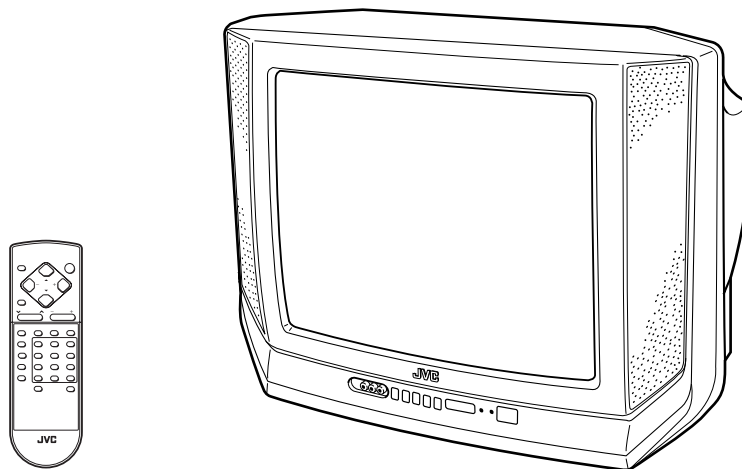


# JVC

## SCHEMATIC DIAGRAMS

### COLOUR TELEVISION

# AV-21F8(BK)





# 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 : Colour 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 : 1/4 [W]
    - Others : As specified
  - Type
    - No indication : Carbon resistor
    - OMR : Oxide metal film resistor
    - MFR : Metal film resistor
    - MPR : Metal plate resistor
    - UNFR : Non-flammable 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]
    - AC indicated : AC withstand voltage [V]
    - Others : DC 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



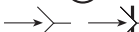
-  : B1
-  : 12V
-  : 9V
-  : 5V

\* 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) (  $\nearrow$  ) 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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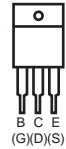



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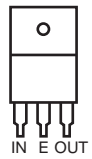
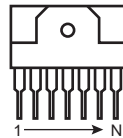
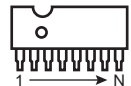
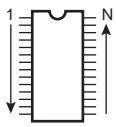
**CRT SOCKET PWB PATTERN** ..... 2-17

## SEMICONDUCTOR SHAPES

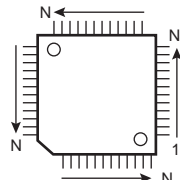
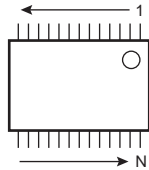
### TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

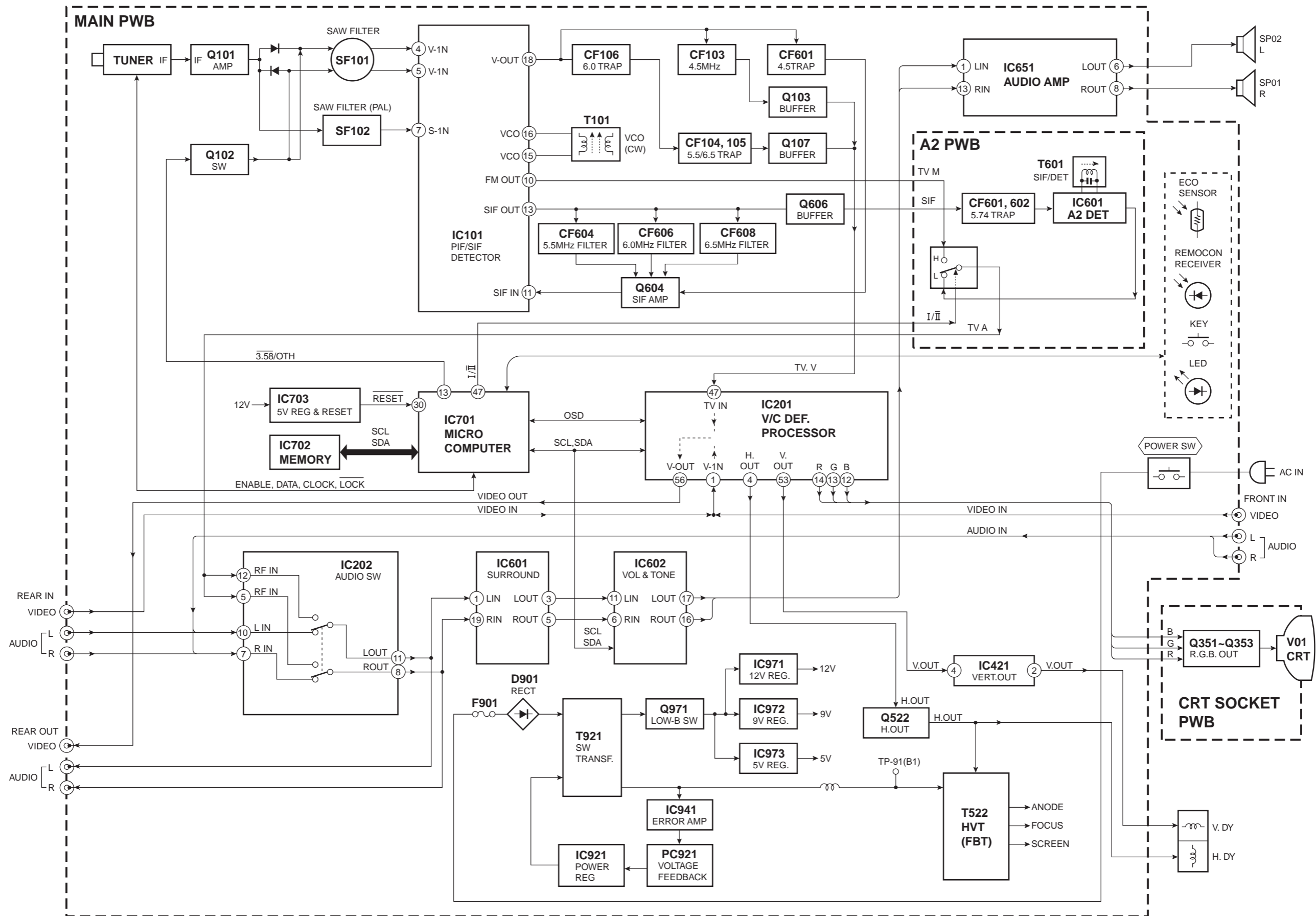
### IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

### CHIP IC

TOP VIEW		
		

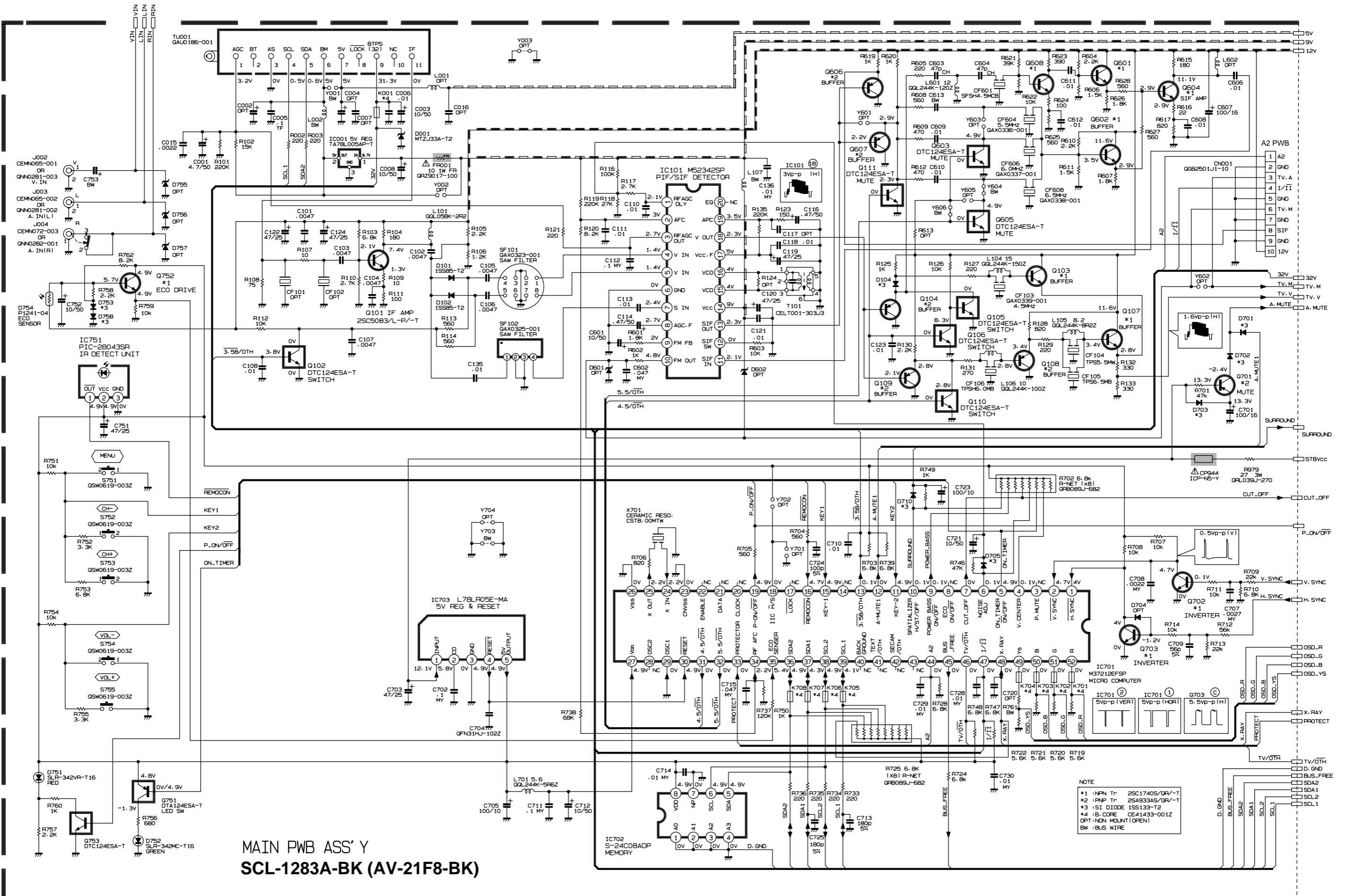
# BLOCK DIAGRAM



CIRCUIT DIAGRAMS MAIN PWB CIRCUIT DIAGRAM (1/3)

AV-21F8

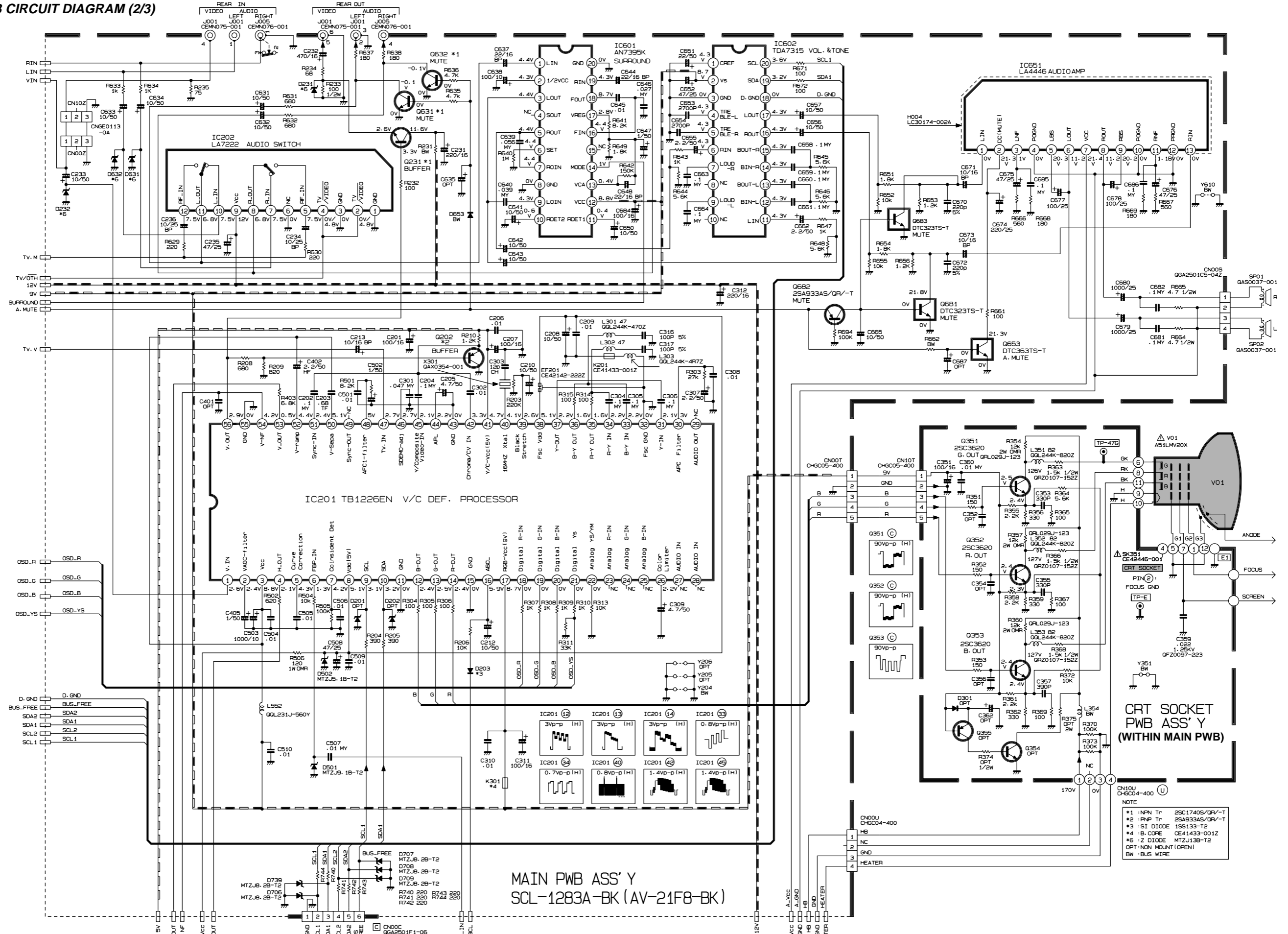
AV-21F8



MAIN PWB ASS'Y  
SCL-1283A-BK (AV-21F8-BK)

NOTE  
 #1 :NPN T<sub>n</sub> 2SC1740S/GR/-T  
 #2 :PNP T<sub>n</sub> 2SA333AS/GR/-T  
 #3 :ST DIODE 1SS133-T2  
 #4 :B.CORE CE41433-001Z  
 OPT:NGN MOUNT(OPEN)  
 BW :BUS WIRE

MAIN PWB CIRCUIT DIAGRAM (2/3)

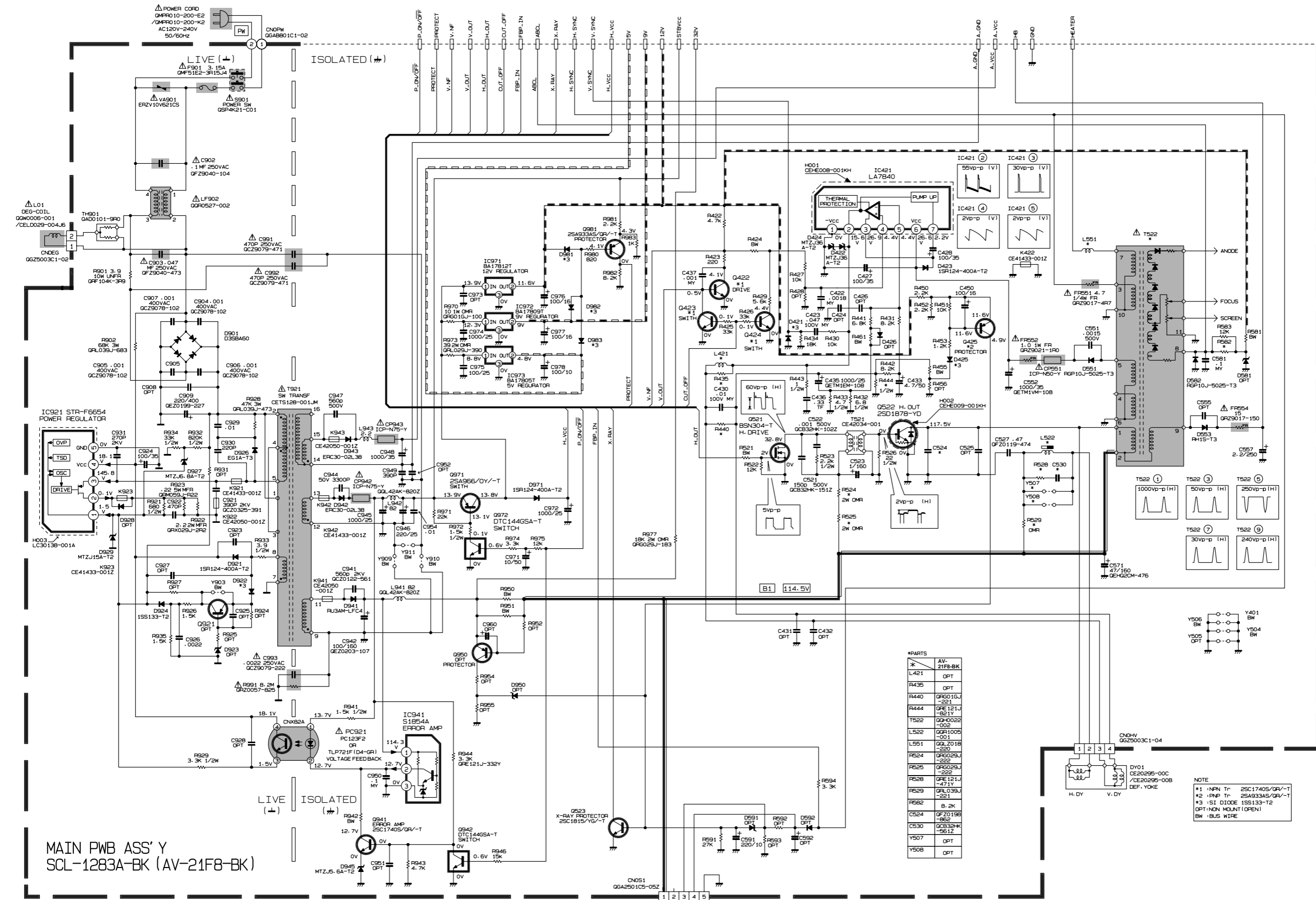


MAIN PWB ASS'Y  
SCL-1283A-BK (AV-21F8-BK)

CRT SOCKET  
PWB ASS'Y Y  
(WITHIN MAIN PWB)

- NOTE
- \*1 :NPN Tr 2SC1740S/QR/-T
  - \*2 :PNP Tr 2SA933AS/QR/-T
  - \*3 :SI DIODE 1SS133-T2
  - \*4 :B. CORE CE41433-001Z
  - \*6 :Z DIODE MTZ138-T2
  - OPT:NON MOUNT (OPEN)
  - BW :BUS WIRE

MAIN PWB CIRCUIT DIAGRAM (3/3)



MAIN PWB ASS'Y  
SCL-1283A-BK (AV-21F8-BK)

*PARTS	AV-21F8-BK
L421	OPT
R435	OPT
R440	GRG01GJ-221
R444	GRE121J-821Y
T522	QQ-0022-302
L522	Q011005-001
L551	Q0L2018-220
R524	GRG025J-222
R525	GRG025J-222
R526	GRE121J-471Y
R529	QL039J-221
R582	B-2K
C524	QF20198-822
C530	OCB32K-561Z
Y507	OPT
Y508	OPT

NOTE

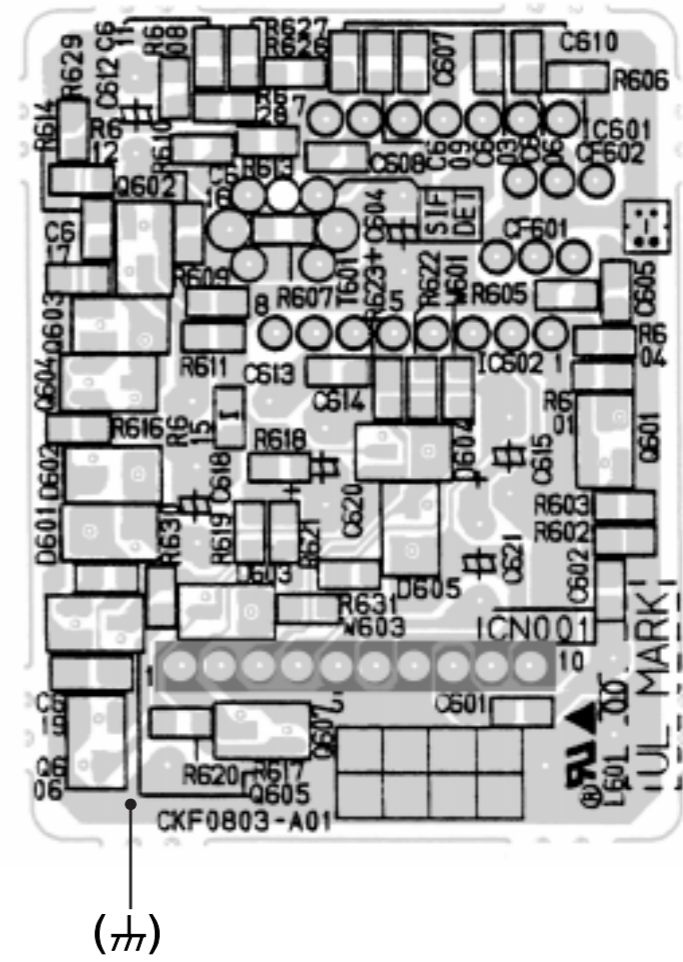
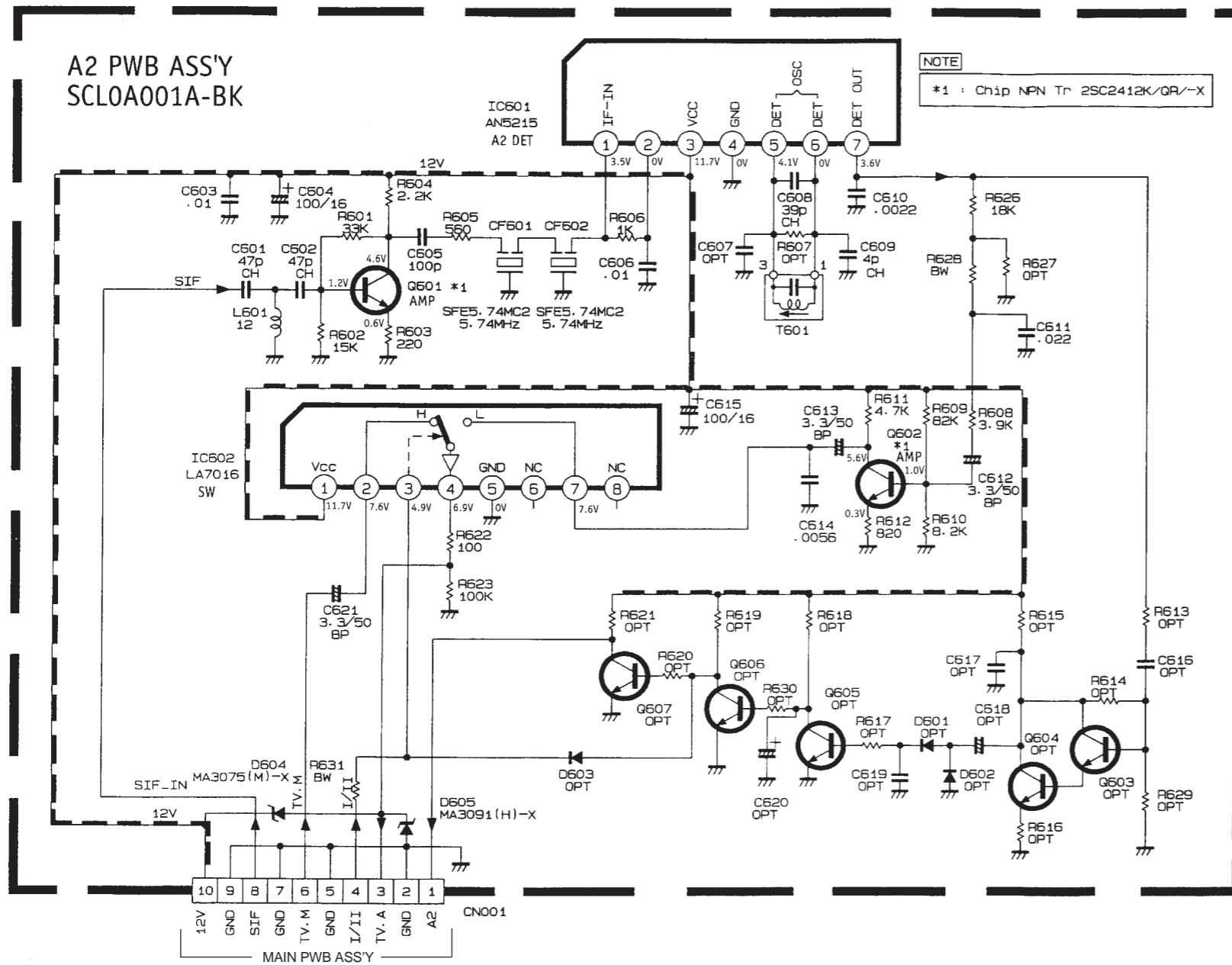
- \*1 1NPN Tr 2SC1740S/QR/-T
- \*2 1NPN Tr 2SA933AS/QR/-T
- \*3 1S1 DIODE 1SS133-T2
- OPT:NON MOUNT (OPEN)
- BW :BUS WIRE



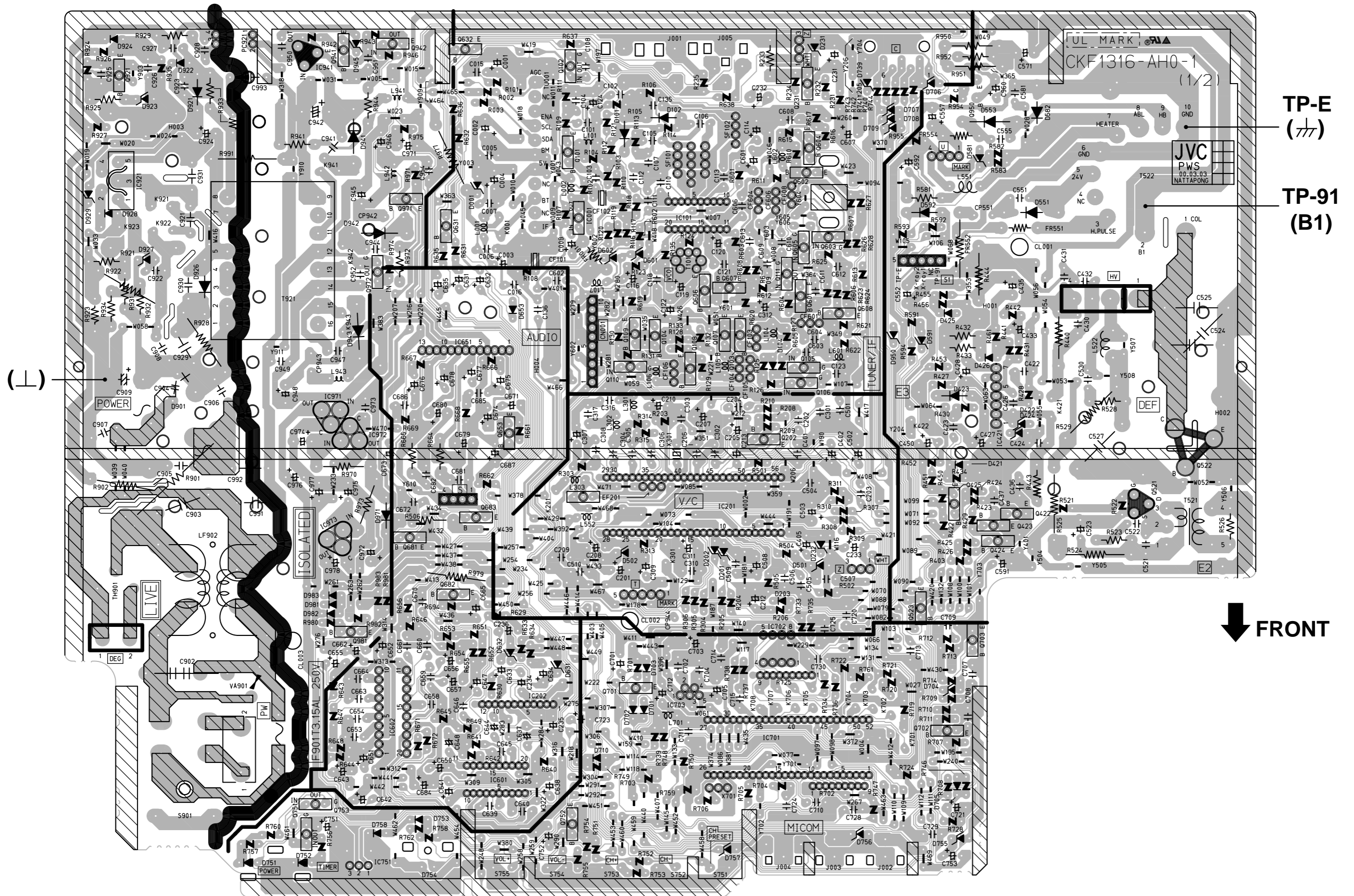
A2 PWB CIRCUIT DIAGRAM

PATTERN DIAGRAMS

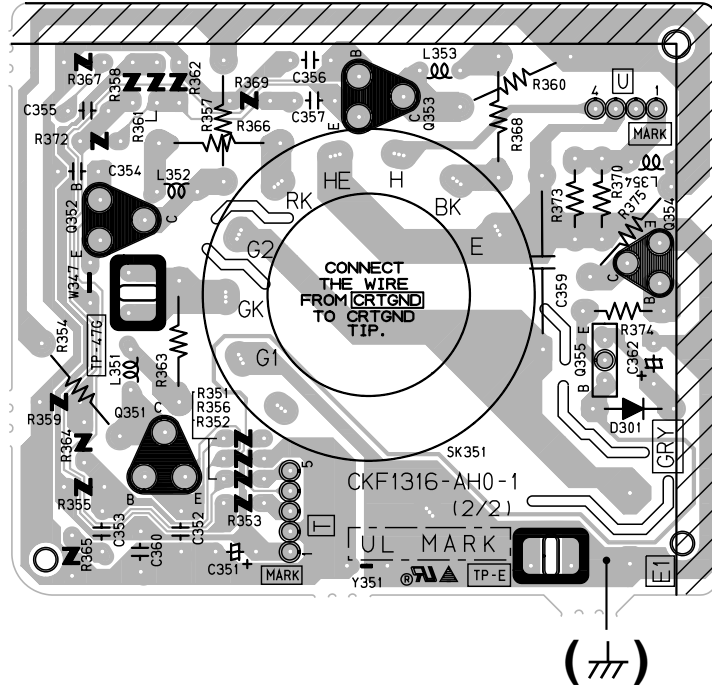
A2 PWB PATTERN



MAIN PWB PATTERN



CRT SOCKET PWB PATTERN





# JVC

VICTOR COMPANY OF JAPAN, LIMITED  
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan



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