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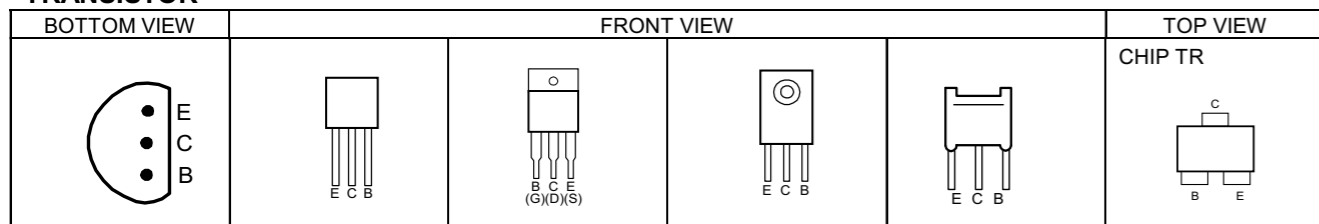
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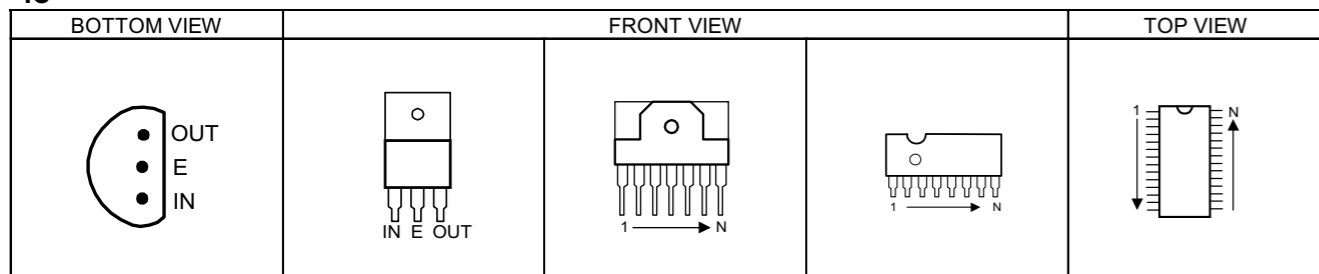
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## SEMICONDUCTOR SHAPES

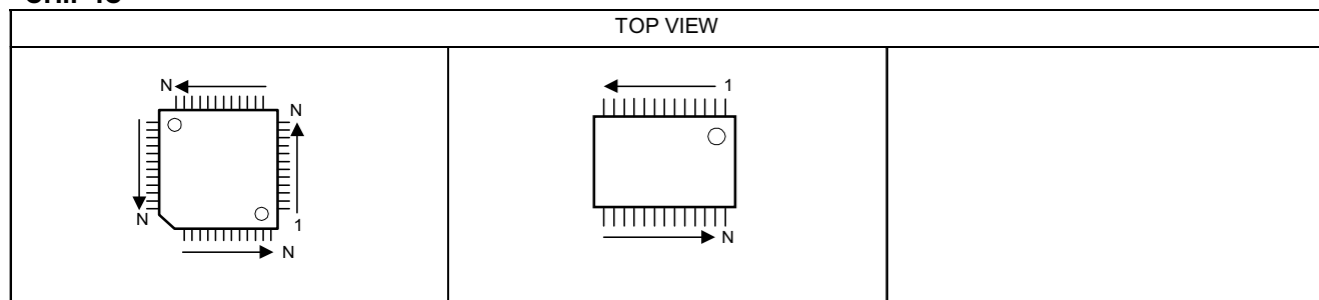
### TRANSISTOR



### IC



### CHIP IC



# AV-N29302<sub>/S</sub> / AV-N29302<sub>/R</sub> STANDARD CIRCUIT DIAGRAM

## NOTE ON USING CIRCUIT DIAGRAMS

### 1.SAFETY

The components identified by the  $\Delta$  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 :1/10 [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 :[ $\mu$ F]
- Withstand voltage
  - No indication :DC50[V]
  - Others :DC withstand voltage [V]
  - AC indicated :AC withstand voltage [V]

\*Electrolytic Capacitors

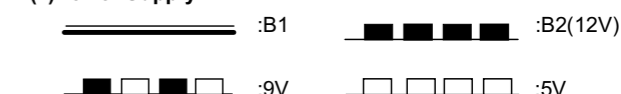
47/50[Example]:Capacitance value [ $\mu$ F]/withstand voltage[V]

- 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



\*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) : ( $\updownarrow$ ) 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.

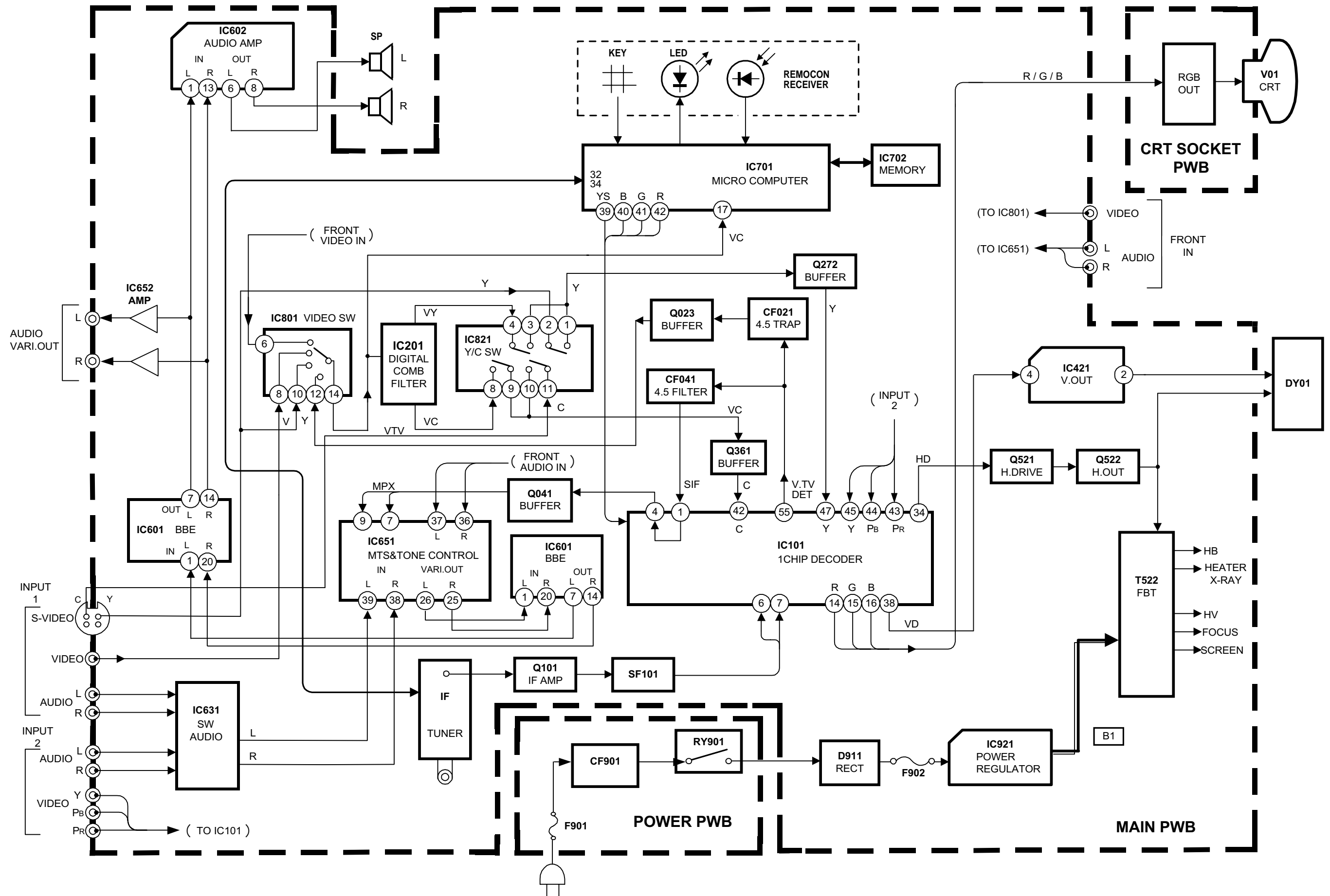
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

#### ◇ NOTE

Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.

When ordering parts, please use the numbers that appear in the Parts List.

# BLOCK DIAGRAM

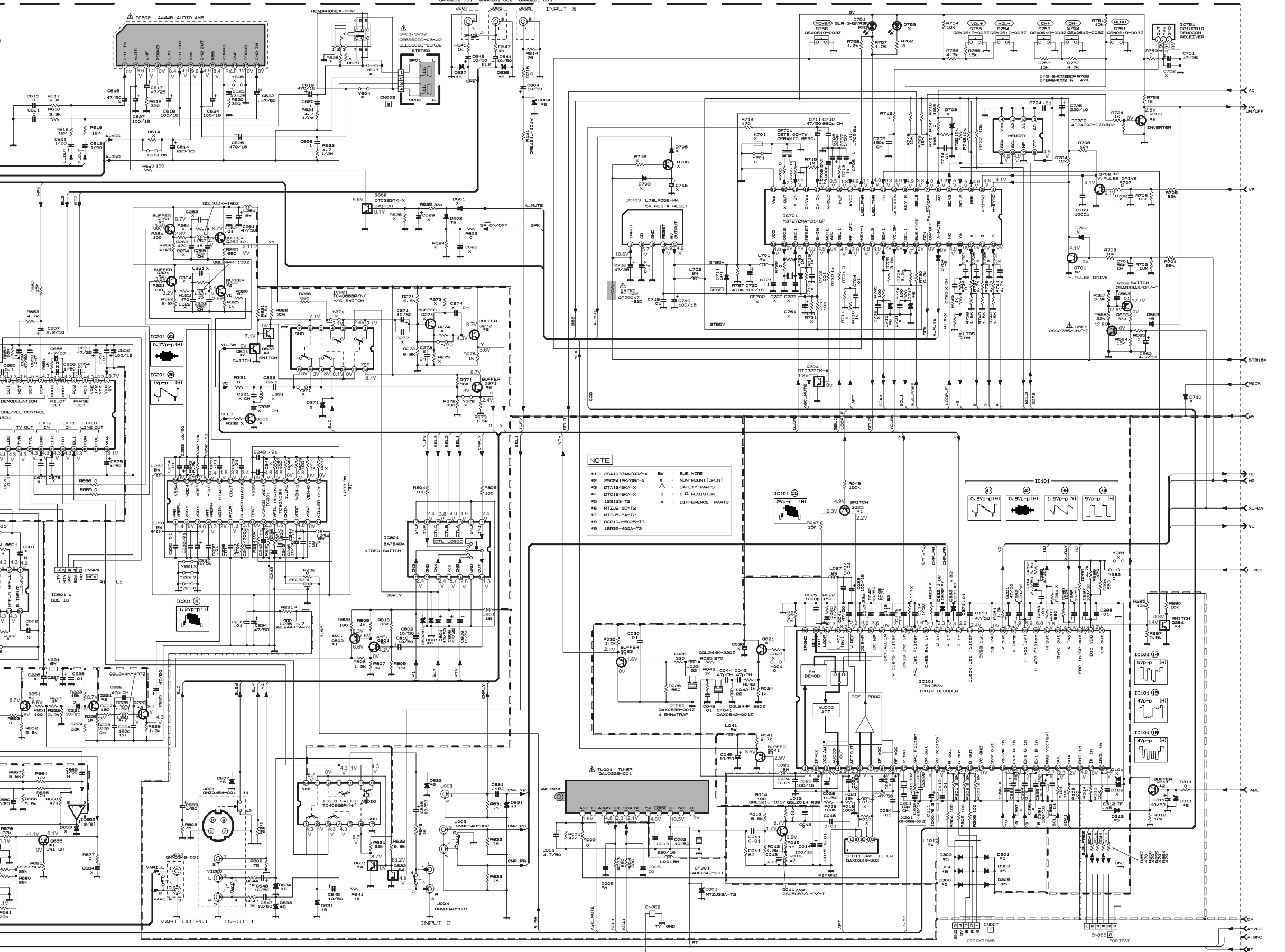


CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAM

# MAIN PWB

SFD-1007A-M2  
(AV-N29302/S)

SFD-1006A-M2  
(AV-N29302/R)

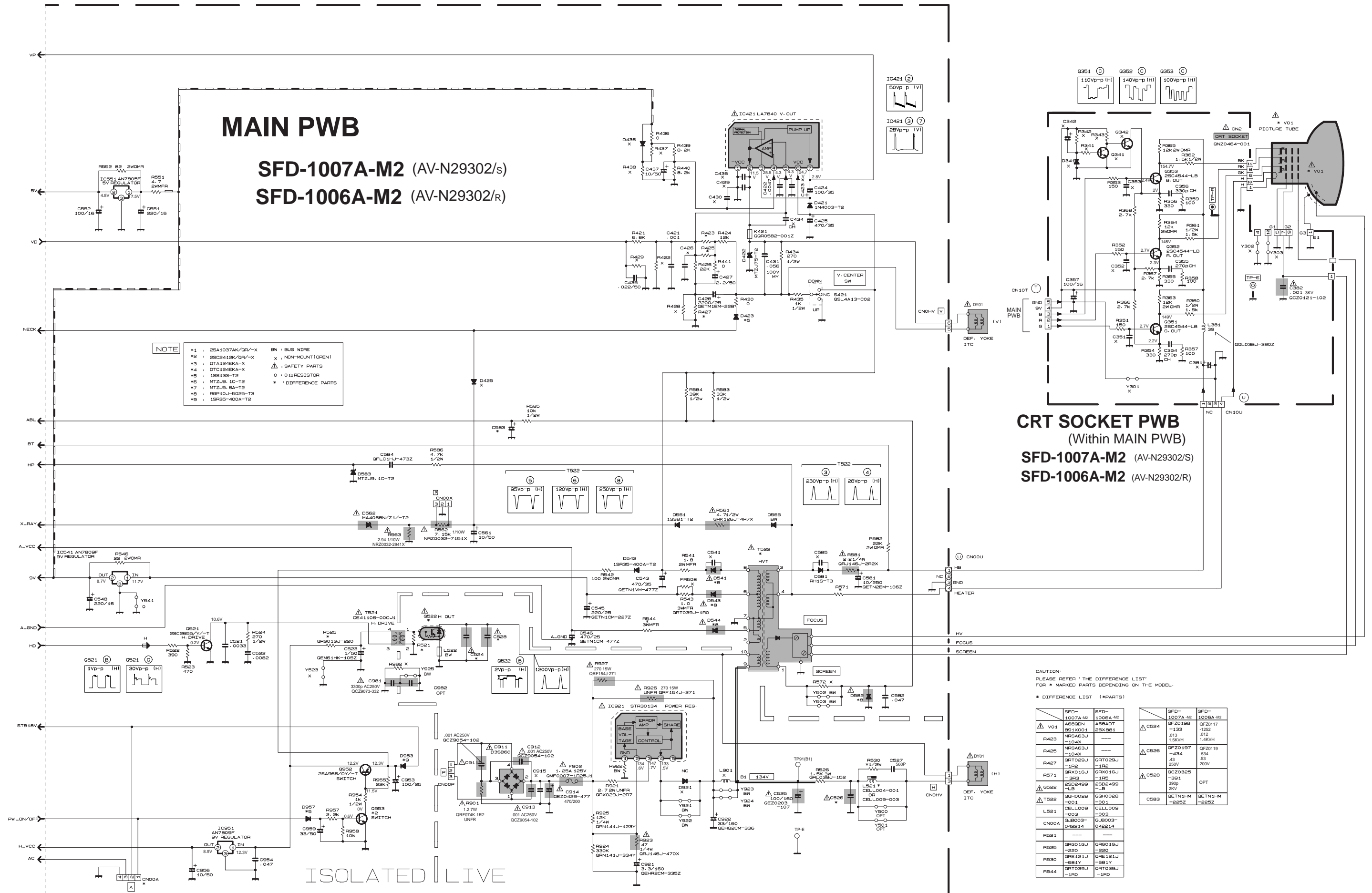


CAUTION: PLEASE REFER TO THE DIFFERENCE LIST FOR \* MARKED PARTS DEPENDS ON THE MODEL.

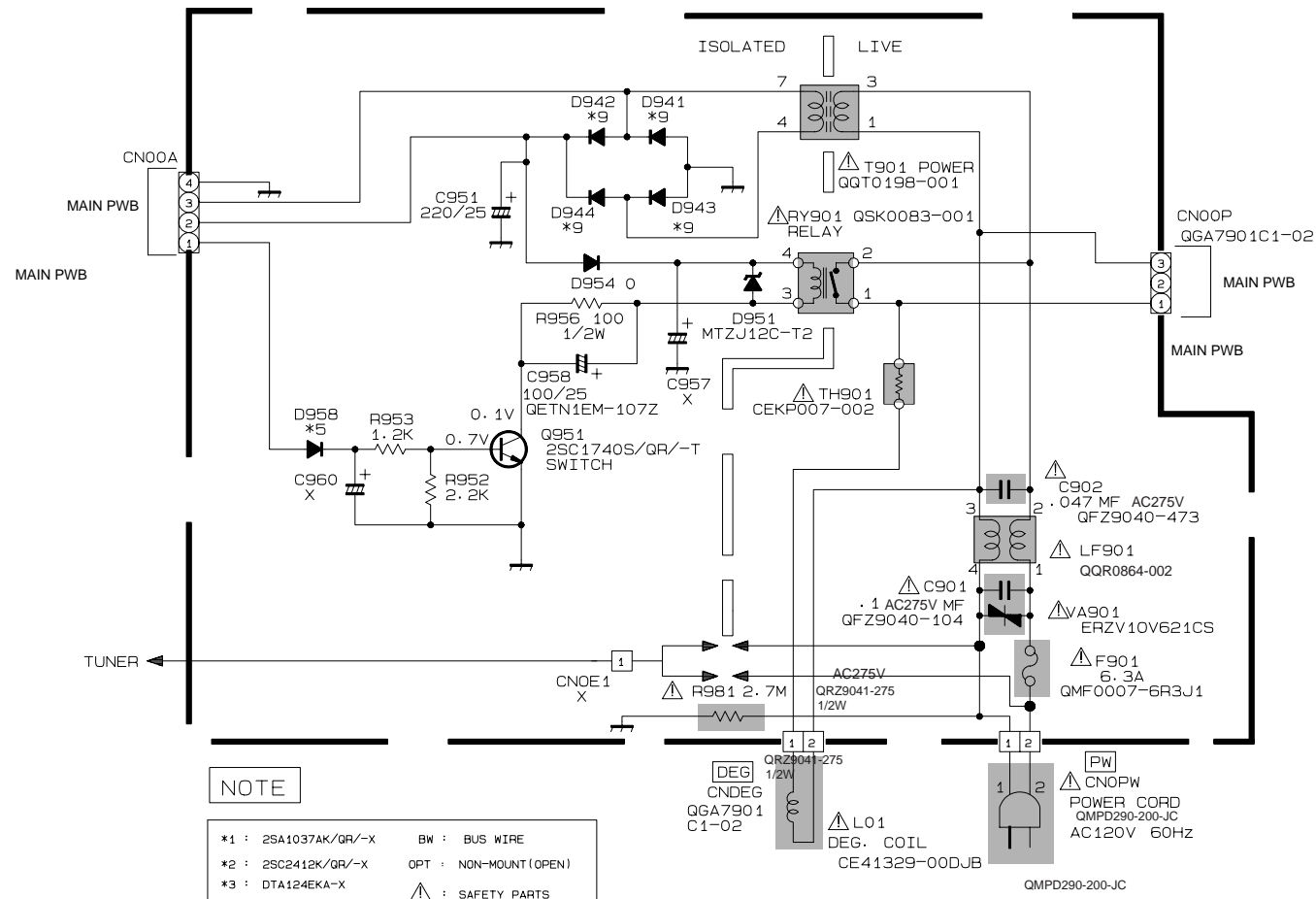
\* DIFFERENCE LIST \*

Part No.	Part Name
RF-1000-10	RF-1000-10
RF-1000-11	RF-1000-11
RF-1000-12	RF-1000-12
RF-1000-13	RF-1000-13
RF-1000-14	RF-1000-14
RF-1000-15	RF-1000-15
RF-1000-16	RF-1000-16
RF-1000-17	RF-1000-17
RF-1000-18	RF-1000-18
RF-1000-19	RF-1000-19
RF-1000-20	RF-1000-20
RF-1000-21	RF-1000-21
RF-1000-22	RF-1000-22
RF-1000-23	RF-1000-23
RF-1000-24	RF-1000-24
RF-1000-25	RF-1000-25
RF-1000-26	RF-1000-26
RF-1000-27	RF-1000-27
RF-1000-28	RF-1000-28
RF-1000-29	RF-1000-29
RF-1000-30	RF-1000-30
RF-1000-31	RF-1000-31
RF-1000-32	RF-1000-32
RF-1000-33	RF-1000-33
RF-1000-34	RF-1000-34
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RF-1000-36	RF-1000-36
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RF-1000-38	RF-1000-38
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RF-1000-42	RF-1000-42
RF-1000-43	RF-1000-43
RF-1000-44	RF-1000-44
RF-1000-45	RF-1000-45
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RF-1000-86	RF-1000-86
RF-1000-87	RF-1000-87
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RF-1000-93	RF-1000-93
RF-1000-94	RF-1000-94
RF-1000-95	RF-1000-95
RF-1000-96	RF-1000-96
RF-1000-97	RF-1000-97
RF-1000-98	RF-1000-98
RF-1000-99	RF-1000-99
RF-1000-100	RF-1000-100

MAIN PWB, CRT SOCKET PWB CIRCUIT DIAGRAM



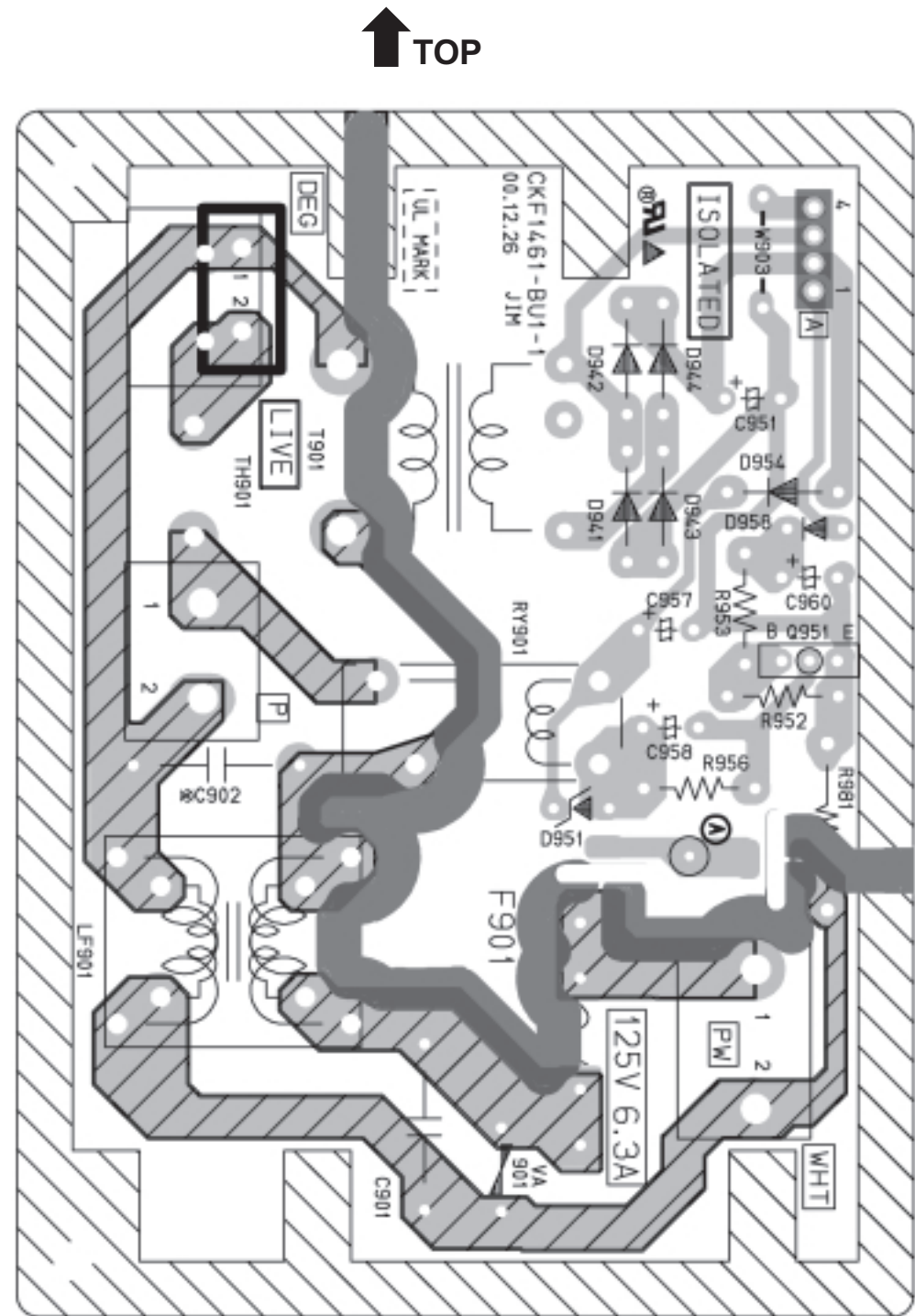
**POWER PWB CIRCUIT DIAGRAM**



**POWER PWB  
SFD-9001A-M2**

**PATTERN DIAGRAMS**

**POWER PWB PATTERN**



MAIN PWB, CRT SOCKET PWB PATTERN

CRT SOCKET PWB ASS'Y

↑ FRONT

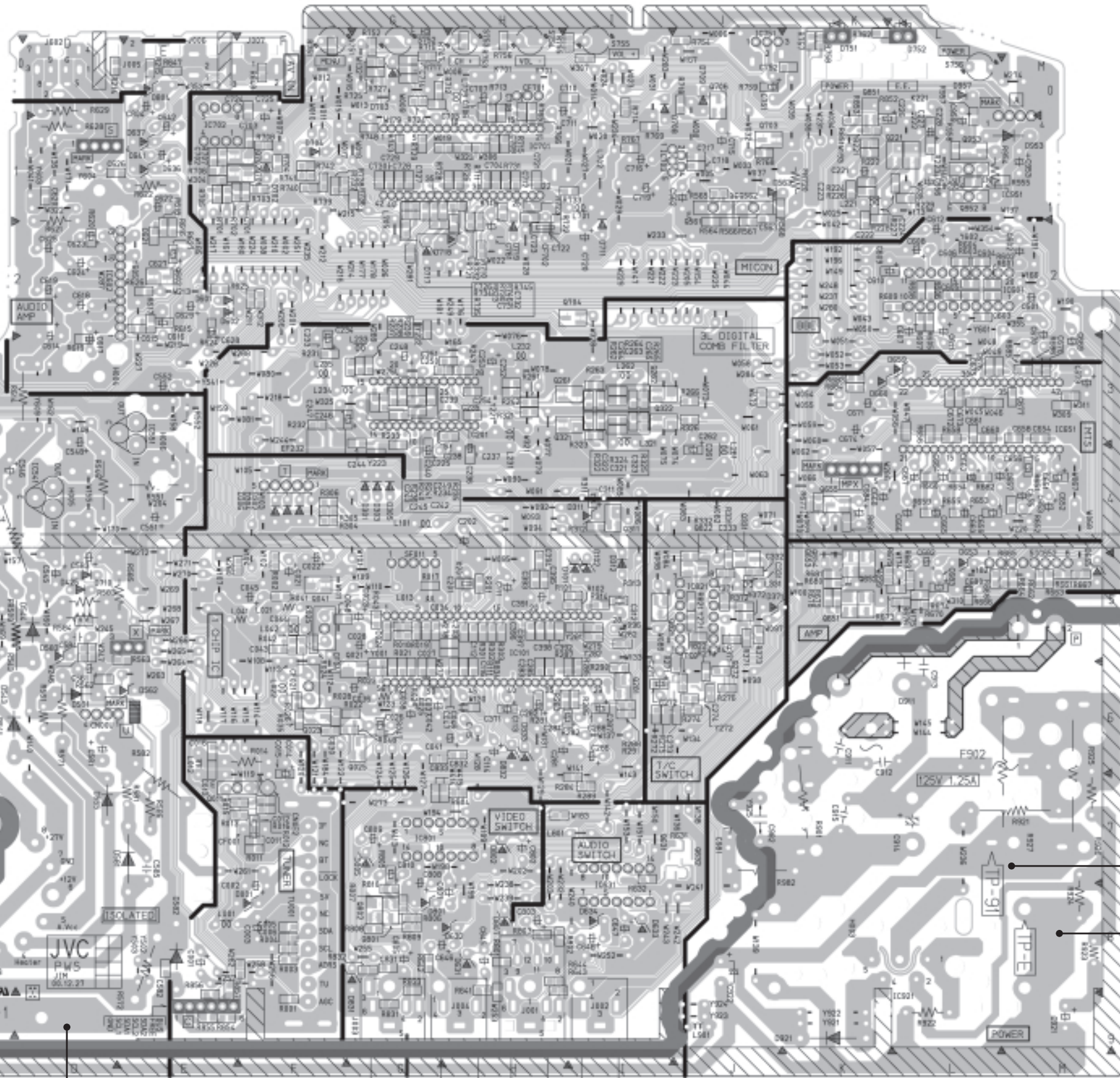
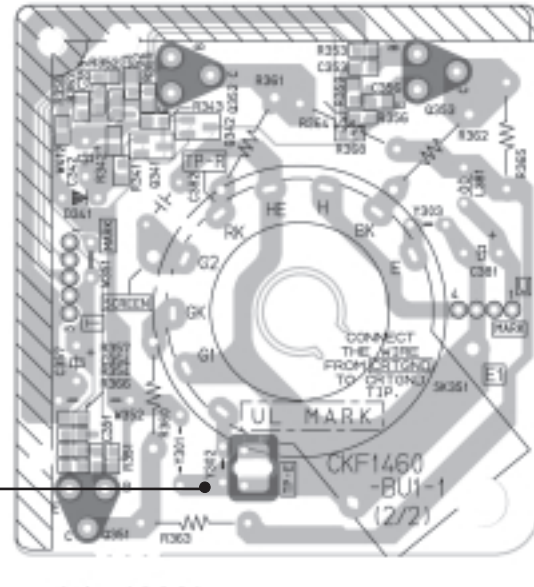
MAIN PWB ASS'Y



CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S) AND ROHM'S MFR'D TYPE CP(S): OR EQUIVALENT

↑ TOP

(H)



(H)

TP-91 (B1)

TP-E (L)

### CHANNEL CHART

MODE		BAND	CHANNEL	TUNER		
TV	CATV		DISP.	BAND		
○	○	VL	02	I		
			03			
			04			
			05			
			06			
			07			
○	○	VH	08	II		
			09			
			10			
			11			
			12			
			13			
x	○	MID	14	I		
			15			
			16			
			17			
			18			
			19			
		SUPER	○	SUPER	20	II
					21	
					22	
					23	
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					27	
					28	
					29	
		HYPER	○	HYPER	30	IV
					31	
					32	
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					34	
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					36	
					37	
ULTRA	○	ULTRA	38	IV		
			39			
			40			
			41			
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MODE		BAND	CHANNEL	TUNER
TV	CATV		DISP.	BAND
x	○	ULTRA	71	IV
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			73	
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			76	
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○	x	SUB MID	01	I
			96	
			97	
○	x	UHF	14	IV
			?	
			69	
TOTAL 180CH { VHF 124CH { UHF 56CH				
NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.				