TOSHIBA

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SERVICE MANUAL

COLOUR TELEVISION

D1ES Chassis

25AF6SH

Dec. 2001

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CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is (A) kV at zero beam current (minimum brightness) under a (C) V AC power source. The high voltage must not, under any circumstances, exceed (B) kV.

   Refer to table-1 for high voltage (A), (B) & AC voltage (C). (See SETTING & ADJUSTING DATA on page 13)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: 1. The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.
2. Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

***** There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Set the brightness and contrast to maximum.
3. Use a green raster from among the built-in test signals.
4. Loosen the clamp screw holding the yoke and slide the yoke backward or forward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 2.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, enter the raster vertically.
7. Slowly move the yoke forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster.

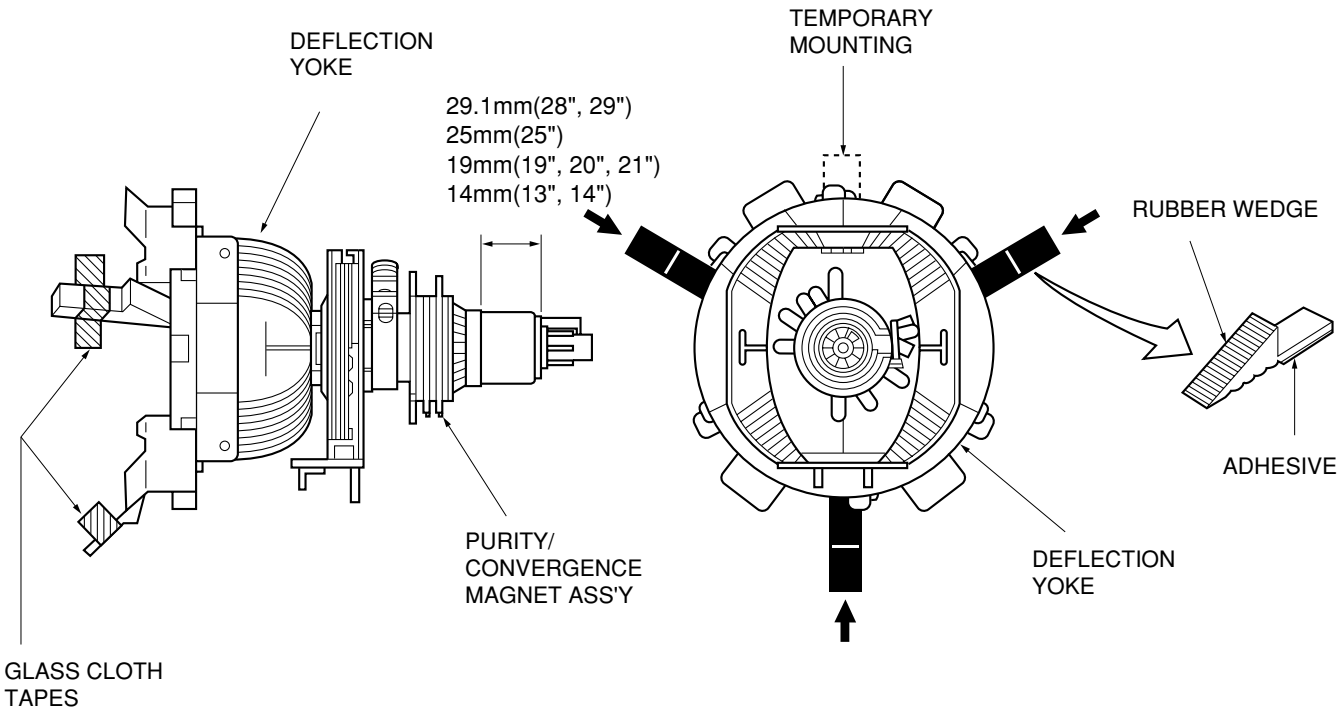


Figure 1.

CONVERGENCE ADJUSTMENTS

NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

■ CENTER CONVERGENCE ADJUSTMENT

1. Use the cross-dot pattern from among the built-in test signals.
2. Set the brightness and contrast for well defined pattern.
3. Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 2.) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn the both tabs at the same time keeping the angle constant to superimpose red and blue horizontal lines at the center of the screen.
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line and green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets have mutual interaction and make dot movement complex.

■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

1. Loosen the clamping screw of deflection yoke slightly to allow the yoke to tilt.
2. Temporarily put a wedge as shown in figure 1. (Do not remove cover paper on adhesive part of the wedge.)
3. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See figure 3.) Push the mounted wedge into the space between picture tube and the yoke to fix the yoke temporarily.
4. Put other wedge into bottom space and remove the cover paper to stick.
5. Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure 3.)
6. Keep the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to fix the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
8. After fixing three wedges, recheck overall convergence. Tighten the screw firmly to fix the yoke and check the yoke is firm.
9. Stick three adhesive tapes on wedges as shown in figure 1.

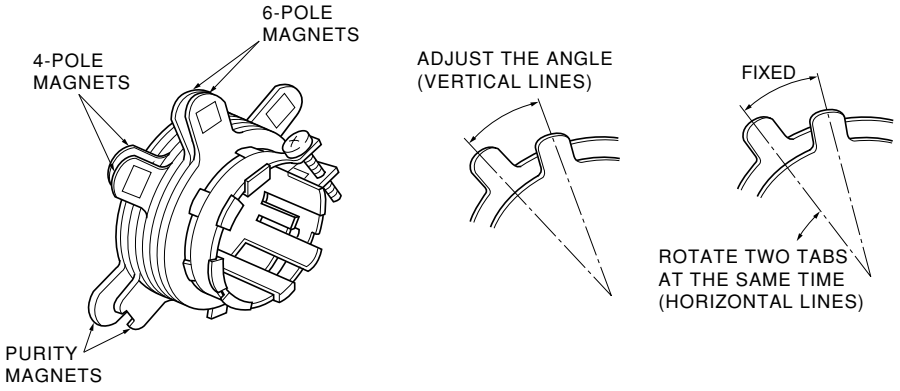
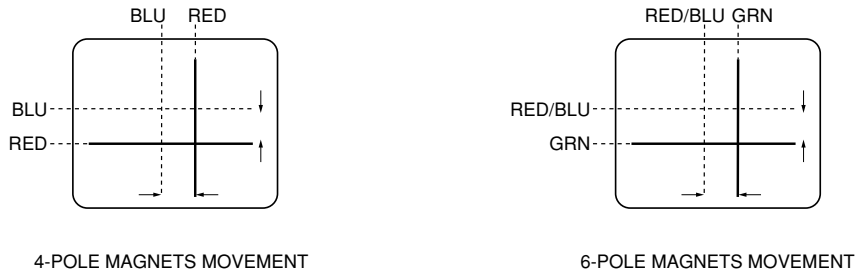


Figure 2.



Center Convergence by Convergence Magnets



Circumference Convergence by DEF Yoke

Figure 3. Dot Movement Pattern

SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

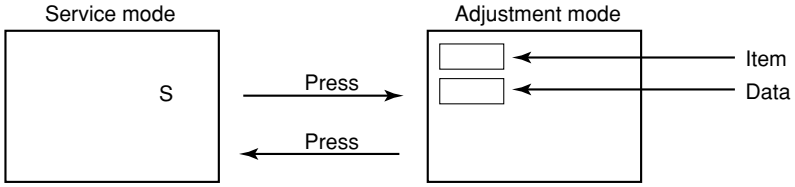
3) While pressing the 🔇 button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

A single horizontal line ON/OFF:	- / - - button (on Remote) or ⊖ button (on TV)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ◿ +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to “00”:	CALL + Channel button on TV (▼)
“RCUT” selection :	1 button
“GCUT” selection :	2 button
“BCUT” selection :	3 button
“CNTX” (or “SCNT”) selection :	4 button
“COLC” selection :	5 button– – – – – Color thickness correction
“TNTC” selection :	6 button
Test audio signal ON/OFF (1kHz) :	8 button
Self diagnostic display ON/OFF :	9 button

note: Displayed differently as shown below, depending on the setting of the receiving color system.
COLP (PAL)
COLC (NTSC)
COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

* The key function marked with ▒ are not usable to control in the Test signal for some model.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 13)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

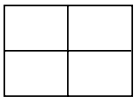
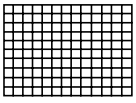
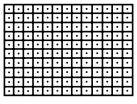
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto search Memory” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

7. TEST SIGNAL SELECTION

1) Every pressing of ⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

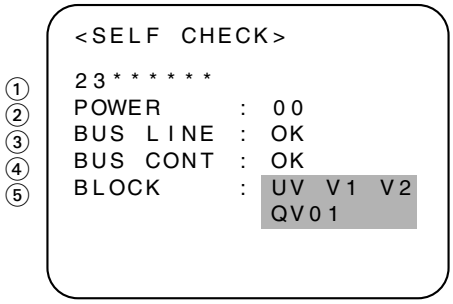
Signal off → NTSC signals (14 patterns)
↑ PAL signals (14 patterns) ←

Signals	Picture
• Red raster • Green raster • Blue raster • All Black • All White	
• Black & White	
• Black cross-bar • White cross-bar • Black cross-bar on green raster	
• Black cross-hatch • White cross-hatch	
• Black cross-dot • White cross-dot	
• H signal (white) • H signal (black)	

* The signals marked with ▒ are not usable to display in the Test signal for some model.

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s are executed properly.
2) During diagnosis, the following displays are shown.



Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

① Part number of microcomputer (QA01)
② Operation number of protecting circuit ----“00” is normal.
When indication is other than “00”, overcurrent apts to flow, and circuit parts may possibly be damaged.
③ BUS LINE CHECK ----“OK” is normal.
“SDA1-GND” ---------- SDA-GND short circuit.
“SCL1-GND” ---------- SCL-GND short circuit.
“SCL1-SDA1” ---------- SCL-SDA short circuit.
④ BUS CONT ----“OK” is normal.
When indication shows “Q ○○○ NG”, the device with the number may possibly be damaged.
⑤BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (←①)
V2 : VIDEO 2 input mode (←②)

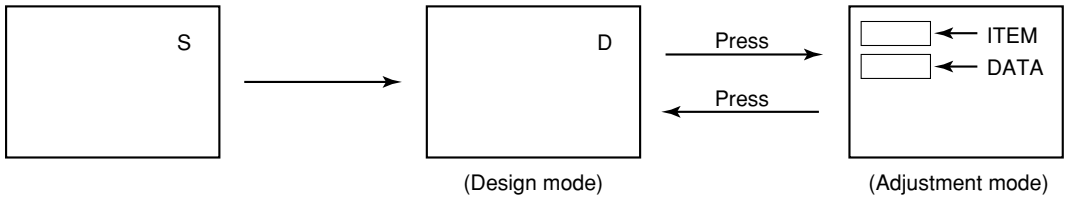
NOTE: Component which controls character display on screen is QT01 (TELETEXT IC.). If this display function fails to operate due to damage in QT01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
(2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

* The items marked with ▒ are not usable to display in the SELF DIAGNOSTIC FUNCTION for some model.

DESIGN MODE

1. ENTERING TO DESIGN MODE

1) Select the Service mode. 2) While pressing 🔇(or CALL) button on Remote and press MENU button on TV. 3) Press MENU button on TV.



When QA02 is initialized, items “OPT0” and “OPT1” of DESIGN MODE are set to the data of the representative model of this chassis family.
Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items “OPT0” and “OPT1”.

2. SELECTING THE ADJUSTING ITEMS

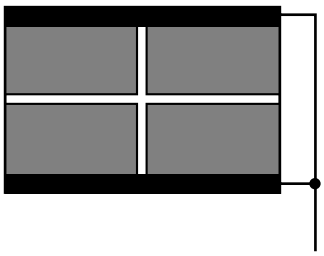
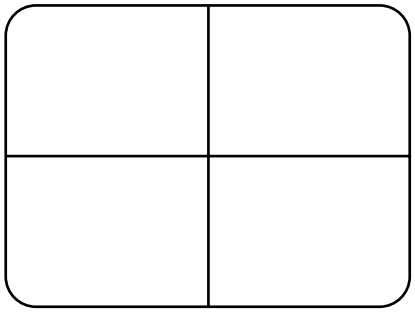
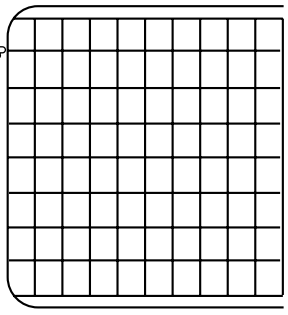
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)

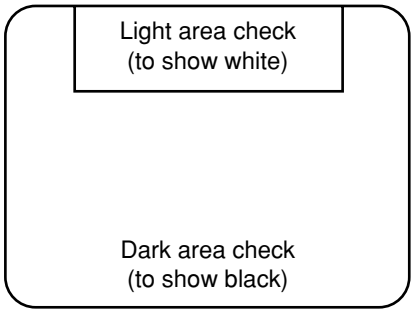
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 13)

3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ button will change the value of data.

ELECTRICAL ADJUSTMENTS

ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT).	1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ – /+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ – /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ◿ – /+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ◿ – /+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME ◿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen. The first ☞ 

ITEM	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button. 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to Initial reference data, and to set GDRV and BDRV to Initial reference data with VOLUME ◿ – /+ buttons (See page 19). 4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately. 5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ◿ – /+ buttons so that three colors slightly light in the same level. ※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust. ※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. 

NOTE: It is released built-in test pattern by changing the adjustment item for some model.
In this case, select the adjustment item with channel ▲▼ button first and then select the built-in test pattern with -/- - button.

CIRCUIT CHECK

HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below (B) kV.

Refer to table-1 for high voltage (B).
(See SETTING & ADJUSTING DATA on page 13)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		25"
HIGH VOLTAGE AT ZERO BEAM:	(A)	32.8 kV
MAX HIGH VOLTAGE:	(B)	33.0 kV
AC VOLTAGE	(C)	110~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data	Data
RCUT	R CUTOFF (B/W)	20H	←
GCUT	G CUTOFF (B/W)	20H	←
BCUT	B CUTOFF (B/W)	20H	←
GDRV	G DRIVE	40H	←
BDRV	B DRIVE	40H	←
BRTC	SUB BRIGHT CEN	40H	←
COLC	SUB COLOR CEN NTSC	45H	←
TNTC	SUB TINT CEN	43H	←
COLP	SUB COLOR CEN PAL	FFH	←
COLS	SUB COLOR CEN SECAM	00H	←
SCNT	SUB CONTRAST	09H	←
HPOS	50Hz H-POSITION	10H	←
VPOS	V-POSITION	04H	03H
HIT	HEIGHT	2FH	24H
VLIN	V-LINEARITY	07H	08H
WID	PICTURE WIDTH	10H	←
PARA	E-W PARABOLA	16H	←
TRAP	TRAPEZIUM	11H	←
SRY	SECAM R-Y	07H	←
SBY	SECAM-B-Y	07H	←

Table-2

【 DESIGN MODE 】

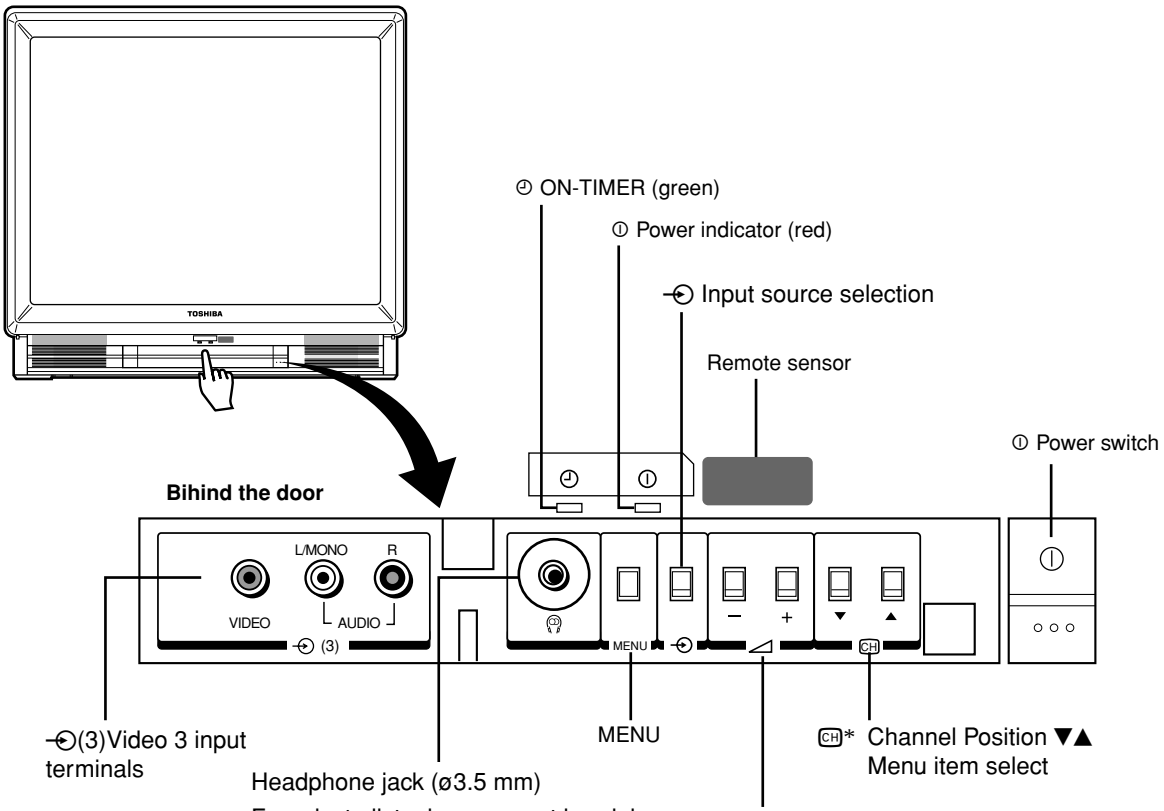
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment	Preset Data	Data	Remarks
OPT 1	OPTION 1	26H	26H	
OPT 2	OPTION 2	07H	07H	

Table-3

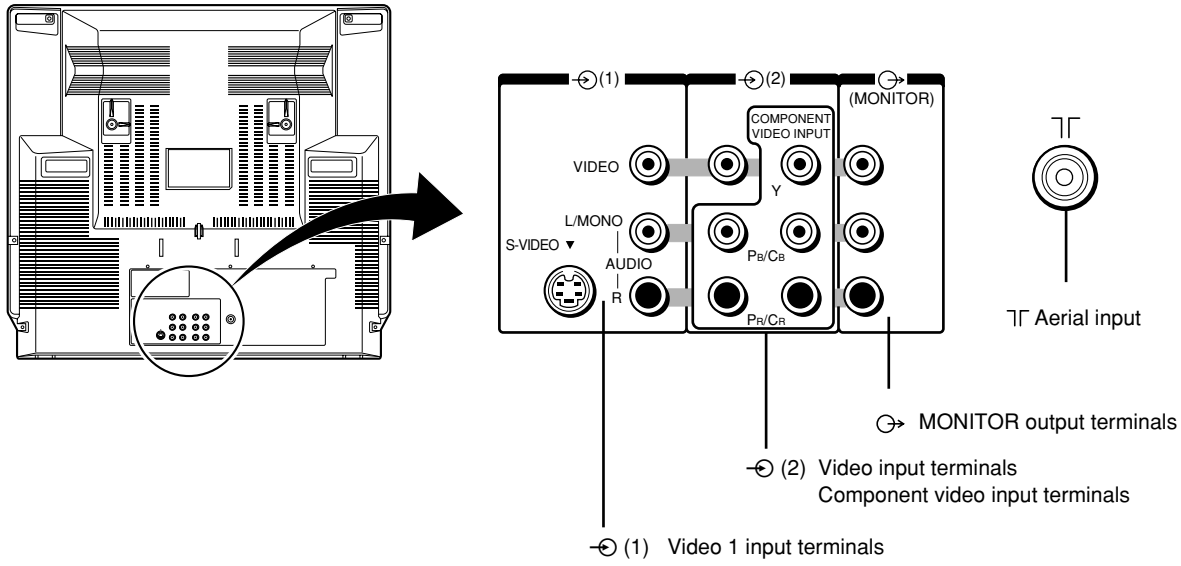
LOCATION OF CONTROLS

Front

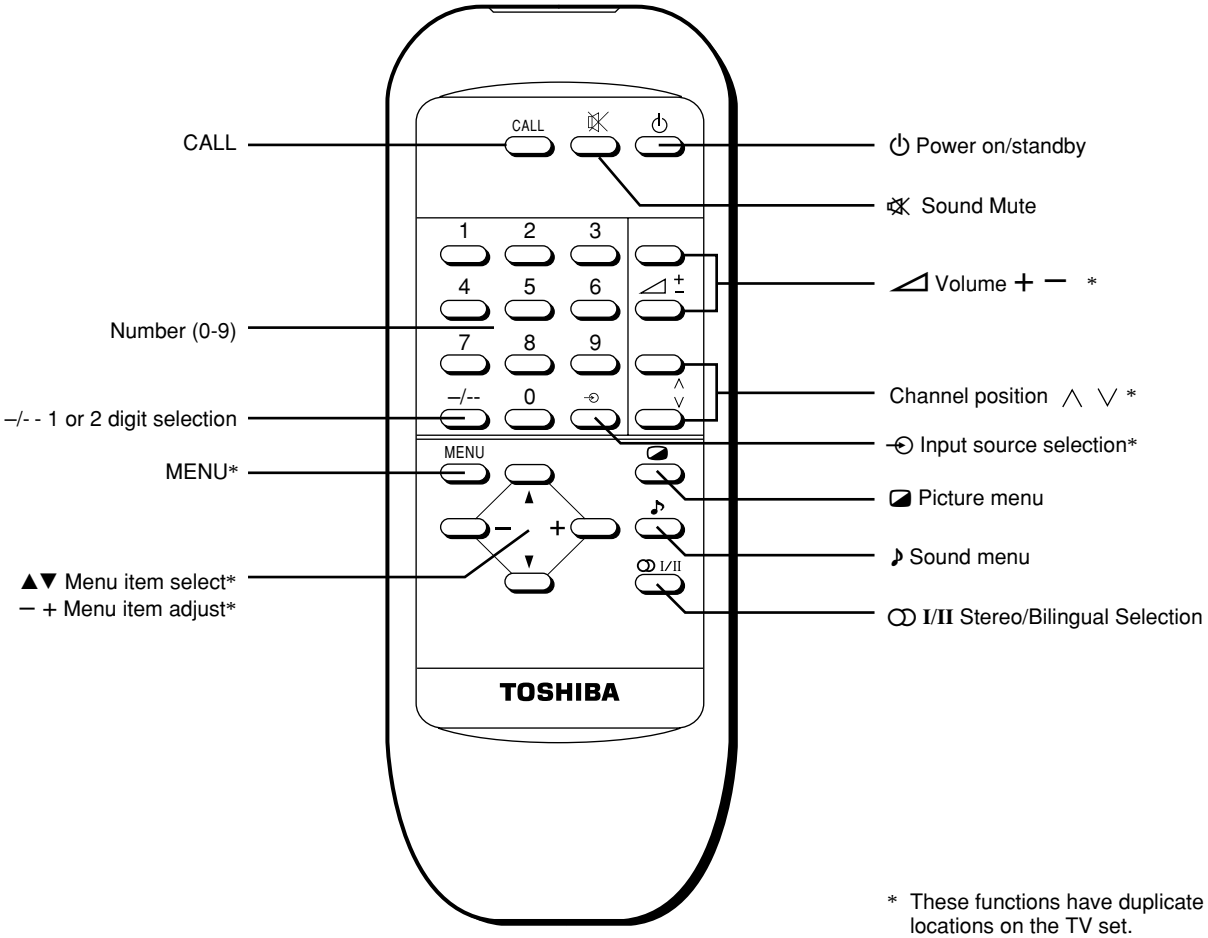


* Dual function buttons.

Back



Remote



* These functions have duplicate locations on the TV set.

PROGRAMMING CHANNEL MEMORY

- First, use the ASM (Automatic Search Memory) function to preset all the active channels in your area automatically.
  Then, arrange the preset channels with the SEARCH (>>>), MFT (Manual Fine Tuning) and AFT (Auto Fine Tuning) functions so that you can tune into only desired channels.
- This section shows how to tune in channels using mainly the Remote Controller. You can also perform the system select, ASM, SEARCH (>>>), SKIP, MFT and AFT operations using the buttons on the TV set.

To preset channels (ASM)

ASM (Automatic Search Memory)

1 Select the head of the position number to start the ASM with the position down (∨)/up (∧) buttons or the digit/direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

3 Confirm that "COLOR" is set to "AUTO" and "SOUND" is set to proper system.
If not, press the ▼/▲ buttons to move the cursor (►) to "COLOR" or "SOUND" and press the –/+ buttons to select each proper system.

4 Press the ▼/▲ buttons to move the cursor (►) to "ASM".

5 Press the "+" button to start the ASM. All active channels will be preset automatically.
When presetting is complete, the initial position number will reappear.

After presetting
Check the preset channels by pressing the position down (∨)/up (∧) buttons.

- If the picture or sound of a certain channel is not good, fine-tune the channel using the MFT function.
- If the colour of a certain channel is abnormal, automatic colour system selection (AUTO) may malfunction, or sound system selection is wrong. In such a case, select another colour and/or sound system.

To preset channels (Manual search, AFT, MFT)

Manual search (>>>)

1 Select a position number with the position down (∨)/ up (∧) or digit/direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

3 Press the ▼/▲ buttons to move the cursor (►) to ">>>".

4 Press the –/+ buttons to start searching.
The – button searches for lower-numbered channels; the + button for higher- numbered channels.
Repeat this process until you can get the desired channel.

5 When the desired programme is shown, press the ▼/▲ buttons to move the cursor (►) to "⇥".

6 Press the + button to memorize the channel at the current postion.

7 When you desire to store another channel at another postion, move the cursor (►) to "POSITION" with the ▼/▲ buttons and select a desired position with the –/+ buttons.
Then, press the ▼/▲ buttons to move the cursor (►) to ">>>" and repeat the steps 4 to 7.

* Please refer to owners manual in details.

- Use the SEARCH function if desired channels could not be preset with the ASM, or if you would like to preset the desired channels to specific position numbers one by one.
- The adjustments below are not necessary under normal conditions. However, in areas of inferior broadcast conditions where adjustment is necessary for a better picutre, adjust the tuning with the MFT (Manual Fine Tuning). The AFT OFF status automatically keeps the condition adjusted with the MFT function.
- The AFT (Auto Fine Tuning) function automatically corrects slight fluctuations when receiving signals.
- When using Manual Search to preset the channel, the AFT will automatically turn ON and SKIP to OFF.

MFT (Manual Fine Tuning)

1 Select the position number you want to fine-tune with the position down (∨)/up(∧) buttons or digit/direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

3 Press the ▼/▲ buttons to move the cursor (►) to "MFT".

4 Press the –/+ buttons until the best possible picture and sound are obtained.

Note
When operating the MFT function, the AFT status is automatically set to OFF.

AFT (Auto Fine Tuning)

1 Select the position number you want to fine-tune with the position down (∨)/up(∧) buttons or digit/direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

3 Press the ▼/▲ buttons to move the cursor (►) to "AFT". Press the –/+ buttons to select the "ON" indication.

Note
When position is set to AFT OFF status, the "■" mark appears to the left of the position number.
When the channel is set to AFT ON status, the position number is displayed without the "■" mark.

To skip unnecessary position numbers

After presetting the channels, you may skip unnecessary position numbers so that only the channels you want to watch are selected.

To skip a position number

1 Select the position number to be skipped with the position down (∨)/up (∧) buttons or digit/direct select buttons.

2 Press the MENU button repeatedly to call up the SET UP menu on the screen.

3 Press the ▼/▲ buttons to move the cursor (►) to "SKIP".

4 Press the –/+ buttons to select "SKIP ON".

5 Press the MENU button to turn off the SET UP menu display.
Select the position number to be skipped with the direct select buttons. The * mark appears to the left of the position number.
The position number will then be skipped when you select channels with the position down (∨)/up (∧) buttons.

To restore a skipped position number

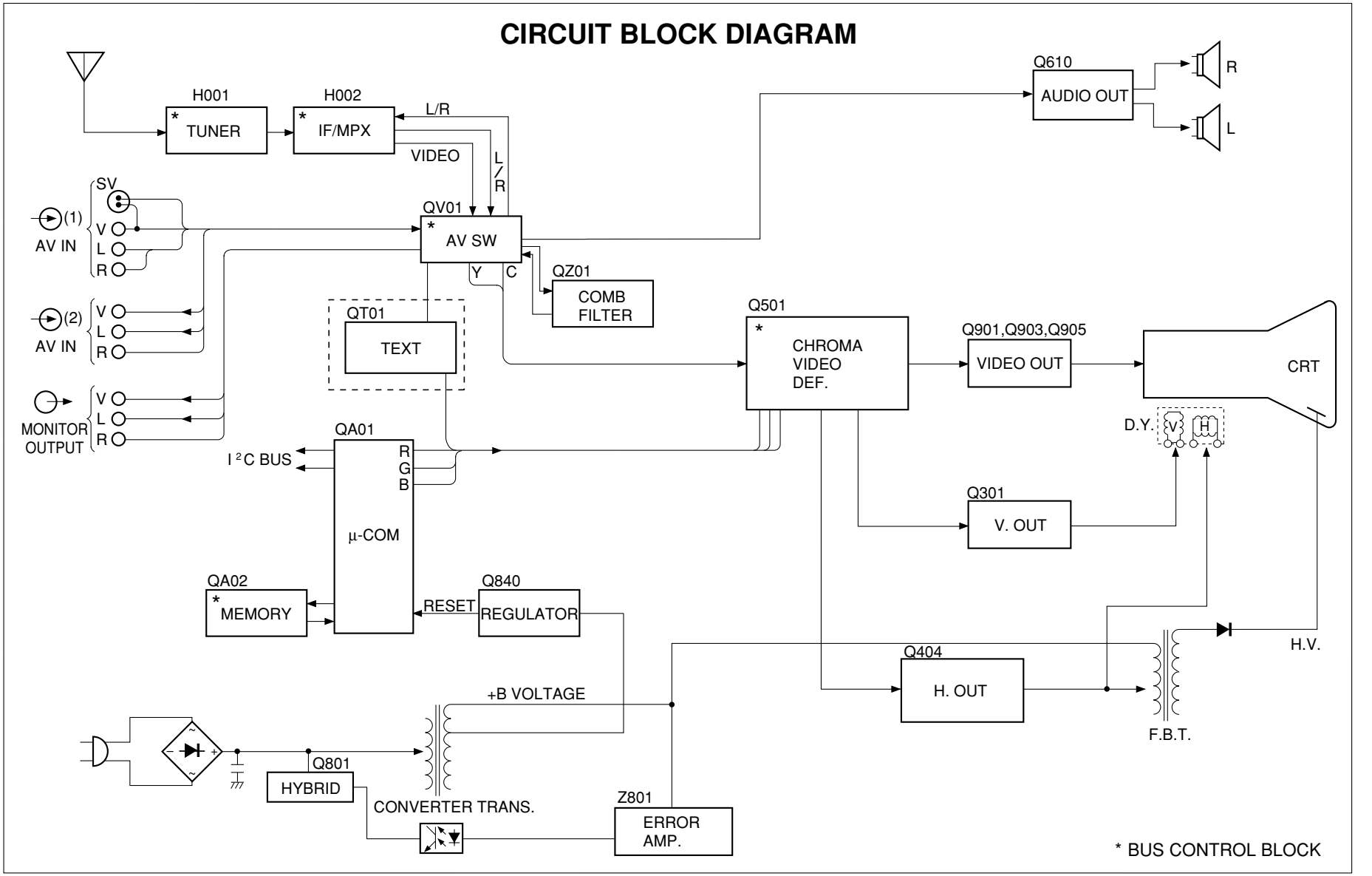
1 Select the position number you want to restore with the direct select (and/or digit select) buttons.

2 Press the MENU button to call up the SET UP menu display and press the ▼/▲ buttons to move the cursor (►) to "SKIP".

3 Press the –/+ buttons to select "SKIP OFF".

* Please refer to owners manual in details.

CIRCUIT BLOCK DIAGRAM



CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 25AF6SH

Capacitors	CD	:	Ceramic Disk	PF	:	Plastic Film	EL	: Electrolytic
Resistors	CF	:	Carbon Film	CC	:	Carbon Composition	MF	: Metal Film
	OMF	:	Oxide Metal Film	VR	:	Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C101	24794101	ELECTROLYTIC, 16V 100UF M
C103	24669010	ELECTROLYTIC, 50V 1.0UF M 3A
C105	24796479	ELECTROLYTIC, 35V 4.7UF M
C112	24794101	ELECTROLYTIC, 16V 100UF M
C132	24794100	ELECTROLYTIC, 16V 10UF M
C135	24797229	ELECTROLYTIC, 50V 2.2UF M
C140	24797478	ELECTROLYTIC, 50V 0.47UF M
C141	24474102	CERAMIC, 50V B 1000PF K
C201	24073078	ELECTROLYTIC CE04P 50V 0.22UF M 3A
C210	24591104	PLASTIC FILM, 50V 0.1UF J
C216	24797010	ELECTROLYTIC, 50V 1UF M
C221	24473100	CERAMIC CC141SL 50V 10PF J
C222	24473100	CERAMIC CC141SL 50V 10PF J
C223	24473100	CERAMIC CC141SL 50V 10PF J
C224	24797100	ELECTROLYTIC, 50V 10UF M
C225	24539104	PLASTIC FILM, 50V 0.1UF J
C226	24539104	PLASTIC FILM, 50V 0.1UF J
C233	24797010	ELECTROLYTIC, 50V 1UF M
C303	24693473	PLASTIC FILM, 100V 0.047UF J
C304	24214471	CERAMIC DISC, 500V B 470PF K
C306	24073059	ELECTROLYTIC, 25V 3300UF M 3A
C307	24567393	PLASTIC FILM, 50V 39000PF J
C308	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C309	24669101	ELECTROLYTIC, 50V 100UF M 3A
C310	24669222	ELECTROLYTIC, 50V 2200UF M 3A
C313	24082058	PLASTIC FILM, 100V 270000PF J
C316	24567223	PLASTIC FILM, 50V 22000PF J
C318	24666101	ELECTROLYTIC, 16V 100UF M 3A
C319	24212472	CERAMIC DISK CK45 B 50V 4700PF K
C321	24539474	MT PLA CAP M 50V 474J MUL
C341	24794101	ELECTROLYTIC, 16V 100UF M
C342	24795100	ELECTROLYTIC CE04G 25V 10UF M
C350	24693102	PLASTIC FILM, 100V 1000PF J
C351	24591102	PLASTIC FILM, 50V 1000PF J
C352	24617912	ELECTROLYTIC, 50V 2.2UF K 3A LI
C361	24794220	ELECTROLYTIC, 16V 22UF M
C363	24693104	PLASTIC FILM CQ921 M 100V 0.1MF J
C403	24590822	PLASTIC FILM, 50V 8200PF J

Location No.	Parts No.	Description
C404	24669478	ELECTROLYTIC, 50V 0.47UF M 3A
C406	24797010	ELECTROLYTIC, 50V 1UF M
C413	24214821	CERAMIC DISC, 500V B 820PF K
C416	24678229	ELECTROLYTIC, 200V 2.2UF M 3A
C417	24214391	CERAMIC DISC, 500V B 390PF K
C420	24794101	ELECTROLYTIC, 16V 100UF M
C421	24794221	ELECTROIYTIC, 16V 220UF M
C423	24797479	ELECTROLYTIC, 50V 4.7UF M
C430	24212102	CERAMIC DISC, 50V B 1000PF K
C431	24763222	ELECTROLYTIC CE04G 16V 2200UF M
C433	24073034	ELECTROLYTIC CE04P 16V 10UF M 3A
C436	24793102	ELECTROLYTIC, 10V 1000UF M
C438	24667102	ELECTROLYTIC CE04Q 25V 1000UF M 3A
C440	24082938	PLASTIC FILM, 1500VH 2200PF H
C441	24693472	PLASTIC FILM, 100V 4700PF J
C442	24082917	PLASTIC FILM, 315V 0.3UF J
C442	24082918	PLASTIC FILM, 315V 0.33UF J
C443	24082956	PLASTIC FILM, 1500VH 7200PF H
C444	24082946	PLASTIC FILM, 1500VH 4700PF H
C445	24828563	PLASTIC FILM, 200V 56000PF J
C446	24829473	PLASTIC FILM, 400V 47000PF J
C447	24679220	ELECTROLYTIC, 250V 22UF M 3A
C448	24640908	ELECTROLYTIC, 160V 33UF M 3A LI
C449	24214331	CERAMIC DISK CK45 B 500V 330PF K
C451	24591823	PLASTIC FILM, 50V 0.082MF J
C460	24591682	PLASTIC FILM, 50V 6800PF J
C461	24082917	PLASTIC FILM, 315V 0.3UF J
C463	24212222	CERAMIC DISK CK45 B 50V 2200PF K
C464	24640872	ELECTROLYTIC CE04R 100V 10UF M 3A
C467	24820333	PLASTIC FILM, 630V 33000PF J
C470	24794470	ELECTORLYTIC, 16V 47UF M
C472	24539474	MT PLA CAP M 50V 474J MUL
C473	24073081	ELECTROLYTIC, 50V 1.OUF M 3A
C482	24539154	MT PLA CAP M 50V 154J MUL
C498	24591272	PLASTIC FILM, 50V 2700PF J
C499	24591104	PLASTIC FILM, 50V 0.1UF J
C502	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU

Location No.	Parts No.	Description
C503	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
C512	24212222	CERAMIC DISK CK45 B 50V 2200PF K
C517	24797101	ELECTROLYTIC CE04G 50V 100UF M
C521	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
C522	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
C523	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
C524	24794101	ELECTROLYTIC, 16V 100UF M
C526	24590222	PLASTIC FILM, 50V 2200PF J
C527	24353100	CERAMIC DISC CC45CH 50V CH 10PF C
C528	24073078	ELECTROLYTIC CE04P 50V 0.22UF M 3A
C610	24794100	ELECTROLYTIC, 16V 10UF M
C612	24794470	ELECTORLYTIC, 16V 47UF M
C621	24797100	ELECTROLYTIC, 50V 10UF M
C622	24797100	ELECTROLYTIC, 50V 10UF M
C624	24797478	ELECTROLYTIC, 50V 0.47UF M
C661	24590102	PLASTIC FILM, 50V 1000PF J
C662	24590102	PLASTIC FILM, 50V 1000PF J
C663	24794100	ELECTROLYTIC, 16V 10UF M
C673	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C676	24539104	PLASTIC FILM, 50V 0.1UF J
C677	24539104	PLASTIC FILM, 50V 0.1UF J
C678	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C681	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C682	24669221	ELECTROLYTIC CE04Q 50V 220UF M 3A
C683	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C690	24669101	ELECTROLYTIC, 50V 100UF M 3A
C704	24591822	PLASTIC FILM, 50V 8200PF J
C707	24795470	ELECTROLYTIC, 25V 47UF M
C712	24795470	ELECTROLYTIC, 25V 47UF M
C713	24709100	ELECTROLYTIC, 200V 10UF M
C714	24436101	CERAMIC DISC CC45 SL 50V100PF J
C715	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C716	24436101	CERAMIC DISC CC45 SL 50V100PF J
C717	24214472	CERAMIC DISK CK45 B 500V 4700PF K
C718	24794470	ELECTORLYTIC, 16V 47UF M
C719	24435560	CERAMIC DISC, 500V SL 56PF J
C720	24709100	ELECTROLYTIC, 200V 10UF M
C721	24794470	ELECTORLYTIC, 16V 47UF M
C722	24436561	CERAMIC DISC, 50V SL 560PF J
C726	24212102	CERAMIC DISC, 50V B 1000PF K
⚠ C801	24503002	MT PLA AC275V 0.22UF M
⚠ C802	24503002	MT PLA AC275V 0.22UF M
⚠ C805	24092281	CERAMIC DISC, AC250V E 4700PF
⚠ C806	24092281	CERAMIC DISC, AC250V E 4700PF
C808	24667101	ELECTROLYTIC, 25V 100UF M 3A
C809	24539474	MT PLA CAP M 50V 474J MUL
C810	24086934	ELECTROLYTIC, 450V 560UF M 35F
C811	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ C813	24092565	CERAMIC DISC, AC250V B 470PF K
⚠ C814	24092565	CERAMIC DISC, AC250V B 470PF K
C816	24794470	ELECTORLYTIC, 16V 47UF M
C817	24092339	CERAMIC DISC, 2KV 330PF K
C818	24095931	PLASTIC FILM CF92T 1250VH 2200PF J
C819	24676220	ELECTROLYTIC, 100V 22UF M 3A
C821	24214471	CERAMIC DISC, 500V B 470PF K
C822	24539474	MT PLA CAP M 50V 474J MUL
C823	24214471	CERAMIC DISC, 500V B 470PF K
C826	24539104	PLASTIC FILM, 50V 0.1UF J
C829	24212391	CERAMIC DISC, 50V B 390PF K
C831	24794470	ELECTORLYTIC, 16V 47UF M
C833	24797229	ELECTROLYTIC, 50V 2.2UF M

Location No.	Parts No.	Description
C841	24797100	ELECTROLYTIC, 50V 10UF M
C842	24794100	ELECTROLYTIC, 16V 10UF M
C843	24539104	PLASTIC FILM, 50V 0.1UF J
C884	24086916	ELECTROLYTIC CE692R 160V 330UF M 3D
C885	24214471	CERAMIC DISC, 500V B 470PF K
C887	24214471	CERAMIC DISC, 500V B 470PF K
C889	24669222	ELECTROLYTIC, 50V 2200UF M 3A
C893	24092337	CERAMIC DISC, 2KV 220PF K
C895	24676470	ELECTROLYTIC, 100V 47UF M 3A
C898	24539224	PLASTIC FILM, 50V 0.22 UF J
C902	24092353	CERAMIC DISC, 2KV 4700PF K
C903	24436121	CERAMIC DISC, 50V SL 120PF J
C904	24436471	CERAMIC DISC, 50V SL 470PF J
C905	24436471	CERAMIC DISC, 50V SL 470PF J
C906	24436121	CERAMIC DISC, 50V SL 120PF J
C907	24436471	CERAMIC DISC, 50V SL 470PF J
C908	24436121	CERAMIC DISC, 50V SL 120PF J
C909	24679330	ELECTROLYTIC, 250V 33UF M 3A
C910	24797478	ELECTROLYTIC, 50V 0.47UF M
C911	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C912	24073042	ELECTROLYTIC, 16V 1000UF M 3A
C913	24794220	ELECTROLYTIC, 16V 22UF M
C914	24212103	CERAMIC DISC, 50V B 10000PF K
C930	24214101	CERAMIC DISC, 500V B 100PF K
C931	24214101	CERAMIC DISC, 500V B 100PF K
CA22	24473150	CERAMIC, 50V SL 15PF J
CA23	24473150	CERAMIC, 50V SL 15PF J
CA24	24473150	CERAMIC, 50V SL 15PF J
CA25	24473150	CERAMIC, 50V SL 15PF J
CA34	24474101	CERAMIC, 50V B 100PF K
CA37	24474101	CERAMIC, 50V B 100PF K
CA38	24474101	CERAMIC, 50V B 100PF K
CA42	24794100	ELECTROLYTIC, 16V 10UF M
CA43	24539104	PLASTIC FILM, 50V 0.1UF J
CA44	24539104	PLASTIC FILM, 50V 0.1UF J
CA68	24794100	ELECTROLYTIC, 16V 10UF M
CA70	24212472	CERAMIC DISK CK45 B 50V 4700PF K
CA71	24212561	CERAMIC DISC, 50V B 560PF K
CA72	24794331	ELECTROLYTIC, 16V 330UF M
CA73	24474181	CERAMIC CK141B 50V 180PF K
CA74	24797010	ELECTROLYTIC, 50V 1UF M
CA99	24539104	PLASTIC FILM, 50V 0.1UF J
CB01	24763471	ELECTROLYTIC, 16V 470UF M
CB20	24212101	CERAMIC DISC, 50V B 100PF K
CB21	24212221	CERAMIC DISC, 50V B 220PF K
CB22	24591272	PLASTIC FILM, 50V 2700PF J
CS02	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
CS03	24085958	ELEC. NONPOLAR CE04J 50V 1.0UF M NP
CS04	24797010	ELECTROLYTIC, 50V 1UF M
CS05	24797010	ELECTROLYTIC, 50V 1UF M
CS06	24797010	ELECTROLYTIC, 50V 1UF M
CS07	24797010	ELECTROLYTIC, 50V 1UF M
CS10	24794100	ELECTROLYTIC, 16V 10UF M
CS11	24794100	ELECTROLYTIC, 16V 10UF M
CS12	24797010	ELECTROLYTIC, 50V 1UF M
CS13	24797010	ELECTROLYTIC, 50V 1UF M
CS29	24203220	ELECTROLYTIC CE04WS 16V 22UF M 7L 3A
CV01	24794101	ELECTROLYTIC, 16V 100UF M
CV03	24073077	ELECTROLYTIC, 50V 0.1UF M 3A
CV04	24797010	ELECTROLYTIC, 50V 1UF M
CV05	24797220	ELECTROLYTIC, 50V 22UF M
CV06	24567473	PLASTIC FILM, 50V 47000PF J
CV19	24073077	ELECTROLYTIC, 50V 0.1UF M 3A
CV20	24073077	ELECTROLYTIC, 50V 0.1UF M 3A
CV22	24073077	ELECTROLYTIC, 50V 0.1UF M 3A

Location No.	Parts No.	Description
CV30	24073077	ELECTROLYTIC, 50V 0.1UF M 3A
CV34	24762471	ELECTROLYTIC, 10V 470UF M
CV36	24794221	ELECTROIYTIC, 16V 220UF M
CV39	24073077	ELECTROLYTIC, 50V 0.1UF M 3A
CZ01	24797478	ELECTROLYTIC, 50V 0.47UF M
CZ02	24794101	ELECTROLYTIC, 16V 100UF M
CZ03	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
CZ07	24794101	ELECTROLYTIC, 16V 100UF M
CZ08	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
CZ09	24567103	PLASTIC FILM, 50V 0.01UF J
CZ10	24473150	CERAMIC, 50V SL 15PF J
CZ11	24567103	PLASTIC FILM, 50V 0.01UF J
CZ12	24474181	CERAMIC CK141B 50V 180PF K
CZ15	24473390	CERAMIC DISC, 50V SL 39PF J
CZ16	24473560	CERAMIC CC141SL 50V 56PF J
CZ17	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
CZ18	24436220	CERAMIC DISC, 50V SL 22PF J
CZ20	24794330	ELECTROLYTIC CE04G 16V 33UF M
RESISTORS		
R101	24382183	OXIDE METAL FILM, 1W 18K OHM J
R131	24366104	CARBON FILM, 1/6W 100K OHM J
R133	24366105	CARBON FILM, 1/6W 1M OHM J
R134	24366151	CARBON FILM, 1/6W 150 OHM J
R148	24366563	CARBON FILM, 1/6W 56K OHM J
R199	24366122	CARBON FILM, 1/6W 1.2K OHM J
R199	24366122	CARBON FILM, 1/6W 1.2K OHM J
R216	24366184	CARBON FILM, 1/6W 18OK OHM J
R217	24367103	CARBON FILM, 1/6W 10K OHM G
R218	24366104	CARBON FILM, 1/6W 100K OHM J
R219	24366103	CARBON FILM, 1/6W 10K OHM J
R220	24366101	CARBON FILM, 1/6W 100 OHM J
R221	24366222	CARBON FILM, 1/6W 2.2K OHM J
R228	24366271	CARBON FILM, 1/6W 270 OHM J
R228	24367622	CARBON FILM, 1/6W 6.2K OHM G
R229	24366271	CARBON FILM, 1/6W 270 OHM J
R230	24366271	CARBON FILM, 1/6W 270 OHM J
R233	24366100	CARBON FILM, 1/6W 10 OHM J
R234	24366394	CARBON FILM, 1/6W 390K OHM J
R271	24366101	CARBON FILM, 1/6W 100 OHM J
R272	24366103	CARBON FILM, 1/6W 10K OHM J
R273	24366272	CARBON FILM, 1/6W 2.7K OHM J
R303	24321109	OXIDE METAL FILM, 1/2W 1 OHM J
R305	24322109	OXIDE METAL FILM, 1W 1 OHM J
R314	24366105	CARBON FILM, 1/6W 1M OHM J
R315	24366824	CARBON FILM, 1/6W 820K OHM J
R316	24366154	CARBON FILM, 1/6W 150K OHM J
R328	24339159	OXIDE METAL FILM, 2W 1.5 OHM J
R330	24366471	CARBON FILM, 1/6W 470 OHM J
R330	24366471	CARBON FILM, 1/6W 470 OHM J
R331	24366104	CARBON FILM, 1/6W 100K OHM J
R333	24366273	CARBON FILM, 1/6W 27K OHM J
R333	24366471	CARBON FILM, 1/6W 470 OHM J
R336	24383121	OXIDE METAL FILM, 1/2W 120 OHM J
R341	24366182	CARBON FILM, 1/6W 1.8K OHM J
R342	24366562	CARBON FILM, 1/6W 5.6K OHM J
R343	24310159	METAL FILM, 1/2W 1.5 OHM J
R344	24366392	CARBON FILM, 1/6W 3.9K OHM J
R345	24383102	OXIDE METAL FILM, 2W 1K OHM J
R349	24366473	CARBON FILM, 1/6W 47K OHM J
R351	24366753	CARBON FILM, 1/6W 75K OHM J
R352	24366153	CARBON FILM, 1/6W 15K OHM J

Location No.	Parts No.	Description
R353	24366105	CARBON FILM, 1/6W 1M OHM J
R361	24367272	CARBON FILM, 1/6W 2.7K OHM J
R362	24367272	CARBON FILM, 1/6W 2.7K OHM J
R363	24552181	OXIDE METAL FILM, 1/2W 180 OHM J
R364	24366101	CARBON FILM, 1/6W 100 OHM J
R365	24003924	METAL FILM, 1/4W 3.3K OHM J
R366	24366432	CARBON FILM, 1/6W 4.3K OHM J
R367	24366391	CARBON FILM, 1/6W 390 OHM J
R402	24366103	CARBON FILM, 1/6W 10K OHM J
R403	24366822	CARBON FILM, 1/6W 8.2K OHM J
R411	24366561	CARBON FILM, 1/6W 560 OHM J
R413	24366271	CARBON FILM, 1/6W 270 OHM J
R415	24553272	OXIDE METAL FILM, 1W 2.7K OHM J
R416	24510332	CERAMIC COVERED, 5W 3.3K OHM J
R423	24366471	CARBON FILM, 1/6W 470 OHM J
R425	24381471	OXIDE METAL FILM, 1/2W 470 OHM J
R429	24552560	OXIDE METAL FILM, 1/2W 56 OHM J
R430	24366103	CARBON FILM, 1/6W 10K OHM J
R431	24366103	CARBON FILM, 1/6W 10K OHM J
R432	24531560	FUSIBLE, 1/2W 56 OHM J
R433	24366681	CARBON FILM, 1/6W 680 OHM J
R434	24366472	CARBON FILM, 1/6W 4.7K OHM J
R434	24552271	OXIDE METAL FILM, 1/2W 270 OHM J
R435	24366561	CARBON FILM, 1/6W 560 OHM J
R436	24366241	CARBON FILM, 1/6W 240 OHM J
R436	24366562	CARBON FILM, 1/6W 5.6K OHM J
R437	24366102	CARBON FILM, 1/6W 1K OHM J
R437	24366122	CARBON FILM, 1/6W 1.2K OHM J
R439	24366102	CARBON FILM, 1/6W 1K OHM J
R439	24366473	CARBON FILM, 1/6W 47K OHM J
R441	24532102	FUSIBLE, 1W 1K OHM J
R442	24366333	CARBON FILM, 1/6W 33K OHM J
R442	24382513	OXIDE METAL FILM, 1W 51K OHM J
R443	24366563	CARBON FILM, 1/6W 56K OHM J
R444	24366563	CARBON FILM, 1/6W 56K OHM J
R445	24366563	CARBON FILM, 1/6W 56K OHM J
R447	24382472	OXIDE METAL FILM, 1W 4.7K OHM J
R448	24338398	OXIDE METAL FILM, 1W 0.39 OHM J
R451	24366682	CARBON FILM, 1/6W 6.8K OHM J
R452	24366392	CARBON FILM, 1/6W 3.9K OHM J
R453	24366103	CARBON FILM, 1/6W 10K OHM J
R454	24366223	CARBON FILM, 1/6W 22K OHM J
R455	24366222	CARBON FILM, 1/6W 2.2K OHM J
R456	24366102	CARBON FILM, 1/6W 1K OHM J
R458	24366182	CARBON FILM, 1/6W 1.8K OHM J
R460	24366103	CARBON FILM, 1/6W 10K OHM J
R461	24366122	CARBON FILM, 1/6W 1.2K OHM J
R464	24366103	CARBON FILM, 1/6W 10K OHM J
R465	24366152	CARBON FILM, 1/6W 1.5K OHM J
R466	24366103	CARBON FILM, 1/6W 10K OHM J
R470	24338568	OXIDE METAL FILM, 1W 0.56 OHM J
R471	24531271	FUSIBLE, 1/2W 270 OHM J
R472	24366101	CARBON FILM, 1/6W 100 OHM J
R473	24366183	CARBON FILM, 1/6W 18K OHM J
R474	24376393	CARBON FILM, 1/2W 39K OHM J
R475	24366471	CARBON FILM, 1/6W 470 OHM J
R477	24366101	CARBON FILM, 1/6W 100 OHM J
R478	24366102	CARBON FILM, 1/6W 1K OHM J
R480	24366561	CARBON FILM, 1/6W 560 OHM J
R483	24366103	CARBON FILM, 1/6W 10K OHM J
R484	24366223	CARBON FILM, 1/6W 22K OHM J
R485	24366561	CARBON FILM, 1/6W 560 OHM J
R487	24366563	CARBON FILM, 1/6W 56K OHM J
R488	24366561	CARBON FILM, 1/6W 560 OHM J
R489	24366104	CARBON FILM, 1/6W 100K OHM J

Location No.	Parts No.	Description
R492	24366472	CARBON FILM, 1/6W 4.7K OHM J
R497	24366474	CARBON FILM, 1/6W 470K OHM J
R498	24366393	CARBON FILM, 1/6W 39K OHM J
R499	24366563	CARBON FILM, 1/6W 56K OHM J
R501	24366102	CARBON FILM, 1/6W 1K OHM J
R502	24366122	CARBON FILM, 1/6W 1.2K OHM J
R511	24000527	METAL FILM, 1/4W 5.6K OHM F
R523	24366303	CARBON FILM, 1/6W 30K OHM J
R525	24366222	CARBON FILM, 1/6W 2.2K OHM J
R526	24366911	CARBON FILM, 1/6W 910 OHM J
R527	24366911	CARBON FILM, 1/6W 910 OHM J
R528	24366911	CARBON FILM, 1/6W 910 OHM J
R610	24366273	CARBON FILM, 1/6W 27K OHM J
R612	24366103	CARBON FILM, 1/6W 10K OHM J
R623	24366103	CARBON FILM, 1/6W 10K OHM J
R624	24366104	CARBON FILM, 1/6W 100K OHM J
R643	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R644	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R661	24366122	CARBON FILM, 1/6W 1.2K OHM J
R662	24366122	CARBON FILM, 1/6W 1.2K OHM J
R663	24366333	CARBON FILM, 1/6W 33K OHM J
R664	24366333	CARBON FILM, 1/6W 33K OHM J
R667	24366104	CARBON FILM, 1/6W 100K OHM J
R668	24366103	CARBON FILM, 1/6W 10K OHM J
R669	24366103	CARBON FILM, 1/6W 10K OHM J
R676	24366229	CARBON FILM, 1/6W 2.2 OHM J
R677	24366229	CARBON FILM, 1/6W 2.2 OHM J
R702	24366821	CARBON FILM, 1/6W 820 OHM J
R709	24366563	CARBON FILM, 1/6W 56K OHM J
R713	24366393	CARBON FILM, 1/6W 39K OHM J
R715	24366223	CARBON FILM, 1/6W 22K OHM J
R716	24366273	CARBON FILM, 1/6W 27K OHM J
R717	24366333	CARBON FILM, 1/6W 33K OHM J
R719	24366392	CARBON FILM, 1/6W 3.9K OHM J
R720	24366392	CARBON FILM, 1/6W 3.9K OHM J
R721	24366102	CARBON FILM, 1/6W 1K OHM J
R722	24552471	OXIDE METAL FILM, 1/2W 470 OHM J
R723	24366471	CARBON FILM, 1/6W 470 OHM J
R724	24366470	CARBON FILM, 1/6W 47 OHM J
R725	24366182	CARBON FILM, 1/6W 1.8K OHM J
R730	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R731	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R732	24366820	CARBON FILM, 1/6W 82 OHM J
R733	24366683	CARBON FILM, 1/6W 68K OHM J
R734	24366820	CARBON FILM, 1/6W 82 OHM J
R735	24366683	CARBON FILM, 1/6W 68K OHM J
R736	24366620	CARBON FILM, 1/6W 62 OHM J
R737	24366152	CARBON FILM, 1/6W 1.5K OHM J
R738	24366102	CARBON FILM, 1/6W 1K OHM J
R739	24366152	CARBON FILM, 1/6W 1.5K OHM J
R740	24366620	CARBON FILM, 1/6W 62 OHM J
R741	24366279	CARBON FILM, 1/6W 2.7 OHM J
R742	24366279	CARBON FILM, 1/6W 2.7 OHM J
R743	24554221	OXIDE METAL FILM, 2W 220 OHM J
R744	24366122	CARBON FILM, 1/6W 1.2K OHM J
R745	24366122	CARBON FILM, 1/6W 1.2K OHM J
R760	24366101	CARBON FILM, 1/6W 100 OHM J
R775	24366182	CARBON FILM, 1/6W 1.8K OHM J
⚠ R801	24009954	METAL FILN, 1/2W 2.2M OHM J
R803	24553683	OXIDE METAL FILM, 1W 68K OHM J
R805	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
R806	24381223	OXIDE METAL FILM, 1/2W 22K OHM J
R807	24366104	CARBON FILM, 1/6W 100K OHM J
⚠ R808	24019484	THERMISTOR, PTC, AC265 4R5A
R812	24510479	CEMENT, 5W 4.7 OHM J

Location No.	Parts No.	Description
R813	24007061	CERAMIC COVERD, 2W 1.8 OHM K
R814	24366102	CARBON FILM, 1/6W 1K OHM J
R815	24552102	OXIDE METAL FILM, 1/2W 1K OHM J
R816	24366225	CARBON FILM, 1/6W 2.2M OHM J
R818	24019459	METAL PLATE, 2W 0.12 OHM J
R819	24310829	OXIDE METAL FILM, 1/2W 8.2 OHM J
R820	24366101	CARBON FILM, 1/6W 100 OHM J
R822	24552103	OXIDE METAL FILM, 1/2W 10K OHM J
R823	24552103	OXIDE METAL FILM, 1/2W 10K OHM J
R824	24569689	CERAMIC COVERED, 10W 6.8 OHM J
R827	24366472	CARBON FILM, 1/6W 4.7K OHM J
R828	24366222	CARBON FILM, 1/6W 2.2K OHM J
R829	24321109	OXIDE METAL FILM, 1/2W 1 OHM J
R841	24531120	FUSIBLE, 1/2W 12 OHM J
R842	24552392	OXIDE METAL FILM, 1/2W 3.9K OHM J
R843	24366331	CARBON FILM, 1/6W 330 OHM J
R844	24366332	CARBON FILM, 1/6W 3.3K OHM J
R845	24366472	CARBON FILM, 1/6W 4.7K OHM J
R847	24366472	CARBON FILM, 1/6W 4.7K OHM J
R848	24366103	CARBON FILM, 1/6W 10K OHM J
R850	24366332	CARBON FILM, 1/6W 3.3K OHM J
R851	24366103	CARBON FILM, 1/6W 10K OHM J
R880	24366471	CARBON FILM, 1/6W 470 OHM J
R881	24366561	CARBON FILM, 1/6W 560 OHM J
⚠ R899	24005015	METAL GLAZE, 1W 8.2M OHM J
R901	24376102	CARBON FILM, 1/2W 1K OHM J
R902	24376102	CARBON FILM, 1/2W 1K OHM J
R903	24376102	CARBON FILM, 1/2W 1K OHM J
R904	24366472	CARBON FILM, 1/6W 4.7K OHM J
R905	24366150	CARBON FILM, 1/6W 15 OHM J
R912	24366221	CARBON FILM, 1/6W 220 OHM J
R914	24366561	CARBON FILM, 1/6W 560 OHM J
R915	24366121	CARBON FILM, 1/6W 120 OHM J
R916	24366390	CARBON FILM, 1/6W 39 OHM J
R917	24366391	CARBON FILM, 1/6W 390 OHM J
R918	24366270	CARBON FILM, 1/6W 27 OHM J
R919	24366221	CARBON FILM, 1/6W 220 OHM J
R920	24000568	FUSIBLE, 1W 4.7 OHM J
R921	24366561	CARBON FILM, 1/6W 560 OHM J
R922	24366121	CARBON FILM, 1/6W 120 OHM J
R924	24366270	CARBON FILM, 1/6W 27 OHM J
R925	24366391	CARBON FILM, 1/6W 390 OHM J
R926	24366221	CARBON FILM, 1/6W 220 OHM J
R928	24366561	CARBON FILM, 1/6W 560 OHM J
R929	24366121	CARBON FILM, 1/6W 120 OHM J
R930	24366270	CARBON FILM, 1/6W 27 OHM J
R932	24366102	CARBON FILM, 1/6W 1K OHM J
R934	24366681	CARBON FILM, 1/6W 680 OHM J
R935	24366272	CARBON FILM, 1/6W 2.7K OHM J
R936	24545150	FUSIBLE, 1/4W 15 OHM J
R937	24366391	CARBON FILM, 1/6W 390 OHM J
R942	24366562	CARBON FILM, 1/6W 5.6K OHM J
R943	24366562	CARBON FILM, 1/6W 5.6K OHM J
R944	24366562	CARBON FILM, 1/6W 5.6K OHM J
R945	24366390	CARBON FILM, 1/6W 39 OHM J
R946	24366390	CARBON FILM, 1/6W 39 OHM J
R960	24383153	OXIDE METAL FILM, 2W 15K OHM J
R961	24383153	OXIDE METAL FILM, 2W 15K OHM J
R962	24383153	OXIDE METAL FILM, 2W 15K OHM J
R963	24383153	OXIDE METAL FILM, 2W 15K OHM J
R964	24383153	OXIDE METAL FILM, 2W 15K OHM J
R965	24383153	OXIDE METAL FILM, 2W 15K OHM J
R977	24366122	CARBON FILM, 1/6W 1.2K OHM J
R992	24366150	CARBON FILM, 1/6W 15 OHM J
RA03	24366102	CARBON FILM, 1/6W 1K OHM J

Location No.	Parts No.	Description
RA04	24366102	CARBON FILM, 1/6W 1K OHM J
RA07	24366102	CARBON FILM, 1/6W 1K OHM J
RA08	24366102	CARBON FILM, 1/6W 1K OHM J
RA11	24366102	CARBON FILM, 1/6W 1K OHM J
RA12	24366102	CARBON FILM, 1/6W 1K OHM J
RA13	24366102	CARBON FILM, 1/6W 1K OHM J
RA14	24366752	CARBON FILM, 1/6W 7.5K OHM J
RA15	24366433	CARBON FILM, 1/6W 43K OHM J
RA16	24366102	CARBON FILM, 1/6W 1K OHM J
RA17	24366102	CARBON FILM, 1/6W 1K OHM J
RA18	24366102	CARBON FILM, 1/6W 1K OHM J
RA19	24366103	CARBON FILM, 1/6W 10K OHM J
RA22	24366682	CARBON FILM, 1/6W 6.8K OHM J
RA23	24366682	CARBON FILM, 1/6W 6.8K OHM J
RA24	24366682	CARBON FILM, 1/6W 6.8K OHM J
RA25	24366332	CARBON FILM, 1/6W 3.3K OHM J
RA26	24366102	CARBON FILM, 1/6W 1K OHM J
RA27	24366102	CARBON FILM, 1/6W 1K OHM J
RA31	24366101	CARBON FILM, 1/6W 100 OHM J
RA32	24366101	CARBON FILM, 1/6W 100 OHM J
RA33	24366103	CARBON FILM, 1/6W 10K OHM J
RA34	24366103	CARBON FILM, 1/6W 10K OHM J
RA35	24366102	CARBON FILM, 1/6W 1K OHM J
RA37	24366331	CARBON FILM, 1/6W 330 OHM J
RA38	24366331	CARBON FILM, 1/6W 330 OHM J
RA40	24366331	CARBON FILM, 1/6W 330 OHM J
RA41	24366331	CARBON FILM, 1/6W 330 OHM J
RA50	24366103	CARBON FILM, 1/6W 10K OHM J
RA51	24366102	CARBON FILM, 1/6W 1K OHM J
RA52	24366102	CARBON FILM, 1/6W 1K OHM J
RA53	24366102	CARBON FILM, 1/6W 1K OHM J
RA61	24366103	CARBON FILM, 1/6W 10K OHM J
RA62	24366103	CARBON FILM, 1/6W 10K OHM J
RA63	24366102	CARBON FILM, 1/6W 1K OHM J
RA64	24366333	CARBON FILM, 1/6W 33K OHM J
RA65	24366333	CARBON FILM, 1/6W 33K OHM J
RA66	24366103	CARBON FILM, 1/6W 10K OHM J
RA67	24366103	CARBON FILM, 1/6W 10K OHM J
RA68	24366103	CARBON FILM, 1/6W 10K OHM J
RA70	24366333	CARBON FILM, 1/6W 33K OHM J
RA71	24366683	CARBON FILM, 1/6W 68K OHM J
RA72	24366223	CARBON FILM, 1/6W 22K OHM J
RA73	24366103	CARBON FILM, 1/6W 10K OHM J
RA74	24366223	CARBON FILM, 1/6W 22K OHM J
RA75	24366392	CARBON FILM, 1/6W 3.9K OHM J
RA76	24366392	CARBON FILM, 1/6W 3.9K OHM J
RA77	24366123	CARBON FILM, 1/6W 12K OHM J
RA78	24366333	CARBON FILM, 1/6W 33K OHM J
RA79	24366471	CARBON FILM, 1/6W 470 OHM J
RA80	24366564	CARBON FILM, 1/6W 560K OHM J
RA81	24366101	CARBON FILM, 1/6W 100 OHM J
RA82	24366222	CARBON FILM, 1/6W 2.2K OHM J
RB01	24366271	CARBON FILM, 1/6W 270 OHM J
RB02	24366221	CARBON FILM, 1/6W 220 OHM J
RB03	24366103	CARBON FILM, 1/6W 10K OHM J
RB09	24366470	CARBON FILM, 1/6W 47 OHM J
RB11	24366103	CARBON FILM, 1/6W 10K OHM J
RB20	24366823	CARBON FILM, 1/6W 82K OHM J
RB22	24366272	CARBON FILM, 1/6W 2.7K OHM J
RB26	24366472	CARBON FILM, 1/6W 4.7K OHM J
RB27	24366102	CARBON FILM, 1/6W 1K OHM J
RB27	24366103	CARBON FILM, 1/6W 10K OHM J
RB28	24366104	CARBON FILM, 1/6W 100K OHM J
RB30	24366682	CARBON FILM, 1/6W 6.8K OHM J
RB43	24366103	CARBON FILM, 1/6W 10K OHM J

Location No.	Parts No.	Description
RB44	24366562	CARBON FILM, 1/6W 5.6K OHM J
RB45	24366102	CARBON FILM, 1/6W 1K OHM J
RB46	24366331	CARBON FILM, 1/6W 330 OHM J
RB47	24366221	CARBON FILM, 1/6W 220 OHM J
RB60	24366103	CARBON FILM, 1/6W 10K OHM J
RB61	24366103	CARBON FILM, 1/6W 10K OHM J
RS01	24366103	CARBON FILM, 1/6W 10K OHM J
RS02	24366104	CARBON FILM, 1/6W 100K OHM J
RS03	24366103	CARBON FILM, 1/6W 10K OHM J
RS04	24366104	CARBON FILM, 1/6W 100K OHM J
RS10	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS11	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS14	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS15	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS17	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS18	24366562	CARBON FILM, 1/6W 5.6K OHM J
RS19	24366101	CARBON FILM, 1/6W 100 OHM J
RS20	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS21	24366101	CARBON FILM, 1/6W 100 OHM J
RS22	24366222	CARBON FILM, 1/6W 2.2K OHM J
RS23	24366102	CARBON FILM, 1/6W 1K OHM J
RS24	24366102	CARBON FILM, 1/6W 1K OHM J
RS27	24366561	CARBON FILM, 1/6W 560 OHM J
RS30	24366104	CARBON FILM, 1/6W 100K OHM J
RS31	24366104	CARBON FILM, 1/6W 100K OHM J
RV01	24366103	CARBON FILM, 1/6W 10K OHM J
RV03	24366750	CARBON FILM, 1/6W 75 OHM J
RV05	24366223	CARBON FILM, 1/6W 22K OHM J
RV06	24366472	CARBON FILM, 1/6W 4.7K OHM J
RV07	24366103	CARBON FILM, 1/6W 10K OHM J
RV10	24366101	CARBON FILM, 1/6W 100 OHM J
RV11	24366562	CARBON FILM, 1/6W 5.6K OHM J
RV12	24366101	CARBON FILM, 1/6W 100 OHM J
RV13	24366562	CARBON FILM, 1/6W 5.6K OHM J
RV14	24366101	CARBON FILM, 1/6W 100 OHM J
RV15	24366101	CARBON FILM, 1/6W 100 OHM J
RV16	24366101	CARBON FILM, 1/6W 100 OHM J
RV17	24366750	CARBON FILM, 1/6W 75 OHM J
RV18	24366102	CARBON FILM, 1/6W 1K OHM J
RV19	24366102	CARBON FILM, 1/6W 1K OHM J
RV20	24366222	CARBON FILM, 1/6W 2.2K OHM J
RV21	24366151	CARBON FILM, 1/6W 150 OHM J
RV24	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV25	24366750	CARBON FILM, 1/6W 75 OHM J
RV26	24366101	CARBON FILM, 1/6W 100 OHM J
RV29	24366223	CARBON FILM, 1/6W 22K OHM J
RV30	24366750	CARBON FILM, 1/6W 75 OHM J
RV31	24366750	CARBON FILM, 1/6W 75 OHM J
RV33	24366750	CARBON FILM, 1/6W 75 OHM J
RV34	24366750	CARBON FILM, 1/6W 75 OHM J
RV35	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV36	24366332	CARBON FILM, 1/6W 3.3K OHM J
RV37	24366681	CARBON FILM, 1/6W 680 OHM J
RV38	24366681	CARBON FILM, 1/6W 680 OHM J
RV39	24366681	CARBON FILM, 1/6W 680 OHM J
RV40	24366821	CARBON FILM, 1/6W 820 OHM J
RV90	24366101	CARBON FILM, 1/6W 100 OHM J
RV91	24366101	CARBON FILM, 1/6W 100 OHM J
RZ01	24366101	CARBON FILM, 1/6W 100 OHM J
RZ02	24366101	CARBON FILM, 1/6W 100 OHM J
RZ05	24366821	CARBON FILM, 1/6W 820 OHM J
RZ07	24366152	CARBON FILM, 1/6W 1.5K OHM J
RZ08	24366102	CARBON FILM, 1/6W 1K OHM J
RZ09	24366182	CARBON FILM, 1/6W 1.8K OHM J

Location No.	Parts No.	Description
COILS & TRANSFORMERS		
L101	23248312	COIL, CHOKE, TLN3040GH
L105	23238562	COIL, PEAKING, TRF4109AJ
L106	23238562	COIL, PEAKING, TRF4109AJ
L301	23103145	COIL, CHOKE, TEM2011AA
L430	23289470	COIL, PEAKING, TRF4470AF
L432	23289229	COIL, PEAKING, TRF4229AF
L441	23233045	COIL, HOLIZ LINEARITY, TLN2083G
L441	23233941	LINEARITY COIL., TLN2157G
L442	23248122	COIL, CHOKE, TLN3384D
L461	23248238	COIL, CHOKE, TLN3335AF
L462	23231342	COIL, DY, TDY-625HS
L462A	23199314	COMPENSATOR, DEFLECTION YOKE
L462B	23199192	CONVER REVISION BOARD
L502	23103146	FILTER, EMI 200 OHM 50V 1.0A TEM2030AA
L504	23103852	COIL, FILTER, TEM2028AH
L511	23289100	COIL, PEAKING, TRF4100AF
L525	23289100	COIL, PEAKING, TRF4100AF
L702	23261974	COIL, FERRITE BEAD, HC5-035
L704	23103145	COIL, CHOKE, TEM2011AA
L705	23103145	COIL, CHOKE, TEM2011AA
L805	23248297	COIL, CHOKE, TLN3481GH
L806	23248297	COIL, CHOKE, TLN3481GH
L811	23103145	COIL, CHOKE, TEM2011AA
L883	23221111	COIL, CHOKE, TRF9253GH
L885	23248288	COIL, CHOKE, TLN3299GH
L886	23103145	COIL, CHOKE, TEM2011AA
L889	23280016	COIL, PEAKING, TRF4100AZ
L896	23103145	COIL, CHOKE, TEM2011AA
⚠ L901	23200417	COIL, DG0.45CU 70T-8TYPE TSB-2400AG
L902	23289221	COIL, PEAKING, TRF4221AF
L903	23289221	COIL, PEAKING, TRF4221AF
L904	23289221	COIL, PEAKING, TRF4221AF
L905	23289390	COIL, PEAKING, TRF4390AF
L906	23289390	COIL, PEAKING, TRF4390AF
L907	23289390	COIL, PEAKING, TRF4390AF
LA01	23289100	COIL, PEAKING, TRF4100AF
LC05	23103146	FILTER, EMI 200 OHM 50V 1.0A TEM2030AA
LC06	23103146	FILTER, EMI 200 OHM 50V 1.0A TEM2030AA
LZ01	23289330	COIL, PEAKING, TRF4330AF
LZ02	23103145	COIL, CHOKE, TEM2011AA
LZ03	23289100	COIL, PEAKING, TRF4100AF
LZ04	23103145	COIL, CHOKE, TEM2011AA
LZ05	23289150	COIL, PEAKING, TRF4150AF
LZ06	23289100	COIL, PEAKING, TRF4100AF
LZ07	23289836	COIL, PEAKING, TRF42R2AT
T401	23224367	TRANSFORMER, HORIZ DRIVER, TLN1098AH
⚠ T461Z	23236726	TRANSFORMER, HORIZ OUTPUT, SERVICE, TFB4186ZS
⚠ T801	23211744	COIL, LINE FILTER TRF3196BT
T802	23211737	COIL, LINE FILTER TRF3202BL
⚠ T862	23217545	TRANSFORMER, CONVERTER TRSTPW3490AD
SEMICONDUCTORS		
Q220	23205081	TRANSISTOR, 2SA1980-Y(BU
Q271	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q301	23319787	IC, LA7833S
Q301B	70391356	SCREW, BITTB3X10 SZN
Q340	23205081	TRANSISTOR, 2SA1980-Y(BU
Q360	23906596	IC, BA4558

Location No.	Parts No.	Description
Q402	23114755	TRANSISTOR, 2SC2482FA-1
Q404	23314375	TRANSISTOR, ON4409
Q404B	72471082	SCREW, 3X10MM
Q420	23314141	TRANSISTOR, 2SC3852
Q420B	70391355	SCREW, 3X8MM
Q422	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q423	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q424	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q430	23314141	TRANSISTOR, 2SC3852
Q430B	70391355	SCREW, 3X8MM
Q431	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q432	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q451	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q452	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q453	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q460	23314938	TRANSISTOR, 2SD2493(P)
Q460B	23037312	SCREW, BTBW3X12SZN
Q461	23205081	TRANSISTOR, 2SA1980-Y(BU
Q462	23205081	TRANSISTOR, 2SA1980-Y(BU
Q463	23205081	TRANSISTOR, 2SA1980-Y(BU
Q470	23114541	TRANSISTOR, 2SA1320
Q471	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q472	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q473	23205081	TRANSISTOR, 2SA1980-Y(BU
Q489	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q501	23000665	IC, TB1251CN
Q608	23114623	TRANSISTOR, 2SC2878-A(TEM
Q609	23114623	TRANSISTOR, 2SC2878-A(TEM
Q610	23906582	IC, AN5277
Q610C	70391355	SCREW, 3X8MM
Q612	23205081	TRANSISTOR, 2SA1980-Y(BU
Q623	23114478	TRANSISTOR, RN2004
Q706	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q707	23114437	TRANSISTOR, 2SC752GTM-Y
Q709	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q710	23205081	TRANSISTOR, 2SA1980-Y(BU
Q711	23314909	TRANSISTOR, 2SA1837
Q712	A6369650	TRANSISTOR, 2SC4793
Q719	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q720	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q773	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q801	23135029	IC, STR-X6468
Q802	23314141	TRANSISTOR, 2SC3852
Q821	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q822	23205081	TRANSISTOR, 2SA1980-Y(BU
⚠ Q826	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q827	23000352	IC, SE125N, LF4
Q830	23314141	TRANSISTOR, 2SC3852
Q830B	70391355	SCREW, 3X8MM
Q840	23318299	IC, L78MR05-FA
Q840B	70391355	SCREW, 3X8MM
Q841	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q842	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q880	23205081	TRANSISTOR, 2SA1980-Y(BU
Q901	23314780	TRANSISTOR, 2SC4544
Q902	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q903	23314780	TRANSISTOR, 2SC4544
Q904	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q905	23314780	TRANSISTOR, 2SC4544
Q906	23205085	TRANSISTOR, 2SC5343-Y(BUL
Q907	23205081	TRANSISTOR, 2SA1980-Y(BU
Q908	23114429	TRANSISTOR, 2SC2120-Y(TE
QA01	23009019	IC, M37274MA-219
QA02	23905665	IC, AT24C08-10PC
QA10	23205085	TRANSISTOR, 2SC5343-Y(BUL

Location No.	Parts No.	Description
QA11	23205081	TRANSISTOR, 2SA1980-Y(BU
QA12	23205085	TRANSISTOR, 2SC5343-Y(BUL
QB02	23205081	TRANSISTOR, 2SA1980-Y(BU
QB03	23114459	TRANSISTOR, RN1205
QB20	23114463	TRANSISTOR, RN1201
QB21	23205085	TRANSISTOR, 2SC5343-Y(BUL
QB30	23205085	TRANSISTOR, 2SC5343-Y(BUL
QB40	23205085	TRANSISTOR, 2SC5343-Y(BUL
QS01	23205085	TRANSISTOR, 2SC5343-Y(BUL
QS02	23205085	TRANSISTOR, 2SC5343-Y(BUL
QS03	23114623	TRANSISTOR, 2SC2878-A(TEM
QS04	23114623	TRANSISTOR, 2SC2878-A(TEM
QV01	23000369	IC, MM1495XD
QV02	23205085	TRANSISTOR, 2SC5343-Y(BUL
QV03	23205085	TRANSISTOR, 2SC5343-Y(BUL
QV09	23205081	TRANSISTOR, 2SA1980-Y(BU
QV10	23205081	TRANSISTOR, 2SA1980-Y(BU
QV11	23205085	TRANSISTOR, 2SC5343-Y(BUL
QZ01	23906207	IC, TC90A45P
QZ02	23205085	TRANSISTOR, 2SC5343-Y(BUL
QZ03	23205085	TRANSISTOR, 2SC5343-Y(BUL
QZ04	23205085	TRANSISTOR, 2SC5343-Y(BUL
D101	23316755	DIODE, ZENER, MTZJ33C
D224	23118859	DIODE, 1SS133
D301	23118095	DIODE, ERB44-06
D303	23316794	DIODE, SC570A
D305	23118859	DIODE, 1SS133
D306	23118859	DIODE, 1SS133
D308	23118094	DIODE, EU2A
D340	23316672	DIODE, ZENER, MTZJ5.6B
D358	23118822	DIODE, ERB12-02
D360	23316673	DIODE, ZENER, MTZJ5.6C
D406	23118094	DIODE, EU2A
D408	23118052	DIODE, RU4Z LF-L1
D420	23316667	DIODE, ZENER, MTZJ4.7C
D421	23316667	DIODE, ZENER, MTZJ4.7C
D431	23316680	DIODE, ZENER, MTZJ7.5A
D441	23316688	DIODE, ZENER, MTZJ9.1C
D442	23118094	DIODE, EU2A
D443	23118859	DIODE, 1SS133
D444	23316254	DIODE, ERC06-15
D461	23118338	DIODE, RU4AM LF-K2
D462	23118859	DIODE, 1SS133
D463	23316653	DIODE, ZENER, MTZJ2.7B
D464	23316718	DIODE, ZENER, MTZJ12A
D467	23118094	DIODE, EU2A
D470	23316670	DIODE, ZENER, MTZJ5.1C
D477	23118859	DIODE, 1SS133
D478	23118859	DIODE, 1SS133
D498	23118859	DIODE, 1SS133
D499	23118859	DIODE, 1SS133
D502	23316670	DIODE, ZENER, MTZJ5.1C
D503	23316670	DIODE, ZENER, MTZJ5.1C
D610	23118859	DIODE, 1SS133
D611	23118859	DIODE, 1SS133
D612	23118859	DIODE, 1SS133
D615	23118859	DIODE, 1SS133
D616	23118859	DIODE, 1SS133
D617	23118859	DIODE, 1SS133
D618	23118859	DIODE, 1SS133
D619	23118859	DIODE, 1SS133
D620	23118859	DIODE, 1SS133
D621	23118859	DIODE, 1SS133
D704	23118859	DIODE, 1SS133
D705	23118859	DIODE, 1SS133

Location No.	Parts No.	Description
D715	23118859	DIODE, 1SS133
D720	23118859	DIODE, 1SS133
D721	23118859	DIODE, 1SS133
D801	23357041	DIODE, LN6SB60-F05
D803	23316672	DIODE, ZENER, MTZJ5.6B
D804	23316725	DIODE, ZENER, MTZJ15B
D805	23357012	DIODE, 1SS244
D806	23118094	DIODE, EU2A
D807	23316746	DIODE, ZENER, MTZJ27B
D810	23316738	DIODE, ZENER, MTZJ22B
D811	23118859	DIODE, 1SS133
D818	23316738	DIODE, ZENER, MTZJ22B
D821	23118859	DIODE, 1SS133
D828	23118859	DIODE, 1SS133
D842	23316724	DIODE, ZENER, MTZJ15A
D848	23316675	DIODE, ZENER, MTZJ6.2B
D849	23316685	DIODE, ZENER, MTZJ8.2C
D883	23118338	DIODE, RU4AM LF-K2
D885	23118094	DIODE, EU2A
D896	23118094	DIODE, EU2A
D901	23118859	DIODE, 1SS133
D903	23118859	DIODE, 1SS133
D904	23118859	DIODE, 1SS133
D905	23118859	DIODE, 1SS133
D906	23118859	DIODE, 1SS133
D907	23118859	DIODE, 1SS133
D908	23118859	DIODE, 1SS133
D909	23118859	DIODE, 1SS133
D910	23118859	DIODE, 1SS133
D911	23118094	DIODE, EU2A
DA42	23316675	DIODE, ZENER, MTZJ6.2B
DA61	23118859	DIODE, 1SS133
DA62	23118859	DIODE, 1SS133
DB01	23358504	DIODE, LED, SCL-003URC3FXGHJ
DB02	23358503	DIODE, LED, SCL-003MC3FXHJK
DB03	23358522	DIODE, LED, SIR-56SB3F
DB30	23118859	DIODE, 1SS133
DV02	23316687	DIODE, ZENER, MTZJ9.1B
MISCELLANEOUS		
B207	23037312	SCREW, BTBW3X12SZN
B209	23037312	SCREW, BTBW3X12SZN
BB01A	23713202	CONNECTOR, 16P
BB01B	23713201	CONNECTOR, 16P
BB11A	23713202	CONNECTOR, 16P
BB11B	23713201	CONNECTOR, 16P
BB12A	23713202	CONNECTOR, 16P
BB12B	23713201	CONNECTOR, 16P
E912	23848729	WEDGE, YOKE HOLDING, 3 REQUIRED
⚠ F470	23144873	FUSE, 1A, 250V
F470A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F801	23144508	FUSE, CARTRIDGE 5.2X20, 250V 4.0A
F801A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F802	23144507	FUSE, CARTRIDGE 5.2X20 250V 3.15A
F802A	23165433	FUSE HOLDER, 5.2 SOC
G202	23238714	COIL, PEAKING, TRF4100AJ
G308	24366102	CARBON FILM, 1/6W 1K OHM J
G311	24366472	CARBON FILM, 1/6W 4.7K OHM J
G313	24366243	CARBON FILM, 1/6W 24K OHM J
G402	23103145	COIL, CHOKE, TEM2011AA
G460	23103145	COIL, CHOKE, TEM2011AA
G472	24531680	FUSIBLE, 1/2W 68 OHM J
G614	23289100	COIL, PEAKING, TRF4100AF
G615	23289100	COIL, PEAKING, TRF4100AF
G616	24366103	CARBON FILM, 1/6W 10K OHM J

Location No.	Parts No.	Description
G714	24545220	FUSIBLE, 1/4W 22 OHM J
G830	24547399	FUSIBLE, 1W 3.9 OHM J
G894	23289100	COIL, PEAKING, TRF4100AF
G900	23289840	COIL, PEAKING, TRF4100AT
GA60	24366101	CARBON FILM, 1/6W 100 OHM J
H002	23148323	MODULE, MVCS45D, MULTI IF MPX APRO
KB01	23904946	IC, RPM-676CBR-S
M461B	23504203	CABLE, FOCUS
M461C	23504204	CABLE, SCREEN
N724	23965900	TAPE, GLASS-CLOTH, W/ADHESIVE W=18 T=0.18
P403	23845834	LEAD CLAMPER
P661	23363607	JACK, HEAD PHONE, 3.5MM
⚠ P801	23372023	POWER CORD, UK
P910	23164725	PLUG, 2P
PB01A	23902062	CONNECTOR, SOCKET, B-B
PB01B	23368004	CONNECTOR, PLUG B-B 5P 2.5MM JST
PV01	23365460	CONNECTOR, JACK, 6P 2E+2L:OFF+2R:OFF, YKC21-2946
PV02	23365575	JACK, Y/C JLC
PV03	23365763	JACK, PIN, 3P
PV04	23365459	CONNECTOR, JACK, 6P 1E+1GRE+1BLU+1R+1L+1R:OFF, YKC21-2947
⚠ S801	23344429	SWITCH, POWER PUSH 2C1P TV8, AAP8Y22111N
SA01	23145430	SWITCH, PUSH, SKHHLMA010
SA02	23145430	SWITCH, PUSH, SKHHLMA010
SA03	23145430	SWITCH, PUSH, SKHHLMA010
SA04	23145430	SWITCH, PUSH, SKHHLMA010
SA05	23145430	SWITCH, PUSH, SKHHLMA010
SA06	23145430	SWITCH, PUSH, SKHHLMA010
SR81	23146564	RELAY, DC12V, TV5, DG-3
SR83	23146570	RELAY, DC12V, 2M OMR, G5PA-2 DC12
V901A	23102456	FUKA MAGNET, CHEVRON TAKECHI MAG4006
⚠ V901A	23903147	SOCKET, ISH46S-E ICE
V901B	23199746	CONVER CONTROL BOARD, XH
V901C	23948536	SHEET, MAGNETIC FERRITE
V901D	23948535	SHEET, MAGNETIC FERRITE
V901E	23965900	TAPE, GLASS-CLOTH, W/ADHESIVE W=18 T=0.18
V901M	23102492	MAGNET, PURITY CONVERGENCE MAG-1116
W661	23351185	SPEAKER, SPK-1425AF, 60X90 16-OHM 5W
W662	23351185	SPEAKER, SPK-1425AF, 60X90 16-OHM 5W
X501	23153979	CRYSTAL, 4.43MHZ PAL-APC
XA01	23153504	CERAMIC RESONATOR, 8.00MHZ 25OHM
Z424	23144539	PROTECTOR, 491SERIES, 125V 2A
Z463	23144536	PROTECTOR, 491SERIES, 125V 1A
Z889	23144542	PROTECTOR, 491SERIES, 125V 4A

PC BOARD ASSEMBLIES

* U901	23787015	CRT-D BOARD, PD0338C
* U902	23787088	SIGNAL BOARD, PD0339E
* U903	23787089	POW/DEF BOARD, PD0340E
* U904A	23787090	CONTROL BOARD, PD0413B
* U904B	23787091	LED BOARD, PD0413B

PICTURE TUBE

⚠ V901	23312962	PICTURE TUBE, A59QDF892XST

TUNER

H001	23321385	TUNER, ASIA MLT IICPLL D-J ALPS ECA33LX2

Location No.	Parts No.	Description

ACCESSORIES

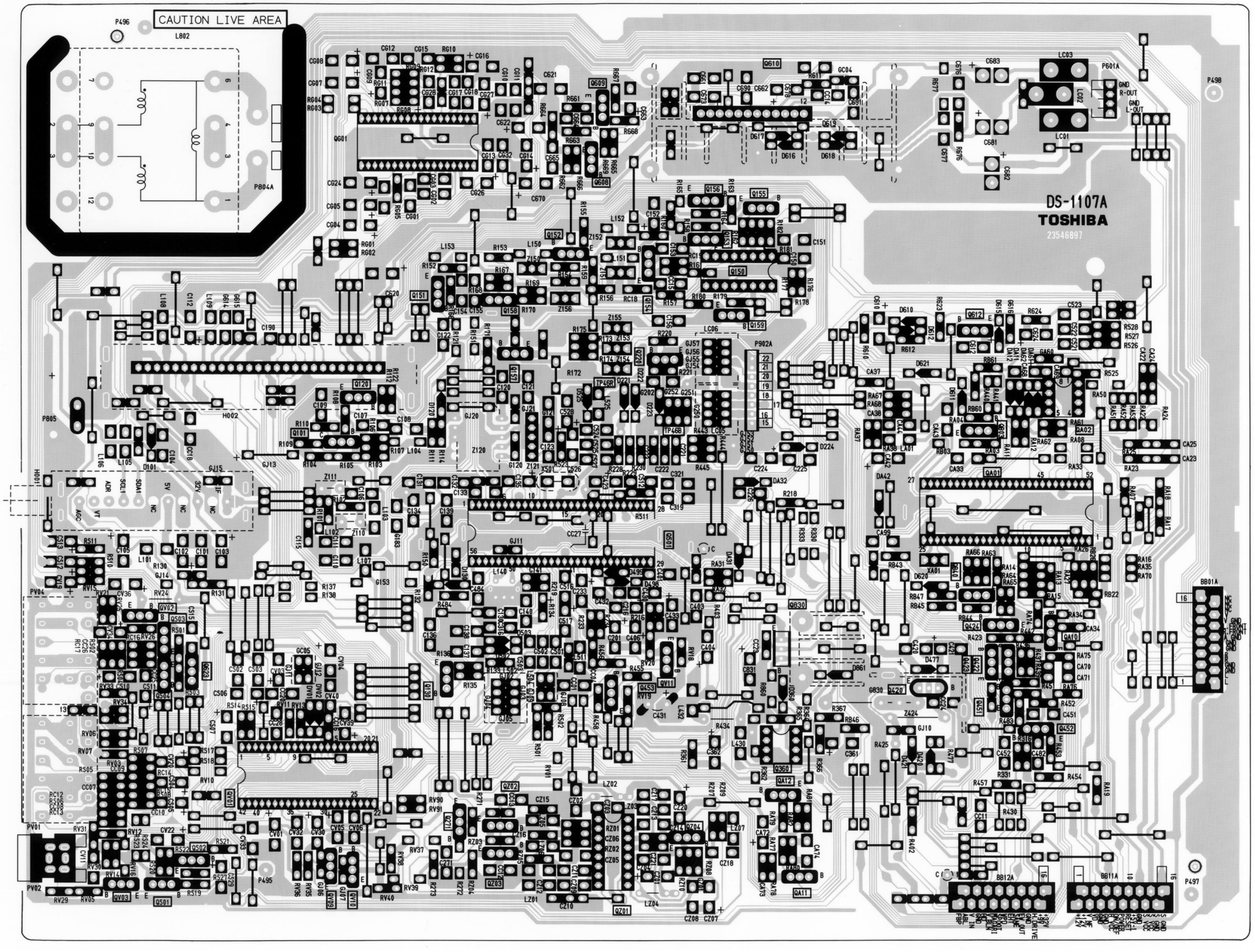
K902	23306193	REMOCON HAND UNIT, CT9878
Y101	23565478	OWNER'S MANUAL, ENG/CAN, 25AF6SH
Y102	23563228	INSTRUCTIONS, SAFETY

CABINET PARTS

A201	23530081	COVER, FRONT COVER
A303	23929430	PIECE, HOLDER BUTTON, 29ZB22
⚠ A401	23530052	BACK COVER, 25AF6C
A701	23064721	CARTON, CASE 25AF6SH
A702A	23946112	PACKING, TOP, 25ZS12
A702B	23946113	PACKING, BOTTOM, 25ZS12
A703	23941013	BAG, PROTECTIVE SHEET, 375X28001.0, 29E8DXP
A704	23943871	COVER, POLY BAG
A901	23428052	DOOR, DOOR PROPER
A903	23451976	PUSH CATCH, CLICK
A904A	23445575	BUTTON, POWER FACE, 25AF6C
A904B	23445443	BUTTON, POWER REAR, 29ZB22
A904C	23035312	SCREW, BTB3X12SZN

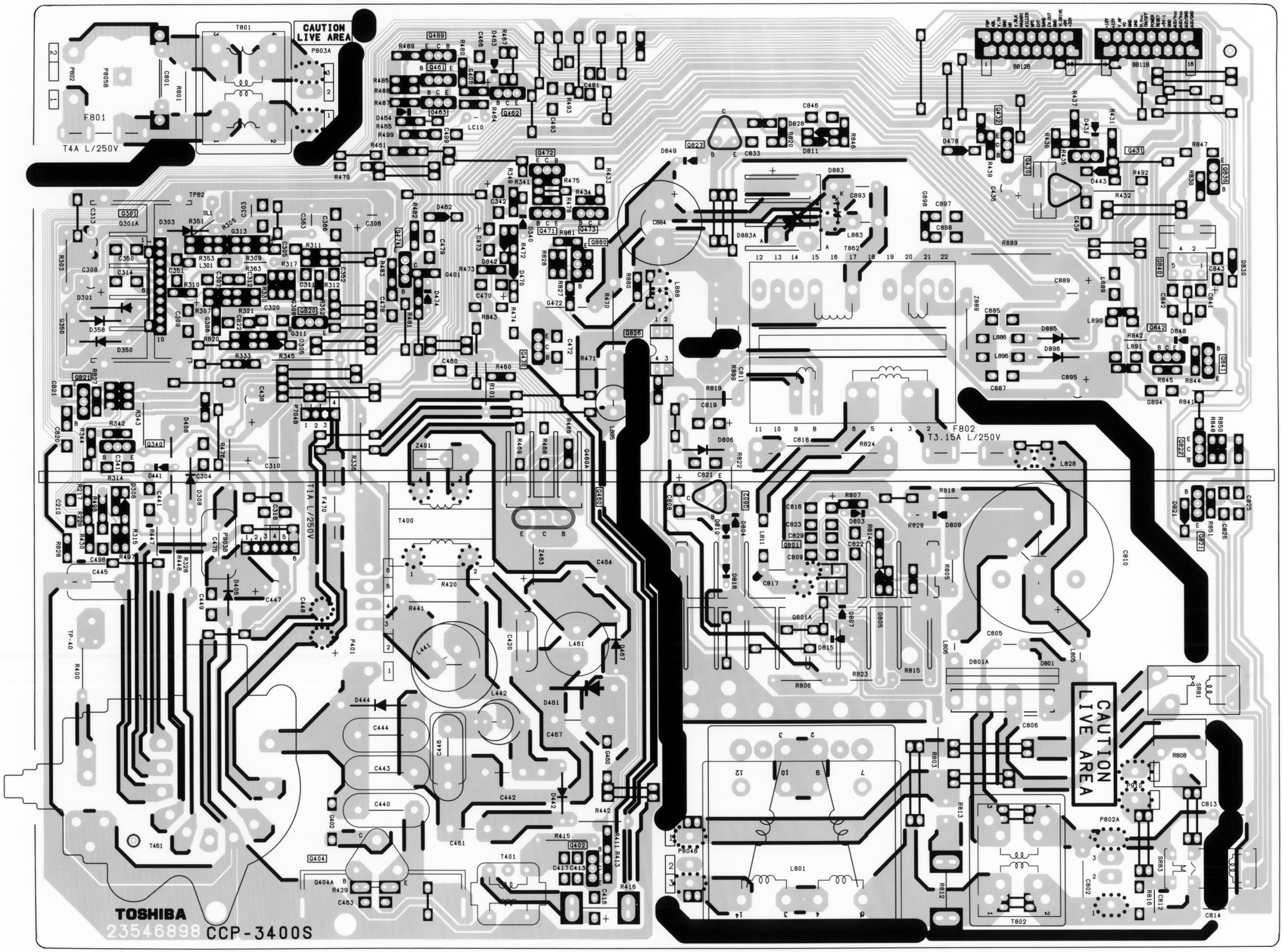
SIGNAL BOARD PD0339E

BOTTOM (FOIL) SIDE



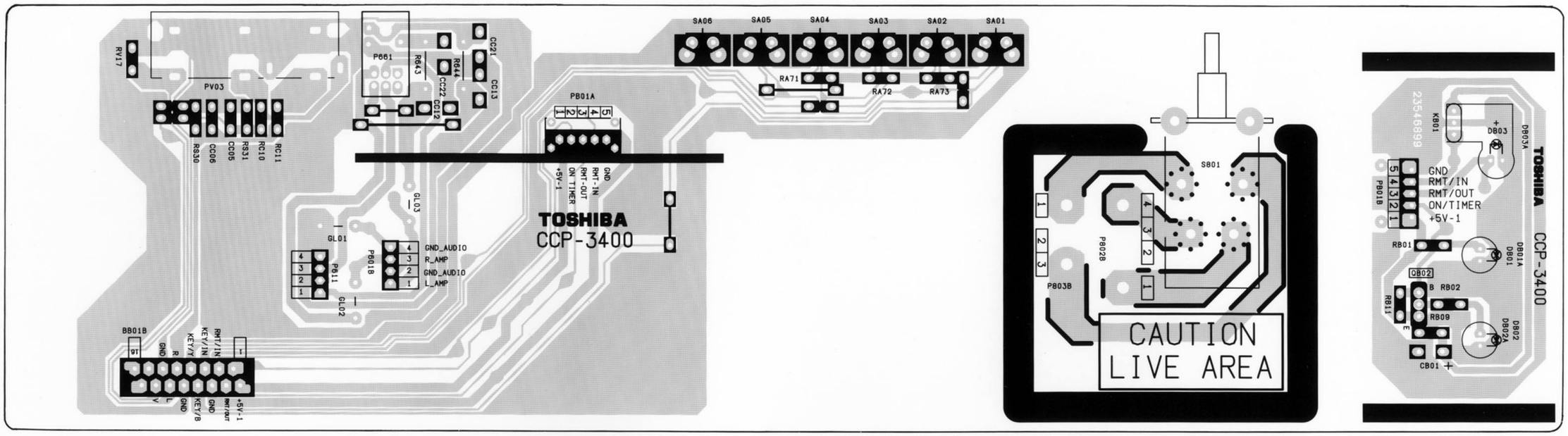
POWER/DEF BOARD PD0340E

BOTTOM (FOIL) SIDE



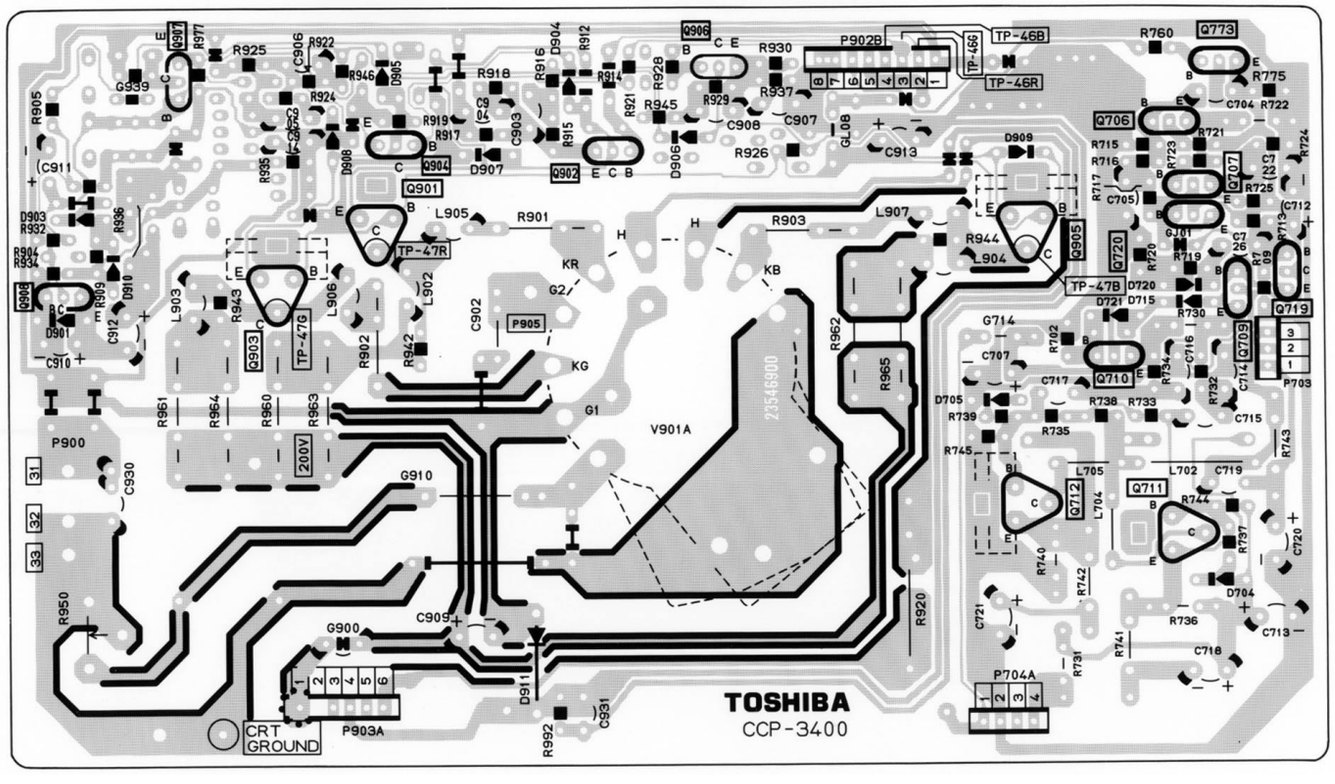
CONT/LED BOARD PB0413B

BOTTOM (FOIL) SIDE



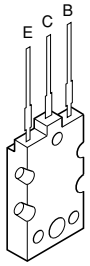
CRT-D BOARD PD0338C

BOTTOM (FOIL) SIDE

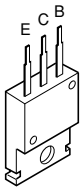


TERMINAL VIEW OF TRANSISTORS

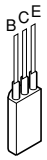
① 2SD2253
(old)
2SC5243



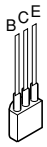
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



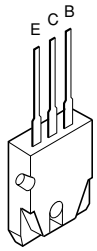
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



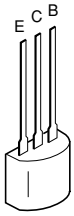
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



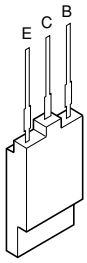
⑤ 2SA1788



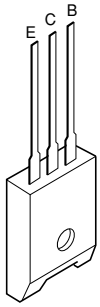
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 25AF6SH

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
    Electolytic capacitor  Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

■ **SCHEMATIC DIAGRAM STRUCTURE:**

- CRT-D Circuit
- CONT / LED Circuit
- POWE / DEF Circuit
- SIGNAL Circuit

SCHEMATIC DIAGRAM

MODEL : 25AF6SH

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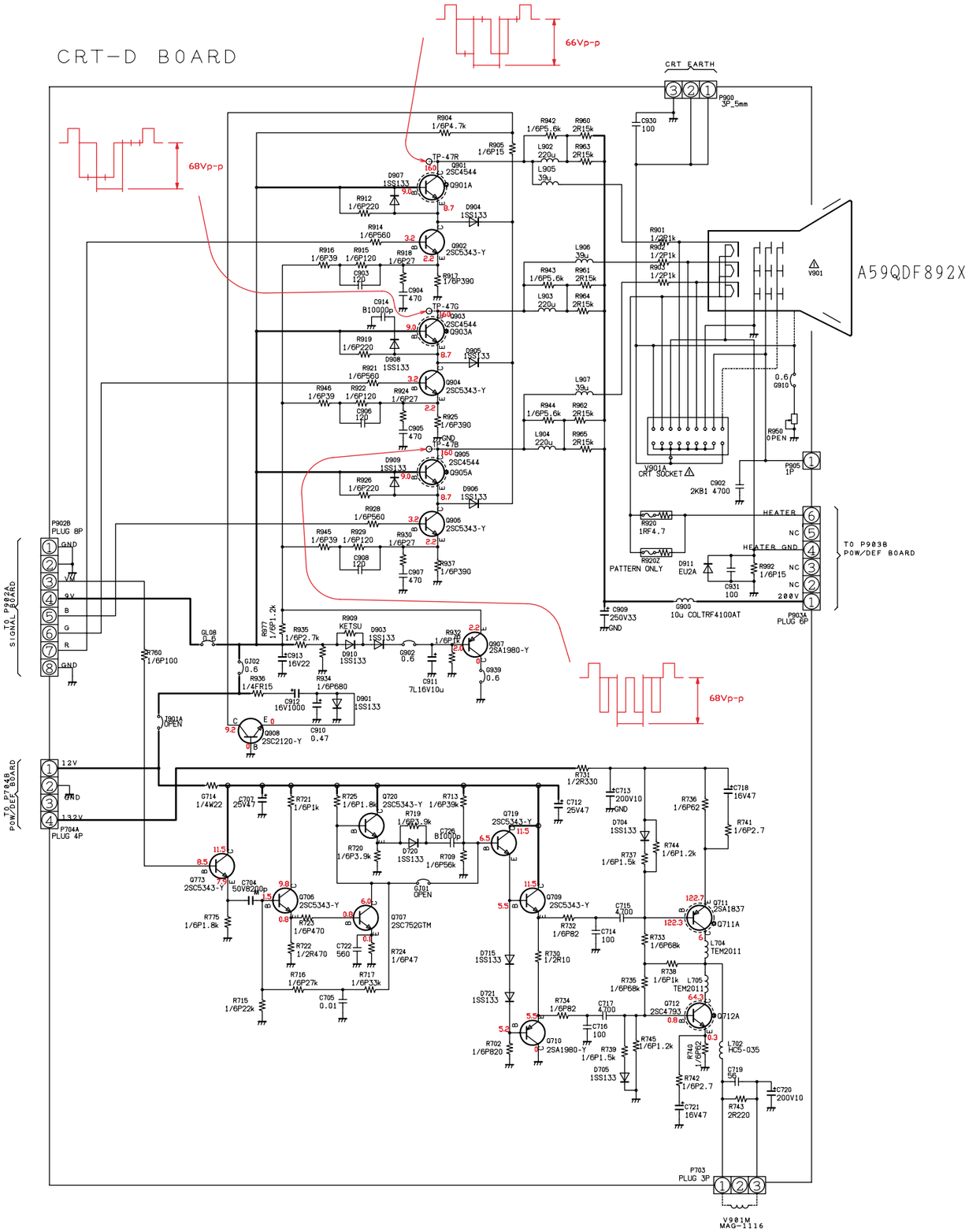
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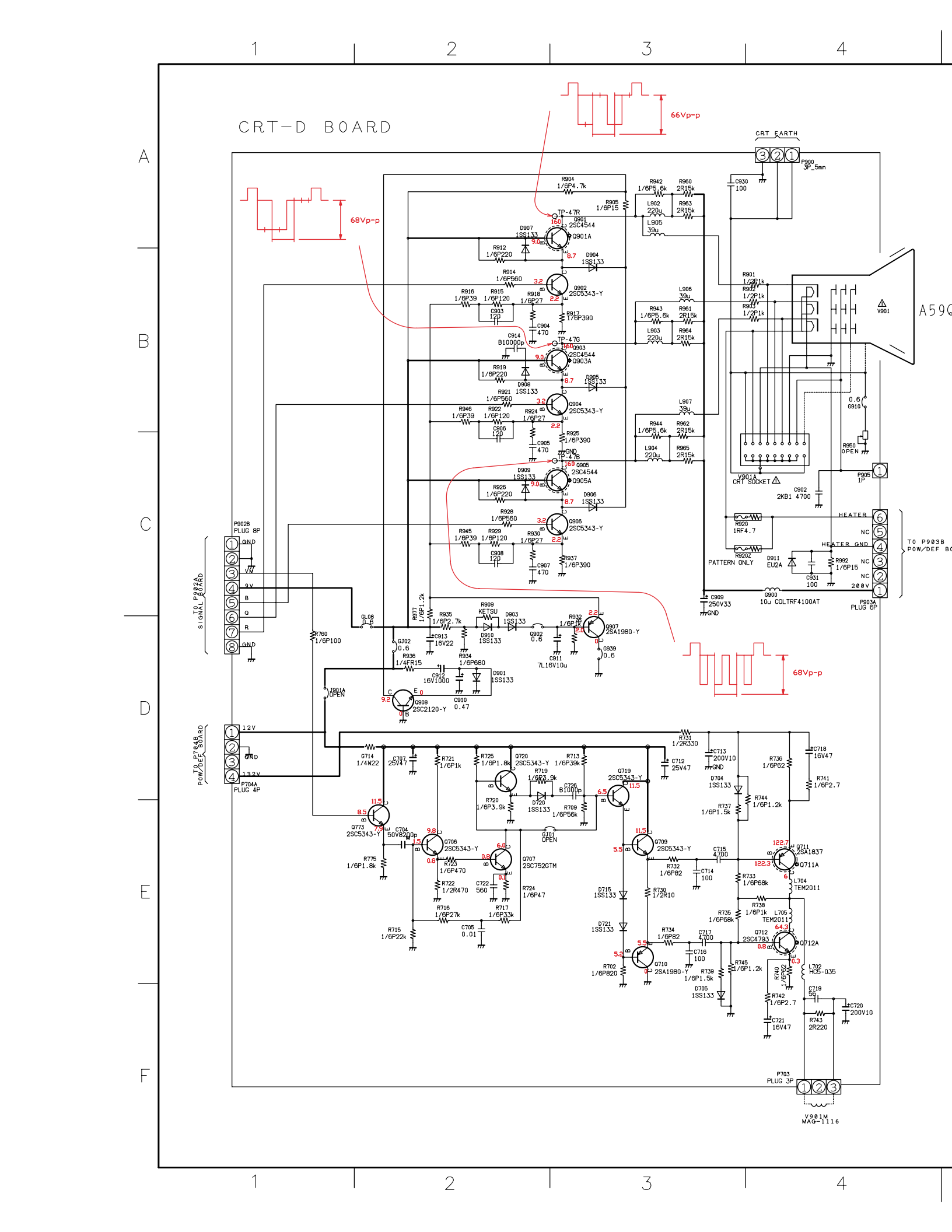
■ **SCHEMATIC DIAGRAM STRUCTURE:**

- CRT-D Circuit
- CONT / LED Circuit
- POWE / DEF Circuit
- SIGNAL Circuit

CRT-D BOARD



CRT-D
25AF6C
25AF6SH

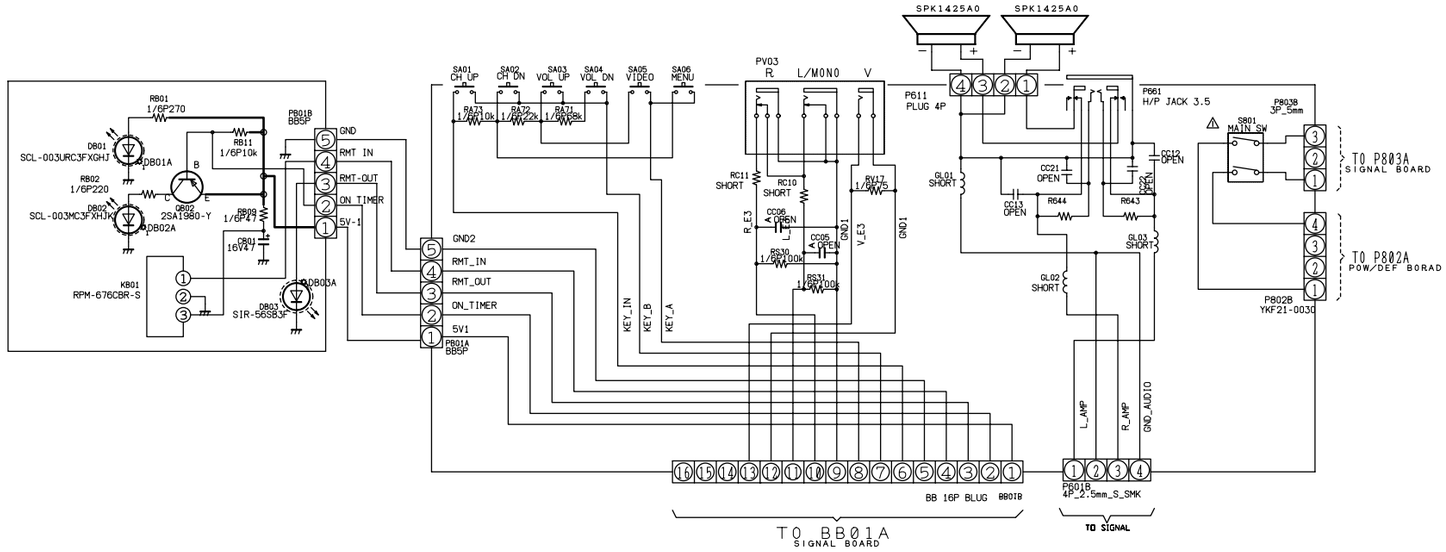

CRT-D BOARD
66Vp-p
68Vp-p
68Vp-p
CRT EARTH
P900
3P_5mm
A59Q
V901
V901A
CRT SOCKET
PATTERN ONLY
HEATER
HEATER GND
TO P903B
POW/DEF BO
P903A
PLUG 6P
P905
1P
P902B
PLUG 8P
SIGNAL BOARD
TO P902A
GND
VM
9V
B
G
R
P704B
POW/DEF BOARD
TO P704A
PLUG 4P
12V
GND
13.2V
P703
PLUG 3P
V901M
MAG-1116
TP-47R
TP-47G
TP-47B
Q901
2SC4544
Q901A
Q902
2SC5343-Y
Q903
Q903A
Q904
Q905
Q905A
Q906
Q907
2SA1980-Y
Q908
2SC2120-Y
Q709
Q710
Q711
2SA1837
Q711A
Q712
2SC4793
Q712A
Q720
Q773
Q706
2SC5343-Y
Q707
2SC752GTM
D901
D902
D903
D904
D905
D906
D907
D908
D909
D910
1SS133
D911
EU2A
D704
D705
D715
D720
D721
R760
1/6P100
R904
1/6P4.7k
R905
1/6P15
R914
1/6P560
R921
R929
R930
1/6P27
R937
1/6P390
R909
KETSU
R935
1/6P2.7k
R977
1/6P1.2k
R932
1/6P1k
R936
1/4FR15
R934
1/6P680
R731
1/2R330
R736
1/6P62
R737
1/6P1.5k
R744
1/6P1.2k
R741
1/6P2.7
R732
1/6P82
R733
1/6P68k
R738
1/6P1k
R735
1/6P68k
R734
1/6P82
R739
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R745
1/6P1.2k
R742
1/6P2.7
R743
2R220
R740
1/6P1k
R730
1/2R10
R702
1/6P820
R775
1/6P1.8k
R715
1/6P22k
R716
1/6P27k
R717
1/6P33k
R724
1/6P47
R722
1/2R470
R725
1/6P470
R720
1/6P3.9k
R719
1/6P2.9k
R713
1/6P39k
R709
1/6P56k
R712
1/6P1k
R721
1/6P1k
R714
1/4W22
R760
1/6P100
C930
100
C902
2KB1 4700
C909
250V33
C900
10u COLTRF4100AT
C931
100
C907
470
C908
120
C906
120
C905
470
C904
470
C903
120
C914
B10000p
C913
16V22
C912
16V1000
C910
0.47
C911
7L16V10u
C707
25V47
C712
25V47
C713
200V10
C718
16V47
C719
56
C720
200V10
C721
16V47
C722
560
C704
50V8200p
C705
0.01
C706
B1000p
C715
4700
C716
100
C717
4700
C714
100
L902
220u
L903
220u
L904
220u
L905
39u
L906
39u
L907
39u
L704
TEM2011
L705
TEM2011
L702
HCS-035
R942
1/6P5.6k
R943
1/6P5.6k
R944
1/6P5.6k
R960
2R15k
R961
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59QDF892X

03B
EF BOARD

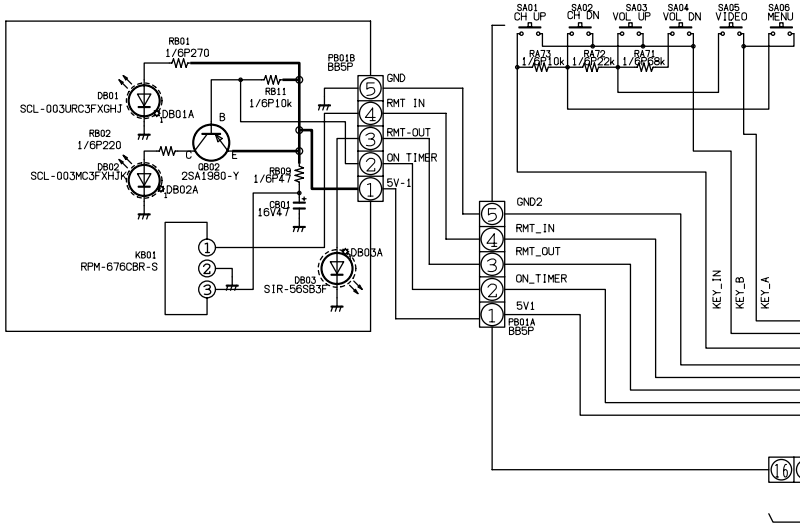
CRT-D
25AF6C
25AF6SH

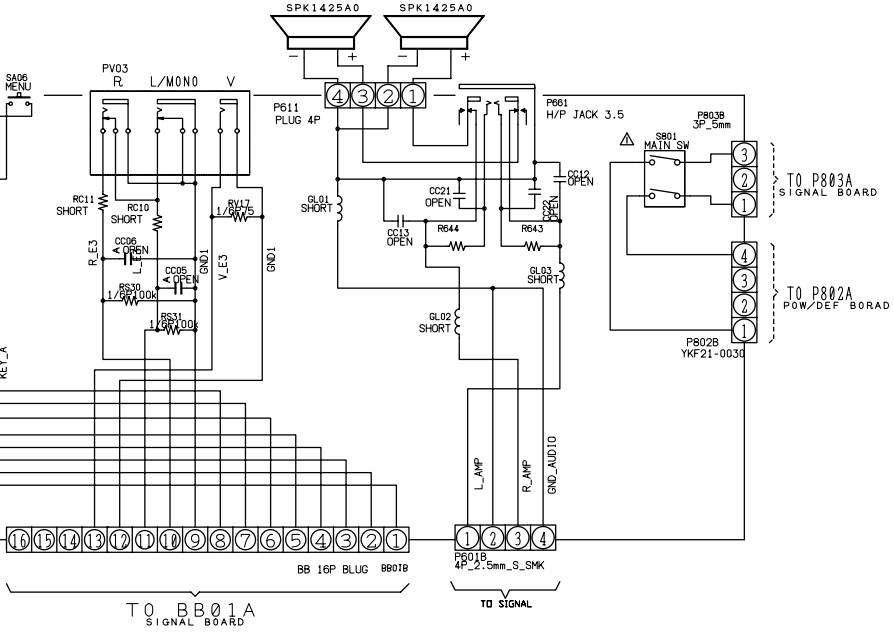
CONT/LED BOARD



CONT/LED
25AF6SH

CONT/LED BOARD





CONT/LED
25AF6SH

U902 POW./DEF BOARD

TO BB11A SIGNAL BOARD

TO BB12A SIGNAL BOARD

TO ANODE

TO FOCUS

TO SCREEN

FBT

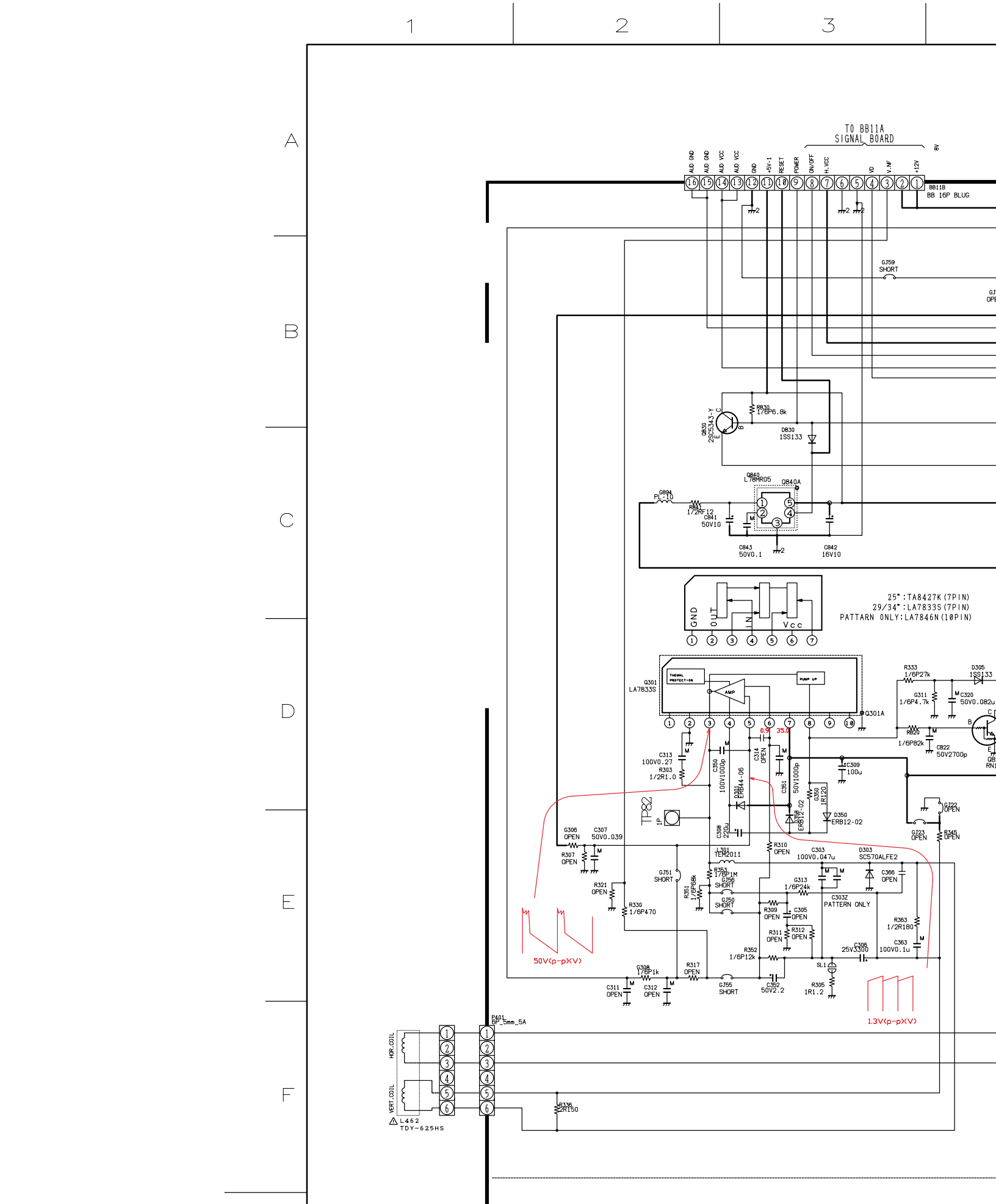
TO P881A CRT/D BOARD

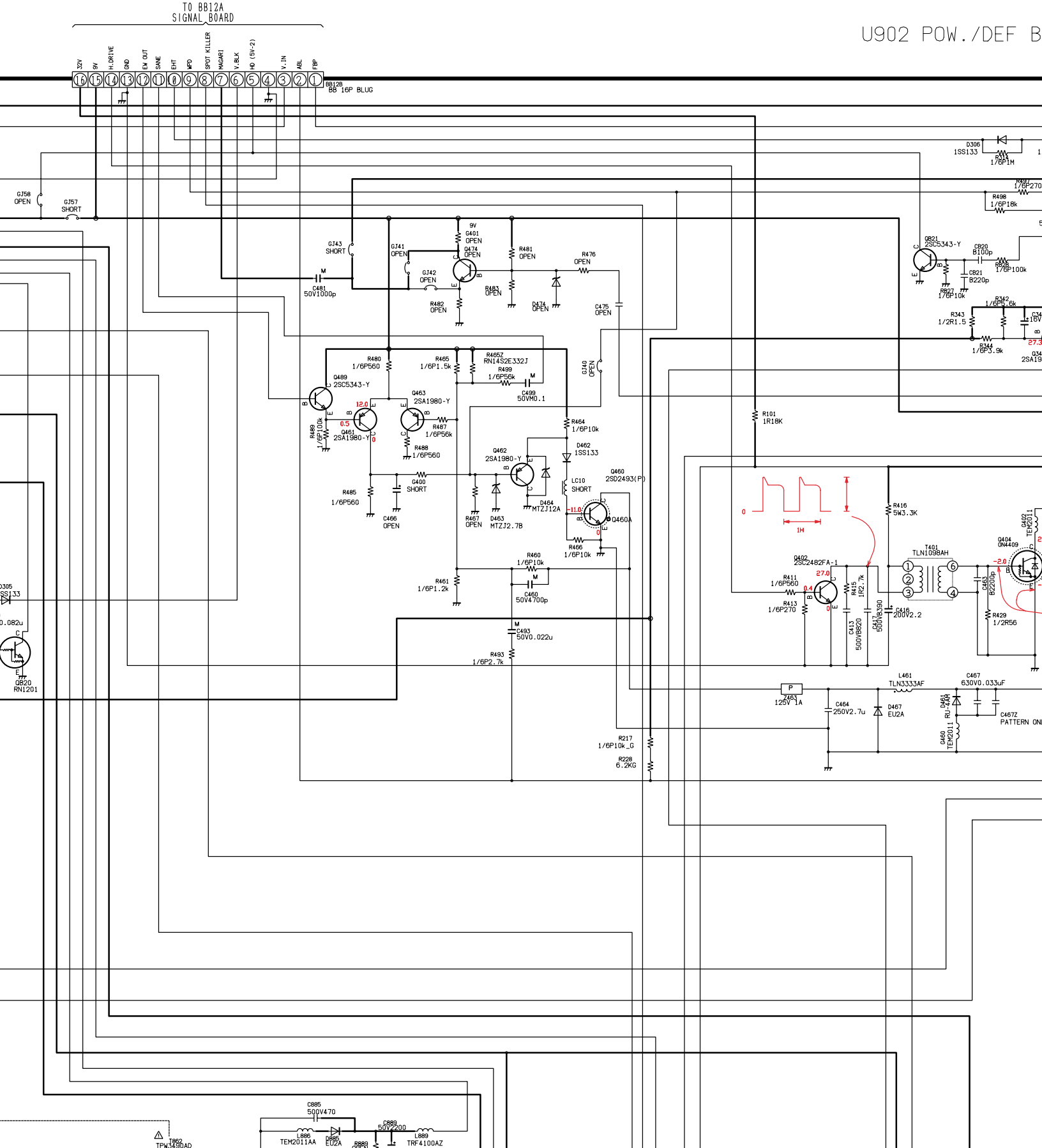
TO P784A CRT/D BOARD

TO P881B CONTROL BOARD

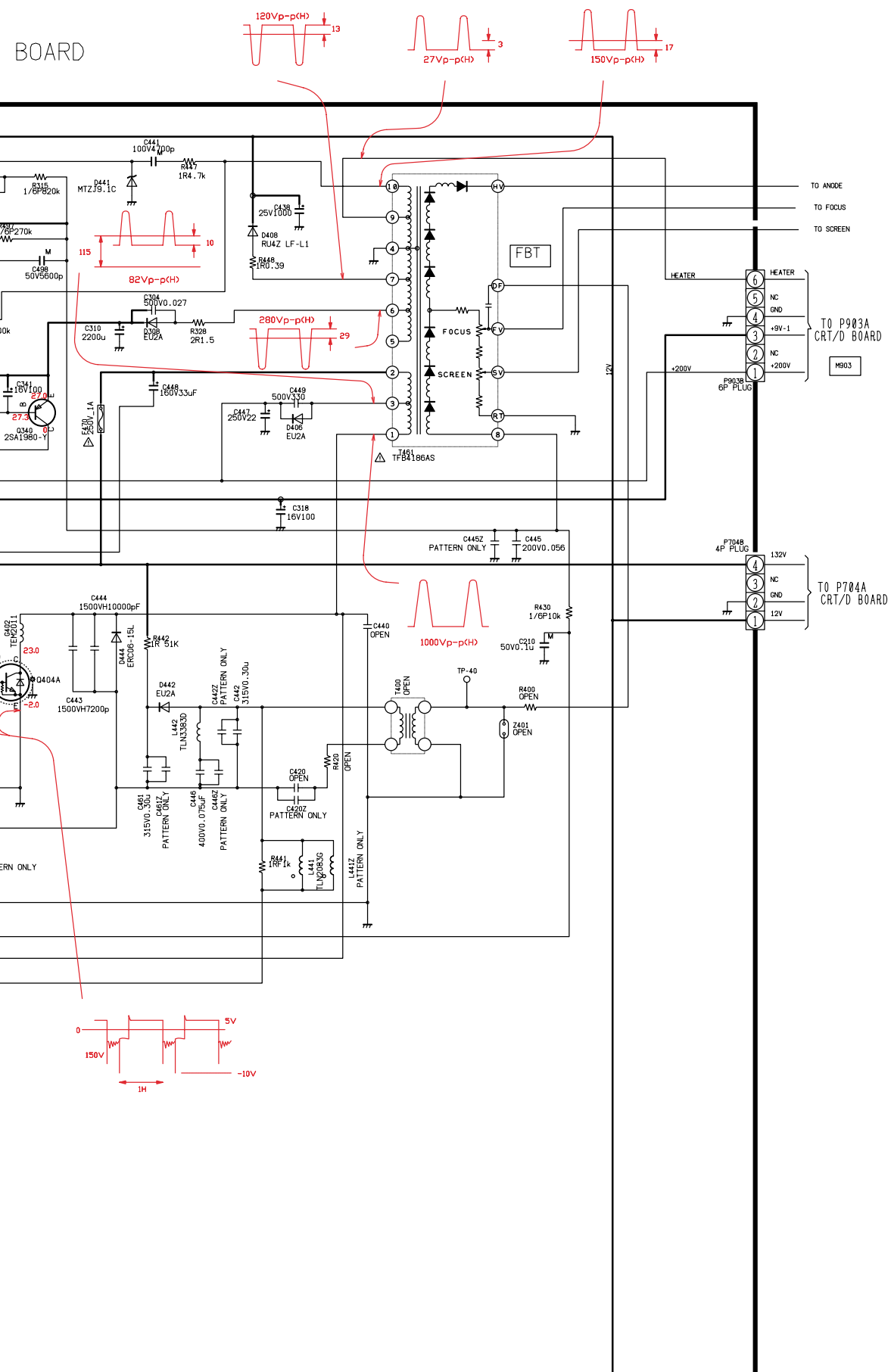
25": TA8427K (7PIN)
29/34": LA78335 (7PIN)
PATTERN ONLY: LA78869 (10PIN)

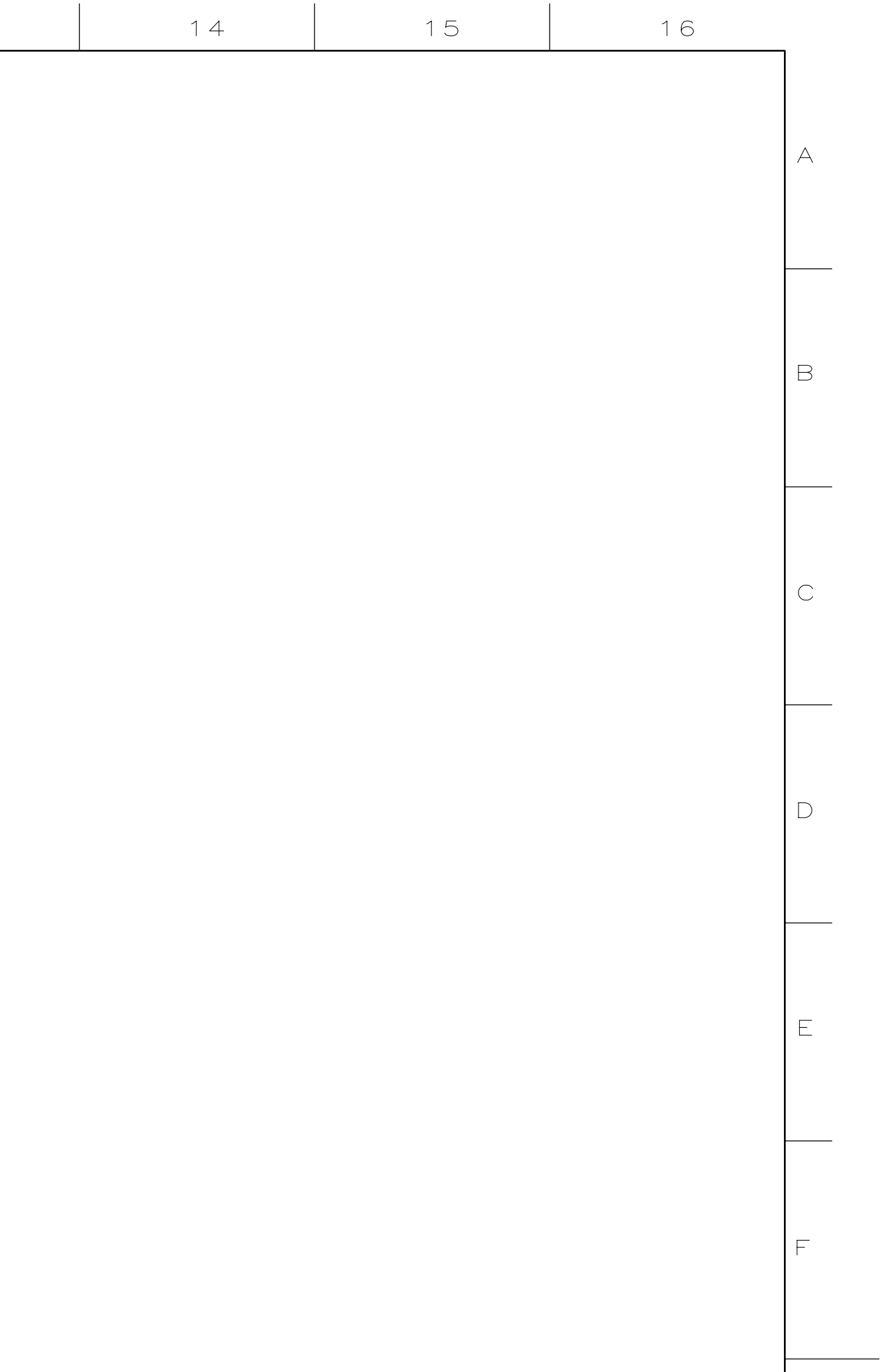
POWE/DEF
25AF6SH

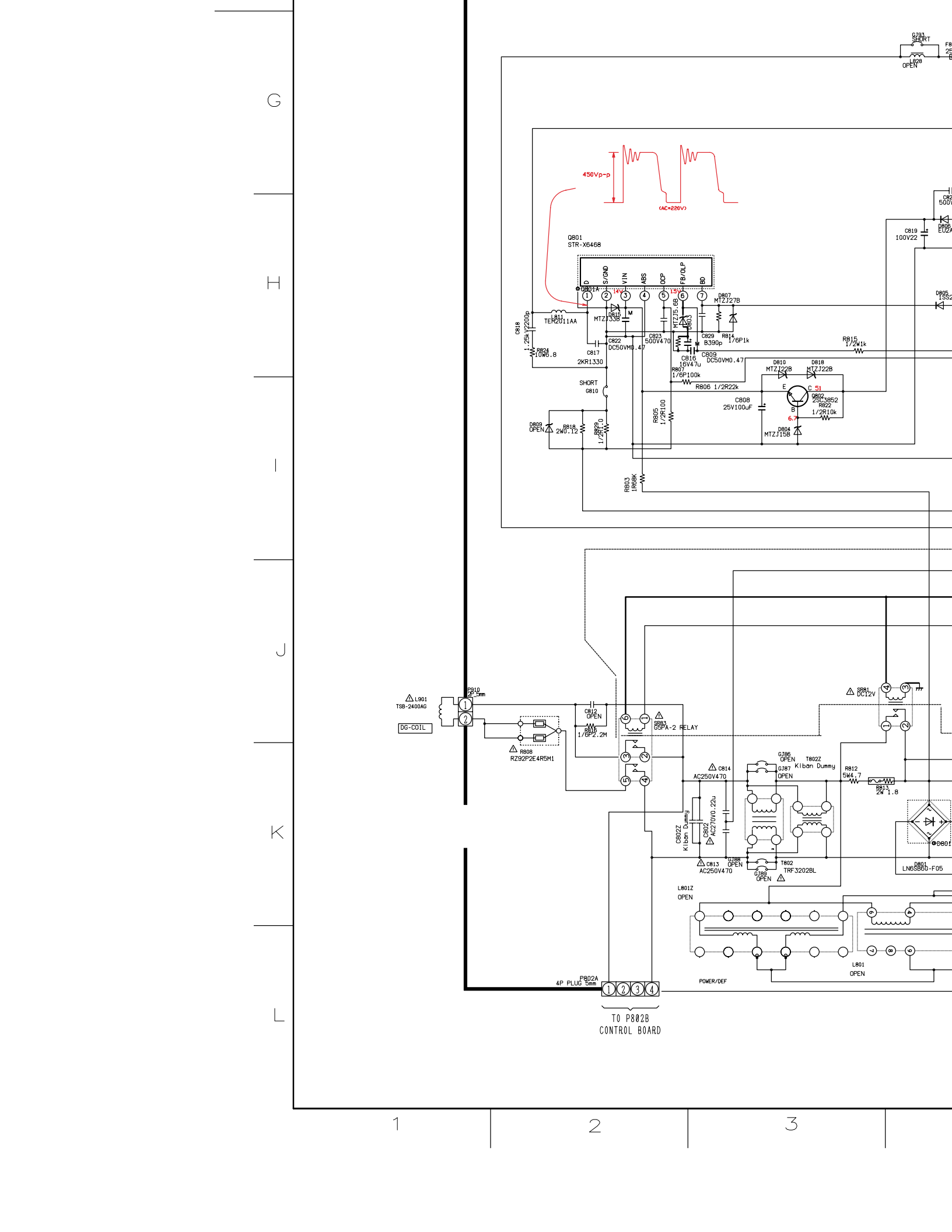

1
2
3
A
B
C
D
E
F
TO BB11A
SIGNAL BOARD
AUD GND
AUD GND
AUD VCC
AUD VCC
GND
+5V-1
RESET
POWER
ON/OFF
H.VCC
VD
V.NF
+12V
8V
BB11B
BB 16P BLUG
GJ59
SHORT
Q830
2SC5343-Y
R830
1/6P6.8k
D830
1SS133
Q840
L78MR05
Q840A
C894
PL-10
R841
1/2RF12
C841
50V10
C843
50V0.1
C842
16V10
GND
OUT
IN
Vcc
25" : TA8427K (7PIN)
29/34" : LA7833S (7PIN)
PATTARN ONLY : LA7846N (10PIN)
Q301
LA7833S
THERMAL PROTECTION
AMP
PUMP UP
Q301A
R333
1/6P27k
D305
1SS133
G311
1/6P4.7k
C320
50V0.082u
R820
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C313
100V0.27
R303
1/2R1.0
C350
100V1000p
C314
OPEN
C351
50V1000p
C309
100u
R350
1R120
D350
ERB12-02
TP82
GJ20
OPEN
GJ23
OPEN
R345
OPEN
C306
OPEN
50V0.039
R307
OPEN
C308
220u
R310
OPEN
IC301
TEN2011
C303
100V0.047u
D303
SC570ALFE2
C366
OPEN
GJ51
SHORT
R353
1/6P1M
GJ56
SHORT
R321
OPEN
R330
1/6P470
R351
1/6P68k
GJ50
SHORT
R313
1/6P24k
C303Z
PATTERN ONLY
R309
OPEN
C305
OPEN
R311
OPEN
R312
OPEN
R363
1/2R180
C363
100V0.1u
R352
1/6P12k
C306
25V3300
SL1
R305
1R1.2
50V(p-p)(V)
1.3V(p-p)(V)
C308
1/6P1k
R317
OPEN
C311
OPEN
C312
OPEN
GJ55
SHORT
C352
50V2.2
P401
CST_5mm_5A
HOR.COIL
VERT.COIL
L462
TDY-625HS
R336
1R150

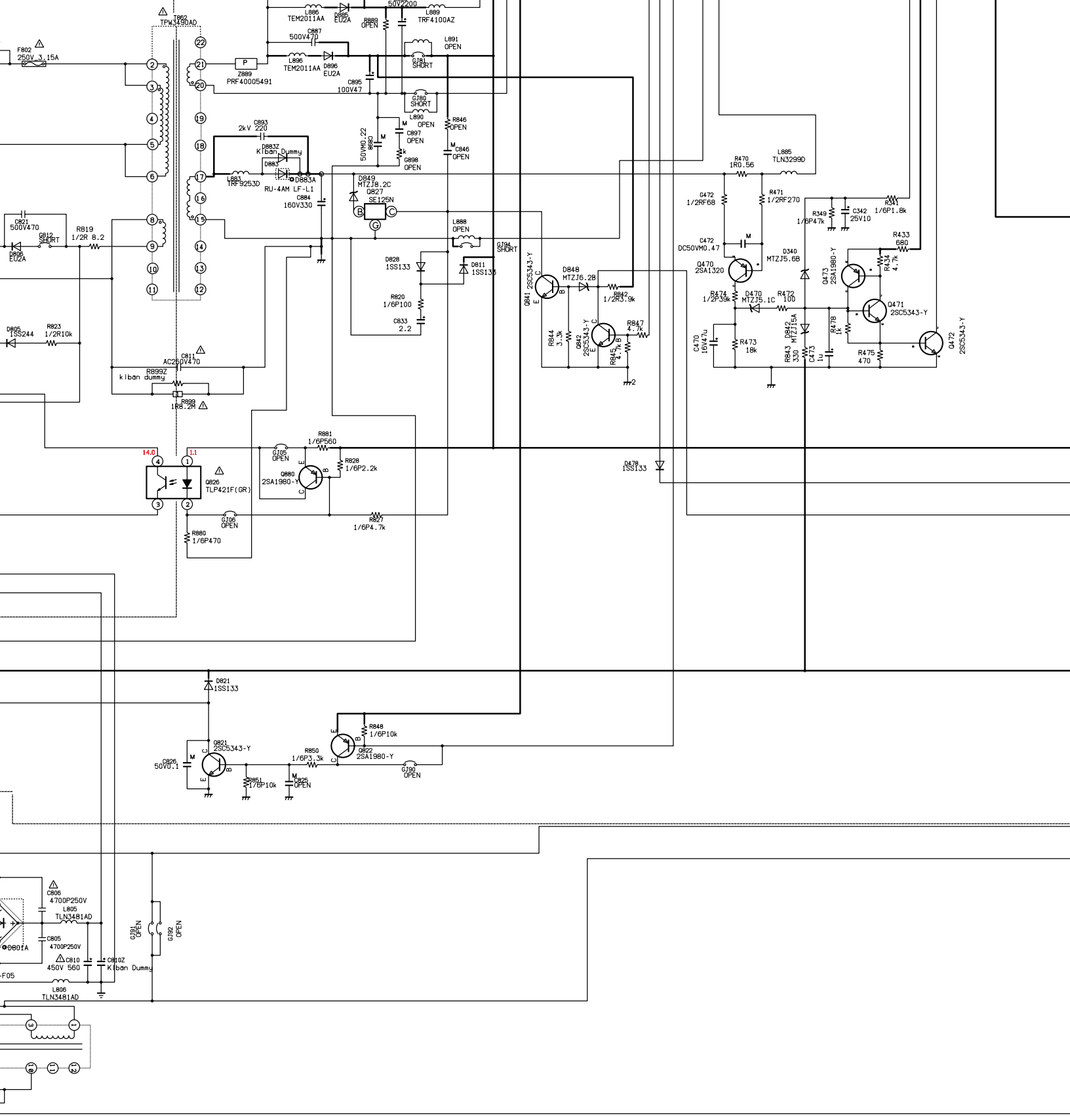

TO BB12A
SIGNAL BOARD
U902 POW./DEF B
BB12B
BB 16P BLUG
32V
9V
H.DRIVE
GND
EW OUT
SANE
EHT
HPD
SPOT KILLER
MAGARI
V.BLK
HD (5V-2)
V.IN
ABL
FBP
GJ58 OPEN
GJ57 SHORT
GJ43 SHORT
GJ41 OPEN
GJ42 OPEN
GJ40 OPEN
C481 50V1000p
G401 OPEN
Q474 OPEN
R481 OPEN
R476 OPEN
R483 OPEN
R482 OPEN
D474 OPEN
C475 OPEN
R480 1/6P560
R465 1/6P1.5k
R465Z RN14S2E332J
R499 1/6P56k
C499 50VM0.1
Q489 2SC5343-Y
Q463 2SA1980-Y
Q461 2SA1980-Y
R489 1/6P100k
R487 1/6P56k
R488 1/6P560
R485 1/6P560
G400 SHORT
C466 OPEN
R467 OPEN
D463 MTZJ2.7B
Q462 2SA1980-Y
D464 MTZJ12A
R464 1/6P10k
D462 1SS133
LC10 SHORT
Q460 2SD2493(P)
Q460A
R466 1/6P10k
R460 1/6P10k
C460 50V4700p
R461 1/6P1.2k
C493 50V0.022u
R493 1/6P2.7k
R217 1/6P10k_G
R228 6.2KG
R101 1R18K
R416 5W3.3K
T401 TLN1098AH
Q402 2SC2482FA-1
R411 1/6P560
R413 1/6P270
R415 1R2.7k
C413 500VB820
C417 500VB390
C416 200V2.2
C465 B2200p
R429 1/2R56
Q404 DN4409
G402 TEM2011
L461 TLN3333AF
C464 250V2.7u
D467 EU2A
C467 630V0.033uF
D468 RU4A
G460 TEM2011
C467Z PATTERN ON
Z463 125V 1A
D306 1SS133
R497 1/6P270
R498 1/6P18k
Q821 2SC5343-Y
C820 B100p
R820 1/6P100k
C821 B220p
R807 1/6P10k
R342 1/6P5.6k
R343 1/2R1.5
R344 1/6P3.9k
C342 16V
Q342 2SA19
D305 SS133
0.082u
Q820 RN1201
C885 500V470
L886 TEM2011AA
D885 EU2A
C889 50V2200
L889 TRF4100AZ
T862 TPW3490AD

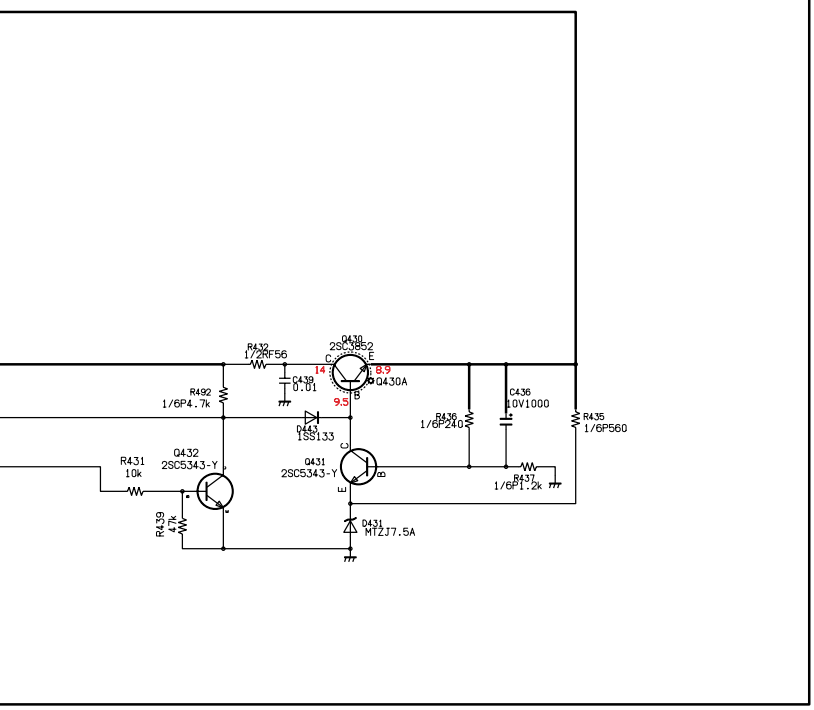
BOARD

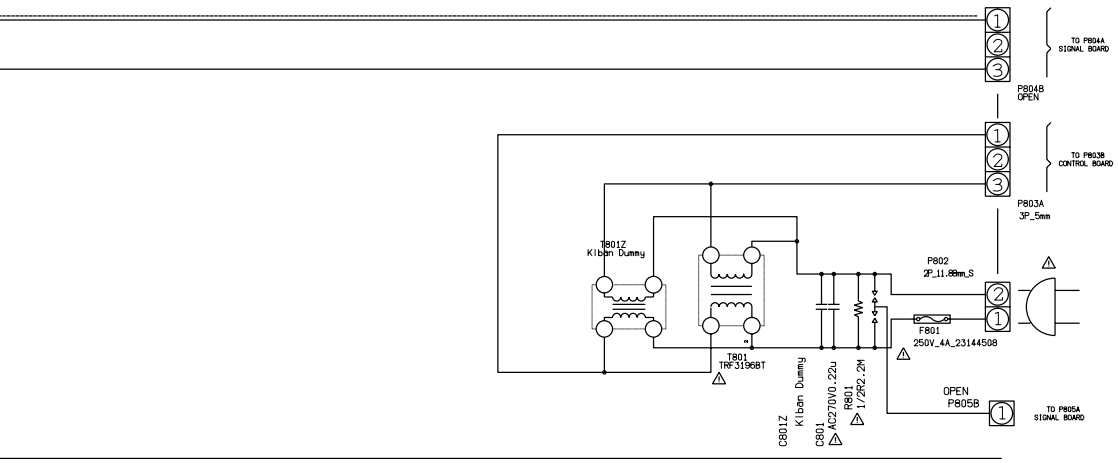

120Vp-p(H)
27Vp-p(H)
150Vp-p(H)
82Vp-p(H)
280Vp-p(H)
1000Vp-p(H)
FBT
FOCUS
SCREEN
TO ANODE
TO FOCUS
TO SCREEN
HEATER
NC
GND
+9V-1
NC
+200V
TO P903A
CRT/D BOARD
M903
P903B
6P PLUG
P704B
4P PLUG
132V
NC
GND
12V
TO P704A
CRT/D BOARD
T481
TF84186AS
C441
100V4700p
R447
1R4.7k
D441
MTZJ9.1C
C438
25V1000
D408
RU4Z LF-L1
R448
1R0.39
C304
500V0.027
D308
EU2A
R328
2R1.5
C310
2200u
C448
160V33uF
C449
500V330
C447
250V22
D406
EU2A
C318
16V100
C445Z
PATTERN ONLY
C445
200V0.056
C444
1500VH10000pF
C443
1500VH7200p
R442
1R 51K
D444
ERC06-15L
D442
EU2A
C442Z
PATTERN ONLY
C442
315V0.30u
L442
TLN3383D
C440
OPEN
T400
OPEN
TP-40
R400
OPEN
Z401
OPEN
C210
50V0.1u
R430
1/6P10k
C420
OPEN
C420Z
PATTERN ONLY
R420
OPEN
C461
315V0.30u
C461Z
PATTERN ONLY
C446
400V0.075uF
C446Z
PATTERN ONLY
R441
1RF1k
L441
TLN2083G
L441Z
PATTERN ONLY
Q404A
Q340
2SA1980-Y
5V
0
150V
-10V
1H


14
15
16
A
B
C
D
E
F


450Vp-p
(AC=220V)
Q801
STR-X6468
D
S/GND
VIN
ABS
OCP
FB/OLP
BD
14V
15V
D807
MTZJ27B
D815
MTZJ33B
MTZJ5.6B
D803
C818
1.25kV2200p
L811
TEM2U11AA
C822
DC50VM0.47
C823
500V470
C829
B390p
R814
1/6P1k
R815
1/2W1k
C819
100V22
C817
2KR1330
C816
16V47u
C809
DC50VM0.47
R807
1/6P100k
R806 1/2R22k
R824
10W6.8
SHORT
G810
D810
MTZJ22B
D818
MTZJ22B
C808
25V100uF
D802
2SK3852
R822
1/2R10k
6.7
D804
MTZJ15B
D809
OPEN
R818
2W0.12
R805
1/2R100
R803
1R68K
L901
TSB-2400AG
P910
4P 5mm
DG-COIL
C812
OPEN
R816
1/6P2.2M
R809
RZ92P2E4R5M1
SR83
G5PA-2 RELAY
SR81
DC12V
C814
AC250V470
GJ86
OPEN
T802Z
Kiban Dummy
GJ87
OPEN
R812
5W4.7
R813
2W 1.8
C802Z
Kiban Dummy
C802
AC270V0.22u
C813
AC250V470
GJ88
OPEN
T802
TRF3202BL
GJ89
OPEN
D801
LN6S86D-F05
L801Z
OPEN
L801
OPEN
POWER/DEF
P802A
4P PLUG 5mm
TO P802B
CONTROL BOARD


T862 TPW3490AD
F802 250V 3.15A
L886 TEM2011AA
D885 EU2A
C887 500V470
L889 TRF4100AZ
L891 OPEN
GJ81 SHORT
L896 TEM2011AA
D896 EU2A
Z889 PRF40005491
C895 100V47
GJ80 SHORT
L890 OPEN
R846 OPEN
C897 OPEN
G898 OPEN
C846 OPEN
C893 2kV 220
D883Z Kiban Dummy
D883
D883A RU-4AM LF-L1
L883 TRF9253D
C884 160V330
D849 MTZJ8.2C
Q827 SE125N
L888 OPEN
GJ94 SHORT
D828 1SS133
D811 1SS133
R820 1/6P100
C833 2.2
C821 500V470
GJ12 SHORT
RB19 1/2R 8.2
D805 EU2A
D805 1SS244
R823 1/2R10k
C811 AC250V470
R899Z kiban dummy
R899 1R8.2M
R881 1/6P560
GJ05 OPEN
Q880 2SA1980-Y
R828 1/6P2.2
Q826 TLP421F(GR)
GJ06 OPEN
R827 1/6P4.7k
R880 1/6P470
D821 1SS133
Q821 2SC5343-Y
C826 50V0.1
R850 1/6P3.3k
R848 1/6P10k
Q822 2SA1980-Y
GJ90 OPEN
R851 1/6P10k
C825 OPEN
C806 4700P250V
L805 TLN3481AD
C805 4700P250V
C810 450V 560
C810Z Kiban Dummy
L806 TLN3481AD
GJ91 OPEN
GJ92 OPEN
F05
D841 2SC5343-Y
D848 MTZJ6.2B
R842 1/2R3.9k
Q840 2SC5343-Y
R844 1.3k
R845 4.7k
R847 4.7k
D478 1SS133
R470 1R0.56
L885 TLN3299D
G472 1/2RF68
R471 1/2RF270
C472 DC50VM0.47
Q470 2SA1320
D340 MTZJ5.6B
R349 1/6P47k
C342 25V10
R341 1/6P1.8k
R433 680
Q473 2SA1980-Y
R434 4.7k
R474 1/2P39k
D470 MTZJ5.1C
R472 100
Q471 2SC5343-Y
C470 16V47u
R473 18k
D842 MTZJ15A
R843 330
C473 1u
R478 1k
R475 470
Q472 2SC5343-Y


R432
1/2RF56
Q430
2SC3852
C
E
B
14
8.9
Q430A
C439
0.01
R492
1/6P4.7k
9.5
D433
1SS133
R436
1/6P240
C436
10V1000
R435
1/6P560
R431
10k
Q432
2SC5343-Y
Q431
2SC5343-Y
R437
1/6P1.2k
R439
47k
Q431
MTZJ7.5A


TO P804A
SIGNAL BOARD
P804B
OPEN
TO P803B
CONTROL BOARD
P803A
3P_5mm
T801Z
Kiben Dummy
P802
2P_11.88mm_S
F801
250V_4A_23144508
T801
TRF3196BT
C801Z
Kiben Dummy
C801
AC270V0.22u
R801
1/2R2.2M
OPEN
P805B
TO P805A
SIGNAL BOARD

G

H

I

J

K

L

POWE/DEF
25AF6SH

14 15 16

SIGNAL BOARD

AUDIO OUT

SHIELD COVER

MEMORY

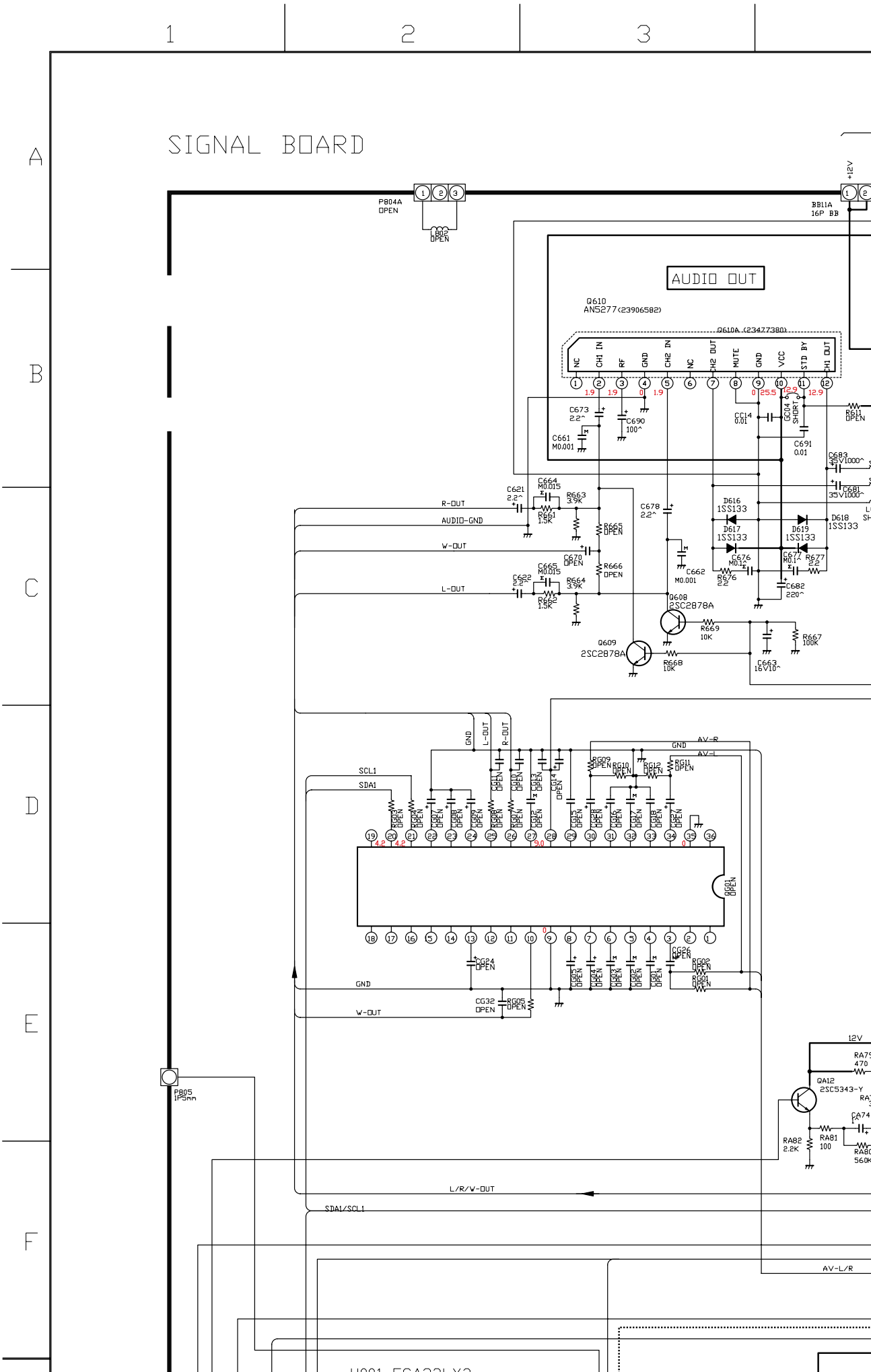
MCLKIN

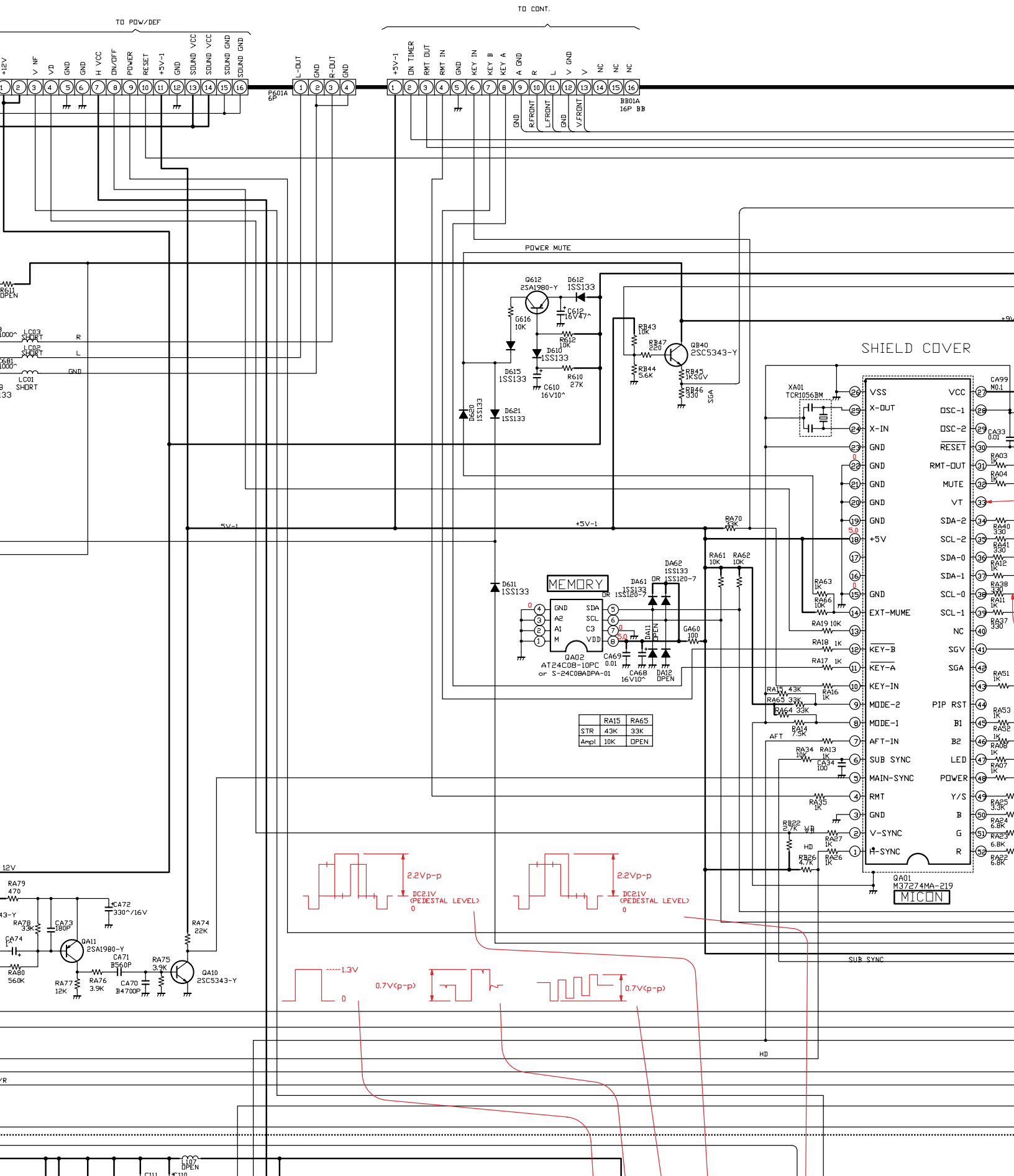
H001 ECA33LX2 FS TUNER

H002 MVCS45D

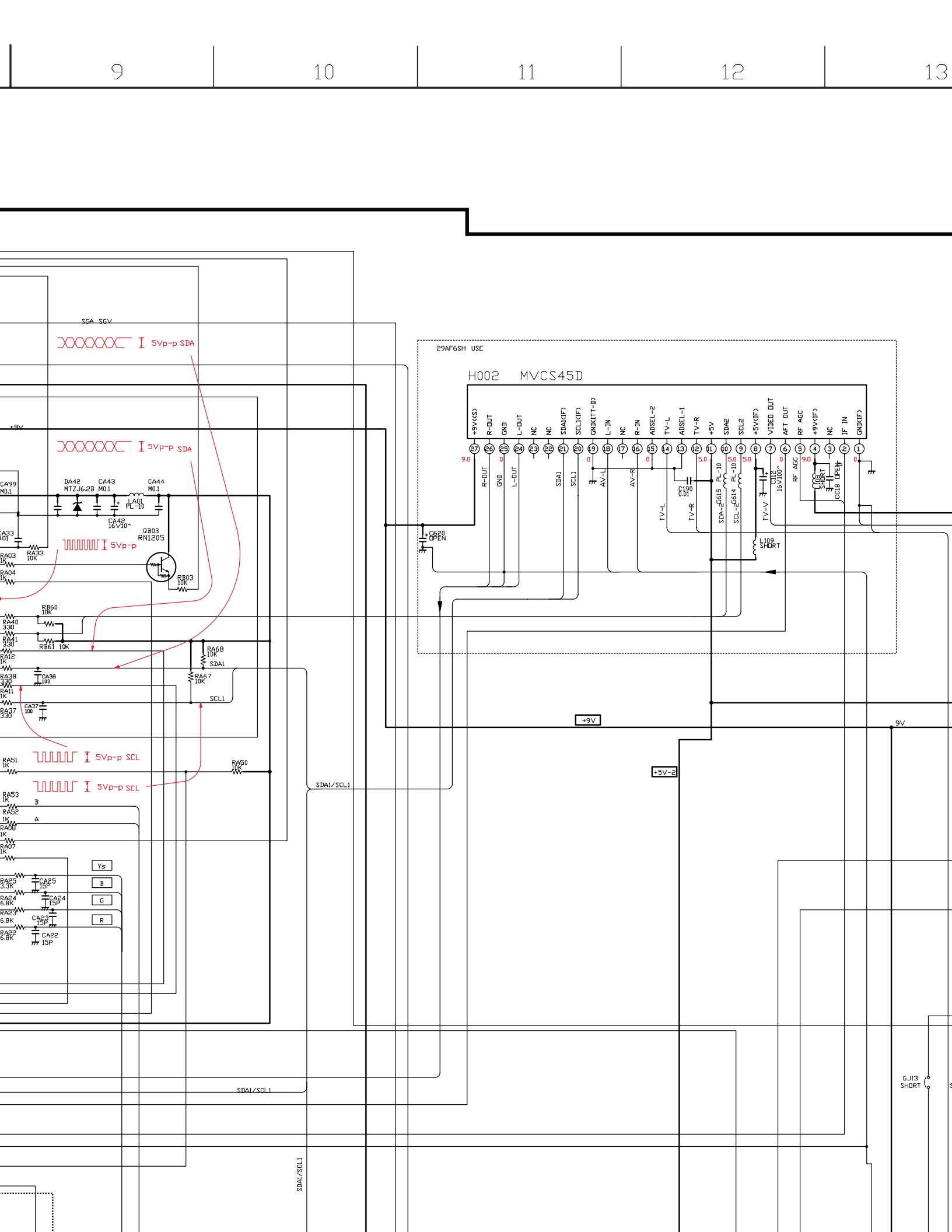
SIGNAL

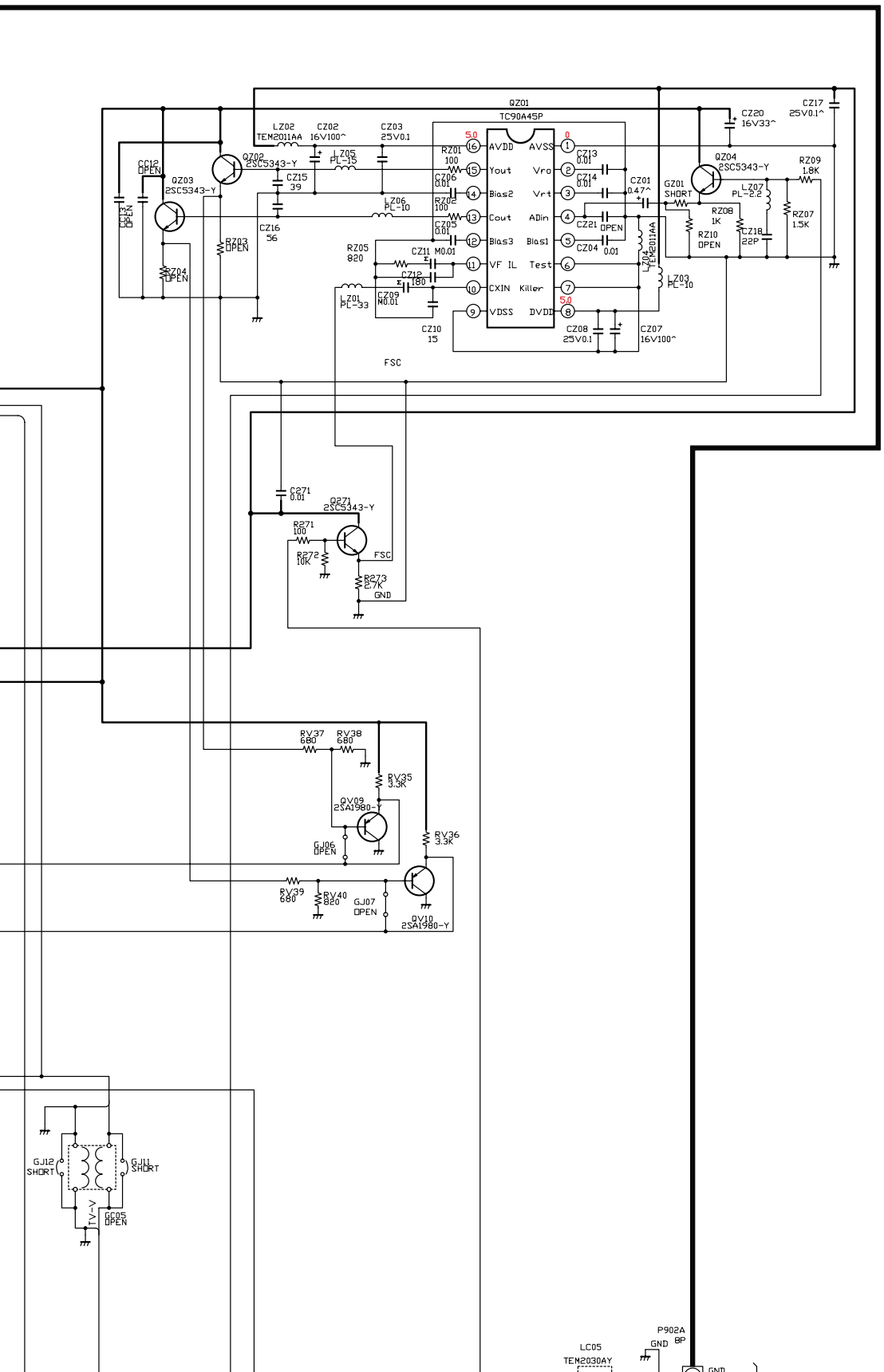
SIGNAL
25AF6SH

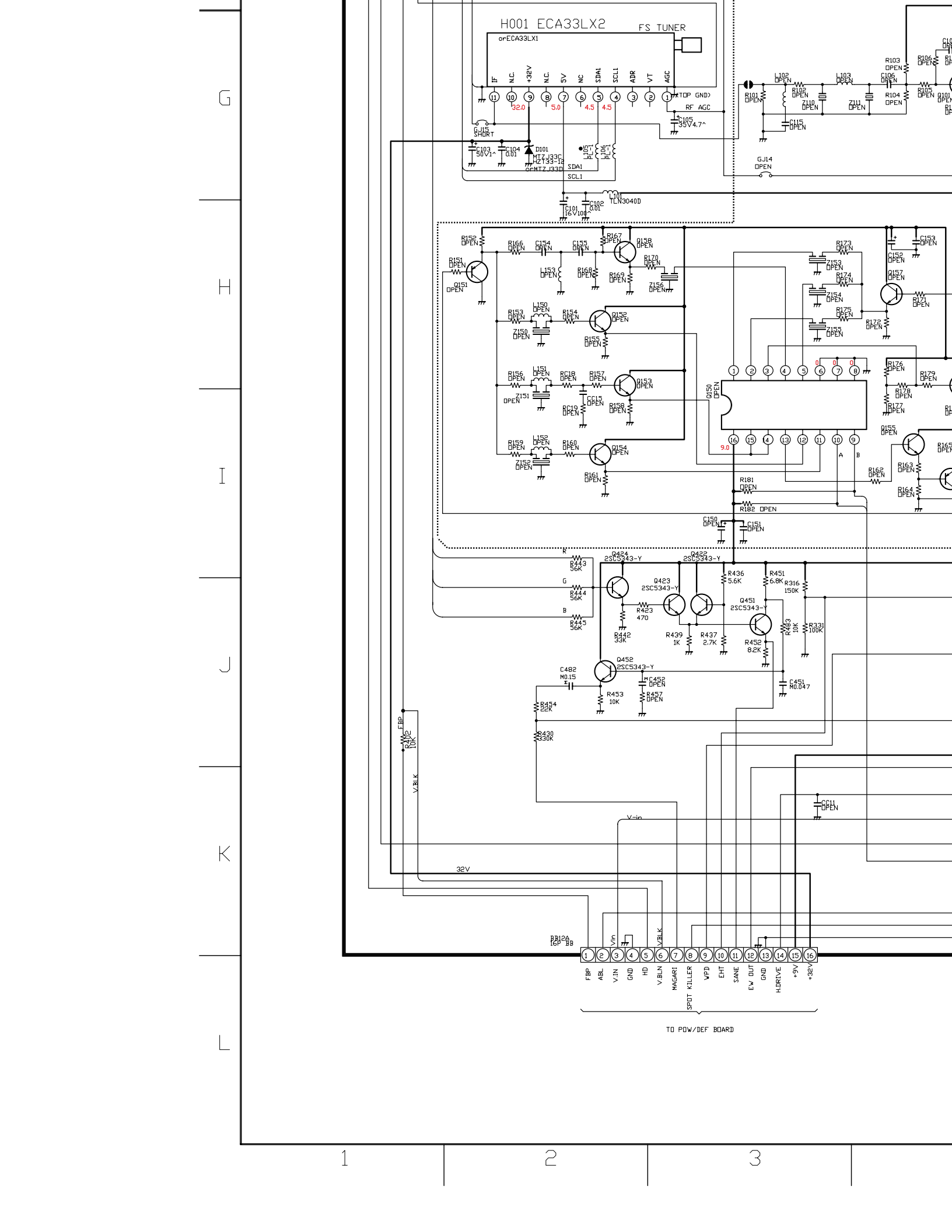

SIGNAL BOARD
AUDIO OUT
Q610
AN5277(23906582)
Q610A (23427380)
NC
CH1 IN
RF
GND
CH2 IN
NC
CH2 OUT
MUTE
GND
VCC
STD BY
CH1 OUT
P804A
OPEN
P802
OPEN
BB11A
16P BB
+12V
R-OUT
AUDIO-GND
W-OUT
L-OUT
Q608
2SC2878A
Q609
2SC2878A
D616
1SS133
D617
1SS133
D618
1SS133
D619
1SS133
GND
L-OUT
R-OUT
AV-R
AV-L
SCL1
SDA1
P805
1P5mm
12V
QA12
2SC5343-Y
L/R/W-OUT
SDA1/SCL1
AV-L/R

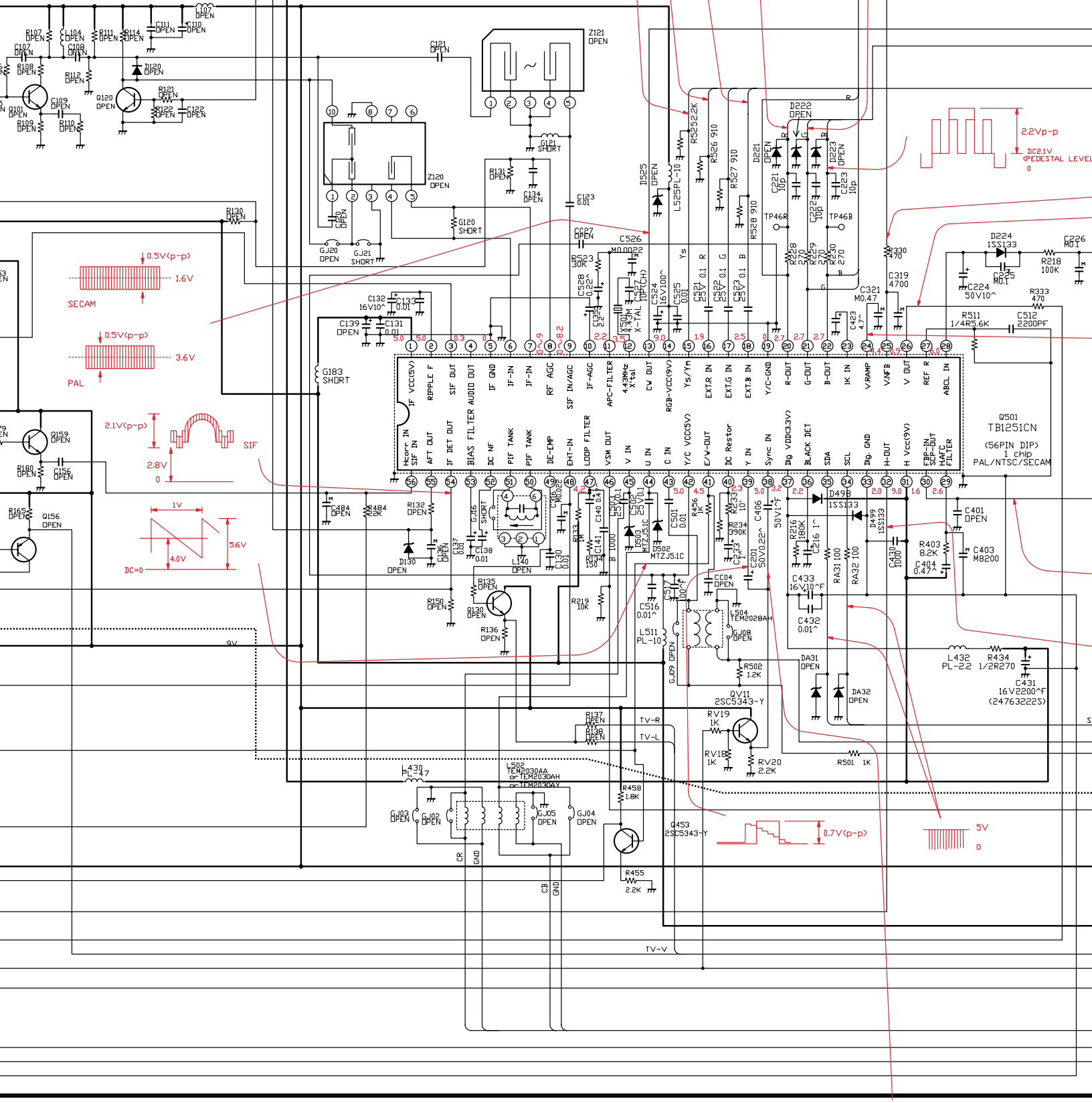


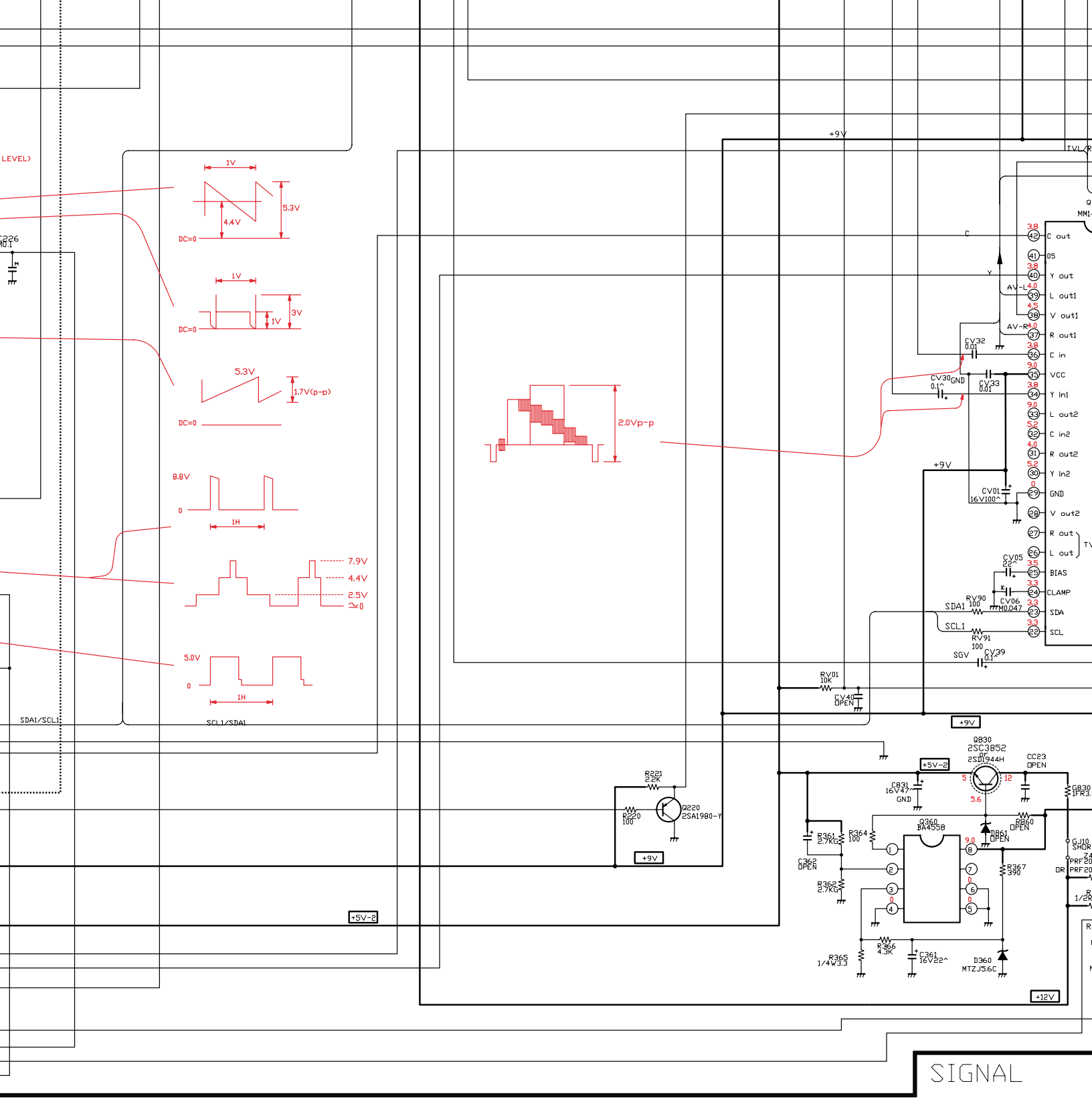
	RA15	RA65
STR	43K	33K
Ampl	10K	OPEN

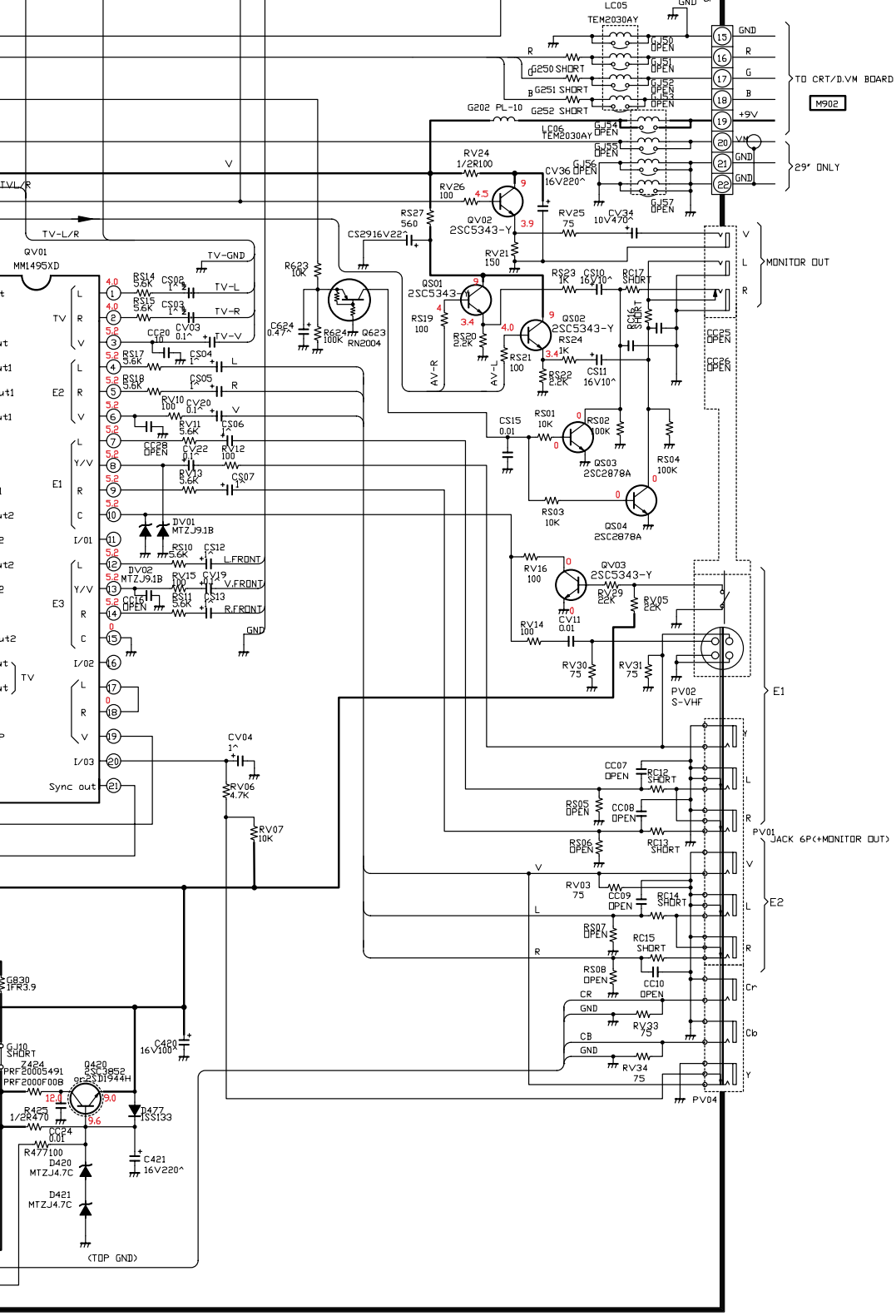

9
10
11
12
13
29AF6SH USE
H002 MVCS45D
+9V(CS)
R-OUT
GND
L-OUT
NC
NC
SDA1(IF)
SCL1(IF)
GNDKIT-D
L-IN
NC
R-IN
ADSEL-2
TV-L
ADSEL-1
TV-R
+5V
SDA2
SCL2
+5V(IF)
VIDEO OUT
AFT OUT
RF AGC
+9V(IF)
NC
IF IN
GNDKIF)
5Vp-p SDA
5Vp-p
5Vp-p SCL
SDA1/SCL1
+9V
+5V-2
9V
DA42 MTZJ6.2B
CA43 M0.1
CA44 M0.1
LA01 PL-10
CA42 16V10^
QB03 RN1205
RB03 10K
RB60 10K
RB61 10K
RA68 10K
RA67 10K
RA50 10K
CA39 100
CA37 100
CA99 M0.1
CA33 .01
RA33 10K
RA03 1K
RA04 1K
RA40 330
RA41 330
RA12 1K
RA38 330
RA11 1K
RA37 330
RA51 1K
RA53 1K
RA52 1K
RA09 1K
RA07 1K
RA25 3.3K
RA24 6.8K
RA23 6.8K
RA22 6.8K
CA25 15P
CA24 15P
CA23 15P
CA22 15P
Ys
B
G
R
C620 OPEN
C190 0.01
L109 SHORT
CC18 OPEN
GJ13 SHORT


QZ01
TC90A45P
AVDD
AVSS
Yout
Vro
Bias2
Vrt
Cout
ADin
Bias3
Bias1
VF IL
Test
CXIN
Killer
VDSS
DVDD
FSC
QZ02 2SC5343-Y
QZ03 2SC5343-Y
QZ04 2SC5343-Y
QZ09 2SA1980-Y
QZ10 2SA1980-Y
Q271 2SC5343-Y
LZ01 PL-33
LZ02 TEM2011AA
LZ03 PL-10
LZ04 TEM2011AA
LZ05 PL-15
LZ06 PL-10
LZ07 PL-2.2
GJ01 SHORT
GJ06 OPEN
GJ07 OPEN
GJ11 SHORT
GJ12 SHORT
GC05 OPEN
P902A
GND
LC05
TEM2030AY


H001 ECA33LX2
FS TUNER
orECA33LX1
IF
N.C.
+32V
N.C.
5V
NC
SDA1
SCL1
ADR
VT
AGC
TUNER GND
RF AGC
32.0
5.0
4.5
4.5
C105 35V4.7^
C103 50V1^
C104 0.01
D101 MTZJ33C
SDA1
SCL1
C101 16V100^
C102 0.01
L101 LLN3040D
GJ14 OPEN
R103 OPEN
R106 OPEN
L102 OPEN
L103 OPEN
C106 OPEN
R101 OPEN
R102 OPEN
R104 OPEN
R105 OPEN
Z110 OPEN
Z111 OPEN
C115 OPEN
R152 OPEN
R166 OPEN
C154 OPEN
C155 OPEN
R167 OPEN
Q158 OPEN
R151 OPEN
Q151 OPEN
L153 OPEN
R168 OPEN
R169 OPEN
R170 OPEN
Z156 OPEN
R173 OPEN
Z158 OPEN
C152 OPEN
C153 OPEN
Q157 OPEN
R174 OPEN
Z154 OPEN
R171 OPEN
R175 OPEN
R172 OPEN
Z155 OPEN
L150 OPEN
R153 OPEN
R154 OPEN
Q152 OPEN
Z150 OPEN
R155 OPEN
L151 OPEN
R156 OPEN
RC18 OPEN
R157 OPEN
Q153 OPEN
Z151 OPEN
CC15 OPEN
RC19 OPEN
R158 OPEN
L152 OPEN
R159 OPEN
R160 OPEN
Q154 OPEN
Z152 OPEN
R161 OPEN
Q150 OPEN
R176 OPEN
R179 OPEN
R178 OPEN
R177 OPEN
Q155 OPEN
R165 OPEN
R163 OPEN
R162 OPEN
R164 OPEN
R181 OPEN
R182 OPEN
C150 OPEN
C151 OPEN
9.0
A
B
R443 56K
R444 56K
R445 56K
R
G
B
Q424 2SC5343-Y
Q422 2SC5343-Y
Q423 2SC5343-Y
Q451 2SC5343-Y
Q452 2SC5343-Y
R436 5.6K
R451 6.8K
R316 150K
R423 470
R442 33K
R439 1K
R437 2.7K
R452 8.2K
R483 10K
R331 100K
C482 M0.15
C452 OPEN
R457 OPEN
C451 M0.047
R453 10K
R454 22K
R430 330K
FBP
R432 10K
V.BLK
V-in
C411 OPEN
32V
P3124 16P BB
Vin
V.BLK
FBP
ABL
V.IN
GND
HD
V.BLN
MAGARI
KILLER
VPD
EHT
SANE
E-W OUT
GND
H.DRIVE
+9V
+32V
SPOT
TO POW/DEF BOARD


Q501
TB1251CN
(56PIN DIP)
1 chip
PAL/NTSC/SECAM
SECAM
PAL
SIF
0.5V(p-p)
1.6V
3.6V
2.1V(p-p)
2.8V
1V
5.6V
4.0V
DC=0
9V
2.2Vp-p
DC2.1V
(PEDESTAL LEVEL)
0.7V(p-p)
5V
1.0V(p-p)
TV-R
TV-L
TV-V
Q453
2SC5343-Y
QV11
2SC5343-Y
L502
TEM2030AA
or TEM2030AH
or TEM2030AY
L504
TEM2028AH
Z120
OPEN
Z121
OPEN
G120
SHORT
G121
SHORT
G183
SHORT
G20
OPEN
G21
SHORT
GJ03
OPEN
GJ04
OPEN
GJ05
OPEN
GJ08
OPEN
GJ09
OPEN
CR
GND
CB
GND


1V
5.3V
4.4V
DC=0
1V
3V
1V
DC=0
5.3V
1.7V(p-p)
DC=0
8.8V
0
1H
7.9V
4.4V
2.5V
≒0
5.0V
0
1H
SCL1/SDA1
SDA1/SCL1
2.0Vp-p
+9V
C out
Y out
L out1
V out1
R out1
C in
VCC
Y in1
L out2
C in2
R out2
Y in2
GND
V out2
R out
L out
BIAS
CLAMP
SDA
SCL
CV32 0.01
CV33 0.01
CV01 16V100^
CV05 22^
CV06 M0.047
RV90 100
RV91 100
CV39 0.1^
RV01 10K
CV40 OPEN
SDA1
SCL1
SGV
R221 2.2K
R220 100
Q220 2SA1980-Y
Q830 2SC3852 or 2SD1944H
CC23 OPEN
C831 16V47^
GND
Q360 BA4558
R361 2.7KΩ
R364 100
D861 OPEN
R860 OPEN
C362 OPEN
R362 2.7KΩ
R367 390
R365 1/4W3.3
R366 4.3K
C361 16V22^
D360 MTZJ5.6C
+5V-2
+12V
SIGNAL



SIGNAL
25AF6SH

SPECIFICATIONS

Rated voltage		∼ 110 V – 240 V, 50/60 Hz
Power consumption (at ∼ 220 V, 50 Hz)		125 W (Approx.)
Dimensions		582 mm × 466 mm × 531 mm
Mass		33.7 kg
Picture tube		TYPE 25, flat picture tube 63 cm dia. (overall picture tube) 59 cm dia. (viewable area) 110° deflection
Television system (Aerial input)	Channel coverage	**System** **VHF** **UHF** **CABLE (Channel)** PAL B/G (CCIR) 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 PAL I (UK) — 21 – 69 — PAL D/K (CHINA) 1 – 12 13 – 57 Z–1 ~ Z–38 SECAM B/G (CCIR)) 2 – 12 21 – 69 X ~ Z+2, S1 ~ S41 SECAM D/K (OIRT) 1 – 12 21 – 69 X1 ~ X19 NTSC M (US) 2 – 13 14 – 69 A–6 ~ A–1, A ~ W, AA ~ ZZ, AAA, BBB NTSC M (JAPAN) 1 – 12 13 – 62 M1 ~ M10, S1 ~ S41
	Special RF signal	**Color system** **Sound system** NTSC4.43 5.5/6.0/6.5 MHz PAL 60Hz 5.5/6.0/6.5 MHz
Color system (Video input)		PAL / SECAM / NTSC4.43 / NTSC3.58
Sound output		5 W + 5 W (10% THD)
Accessories		• Remote Controller 1 • Batteries (R03, AA) 2

* Please refer to owner's manual in detail.

END

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