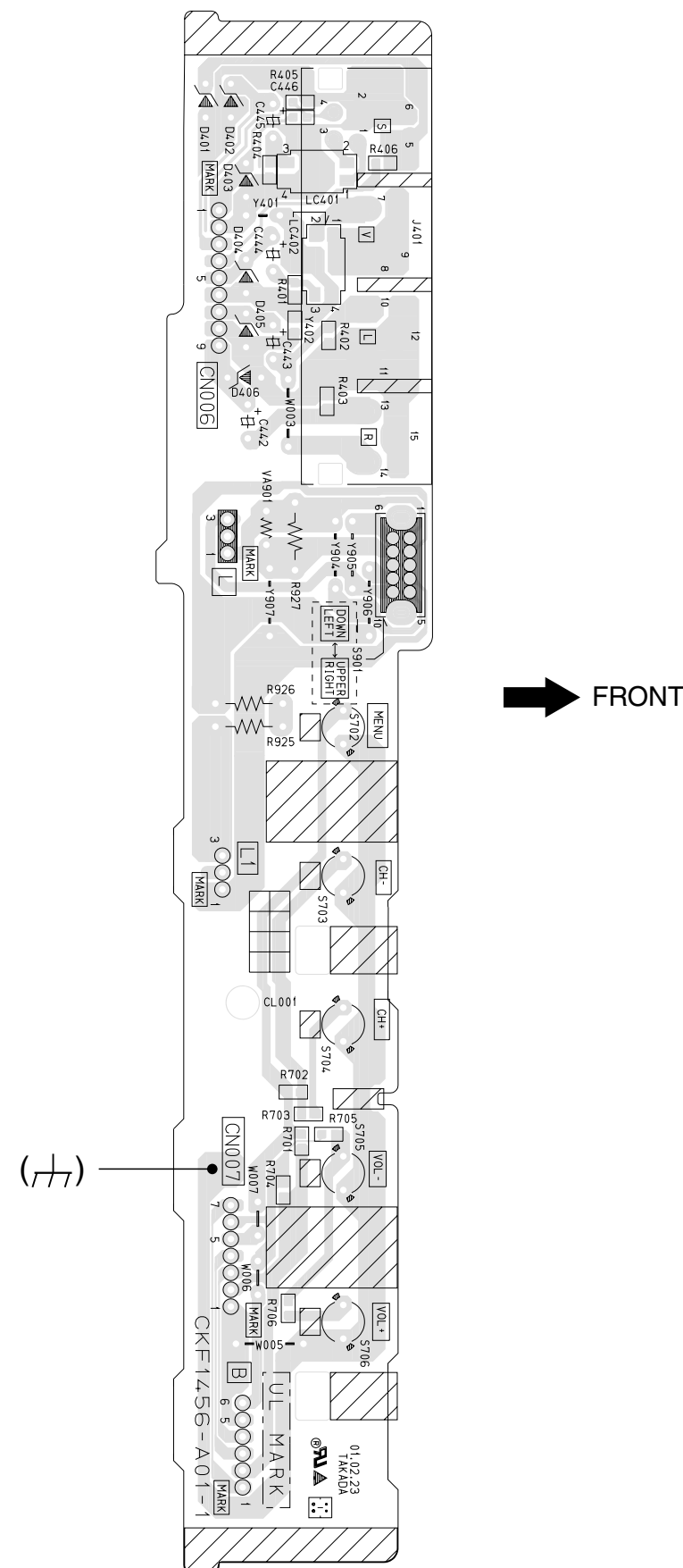
— AV SELECTOR —



AV-32F702  
AV-32F802

AV-32F702  
AV-32F802

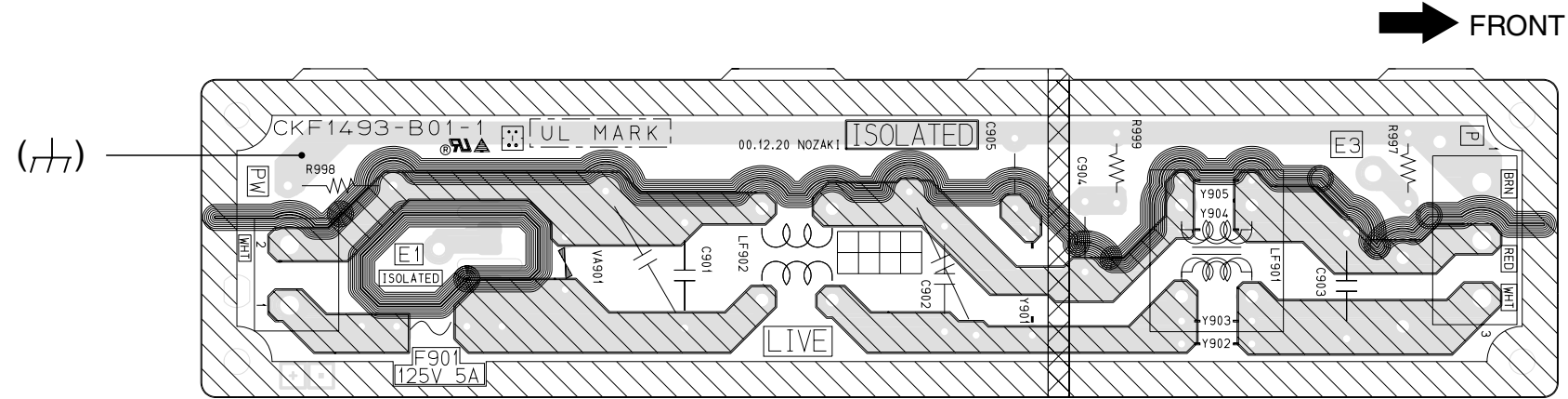
— FRONT CONTROL —



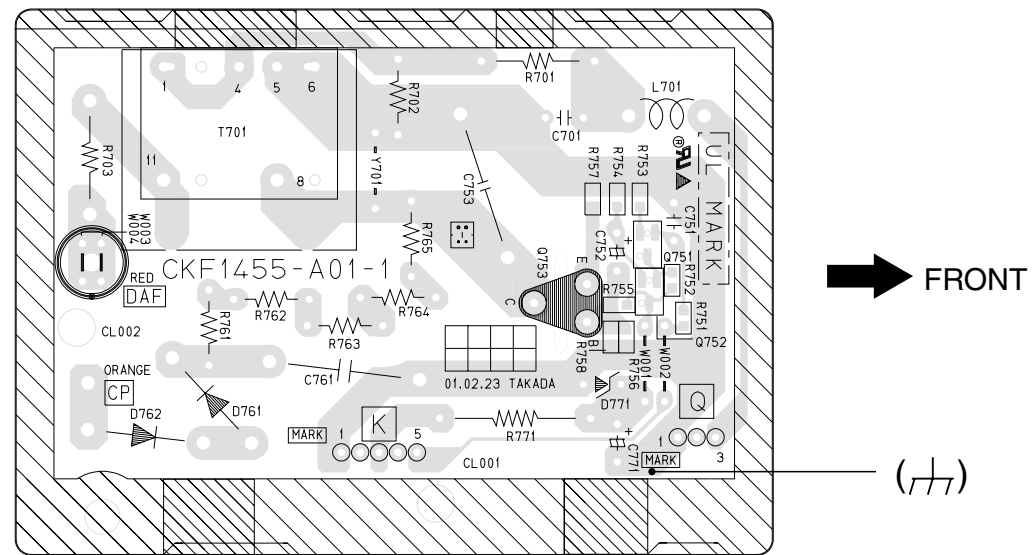


## LF, DAF AND POWER SW PWB PATTERNS

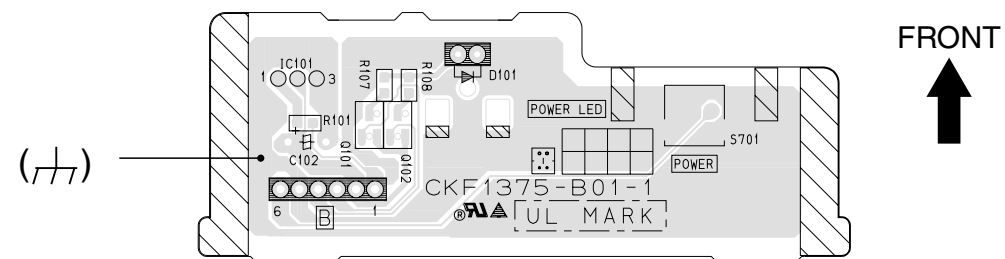
— **LF** —



— **DAF** —



— **POWER SW** —





# 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		
×	○	MID	A	14	I
			B	15	
			C	16	II
			D	17	
			E	18	
			F	19	
			G	20	
			H	21	
			I	22	
		SUPER	J	23	
			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		
		VH	07		
			08		
			09		
			10		
			11		
			12		
			13		
×	○	MID	A	14	II
			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	
			O	28	
			P	29	
			Q	30	
			R	31	
		HYPER	S	32	III
			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	
		ULTRA	W+16	52	IV
			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	
			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	II		
	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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<b>West Coast :</b>	5665 Corporate Avenue, Cypress, California 90630	(714)229-8011
<b>Southwest :</b>	10700 Hammerly, Suite 105, Houston, Texas 77043	(713)935-9331
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# **JVC<sup>®</sup>**