TOSHIBA

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SERVICE MANUAL

COLOUR TELEVISION

ZP38 Chassis

36ZP38B, 32ZP38B

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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 18)

   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 SERVICE 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: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.

COLOR PURITY ADUSTMENT

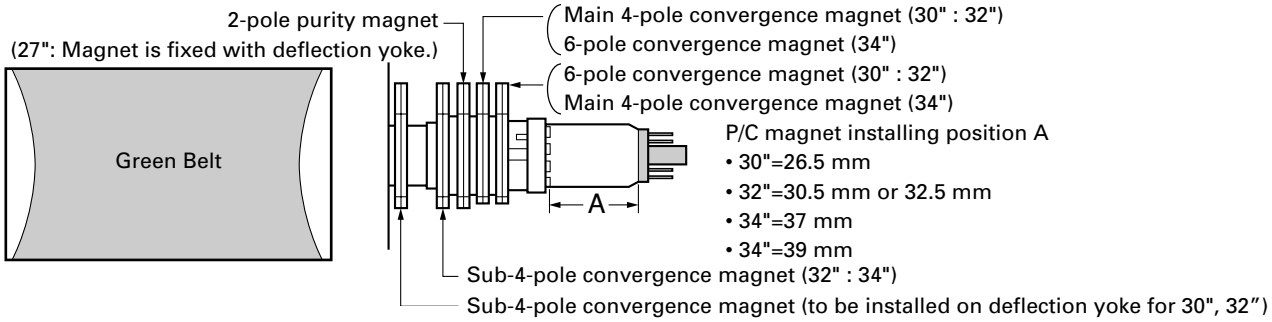
(1)Let the screen face in the installing direction or toward the east (when it is to be moved), bring up the service mode screen after demagnetizing (front, left, right, and top) with the degaussing coil, receive white signals by pressing the [TV/VIDEO] button, and then the receiver should be operated for more than 40 minutes.

(2)Perform rough adjustment of the central convergence with the P/C magnet according to the adjustment item.

(3)Receive built-in green signals, loosen set screws on the deflection yoke, remove rubber wedges, and shift the deflection yoke to toward front.

(4)Move alternately the two 2-pole magnets of the P/C magnets so that the green raster can come to the center of the screen.

Figure 1.

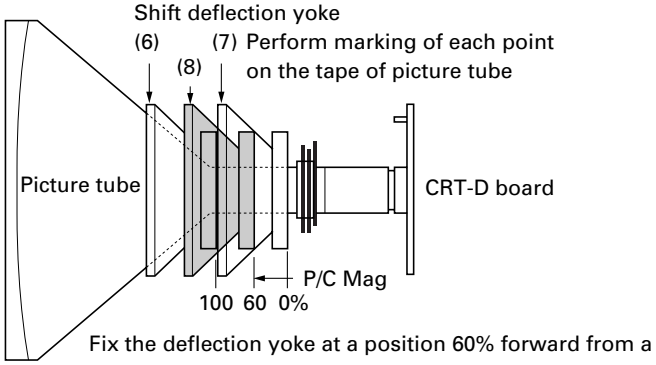


(5)Receive built-in red and blue signals, check that there is no inclination of the single color raster toward one side, and if each color tilts to a great extent, make adjustment with the 2-pole magnet so that the 3 colors will come to the center evenly.

(6)Receive the green raster, shift the deflection yoke from a foremost position (hitting against the picture tube) to a backward position horizontally, stop the deflection yoke at a position where it begins to become a green raster, and perform accurate marking on the picture tube.

(7)Shift the deflection yoke further backward, and perform accurate marking at a position where the green raster begins to being luck.

(8)Fix the deflection yoke at a position 60% forward within the range marked in items (6) and (7) above.



CONVERGENCE ADJUSTMENTS

* Adjust the convergence magnet to get vest convergence in the the order to (1) ~ (5).

■ CENTER CONVERGENCE:

(1)Receive the white crosshatch or dot pattern from the service signal generator.

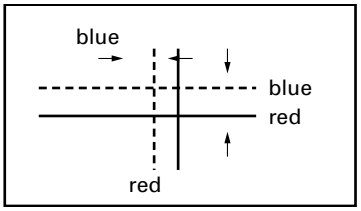
(2)Use the 2 pieces of main 4-pole magnets of P/C magnets, change the open angle, and align the red and blue vertical lines on the screen center.

(3)Freeze the open angle of the main 4-pole magnets, turn them simultaneously, and align the horizontal lines.

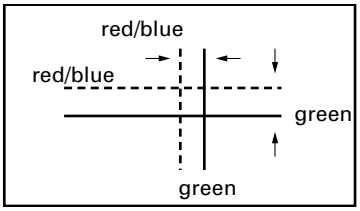
(4)Take the same steps for items (2) and (3) above and align red/blue with green on the screen center using two 6-pole magnets.

(5)Adjust the sub-4-pole magnets only in case there is any deviation of Xv bow-shaped convergence. (To be usually set at the initial position)

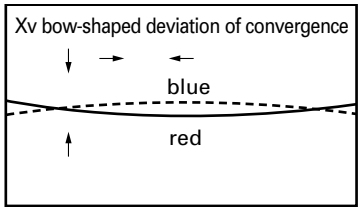
Align both sides with the sub-4-pole magnets and minimize the deviation of blue and red with the main 4-pole magnets.



Main 4-pole magnet



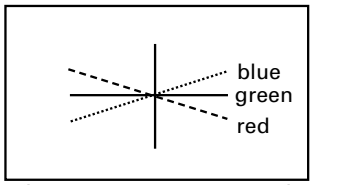
6-pole magnet

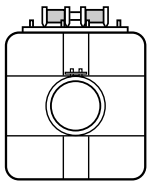


Sub-4-pole magnet

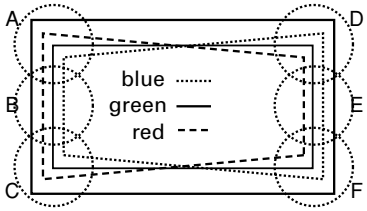
■ CIRCUMFERENCE CONVERGENCE:

* Perform correction in the following manner.

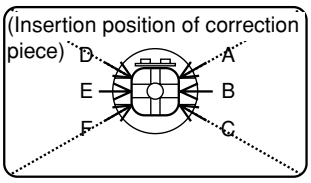




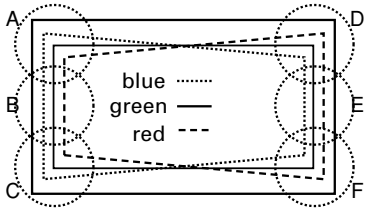
• Adjust coils and minimize deviation
(The 27" unit has coils underneath it)



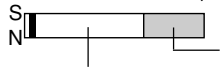
(Parts code:23 948 274) TC-S



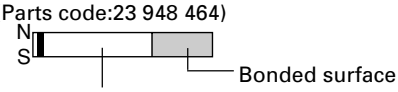
*Insert the correction piece between the picture tube and the deflection yoke.



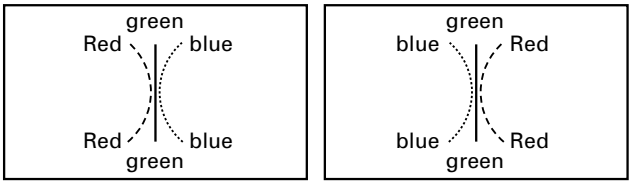
(Parts code:23 948 464)



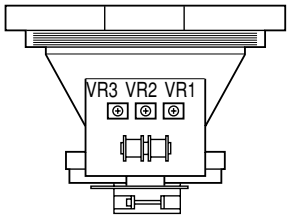
Blue color or blue mark



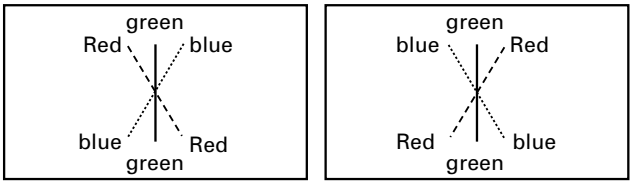
Adjust VR 1 and minimize the deviation of YH. *Only 27", 30" and 32".



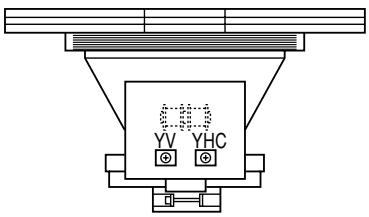
■ 30", 27", 32"



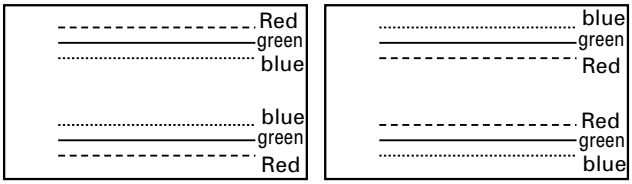
Adjust VR 2 (YHC) and minimize the deviation of YH.

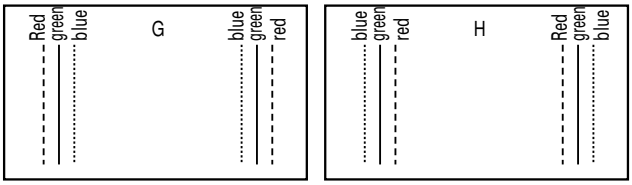


■ 34"

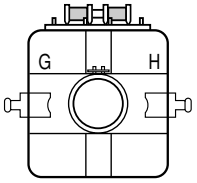


Adjust VR 3 (YV) and minimize the deviation of YV.





27" (Part No. 23 947 371)
32", 30" (Part No. 23 947 121)
34" (Part No. 23 993 080)



Perform correction by inserting the correction piece into the clearance of terminal board coils of the deflection yoke.

Note:

Perform insertion by turning the metal side to the terminal board side of the deflection yoke.

SERVICE MODE

1. ENTERING TO SERVICE MODE

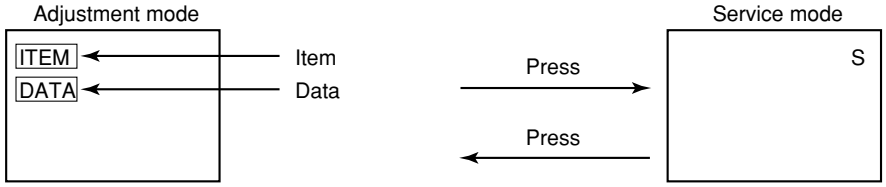
1) Press 🔇 button once on Remote Control.
2) Press 🔇 button again to keep pressing.
3) While pressing the 🔇 button, press MENU button on TV set.



(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:	INFO 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 note: Displayed differently as shown below, depending on the setting of the receiving color system.
Self diagnostic display ON/OFF :	9 button COLP (PAL) COLC (NTSC) COLS (SECAM)

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

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 18)

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

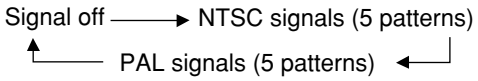
After replacing QA02, the following initialization is required.

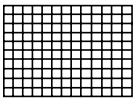
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto search Memory”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

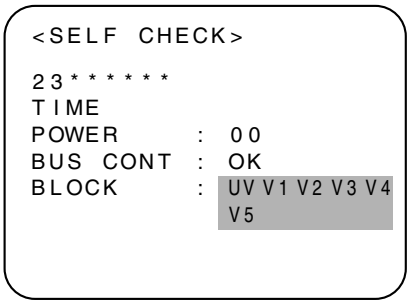


Signals	Picture
• Red raster • Green raster • Blue raster	
• Black cross-hatch	
• All White	

* 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.



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 CONT ----“OK” is normal.
When indication shows “Q ○○○ NG”, the device with the number may possibly be damaged.
④ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→①)
V2 : VIDEO 2 input mode (→②)
V3 : VIDEO 3 input mode (→③)
V4 : VIDEO 4 input mode (→④)
V5 : VIDEO 5 input mode (→⑤)

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.

NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC.). If this display function fails to operate due to damage in ICF01, 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 FUCTION 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.



(Design mode) (Adjustment mode)

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

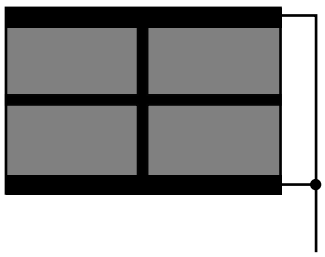
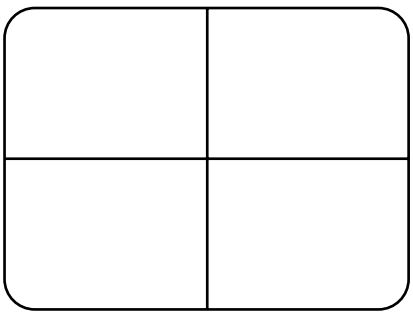
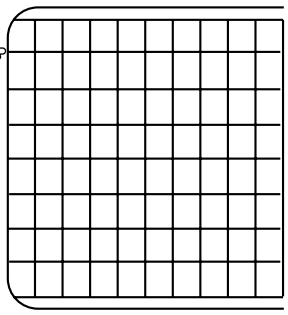
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)

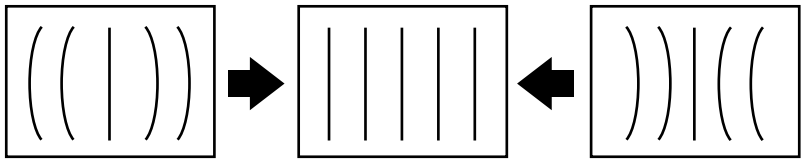
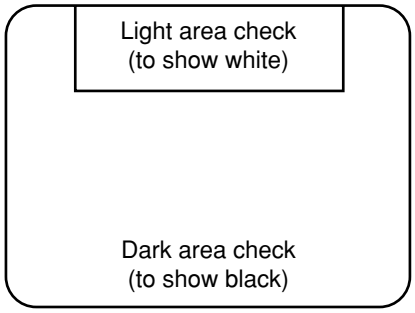
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 18)

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 Black 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 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 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 ☞ 

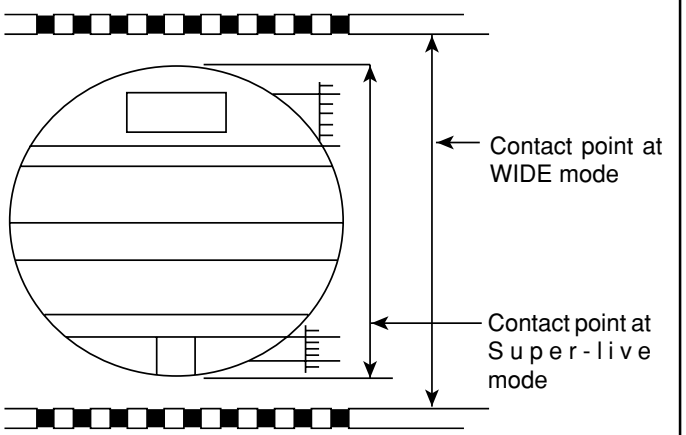
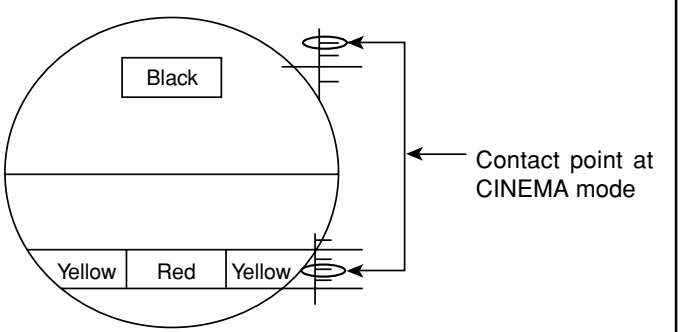
ITEM	ADJUSTMENT PROCEDURE
WIDTH (WID)	1. Call up the adjustment mode display, then select the item **WID**. 2. Press the ◿ – /+ button to get the picture so the left and rightedges of raster begins to lack. 3. Press the ◿ – /+ button to advance the data by 7 steps. Note : Check the horizontal picture position is correct.
E-W PARABOLA (PARA)	1. Call up the adjustment mode display, then select the item **PARA**. 2. Press the ⊖ button on Remote until the cross-hatch pattern appears on the screen. 3. Press the ◿ – /+ button to make vertical lines straight as shown below. 
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. Receive the Black and White pattern. 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 18). 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. 

(Reference Factory Adjustments)

Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SCNT]	Sub-contrast	PICTURE MODE-1 Screen size: WIDE Audio system: I	Sub-bright signal (PAL-I Signal)	TP46B	① Adjust the amplitude from the pedestal level to the white peak.	2.4 ± 0.1 Vp-p
[BRTC]	Sub-bright Center	PICTURE MODE-1 Screen size: WIDE	Sub-bright Signal	Screen adjust-ment	① Adjust the number of collapsed black lines of the sub-bright signal. ② Adjust this after adjusting W/B, [SCNT].	4±1.5 pieces Screen adjustment
[COLP]	Sub-color center PAL	PICTURE MODE-1 Screen size: WIDE	Sub-bright Signal (PAL)	TP46B	① Adjust the amplitude of B-Y. (Apply Y mute at the time of adjustment)	1.2 ± 0.1 Vo-p
SCREEN VR [RCUT] [GCUT] [BCUT] [GDRV] [BDRV]	R Cutoff G Cutoff B Cutoff G Drive B Drive	PICTURE MODE-1 Screen size: WIDE [RCUT]: 40H [GCUT]: 40H [BCUT]: 40H [GDRV]: 35H [BDRV]: 35H		Screen adjustment	① Enter Horizontal Straight-line Mode. ② Gradually increase the screen VR until R, G, or B line starts to light up slightly. ③ Determine this location as the adjusting position of the screen VR. ④ Gradually raise the respective lines other than the line that glimmered in ② above and stop at the location where each of them glimmers. (Adjust so that it will become almost white) ⑤ Escape from horizontal straight-line mode. ⑥ Use the CA100 and adjust repeatedly so that both the dark and bright areas will come to correct values.	Bright part (103cd/m^2) 8750K-0.002uv Dark part (17cd/m^2) 8750K-0.002uv Screen judgment (CA100)

Items	Names	Settings (User control)	Input signals	Measuring points	Adjusting methods	Adjusting standards
[SBY]	SECAM B-Y Black level		SECAM Color bar	TP01	① Vary [SBY] so that the level of black and white signal areas will be aligned with that of BLK.	0 ± 10 mV
[SRY]	SECAM R-Y Black level		SECAM Color bar	TP02	① Vary [SRY] so that the level of black and white signal areas will be aligned with that of H. BLK.	0 ± 10 mV
[COLS]	Sub-color Center SECAM	PICTURE MODE-1 Screen size: WIDE	SECAM Color bar	TP46B	① Adjust the amplitude of B-Y. (Apply Y mute at the time of adjustment)	1.6 ± 0.1 Vo-p (Pedestal to Peak)

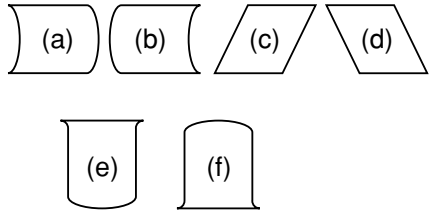
1. Data adjustment

	Adjusting items	Adjusting methods	
Vertical	WIDE mode Vertical amplitude [HIT] Vertical position [VPS1]	PAL WG Philips Pattern, User Adjustment Standard Adjust the vertical amplitude by [HIT] so that the top-and-bottom flags will be hidden. PAL Philips Pattern, User Adjustment Standard Adjust the vertical position [VPS1] so that the vertical screen position will come to the center in Philips Pattern. (See the figure on the right)	
	Super-live mode Vertical amplitude [HIT]	PAL Philips Pattern, User Adjustment Standard Adjust the vertical amplitude position by [HIT] so that the top and bottom of the circle will contact the CPT mask in Philips Pattern. (See the figure on the right)	
	CINEMA mode Vertical amplitude [HIT]	Philips Pattern, User Adjustment Standard Adjust the vertical amplitude by [HIT] so that point shown in the lower right will contact the CRT mask. (See the figure on the right)	

2. Circuit adjustment (Volume/data adjustment)

No.	Target model names	Adjusting items	Adjusting methods
1	36ZP18P 32ZP18P	Focus adjustment (1) FOCUS VR	Conditions: PAL Retoma signal, User Adjustment Standard Adjustment: Use the focus volume of the focus block (T461), and set it to the most counterclockwise position where the lateral fly-back lines of the screen center become minimized.
		Focus adjustment (2) R950	Conditions: PAL Retoma signal WIDE mode, User adjustment standard Adjustment: Use the sub-focus volume (R950) on the CRT-drive printed circuit board, and set it to the position where the longitudinal fly-back lines of the corner area become minimized. Repeat Items 1 and 2 above for adjustment to optimize the entire screen.
2	36ZP18P 32ZP18P	Adjustment of vertical position	Conditions: PAL WG Philips Pattern WIDE mode, User Adjustment Standard Adjustment: Use [VPS1] and adjust so that the top and bottom positions will contact the mask. (Adjust with the direction of CPT either facing south or north. If it is impossible to do so, offset the difference.)

3. Data Adjustment

	Adjustment items	Adjustment methods
Horizontal	WIDE mode	Use PAL WG Philips Pattern and adjust the horizontal amplitude so that the mask will be adjusted to the frame of the left and right flag sections at WIDE mode. Use [WID].
	Horizontal phase: [HPOS] Horizontal amplitude: [WID] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Corner distortion: [CNR] Center distortion: [CPAR] Parallelogram distortion: [CSAW] DPCS letter distortion: [HSC]	Use PAL WG Philips Pattern and adjust by [PARA] and [TRAP] so that the side pin distortion and trapezoidal distortion will be optimized at WIDE mode. As for the horizontal screen position, use horizontal phase [HPOS] and adjust so that the position will come to the center. • **Note:** If the distortion adjustment by [PARA] and [TRAP] was insufficient, use the DATA of [CNR], [CPAR], [CSAW], and [HSC] for adjustment. ① When the distortion occurs as shown in Fig. (a), decrease [CPAR]. On the contrary, increase [CPAR] for the distortion of Fig. (b). ② When the distortion occurs as shown in Fig. (c), decrease [CSAW]. On the contrary, increase [CSAW] for the distortion of Fig. (d). ③ When the distortion occurs as shown in Fig. (e), decrease [HSC]. On the contrary, increase [HSC] for the distortion of Fig. (f). 
	Super-live mode Horizontal amplitude: [WID] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase [HPOS] DPCS letter distortion: [HSC] Corner distortion: [CNR]	Use PAL Philips Pattern and adjust the frame of the left and right flag sections to the mask at Super-live mode. Adjust so that the side pin distortion and trapezoidal distortion will be optimized. If further adjustment is required, use horizontal phase [HPOS], corner distortion [CNR], and DPCS letter distortion [HSC] for adjustment.
	CINEMA mode Horizontal amplitude: [WID] Side DPC: [PARA] Trapezoidal distortion: [TRAP] Horizontal phase: [HPOS] DPCS letter distortion: [HSC] Corner distortion: [CNR]	Use PAL Philips Pattern and adjust the horizontal amplitude so that the mask will be adjusted to the frame of left and right flag sections at CINEMA mode. Adjust so that the side pin distortion and trapezoidal distortion will be optimized. If further adjustment is required, use horizontal phase [HPOS], corner distortion [CNR], and DPCS letter distortion [HSC] for adjustment.

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 18)

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 】

		32”	36"
HIGH VOLTAGE AT ZERO BEAM:	(A)	32.2 kV	32.4 kV
MAX HIGH VOLTAGE:	(B)	35.0 kV	35.0 kV
AV VOLTAGE	(C)	220~240 V	220~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data
RCUT	R CUTOFF	40H
GCUT	G CUTOFF	40H
BCUT	B CUTOFF	40H
GDRV	R DRIVE	35H
BDRV	B DRIVE	35H
BRTC	SUB BRIGHT CEN	80H
COLP	SUB COLOR CEN PAL	19H
COLS	SUB COLOR CEN SECAM	19H
SCC	YOOUT LEVLE FOR FOR ATV	1EH
SRY	SECAM R-Y	07H
SBY	SECAM B-Y	01H

Item	Adjustment	Reference data		
		WIDE	SuperLive	CINEMA
HPOS	H-POSITION	32H	←	←
HIT	PICTURE HEIGHT	2BH	33H	4AH
VLIN	V-LINEARITY	11H	0EH	0FH
VPS2	V-SHIFT	40H	←	←
WID	WIDTH	2AH	39H	2BH
PARA	E-W PARABOLA	11H	16H	21H
CNR	E-W CORNER	13H	18H	1AH
TRAP	TRAPEZIUM	45H	46H	45H
CPAR	CENT PARA	07H	←	06H
HSC	EW S CORRECTION	11H	0FH	11H
VPS1	V-POSITION	70H	6FH	72H
CSAW	CENT SAW	08H	←	←

Table-2

【 DESIGN MODE 】

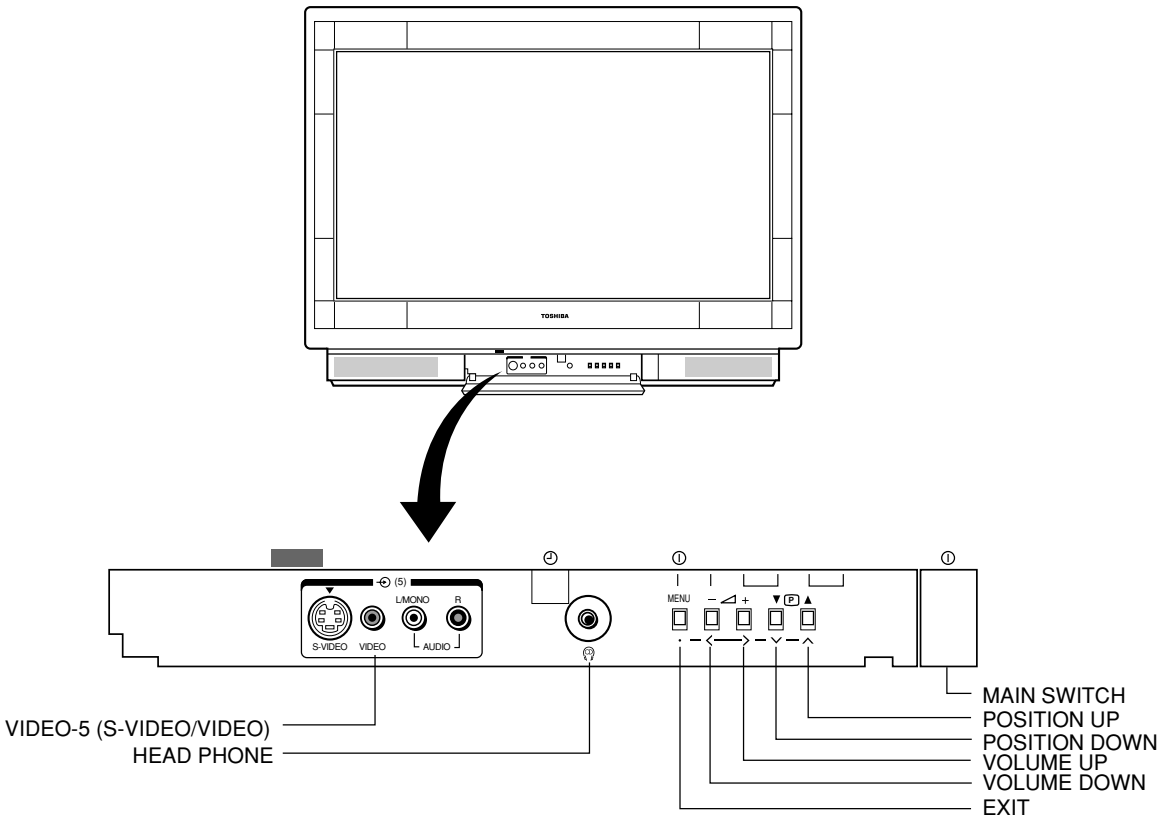
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment	Preset Data	Remarks
OPT3	OPTION 3	01H	

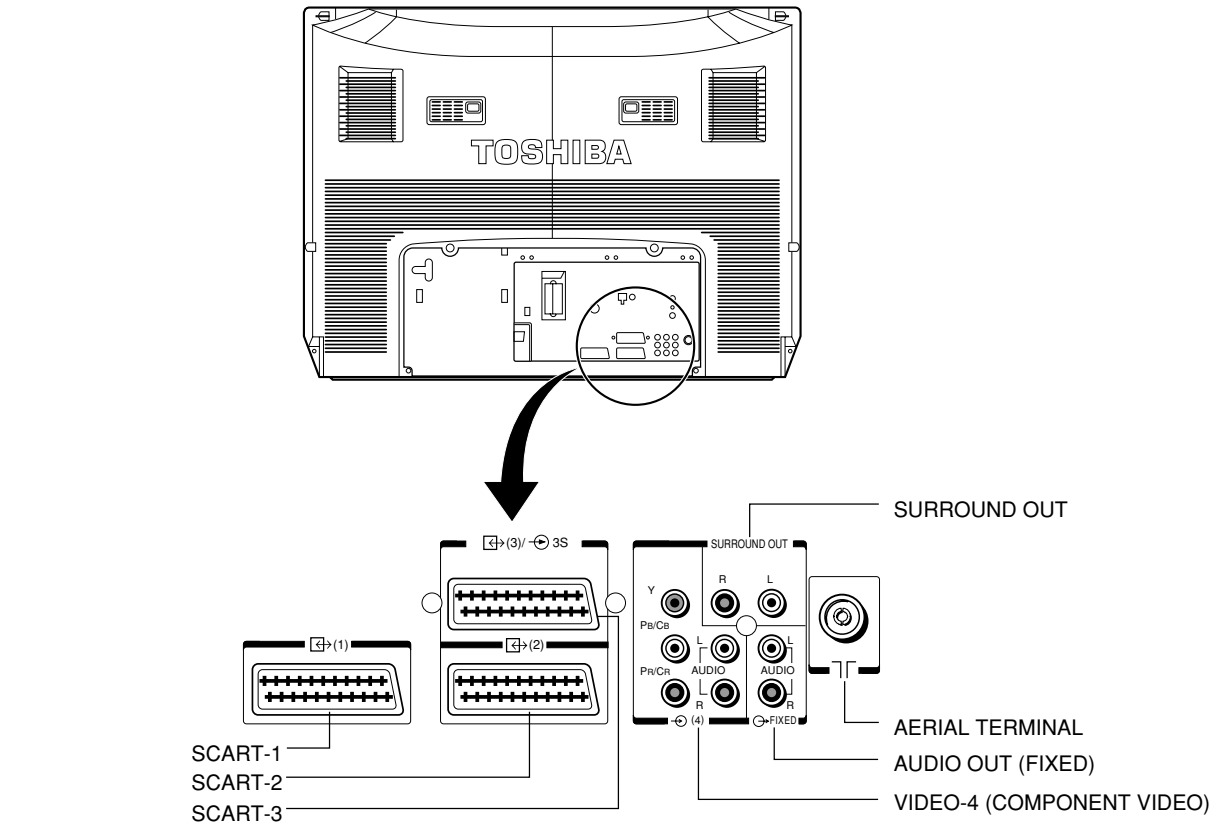
Table-3

LOCATION OF CONTROLS (Representaive: 36ZP38B)

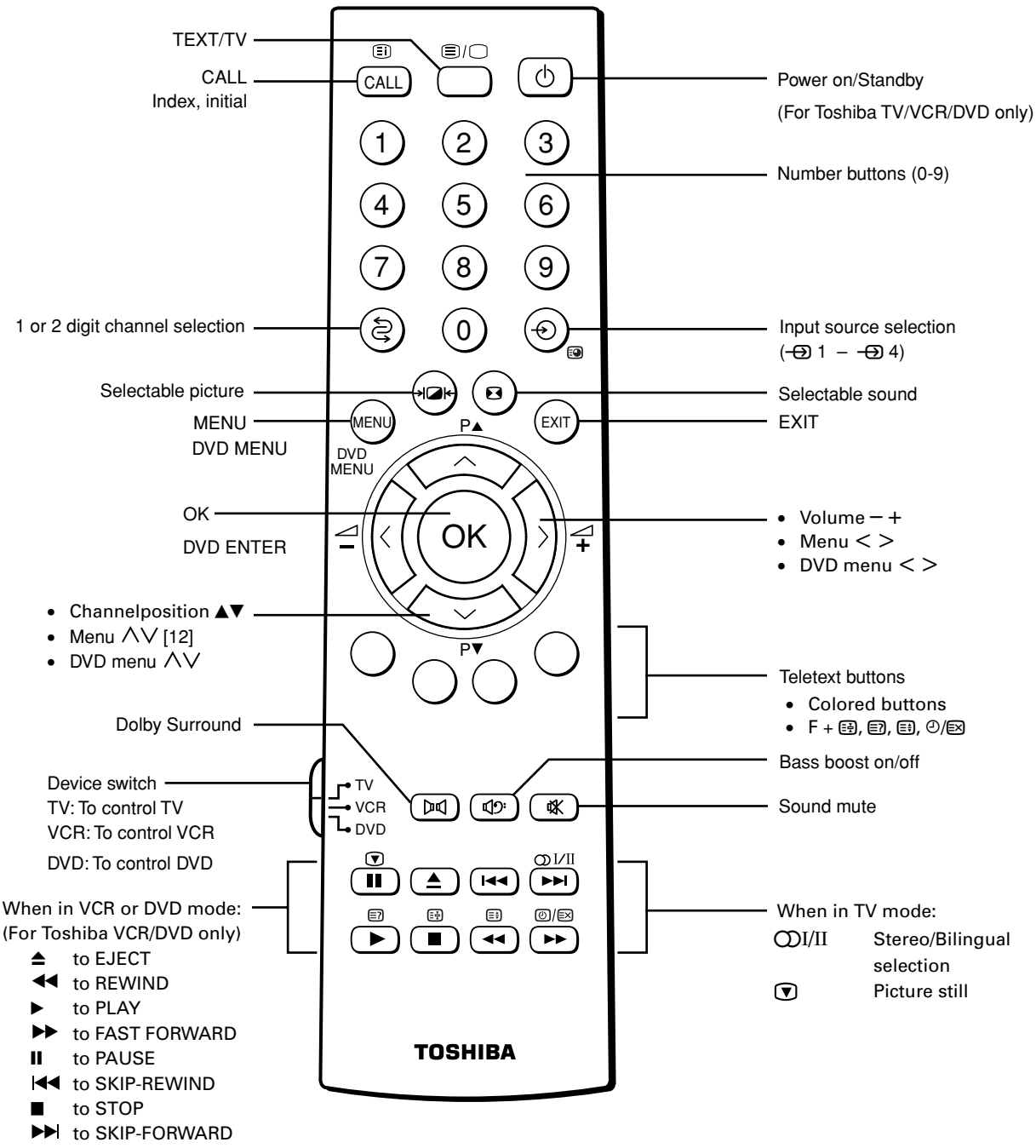
Front



Rear



Remote Control



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.*

Models : 36ZP38B, 32ZP38B

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		
C102	24762221	ELECTROLYTIC, 10V 220UF M
C105	24109102	CERAMIC CHIP, 50V B 1000PF K
C106	24797100	ELECTROLYTIC, 50V 10UF M
C108	24762221	ELECTROLYTIC, 10V 220UF M
C109	24109103	CERAMIC CHIP, 50V B 0.01UF K
C115	24109103	CERAMIC CHIP, 50V B 0.01UF K
C160	24503045	PLASTIC FILM, 63V 0.22UF J
C205	24797229	ELECTROLYTIC, 50V 2.2UF M
C206	24794100	ELECTROLYTIC, 16V 10UF M
C302	24214471	CERAMIC DISC, 500V B 470PF K
C303	24214471	CERAMIC DISC, 500V B 470PF K
C305	24795222	ELECTROLYTIC, 25V 2200UF M
C308	24766221	ELECTROLYTIC, 50V 220UF M
C309	24590102	PLASTIC FILM, 50V 1000PF J
C310	24795222	ELECTROLYTIC, 25V 2200UF M
C313	24082280	PLASTIC FILM, 100V 0.22UF J
C316	24795471	ELECTROLYTIC, 25V 470UF M
C317	24214102	CERAMIC DISC, 500V B 1000PF K
C318	24794471	ELECTROLYTIC, 16V 470UF M
C320	24795471	ELECTROLYTIC, 25V 470UF M
C321	24503051	PLASTIC FILM, 63V 0.68UF J
C322	24617915	ELECTROLYTIC, 50V 1UF K 3A LI
C323	24503049	PLASTIC FILM, 63V 0.47UF J
C325	24590223	PLASTIC FILM, 50V 0.022UF J
C326	24797010	ELECTROLYTIC, 50V 1UF M
C327	24794471	ELECTROLYTIC, 16V 470UF M
C331	24503038	PLASTIC FILM, 63V 0.056UF J
C332	24212102	CERAMIC DISC, 50V B 1000PF K
C361	24503045	PLASTIC FILM, 63V 0.22UF J
C366	24082275	PLASTIC FILM CQ922 M 100V 82000PF J
C370	24794100	ELECTROLYTIC, 16V 10UF M
C372	24797470	ELECTROLYTIC, 50V 47UF M
C373	24797470	ELECTROLYTIC, 50V 47UF M
C410	24092341	CERAMIC DISC, 2KV R 470PF K
C413	24214392	CERAMIC DISC, 500V B 3900PF K
C416	24676330	ELECTROLYTIC, 100V 33UF M 3A
C417	24214391	CERAMIC DISC, 500V B 390PF K
C419	24212102	CERAMIC DISC, 50V B 1000PF K
C420	24794101	ELECTROLYTIC, 16V 100UF M
C421	24232103	CERAMIC DISC, 50V F 0.01UF Z
C421	24503041	PLASTIC FILM , 63V 0.1UF J

Location No.	Parts No.	Description
C423	24503124	PLASTIC FILM CQ92 T 400V 68000PF J
C430	24820103	PLASTIC FILM, 630V 0.01UF J
C431	24232103	CERAMIC DISC, 50V F 0.01UF Z
C432	24590103	PLASTIC FILM, 50V 0.01UF J
C441	24503291	PLASTIC FILM CF92 T 400V R62UF J
C442	24082637	PLASTIC FILM, 400V 0.1UF J
C443	24082637	PLASTIC FILM, 400V 0.1UF J
C444	24503195	PLASTIC FILM, 1800VH 5100PF H (36ZP38B)
C444	24503196	PLASTIC FILM CF92 T, 1800VH 5600PF H (32ZP38B)
C445	24828473	PLASTIC FILM, 200V 0.047UF J
C446	24679330	ELECTROLYTIC, 250V 33UF M 3A
C447	24829273	PLASTIC FILM, 400V 27000PF J
C448	24640908	ELECTROLYTIC, 160V 33UF M 3A LI
C451	24503047	PLASTIC FILM, 63V 0.33UF J
C460	24679220	ELECTROLYTIC, 250V 22UF M 3A
C461	24503196	PLASTIC FILM CF92 T 1800VH 5600PF H
C462	24666101	ELECTROLYTIC, 16V 100UF M 3A
C464	24503149	PLASTIC FILM, 250V 3.3UF
C465	24590183	PLASTIC FILM, 50V 0.018UF J
C466	24503261	PLASTIC FILM CF92 T 1250VH 6800PF H
C467	24503253	PLASTIC FILM, 1250VH 0.01UF H (36ZP38B)
C468	24503253	PLASTIC FILM, 1250VH 0.01UF H
C470	24794470	ELECTORLYTIC, 16V 47UF M
C471	24503046	PLASTIC FILM, 63V 0.27UF J
C472	24503049	PLASTIC FILM, 63V 0.47UF J
C473	24669010	ELECTROLYTIC, 50V 1UF M 3A
C475	24820822	PLASTIC FILM, 630V 8200PF J
C476	24794220	ELECTROLYTIC, 16V 22UF M
C478	24503038	PLASTIC FILM, 63V 0.056UF J
C481	24590103	PLASTIC FILM, 50V 0.01UF J
C482	24212152	CERAMIC DISC, 50V B 1500PF K
C482	24085988	ELECTROLYTIC, NONPOLAR, 50V 1.0UF M 7L
C489	24590393	PLASTIC FILM, 50V 0.039UF J
C495	24092343	CERAMIC DISC, 2KV 680PF K
C496	24092343	CERAMIC DISC, 2KV 680PF K
C498	24590821	PLASTIC FILM CQ922M 50V 820PF J
C501	24092730	CERAMIC CHIP, 16V B 0.1UF K
C502	24092730	CERAMIC CHIP, 16V B 0.1UF K
C503	24794470	ELECTORLYTIC, 16V 47UF M
C504	24109103	CERAMIC CHIP, 50V B 0.01UF K

Location No.	Parts No.	Description
C505	24794470	ELECTORLYTIC, 16V 47UF M
C506	24109103	CERAMIC CHIP, 50V B 0.01UF K
C507	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C508	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C509	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C511	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C512	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C513	24109103	CERAMIC CHIP, 50V B 0.01UF K
C514	24763221	ELECTROLYTIC, 16V 220UF M
C516	24105110	CERAMIC CHIP, 50V CH 11PF J
C517	24206478	ELECTROLYTIC, 50V 0.47UF M 7L 3A
C519	24797479	ELECTROLYTIC, 50V 4.7UF M
C520	24503047	PLASTIC FILM, 63V 0.33UF J
C521	24092733	CERAMIC CHIP, 50V B 0.022UF K
C522	24109103	CERAMIC CHIP, 50V B 0.01UF K
C523	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C524	24109103	CERAMIC CHIP, 50V B 0.01UF K
C525	24503041	PLASTIC FILM , 63V 0.1UF J
C526	24109103	CERAMIC CHIP, 50V B 0.01UF K
C527	24797229	ELECTROLYTIC, 50V 2.2UF M
C530	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C531	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C532	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C533	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C534	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C536	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C537	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C540	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C541	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C542	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C543	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C544	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C545	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C547	24109103	CERAMIC CHIP, 50V B 0.01UF K
C548	24763101	ELECTROLYTIC, 16V 100UF M
C563	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C564	24797479	ELECTROLYTIC, 50V 4.7UF M
C565	24797478	ELECTROLYTIC, 50V 0.47UF M
C575	24092730	CERAMIC CHIP, 16V B 0.1UF K
C580	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C613	24666471	ELECTROLYTIC, 16V 470UF M 3A
C615	24085945	ELECTROLYTIC, NONPOLAR, 50V 2.2UF
C616	24590183	PLASTIC FILM, 50V 0.018UF J
C617	24590152	PLASTIC FILM, 50V 1500PF J
C618	24590563	PLASTIC FILM, 50V 0.056UF J
C619	24794221	ELECTROIYTIC, 16V 220UF M
C620	24794101	ELECTROLYTIC, 16V 100UF M
C621	24590102	PLASTIC FILM, 50V 1000PF J
C626	24797478	ELECTROLYTIC, 50V 0.47UF M
C628	24797470	ELECTROLYTIC, 50V 47UF M
C629	24109221	CERAMIC CHIP, 50V B 220PF K
C630	24109221	CERAMIC CHIP, 50V B 220PF K
C631	24669010	ELECTROLYTIC, 50V 1UF M 3A
C632	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C633	24503042	PLASTIC FILM, 63V 0.12UF J
C634	24668471	ELECTROLYTIC, 35V 470UF M 3A
C639	24793222	ELECTROLYTIC, 10V 2200UF M
C641	24669010	ELECTROLYTIC, 50V 1UF M 3A
C644	24669010	ELECTROLYTIC, 50V 1UF M 3A
C645	24667470	ELECTROLYTIC, 25V 47UF M 3A
C647	24591102	PLASTIC FILM, 50V 1000PF J
C648	24591102	PLASTIC FILM, 50V 1000PF J
C649	24797229	ELECTROLYTIC, 50V 2.2UF M
C650	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C651	24668471	ELECTROLYTIC, 35V 470UF M 3A
C652	24668471	ELECTROLYTIC, 35V 470UF M 3A
C654	24503042	PLASTIC FILM, 63V 0.12UF J

Location No.	Parts No.	Description
C655	24503042	PLASTIC FILM, 63V 0.12UF J
C656	24232103	CERAMIC DISC, 50V F 0.01UF Z
C657	24797229	ELECTROLYTIC, 50V 2.2UF M
C660	24797229	ELECTROLYTIC, 50V 2.2UF M
C661	24797478	ELECTROLYTIC, 50V 0.47UF M
C662	24797229	ELECTROLYTIC, 50V 2.2UF M
C663	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C664	24794100	ELECTROLYTIC, 16V 10UF M
C665	24073083	ELECTROLYTIC CE04P 50V 3.3UF M 3A
C666	24073083	ELECTROLYTIC CE04P 50V 3.3UF M 3A
C667	24669229	ELECTROLYTIC, 50V 2.2UF M 3A
C668	24590102	PLASTIC FILM, 50V 1000PF J
C669	24797330	ELECTROLYTIC, 50V 33UF M
C670	24797330	ELECTROLYTIC, 50V 33UF M
C670	24590222	PLASTIC FILM, 50V 2200PF J
C671	24669010	ELECTROLYTIC, 50V 1UF M 3A
C672	24590222	PLASTIC FILM, 50V 2200PF J
C673	24669010	ELECTROLYTIC, 50V 1UF M 3A
C674	24669010	ELECTROLYTIC, 50V 1UF M 3A
C675	24667470	ELECTROLYTIC, 25V 47UF M 3A
C676	24669479	ELECTROLYTIC, 50V 4.7UF M 3A
C677	24590471	PLASTIC FILM, 50V 470PF J
C678	24590471	PLASTIC FILM, 50V 470PF J
C679	24591473	PLASTIC FILM, 50V 0.047UF J
C680	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C681	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C682	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C683	24668102	ELECTROLYTIC, 35V 1000UF M 3A
C684	24666470	ELECTORLYTIC, 16V 47UF M 3A
C685	24503042	PLASTIC FILM, 63V 0.12UF J
C686	24503042	PLASTIC FILM, 63V 0.12UF J
C687	24232103	CERAMIC DISC, 50V F 0.01UF Z
C688	24666220	ELECTROLYTIC, 16V 22UF M 3A
C689	24503042	PLASTIC FILM, 63V 0.12UF J
C691	24797010	ELECTROLYTIC, 50V 1UF M
C692	24797010	ELECTROLYTIC, 50V 1UF M
C695	24668101	ELECTROLYTIC, 35V 100UF M 3A
C696	24667470	ELECTROLYTIC, 25V 47UF M 3A
C704	24590822	PLASTIC FILM, 50V 8200PF J
C705	24797229	ELECTROLYTIC, 50V 2.2UF M
C707	24794470	ELECTORLYTIC, 16V 47UF M
C712	24794470	ELECTORLYTIC, 16V 47UF M
C713	24790100	ELECTROLYTIC, 160V 10UF M
C715	24214472	CERAMIC DISC, 500V B 4700PF K
C717	24214472	CERAMIC DISC, 500V B 4700PF K
C718	24794470	ELECTORLYTIC, 16V 47UF M
C719	24435151	CERAMIC DISC, 500V SL 150PF
C720	24790100	ELECTROLYTIC, 160V 10UF M
C721	24794470	ELECTORLYTIC, 16V 47UF M
⚠ C801	24503056	PLASTIC FILM, AC275V 0.1UF M
⚠ C802	24503056	PLASTIC FILM, AC275V 0.1UF M
C805	24092281	CERAMIC DISC, AC250V E 4700PF
C806	24092281	CERAMIC DISC, AC250V E 4700PF
C808	24668101	ELECTROLYTIC, 35V 100UF M 3A
C809	24503049	PLASTIC FILM, 63V 0.47UF J
C810	24086873	ELECTROLYTIC, 400V 330UF
⚠ C813	24092555	CERAMIC DISC, AC250V E 1000PF M
⚠ C814	24092555	CERAMIC DISC, AC250V E 1000PF M
C816	24073063	ELECTROLYTIC CE04P 35V 4.7UF M 3A
C817	24092339	CERAMIC DISC, 2KV 330PF K
C818	24095931	PLASTIC FILM, 1250VH 2200PF J
C821	24214471	CERAMIC DISC, 500V B 470PF K
C822	24503049	PLASTIC FILM, 63V 0.47UF J
C823	24214471	CERAMIC DISC, 500V B 470PF K
C829	24591272	PLASTIC FILM, 50V 2700PF J
C831	24794470	ELECTORLYTIC, 16V 47UF M
C832	24794470	ELECTORLYTIC, 16V 47UF M

Location No.	Parts No.	Description
C834	24794470	ELECTORLYTIC, 16V 47UF M
C835	24795100	ELECTROLYTIC, 25V 10UF M
C836	24794470	ELECTORLYTIC, 16V 47UF M
C838	24794470	ELECTORLYTIC, 16V 47UF M
C840	24667102	ELECTROLYTIC, 25V 1000UF M 3A
C842	24669100	ELECTROLYTIC, 50V 10UF M 3A
C872	24669221	ELECTROLYTIC, 50V 220UF M 3A
C884	24086953	ELECTROLYTIC, 160V 220UF M 3A
C885	24214471	CERAMIC DISC, 500V B 470PF K
C889	24669222	ELECTROLYTIC, 50V 2200UF M 3A
C891	24667472	ELECTROLYTIC, 25V 4700UF M 3A
C892	24667472	ELECTROLYTIC, 25V 4700UF M 3A
C893	24092337	CERAMIC DISC, 2KV 220PF K
C896	24214471	CERAMIC DISC, 500V B 470PF K
C898	24503045	PLASTIC FILM, 63V 0.22UF J
C899	24214471	CERAMIC DISC, 500V B 470PF K
C902	24092353	CERAMIC DISC, 2KV 4700PF K
C904	24436471	CERAMIC DISC, 50V SL 470PF J
C905	24436471	CERAMIC DISC, 50V SL 470PF J
C907	24436391	CERAMIC DISC, 50V SL 390PF J
C909	24679330	ELECTROLYTIC, 250V 33UF M 3A
C910	24797478	ELECTROLYTIC, 50V 0.47UF M
C911	24203100	ELECTORLYTIC, 16V 10UF M 7L 3A
C912	24763222	ELECTROLYTIC, 16V 2200UF M (36ZP38B)
C912	24763102	ELECTROLYTIC, 16V 1000UF M (32ZP38B)
C913	24794101	ELECTROLYTIC, 16V 100UF M
C914	24212103	CERAMIC DISC, 50V B 10000PF K
C915	24092398	CERAMIC DISC, 25V 0.1UF Z, 24092398A NI TOOITSU
C930	24214101	CERAMIC DISC, 500V B 100PF K
C931	24214101	CERAMIC DISC, 500V B 100PF K
C2102	24105560	CERAMIC CHIP, 50V CH 56PF J
C2103	24105560	CERAMIC CHIP, 50V CH 56PF J
C2104	24105560	CERAMIC CHIP, 50V CH 56PF J
C2110	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4000	24590102	PLASTIC FILM, 50V 1000PF J
C4222	24092538	CERAMIC CHIP, 10V F 1UF Z
C4401	24763221	ELECTROLYTIC, 16V 220UF M
C4402	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4403	24797010	ELECTROLYTIC, 50V 1UF M
C4404	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4405	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4406	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4407	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4408	24092538	CERAMIC CHIP, 10V F 1UF Z
C4409	24794331	ELECTROLYTIC, 16V 330UF M
C4410	24109103	CERAMIC CHIP, 50V B 0.01UF K
C4411	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4412	24100104	CERAMIC CHIP, 25V F 0.1UF Z
C4490	24503190	PLASTIC FILM, 400V 0.12UF J
C4491	24503190	PLASTIC FILM, 400V 0.12UF J
C4601	24503040	PLASTIC FILM, 63V 0.082UF J
C4690	24503041	PLASTIC FILM , 63V 0.1UF J
C4699	24073058	ELECTROLYTIC, 25V 2200UF M 3A
C5020	24109103	CERAMIC CHIP, 50V B 0.01UF K
C5030	24763101	ELECTROLYTIC, 16V 100UF M
C5080	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
C5090	24763101	ELECTROLYTIC, 16V 100UF M
CA03	24105180	CERAMIC CHIP, 50V CH 18PF J
CA04	24105180	CERAMIC CHIP, 50V CH 18PF J
CA09	24105101	CERAMIC CHIP, 50V CH 100PF J
CA10	24105101	CERAMIC CHIP, 50V CH 100PF J
CA12	24105101	CERAMIC CHIP, 50V CH 100PF J
CA14	24212103	CERAMIC DISC, 50V B 10000PF K (36ZP38B)
CA15	24105101	CERAMIC CHIP, 50V CH 100PF J
CA16	24105101	CERAMIC CHIP, 50V CH 100PF J
CA17	24105101	CERAMIC CHIP, 50V CH 100PF J

Location No.	Parts No.	Description
CA33	24793470	ELECTROLYTIC CE04G 10V 47UF M
CA42	24794101	ELECTROLYTIC, 16V 100UF M
CA43	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA44	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA45	24109103	CERAMIC CHIP, 50V B 0.01UF K
CA67	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CA68	24794100	ELECTROLYTIC, 16V 10UF M
CA69	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CA70	24794100	ELECTROLYTIC, 16V 10UF M
CA95	24794100	ELECTROLYTIC, 16V 10UF M (36ZP38B)
CB04	24092538	CERAMIC CHIP, 10V F 1UF Z
CB05	24109222	CERAMIC CHIP, 50V B 2200PF K
CB06	24105561	CERAMIC CHIP, 50V CH 560PF J
CB07	24109332	CERAMIC CHIP, 50V B 3300PF K
CB21	24503041	PLASTIC FILM , 63V 0.1UF J
CB22	24203470	ELECTROLYTIC, 16V 47UF M 7L 3A
CB40	24092538	CERAMIC CHIP, 10V F 1UF Z
CB41	24109222	CERAMIC CHIP, 50V B 2200PF K
CB42	24105561	CERAMIC CHIP, 50V CH 560PF J
CB43	24109332	CERAMIC CHIP, 50V B 3300PF K
CB90	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC01	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC02	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC03	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC03	24212332	CERAMIC DISC, 50V B 3300PF K
CC04	24105220	CERAMIC CHIP, 50V CH 22PF J
CC04	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC05	24109102	CERAMIC CHIP, 50V B 1000PF K
CC05	24212332	CERAMIC DISC, 50V B 3300PF K
CC06	24109102	CERAMIC CHIP, 50V B 1000PF K
CC12	24109102	CERAMIC CHIP, 50V B 1000PF K
CC13	24109102	CERAMIC CHIP, 50V B 1000PF K
CC14	24212102	CERAMIC DISC, 50V B 1000PF K
CC15	24212102	CERAMIC DISC, 50V B 1000PF K
CC15	24232103	CERAMIC DISC, 50V F 0.01UF Z
CC16	24590103	PLASTIC FILM, 50V 0.01UF J
CC21	24109102	CERAMIC CHIP, 50V B 1000PF K
CC22	24109102	CERAMIC CHIP, 50V B 1000PF K
CC24	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC25	24109103	CERAMIC CHIP, 50V B 0.01UF K
CC30	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC31	24109102	CERAMIC CHIP, 50V B 1000PF K
CC32	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CC60	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC61	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC62	24109102	CERAMIC CHIP, 50V B 1000PF K
CC63	24109102	CERAMIC CHIP, 50V B 1000PF K
CC64	24109102	CERAMIC CHIP, 50V B 1000PF K
CC65	24109102	CERAMIC CHIP, 50V B 1000PF K
CC66	24109102	CERAMIC CHIP, 50V B 1000PF K
CC67	24109102	CERAMIC CHIP, 50V B 1000PF K
CC68	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC69	24109102	CERAMIC CHIP, 50V B 1000PF K
CC70	24109102	CERAMIC CHIP, 50V B 1000PF K
CC71	24109223	CERAMIC CHIP, 25V B 0.022UF K
CC72	24109102	CERAMIC CHIP, 50V B 1000PF K
CC73	24109102	CERAMIC CHIP, 50V B 1000PF K
CC74	24109102	CERAMIC CHIP, 50V B 1000PF K
CC75	24109102	CERAMIC CHIP, 50V B 1000PF K
CC77	24109102	CERAMIC CHIP, 50V B 1000PF K
CC78	24109102	CERAMIC CHIP, 50V B 1000PF K
CC80	24436470	CERAMIC DISC, 50V SL 47PF J
CC182	24105151	CERAMIC CHIP, 50V CH 150PF J
CD181	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CD182	24794100	ELECTROLYTIC, 16V 10UF M
CD183	24092733	CERAMIC CHIP, 50V B 0.022UF K
CD184	24092733	CERAMIC CHIP, 50V B 0.022UF K

Location No.	Parts No.	Description
CD185	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CD186	24092733	CERAMIC CHIP, 50V B 0.022UF K
CD187	24762221	ELECTROLYTIC, 10V 220UF M
CD188	24109222	CERAMIC CHIP, 50V B 2200PF K
CD189	24794100	ELECTROLYTIC, 16V 10UF M
CR01	24206010	ELECTROLYTIC, 50V 1.0UF M 7L 3A
CR02	24100103	CERAMIC CHIP, 50V F 0.01UF Z
CR07	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR08	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR09	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR10	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR11	24105470	CERAMIC CHIP, 50V CH 47PF J
CR12	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CR15	24794470	ELECTORLYTIC, 16V 47UF M
CR16	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CS01	24797229	ELECTROLYTIC, 50V 2.2UF M
CS02	24797229	ELECTROLYTIC, 50V 2.2UF M
CS03	24797229	ELECTROLYTIC, 50V 2.2UF M
CS04	24797229	ELECTROLYTIC, 50V 2.2UF M
CS05	24797229	ELECTROLYTIC, 50V 2.2UF M
CS06	24797229	ELECTROLYTIC, 50V 2.2UF M
CS07	24797229	ELECTROLYTIC, 50V 2.2UF M
CS08	24797229	ELECTROLYTIC, 50V 2.2UF M
CS09	24797229	ELECTROLYTIC, 50V 2.2UF M
CS10	24797229	ELECTROLYTIC, 50V 2.2UF M
CS11	24794100	ELECTROLYTIC, 16V 10UF M
CS12	24794100	ELECTROLYTIC, 16V 10UF M
CS13	24794100	ELECTROLYTIC, 16V 10UF M
CS14	24794100	ELECTROLYTIC, 16V 10UF M
CS18	24794100	ELECTROLYTIC, 16V 10UF M
CS19	24794100	ELECTROLYTIC, 16V 10UF M
CS20	24797478	ELECTROLYTIC, 50V 0.47UF M
CS23	24797478	ELECTROLYTIC, 50V 0.47UF M
CS24	24797229	ELECTROLYTIC, 50V 2.2UF M
CS25	24797229	ELECTROLYTIC, 50V 2.2UF M
CS26	24794100	ELECTROLYTIC, 16V 10UF M
CS27	24794100	ELECTROLYTIC, 16V 10UF M
CT01	24792221	ELECTROLYTIC CE04G 6.3V 220UF M
CT02	24109103	CERAMIC CHIP, 50V B 0.01UF K
CT03	24109103	CERAMIC CHIP, 50V B 0.01UF K
CT04	24793101	ELECTROLYTIC, 10V 100UF M
CT05	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT06	24793470	ELECTROLYTIC CE04G 10V 47UF M
CT07	24092538	CERAMIC CHIP, 10V F 1UF Z
CT08	24105560	CERAMIC CHIP, 50V CH 56PF J
CT09	24105560	CERAMIC CHIP, 50V CH 56PF J
CT10	24793470	ELECTROLYTIC CE04G 10V 47UF M
CT11	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT12	24793470	ELECTROLYTIC CE04G 10V 47UF M
CT13	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT17	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT19	24794100	ELECTROLYTIC, 16V 10UF M
CT20	24109103	CERAMIC CHIP, 50V B 0.01UF K
CT23	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CT99	24763102	ELECTROLYTIC, 16V 1000UF M
CV02	24092538	CERAMIC CHIP, 10V F 1UF Z
CV03	24092538	CERAMIC CHIP, 10V F 1UF Z
CV04	24092538	CERAMIC CHIP, 10V F 1UF Z
CV06	24092538	CERAMIC CHIP, 10V F 1UF Z
CV07	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV08	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV09	24092538	CERAMIC CHIP, 10V F 1UF Z
CV10	24794100	ELECTROLYTIC, 16V 10UF M
CV12	24100104	CERAMIC CHIP, 25V F 0.1UF Z

Location No.	Parts No.	Description
CV13	24794100	ELECTROLYTIC, 16V 10UF M
CV14	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV15	24092743	CERAMIC CHIP, 10V F 0.47UF Z
CV23	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV24	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV25	24794470	ELECTORLYTIC, 16V 47UF M
CV35	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV36	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV39	24794101	ELECTROLYTIC, 16V 100UF M
CV40	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV41	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV42	24092538	CERAMIC CHIP, 10V F 1UF Z
CV44	24092743	CERAMIC CHIP, 10V F 0.47UF Z
CV45	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV46	24794101	ELECTROLYTIC, 16V 100UF M
CV48	24503041	PLASTIC FILM , 63V 0.1UF J
CV65	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV66	24203101	ELECTROLYTIC, 16V 100UF M 7L 3A
CV70	24794100	ELECTROLYTIC, 16V 10UF M
CV71	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CV72	24092538	CERAMIC CHIP, 10V F 1UF Z
CV73	24092538	CERAMIC CHIP, 10V F 1UF Z
CV74	24092538	CERAMIC CHIP, 10V F 1UF Z
CV75	24092538	CERAMIC CHIP, 10V F 1UF Z
CV76	24092538	CERAMIC CHIP, 10V F 1UF Z
CV77	24092538	CERAMIC CHIP, 10V F 1UF Z
CZ01	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ02	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ03	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ04	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ07	24100104	CERAMIC CHIP, 25V F 0.1UF Z
CZ46	24109103	CERAMIC CHIP, 50V B 0.01UF K
CZ47	24794101	ELECTROLYTIC, 16V 100UF M
RESISTORS		
R101	24553223	OXIDE METAL FILM, 1W 22K OHM J
R208	24366103	CARBON FILM, 1/6W 10K OHM J
R209	24366103	CARBON FILM, 1/6W 10K OHM J
R211	24366623	CARBON FILM, 1/6W 62K OHM J
R217	24366392	CARBON FILM, 1/6W 3.9K OHM J
R218	24366223	CARBON FILM, 1/6W 22K OHM J
R219	24366223	CARBON FILM, 1/6W 22K OHM J
R227	24366273	CARBON FILM, 1/6W 27K OHM J (36ZP38B)
R227	24366303	CARBON FILM, 1/6W 30K OHM J (32ZP38B)
R245	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R271	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R272	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R303	24321109	OXIDE METAL FILM, 1/2W 1 OHM J
R305	24322109	OXIDE METAL FILM, 1W 1 OHM J
R307	24366101	CARBON FILM, 1/6W 100 OHM J
R315	24366332	CARBON FILM, 1/6W 3.3K OHM J
R318	24366101	CARBON FILM, 1/6W 100 OHM J
R319	24366101	CARBON FILM, 1/6W 100 OHM J
R320	24366274	CARBON FILM, 1/6W 270K OHM J
R322	24366102	CARBON FILM, 1/6W 1K OHM J
R326	24338109	OXIDE METAL FILM, 1W 1 OHM J
R327	24338109	OXIDE METAL FILM, 1W 1 OHM J
R329	24366102	CARBON FILM, 1/6W 1K OHM J
R330	24552103	OXIDE METAL FILM, 1/2W 10K OHM J
R331	24366104	CARBON FILM, 1/6W 100K OHM J
R332	24366334	CARBON FILM, 1/6W 330K OHM J
R333	24552103	OXIDE METAL FILM, 1/2W 10K OHM J
R334	24366823	CARBON FILM, 1/6W 82K OHM J
R335	24366153	CARBON FILM, 1/6W 15K OHM J
R336	24383471	OXIDE METAL FILM, 2W 470 OHM J
R339	24366274	CARBON FILM, 1/6W 270K OHM J
R340	24011102	CHIP, METAL FILM, 1/20W 1K OHM J

Location No.	Parts No.	Description
R342	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R343	24366103	CARBON FILM, 1/6W 10K OHM J
R344	24366823	CARBON FILM, 1/6W 82K OHM J
R370	24366822	CARBON FILM, 1/6W 8.2K OHM J
R371	24366103	CARBON FILM, 1/6W 10K OHM J
R372	24366220	CARBON FILM, 1/6W 22 OHM J
R375	24552150	OXIDE METAL FILM, 1/2W 15 OHM J
R399	24366224	CARBON FILM, 1/6W 220K OHM J
R400	24946561	CARBON COMPOSITION, 1/2W 560 OHM K
R405	24553682	OXIDE METAL FILM, 1W 6.8K OHM J
R411	24366180	CARBON FILM, 1/6W 18 OHM J
R412	24323228	OXIDE METAL FILM, 2W 0.22 OHM J
R415	24383271	OXIDE METAL FILM, 2W 270 OHM J
R416	24381563	OXIDE METAL FILM, 1/2W 56K OHM J
R417	24383680	OXIDE METAL FILM, 2W 68 OHM J
R423	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R424	24366751	CARBON FILM, 1/6W 750 OHM J
R425	24552182	OXIDE METAL FILM, 1/2W 1.8K OHM J
R426	24366751	CARBON FILM, 1/6W 750 OHM J
R427	24366392	CARBON FILM, 1/6W 3.9K OHM J
R428	24366561	CARBON FILM, 1/6W 560 OHM J
R429	24553100	OXIDE METAL FILM, 1W 10 OHM J
R430	24011303	CHIP, METAL FILM, 1/20W 30K OHM J
R431	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R432	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R433	24366681	CARBON FILM, 1/6W 680 OHM J
R434	24366472	CARBON FILM, 1/6W 4.7K OHM J
R435	24366184	CARBON FILM, 1/6W 18OK OHM J
R435	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R436	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R437	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R439	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R441	24383561	OXIDE METAL FILM, 2W 560 OHM J
R442	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
R442	24553153	OXIDE METAL FILM, 1W 15K OHM J
R443	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R444	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R445	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R445	24321129	OXIDE METAL FILM, 1/2W 1.2 OHM J
R452	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R460	24366103	CARBON FILM, 1/6W 10K OHM J
R461	24366182	CARBON FILM, 1/6W 1.8K OHM J
R462	24366473	CARBON FILM, 1/6W 47K OHM J
R463	24366473	CARBON FILM, 1/6W 47K OHM J
R464	24552331	OXIDE METAL FILM, 1/2W 330 OHM J
R465	24366242	CARBON FILM, 1/6W 2.4K OHM J
R466	24383220	OXIDE METAL FILM, 2W 22 OHM J
R467	24383220	OXIDE METAL FILM, 2W 22 OHM J
R468	24366471	CARBON FILM, 1/6W 470 OHM J
R469	24366823	CARBON FILM, 1/6W 82K OHM J
R470	24339568	OXIDE METAL FILM, 2W 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
R476	24366471	CARBON FILM, 1/6W 470 OHM J
R477	24366102	CARBON FILM, 1/6W 1K OHM J
R478	24381333	OXIDE METAL FILM, 1/2W 33K OHM J
R479	24531680	FUSIBLE, 1/2W 68 OHM J
R480	24366103	CARBON FILM, 1/6W 10K OHM J
R481	24366123	CARBON FILM, 1/6W 12K OHM J
R482	24366183	CARBON FILM, 1/6W 18K OHM J
R483	24366223	CARBON FILM, 1/6W 22K OHM J
R484	24366103	CARBON FILM, 1/6W 10K OHM J
R485	24366103	CARBON FILM, 1/6W 10K OHM J
R486	24366103	CARBON FILM, 1/6W 10K OHM J
R487	24366474	CARBON FILM, 1/6W 470K OHM J

Location No.	Parts No.	Description
R488	24366154	CARBON FILM, 1/6W 150K OHM J
R489	24366104	CARBON FILM, 1/6W 100K OHM J
R491	24366101	CARBON FILM, 1/6W 100 OHM J
R492	24366472	CARBON FILM, 1/6W 4.7K OHM J
R495	24327224	METAL FILM, 1/4W 220K OHM F
R498	24366274	CARBON FILM, 1/6W 270K OHM J
R499	24366564	CARBON FILM, 1/6W 560K OHM J
R501	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R502	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R504	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R505	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R506	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
R507	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R508	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R509	24011153	CHIP, METAL FILM, 1/2OW 15K OHM J
R511	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R512	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R513	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R514	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R515	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R516	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R517	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R519	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R520	24366681	CARBON FILM, 1/6W 680 OHM J
R543	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R548	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R552	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R553	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
R554	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R555	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R561	24552181	OXIDE METAL FILM, 1/2W 180 OHM J
R569	24011823	CHIP, METAL FILM, 1/20W 82K OHM J
R605	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R606	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R607	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R608	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R609	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R610	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R611	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R612	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R613	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
R615	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R616	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
R617	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R618	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R619	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
R620	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
R621	24011393	CHIP, METAL FILM, 1/20W 39K OHM J
R622	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R623	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R624	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R625	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R626	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R627	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R628	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R630	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R631	24872822	CHIP, METAL FILM, 1/16W 8.2K OHM J
R634	24366229	CARBON FILM, 1/6W 2.2 OHM J
R636	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R637	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R638	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R639	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R640	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R641	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R642	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
R643	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
R644	24011473	CHIP, METAL FILM, 1/20W 47K OHM J

Location No.	Parts No.	Description
R645	24366229	CARBON FILM, 1/6W 2.2 OHM J
R646	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R648	24366229	CARBON FILM, 1/6W 2.2 OHM J
R649	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R661	24510159	CERAMIC COVERD, 5W 1.5 OHM J
R661	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R662	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R662	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R663	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R664	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
R670	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R671	24366102	CARBON FILM, 1/6W 1K OHM J
R671	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R672	24366102	CARBON FILM, 1/6W 1K OHM J
R672	24011822	CHIP, METAL FILM, 1/20W 8.2K OHM J
R673	24366102	CARBON FILM, 1/6W 1K OHM J
R673	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
R674	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
R675	24366102	CARBON FILM, 1/6W 1K OHM J
R676	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R677	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R682	24366102	CARBON FILM, 1/6W 1K OHM J
R682	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R683	24366102	CARBON FILM, 1/6W 1K OHM J
R683	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R684	24366229	CARBON FILM, 1/6W 2.2 OHM J
R685	24366229	CARBON FILM, 1/6W 2.2 OHM J
R686	24366229	CARBON FILM, 1/6W 2.2 OHM J
R687	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R688	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R689	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
R690	24552122	OXIDE METAL FILM, 1/2W 1.2K OHM J
R691	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R692	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
R702	24552221	OXIDE METAL FILM, 1/2W 220 OHM J
R712	24366101	CARBON FILM, 1/6W 100 OHM J
R715	24366223	CARBON FILM, 1/6W 22K OHM J
R716	24366273	CARBON FILM, 1/6W 27K OHM J
R717	24366183	CARBON FILM, 1/6W 18K OHM J
R718	24366681	CARBON FILM, 1/6W 680 OHM J
R722	24552471	OXIDE METAL FILM, 1/2W 470 OHM J
R723	24366101	CARBON FILM, 1/6W 100 OHM J
R724	24366121	CARBON FILM, 1/6W 120 OHM J
R725	24366821	CARBON FILM, 1/6W 820 OHM J
R730	24552100	OXIDE METAL FILM, 1/2W 10 OHM J
R731	24553331	OXIDE METAL FILM, 1W 330 OHM J
R732	24366220	CARBON FILM, 1/6W 22 OHM J
R733	24366683	CARBON FILM, 1/6W 68K OHM J
R734	24366220	CARBON FILM, 1/6W 22 OHM J
R735	24366683	CARBON FILM, 1/6W 68K OHM J
R736	24366470	CARBON FILM, 1/6W 47 OHM J
R737	24366681	CARBON FILM, 1/6W 680 OHM J
R738	24366102	CARBON FILM, 1/6W 1K OHM J
R739	24366681	CARBON FILM, 1/6W 680 OHM J
R740	24366470	CARBON FILM, 1/6W 47 OHM J
R741	24366229	CARBON FILM, 1/6W 2.2 OHM J
R742	24366229	CARBON FILM, 1/6W 2.2 OHM J
R743	24554181	OXIDE METAL FILM, 2W 180 OHM J
R744	24366122	CARBON FILM, 1/6W 1.2K OHM J
R745	24366122	CARBON FILM, 1/6W 1.2K OHM J
⚠ R801	24009954	METAL FILN, 1/2W 2.2M OHM J
R803	24382683	OXIDE METAL FILM, 1W 68K OHM J
R805	24366221	CARBON FILM, 1/6W 220 OHM J
R806	24381473	OXIDE METAL FILM, 1/2W 47K OHM J
R807	24366154	CARBON FILM, 1/6W 150K OHM J
R808	24019484	THERMISTOR, PTC, AC265 4R5A
R810	24568159	CERAMIC COVERED, 7W 1.5 OHM J

Location No.	Parts No.	Description
R814	24366682	CARBON FILM, 1/6W 6.8K OHM J
R815	24552102	OXIDE METAL FILM, 1/2W 1K OHM J
R818	24019460	METAL PLATE, 2W 0.1 OHM J
R819	24381820	OXIDE METAL FILM, 1/2W 82 OHM J
R823	24552272	OXIDE METAL FILM, 1/2W 2.7K OHM J
R824	24569689	CERAMIC COVERED, 10W 6.8 OHM J
R827	24366681	CARBON FILM, 1/6W 680 OHM J
R828	24366821	CARBON FILM, 1/6W 820 OHM J
R829	24321228	OXIDE METAL FILM, 1/2W 0.22 OHM J
R831	24366471	CARBON FILM, 1/6W 470 OHM J
R832	24366472	CARBON FILM, 1/6W 4.7K OHM J
R833	24366222	CARBON FILM, 1/6W 2.2K OHM J
R834	24366471	CARBON FILM, 1/6W 470 OHM J
R841	24546479	FUSIBLE, 1/2W 4.7 OHM J
R842	24366152	CARBON FILM, 1/6W 1.5K OHM J
R843	24366331	CARBON FILM, 1/6W 330 OHM J
R849	24366471	CARBON FILM, 1/6W 470 OHM J
R850	24366103	CARBON FILM, 1/6W 10K OHM J
R851	24366102	CARBON FILM, 1/6W 1K OHM J
R852	24366225	CARBON FILM, 1/6W 2.2M OHM J
R875	24366392	CARBON FILM, 1/6W 3.9K OHM J
R876	24366103	CARBON FILM, 1/6W 10K OHM J
⚠ R899	24005015	METAL GLAZE, 1W 8.2M OHM J
R901	24376471	CARBON FILM, 1/2W 470 OHM J
R902	24376471	CARBON FILM, 1/2W 470 OHM J
R903	24376471	CARBON FILM, 1/2W 470 OHM J
R904	24366472	CARBON FILM, 1/6W 4.7K OHM J
R905	24366150	CARBON FILM, 1/6W 15 OHM J
R909	24366100	CARBON FILM, 1/6W 10 OHM J
R914	24366471	CARBON FILM, 1/6W 470 OHM J
R915	24366680	CARBON FILM, 1/6W 68 OHM J
R916	24366270	CARBON FILM, 1/6W 27 OHM J
R917	24366391	CARBON FILM, 1/6W 390 OHM J
R918	24366180	CARBON FILM, 1/6W 18 OHM J
R920	24000910	FUSIBLE, 1W 3.3 OHM J
R921	24366471	CARBON FILM, 1/6W 470 OHM J
R922	24366680	CARBON FILM, 1/6W 68 OHM J
R924	24366180	CARBON FILM, 1/6W 18 OHM J
R925	24366391	CARBON FILM, 1/6W 390 OHM J
R928	24366471	CARBON FILM, 1/6W 470 OHM J
R929	24366680	CARBON FILM, 1/6W 68 OHM J
R930	24366180	CARBON FILM, 1/6W 18 OHM J
R932	24366332	CARBON FILM, 1/6W 3.3K OHM J
R934	24366361	CARBON FILM, 1/6W 360 OHM J
R935	24366102	CARBON FILM, 1/6W 1K OHM J
R936	24545829	FUSIBLE, 1/4W 8.2 OHM J
R937	24366391	CARBON FILM, 1/6W 390 OHM J
R942	24366392	CARBON FILM, 1/6W 3.9K OHM J
R943	24366392	CARBON FILM, 1/6W 3.9K OHM J
R944	24366392	CARBON FILM, 1/6W 3.9K OHM J
R945	24366270	CARBON FILM, 1/6W 27 OHM J
R946	24366270	CARBON FILM, 1/6W 27 OHM J
R950	24060356	VARIABLE, METAL 16B 0.6W 20M OHM M
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
R966	24383153	OXIDE METAL FILM, 2W 15K OHM J
R967	24383153	OXIDE METAL FILM, 2W 15K OHM J
R968	24383153	OXIDE METAL FILM, 2W 15K OHM J
R969	24366392	CARBON FILM, 1/6W 3.9K OHM J
R970	24366392	CARBON FILM, 1/6W 3.9K OHM J
R971	24366392	CARBON FILM, 1/6W 3.9K OHM J
R977	24366561	CARBON FILM, 1/6W 560 OHM J
R980	24366471	CARBON FILM, 1/6W 470 OHM J

Location No.	Parts No.	Description
R981	24366471	CARBON FILM, 1/6W 470 OHM J
R992	24366150	CARBON FILM, 1/6W 15 OHM J
R2020	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2060	24366221	CARBON FILM, 1/6W 220 OHM J
R2105	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2106	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2107	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R2149	24871681	CHIP, METAL FILM, 1/8W 680 OHM J
R2150	24871681	CHIP, METAL FILM, 1/8W 680 OHM J
R2151	24871681	CHIP, METAL FILM, 1/8W 680 OHM J
R2155	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2156	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2157	24871102	CHIP, METAL FILM, 1/8W 1K OHM J
R2158	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R2159	24011563	CHIP, METAL FILM, 1/20W 56K OHM J
R3407	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4310	24366183	CARBON FILM, 1/6W 18K OHM J
R4401	24011302	CHIP, METAL FILM, 1/20W 3K OHM J
R4403	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4404	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
R4405	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4406	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
R4407	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
R4408	24011361	CHIP, METAL FILM, 1/20W 360 OHM J
R4409	24552471	OXIDE METAL FILM, 1/2W 470 OHM J
R4410	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4411	24366101	CARBON FILM, 1/6W 100 OHM J
R4411	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4412	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4413	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4414	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4422	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4430	24011622	CHIP, METAL FILM, 1/20W 6.2K OHM J
R4466	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R4467	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
R4473	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4474	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
R4490	24382222	OXIDE METAL FILM, 1W 2.2K OHM J
R4491	24366392	CARBON FILM, 1/6W 3.9K OHM J
R4492	24366103	CARBON FILM, 1/6W 10K OHM J
R4493	24382104	OXIDE METAL FILM, 1W 100K OHM J
R4495	24366473	CARBON FILM, 1/6W 47K OHM J
R4601	24366101	CARBON FILM, 1/6W 100 OHM J
R4602	24366562	CARBON FILM, 1/6W 5.6K OHM J
R4690	24366103	CARBON FILM, 1/6W 10K OHM J
R4799	24366103	CARBON FILM, 1/6W 10K OHM J
R5020	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
R5030	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA01	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA02	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA04	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA07	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA08	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA09	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA10	24011682	CHIP, METAL FILM, 1/20W 6.8K OHM J
RA11	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA12	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA13	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA16	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA17	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA18	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA19	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA22	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA23	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RA24	24011331	CHIP, METAL FILM, 1/20W 330 OHM J

Location No.	Parts No.	Description
RA25	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA26	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA27	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA28	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA29	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA30	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA31	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA33	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RA34	24366103	CARBON FILM, 1/6W 10K OHM J (36ZP38B)
RA35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA36	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA37	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA38	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RA39	24011224	CHIP, METAL FILM, 1/20W 220K OHM J
RA40	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RA43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA48	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA50	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA60	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RA69	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA70	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA71	24366683	CARBON FILM, 1/6W 68K OHM J
RA71	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA72	24366223	CARBON FILM, 1/6W 22K OHM J
RA73	24366103	CARBON FILM, 1/6W 10K OHM J
RA73	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RA75	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA76	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RA78	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RA91	24011103	CHIP, METAL FILM, 1/20W 10K OHM J (36ZP38B)
RA92	24011102	CHIP, METAL FILM, 1/20W 1K OHM J (36ZP38B)
RA96	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RA97	24011102	CHIP, METAL FILM, 1/20W 1K OHM J (36ZP38B)
RA98	24011103	CHIP, METAL FILM, 1/20W 10K OHM J (36ZP38B)
RA99	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB01	24366271	CARBON FILM, 1/6W 270 OHM J
RB03	24366271	CARBON FILM, 1/6W 270 OHM J
RB04	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB05	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB06	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB07	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB08	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB09	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB11	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB13	24366223	CARBON FILM, 1/6W 22K OHM J
RB13	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB22	24366470	CARBON FILM, 1/6W 47 OHM J
RB32	24011105	CHIP, METAL FILM, 1/20W 1M OHM J
RB33	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB34	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB35	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RB43	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB44	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB45	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RB46	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RB49	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
RB81	24011122	CHIP, METAL FILM, 1/20W 1.2K OHM J
RB82	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB83	24011123	CHIP, METAL FILM, 1/20W 12K OHM J
RB90	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J

Location No.	Parts No.	Description
RB91	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RB92	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB93	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RB94	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB95	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RB96	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB97	24011273	CHIP, METAL FILM, 1/20W 27K OHM J
RB98	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RC01	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC02	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC03	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC04	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC05	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC06	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC07	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC08	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RC09	24000445	CHIP JUMPER, 1608TYPE
RC10	24000445	CHIP JUMPER, 1608TYPE
RC11	24366681	CARBON FILM, 1/6W 680 OHM J
RC12	24366681	CARBON FILM, 1/6W 680 OHM J
RD12	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD135	24000445	CHIP JUMPER, 1608TYPE
RD179	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RD180	24011221	CHIP, METAL FILM, 1/20W 220 OHM J
RD181	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RD182	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RD183	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RD184	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD185	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD186	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RD187	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD188	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RD189	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RD190	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RD191	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RJ01	24366103	CARBON FILM, 1/6W 10K OHM J (36ZP38B)
RJ02	24366102	CARBON FILM, 1/6W 1K OHM J (36ZP38B)
RJ04	24366102	CARBON FILM, 1/6W 1K OHM J (36ZP38B)
RJ05	24323479	METAL FILM, 2W 4.7 OHM J (36ZP38B)
RJ06	24366103	CARBON FILM, 1/6W 10K OHM J (36ZP38B)
RJ10	24552560	OXIDE METAL FILM, 1/2W 56 OHM J (36ZP38B)
RR01	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR02	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RR03	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RR04	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RR05	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR06	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR07	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RR08	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RR09	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR11	24011821	CHIP, METAL FILM, 1/20W 820 OHM J
RR12	24011821	CHIP, METAL FILM, 1/20W 820 OHM J
RR13	24011821	CHIP, METAL FILM, 1/20W 820 OHM J
RR14	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR15	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR16	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RR17	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RR18	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RR19	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RR20	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RR21	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR22	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RR23	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RR25	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS01	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS02	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J

Location No.	Parts No.	Description
RS03	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS04	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS05	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS06	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS07	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS08	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS09	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS10	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS12	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS13	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS14	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS15	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS16	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS17	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS18	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS19	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS20	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RS21	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS22	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RS23	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS24	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS25	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS26	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS27	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS28	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS29	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS30	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS31	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS32	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS33	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS34	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS37	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS38	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS49	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS50	24011271	CHIP, METAL FILM, 1/20W 270 OHM J
RS51	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS52	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS53	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS54	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS55	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RS56	24011104	CHIP, METAL FILM, 1/20W 100K OHM J
RS58	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS59	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RS60	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS61	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS62	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS63	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RS64	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RS65	24011681	CHIP, METAL FILM, 1/20W 680 OHM J
RT01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RT02	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RT03	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT04	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT05	24011100	CHIP, METAL FILM, 1/20W 10 OHM J
RT06	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RT07	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RT08	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RT09	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RT10	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RT11	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RT12	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RT13	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT14	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT15	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RT16	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RT18	24011223	CHIP, METAL FILM, 1/20W 22K OHM J

Location No.	Parts No.	Description
RT19	24000445	CHIP JUMPER, 1608TYPE
RT20	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT21	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RT22	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RT23	24000445	CHIP JUMPER, 1608TYPE
RT24	24000594	CHIP, 1/16W 12K OHM F
RT26	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RT27	24000594	CHIP, 1/16W 12K OHM F
RT28	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RT29	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RT30	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RT31	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RT32	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RT33	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RT34	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RT35	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RT37	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RT38	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RT39	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
RT40	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RT42	24011470	CHIP, METAL FILM, 1/20W 47 OHM J
RT43	24011151	CHIP, METAL FILM, 1/20W 150 OHM J
RT44	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV04	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV05	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV07	24367103	CARBON FILM, 1/6W 10K OHM G
RV08	24367103	CARBON FILM, 1/6W 10K OHM G
RV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV10	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV16	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
RV17	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV18	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV19	24011471	CHIP, METAL FILM, 1/20W 470 OHM J
RV20	24367103	CARBON FILM, 1/6W 10K OHM G
RV21	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV22	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV23	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV25	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV26	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV27	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV28	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RV29	24011562	CHIP, METAL FILM, 1/20W 5.6K OHM J
RV30	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV31	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV32	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV33	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV34	24367392	CARBON FILM, 1/6W 3.9K OHM G
RV35	24872151	CHIP, METAL FILM, 1/16W 150 OHM J
RV36	24872151	CHIP, METAL FILM, 1/16W 150 OHM J
RV37	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV38	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV39	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV41	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV42	24011391	CHIP, METAL FILM, 1/20W 390 OHM J
RV43	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV44	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV45	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV46	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV47	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV48	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV60	24011222	CHIP, METAL FILM, 1/20W 2.2K OHM J
RV61	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV62	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV63	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV64	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV65	24552101	OXIDE METAL FILM, 1/2W 100 OHM J
RV66	24872750	CHIP, METAL FILM, 1/16W 75 OHM J

Location No.	Parts No.	Description
RV67	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RV68	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RV81	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV84	24366223	CARBON FILM, 1/6W 22K OHM J
RV85	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV86	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV87	24366750	CARBON FILM, 1/6W 75 OHM J
RV87	24872750	CHIP, METAL FILM, 1/16W 75 OHM J
RV88	24366223	CARBON FILM, 1/6W 22K OHM J
RV88	24872151	CHIP, METAL FILM, 1/16W 150 OHM J
RV89	24872151	CHIP, METAL FILM, 1/16W 150 OHM J
RV90	24000445	CHIP JUMPER, 1608TYPE
RV91	24000445	CHIP JUMPER, 1608TYPE
RV92	24366683	CARBON FILM, 1/6W 68K OHM J
RV94	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV95	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV96	24011750	CHIP, METAL FILM, 1/20W 75 OHM J
RV99	24366750	CARBON FILM, 1/6W 75 OHM J
RV281	24367102	CARBON FILM, 1/6W 1K OHM G
RV331	24367102	CARBON FILM, 1/6W 1K OHM G
RV341	24367102	CARBON FILM, 1/6W 1K OHM G
RX01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RX02	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
RZ01	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ02	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ03	24011102	CHIP, METAL FILM, 1/20W 1K OHM J
RZ04	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ05	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ06	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ07	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ08	24011272	CHIP, METAL FILM, 1/20W 2.7K OHM J
RZ09	24011392	CHIP, METAL FILM, 1/20W 3.9K OHM J
RZ11	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ14	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ17	24011223	CHIP, METAL FILM, 1/20W 22K OHM J
RZ18	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RZ19	24011473	CHIP, METAL FILM, 1/20W 47K OHM J
RZ20	24011152	CHIP, METAL FILM, 1/20W 1.5K OHM J
RZ21	24011561	CHIP, METAL FILM, 1/20W 560 OHM J
RZ22	24011332	CHIP, METAL FILM, 1/20W 3.3K OHM J
RZ23	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
RZ24	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
RZ25	24000445	CHIP JUMPER, 1608TYPE
RZ26	24000445	CHIP JUMPER, 1608TYPE
RZ29	24011102	CHIP, METAL FILM, 1/20W 1K OHM J

COILS & TRANSFORMERS

L101	23221803	COIL, CHOKE, TLN3040D
L301	23103894	FILTER, FERRITE BEAD, TEM2011AW
L302	23289846	COIL, PEAKING, TRF4101AT
L400	23289840	COIL, PEAKING, TRF4100AT
L410	23103894	FILTER, FERRITE BEAD, TEM2011AW
L441	23233033	COIL, HORIZ LINIALTY, TLN2209AT
L442	23248216	COIL, CHOKE, TLN3459AH
L443	23248223	COIL, CHOKE, TLN3451AH
L461	23248248	COIL, CHOKE, TLN3500AH
L463	23103894	FILTER, FERRITE BEAD, TEM2011AW
L464	23103894	FILTER, FERRITE BEAD, TEM2011AW
L470	23103894	FILTER, FERRITE BEAD, TEM2011AW
L491	23248191	COIL, CHOKE, TLN3351AD
L501	23289470	COIL, PEAKING, TRF4470AF
L503	23289470	COIL, PEAKING, TRF4470AF
L504	23238714	COIL, PEAKING, TRF4100AJ
L505	23289840	COIL, PEAKING, TRF4100AT
L510	23103852	COIL, FILTER, TEM2028AH
L511	23103845	COIL, TEM2030AY
L512	23103845	COIL, TEM2030AY

Location No.	Parts No.	Description
L514	23103852	COIL, FILTER, TEM2028AH
L515	23103845	COIL, TEM2030AY
L516	23103845	COIL, TEM2030AY
L605	23248073	COIL, CHOKE, TLN3299D
L671	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L672	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L673	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L674	23103887	INDUCTOR, CHIP BEAD, TEM2130AM
L701	23289840	COIL, PEAKING, TRF4100AT
L702	23261974	COIL, FERRITE BEAD, HC5-035
L704	23103859	FILTER, FERRITE CHOKE, TEM2011
L705	23103859	FILTER, FERRITE CHOKE, TEM2011
L801	23217627	TRANSFORMER, CHOKE, TPW2052AS
L805	23103859	FILTER, FERRITE CHOKE, TEM2011
L811	23103145	FERRITE CHOKE, TEM2011AA
L824	23248289	COIL, CHOKE, TLN3312GH
L876	23289840	COIL, PEAKING, TRF4100AT
L883	23221111	COIL, CHOKE, TRF9253GH
L885	23248288	COIL, CHOKE, TLN3299GH
L886	23103248	FERRITR CHOKE, TEM2014AA
L889	23248289	COIL, CHOKE, TLN3312GH
L891	23103145	FERRITE CHOKE, TEM2011AA
L892	23103145	FERRITE CHOKE, TEM2011AA
L893	23248289	COIL, CHOKE, TLN3312GH
L894	23289840	COIL, PEAKING, TRF4100AT
L895	23248289	COIL, CHOKE, TLN3312GH
L897	23248289	COIL, CHOKE, TLN3312GH
⚠ L901	23200550	COIL, DG0.55CU 65T-2L TYPE, TSB-2405AL (36ZP38B)
⚠ L901	23200554	COIL, DG 0.50CU 60T-2LOOP, TSB-2414AL (32ZP38B)
L902	23238508	COIL, PEAKING, TRF4121AJ
L903	23238703	COIL, PEAKING, TRF4820AJ
L904	23238703	COIL, PEAKING, TRF4820AJ
L905	23289841	COIL, PEAKING, TRF4150AT
L906	23289841	COIL, PEAKING, TRF4150AT
L907	23289841	COIL, PEAKING, TRF4150AT
L908	23289840	COIL, PEAKING, TRF4100AT
L911	23289846	COIL, PEAKING, TRF4101AT
L4000	23289840	COIL, PEAKING, TRF4100AT
L4401	23289101	COIL, PEAKING, TRF4101AF
LA01	23289840	COIL, PEAKING, TRF4100AT
LC01	23103828	INDUCTOR, BEAD, TEM2121M
LC02	23103828	INDUCTOR, BEAD, TEM2121M
LC03	23103828	INDUCTOR, BEAD, TEM2121M
LC04	23103828	INDUCTOR, BEAD, TEM2121M
LC05	23103828	INDUCTOR, BEAD, TEM2121M
LC06	23103828	INDUCTOR, BEAD, TEM2121M
LC07	23238562	COIL, PEAKING, TRF4109AJ
LC08	23238562	COIL, PEAKING, TRF4109AJ
LC09	23103828	INDUCTOR, BEAD, TEM2121M
LC10	23103828	INDUCTOR, BEAD, TEM2121M
LC13	23103828	INDUCTOR, BEAD, TEM2121M
LC14	23103828	INDUCTOR, BEAD, TEM2121M
LC15	23103825	INDUCTOR, BEAD, TEM2118M
LC16	23103825	INDUCTOR, BEAD, TEM2118M
LC17	23103825	INDUCTOR, BEAD, TEM2118M
LC18	23103825	INDUCTOR, BEAD, TEM2118M
LC43	23103828	INDUCTOR, BEAD, TEM2121M
LC45	23238562	COIL, PEAKING, TRF4109AJ
LC183	23289109	COIL, PEAKING, TRF41R0AF
LD181	23103828	INDUCTOR, BEAD, TEM2121M
LD182	23289470	COIL, PEAKING, TRF4470AF
LD184	23103845	COIL, TEM2030AY
LG102	23103828	INDUCTOR, BEAD, TEM2121M
LG103	23103828	INDUCTOR, BEAD, TEM2121M

Location No.	Parts No.	Description
LJ901	23200547	COIL, CORRECT COIL,0.4CU-60T, TSB-2418AH (36ZP38B)
LR01	23289109	COIL, PEAKING, TRF41R0AF
LR02	23289109	COIL, PEAKING, TRF41R0AF
LT01	23103828	INDUCTOR, BEAD, TEM2121M
LT02	23103828	INDUCTOR, BEAD, TEM2121M
LT03	23103828	INDUCTOR, BEAD, TEM2121M
LT04	23103828	INDUCTOR, BEAD, TEM2121M
LT05	23103828	INDUCTOR, BEAD, TEM2121M
LT07	23103828	INDUCTOR, BEAD, TEM2121M
LT08	23103828	INDUCTOR, BEAD, TEM2121M
LT09	23103828	INDUCTOR, BEAD, TEM2121M
LT11	23103828	INDUCTOR, BEAD, TEM2121M
LT12	23103828	INDUCTOR, BEAD, TEM2121M
LV09	23289840	COIL, PEAKING, TRF4100AT
LV10	23289840	COIL, PEAKING, TRF4100AT
LV42	23289840	COIL, PEAKING, TRF4100AT
LV43	23289840	COIL, PEAKING, TRF4100AT
LV44	23289840	COIL, PEAKING, TRF4100AT
LV49	23103852	COIL, FILTER, TEM2028AH
LZ01	23289840	COIL, PEAKING, TRF4100AT
LZ02	23289840	COIL, PEAKING, TRF4100AT
LZ03	23289840	COIL, PEAKING, TRF4100AT
LZ04	23103827	INDUCTOR, BEAD, TEM2120M
LZ05	23103827	INDUCTOR, BEAD, TEM2120M
⚠ T400	23224386	TRANSFORMER, FOCUS, TLN2220AH
T401	23224384	TRANSFORMER, DRIVE, TLN1080AL
⚠ T461	23236745	TRANSFORMER, FLY-BACK, TFB4187AD (36ZP38B)
⚠ T461	23236732	TRANSFORMER, FLY-BACK, TFB4189AD (32ZP38B)
T461A	23192957	ANODE CAP ASSY, TCC5602AT (36ZP38B)
T461A	23192964	ANODE CAP ASSY, TCC5606CT (32ZP38B)
T461B	23504718	CABLE, FOCUS
T461C	23504204	CABLE, SCREEN
T801	23211736	COIL, LINE FILTER, TRF3231AL
T802	23211736	COIL, LINE FILTER, TRF3231AL
T840	23217616	TRANSFORMER, POWER EI28 7V195V, TPW1575AT
⚠ T862	23217563	TRANSFORMER, CONVERTER, TPW3501AG
SEMICONDUCTORS		
Q200	23114756	TRANSISTOR, 2SC2482
Q201	23314794	TRANSISTOR, 2PC1815Y
Q274	23314993	TRANSISTOR, 2SC4081 Q
Q301	23319787	IC, LA7833S
Q301B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q302	23000711	IC, TA1317AN
Q303	23314791	TRANSISTOR, 2PA1015Y
Q340	70114396	TRANSISTOR, 2SC3326B
Q341	23314794	TRANSISTOR, 2PC1815Y
Q370	23114462	TRANSISTOR, RN1202
Q371	23114462	TRANSISTOR, RN1202
Q402	23114577	TRANSISTOR, 2SC22350 (FA-1
Q404	23205149	TRANSISTOR, 2SC5859(FA)
Q404D	72471082	SCREW, 3X10MM
Q418	23314141	TRANSISTOR, 2SC3852
Q418B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q420	23314141	TRANSISTOR, 2SC3852
Q420B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q421	23314794	TRANSISTOR, 2PC1815Y
Q422	70114396	TRANSISTOR, 2SC3326B
Q423	70114396	TRANSISTOR, 2SC3326B
Q424	70114396	TRANSISTOR, 2SC3326B

Location No.	Parts No.	Description
Q430	23314141	TRANSISTOR, 2SC3852
Q430B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q451	70114396	TRANSISTOR, 2SC3326B
Q460	23205031	TRANSISTOR, FET, 2SK2920
Q461	23314794	TRANSISTOR, 2PC1815Y
Q470	23314794	TRANSISTOR, 2PC1815Y
Q470	23114541	TRANSISTOR, 2SA1320
Q471	23314794	TRANSISTOR, 2PC1815Y
Q472	23314794	TRANSISTOR, 2PC1815Y
Q473	23314791	TRANSISTOR, 2PA1015Y
Q499	23314791	TRANSISTOR, 2PA1015Y
Q501	23000624	IC, TB1274F(J)
Q504	23314994	TRANSISTOR, 2SA1576A106
Q505	23314994	TRANSISTOR, 2SA1576A106
Q506	23314794	TRANSISTOR, 2PC1815Y
Q507	23114501	TRANSISTOR, RN1402
Q510	23009369	IC, TA1360AFG
Q608	23314994	TRANSISTOR, 2SA1576A106
Q612	23314994	TRANSISTOR, 2SA1576A106
Q617	23906596	IC, BA4558
Q620	23906596	IC, BA4558
Q627	23114493	TRANSISTOR, RN2404
Q639	70114396	TRANSISTOR, 2SC3326B
Q640	23906523	IC, TA8256BH
Q640B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q641	70114396	TRANSISTOR, 2SC3326B
Q642	70114396	TRANSISTOR, 2SC3326B
Q670	23906523	IC, TA8256BH
Q670B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q671	70114396	TRANSISTOR, 2SC3326B
Q672	70114396	TRANSISTOR, 2SC3326B
Q673	70114396	TRANSISTOR, 2SC3326B
Q688	23114499	TRANSISTOR, RN1404
Q705	23314794	TRANSISTOR, 2PC1815Y
Q706	23114433	TRANSISTOR, 2SC1815-Y
Q707	23114437	TRANSISTOR, 2SC752GTM-Y
Q709	23114433	TRANSISTOR, 2SC1815-Y
Q710	23114425	TRANSISTOR, 2SA1015-Y(TE
Q711	23205075	TRANSISTOR, 2SA1930
Q711B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q712	23205076	TRANSISTOR, 2SC5171
Q712B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q719	23314794	TRANSISTOR, 2PC1815Y
Q801	23135037	IC, STR-F6268S
Q801B	72471082	SCREW, 3X10MM
Q805	23314794	TRANSISTOR, 2PC1815Y
Q807	23314794	TRANSISTOR, 2PC1815Y
⚠ Q826	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q827	23000352	IC, SE125N, LF4
Q830	23314141	TRANSISTOR, 2SC3852
Q830B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q831	23314141	TRANSISTOR, 2SC3852
Q831B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q832	23905977	IC, PQ09RD11
Q832B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q833	23314141	TRANSISTOR, 2SC3852
Q833B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q840	23314141	TRANSISTOR, 2SC3852
Q840B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q901	23314780	TRANSISTOR, 2SC4544
Q901B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q902	23114433	TRANSISTOR, 2SC1815-Y
Q903	23314780	TRANSISTOR, 2SC4544
Q903B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q904	23114433	TRANSISTOR, 2SC1815-Y
Q905	23314780	TRANSISTOR, 2SC4544
Q905B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
Q906	23114433	TRANSISTOR, 2SC1815-Y
Q907	23114422	TRANSISTOR, 2SA562TM-Y
Q908	23114429	TRANSISTOR, 2SC2120-Y(TE
Q910	23114433	TRANSISTOR, 2SC1815-Y
Q2104	23314791	TRANSISTOR, 2PA1015Y
Q2105	23314791	TRANSISTOR, 2PA1015Y
Q2106	23314791	TRANSISTOR, 2PA1015Y
Q2107	23314994	TRANSISTOR, 2SA1576A106
Q2108	23314994	TRANSISTOR, 2SA1576A106
Q2109	23314994	TRANSISTOR, 2SA1576A106
Q4200	23000370	IC, TA1318N
Q4465	23314994	TRANSISTOR, 2SA1576A106
Q4490	23118952	IC, PHOTO COUPLER, TLP521-1 (FA)
Q4491	23314917	TRANSISTOR, 2SK2003-01MR
Q4493	23314794	TRANSISTOR, 2PC1815Y
QA01	23009443	IC, 8BIT MCU 120K 64PIN, CXP750010-308S
QA02	23009330	IC, AT24C64-10PI-2.7
QA05	23906367	IC, PST9146NL
QA13	23314994	TRANSISTOR, 2SA1576A106
QA14	23314791	TRANSISTOR, 2PA1015Y (36ZP38B)
QA61	23009332	IC, AT24C256-2.7
QB03	23314791	TRANSISTOR, 2PA1015Y
QB04	23314994	TRANSISTOR, 2SA1576A106
QB05	23314993	TRANSISTOR, 2SC4081 Q
QB06	23314994	TRANSISTOR, 2SA1576A106
QB07	23314994	TRANSISTOR, 2SA1576A106
QB42	23314994	TRANSISTOR, 2SA1576A106
QB43	23314993	TRANSISTOR, 2SC4081 Q
QB81	70114396	TRANSISTOR, 2SC3326B
QB82	70114396	TRANSISTOR, 2SC3326B
QB83	23314994	TRANSISTOR, 2SA1576A106
QB92	23314993	TRANSISTOR, 2SC4081 Q
QB93	23314994	TRANSISTOR, 2SA1576A106
QB94	23314994	TRANSISTOR, 2SA1576A106
QB95	23314994	TRANSISTOR, 2SA1576A106
QB96	23314994	TRANSISTOR, 2SA1576A106
QD181	23314993	TRANSISTOR, 2SC4081 Q
QD183	23314993	TRANSISTOR, 2SC4081 Q
QJ02	23314794	TRANSISTOR, 2PC1815Y (36ZP38B)
QJ03	23314912	TRANSISTOR, 2SC4793 (36ZP38B)
QJ04	23314794	TRANSISTOR, 2PC1815Y (36ZP38B)
QR01	23009037	IC, MB90096P-G-23
QR11	23314994	TRANSISTOR, 2SA1576A106
QS01	70114396	TRANSISTOR, 2SC3326B
QS02	70114396	TRANSISTOR, 2SC3326B
QS03	23314993	TRANSISTOR, 2SC4081 Q
QS04	23314993	TRANSISTOR, 2SC4081 Q
QS05	70114396	TRANSISTOR, 2SC3326B
QS06	70114396	TRANSISTOR, 2SC3326B
QS07	70114396	TRANSISTOR, 2SC3326B
QS08	70114396	TRANSISTOR, 2SC3326B
QS09	23114493	TRANSISTOR, RN2404
QS10	23114493	TRANSISTOR, RN2404
QS13	70114396	TRANSISTOR, 2SC3326B

Location No.	Parts No.	Description
QS14	70114396	TRANSISTOR, 2SC3326B
QT01	23009169	IC, SAA5665HL/M1/0606
QT02	23314993	TRANSISTOR, 2SC4081 Q
QT03	70114402	TRANSISTOR, 2SC3437-Y
QT05	23314993	TRANSISTOR, 2SC4081 Q
QT06	23000283	IC, R1121N
QT07	23000816	IC, IC63LV1024-12TT/R
QT08	23314993	TRANSISTOR, 2SC4081 Q
QT10	23314993	TRANSISTOR, 2SC4081 Q
QT11	23009114	IC, BD4746G
QT12	23314994	TRANSISTOR, 2SA1576A106
QT13	23314994	TRANSISTOR, 2SA1576A106
QT14	23314994	TRANSISTOR, 2SA1576A106
QT15	23314994	TRANSISTOR, 2SA1576A106
QV01	23906887	IC, CXA2069Q
QV02	23314993	TRANSISTOR, 2SC4081 Q
QV03	23314993	TRANSISTOR, 2SC4081 Q
QV04	23314993	TRANSISTOR, 2SC4081 Q
QV06	23314994	TRANSISTOR, 2SA1576A106
QV07	23314993	TRANSISTOR, 2SC4081 Q
QV08	23314994	TRANSISTOR, 2SA1576A106
QV09	23314794	TRANSISTOR, 2PC1815Y
QV12	23314794	TRANSISTOR, 2PC1815Y
QV14	23314794	TRANSISTOR, 2PC1815Y
QV15	23314993	TRANSISTOR, 2SC4081 Q
QV16	70128711	IC, SW 2IN 1OUT 3CIRCUIT ALLCLP, BA7603F
QV17	23318981	IC, MC14053BF
QX01	70114396	TRANSISTOR, 2SC3326B
QZ01	23009303	IC, CMOS MULTI COMB SOP16, TDA9181T/N1,118
QZ02	23314993	TRANSISTOR, 2SC4081 Q
QZ03	23314994	TRANSISTOR, 2SA1576A106
QZ04	23314994	TRANSISTOR, 2SA1576A106
QZ05	23314994	TRANSISTOR, 2SA1576A106
QZ06	23314994	TRANSISTOR, 2SA1576A106
QZ07	23314993	TRANSISTOR, 2SC4081 Q
QZ09	23314993	TRANSISTOR, 2SC4081 Q
QZ10	23314994	TRANSISTOR, 2SA1576A106
QZ11	23314993	TRANSISTOR, 2SC4081 Q
QZ12	23314994	TRANSISTOR, 2SA1576A106
D101	23316756	DIODE, ZENER, MTZJ33D
D240	23115599	DIODE, 1N4148
D301	23357366	DIODE, FR105-B5
D302	23118094	DIODE, EU2A
D303	23316794	DIODE, SC570A
D304	23118094	DIODE, EU2A
D313	23115599	DIODE, 1N4148
D320	23115599	DIODE, 1N4148
D327	23316717	DIODE, ZENER, MTZJ11C
D336	23316672	DIODE, ZENER, MTZJ5.6B
D337	23316672	DIODE, ZENER, MTZJ5.6B
D370	23357366	DIODE, FR105-B5
D371	23357366	DIODE, FR105-B5
D373	23316685	DIODE, ZENER, MTZJ8.2C
D374	23115599	DIODE, 1N4148
D399	23316754	DIODE, ZENER, MTZJ33B
D404	23224366	DIODE, FMQ-3GU
D404B	72471082	SCREW, 3X10MM
D406	23357366	DIODE, FR105-B5
D415	23118094	DIODE, EU2A
D418	23316749	DIODE, ZENER, MTZJ30A
D419	23316691	DIODE, ZENER, MTZJ10C
D420	23316682	DIODE, ZENER, MTZJ7.5C
D421	23316680	DIODE, ZENER, MTZJ7.5A
D422	23316726	DIODE, ZENER, MTZJ15C
D431	23316669	DIODE, ZENER, MTZJ5.1B

Location No.	Parts No.	Description
D432	23316670	DIODE, ZENER, MTZJ5.1C
D436	23115599	DIODE, 1N4148
D441	23316687	DIODE, ZENER, MTZJ9.1B
D442	23118094	DIODE, EU2A
D462	23316725	DIODE, ZENER, MTZJ15B
D467	23118094	DIODE, EU2A
D470	23316670	DIODE, ZENER, MTZJ5.1C
D474	23316719	DIODE, ZENER, MTZJ12B
D498	23316687	DIODE, ZENER, MTZJ9.1B
D499	23115599	DIODE, 1N4148
D502	23118041	DIODE, MA111
D506	23316673	DIODE, ZENER, MTZJ5.6C
D520	23118641	DIODE, ZENER, RD2.0ESA B2
D611	23118041	DIODE, MA111
D612	23118041	DIODE, MA111
D613	23118041	DIODE, MA111
D614	23118041	DIODE, MA111
D624	23118041	DIODE, MA111
D625	23118041	DIODE, MA111
D626	23118041	DIODE, MA111
D627	23118041	DIODE, MA111
D628	23118041	DIODE, MA111
D629	23118269	DIODE, ZENER, RD22MB2
D630	23118041	DIODE, MA111
D640	23118041	DIODE, MA111
D641	23118041	DIODE, MA111
D642	23118041	DIODE, MA111
D643	23118041	DIODE, MA111
D647	23118041	DIODE, MA111
D648	23118041	DIODE, MA111
D670	23118041	DIODE, MA111
D671	23118041	DIODE, MA111
D672	23118041	DIODE, MA111
D673	23118041	DIODE, MA111
D674	23118041	DIODE, MA111
D675	23118041	DIODE, MA111
D683	23118041	DIODE, MA111
D704	23115599	DIODE, 1N4148
D705	23115599	DIODE, 1N4148
D715	23115599	DIODE, 1N4148
D721	23115599	DIODE, 1N4148
D801	23357041	DIODE, LN6SB60-F05
D805	23357012	DIODE, 1SS244
D806	23357366	DIODE, FR105-B5
D807	23357012	DIODE, 1SS244
D808	23115599	DIODE, 1N4148
D817	23316754	DIODE, ZENER, MTZJ33B
D836	23316673	DIODE, ZENER, MTZJ5.6C
D840	23316711	DIODE, S1WBA60
D841	23316673	DIODE, ZENER, MTZJ5.6C
D842	23316724	DIODE, ZENER, MTZJ15A
D844	23316686	DIODE, ZENER, MTZJ9.1A
D845	23115599	DIODE, 1N4148
D855	23115599	DIODE, 1N4148
D871	23357366	DIODE, FR105-B5
D883	23118338	DIODE, RU4AM LF-K2
D885	23316184	DIODE, FML-G12S
D885B	70391355	SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN
D891	23316463	DIODE, RK46
D892	23118052	DIODE, RU4Z LF-L1
D893	23316673	DIODE, ZENER, MTZJ5.6C
D894	23316673	DIODE, ZENER, MTZJ5.6C
D901	23115599	DIODE, 1N4148
D904	23115599	DIODE, 1N4148
D905	23115599	DIODE, 1N4148
D906	23115599	DIODE, 1N4148

Location No.	Parts No.	Description
D907	23115599	DIODE, 1N4148
D908	23115599	DIODE, 1N4148
D909	23115599	DIODE, 1N4148
D911	23357366	DIODE, FR105-B5
D4410	23115599	DIODE, 1N4148
D4411	23115599	DIODE, 1N4148
D4412	23115599	DIODE, 1N4148
D4699	23357366	DIODE, FR105-B5
DA42	23316673	DIODE, ZENER, MTZJ5.6C
DB02	23358564	DIODE, LED, SLR-56VC3FPQ
DB03	23358563	DIODE, LED, SLR-56MC3FPQR
DD181	23357037	DIODE, ZENER, UDZS5.6B
DJ01	23115599	DIODE, 1N4148 (36ZP38B)
DJ02	23316726	DIODE, ZENER, MTZJ15C (36ZP38B)
DR01	23118041	DIODE, MA111
DR02	23118041	DIODE, MA111
DR03	23118041	DIODE, MA111
DR12	23357172	DIODE, ZENER, UDZS10B
DR13	23357172	DIODE, ZENER, UDZS10B
DR14	23357172	DIODE, ZENER, UDZS10B
DR70	23357037	DIODE, ZENER, UDZS5.6B
DR71	23357037	DIODE, ZENER, UDZS5.6B
DS09	23118041	DIODE, MA111
DS11	23118041	DIODE, MA111
DS12	23118041	DIODE, MA111
DS13	23118041	DIODE, MA111
DS14	23118041	DIODE, MA111
DV16	23357037	DIODE, ZENER, UDZS5.6B
DV17	23357037	DIODE, ZENER, UDZS5.6B
DV18	23357037	DIODE, ZENER, UDZS5.6B
DV19	23357037	DIODE, ZENER, UDZS5.6B
DV20	23357037	DIODE, ZENER, UDZS5.6B
DV21	23357037	DIODE, ZENER, UDZS5.6B
MISCELLANEOUS		
B221	23037312	SCREW, BTBW3X12SZN
B223	23035412	SCREW, BTB4X12SZN
B224	23037312	SCREW, BTBW3X12SZN
B226	23035412	SCREW, BTB4X12SZN
B237	23035412	SCREW, BTB4X12SZN
BB15A	23902749	CONNECTOR, SOCKET, B-B 6P
BB15B	23368517	CONNECTOR, PLUG, B-B 6P
BB16A	23903022	CONNECTOR, BASE B-B 8P 2.5 JST
BB21A	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB21B	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
BB22A	23368517	CONNECTOR, PLUG, B-B 6P
BB22B	23902749	CONNECTOR, SOCKET, B-B 6P
BB23A	23713014	CONNECTOR, BRIDGE PLUG 16P 1.5
BB23B	23713013	CONNECTOR, SOCKET, B-B 16P 1.5
E504	23198692	EARTH WIRE, CRT EARTH36ZP50, 36ZP50;C995229E
⚠ F470	23144503	FUSE, CARTRIDGE 5.2X20, 250V 1.25A
F470A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F801	23144508	FUSE, CARTRIDGE 5.2X20, 250V 4.0A
F801A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F802	23144506	FUSE, CARTRIDGE 5.2X20, 50V 2.5A
F802A	23165433	FUSE HOLDER, 5.2 SOC
⚠ F889	23144458	FUSE, 5.0A 250V
F889A	23165433	FUSE HOLDER, 5.2 SOC
G299	24366103	CARBON FILM, 1/6W 10K OHM J
G401	23103894	FILTER, FERRITE BEAD, TEM2011AW
G404	23103894	FILTER, FERRITE BEAD, TEM2011AW
G443	23115599	DIODE, 1N4148
G484	24590152	PLASTIC FILM, 50V 1500PF J
G601	24000445	CHIP JUMPER, 1608TYPE
G602	24000445	CHIP JUMPER, 1608TYPE
G603	24000445	CHIP JUMPER, 1608TYPE

Location No.	Parts No.	Description
G604	24000445	CHIP JUMPER, 1608TYPE
G638	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
G675	24011333	CHIP, METAL FILM, 1/20W 33K OHM J
G684	23118041	DIODE, MA111
G828	23103145	FERRITE CHOKE, TEM2011AA
GA02	23103828	INDUCTOR, BEAD, TEM2121M
GA10	23103828	INDUCTOR, BEAD, TEM2121M
GA37	23103828	INDUCTOR, BEAD, TEM2121M
GA38	23103828	INDUCTOR, BEAD, TEM2121M
GA39	23103828	INDUCTOR, BEAD, TEM2121M
GA40	23103828	INDUCTOR, BEAD, TEM2121M
GA41	23103828	INDUCTOR, BEAD, TEM2121M
GA76	24366103	CARBON FILM, 1/6W 10K OHM J
GC01	24000445	CHIP JUMPER, 1608TYPE
GC02	24000445	CHIP JUMPER, 1608TYPE
GC03	24000445	CHIP JUMPER, 1608TYPE
GC04	24000445	CHIP JUMPER, 1608TYPE
GC20	24000445	CHIP JUMPER, 1608TYPE
GC80	24000824	CHIP JUMPER, 2125TYPE
GC81	24000824	CHIP JUMPER, 2125TYPE
GC82	24000824	CHIP JUMPER, 2125TYPE
GC83	24000824	CHIP JUMPER, 2125TYPE
GC84	24000824	CHIP JUMPER, 2125TYPE
GC85	24000824	CHIP JUMPER, 2125TYPE
GJ03	24000445	CHIP JUMPER, 1608TYPE
GJ05	24000445	CHIP JUMPER, 1608TYPE
GJ08	24000445	CHIP JUMPER, 1608TYPE
GJ11	24000445	CHIP JUMPER, 1608TYPE
GJ23	24000445	CHIP JUMPER, 1608TYPE
GJ24	24000445	CHIP JUMPER, 1608TYPE
GJ29	24000445	CHIP JUMPER, 1608TYPE
GJ30	24000445	CHIP JUMPER, 1608TYPE
GJ44	24000445	CHIP JUMPER, 1608TYPE
GJ48	24000445	CHIP JUMPER, 1608TYPE
GJ49	24000445	CHIP JUMPER, 1608TYPE
GJ50	24000445	CHIP JUMPER, 1608TYPE
GJ51	24000445	CHIP JUMPER, 1608TYPE
GJ75	24000445	CHIP JUMPER, 1608TYPE
GJ76	24000445	CHIP JUMPER, 1608TYPE
GJ77	24000445	CHIP JUMPER, 1608TYPE
GJ78	24000445	CHIP JUMPER, 1608TYPE
GJ99	24000445	CHIP JUMPER, 1608TYPE
GJ601	24000445	CHIP JUMPER, 1608TYPE
GJ602	24000445	CHIP JUMPER, 1608TYPE
GJ603	24000445	CHIP JUMPER, 1608TYPE
GT03	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
GT04	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
GT05	24011472	CHIP, METAL FILM, 1/20W 4.7K OHM J
GT07	24000445	CHIP JUMPER, 1608TYPE
GT09	24011103	CHIP, METAL FILM, 1/20W 10K OHM J
GV03	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV04	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV06	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV08	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV09	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV35	24011101	CHIP, METAL FILM, 1/20W 100 OHM J
GV42	24011331	CHIP, METAL FILM, 1/20W 330 OHM J
H002	23148732	MODULE, NICAM/IGR A-PRO AC3, MPSA11A
HX01	23148027	SCAN CONVERTER MODULE, MDFS03
KB01	23000852	IC, REMOTE PHOTO RECEIVER, PIC-37043TE2
P004	23161702	PUSH TERMINAL, 8P
P604B	23368587	CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH
P661	23363607	JACK, HEAD PHONE, 3.5MM
⚠ P801	23372151	POWER CORD, AC250V3A L/FUSE13A GB13F1 FUSE13A

Location No.	Parts No.	Description
P801A	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P821A	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P821B	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P831A	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
P831B	23368013	CONNECTOR, PLUG, 2P 11.88MM W VT-JST
PA02B	23368587	CONNECTOR, PLUG, 8P 2.5MM W EH-JST, S8B-EH
PD04	23364092	PIN JACK, SW ORANGE PIN JACK
PD05	23906206	IC, TORX176
PF01	23902655	CONNECTOR, B-B 15P
PH02	23365598	CONNECTOR, 21 PIN, 2100RFT
PJ901	23368584	CONNECTOR, PLUG, 3P2.5MM W EH-JST S3B-EH (36ZP38B)
PT01	23367724	CONNECTOR, PLUG B-B 15P
PV01	23023065	JACK, PIN JACK(1G,1BL,4R,3W), IJB99-TE
S601	23344367	SWITCH, SLIDE
⚠ S801	23344416	SWITCH, POWER PUSH 2C1P, ESB92D21B
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
SJ01	23146958	RELAY, 2C 1A DC12V OMRON (36ZP38B)
SR82	23146574	RELAY, DLS5D1-O(M) 0.15W
⚠ SR83	23146570	RELAY, DC12V, 2M OMR, G5PA-2 DC12
⚠ V901A	23903136	SOCKET, CRT 29 HOS #12 HPS2199-017418
W661	23351209	SPEAKER, 55X150 8-OHM 10W, SPK-1436AM
W662	23351209	SPEAKER, 55X150 8-OHM 10W, SPK-1436AM
W663	23351169	SPEAKER, SPK1392AG
X501	23153438	CRYSTAL, 16.200 25PPM 25OHM
X4010	23153721	CERAMIC RESONATOR, 503KHZ
X4402	23153721	CERAMIC RESONATOR, 503KHZ
XA03	23153394	CRYSTAL, 16.000000MHZ AT-51
XT01	23153930	CRYSTAL, 12.000 25PPM 40OHM 7PF
Z404	23144536	PROTECTOR, 491SERIES, 125V 1A
Z420	23144539	PROTECTOR, 491SERIES, 125V 2A
Z871	23144543	PROTECTOR, 491SERIES, 125V 5A
Z890	23144543	PROTECTOR, 491SERIES, 125V 5A
Z891	23144543	PROTECTOR, 491SERIES, 125V 5A
Z894	23144539	PROTECTOR, 491SERIES, 125V 2A
Z896	23144539	PROTECTOR, 491SERIES, 125V 2A
Z897	23144539	PROTECTOR, 491SERIES, 125V 2A
ZD02	23103839	FERRITE CORE, TFE1012

PC BOARD ASSEMBLIES

✻ U104	23786696	TEXT-P2 BOARD, PD0267
✻ U901	23788245	CRT-D BOARD, PD0491G (36ZP38B)
✻ U901	23788495	CRT-D BOARD, PD0491H (32ZP38B)
✻ U902	23788246	SIGNAL BOARD, PD1007A (36ZP38B)
✻ U902	23788496	SIGNAL BOARD, PD1007B (32ZP38B)
✻ U903A	23788247	POWER BOARD, PD1008A-1 (36ZP38B)
✻ U903A	23788497	POWER BOARD, PD1008B-1 (32ZP38B)
✻ U903B	23788248	INDICATOR BOARD, PD1008A-2 (36ZP38B)
✻ U903B	23788498	INDICATOR BOARD, PD1008B-2 (32ZP38B)
✻ U903C	23788249	CONTROL BOARD, PD1008A-3 (36ZP38B)
✻ U903C	23788499	CONTROL BOARD, PD1008B-3 (32ZP38B)
✻ U904	23788250	DEF BOARD, PD1009A (36ZP38B)
✻ U904	23788500	DEF BOARD, PD1009B (32ZP38B)
✻ U905	23788251	DIGITAL-IN BOARD, PD0549B
✻ U906	23786440	EXT-SP BOARD, PD0206A

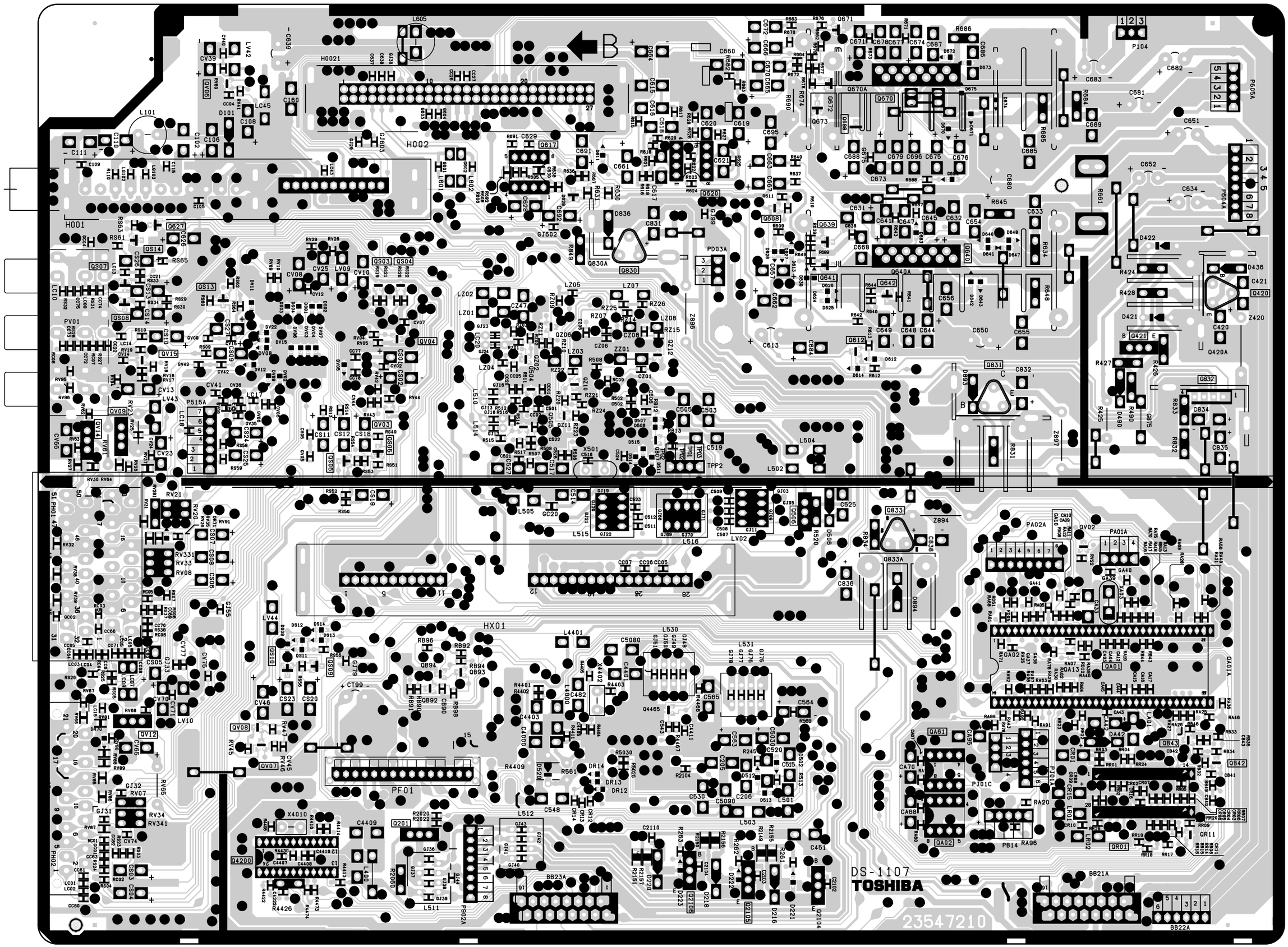
PICTURE TUBE

⚠ V901	23324029	PICTURE TUBE, V2ITC POSITIVE P, W86LTQ350X97(V2) (36ZP38B)
⚠ V901	23324037	PICTURE TUBE, V2ITC LH0.305, W76LTR350X (32ZP38B)

Location No.	Parts No.	Description
TUNER		
H001	23321398	TUNER, EURO IF ALPS, TADF4-003A
ACCESSORIES		
K902	23306435	REMOCON HAND UNIT IR, CTVPAL, CT-90101
Y101	23565831	OWNER'S MANUAL, ENGLISH, 36ZP38B/32ZP38B
Y610	23069011	ACCESSORY, EXT SPEAKER SS-V20
CABINET PARTS		
A201S	23530749	COVER, FRONT COVER FOR SERVICE (36ZP38B)
A201S	23530803	COVER, FRONT COVER FOR SERVICE (32ZP38B)
A231	23445701	BUTTON, BUTTON(POWER) 36ZP38B
A241	70368125	PUSH CATCH
A242	23428184	DOOR, DOOR PROPER 36ZP38B
A248	23035412	SCREW, BTB4X12SZN
⚠ A401	23530753	COVER, BACK COVER ASSEY 36ZP38 (36ZP38B)
⚠ A401	23530806	COVER, BACK COVER ASSEY 32ZP38 (32ZP38B)
A430	23802319	BOX, WOOFER BOX (RIGHT) 32ZP18P
A431	23802320	BOX, WOOFER BOX (LEFT) 32ZP18P
A432	23802321	BOX, WOOFER CENTER PIECE 32ZP18P
A505	23035412	SCREW, BTB4X12SZN
A701	23067076	CARTON, CARTON (36ZP38B)
A701	23067114	CARTON, CARTON (32ZP38B)
A702	23946474	PACKING, BOTTOM PACKING 36ZP38 (36ZP38B)
A702	23946487	PACKING, BOTTOM PACKING 32ZP38 (32ZP38B)
A703	23946475	PACKING, TOP PACKING (36ZP38B)
A703	23946488	PACKING, TOP PACKING (32ZP38B)

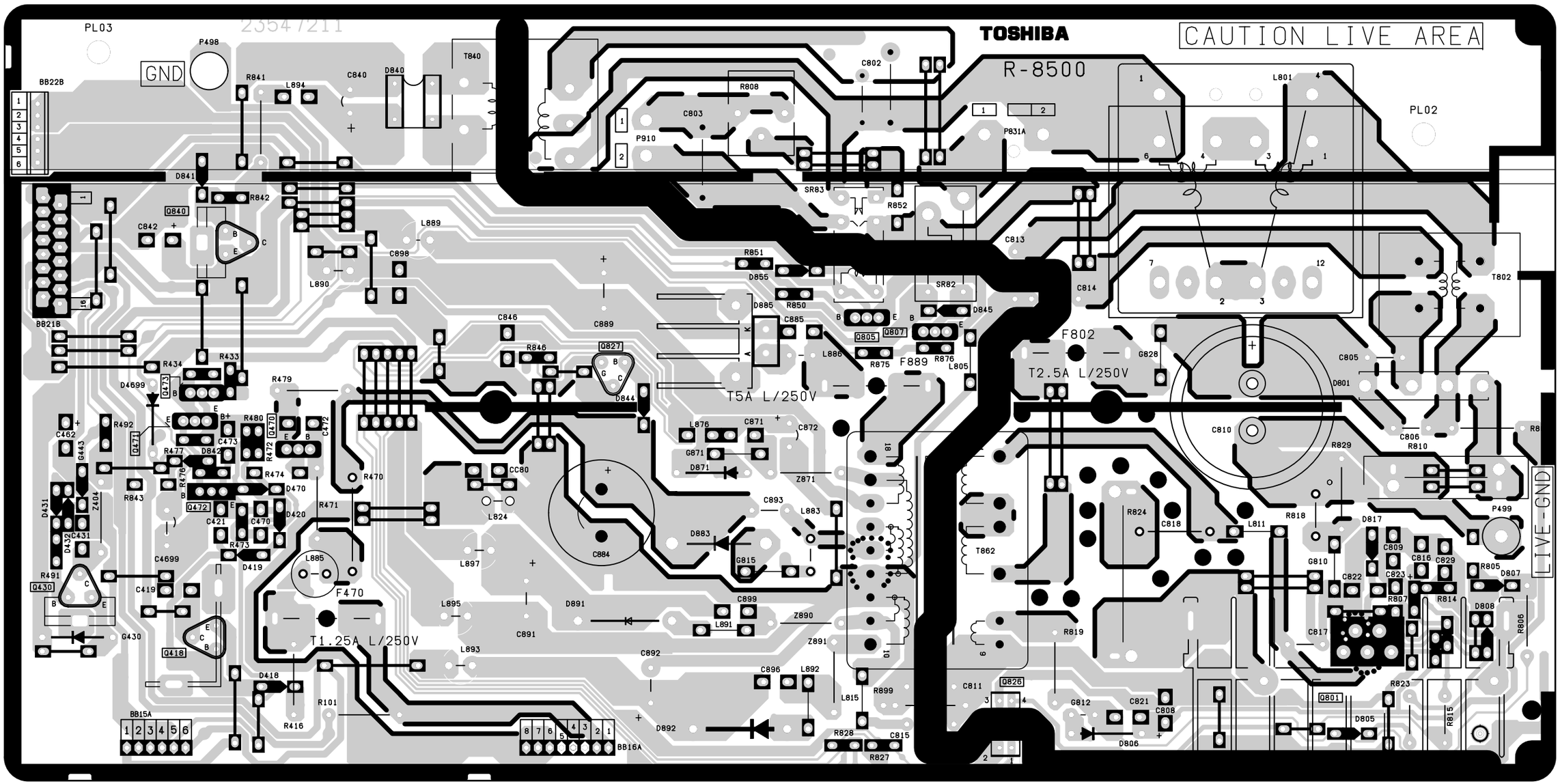
SIGNAL BOARD PD1007

BOTTOM (FOIL) SIDE



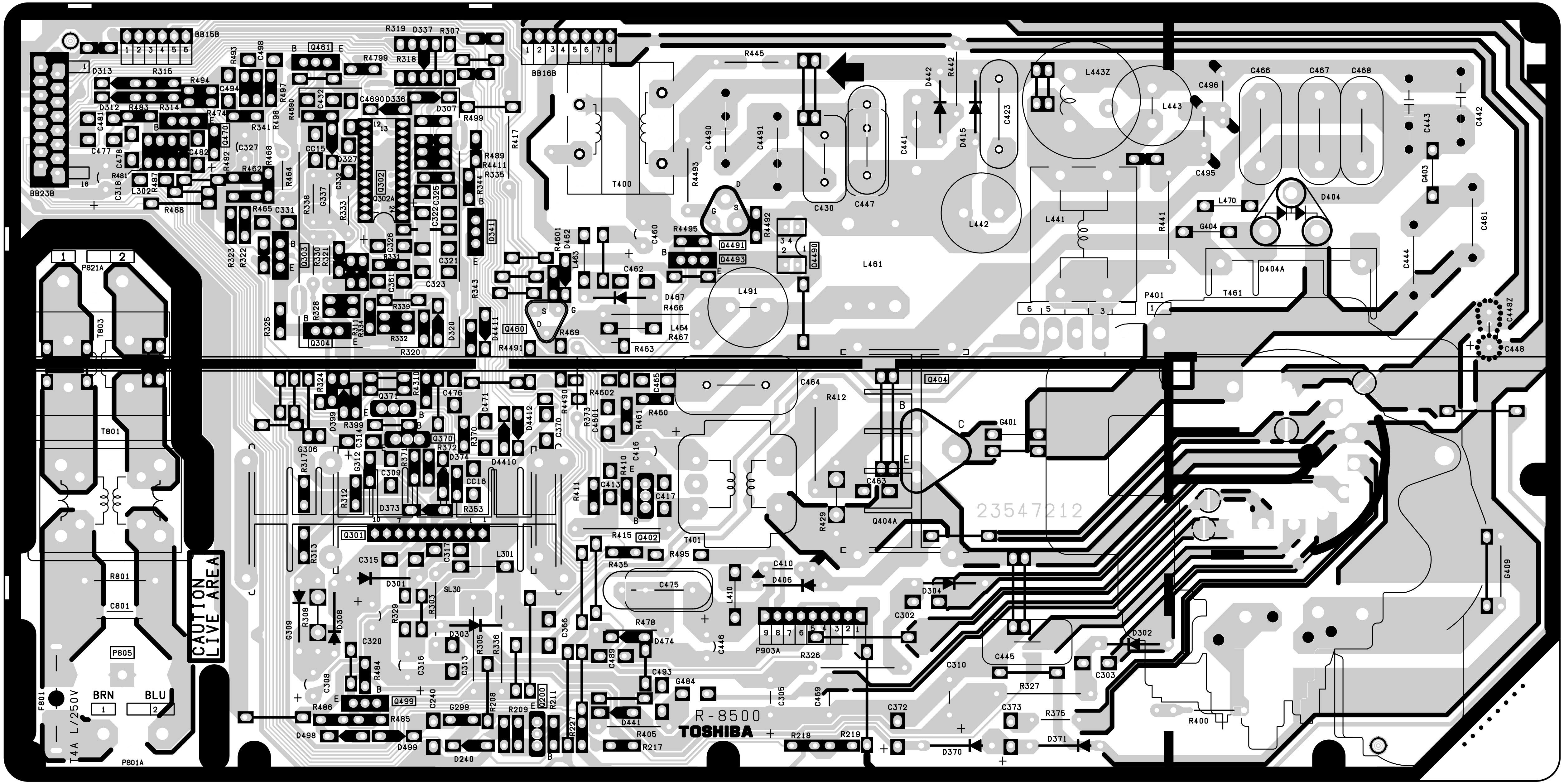
POWER BOARD PD1008-1

BOTTOM (FOIL) SIDE



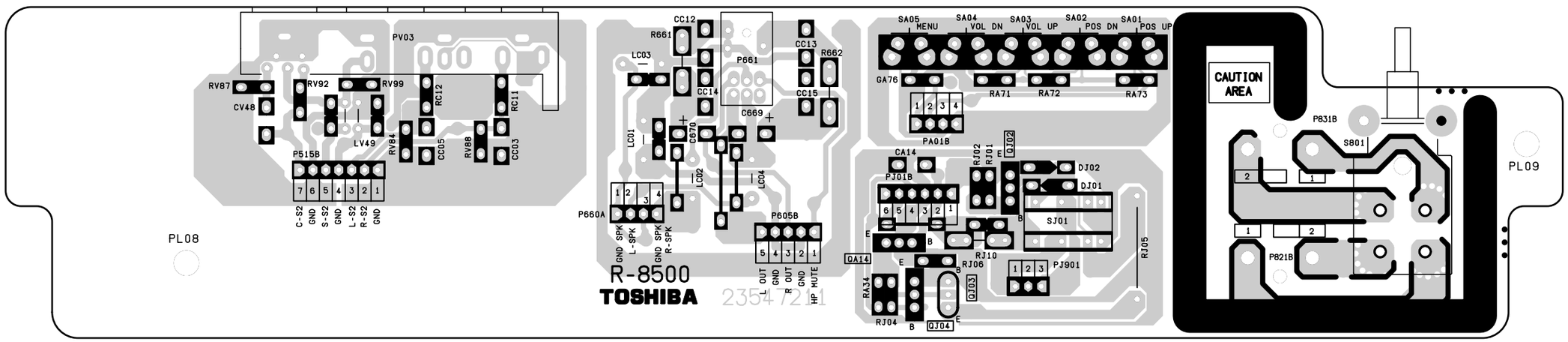
DEF BOARD PD1009

BOTTOM (FOIL) SIDE



INDICATOR BOARD PD1008-2

BOTTOM (FOIL) SIDE

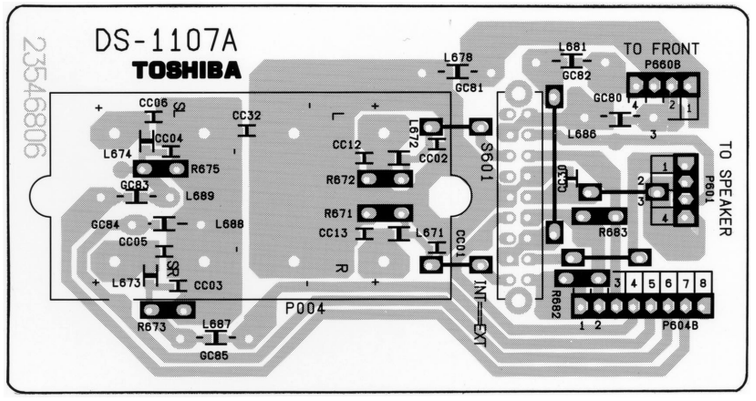


CONTROL BOARD PD1008-3

BOTTOM (FOIL) SIDE

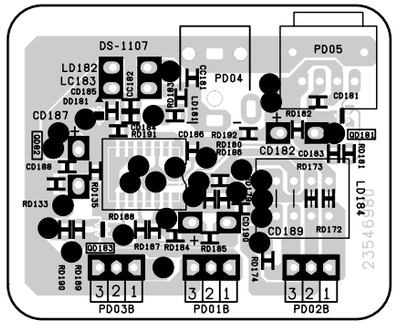
EXT-SP BOARD PD0206A

BOTTOM (FOIL) SIDE



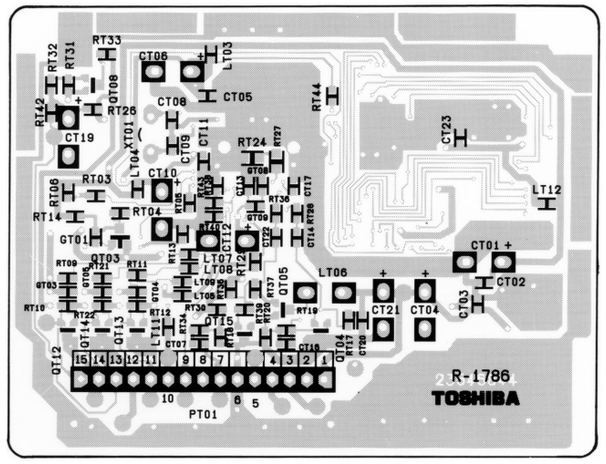
DIGITAL-IN BOARD PD0549B

BOTTOM (FOIL) SIDE



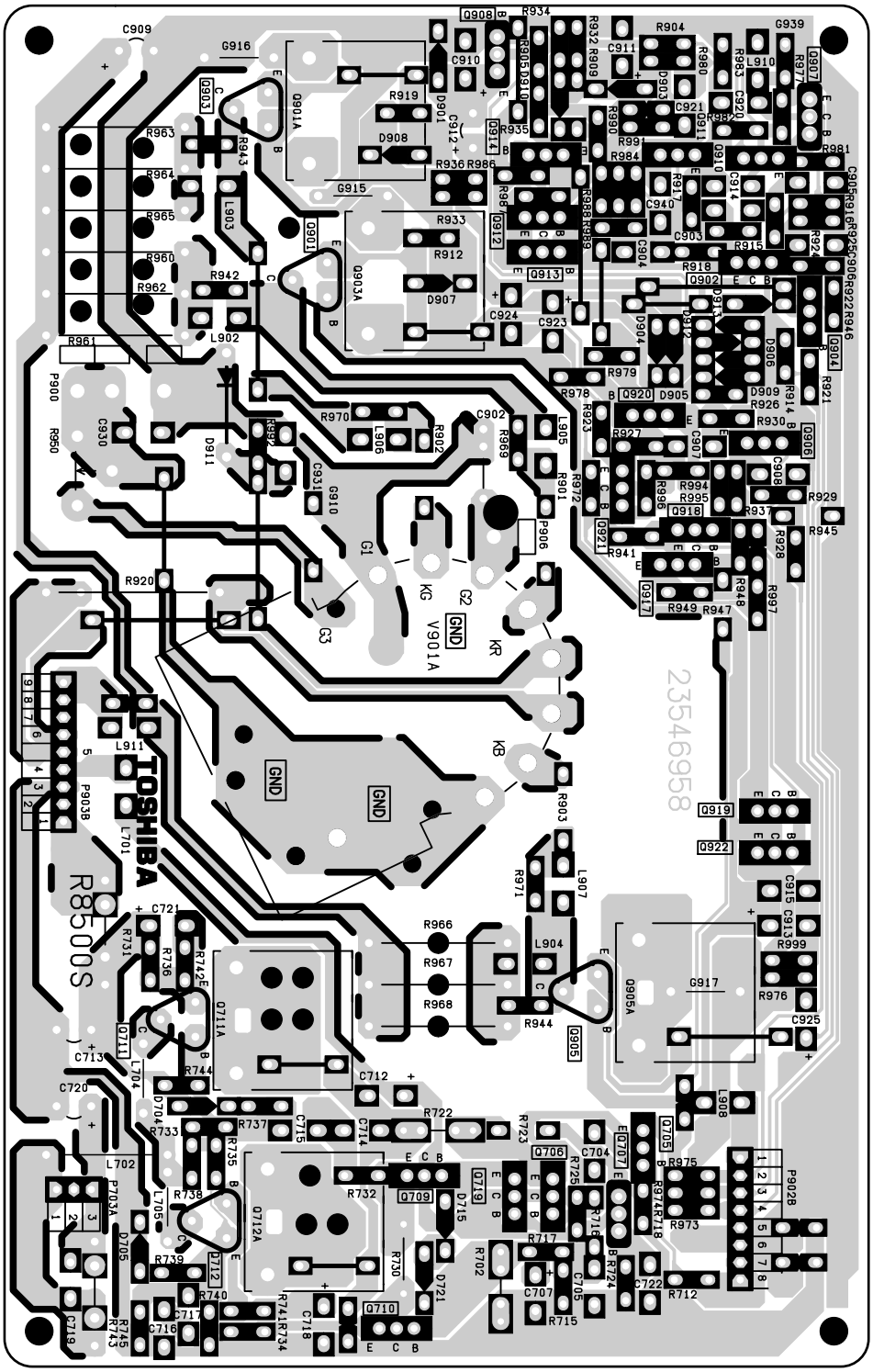
TEXT-P2 BOARD PD0267

BOTTOM (FOIL) SIDE



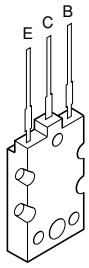
CRT DRIVE BOARD PD0491

BOTTOM (FOIL) SIDE

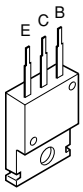


TERMINAL VIEW OF TRANSISTORS

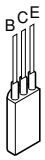
① 2SD2253
(old)
2SC5243
2SC5570



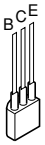
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



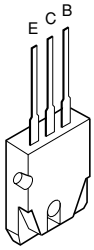
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



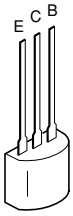
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



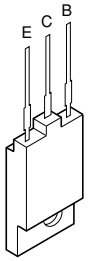
⑤ 2SA1788



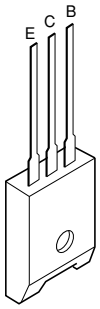
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553



⑧ ON4409



SCHEMATIC DIAGRAM

MODEL : 36ZP38B / 32ZP38B

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.

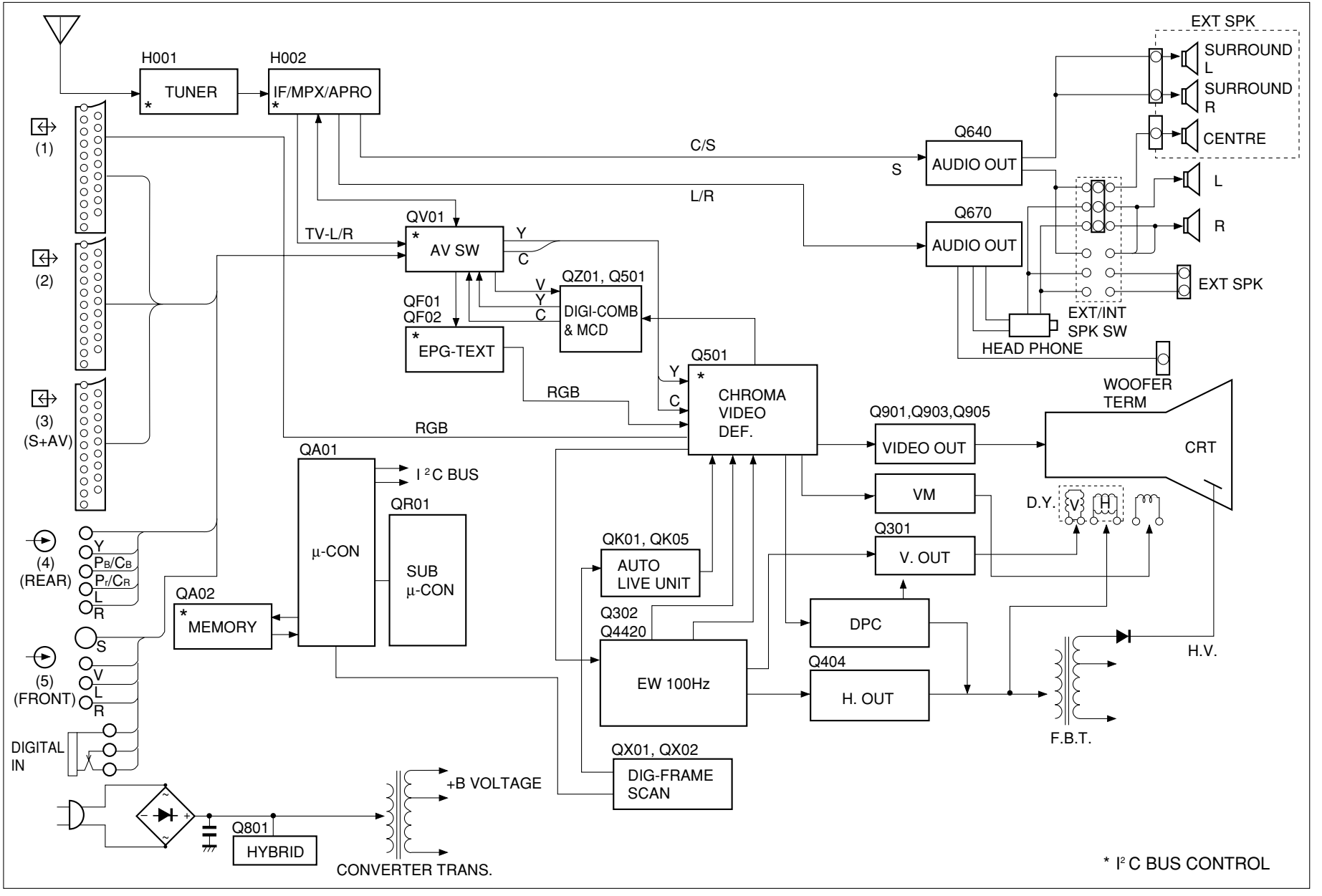
NOTE:

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 —|(M)|— 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:

- SIGNAL Circuit (36")
  - CONNECTORS [SHEET - 1/10] 1/35
  - MICRO [SHEET - 2/10] 2/35
  - AV [SHEET - 3/10] 3/35
  - COMB & MCD [SHEET - 4/10] 4/35
  - BEP [SHEET - 5/10] 5/35
  - AUDIO [SHEET - 6/10] 6/35
  - IF [SHEET - 7/10] 7/35
  - LOW-B REGULATOR [SHEET - 8/10] 8/35
  - FREQ_DET [SHEET - 9/10] 9/35
  - TEXT [SHEET - 10/10] ... 10/35
- POWER_INDI_CONT Circuit (36")
  - POWER [SHEET - 1/3] 11/35
  - INDICATOR [SHEET - 2/3] 12/35
  - CONTROL [SHEET - 3/3] 13/35
- DEF Circuit (36")
  - HORIZONTAL-DEF [SHEET - 1/2] 14/35
  - VERTICAL-DEF [SHEET - 2/2] 15/35
- CRT Circuit (36") 16/35
- SIGNAL Circuit (32")
  - CONNECTORS [SHEET - 1/10] 17/35
  - MICRO [SHEET - 2/10] 18/35
  - AV [SHEET - 3/10] 19/35
  - COMB & MCD [SHEET - 4/10] 20/35
  - BEP [SHEET - 5/10] 21/35
  - AUDIO [SHEET - 6/10] 22/35
  - IF [SHEET - 7/10] 23/35
  - LOW-B REGULATOR [SHEET - 8/10] 24/35
  - FREQ_DET [SHEET - 9/10] 25/35
  - TEXT [SHEET - 10/10] ... 26/35
- POWER_INDI_CONT Circuit (32")
  - POWER [SHEET - 1/3] 27/35
  - INDICATOR [SHEET - 2/3] 28/35
  - CONTROL [SHEET - 3/3] 29/35
- DEF Circuit (32")
  - HORIZONTAL-DEF [SHEET - 1/2] 30/35
  - VERTICAL-DEF [SHEET - 2/2] 31/35
- CRT Circuit (32") 32/35
- TEXT-P2 Circuit 33/35
- DIGITAL-IN Circuit 34/35
- EXT-SP Circuit 35/35

CIRCUIT BLOCK DIAGRAM



U903B INDICATOR BOARD
PD1008A-2

U903C CONTROL BOARD
PD1008A-3

U903A POWER BOARD
PD1008A-1

BAZOOKA
WOOFER-SPK

U902 SIGNAL BOARD
PD1007A

U905 D-IN BOARD
PD0549B

U906 EXT-SPK BOARD
PD0206A

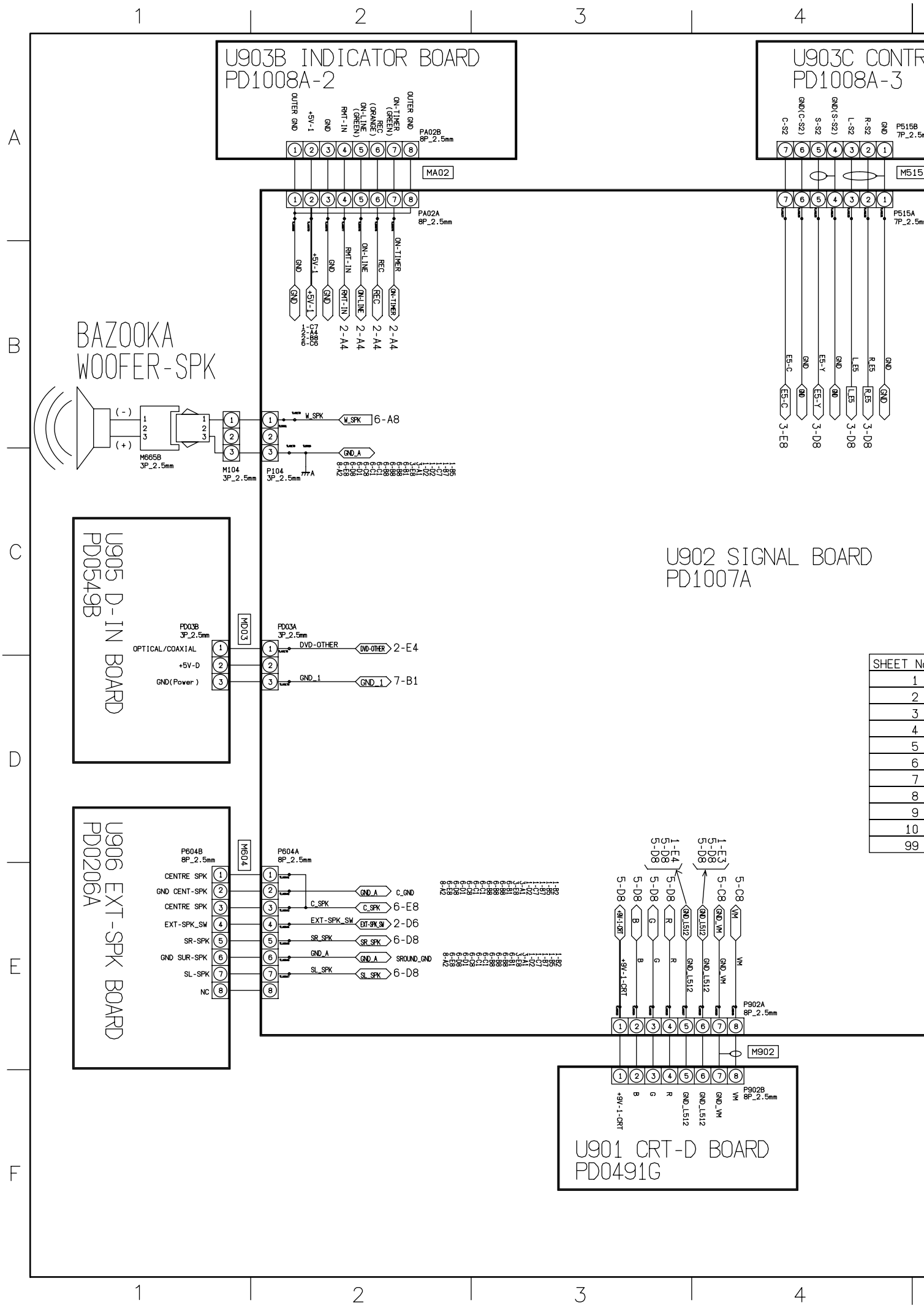
U904 DEF BOARD
PD1009A

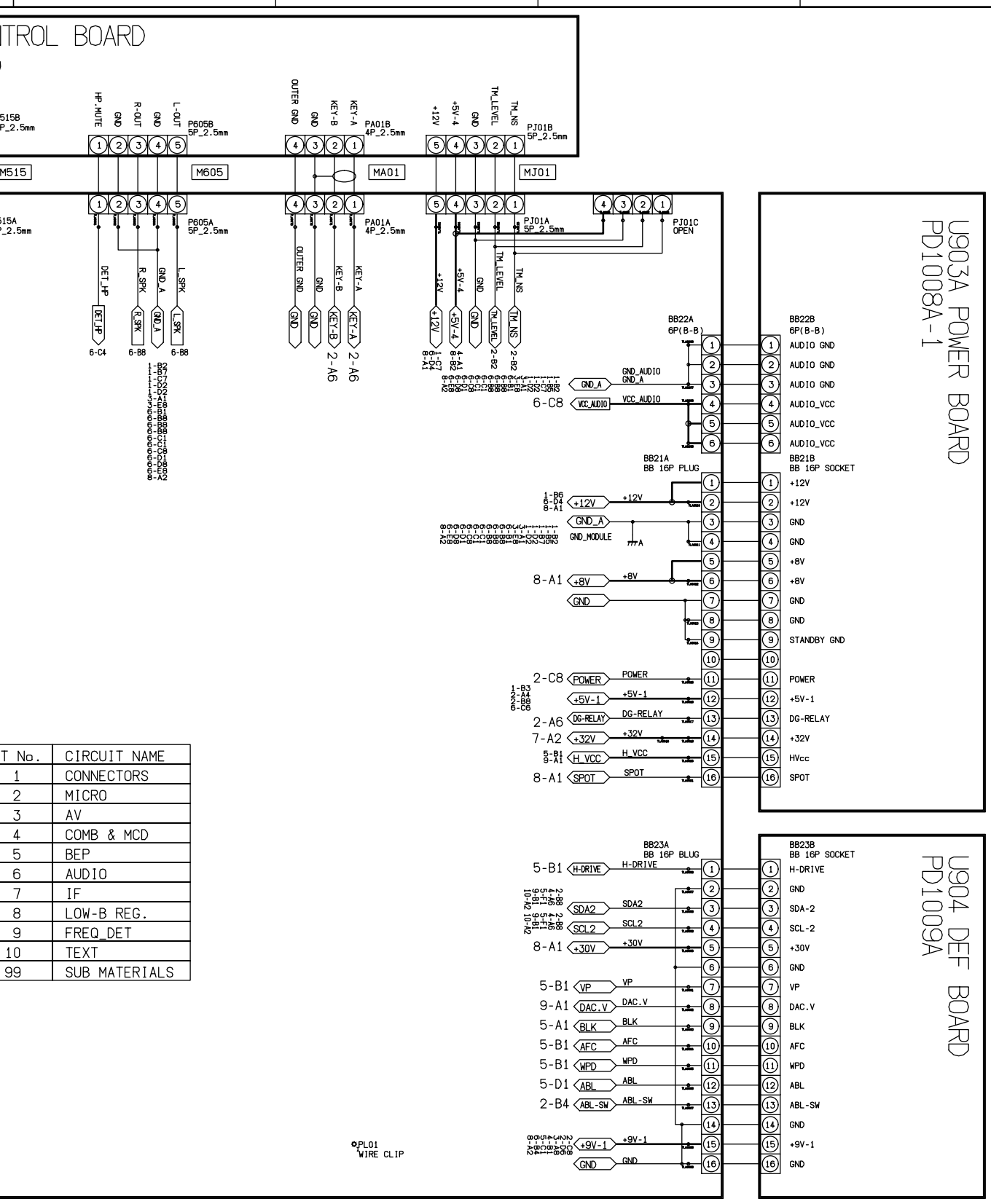
U901 CRT-D BOARD
PD0491G

SHEET No.	CIRCUIT NAME
1	CONNECTORS
2	MICRO
3	AV
4	COMB & MCD
5	BEP
6	AUDIO
7	IF
8	LOW-B REG.
9	FREQ_DET
10	TEXT
99	SUB MATERIALS

*PL01 WIRE CLIP

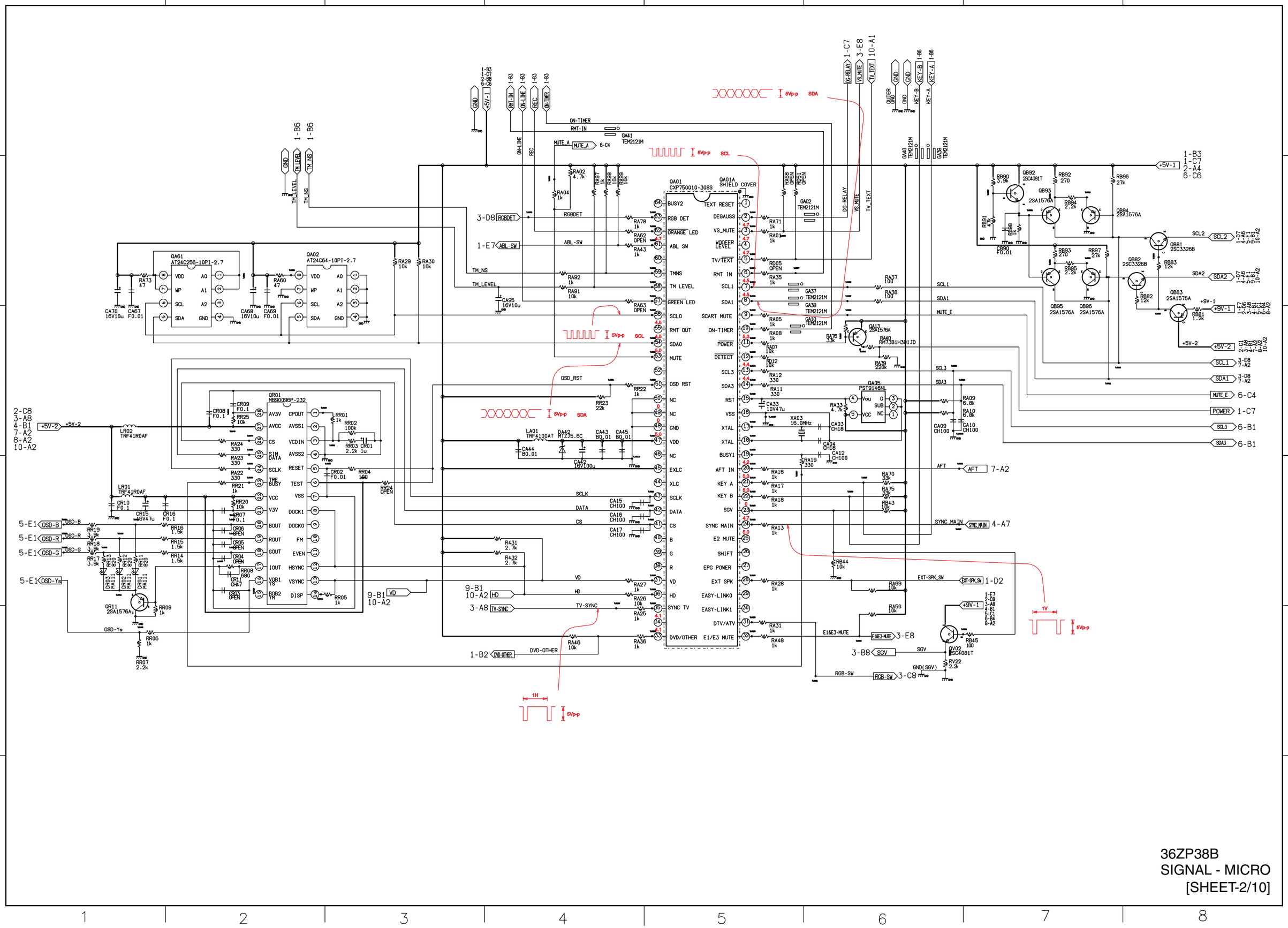
36ZP38B
SIGNAL - CONNECTORS
[SHEET-1/10]


U903B INDICATOR BOARD
PD1008A-2
U903C CONTR
PD1008A-3
BAZOOKA
WOOFER-SPK
U902 SIGNAL BOARD
PD1007A
U905 D-IN BOARD
PD0549B
U906 EXT-SPK BOARD
PD0206A
U901 CRT-D BOARD
PD0491G
PA02B
8P_2.5mm
PA02A
8P_2.5mm
MA02
P515B
7P_2.5m
P515A
7P_2.5m
M515
M665B
3P_2.5mm
M104
3P_2.5mm
P104
3P_2.5mm
PD03B
3P_2.5mm
PD03A
3P_2.5mm
MD03
P604B
8P_2.5mm
P604A
8P_2.5mm
M604
P902A
8P_2.5mm
P902B
8P_2.5mm
M902
OUTER GND
+5V-1
GND
RMT-IN
ON-LINE (ORANGE)
REC (RED)
ON-TIMER (GREEN)
OUTER GND
C-S2
GND(C-S2)
S-S2
GND(S-S2)
L-S2
R-S2
GND
W_SPK
GND_A
DVD-OTHER
GND_1
OPTICAL/COAXIAL
+5V-D
GND(Power)
CENTRE SPK
GND CENT-SPK
CENTRE SPK
EXT-SPK_SW
SR-SPK
GND SUR-SPK
SL-SPK
NC
C_GND
C_SPK
EXT-SPK_SW
SR_SPK
GND_A
SL_SPK
SROUND_GND
+9V-1-CRT
B
G
R
GND_L512
GND_VM
VM
E5-C
E5-Y
L_E5
R_E5
GND
SHEET No
1
2
3
4
5
6
7
8
9
10
99

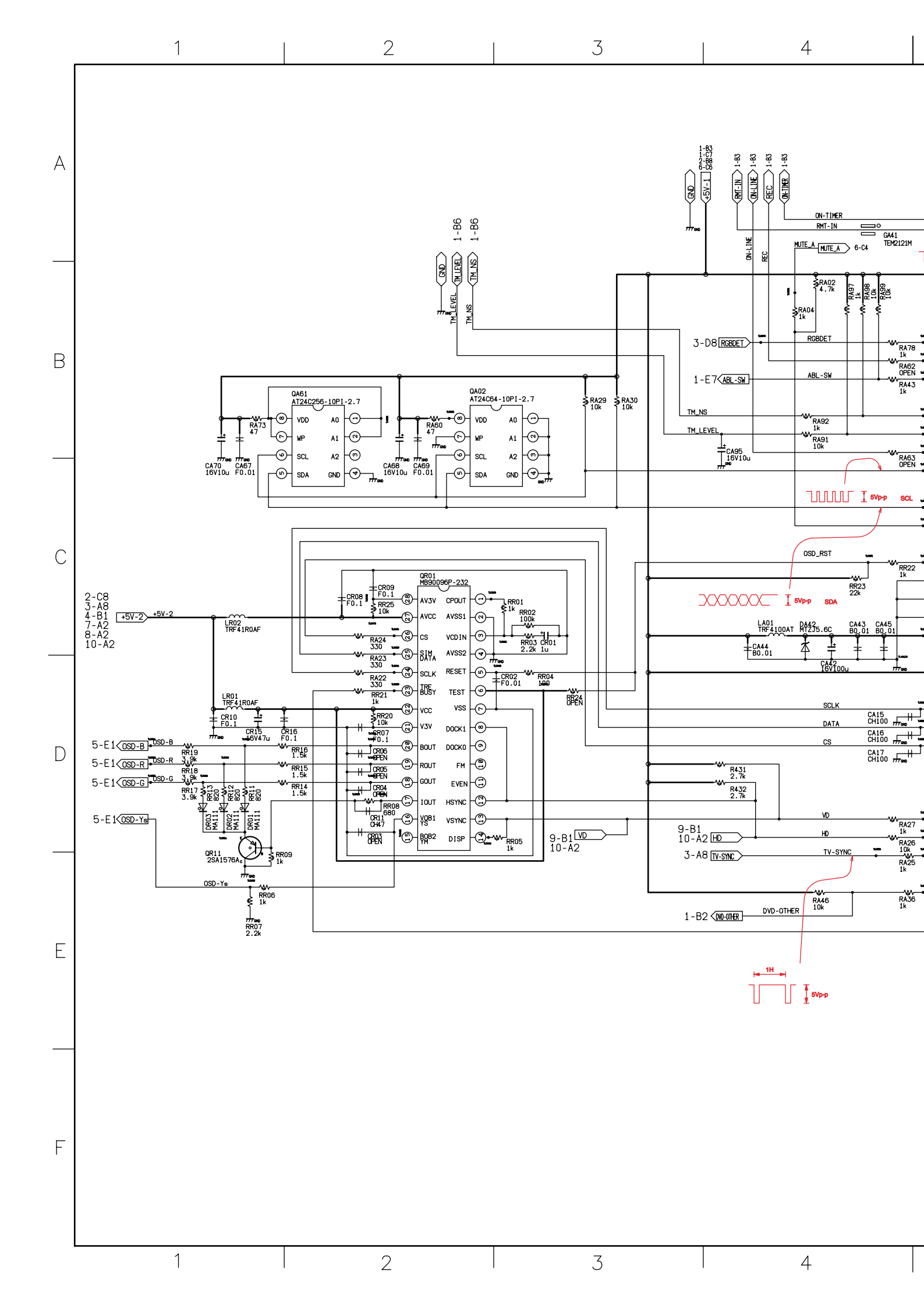


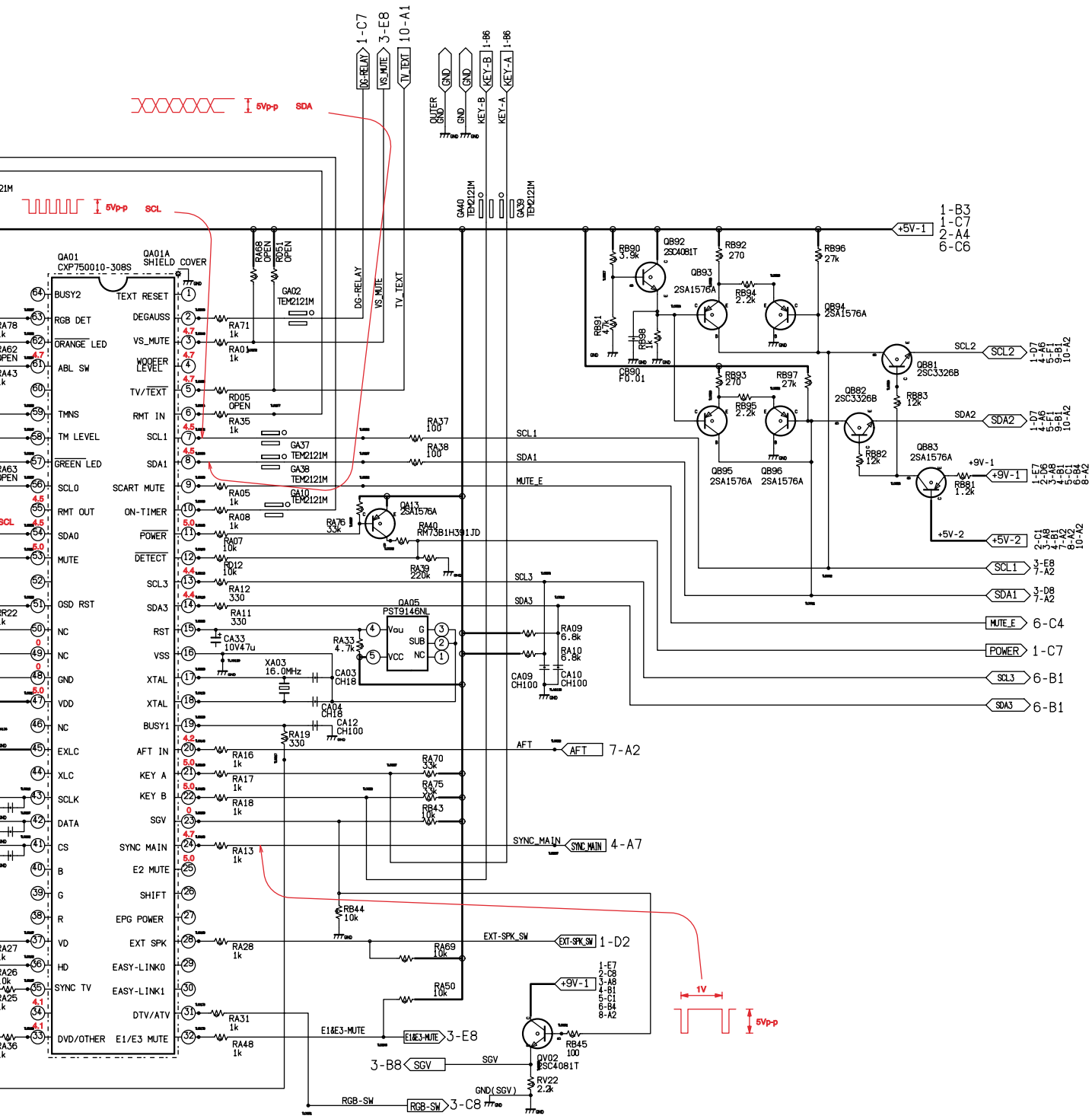
T No.	CIRCUIT NAME
1	CONNECTORS
2	MICRO
3	AV
4	COMB & MCD
5	BEP
6	AUDIO
7	IF
8	LOW-B REG.
9	FREQ_DET
10	TEXT
99	SUB MATERIALS

36ZP38B
SIGNAL - CONNECTORS
[SHEET-1/10]



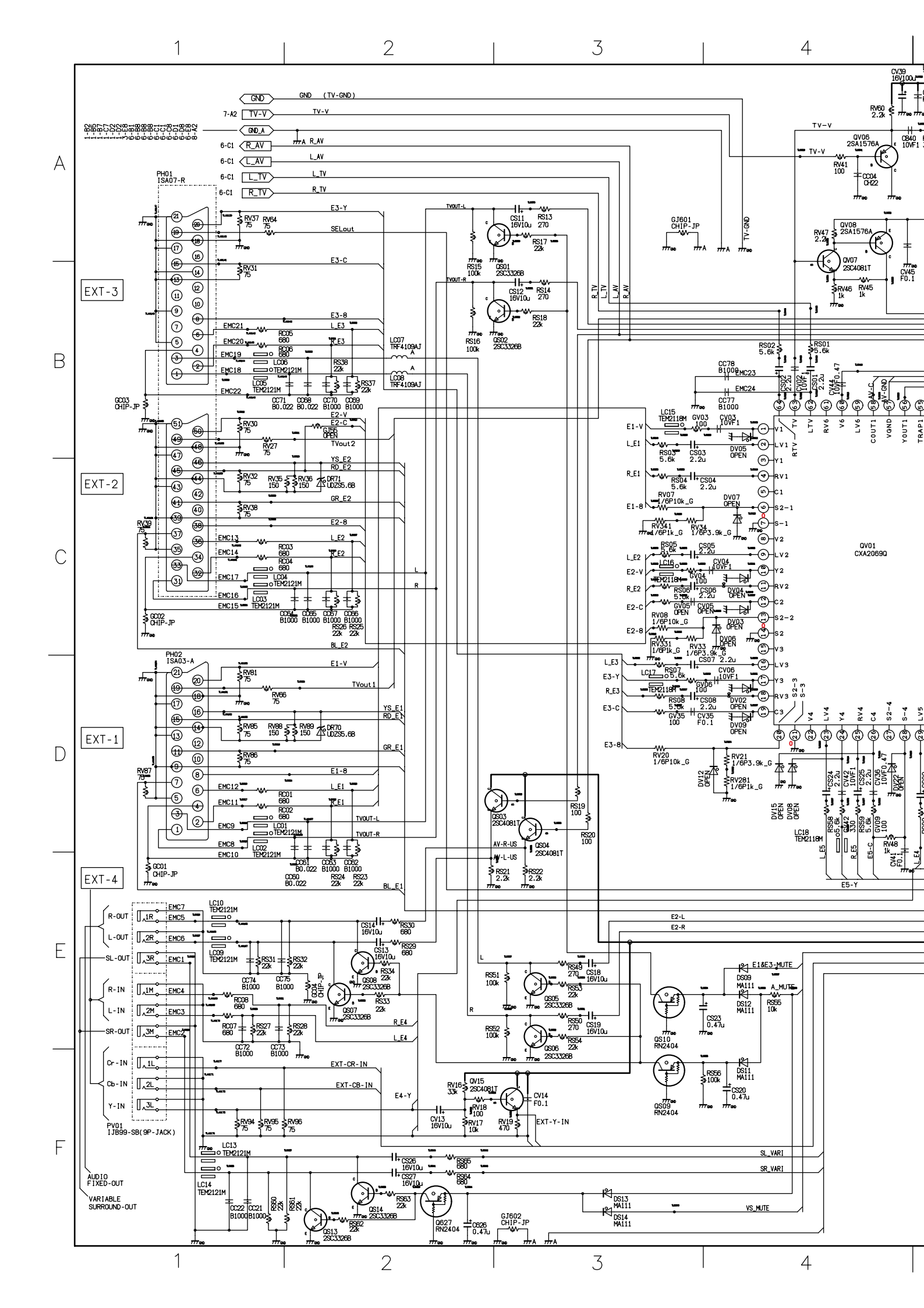
36ZP38B
SIGNAL - MICRO
[SHEET-2/10]

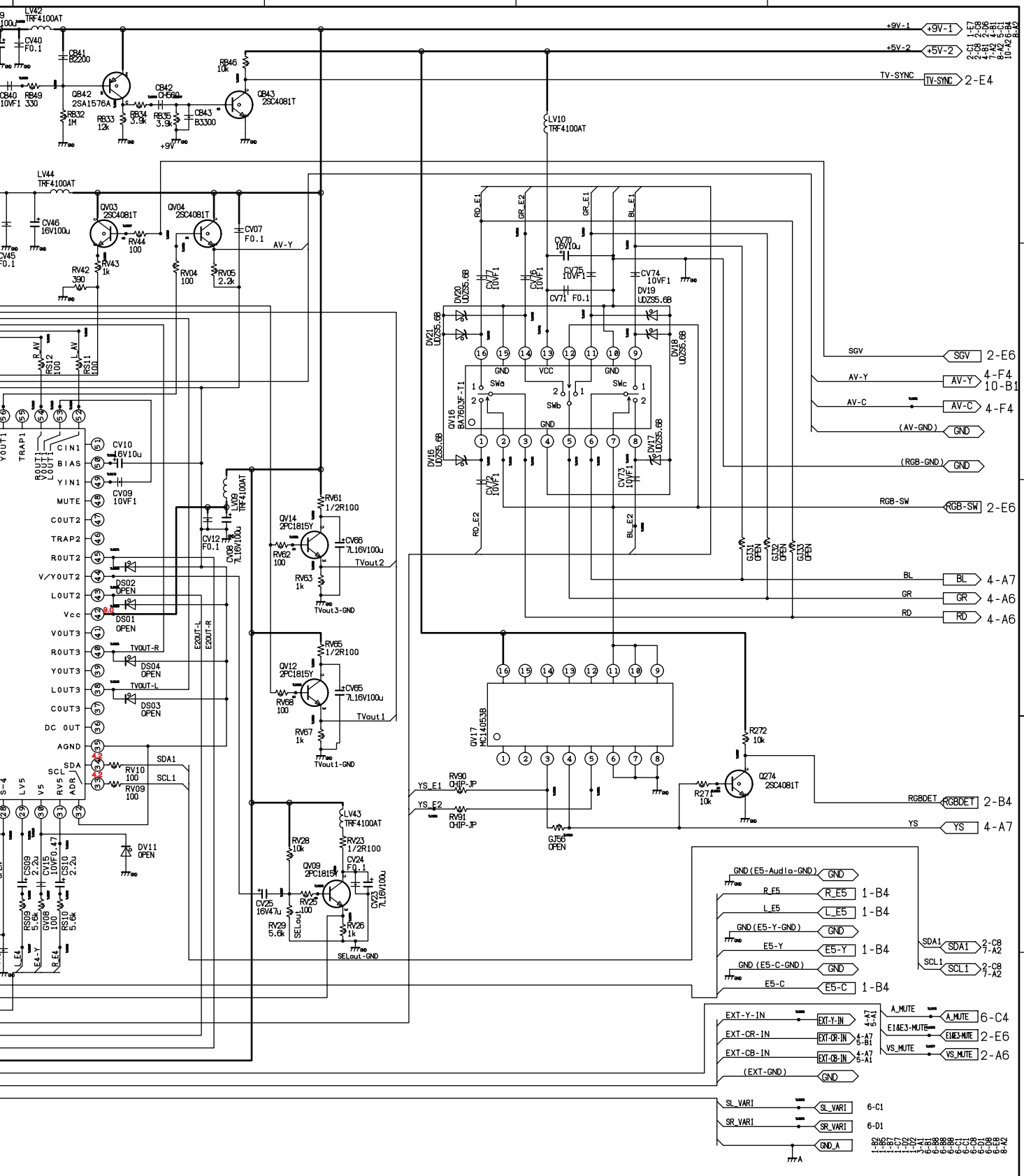

GND
+5V-1
RMT-IN
ON-LINE
REC
ON-TIMER
MUTE_A
6-C4
GA41
TEM2121M
TM_LEVEL
TM_NS
QA61
AT24C256-10PI-2.7
QA02
AT24C64-10PI-2.7
VDD
WP
SCL
SDA
A0
A1
A2
GND
RA73 47
RA60 47
CA70 16V10u
CA67 F0.01
CA68 16V10u
CA69 F0.01
RA29 10k
RA30 10k
RA02 4.7k
RA04 1k
RA97 1k
RA98 10k
RA99 10k
RGBDET
3-D8
RA78 1k
RA62 OPEN
ABL-SW
1-E7
RA43 1k
RA92 1k
RA91 10k
CA95 16V10u
RA63 OPEN
5Vp-p
SCL
OSD_RST
RR22 1k
RR23 22k
SDA
LA01 TRF4100AT
DA42 MTZJ5.6C
CA43 B0.01
CA45 B0.01
CA44 B0.01
CA42 16V100u
QR01
MB90096P-232
AV3V
AVCC
CS
SIM DATA
SCLK
TRE BUSY
VCC
V3V
BOUT
ROUT
GOUT
IOUT
VOB1 YS
BOB2 YM
CPOUT
AVSS1
VCDIN
AVSS2
RESET
TEST
VSS
DOCK1
DOCK0
FM
EVEN
HSYNC
VSYNC
DISP
CR09 F0.1
CR08 F0.1
RR25 10k
RR01 1k
RR02 100k
RR03 2.2k
CR01 1u
RA24 330
RA23 330
RA22 330
RR21 1k
CR02 F0.01
RR04 100
RR24 OPEN
RR20 10k
RR07 F0.1
CR06 OPEN
CR05 OPEN
CR04 OPEN
RR08 680
CR11 CH47
CR03 OPEN
RR05 1k
2-C8
3-A8
4-B1
7-A2
8-A2
10-A2
+5V-2
LR02 TRF41R0AF
LR01 TRF41R0AF
CR10 F0.1
CR15 16V47u
CR16 F0.1
5-E1
OSD-B
OSD-R
OSD-G
OSD-Ys
RR19 3.9k
RR18 3.9k
RR17 3.9k
RR16 1.5k
RR15 1.5k
RR14 1.5k
RR13 820
RR12 820
RR11 820
DR03 MA111
DR02 MA111
DR01 MA111
QR11 2SA1576A
RR09 1k
RR06 1k
RR07 2.2k
9-B1
10-A2
VD
HD
TV-SYNC
DVD-OTHER
1-B2
R431 2.7k
R432 2.7k
RA27 1k
RA26 10k
RA25 1k
RA46 10k
RA36 1k
CA15 CH100
CA16 CH100
CA17 CH100
SCLK
DATA
CS
1H
5Vp-p



36ZP38B
SIGNAL - MICRO
[SHEET-2/10]

36ZP38B
SIGNAL - AV
[SHEET-3/10]

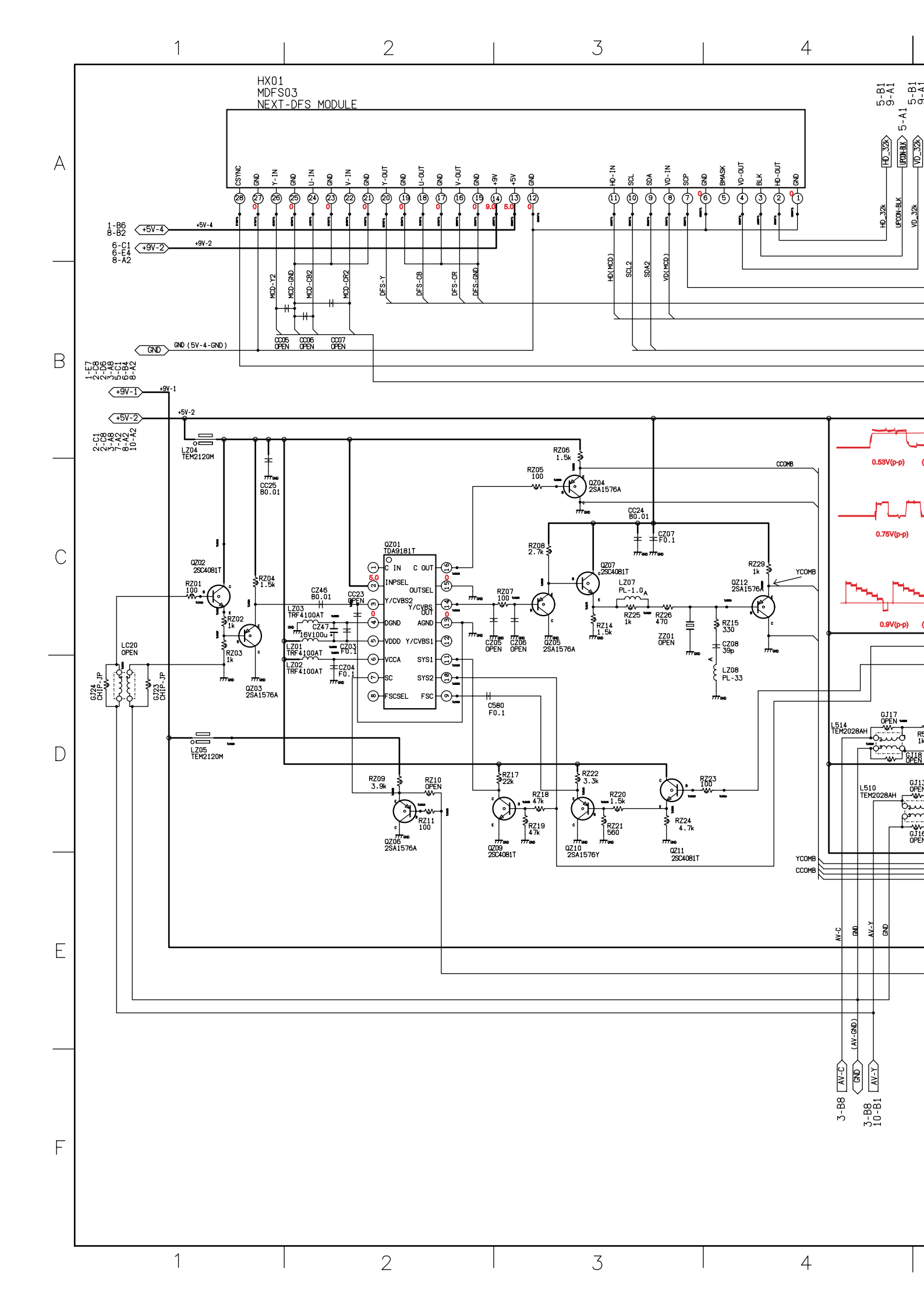

EXT-3
EXT-2
EXT-1
EXT-4
PH01 ISA07-R
PH02 ISA03-A
PV01 IJB99-SB(9P-JACK)
QV01 CXA2069Q
GND
TV-V
GND_A
R_AV
L_AV
L_TV
R_TV
E3-Y
SELout
E3-C
E3-8
E2-V
E2-C
TVout2
YS_E2
RD_E2
GR_E2
E2-8
BL_E2
E1-V
TVout1
YS_E1
RD_E1
GR_E1
E1-8
TVOUT-L
TVOUT-R
AV-R-US
AV-L-US
E2-L
E2-R
E4-Y
EXT-CR-IN
EXT-CB-IN
EXT-Y-IN
E1&E3-MUTE
A_MUTE
SL_VARI
SR_VARI
VS_MUTE
R-OUT
L-OUT
SL-OUT
R-IN
L-IN
SR-OUT
Cr-IN
Cb-IN
Y-IN
AUDIO FIXED-OUT
VARIABLE SURROUND-OUT

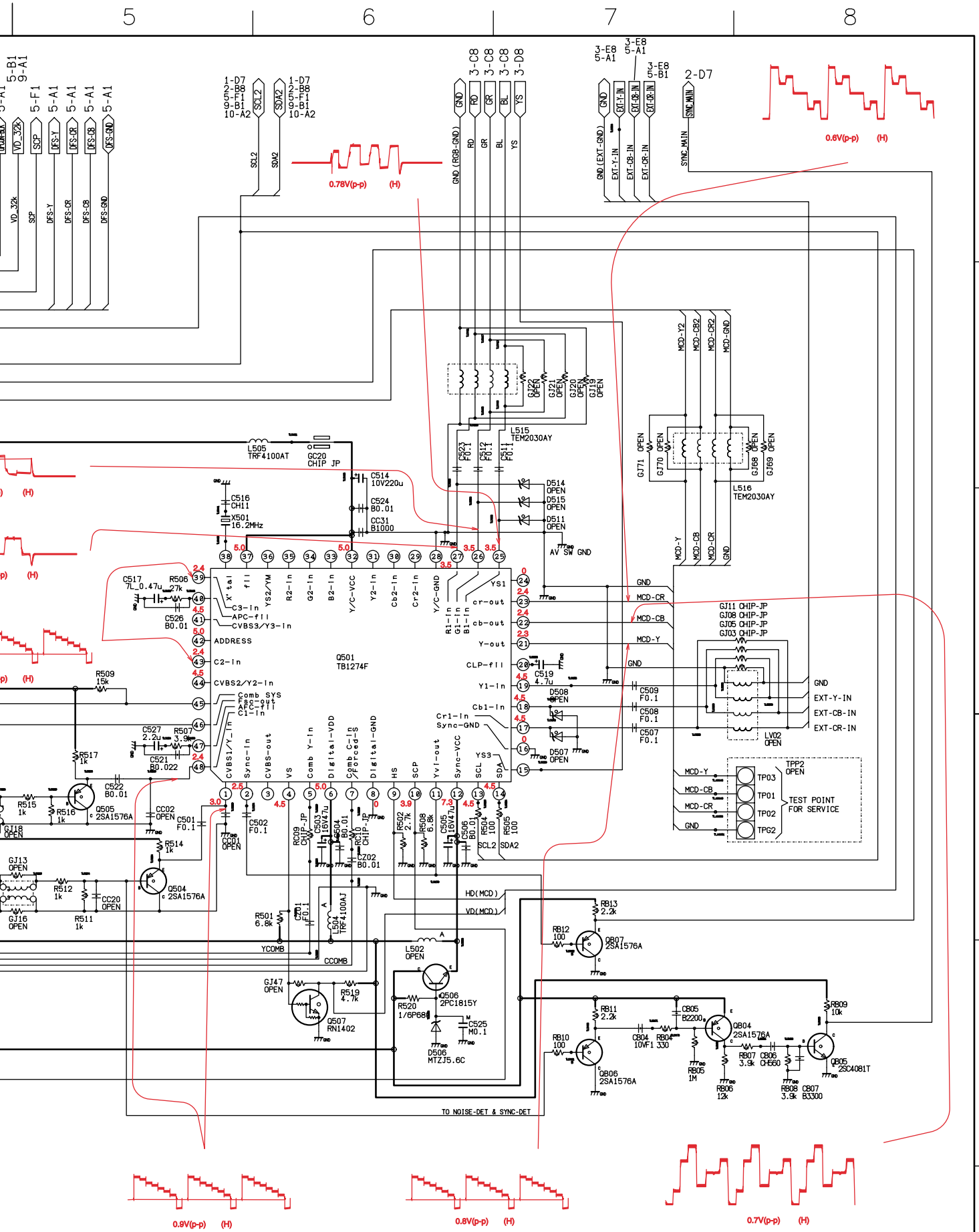


36ZP38B
SIGNAL - AV
[SHEET-3/10]

HX01
MDFS03
NEXT-DFS MODULE

36ZP38B
SIGNAL - COMB & MCD
[SHEET-4/10]


HX01
MDFS03
NEXT-DFS MODULE
CSYNC
GND
Y-IN
U-IN
V-IN
Y-OUT
U-OUT
V-OUT
+9V
+5V
HD-IN
SCL
SDA
VD-IN
SCP
BMASK
VD-OUT
BLK
HD-OUT
+5V-4
+9V-2
+9V-1
+5V-2
GND (5V-4-GND)
MCD-Y2
MCD-GND
MCD-CB2
MCD-CR2
DFS-Y
DFS-CB
DFS-CR
DFS-GND
HD(MCD)
SCL2
SDA2
VD(MCD)
HD_32k
UPDN-BLK
VD_32k
CC05 OPEN
CC06 OPEN
CC07 OPEN
LZ04 TEM2120M
LZ05 TEM2120M
CC25 B0.01
CC24 B0.01
QZ01 TDA9181T
C IN
C OUT
INPSEL
OUTSEL
Y/CVBS2
Y/CVBS OUT
DGND
AGND
VDDD
Y/CVBS1
VCCA
SYS1
SC
SYS2
FSCSEL
FSC
QZ02 2SC4081T
QZ03 2SA1576A
QZ04 2SA1576A
QZ05 2SA1576A
QZ06 2SA1576A
QZ07 2SC4081T
QZ09 2SC4081T
QZ10 2SA1576Y
QZ11 2SC4081T
QZ12 2SA1576A
LZ03 TRF4100AT
LZ01 TRF4100AT
LZ02 TRF4100AT
LZ07 PL-1.0A
LZ08 PL-33
CZ46 B0.01
CZ47 16V100u
CZ03 F0.1
CZ04 F0.1
CZ07 F0.1
CZ05 OPEN
CZ06 OPEN
CZ08 39p
ZZ01 OPEN
C580 F0.1
CC23 OPEN
LC20 OPEN
GJ24 CHIP-JP
GJ23 CHIP-JP
GJ17 OPEN
GJ18 OPEN
L514 TEM2028AH
L510 TEM2028AH
CCOMB
YCOMB
0.53V(p-p)
0.75V(p-p)
0.9V(p-p)
AV-C
AV-Y
(AV-GND)
3-B8
10-B1
5-B1
9-A1
5-A1

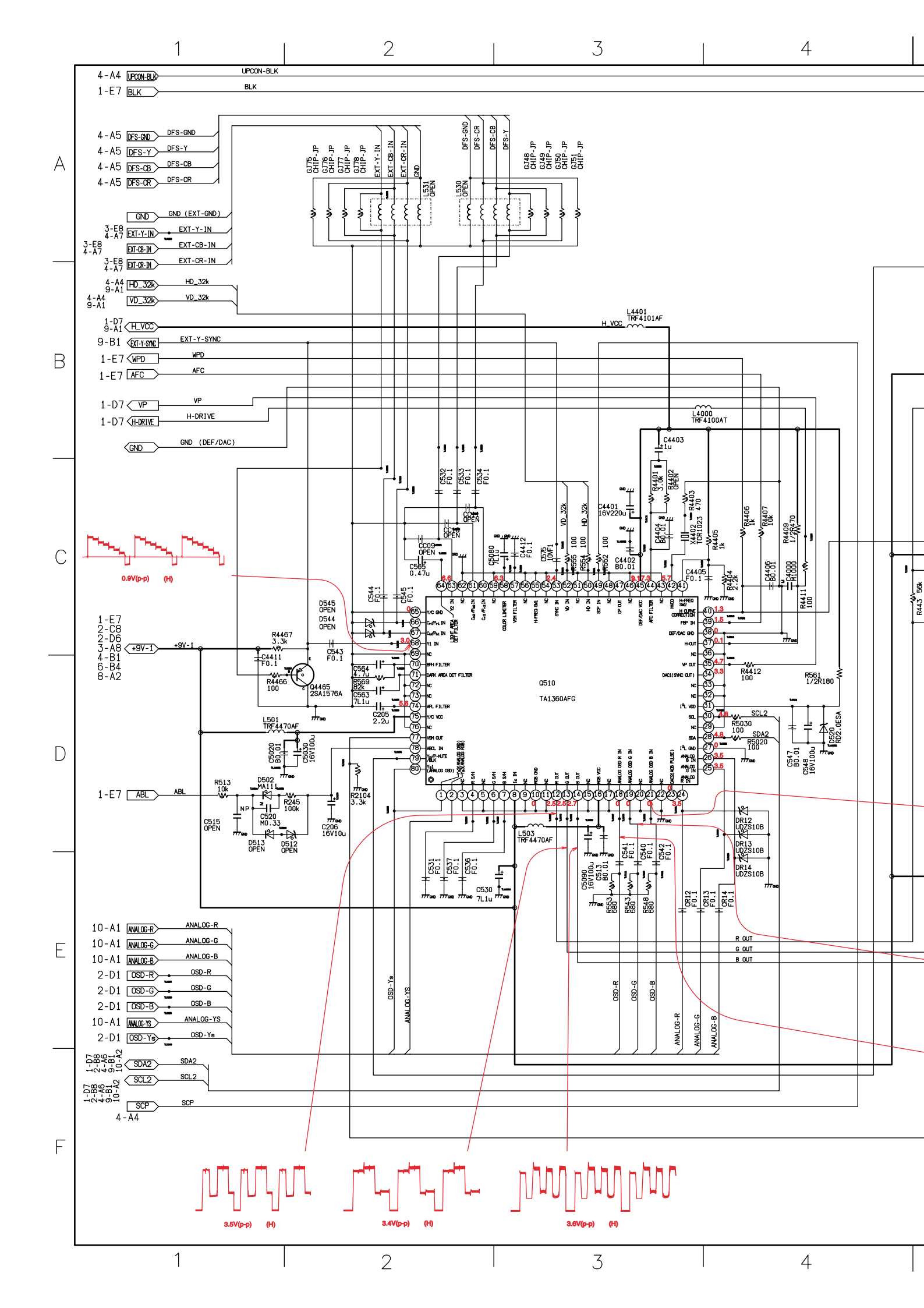


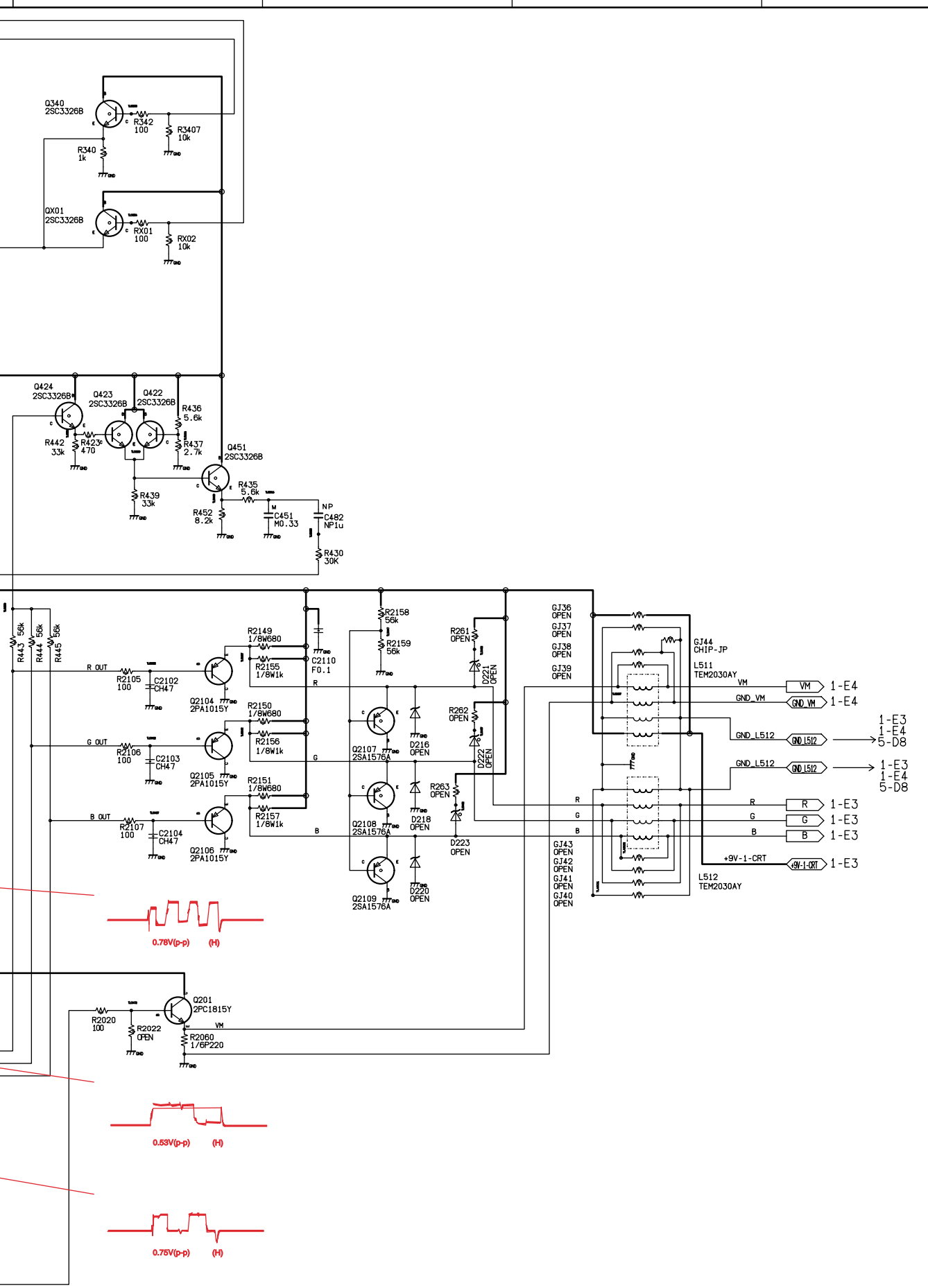
36ZP38B
SIGNAL - COMB & MCD
[SHEET-4/10]

36ZP38B
SIGNAL - BEP
[SHEET-5/10]

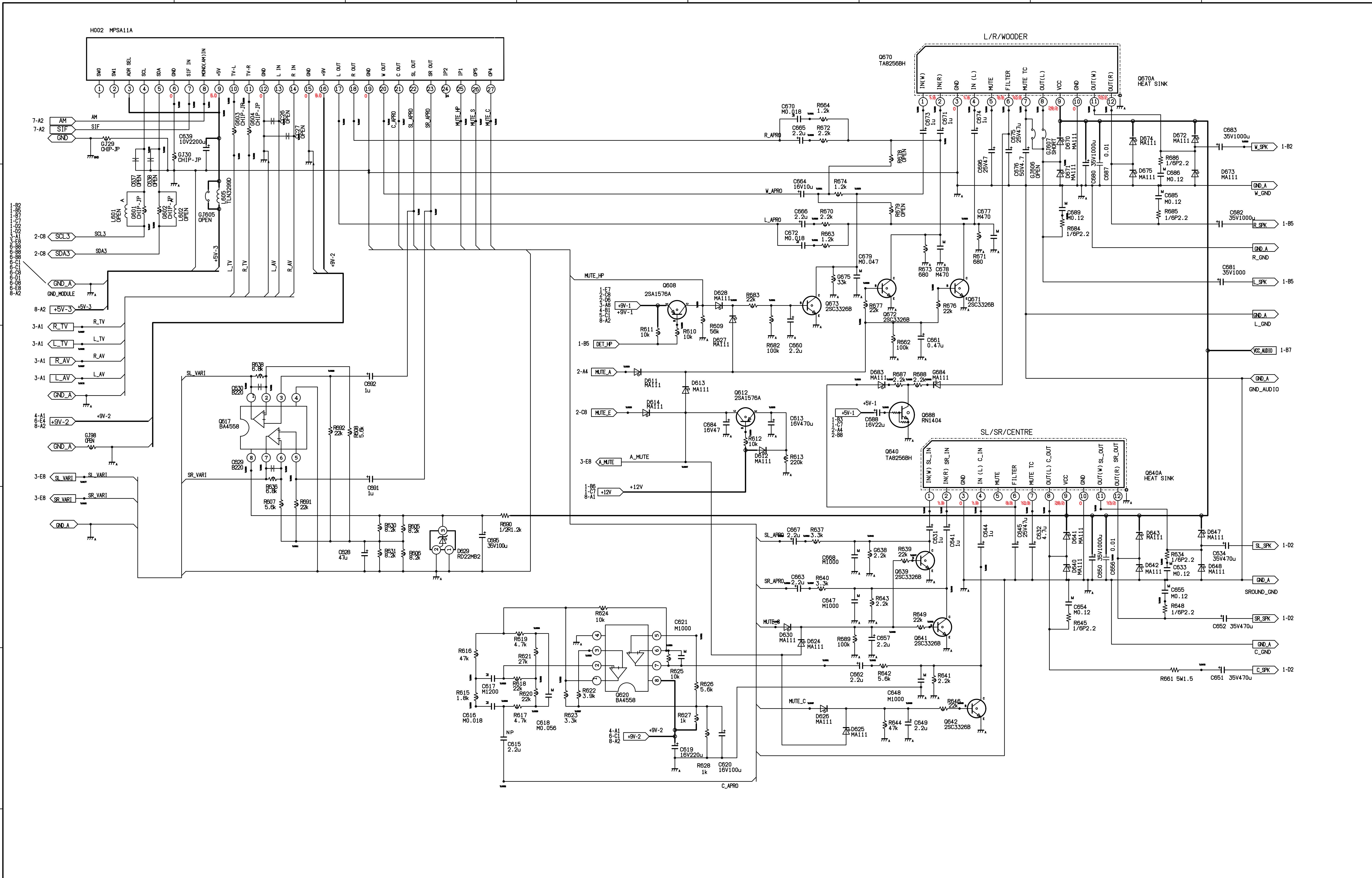
UPCON-BLK
BLK
DFS-GND
DFS-Y
DFS-CB
DFS-CR
GND (EXT-GND)
EXT-Y-IN
EXT-CB-IN
EXT-CR-IN
HD_32k
VD_32k
H_VCC
EXT-Y-SYNC
WPD
AFC
VP
H-DRIVE
GND (DEF/DAC)
+9V-1
ABL
ANALOG-R
ANALOG-G
ANALOG-B
OSD-R
OSD-G
OSD-B
ANALOG-YS
OSD-Ys
SDA2
SCL2
SCP
R OUT
G OUT
B OUT
VM
GND_VM
GND_L512
+9V-1-CRT

0.9V(p-p) (H)
0.78V(p-p) (H)
0.53V(p-p) (H)
0.75V(p-p) (H)
3.5V(p-p) (H)
3.4V(p-p) (H)
3.6V(p-p) (H)

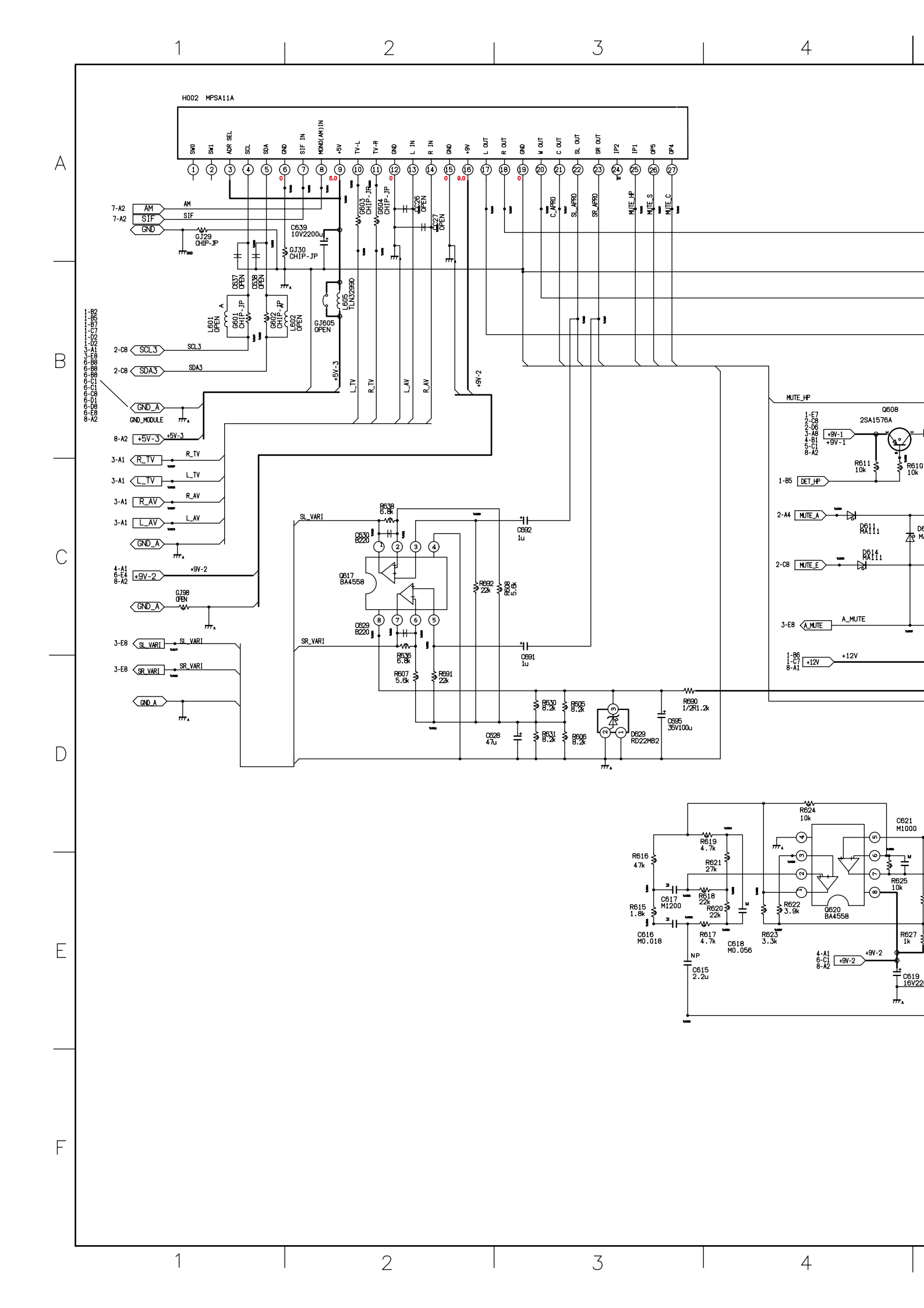

UPCON-BLK
BLK
DFS-GND
DFS-Y
DFS-CB
DFS-CR
GND (EXT-GND)
EXT-Y-IN
EXT-CB-IN
EXT-CR-IN
HD_32k
VD_32k
H_VCC
EXT-Y-SYNC
WPD
AFC
VP
H-DRIVE
GND (DEF/DAC)
L4401 TRF4101AF
L4000 TRF4100AT
Q510
TA1360AFG
L501 TRF4470AF
L503 TRF4470AF
Q4465 2SA1576A
+9V-1
ABL
ANALOG-R
ANALOG-G
ANALOG-B
OSD-R
OSD-G
OSD-B
ANALOG-YS
OSD-Ys
SDA2
SCL2
SCP
R OUT
G OUT
B OUT
0.9V(p-p) (H)
3.5V(p-p) (H)
3.4V(p-p) (H)
3.6V(p-p) (H)

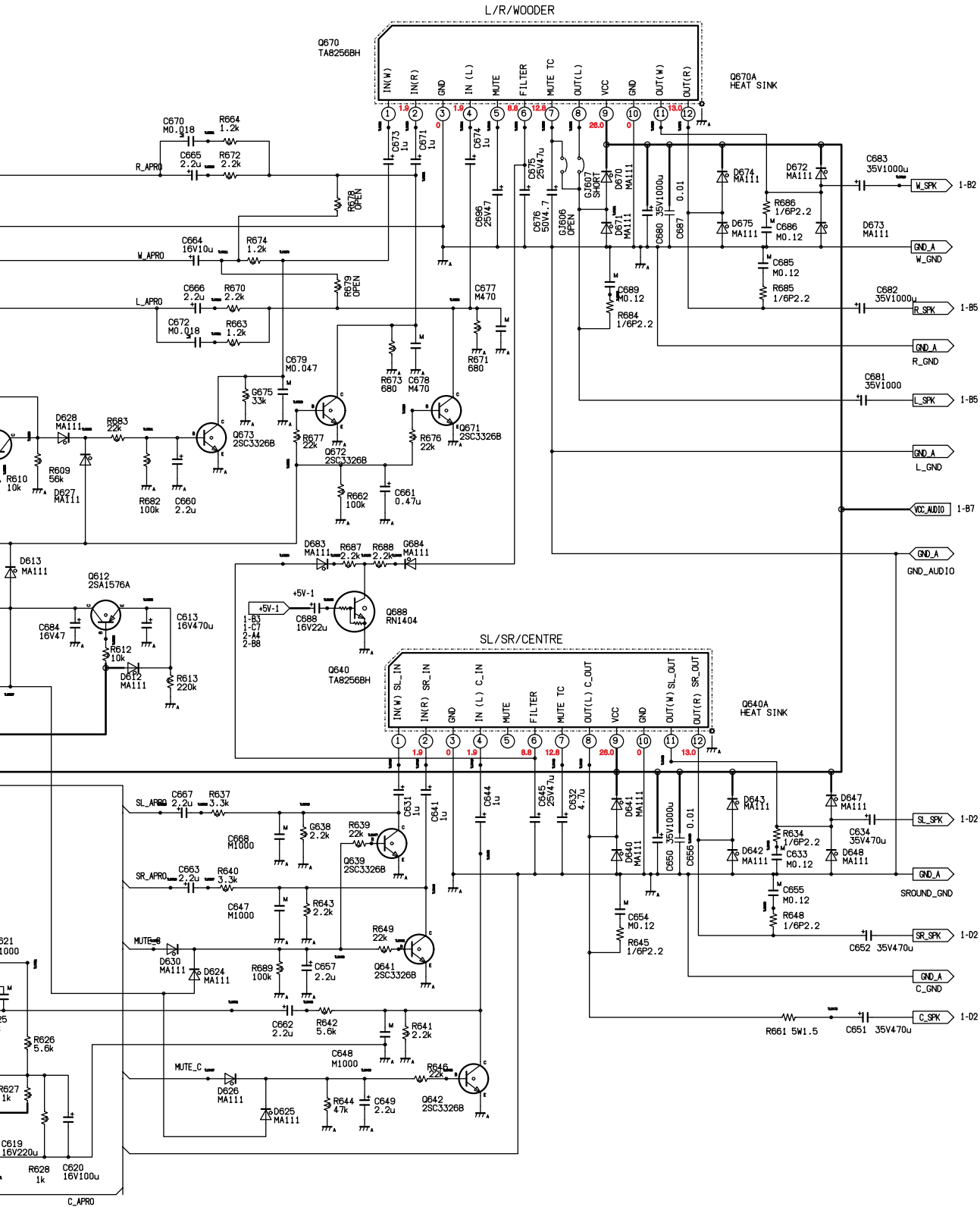


36ZP38B
SIGNAL - BEP
[SHEET-5/10]

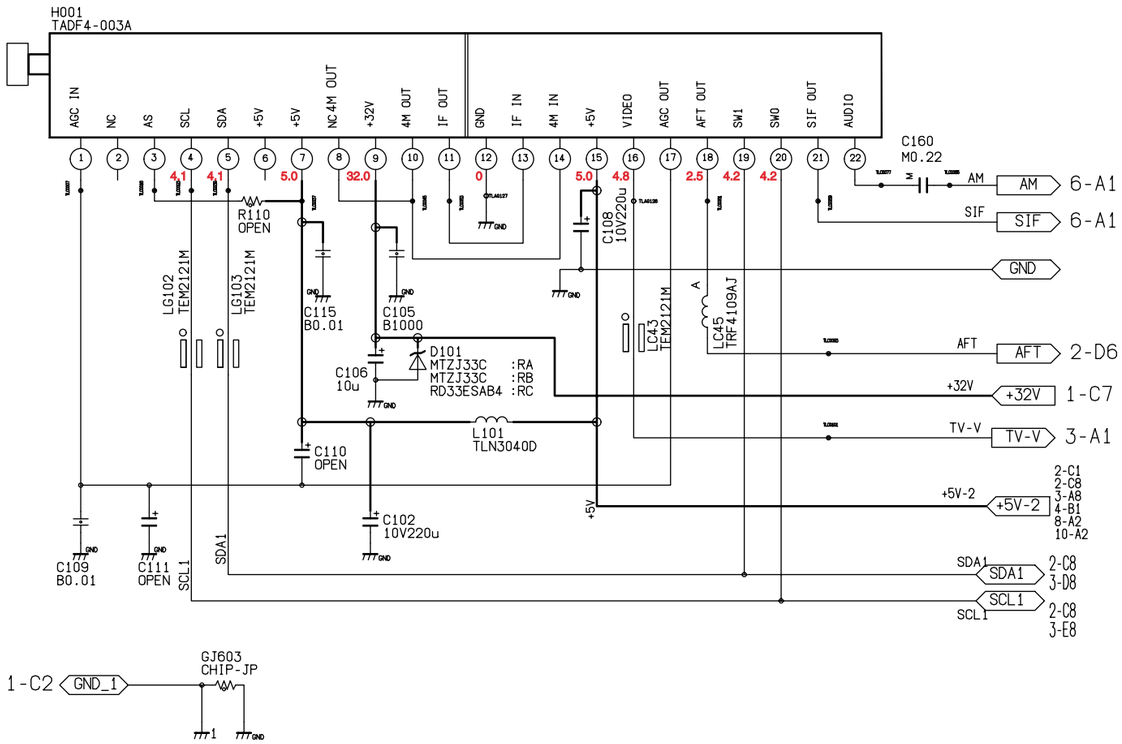


36ZP38B
SIGNAL - AUDIO
[SHEET-6/10]

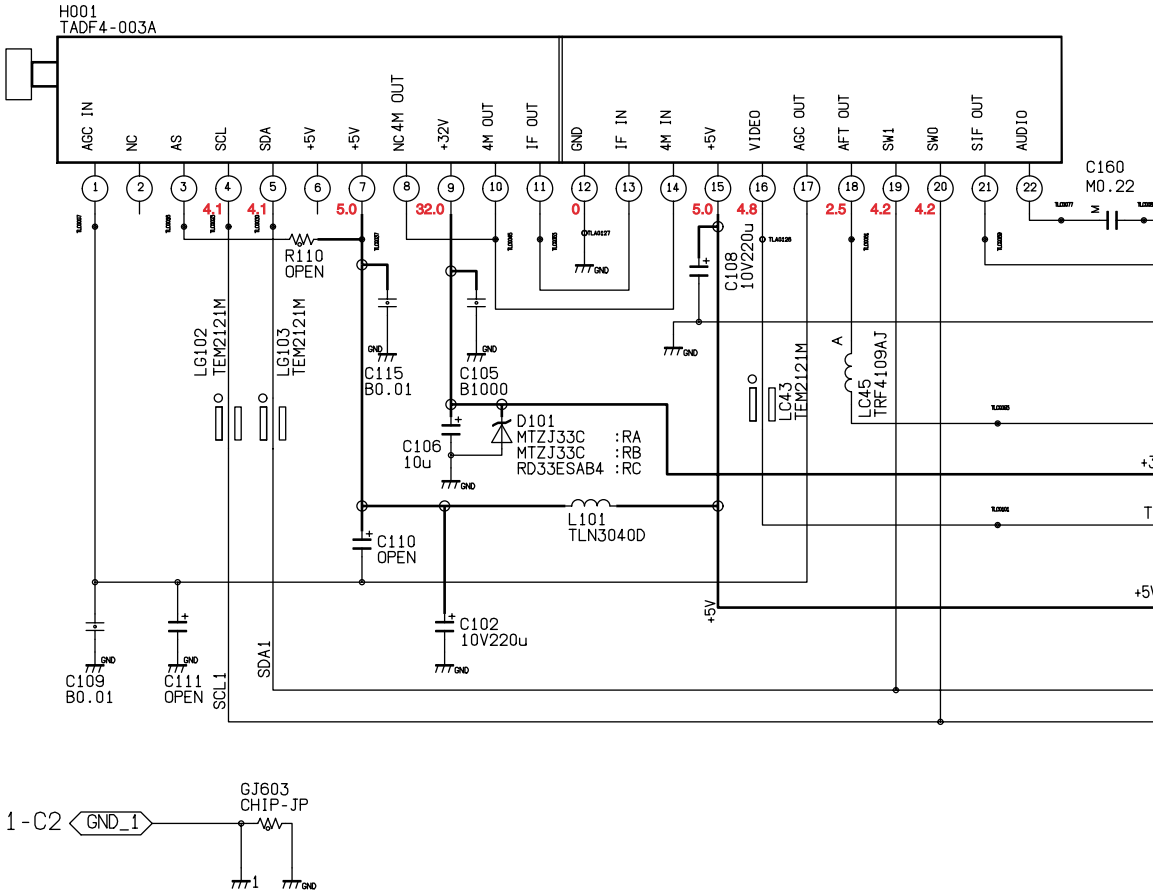

H002 MPSA11A
SW0
SW1
ADR SEL
SCL
SDA
GND
SIF IN
MONO(AM)IN
+5V
TV-L
TV-R
GND
L IN
R IN
GND
+9V
L OUT
R OUT
GND
W OUT
C OUT
SL OUT
SR OUT
IP2
IP1
OP5
OP4
AM
SIF
GND
SCL3
SDA3
GND_A
GND_MODULE
+5V-3
R_TV
L_TV
R_AV
L_AV
GND_A
+9V-2
GND_A
SL_VARI
SR_VARI
GND_A
MUTE_HP
Q608
2SA1576A
DET_HP
MUTE_A
MUTE_E
A_MUTE
+12V
SL_VARI
SR_VARI
Q617
BA4558
D629
RD22MB2
Q620
BA4558
NP

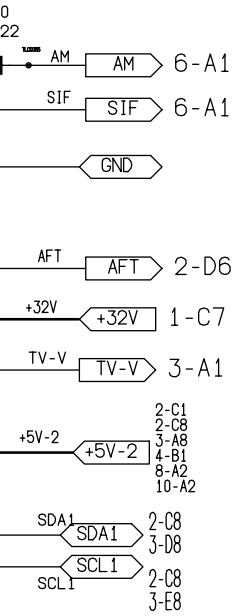


36ZP38B
SIGNAL - AUDIO
[SHEET-6/10]



36ZP38B
SIGNAL - IF
[SHEET-7/10]

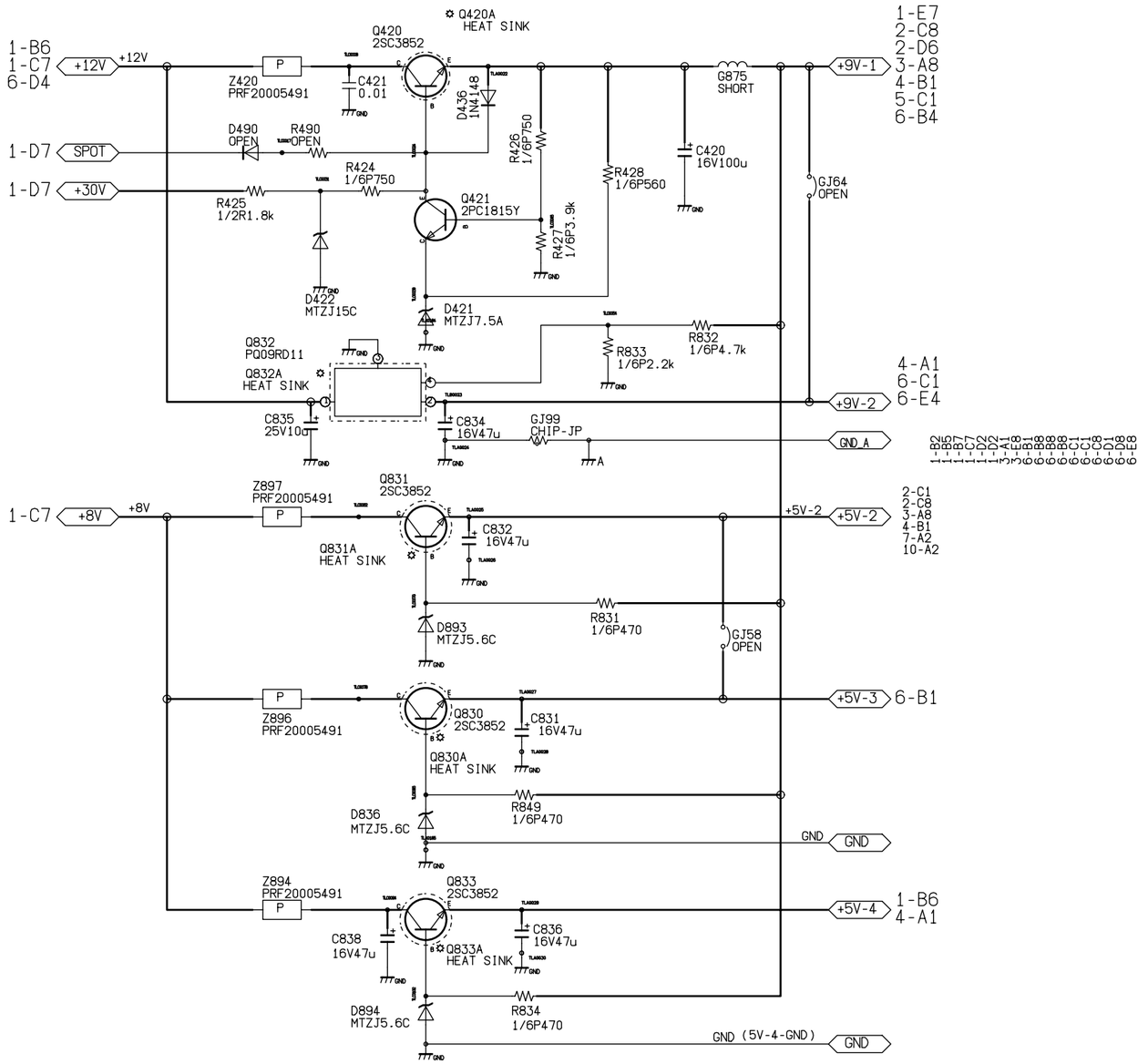

H001
TADF4-003A
AGC IN
NC
AS
SCL
SDA
+5V
+5V
NC4M OUT
+32V
4M OUT
IF OUT
GND
IF IN
4M IN
+5V
VIDEO
AGC OUT
AFT OUT
SW1
SW0
SIF OUT
AUDIO
C160
M0.22
4.1
4.1
5.0
32.0
0
5.0
4.8
2.5
4.2
4.2
R110
OPEN
C108
10V220u
LG102
TEM2121M
LG103
TEM2121M
C115
B0.01
C105
B1000
D101
MTZJ33C :RA
MTZJ33C :RB
RD33ESAB4 :RC
C106
10u
LC43
TEM2121M
LC45
TRF4109AJ
L101
TLN3040D
C110
OPEN
C102
10V220u
C109
B0.01
C111
OPEN
SCL1
SDA1
+5V
GJ603
CHIP-JP
1-C2
GND_1



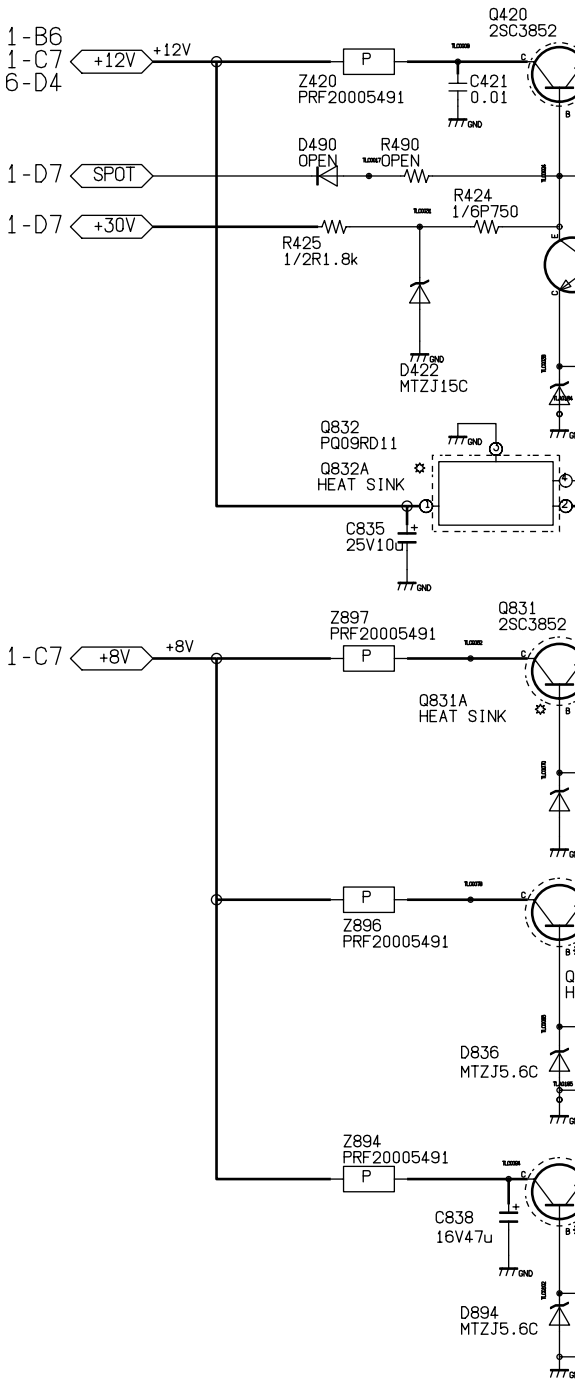
A

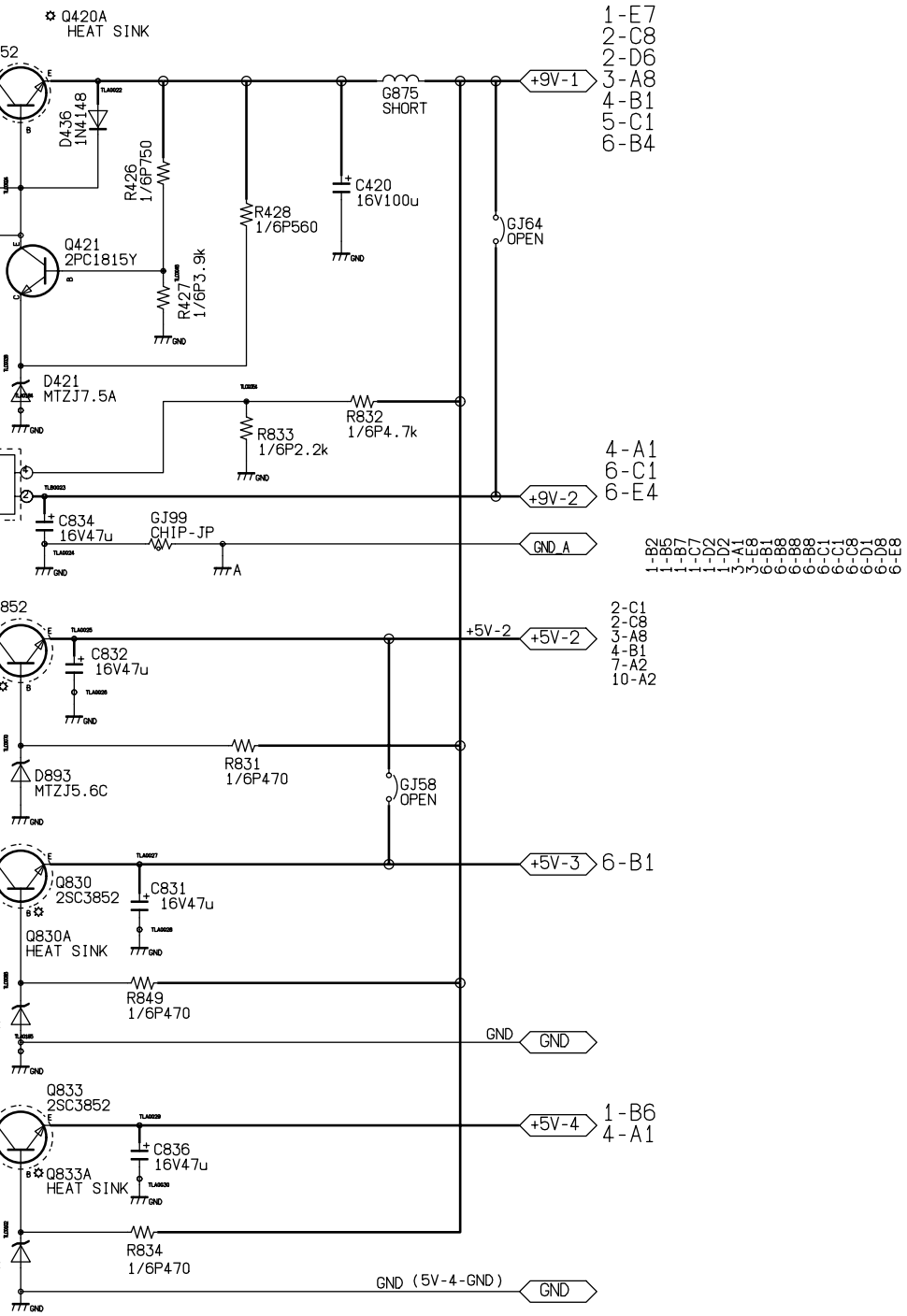
B

36ZP38B
SIGNAL - IF
[SHEET-7/10]

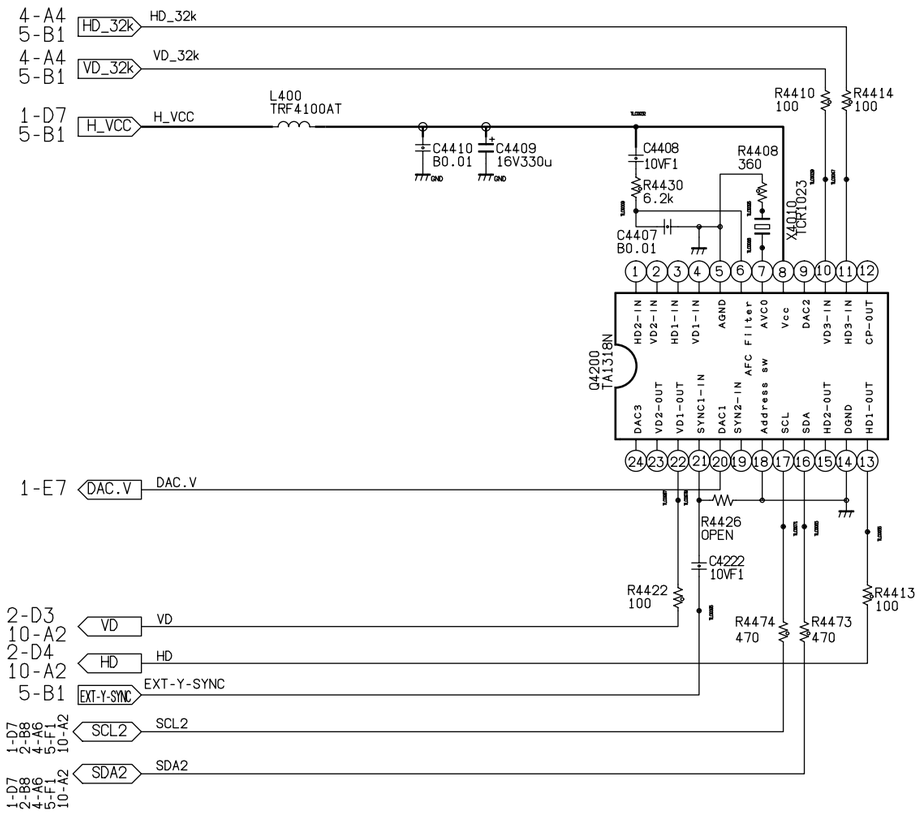


36ZP38B
SIGNAL - LOW-B REGULATOR
[SHEET-8/10]

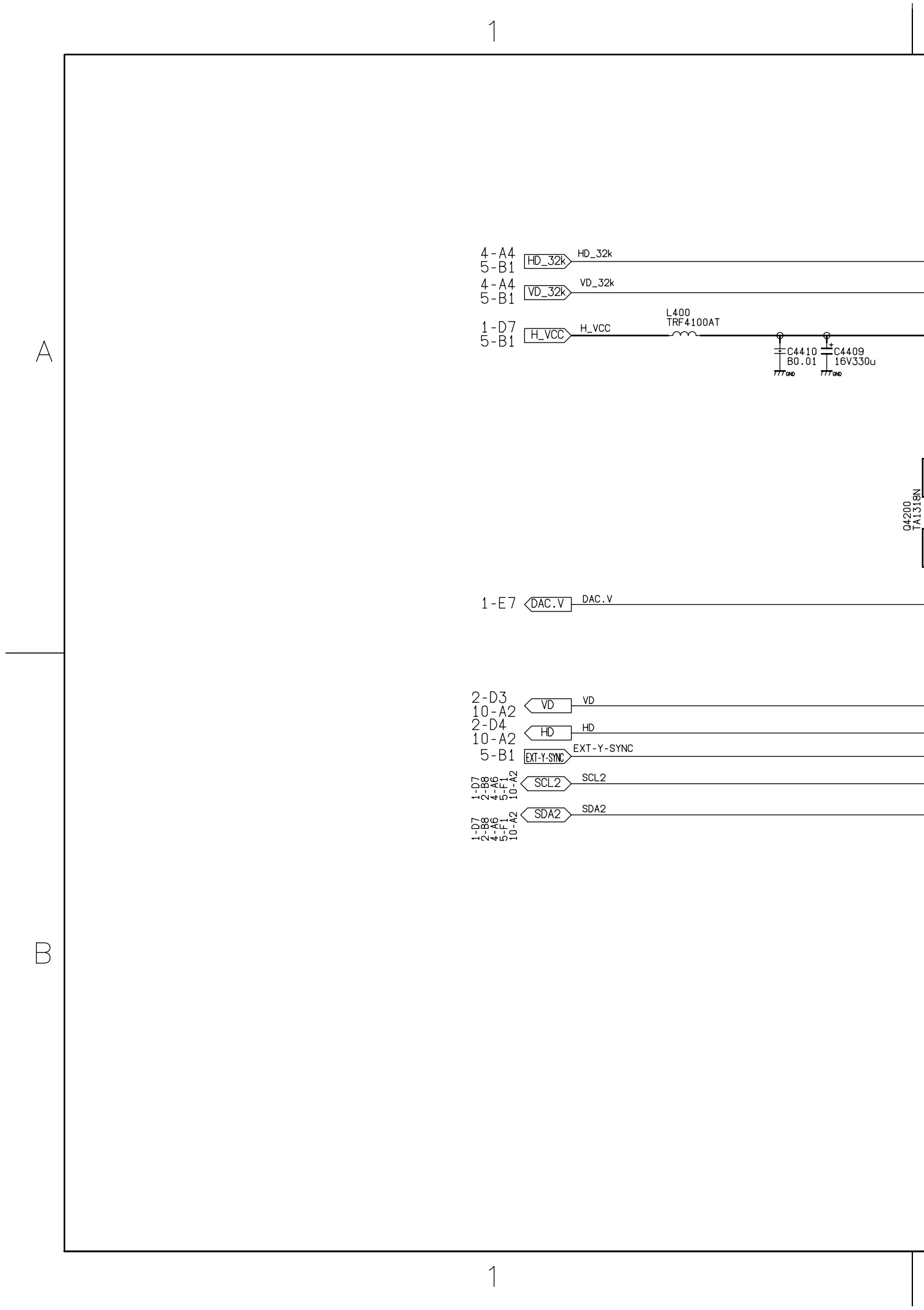

1-B6
1-C7
6-D4
+12V
+12V
P
Z420
PRF20005491
Q420
2SC3852
C421
0.01
GND
D490
OPEN
R490
OPEN
1-D7
SPOT
1-D7
+30V
R424
1/6P750
R425
1/2R1.8k
D422
MTZJ15C
Q832
PQ09RD11
Q832A
HEAT SINK
C835
25V10u
1-C7
+8V
+8V
Z897
PRF20005491
Q831
2SC3852
Q831A
HEAT SINK
P
Z896
PRF20005491
D836
MTZJ5.6C
Z894
PRF20005491
C838
16V47u
D894
MTZJ5.6C

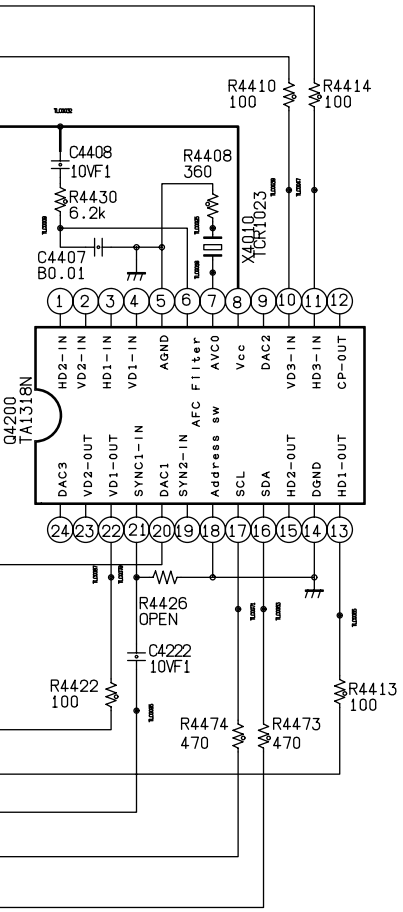


36ZP38B
SIGNAL - LOW-B REGULATOR
[SHEET-8/10]



36ZP38B
SIGNAL - FREQ_DET
[SHEET-9/10]

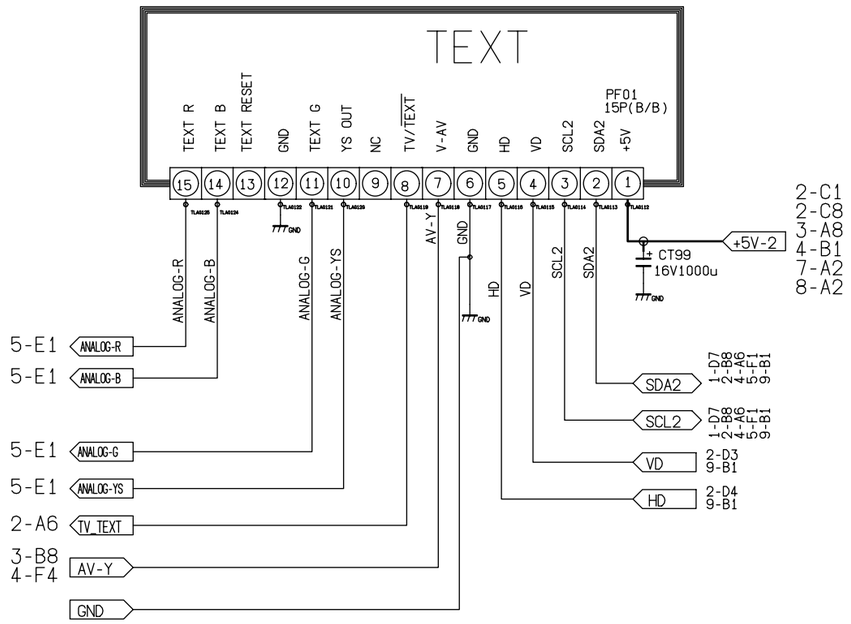

1
A
B
4-A4
5-B1
HD_32k
HD_32k
4-A4
5-B1
VD_32k
VD_32k
1-D7
5-B1
H_VCC
H_VCC
L400
TRF4100AT
C4410
B0.01
C4409
16V330u
GND
GND
Q4200
TA1318N
1-E7
DAC.V
DAC.V
2-D3
10-A2
VD
VD
2-D4
10-A2
HD
HD
5-B1
EXT-Y-SYNC
EXT-Y-SYNC
1-D7
2-B8
4-A6
5-F1
10-A2
SCL2
SCL2
1-D7
2-B8
4-A6
5-F1
10-A2
SDA2
SDA2
1



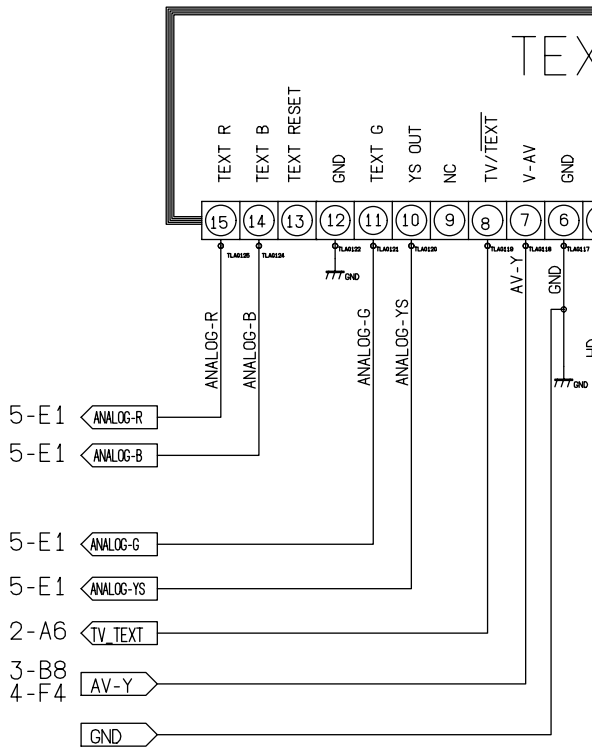
A

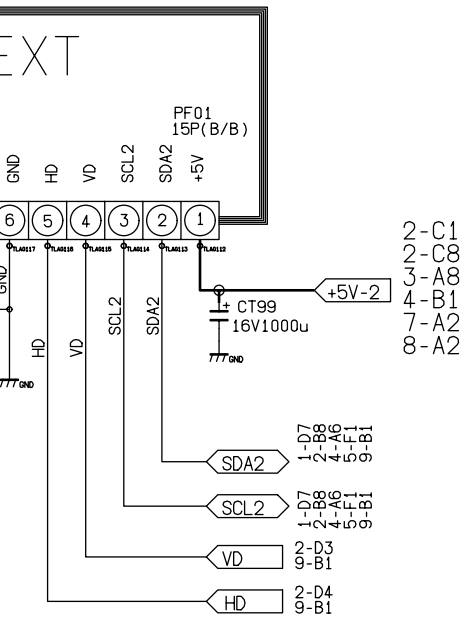
B

36ZP38B
SIGNAL - FREQ_DET
[SHEET-9/10]



36ZP38B
SIGNAL - TEXT
[SHEET-10/10]


TEX
TEXT R
TEXT B
TEXT RESET
GND
TEXT G
YS OUT
NC
TV/TEXT
V-AV
GND
15
14
13
12
11
10
9
8
7
6
GND
AV-Y
GND
ANALOG-R
ANALOG-B
ANALOG-G
ANALOG-YS
5-E1
ANALOG-R
5-E1
ANALOG-B
5-E1
ANALOG-G
5-E1
ANALOG-YS
2-A6
TV_TEXT
3-B8
4-F4
AV-Y
GND



A

B

36ZP38B
SIGNAL - TEXT
[SHEET-10/10]

U903A PW UNIT POWER BOARD PD1008A-1

CAUTION
LIVE AREA

450Vp-p
(AC=220V)

M831

TO P831B ON CONT BOARD WITH M831
MAIN AC
COMMON AC

P831A
Lock 2P_11.88mm_S

P910
2P_5mm

L901
DEGAUSSING COIL
36" TSB-2405AT
32" TSB-2414AT (RA)
TSB-2395AM (RB)

L801 TPW2024BS
C802 AC275V0.1
C803 OPEN
R808 RZ92P2E4R5M1 (RA)
RZ92P2E4R5M (RB)
R852 2.2M
C813 AC250V1000
C814 AC250V1000
L805 TEM2011
D801 LN6SB60-F05
D6SB60L
T802 TRF3231AL
C805 AC250V4700
C806 AC250V4700
R810 RN6B331M51
C810 400V330u
F802 T2.5A L/250V
G828 TEM2011AA
T862 TPW3501AG
T840 TPW1575AT
D840 S1WBA60
L894 TRF4100AT
C840 25V1000u
R841 1/2FR47
Q840 2SC3852
Q840A HEAT SINK
D841 MTZJ5.6C
C842 1u
GND_+5V-1
SR83 G5PA-2 RELAY
D855 1N4148
SR82 DLS5D1-D(M)
D845 1N4148
Q807 2PC1815Y
R875 1/6P3.9k
R876 10k
Q805 2PC1815Y
R851 1k
R850 10k
DG-RELAY
+12V
POWER
GND_+5V-1
+5V-1

Q801 STR-F6268S
Q801A HEAT SINK
LIVE-GND
P499 GT-PIN
C818 25V VHT2200
L811 TEM2011AA
R806 1/2R47k
D807 1SS244
D808 1N4148
D805 1SS244
R823 1/2R7.7k
R815 1/2R1k
D817 MTZJ33B
C822 M0.47
C807 M0.47
R807 1/6P150k
R814 6.8k
C829 50V2700
C821 500VB470
D806 BYD33J
G812 SHORT
G810 SHORT
C808 35V100u
R803 1R68k
R819 1/2R82
RA 24005015L
RB 24005014L
RC 24005007C
C811 OPEN
C815 OPEN
L815 OPEN
R899 1R8.2M
Q826 TLP421F(GR)
R827 680
R828 820
C846 OPEN
R846 OPEN
GND
P498 GT-PIN

F470 T1.25A L/250V
R470 2R0.56
L885 TLN3299GH
R479 1/2FR68
R471 1/2FR270
C472 M0.47
Q470 2SA1320
R474 1/2R39k
R472 100
D470 MTZJ5.1C
R473 18k
C470 16V47u
C473 1u
R480 10k
Q473 2PA1015Y
R433 680
+5V-1
R434 4.7k
Q471 2PC1815Y
R477 1k
D842 MTZJ15A
R843 330
Q472 2PC1815-Y
R476 470

Q430 2SC3852
Q430A HEAT SINK
GJ41 SHORT
HVcc
Z404 PRF10005491
G430 OPEN
C431 0.01
R491 100
R492 4.7k
G443 1N4148
D431 MTZJ5.1B
D432 MTZJ5.1C
C462 16V100u
D4699 BYD33J
C4699 25V2200u
R416 1/2R56k
D418 MTZJ30A
Q418 2SC3852
Q418A HEAT SINK
D419 MTZJ10C
D420 MTZJ7.5C
C419 B1000
C421 M0.1

C885 500VB470
D885A HEAT SINK
D885 FML-G12S
L886 TEM2014AA
F889 T5A L/250V
C889 2200u
L889 TLN3312GH TLN2026
+27V
GJ42 SHORT
L890 OPEN
GJ06 SHORT
C871 OPEN
Z871 PRF50005491
G871 SHORT
D871 BYD33J
L876 TRF4100AT
C872 220u
+16V
C893 2kV(R1)220
L883 TRF9253GH TRF9253D
G815 SHORT
D883 RU-4AM LF-L1
C884 160V220u
+132V
D844 MTZJ9.1A
C898 M0.22
GJ59 OPEN
L824 TLN3312GH TLN2026
CC80 47
Q827 SE125N
C899 500VB470
Z890 PRF50005491
L891 TEM2011AA
D891 RK46
L897 TLN3312GH TLN2026
C891 25V4700u
+8V
C896 500VB470
Z891 PRF50005491
L892 TEM2011AA
D892 RU4Z LF-L1
L893 TLN3312GH TLN2026
C892 25V4700u
+12V
L895 TLN3312GH TLN2026
R101 1R22k

BB15A 6P_2.5mm
1 H-DRV-B
2 GND_DEF
3 GND_DEF
4 GND_DEF
5 9V_LVP
6 +12V
TO BB15B ON DEF BOARD WITH B-B CONNECTORE

BB15B 8P_2.5mm
1 +132V
2 +132V
3 NC
4 NC
5 NC
6 GND-B
7 GND-B
8 GND-B
TO BB16B ON DEF BOARD WITH B-B CONNECTORE

BB16A 8P_2.5mm
1 +12V
2 +12V
3 GND_MODULE
4 GND_+5V-1
5 +8V
6 +8V
7 GND_+5V-1
8 GND_+5V-1
9 STANDBY GND
10
11 POWER
12 +5V-1
13 DG-RELAY
14 +32V
15 HVcc
16 SPOT
TO BB21A ON SIGNAL BOARD WITH B-B CONNECTORE

BB21B 16P(B-B)
6 AUDIO +27V
5 AUDIO +27V
4 AUDIO +27V
3 AUDIO-GND
2 AUDIO-GND
1 AUDIO-GND
TO BB22A ON SIGNAL BOARD WITH B-B CONNECTORE

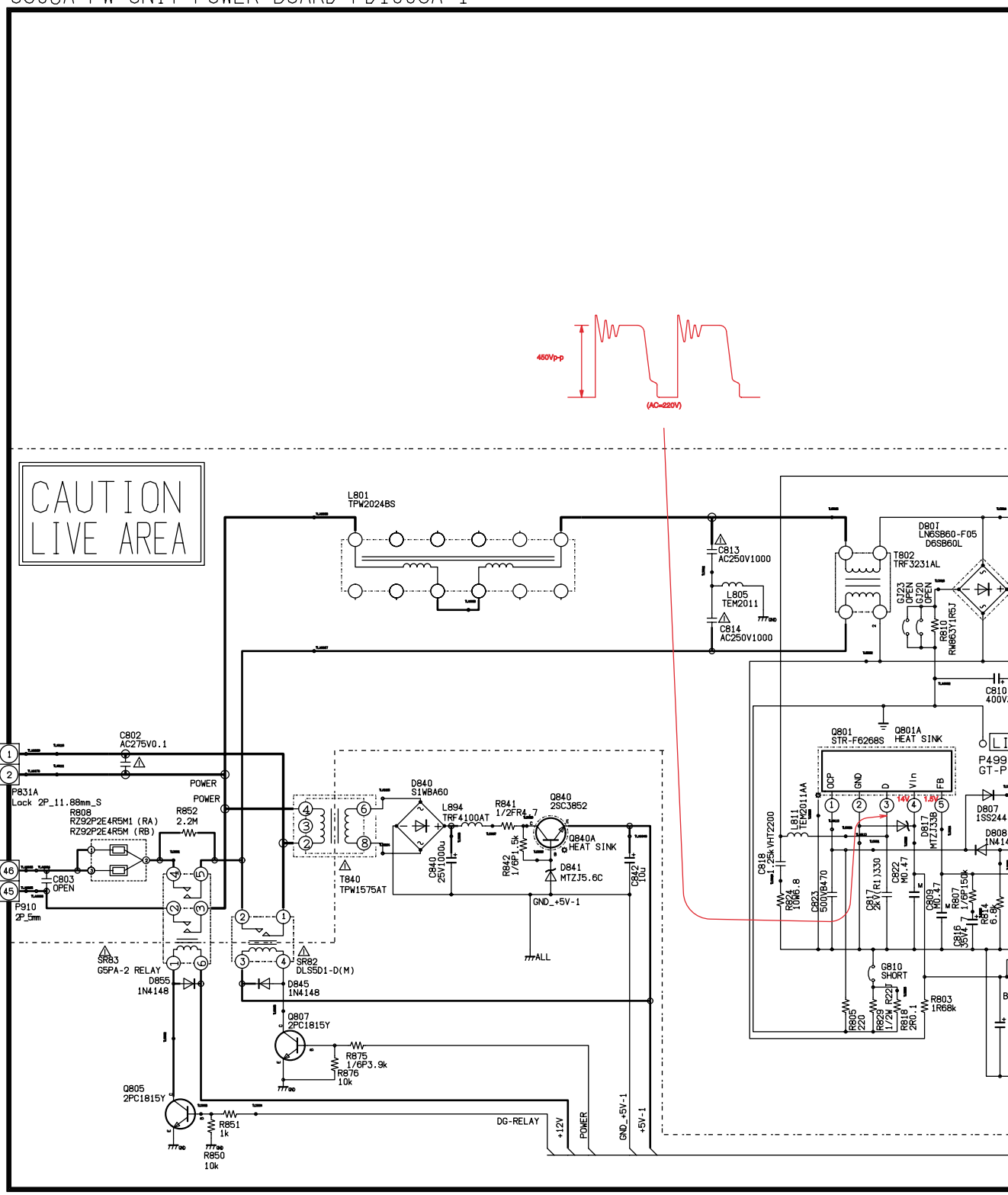
BB22B 6P(B-B)

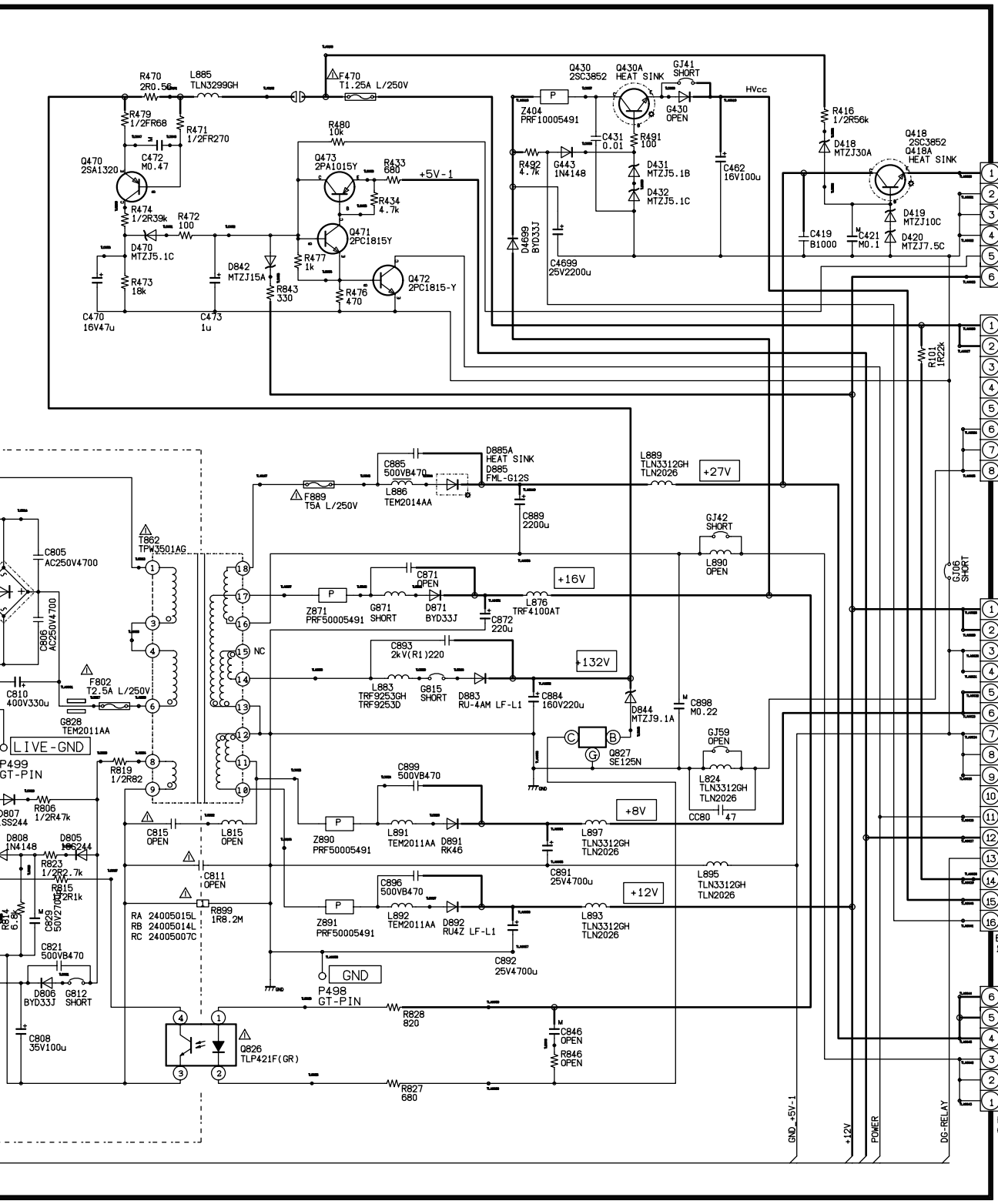
PL02 OPEN
PL03 WIRE CLIP

GND_+5V-1
+12V
POWER
DG-RELAY

36ZP38B
POWER_INDI_CONT - POWER
[SHEET-1/3]

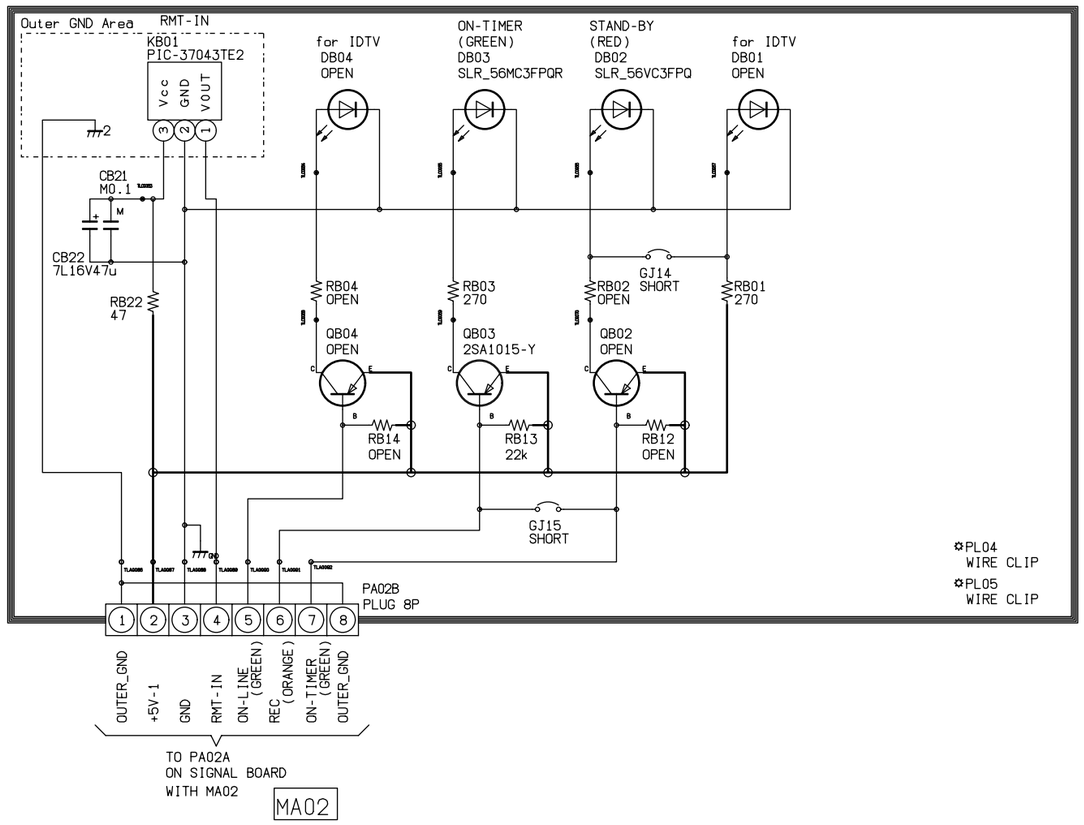
U903A PW UNIT POWER BOARD PD1008A-1





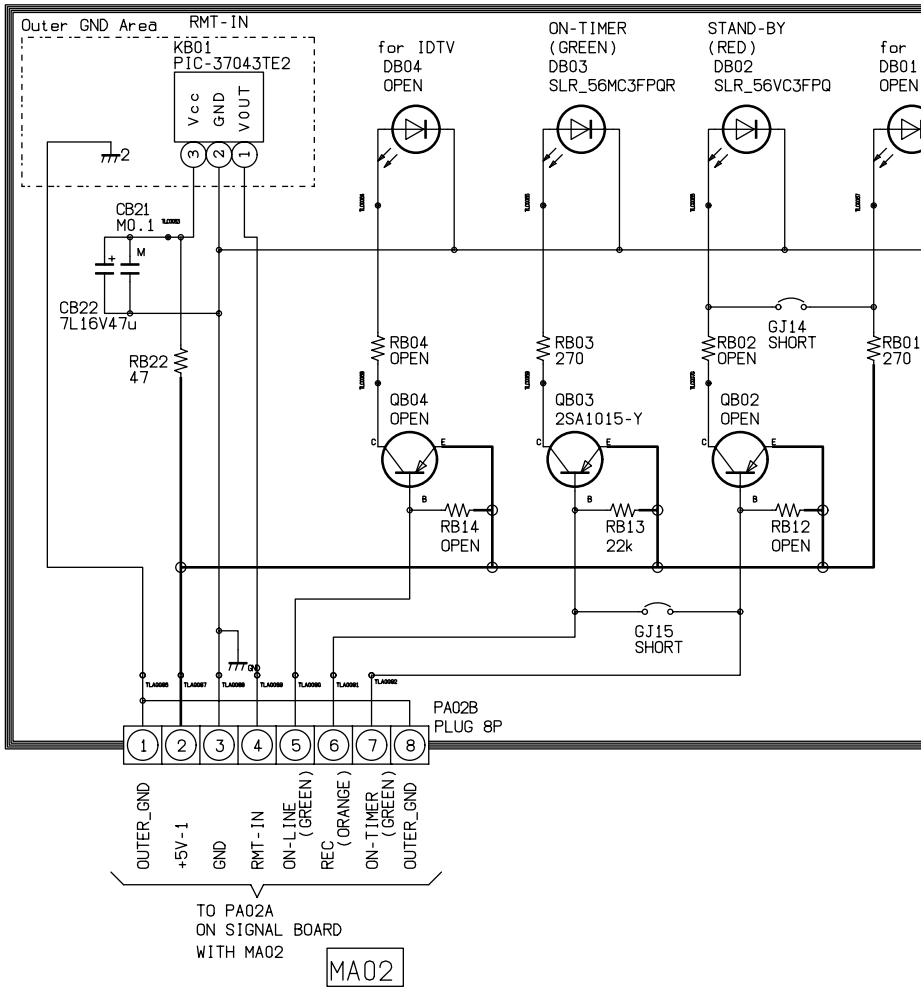
36ZP38B
POWER_INDI_CONT - POWER
[SHEET-1/3]

U903B PW UNIT INDICATOR BAORD PD1008A-2

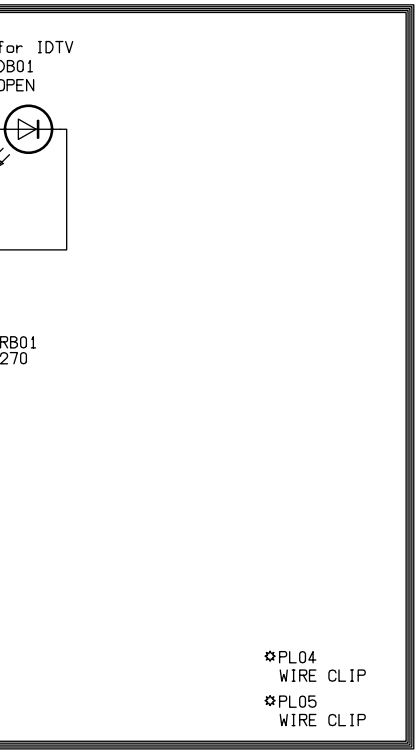


36ZP38B
POWER_INDI_CONT - INDICATOR
[SHEET-2/3]

U903B PW UNIT INDICATOR BAORD PD1008A-



A-2

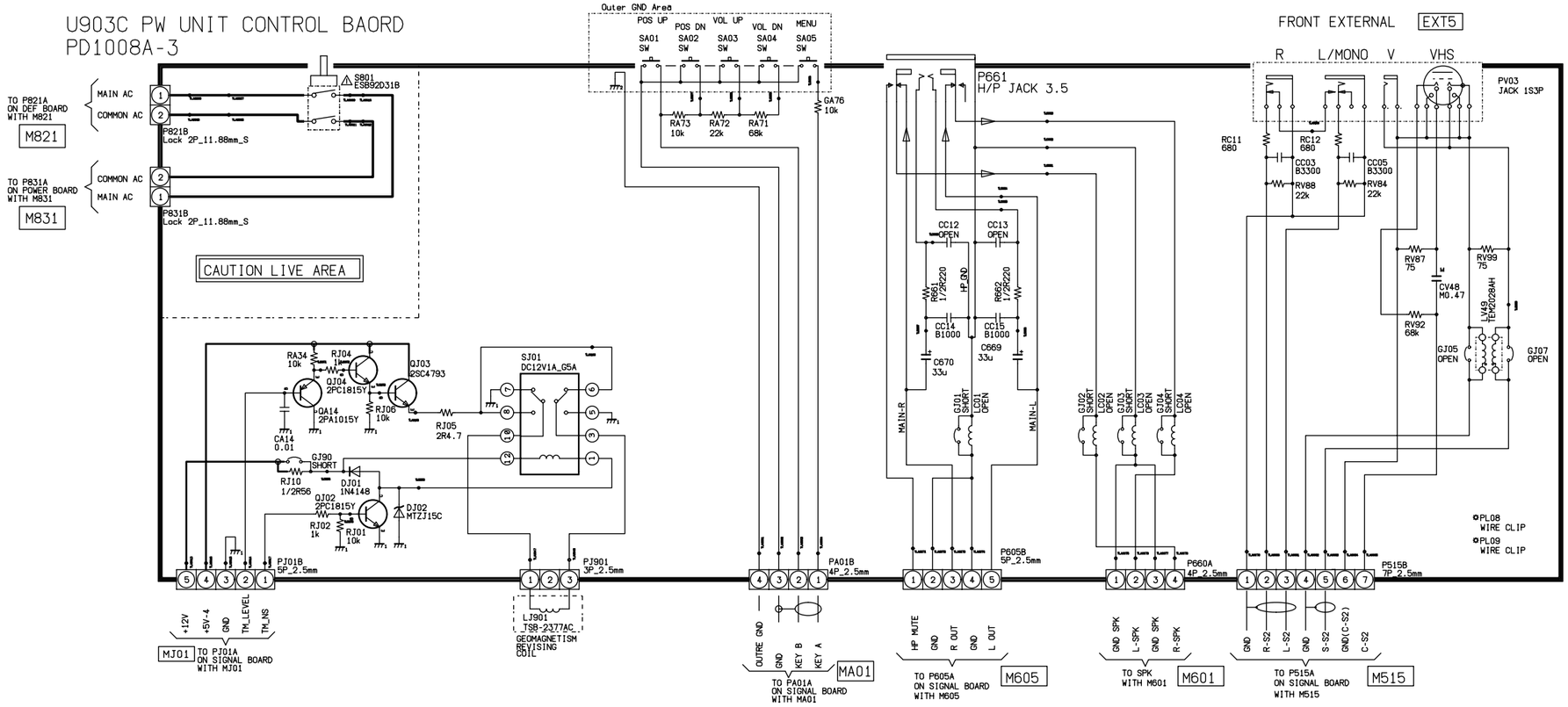


A

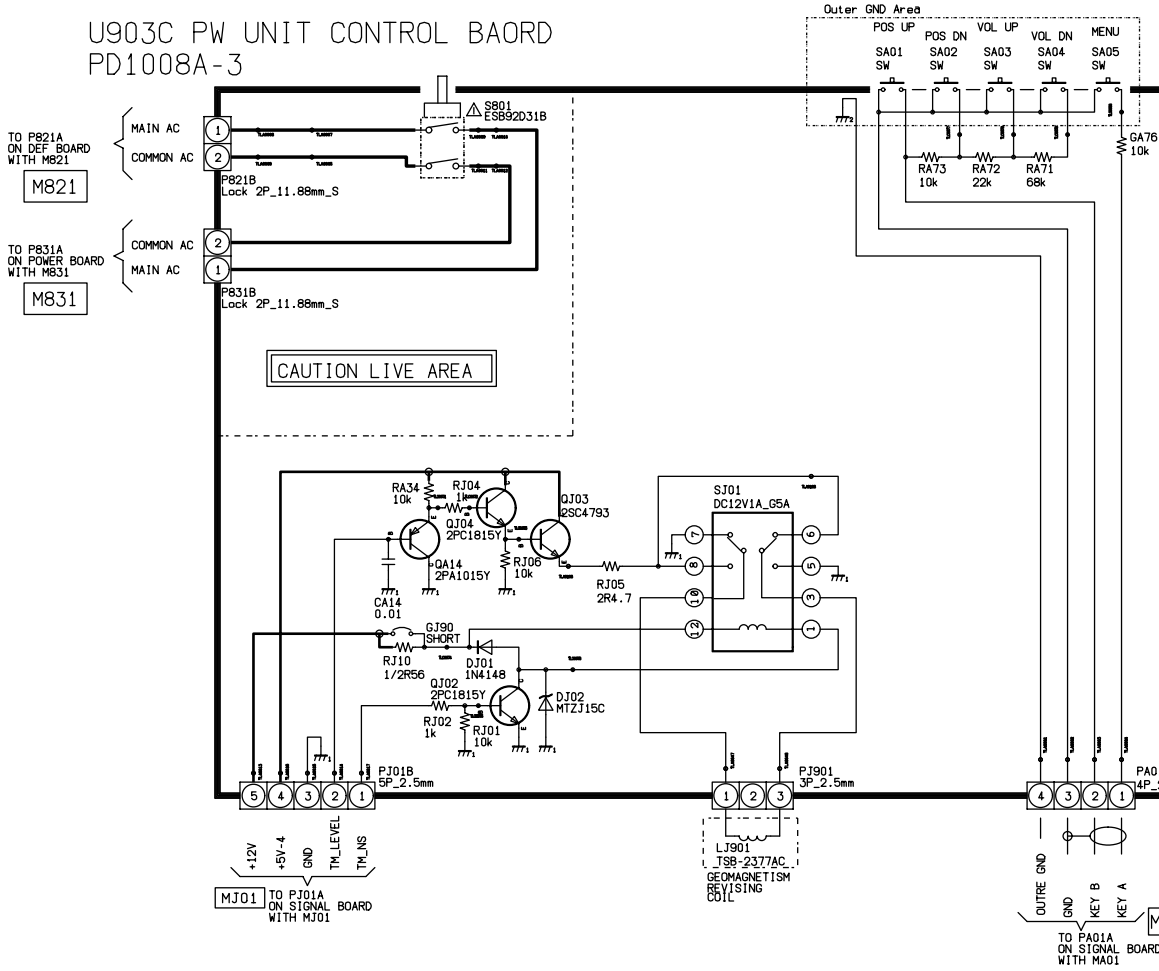
B

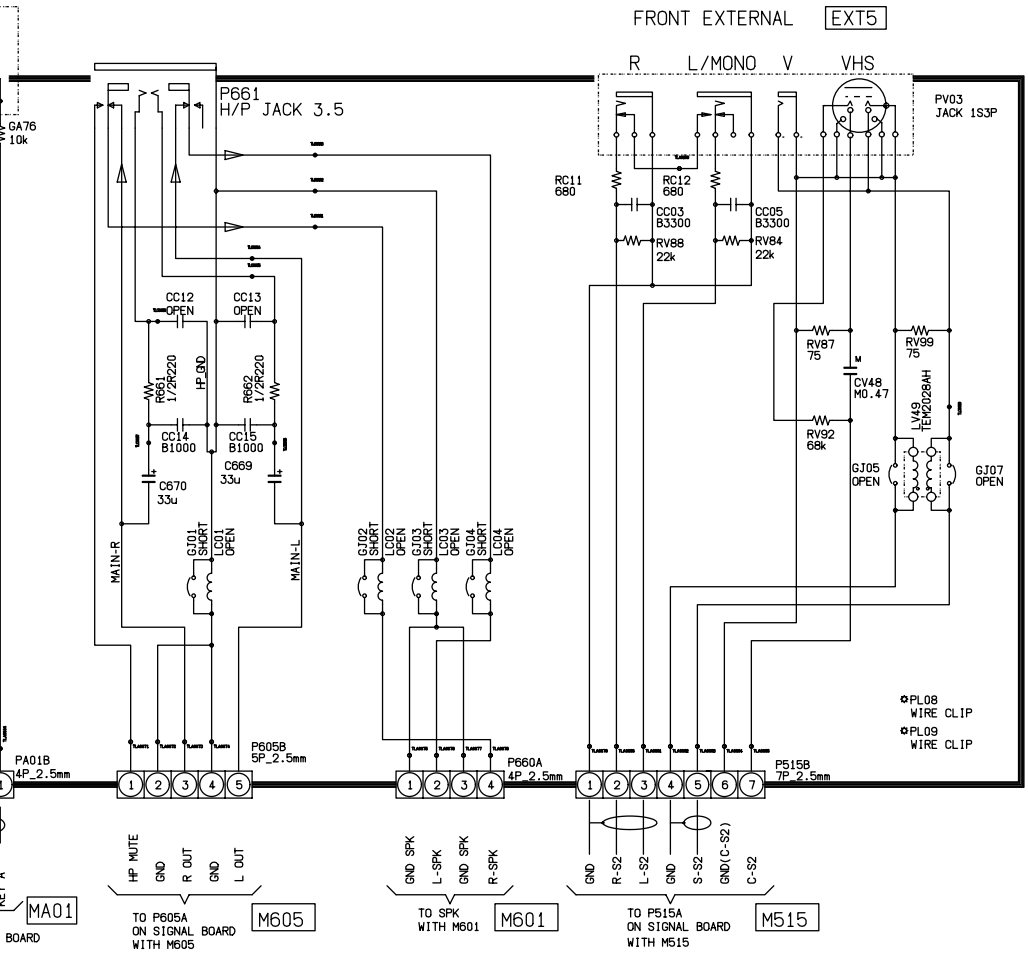
36ZP38B
POWER_INDI_CONT - INDICATOR
[SHEET-2/3]

U903C PW UNIT CONTROL BAORD
PD1008A-3



36ZP38B
POWER_INDI_CONT - CONTROL
[SHEET-3/3]

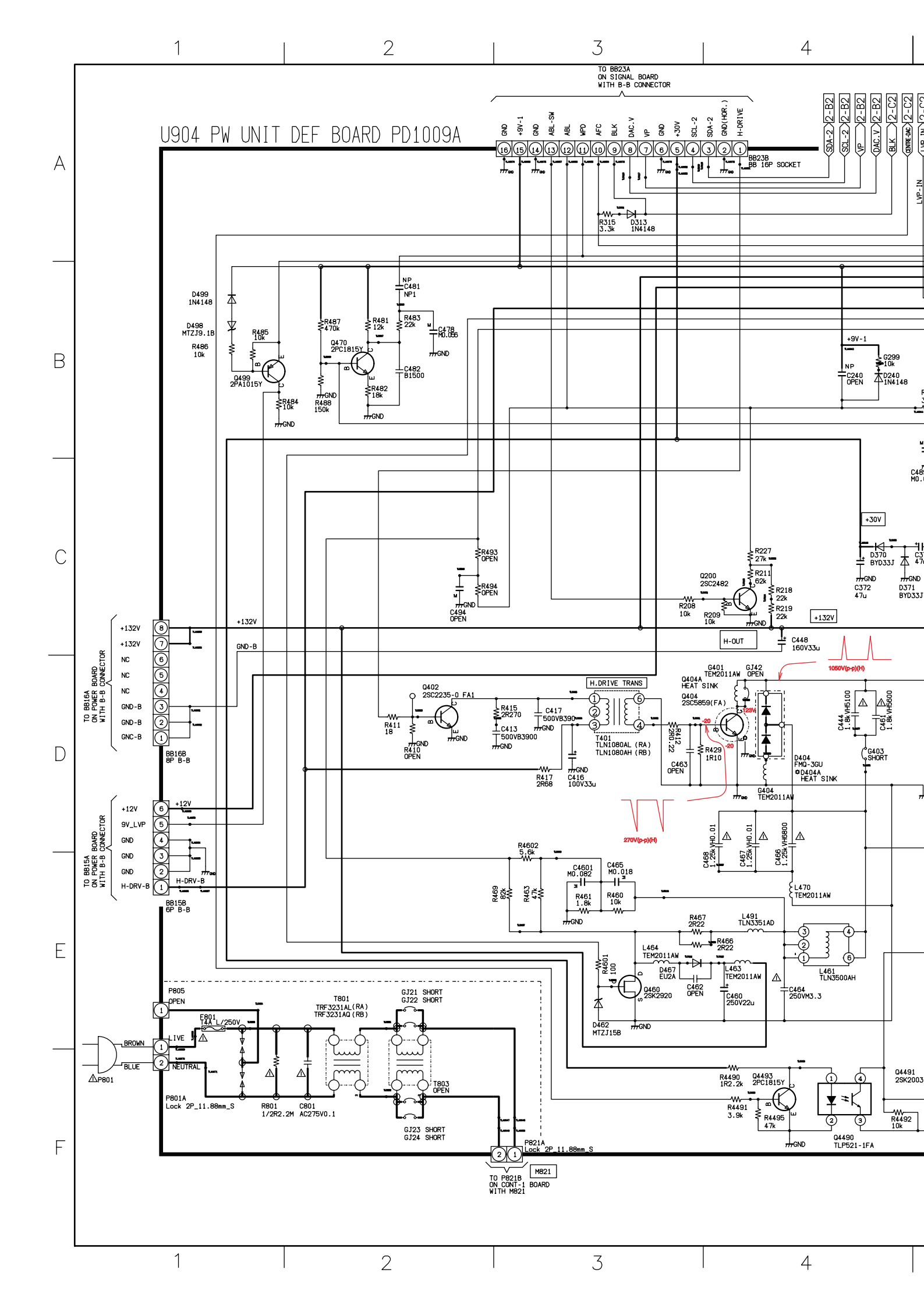

U903C PW UNIT CONTROL BAORD
PD1008A-3
Outer GND Area
POS UP
POS DN
VOL UP
VOL DN
MENU
SA01 SW
SA02 SW
SA03 SW
SA04 SW
SA05 SW
GA76 10k
RA73 10k
RA72 22k
RA71 68k
S801 ESB92D31B
TO P821A ON DEF BOARD WITH M821
M821
MAIN AC
COMMON AC
P821B Lock 2P_11.88mm_S
TO P831A ON POWER BOARD WITH M831
M831
COMMON AC
MAIN AC
P831B Lock 2P_11.88mm_S
CAUTION LIVE AREA
RA34 10k
RJ04 1k
QJ03 2SC4793
QJ04 2PC1815Y
QA14 2PA1015Y
RJ06 10k
CA14 0.01
RJ05 2R4.7
SJ01 DC12V1A_G5A
GJ90 SHORT
RJ10 1/2R56
DJ01 1N4148
QJ02 2PC1815Y
DJ02 MTZJ15C
RJ02 1k
RJ01 10k
PJ01B 5P_2.5mm
PJ901 3P_2.5mm
+12V
+5V-4
GND
TM_LEVEL
TM_NS
MJ01
TO PJ01A ON SIGNAL BOARD WITH MJ01
LJ901 _TSB-2377AC_
GEOMAGNETISM REVISING COIL
OUTRE GND
GND
KEY B
KEY A
TO PA01A ON SIGNAL BOARD WITH MA01

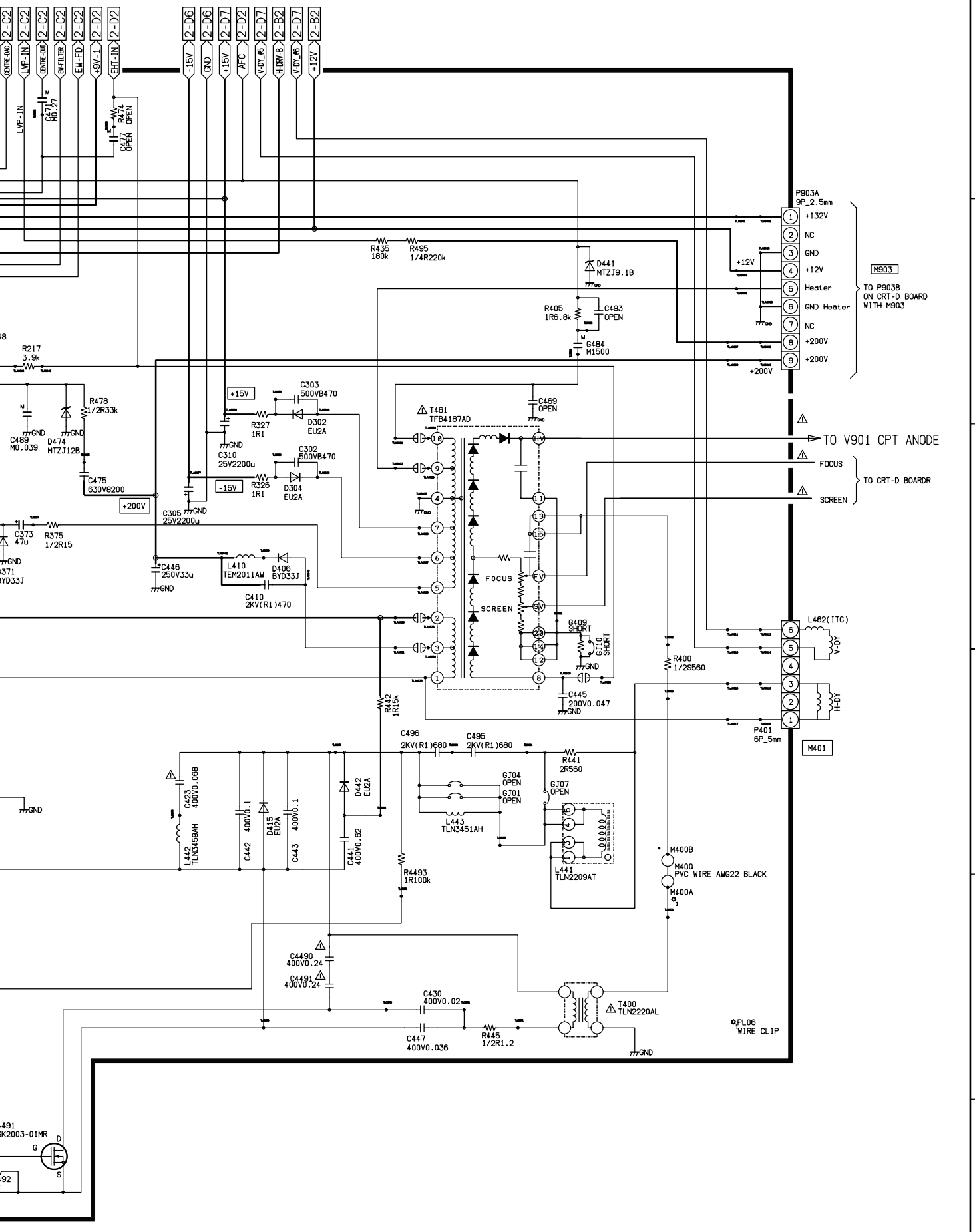


36ZP38B
POWER_INDI_CONT - CONTROL
[SHEET-3/3]

U904 PW UNIT DEF BOARD PD1009A

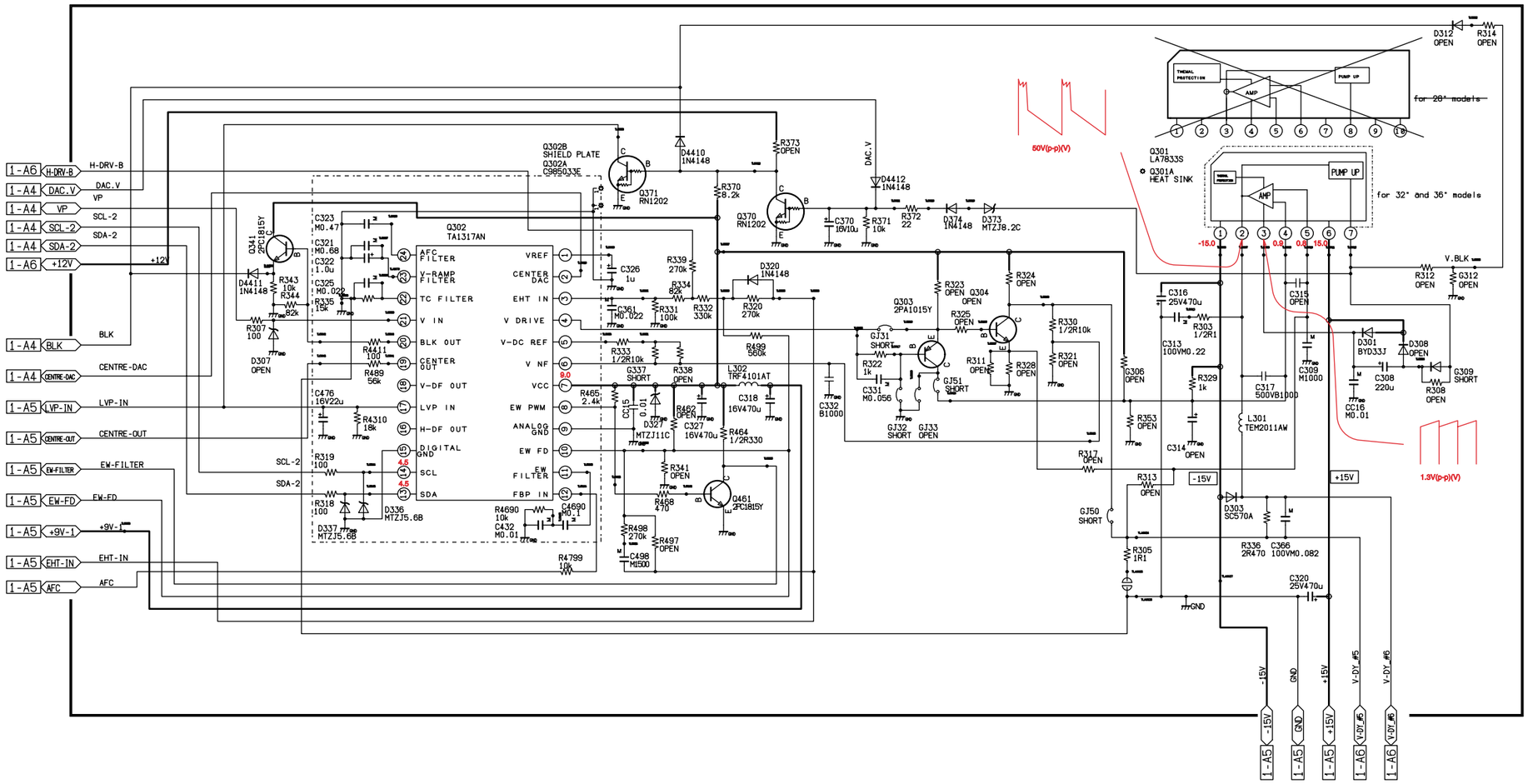
36ZP38B
DEF - HORIZONTAL-DEF
[SHEET-1/2]


U904 PW UNIT DEF BOARD PD1009A
TO BB23A
ON SIGNAL BOARD
WITH B-B CONNECTOR
GND
+9V-1
GND
ABL-SW
ABL
WPD
AFC
BLK
DAC.V
VP
GND
+30V
SCL-2
SDA-2
GND(HDR.)
H-DRIVE
BB23B
BB 16P SOCKET
SDA-2
SCL-2
VP
DAC.V
BLK
R315
3.3k
D313
1N4148
D499
1N4148
D498
MTZJ9.1B
R486
10k
R485
10k
Q499
2PA1015Y
R484
10k
R487
470k
R488
150k
Q470
2PC1815Y
R481
12k
R482
18k
R483
22k
C481
NP1
C478
M0.056
C482
B1500
NP
C240
OPEN
G299
10k
D240
1N4148
+30V
D370
BYD33J
C372
47u
D371
BYD33J
R493
OPEN
R494
OPEN
C494
OPEN
R227
27k
R211
62k
Q200
2SC2482
R208
10k
R209
10k
R218
22k
R219
22k
+132V
H-OUT
C448
160V33u
1050V(p-p)(H)
G401
TEM2011AW
GJ42
OPEN
Q404A
HEAT SINK
Q404
2SC5859(FA)
123V
-20
C444
VH5100
C461
1.8k VH5600
G403
SHORT
D404
FMQ-3GU
D404A
HEAT SINK
G404
TEM2011AW
H.DRIVE TRANS
Q402
2SC2235-0 FA1
R411
18
R410
OPEN
R415
2R270
C413
500VB3900
C417
500VB3900
R417
2R68
C416
100V33u
T401
TLN1080AL (RA)
TLN1080AH (RB)
R412
2R0.22
R429
1R10
C463
OPEN
270V(p-p)(H)
C468
1.25k VH0.01
C467
1.25k VH0.01
C466
1.25k VH6800
TO BB16A
ON POWER BOARD
WITH B-B CONNECTOR
+132V
+132V
NC
NC
NC
GND-B
GND-B
GNC-B
GND-B
BB16B
8P B-B
TO BB15A
ON POWER BOARD
WITH B-B CONNECTOR
+12V
9V_LVP
GND
GND
GND
H-DRV-B
+12V
H-DRV-B
BB15B
6P B-B
R4602
5.6k
R459
82k
R463
47k
C4601
M0.082
C465
M0.018
R461
1.8k
R460
10k
L470
TEM2011AW
R467
2R22
R466
2R22
L491
TLN3351AD
L464
TEM2011AW
D467
EU2A
C462
OPEN
L463
TEM2011AW
C460
250V22u
C464
250VM3.3
L461
TLN3500AH
R4601
100
Q460
2SK2920
D462
MTZJ15B
P805
OPEN
E801
T4A L/250V
T801
TRF3231AL(RA)
TRF3231AQ(RB)
GJ21 SHORT
GJ22 SHORT
T803
OPEN
GJ23 SHORT
GJ24 SHORT
LIVE
NEUTRAL
BROWN
BLUE
P801
P801A
Lock 2P_11.88mm_S
R801
1/2R2.2M
C801
AC275V0.1
P821A
Lock 2P_11.88mm_S
TO P821B
ON CONT-1 BOARD
WITH M821
M821
R4490
1R2.2k
Q4493
2PC1815Y
R4491
3.9k
R4495
47k
Q4491
2SK2003
R4492
10k
Q4490
TLP521-1FA
LVP-IN



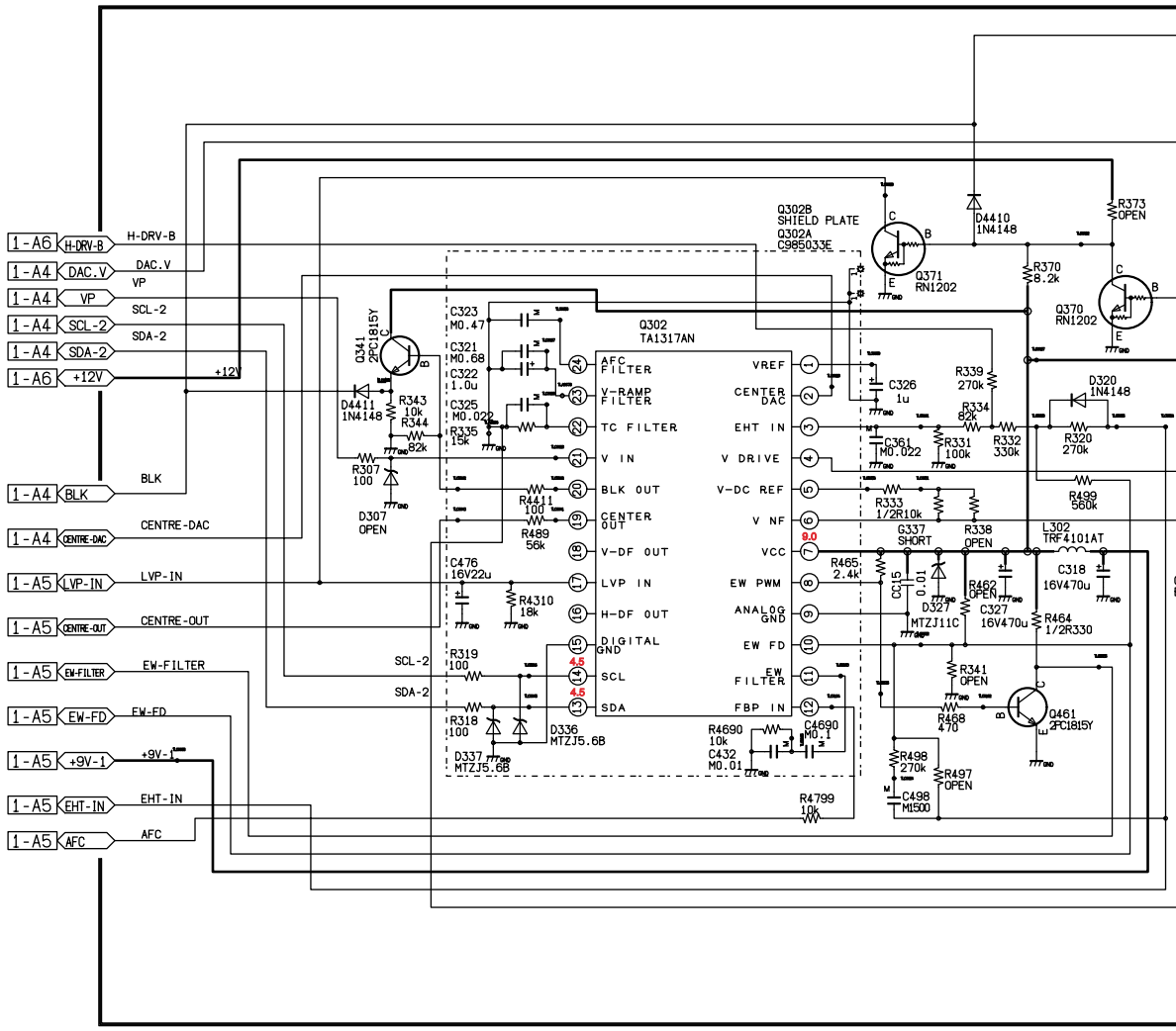
36ZP38B
DEF - HORIZONTAL-DEF
[SHEET-1/2]

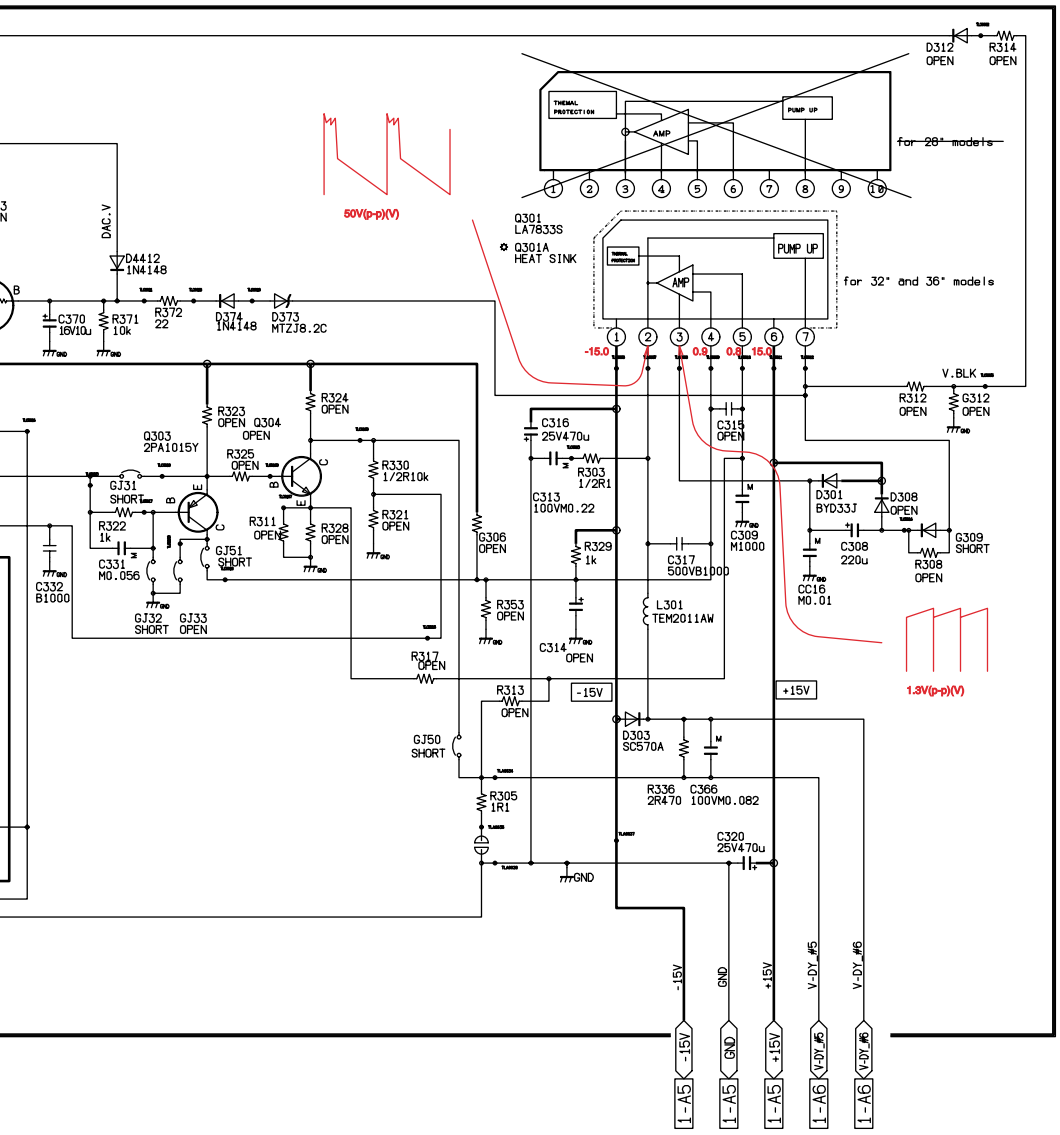
U904 PW UNIT DEF BOARD PD1009A



36ZP38B
DEF - VERTICAL-DEF
[SHEET-2/2]

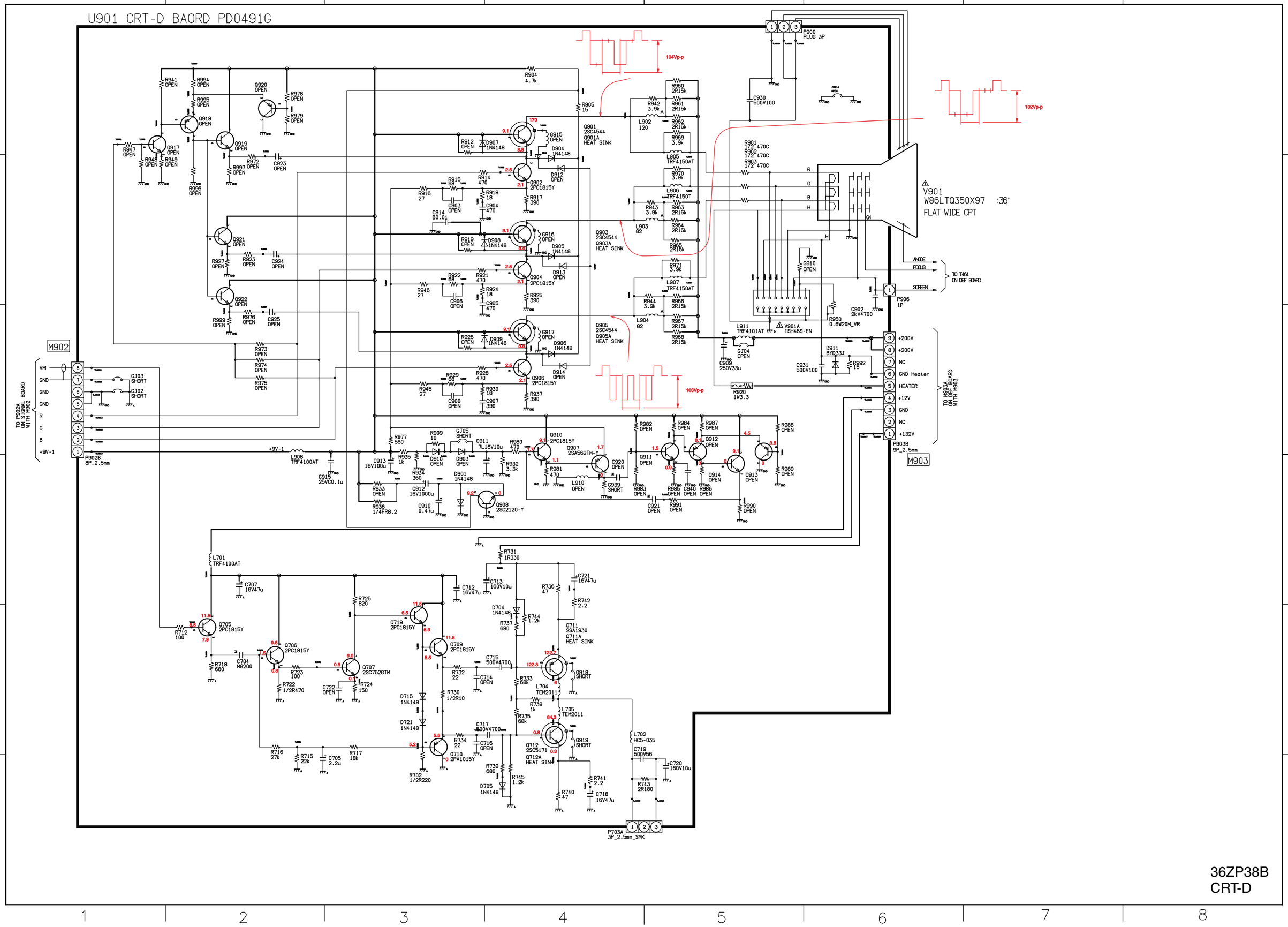
U904 PW UNIT DEF BOARD PD1009A

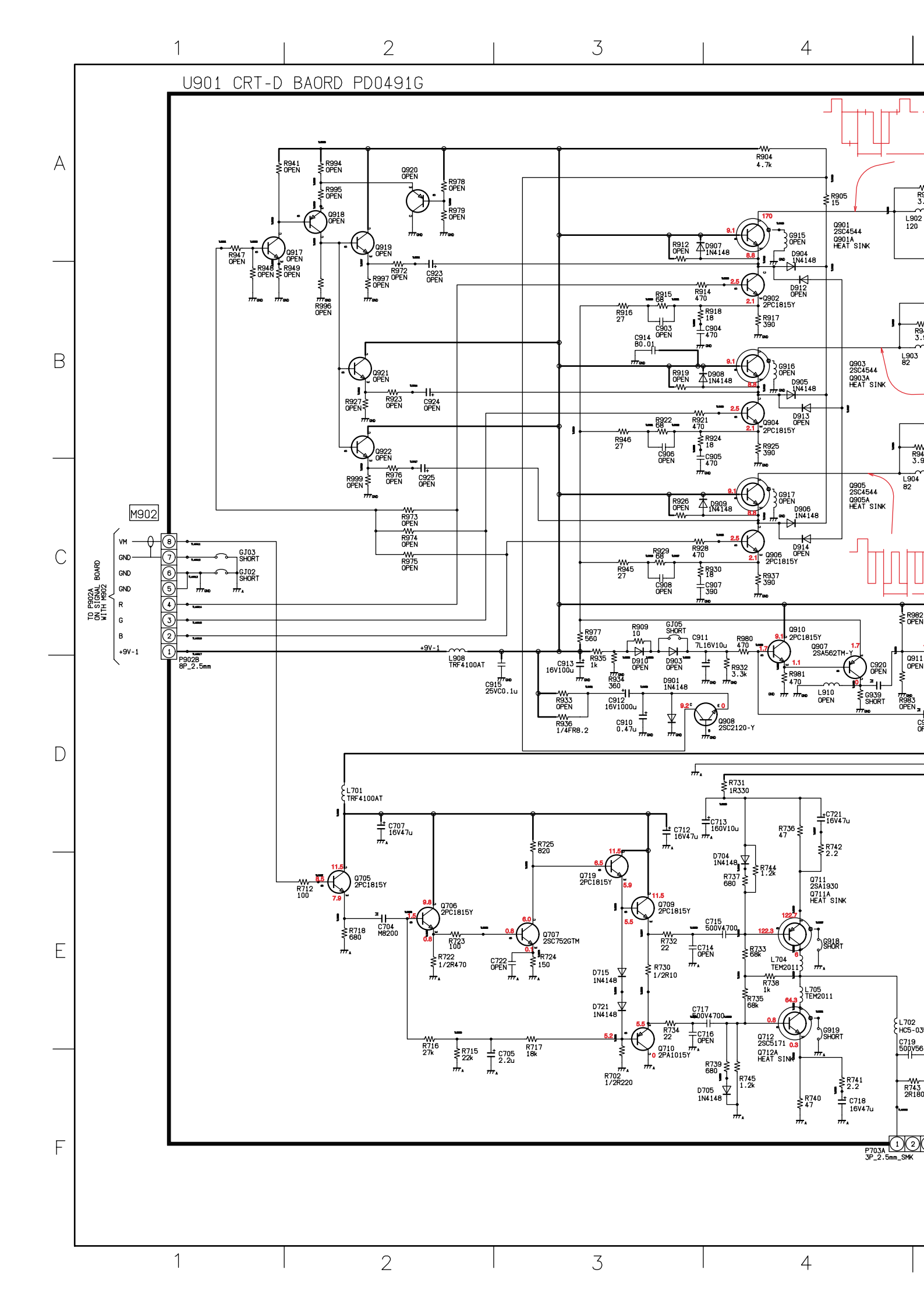


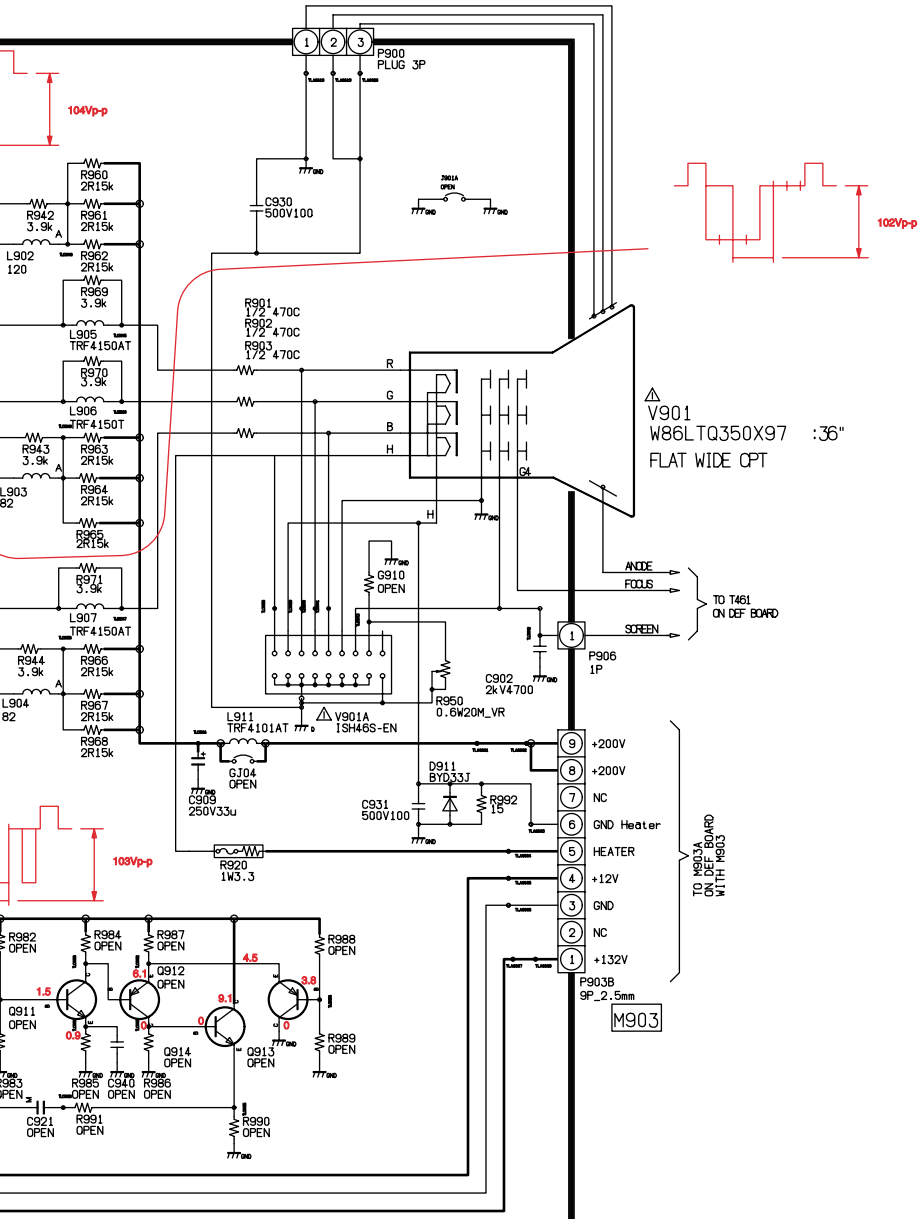


36ZP38B
DEF - VERTICAL-DEF
[SHEET-2/2]

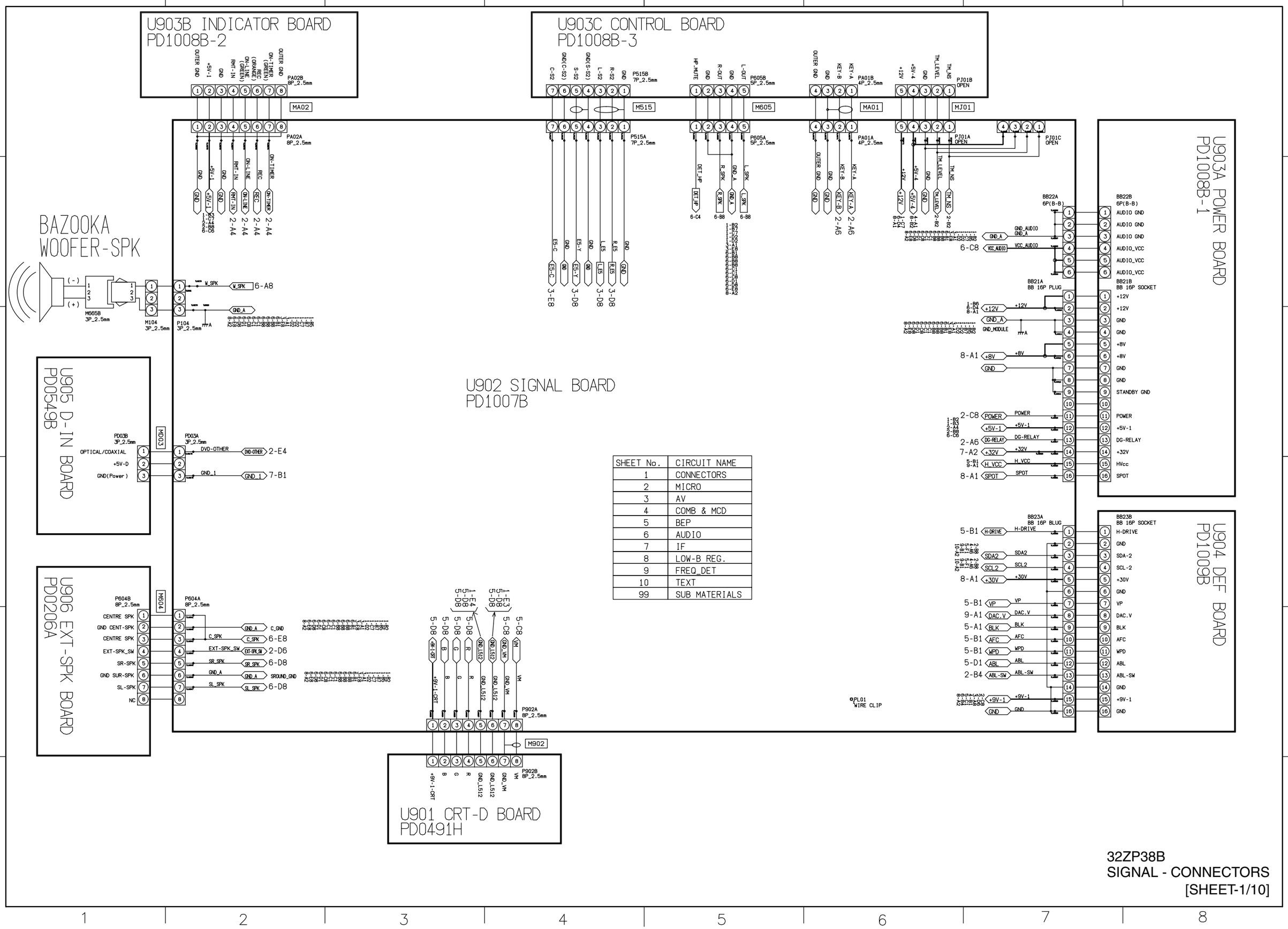
U901 CRT-D BAORD PD0491G




U901 CRT-D BAORD PD0491G
M902
TO P902A ON SIGNAL BOARD WITH M902
VM
GND
GND
GND
R
G
B
+9V-1
P902B 8P_2.5mm
GJ03 SHORT
GJ02 SHORT
GJ05 SHORT
+9V-1
L908 TRF4100AT
C915 25VC0.1u
R904 4.7k
R905 15
L902 120
L903 82
L904 82
Q901 2SC4544 Q901A HEAT SINK
Q903 2SC4544 Q903A HEAT SINK
Q905 2SC4544 Q905A HEAT SINK
Q902 2PC1815Y
Q904 2PC1815Y
Q906 2PC1815Y
Q907 2SA562TM-Y
Q908 2SC2120-Y
Q909 2PC1815Y
Q910 2PC1815Y
Q911 2SA1930 Q711A HEAT SINK
Q912 2PC1815Y
Q705 2PC1815Y
Q706 2PC1815Y
Q707 2SC752GTM
Q709 2PC1815Y
Q710 2PA1015Y
Q712 2SC5171 Q712A HEAT SINK
L701 TRF4100AT
L704 TEM2011
L705 TEM2011
L702 HC5-03
P703A 3P_2.5mm_SMK

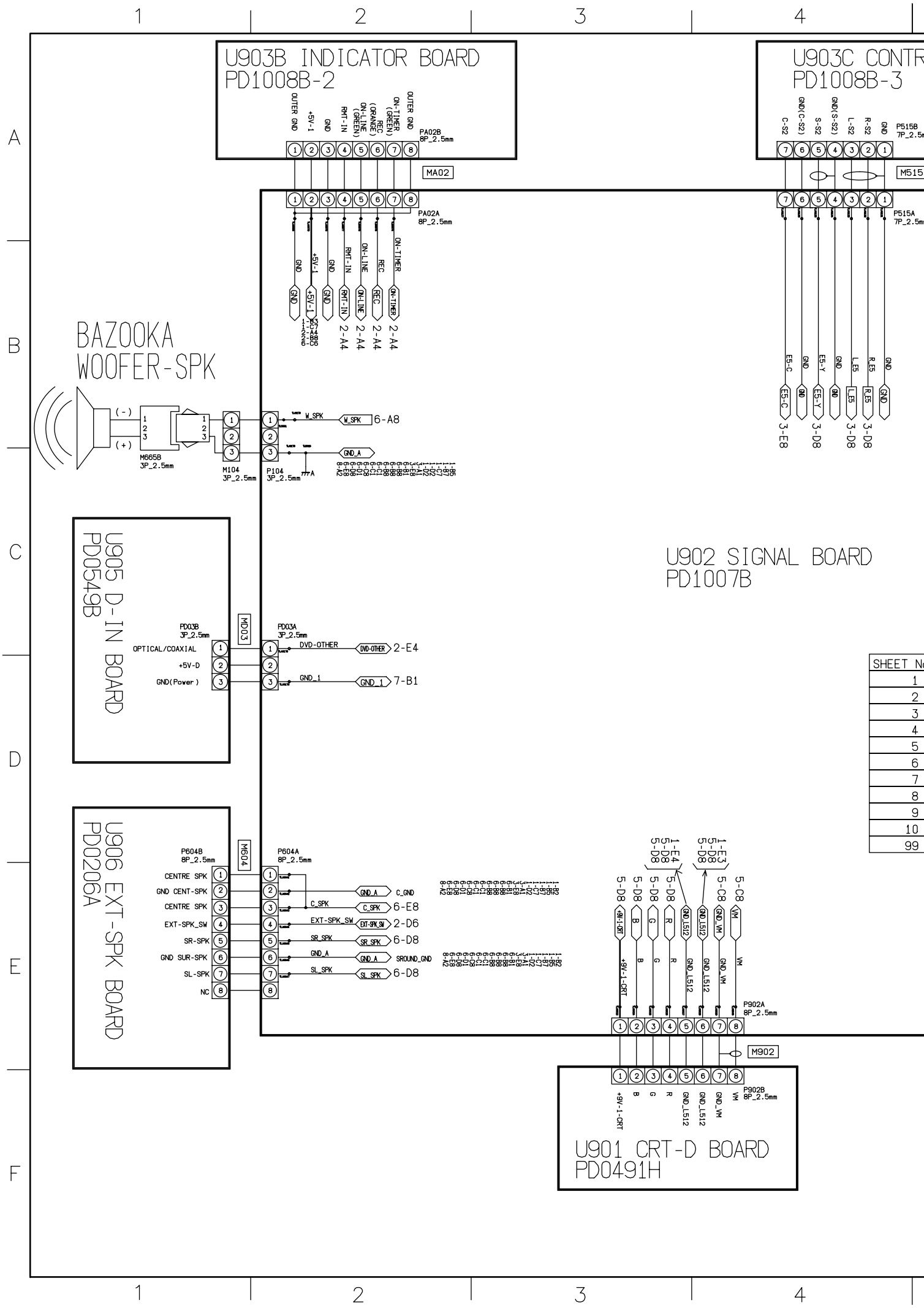


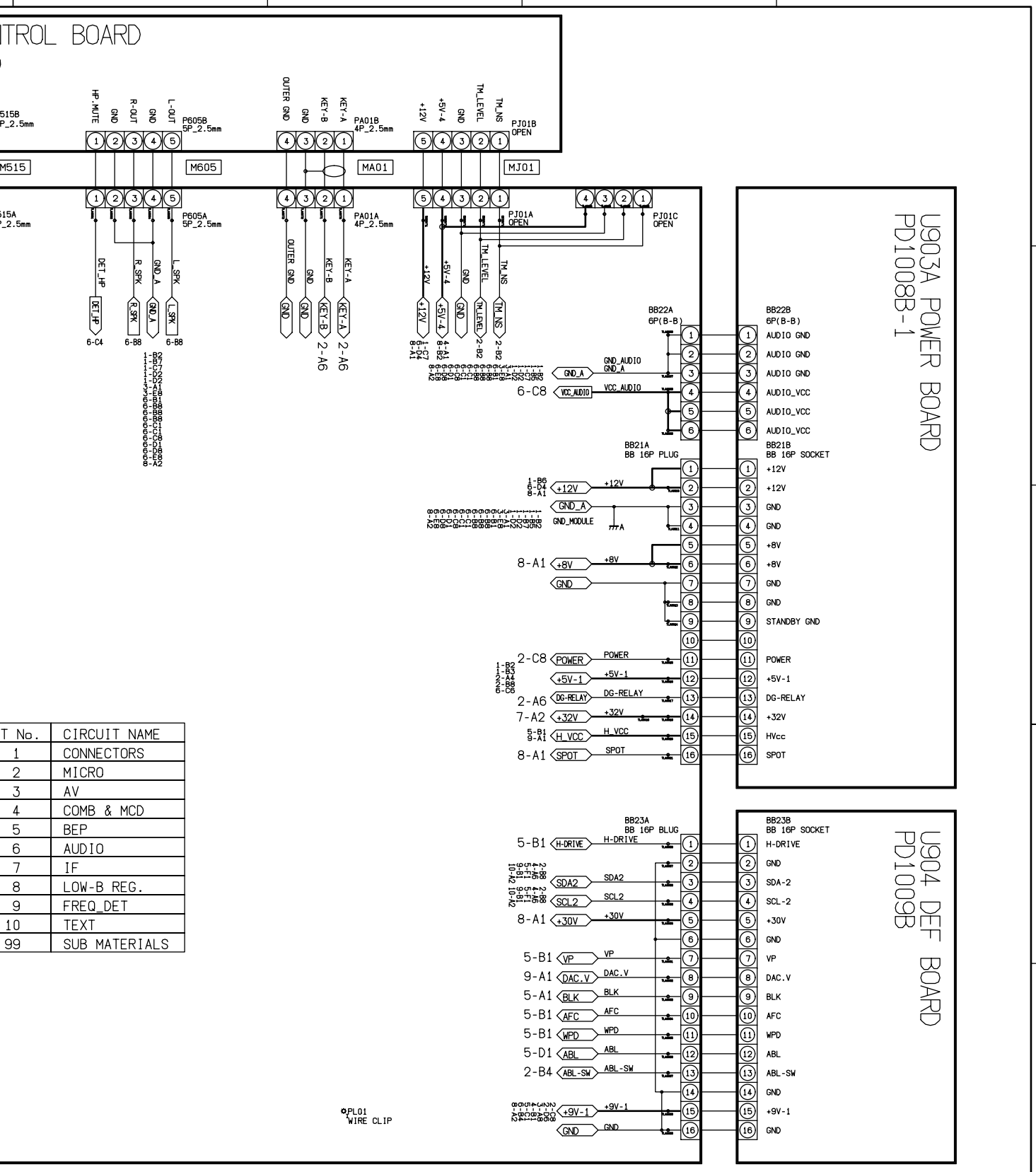
36ZP38B
CRT-D



SHEET No.	CIRCUIT NAME
1	CONNECTORS
2	MICRO
3	AV
4	COMB & MCD
5	BEP
6	AUDIO
7	IF
8	LOW-B REG.
9	FREQ_DET
10	TEXT
99	SUB MATERIALS

32ZP38B
SIGNAL - CONNECTORS
[SHEET-1/10]


U903B INDICATOR BOARD
PD1008B-2
U903C CONTR
PD1008B-3
BAZOOKA
WOOFER-SPK
U902 SIGNAL BOARD
PD1007B
U905 D-IN BOARD
PD0549B
U906 EXT-SPK BOARD
PD0206A
U901 CRT-D BOARD
PD0491H
PA02B 8P_2.5mm
PA02A 8P_2.5mm
MA02
P515B 7P_2.5m
P515A 7P_2.5m
M515
M665B 3P_2.5mm
M104 3P_2.5mm
P104 3P_2.5mm
FD03B 3P_2.5mm
FD03A 3P_2.5mm
MD03
P604B 8P_2.5mm
P604A 8P_2.5mm
M604
P902A 8P_2.5mm
P902B 8P_2.5mm
M902
OUTER GND
+5V-1
GND
RMT-IN
ON-LINE (ORANGE)
REC (RED)
ON-TIMER (GREEN)
OUTER GND
C-S2
GND(C-S2)
S-S2
GND(S-S2)
L-S2
R-S2
GND
W_SPK
GND_A
DVD-OTHER
GND_1
OPTICAL/COAXIAL
+5V-D
GND(Power)
CENTRE SPK
GND CENT-SPK
CENTRE SPK
EXT-SPK_SW
SR-SPK
GND SUR-SPK
SL-SPK
NC
C_GND
C_SPK
EXT-SPK_SW
SR_SPK
GND_A
SL_SPK
SROUND_GND
+9V-1-CRT
B
G
R
GND_L512
GND_VM
VM
E5-C
E5-Y
L_E5
R_E5
SHEET No
1
2
3
4
5
6
7
8
9
10
99



T No.	CIRCUIT NAME
1	CONNECTORS
2	MICRO
3	AV
4	COMB & MCD
5	BEP
6	AUDIO
7	IF
8	LOW-B REG.
9	FREQ_DET
10	TEXT
99	SUB MATERIALS

32ZP38B
SIGNAL - CONNECTORS
[SHEET-1/10]

for Production

PB14 OPEN

QA61 AT24C256-10PI-2.7

QA02 AT24C64-10PI-2.7

QA01 CXP750010-308S

QA01A SHIELD COVER

QR01 MB90096P-232

QR11 2SA1576A

LA01 TRF4100AT

LR01 TRF41R0AF

LR02 TRF41R0AF

XA03 16.0MHz

QA05 PST9146NL

QB92 2SC4081T

QB93 2SA1576A

QB94 2SA1576A

QB95 2SA1576A

QB96 2SA1576A

QB81 2SC3326B

QB82 2SC3326B

QB83 2SA1576A

QA13 2SA1576A

QV02 2SC4081T

GA41 TEN2121M

GA02 TEN2121M

GA37 TEN2121M

GA38 TEN2121M

GA10 TEN2121M

GA40 TEN2121M

GA39 TEN2121M

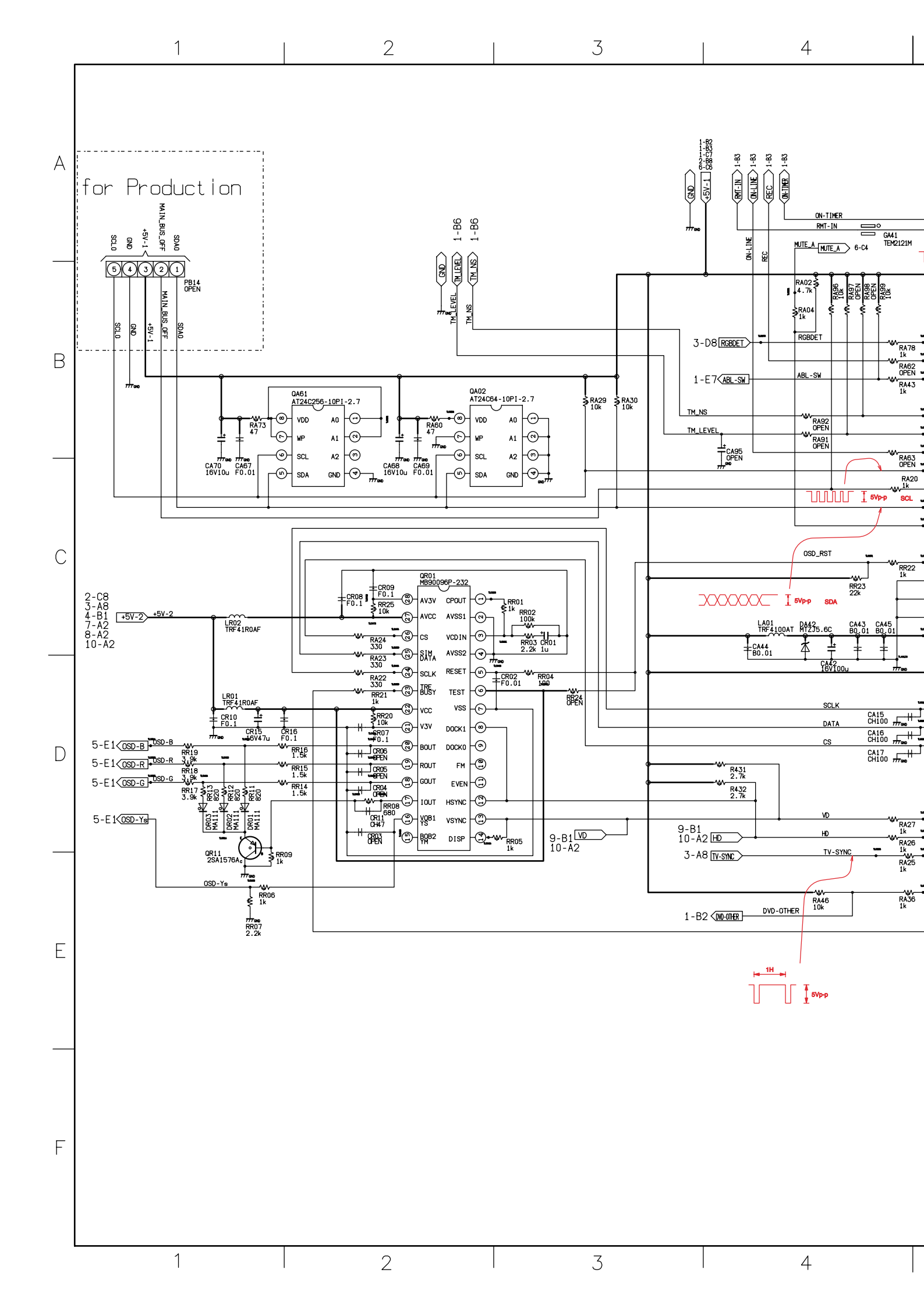
DA42 MTZJ5.6C

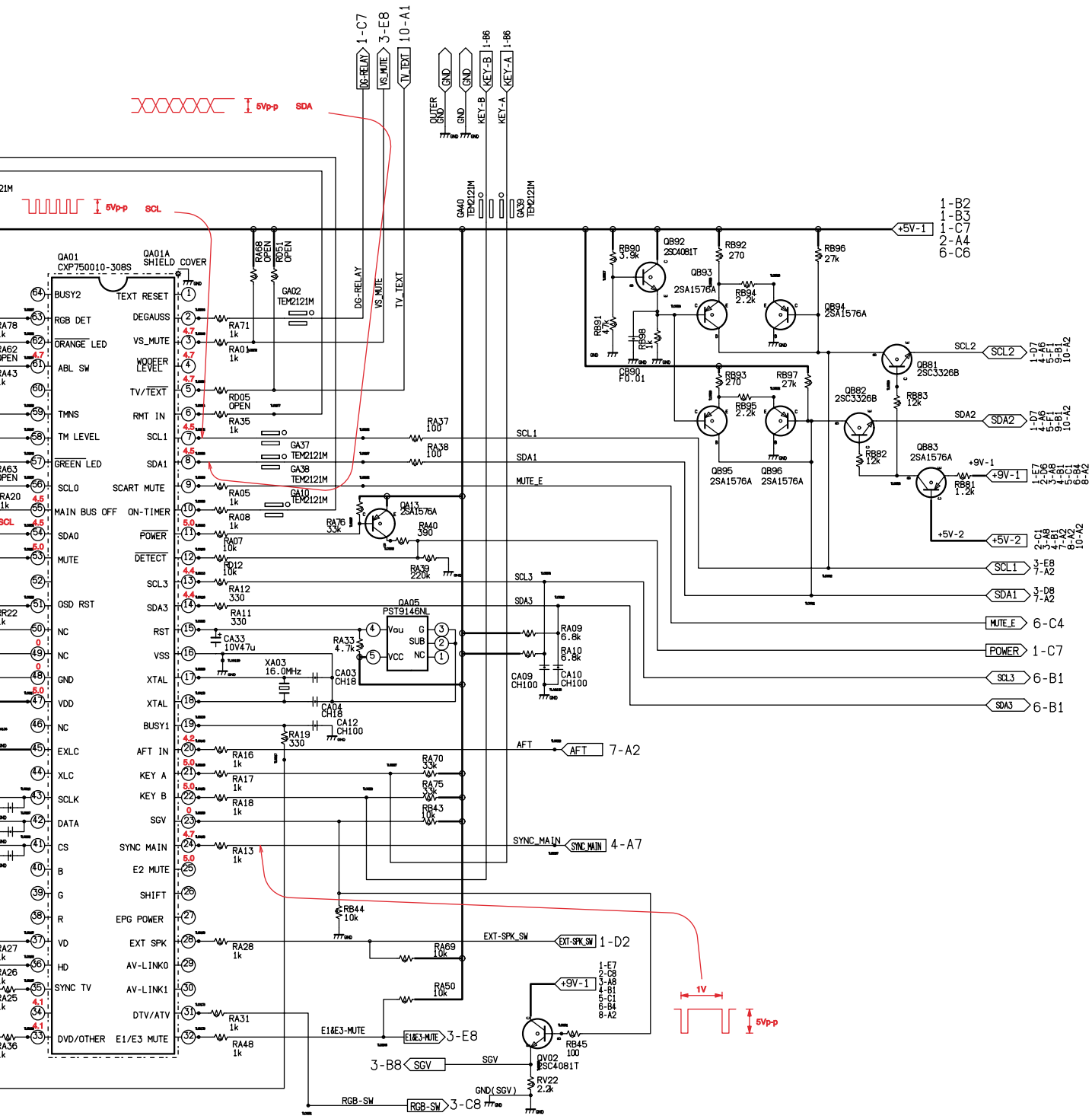
DR01 MA111

DR02 MA111

DR03 MA111

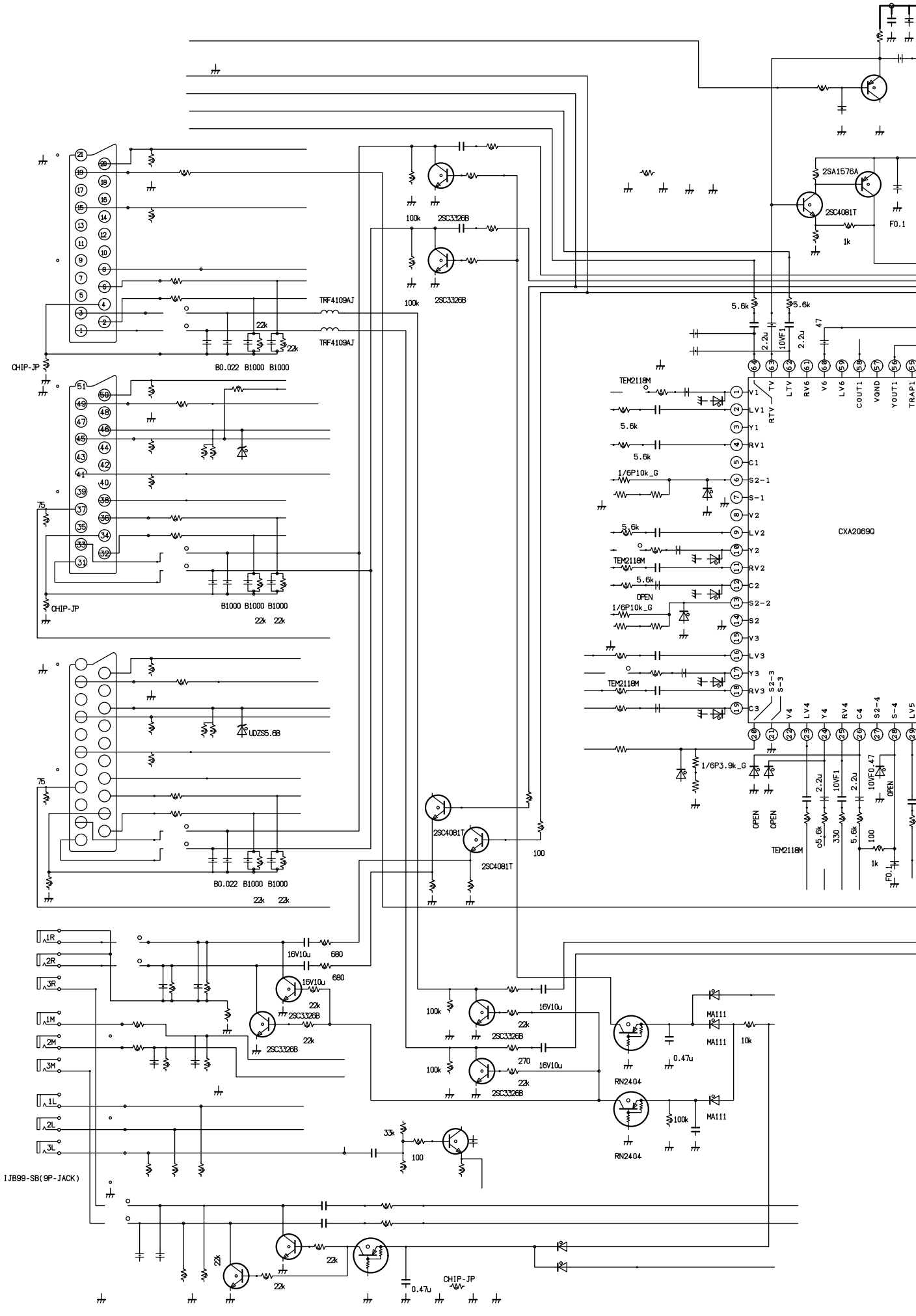
32ZP38B
SIGNAL - MICRO
[SHEET-2/10]

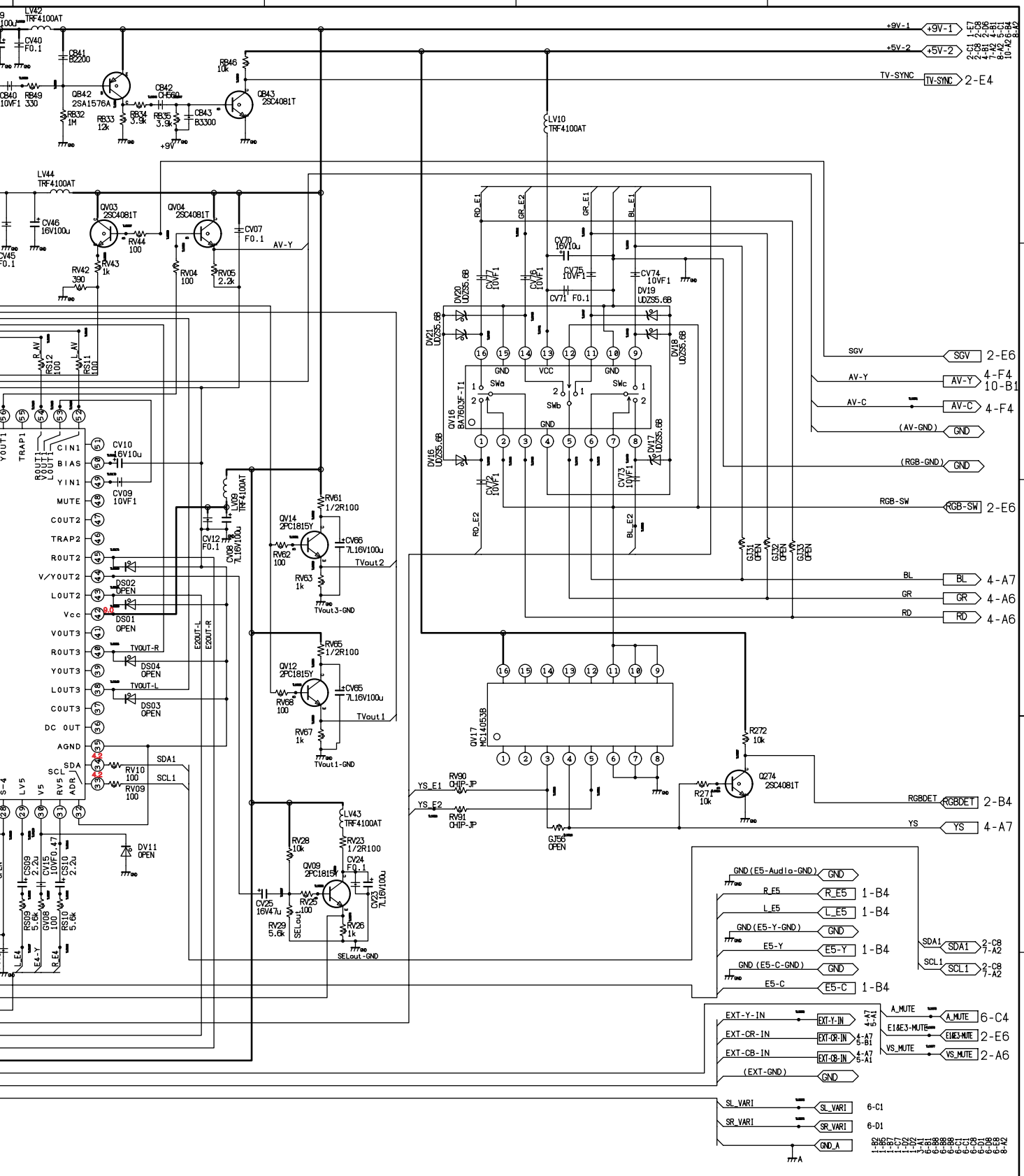

for Production
PB14
OPEN
SCLO
GND
+5V-1
MAIN_BUS_OFF
SDAO
QA61
AT24C256-10PI-2.7
QA02
AT24C64-10PI-2.7
VDD
WP
SCL
SDA
A0
A1
A2
GND
RA73
47
RA60
47
CA70
16V10u
CA67
F0.01
CA68
16V10u
CA69
F0.01
RA29
10k
RA30
10k
TM_LEVEL
TM_NS
1-B6
CA95
OPEN
3-D8
RGBDET
1-E7
ABL-SW
RA78
1k
RA62
OPEN
RA43
1k
RA92
OPEN
RA91
OPEN
RA63
OPEN
RA20
1k
5Vp-p
SCL
OSD_RST
RR22
1k
RR23
22k
5Vp-p
SDA
LA01
TRF4100AT
DA42
MTZJ5.6C
CA43
B0.01
CA45
B0.01
CA44
B0.01
CA42
16V100u
QR01
MB90096P-232
AV3V
AVCC
CS
SIM DATA
SCLK
IRE BUSY
VCC
V3V
BOUT
ROUT
GOUT
IOUT
VOB1 YS
BOB2 YM
CPOUT
AVSS1
VCDIN
AVSS2
RESET
TEST
VSS
DOCK1
DOCK0
FM
EVEN
HSYNC
VSYNC
DISP
CR09
F0.1
CR08
F0.1
RR25
10k
RR01
1k
RR02
100k
RR03
2.2k
CR01
1u
RA24
330
RA23
330
RA22
330
RR21
1k
CR02
F0.01
RR04
100
RR24
OPEN
RR20
10k
CR07
F0.1
CR06
OPEN
CR05
OPEN
CR04
OPEN
RR08
680
CR11
CH47
CR03
OPEN
RR05
1k
2-C8
3-A8
4-B1
7-A2
8-A2
10-A2
+5V-2
LR02
TRF41R0AF
LR01
TRF41R0AF
CR10
F0.1
CR15
16V47u
CR16
F0.1
5-E1
OSD-B
OSD-R
OSD-G
OSD-Ys
RR19
3.9k
RR18
3.9k
RR17
3.9k
RR16
1.5k
RR15
1.5k
RR14
1.5k
RR13
820
RR12
820
RR11
820
DR03
MA111
DR02
MA111
DR01
MA111
QR11
2SA1576A
RR09
1k
RR06
1k
RR07
2.2k
9-B1
10-A2
VD
R431
2.7k
R432
2.7k
HD
TV-SYNC
RA27
1k
RA26
1k
RA25
1k
RA46
10k
RA36
1k
1-B2
DVD-OTHER
SCLK
DATA
CS
CA15
CH100
CA16
CH100
CA17
CH100
1H
5Vp-p
1-B2
1-B3
6-C6
GND
+5V-1
RMT-IN
ON-LINE
REC
ON-TIMER
GA41
TEM2121M
MUTE_A
6-C4
RA02
4.7k
RA04
1k
RA96
10k
RA97
OPEN
RA98
OPEN
RA99
10k
RGBDET



32ZP38B
SIGNAL - MICRO
[SHEET-2/10]

32ZP38B
SIGNAL - AV
[SHEET-3/10]

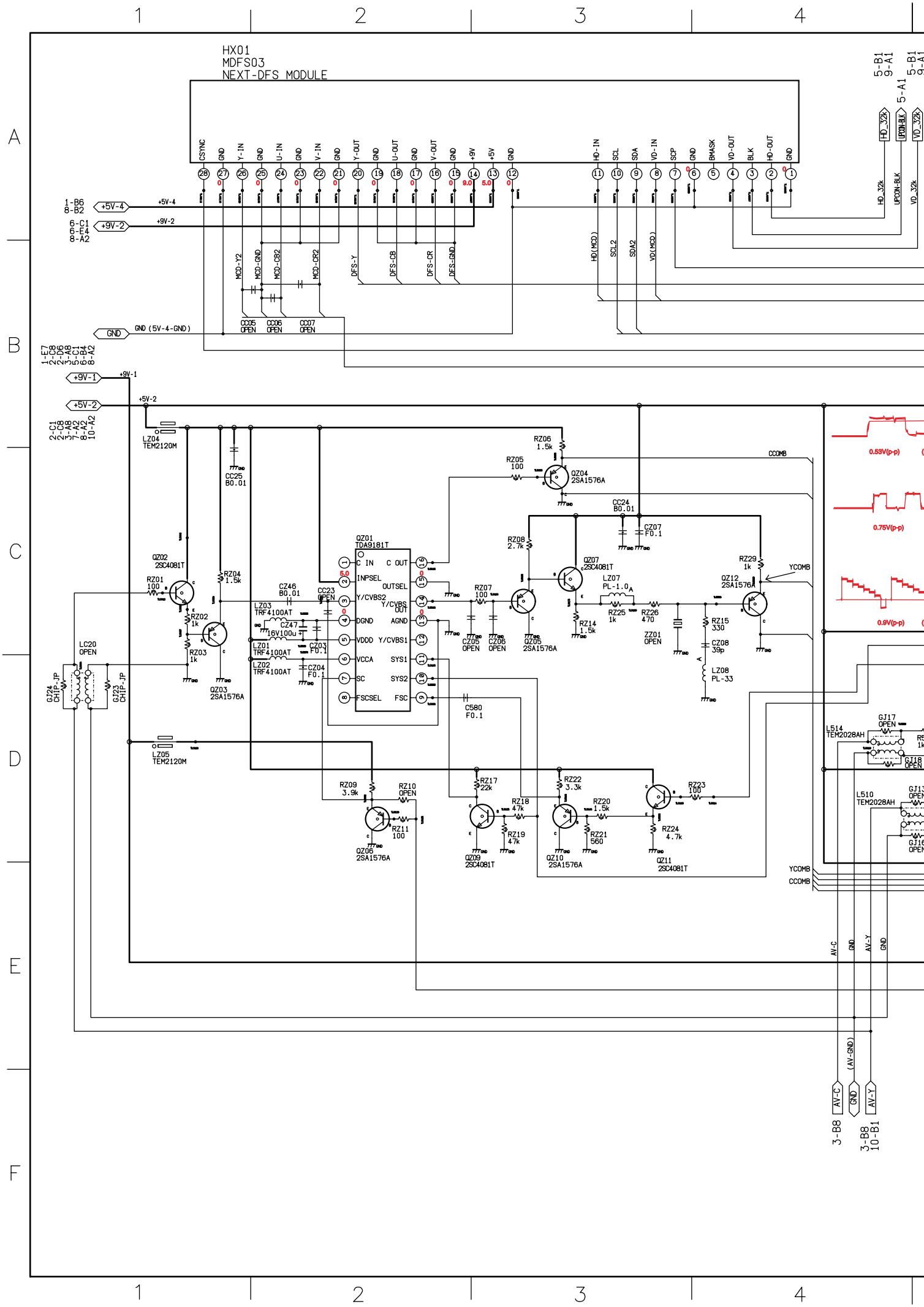

CXA2069Q
TEM2118M
2SC3326B
2SC4081T
2SA1576A
RN2404
MA111
TRF4109AJ
CHIP-JP
IJB99-SB(9P-JACK)
UDZS5.6B
1/6P10k_G
1/6P3.9k_G
B0.022 B1000 B1000
B1000 B1000 B1000
16V10u
10VF1
2.2u
0.47u
5.6k
22k
100k
680
270
330
100
10k
1k
33k
OPEN
FO.1

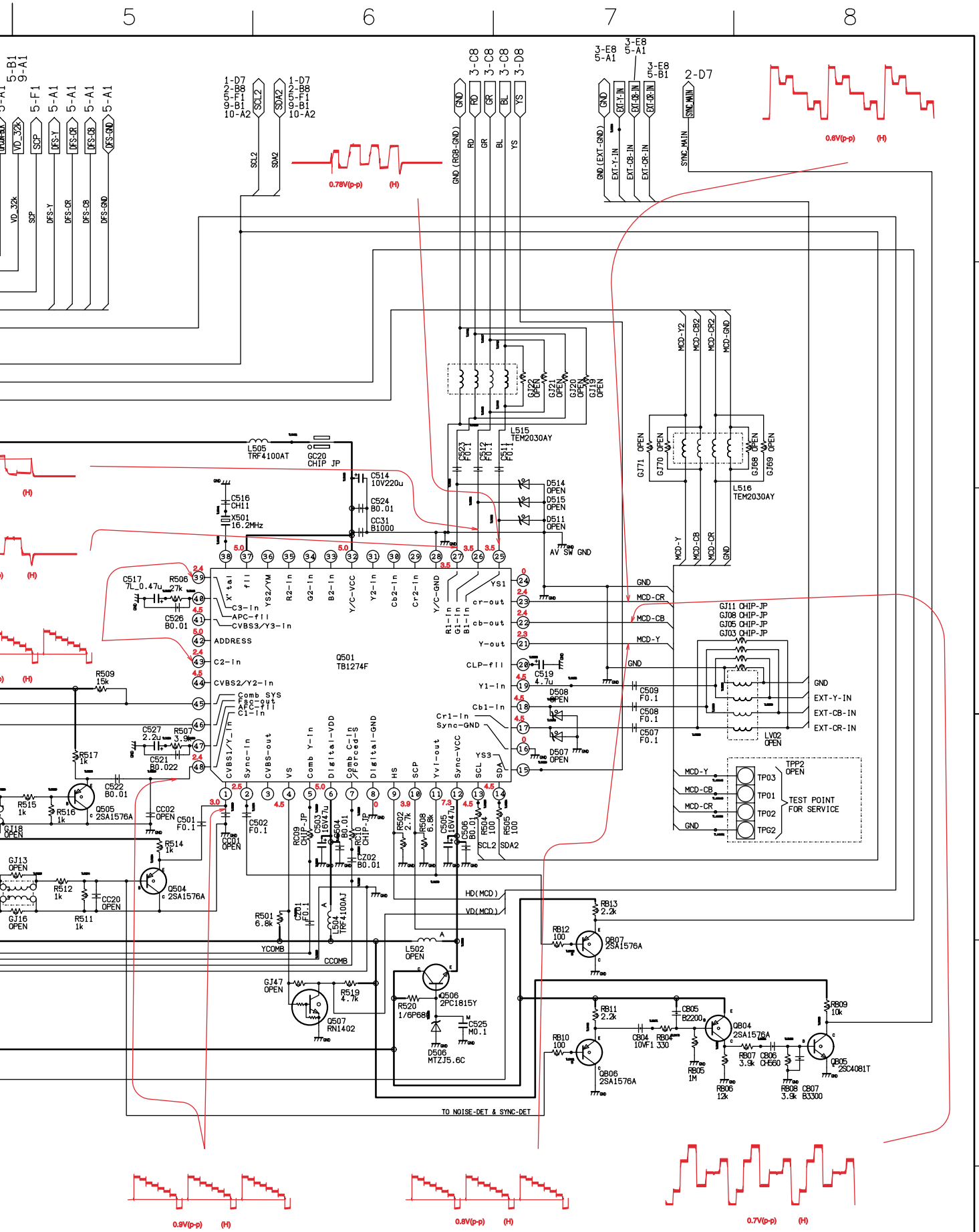


32ZP38B
SIGNAL - AV
[SHEET-3/10]

HX01
MDFS03
NEXT-DFS MODULE

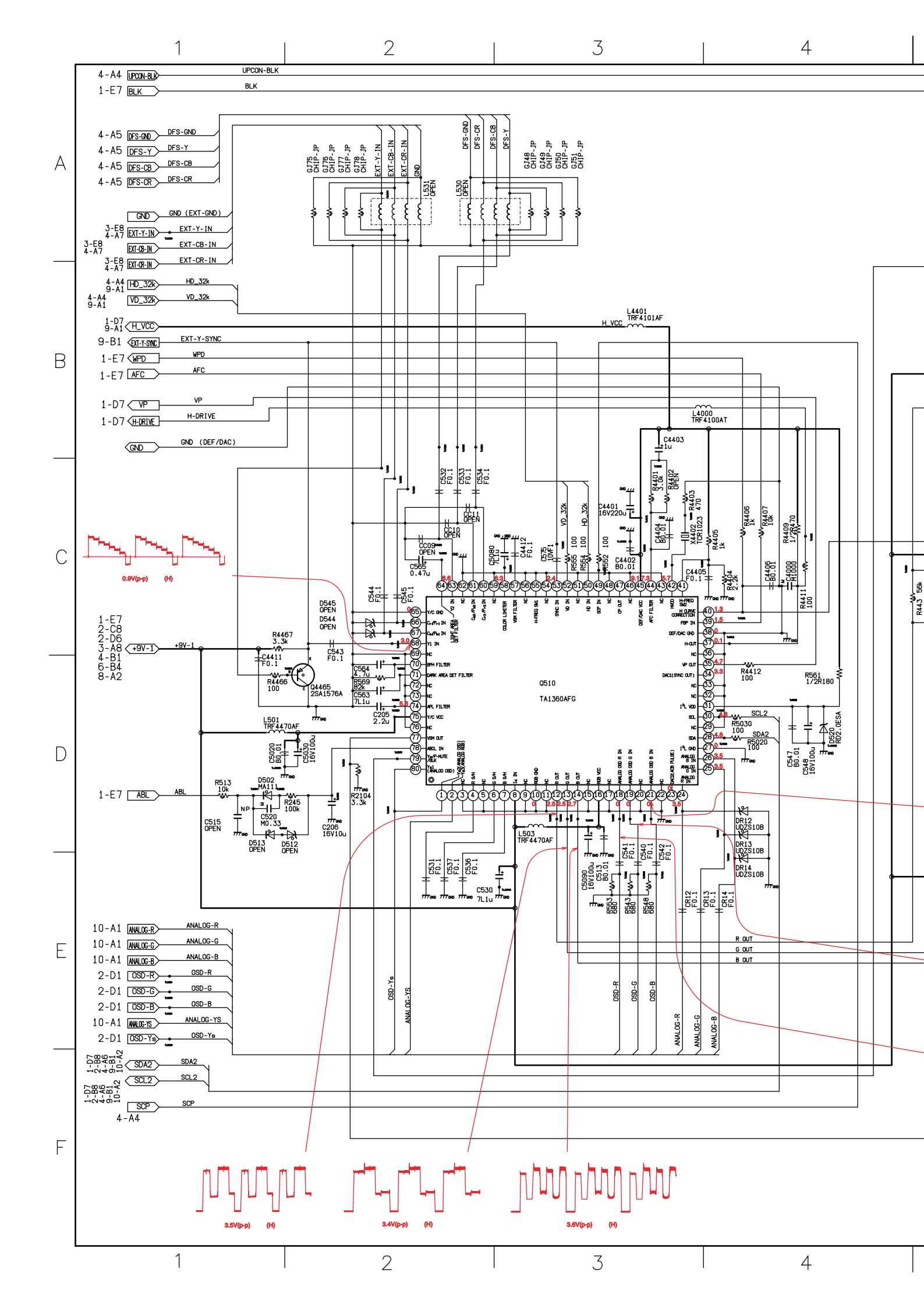
32ZP38B
SIGNAL - COMB & MCD
[SHEET-4/10]

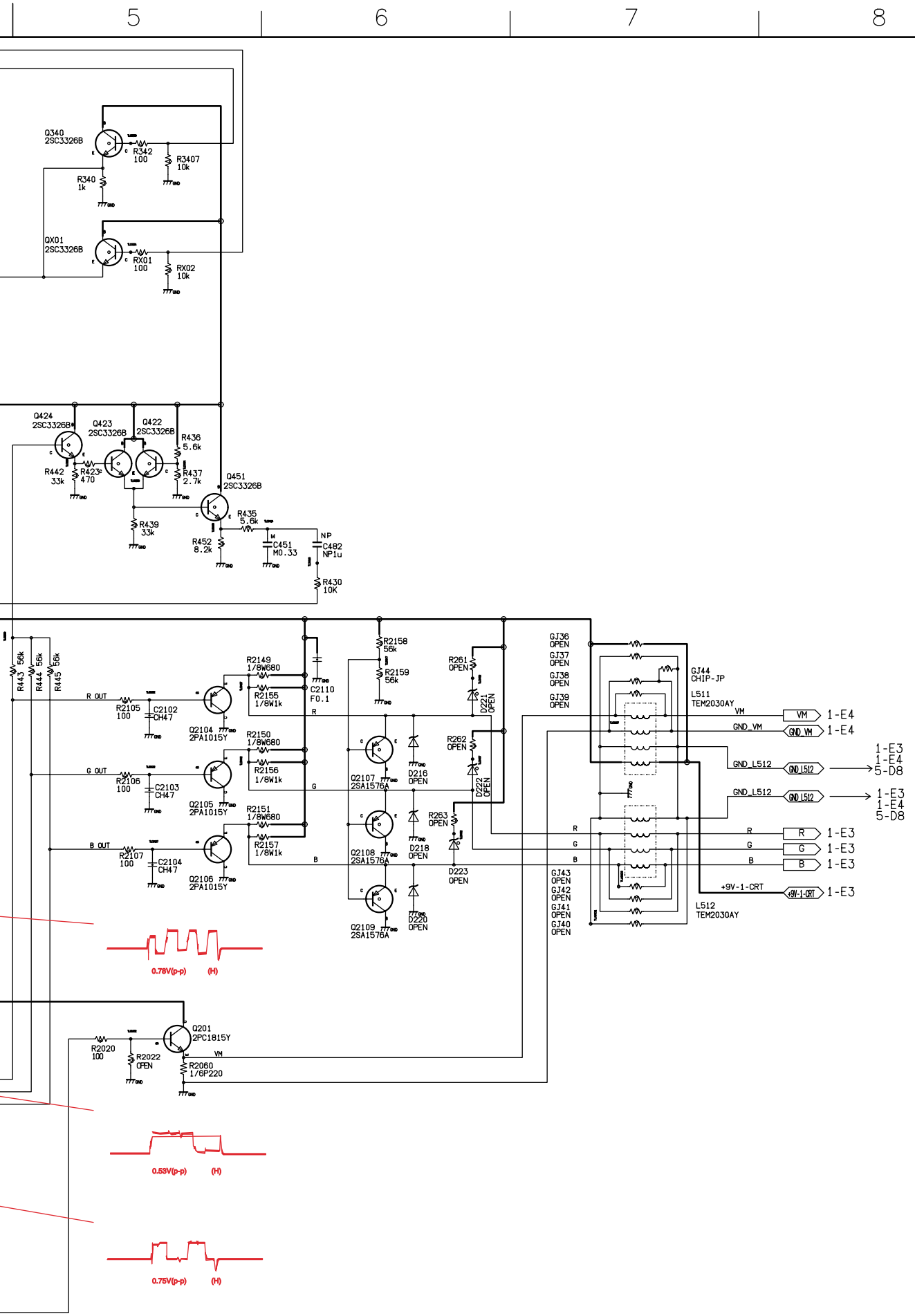

HX01
MDFS03
NEXT-DFS MODULE
CSYNC
GND
Y-IN
U-IN
V-IN
Y-OUT
U-OUT
V-OUT
+9V
+5V
HD-IN
SCL
SDA
VD-IN
SCP
BMASK
VD-OUT
BLK
HD-OUT
+5V-4
+9V-2
+9V-1
+5V-2
GND (5V-4-GND)
MCD-Y2
MCD-GND
MCD-CB2
MCD-CR2
DFS-Y
DFS-CB
DFS-CR
DFS-GND
HD(MCD)
SCL2
SDA2
VD(MCD)
HD_32k
UPDN-BLK
VD_32k
CC05 OPEN
CC06 OPEN
CC07 OPEN
LZ04 TEM2120M
LZ05 TEM2120M
CC25 B0.01
CC24 B0.01
QZ01 TDA9181T
C IN
C OUT
INPSEL
OUTSEL
Y/CVBS2
Y/CVBS OUT
DGND
AGND
VDDD
Y/CVBS1
VCCA
SYS1
SC
SYS2
FSCSEL
FSC
QZ02 2SC4081T
QZ03 2SA1576A
QZ04 2SA1576A
QZ05 2SA1576A
QZ06 2SA1576A
QZ07 2SC4081T
QZ09 2SC4081T
QZ10 2SA1576A
QZ11 2SC4081T
QZ12 2SA1576A
RZ01 100
RZ02 1k
RZ03 1k
RZ04 1.5k
RZ05 100
RZ06 1.5k
RZ07 100
RZ08 2.7k
RZ09 3.9k
RZ10 OPEN
RZ11 100
RZ14 1.5k
RZ15 330
RZ17 22k
RZ18 47k
RZ19 47k
RZ20 1.5k
RZ21 560
RZ22 3.3k
RZ23 100
RZ24 4.7k
RZ25 1k
RZ26 470
RZ29 1k
CZ01 OPEN
CZ04 F0.1
CZ05 OPEN
CZ06 OPEN
CZ07 F0.1
CZ08 39p
CZ46 B0.01
CZ47 16V100u
C580 F0.1
LZ01 TRF4100AT
LZ02 TRF4100AT
LZ03 TRF4100AT
LZ07 PL-1.0A
LZ08 PL-33
LC20 OPEN
GJ17 OPEN
GJ18 OPEN
L514 TEM2028AH
L510 TEM2028AH
YCOMB
CCOMB
0.53V(p-p)
0.75V(p-p)
0.9V(p-p)
AV-C
GND
AV-Y
GND
(AV-GND)
3-B8
10-B1



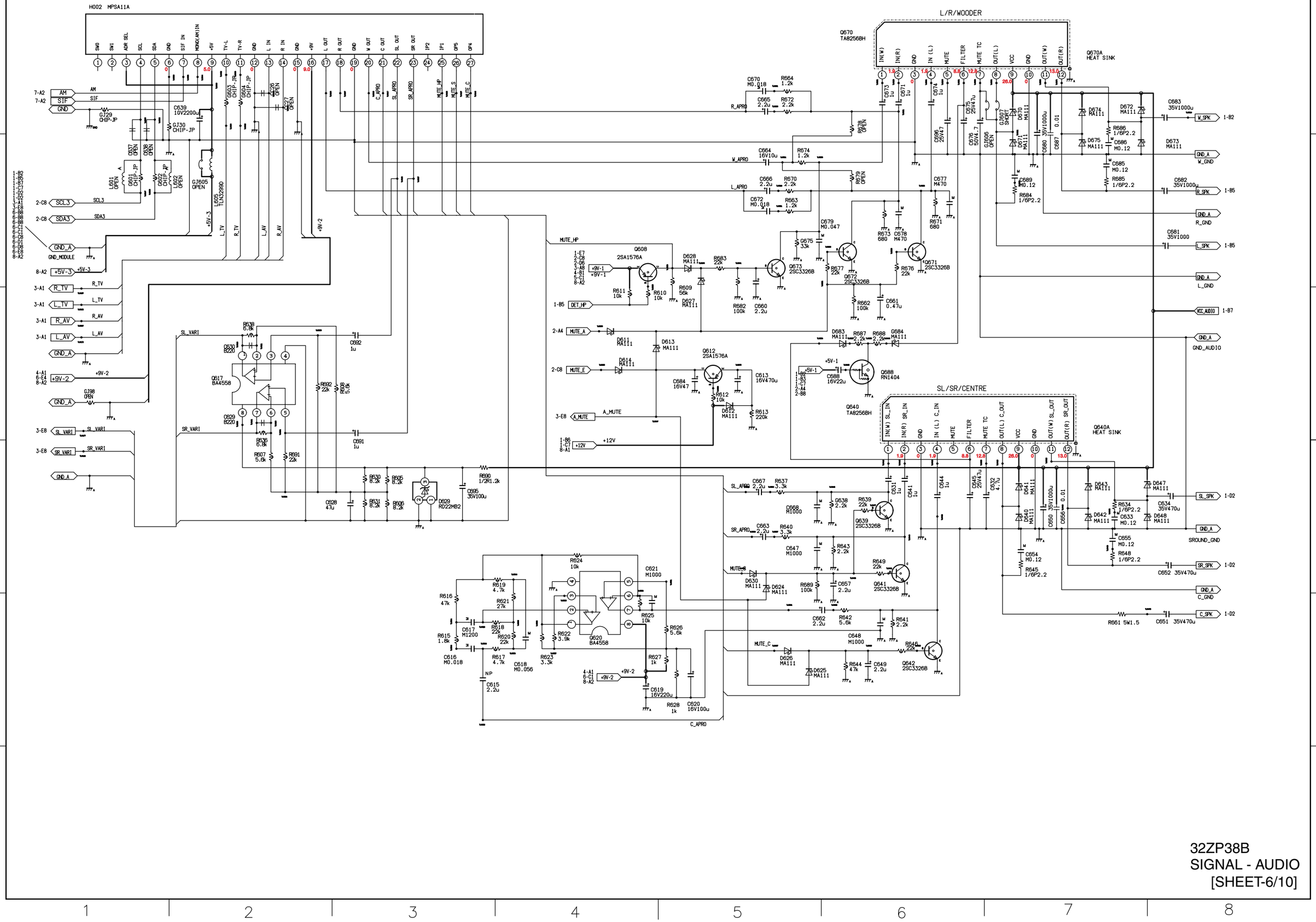
32ZP38B
SIGNAL - COMB & MCD
[SHEET-4/10]

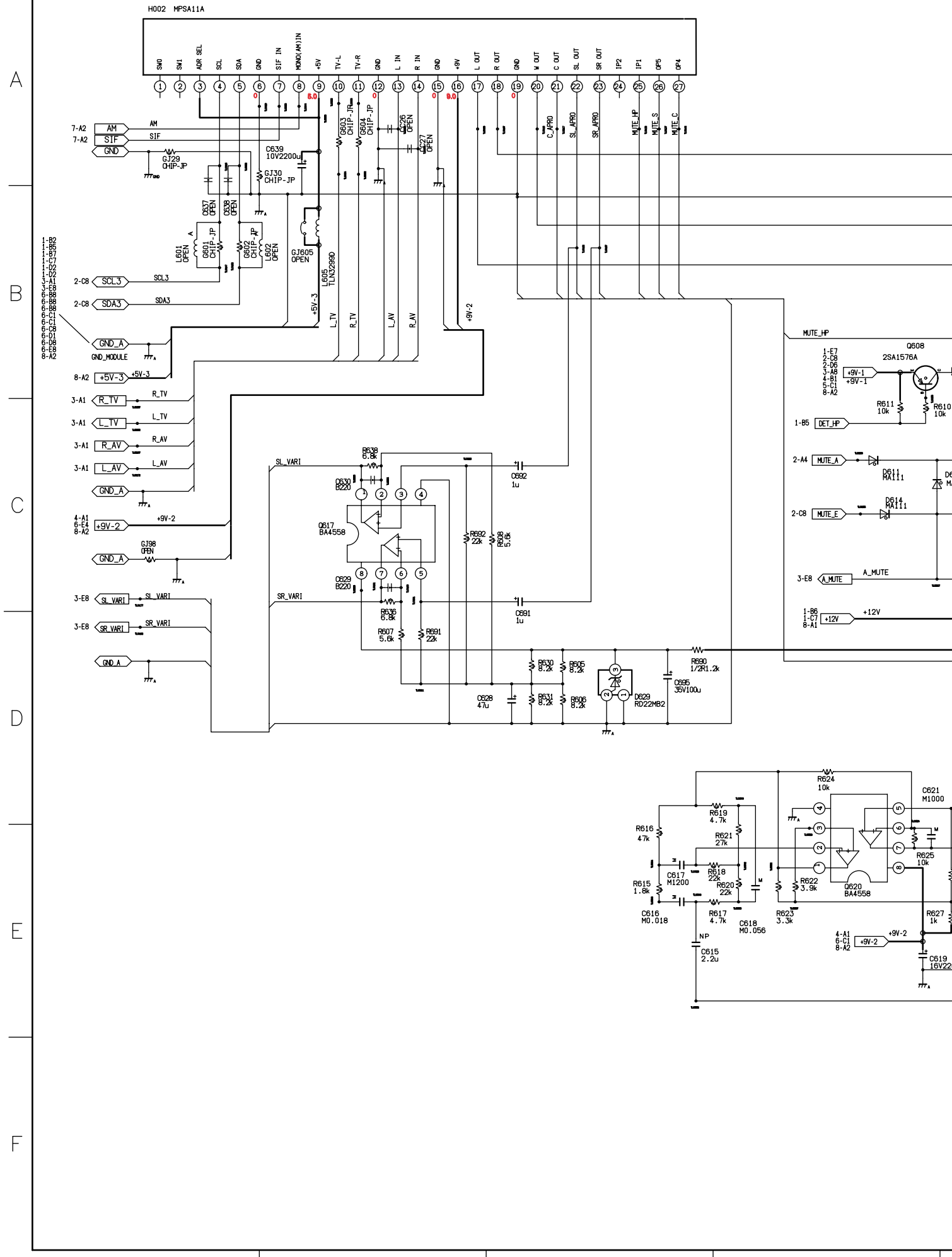
32ZP38B
SIGNAL - BEP
[SHEET-5/10]

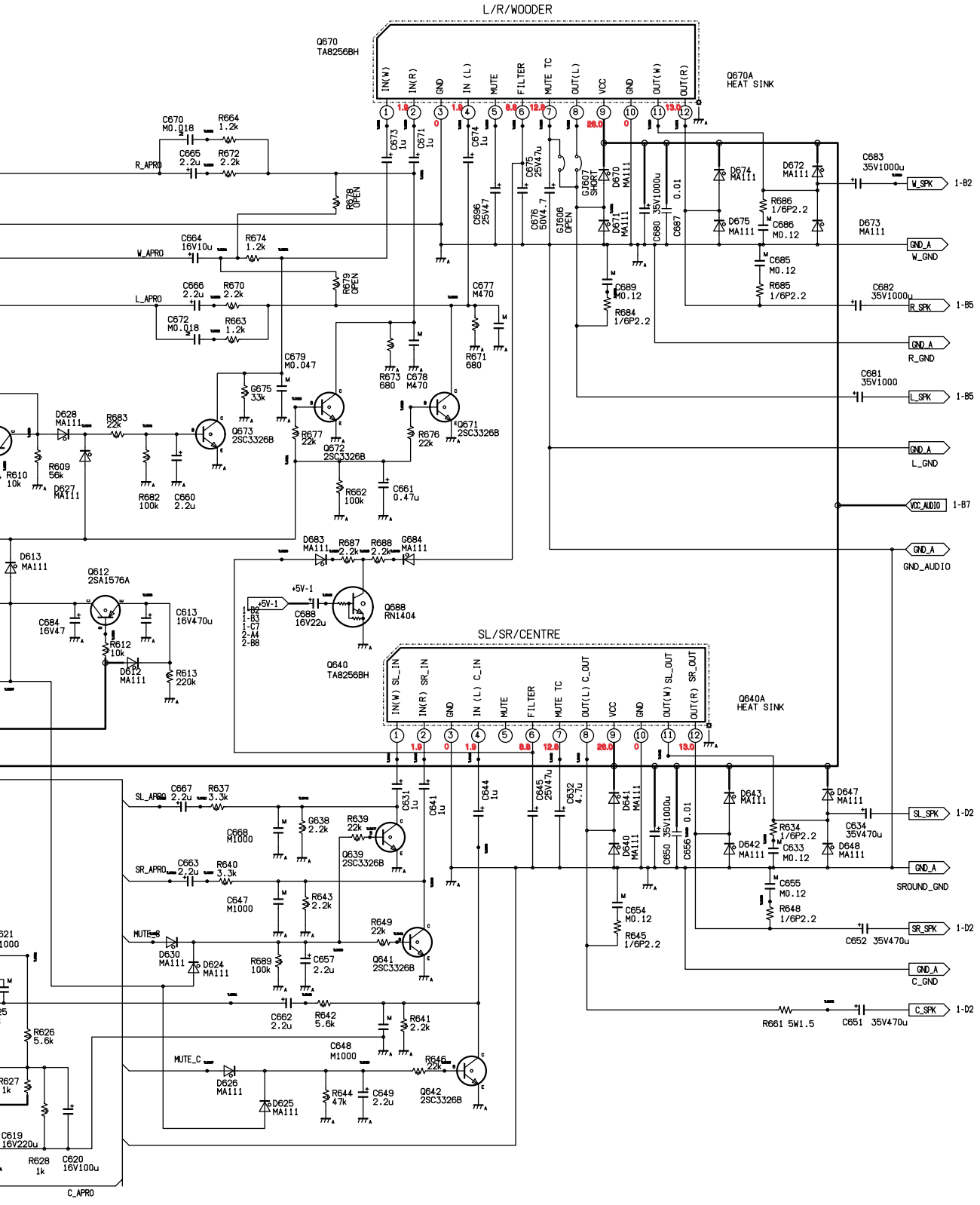

UPCON-BLK
BLK
DFS-GND
DFS-Y
DFS-CB
DFS-CR
GND (EXT-GND)
EXT-Y-IN
EXT-CB-IN
EXT-CR-IN
HD_32k
VD_32k
H_VCC
EXT-Y-SYNC
WPD
AFC
VP
H-DRIVE
GND (DEF/DAC)
+9V-1
ABL
ANALOG-R
ANALOG-G
ANALOG-B
OSD-R
OSD-G
OSD-B
ANALOG-YS
OSD-Ys
SDA2
SCL2
SCP
L4401 TRF4101AF
L4000 TRF4100AT
L501 TRF4470AF
L503 TRF4470AF
Q510
TA1360AFG
Q4465 2SA1576A
D502 MA111
D545 OPEN
D544 OPEN
D513 OPEN
D512 OPEN
R561 1/2R180
R4412 100
R5030 100
R5020 100
R2104 3.3k
R4467 3.3k
R4466 100
R513 10k
R245 100k
C515 OPEN
C206 16V10u
C205 2.2u
C563 7L1u
C564 4.7u
C530 7L1u
C4403 1u
C4401 16V220u
C4402 B0.01
C4405 F0.1
C4000 B0.01
C4411 F0.1
C543 F0.1
C544 F0.1
C545 F0.1
C532 F0.1
C533 F0.1
C534 F0.1
C5020 B0.01
C5030 16V100u
C5080 1u
C5090 16V100u
C513 B0.01
C547 B0.01
C548 16V100u
C531 F0.1
C537 F0.1
C536 F0.1
C541 F0.1
C540 F0.1
C542 F0.1
C575 10VF1
C4412 F0.1
C4404 B0.01
C4409 1/2R470
C4411 100
R4401 3.0k
R4402 OPEN
R4403 470
R4405 1k
R4406 1k
R4407 10k
R4404 2.2k
R555 100
R554 100
R552 100
R553 680
R543 680
R548 680
DR12 UDZS10B
DR13 UDZS10B
DR14 UDZS10B
DR12 F0.1
DR13 F0.1
DR14 F0.1
R443 56k
0.9V(p-p) (H)
3.5V(p-p) (H)
3.4V(p-p) (H)
3.6V(p-p) (H)



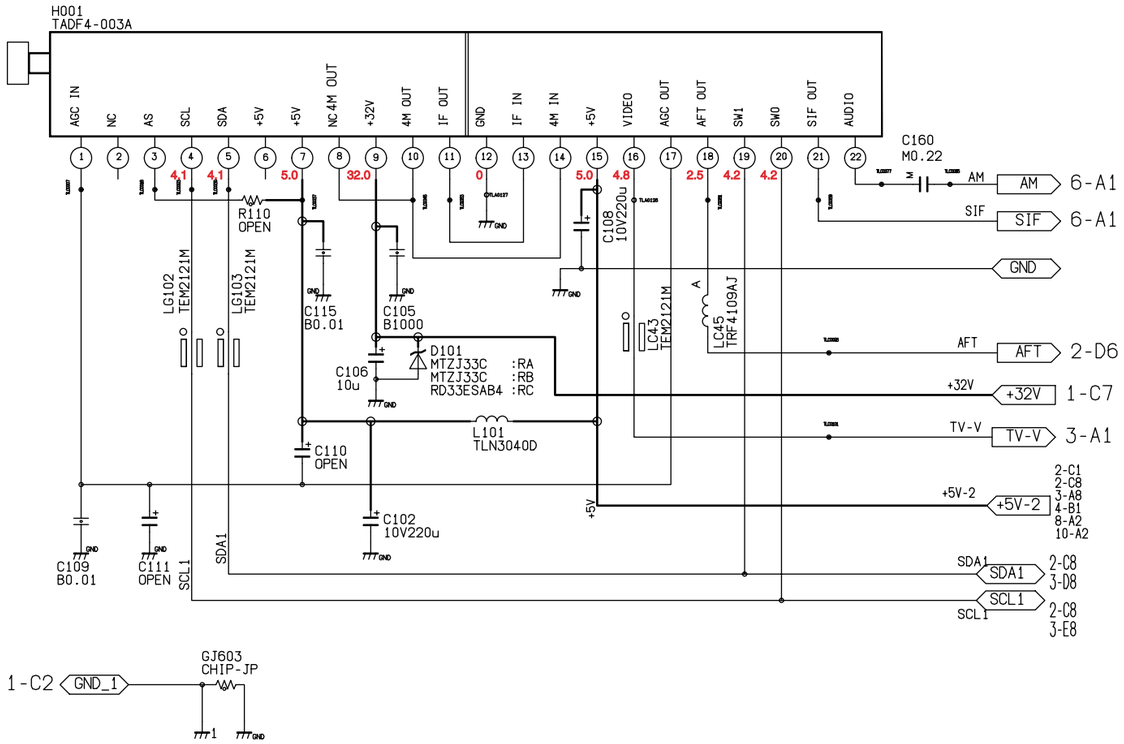
32ZP38B
SIGNAL - BEP
[SHEET-5/10]


H002 MPSA11A
L/R/WOODER
Q670 TA8256BH
Q670A HEAT SINK
SL/SR/CENTRE
Q640 TA8256BH
Q640A HEAT SINK
Q608 2SA1576A
Q612 2SA1576A
Q617 BA4558
Q620 BA4558
Q673 2SC3326B
Q672 2SC3326B
Q671 2SC3326B
Q688 RN1404
Q639 2SC3326B
Q641 2SC3326B
Q642 2SC3326B
D629 RD22MB2
GJ605 OPEN
L605 TLN2290
MUTE_HP
MUTE_A
MUTE_E
A_MUTE
MUTE_B
MUTE_C
C_APRO
W_APRO
L_APRO
R_APRO
SL_APRO
SR_APRO
DET_HP
W_SPK
R_SPK
L_SPK
C_SPK
SL_SPK
SR_SPK
W_GND
R_GND
L_GND
C_GND
SROUND_GND
GND_AUDIO
VCC_AUDIO
GND_MODULE
SL_VARI
SR_VARI
AM
SIF
SCL3
SDA3
R_TV
L_TV
R_AV
L_AV
+5V-1
+5V-2
+5V-3
+9V-1
+9V-2
+12V
32ZP38B
SIGNAL - AUDIO
[SHEET-6/10]

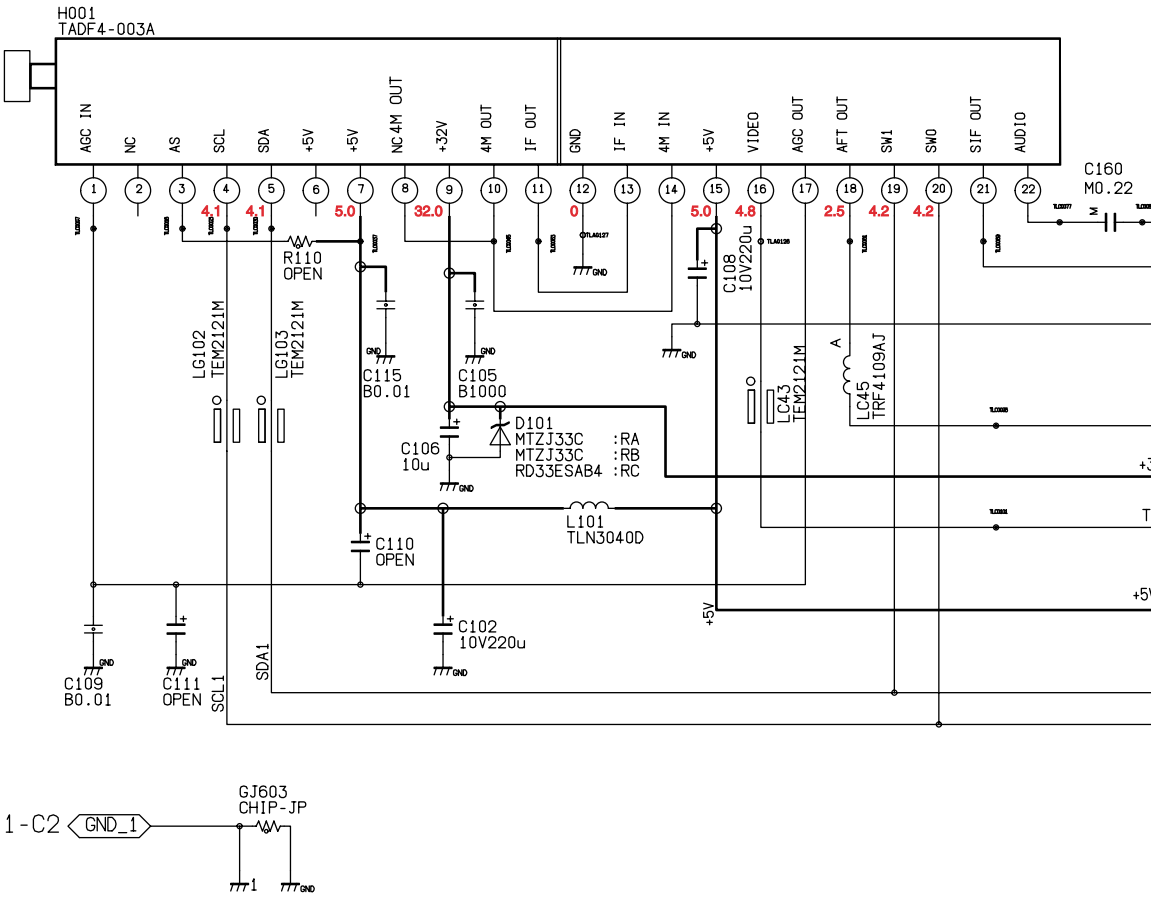

H002 MPSA11A
SW0
SW1
ADR SEL
SCL
SDA
GND
SIF IN
MONO(AM)IN
+5V
TV-L
TV-R
GND
L IN
R IN
GND
+9V
L OUT
R OUT
GND
W OUT
C OUT
SL OUT
SR OUT
IP2
IP1
OP5
OP4
AM
SIF
GND
GJ29 CHIP-JP
C639 10V2200u
GJ30 CHIP-JP
G603 CHIP-JP
G604 CHIP-JP
C626 OPEN
C627 OPEN
C_APRO
SL_APRO
SR_APRO
MUTE_HP
MUTE_S
MUTE_C
C637 OPEN
C638 OPEN
L601 OPEN
G601 CHIP-JP
G602 CHIP-JP
L602 OPEN
GJ605 OPEN
L605 TLN3299D
SCL3
SDA3
GND_A
GND_MODULE
+5V-3
R_TV
L_TV
R_AV
L_AV
GND_A
+9V-2
GJ98 OPEN
GND_A
SL_VARI
SR_VARI
GND_A
L_TV
R_TV
L_AV
R_AV
+5V-3
+9V-2
SL_VARI
SR_VARI
R638 6.8k
C630 B220
Q617 BA4558
C629 B220
R636 6.8k
R607 5.6k
R691 22k
R692 22k
R608 5.6k
C692 1u
C691 1u
R630 8.2k
R605 8.2k
R631 8.2k
R606 8.2k
C628 47u
D629 RD22MB2
C695 35V100u
R690 1/2R1.2k
MUTE_HP
Q608 2SA1576A
+9V-1
R611 10k
R610 10k
DET_HP
MUTE_A
D611 MA111
MUTE_E
D614 MA111
A_MUTE
+12V
R624 10k
C621 M1000
R619 4.7k
R616 47k
R621 27k
R618 22k
R620 22k
C617 M1200
R615 1.8k
C616 M0.018
R617 4.7k
C618 M0.056
NP
C615 2.2u
Q620 BA4558
R622 3.9k
R623 3.3k
R625 10k
R627 1k
+9V-2
C619 16V22

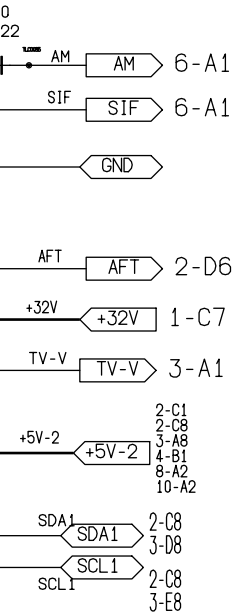


32ZP38B
SIGNAL - AUDIO
[SHEET-6/10]



32ZP38B
SIGNAL - IF
[SHEET-7/10]

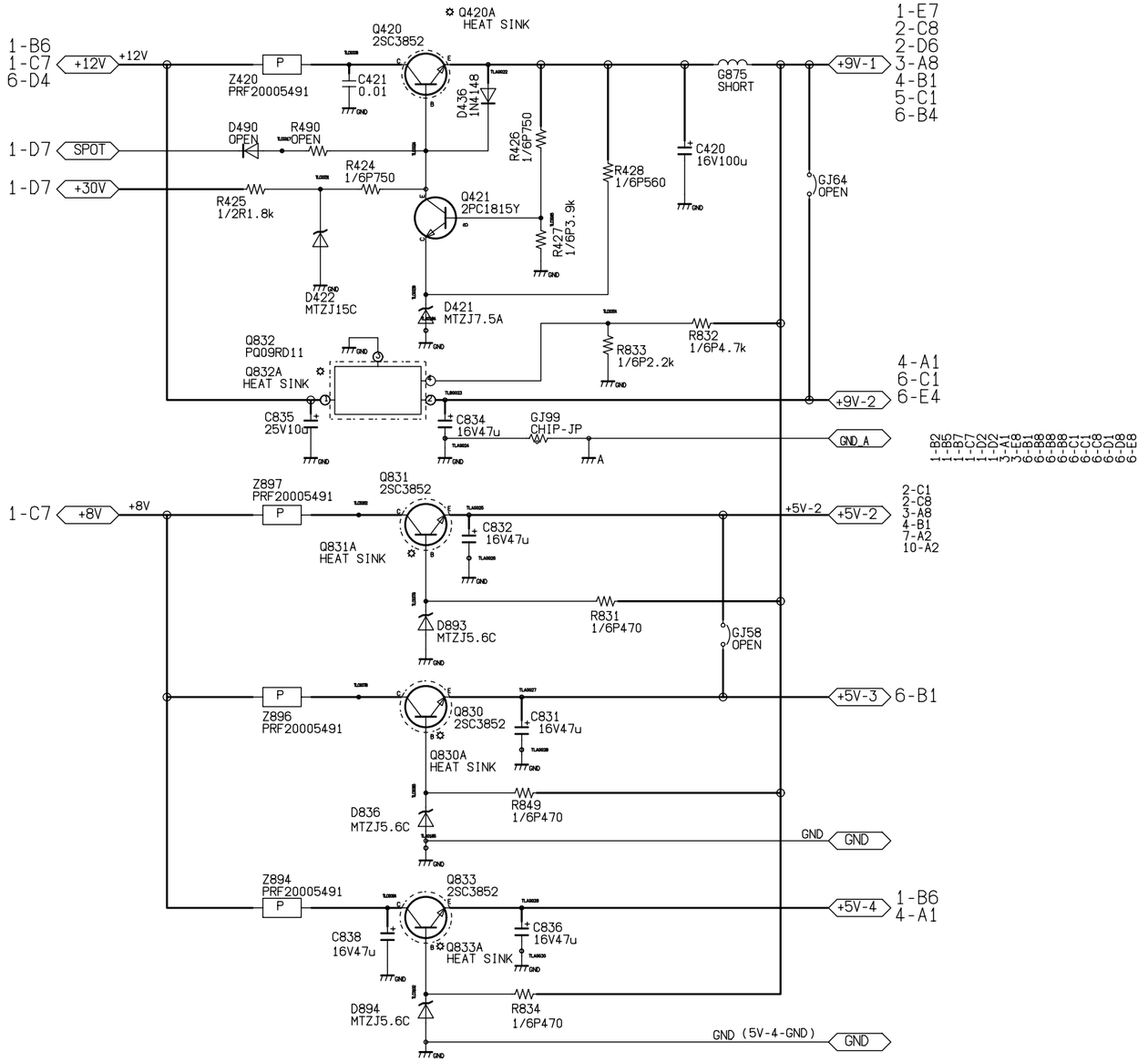

H001
TADF4-003A
AGC IN
NC
AS
SCL
SDA
+5V
+5V
NC4M OUT
+32V
4M OUT
IF OUT
GND
IF IN
4M IN
+5V
VIDEO
AGC OUT
AFT OUT
SW1
SW0
SIF OUT
AUDIO
C160
M0.22
4.1
4.1
5.0
32.0
0
5.0
4.8
2.5
4.2
4.2
R110
OPEN
C108
10V220u
LG102
TEM2121M
LG103
TEM2121M
C115
B0.01
C105
B1000
D101
MTZJ33C :RA
MTZJ33C :RB
RD33ESAB4 :RC
C106
10u
LC43
TEM2121M
LC45
TRF4109AJ
L101
TLN3040D
C110
OPEN
C102
10V220u
C109
B0.01
C111
OPEN
SCL1
SDA1
+5V
GJ603
CHIP-JP
1-C2
GND_1



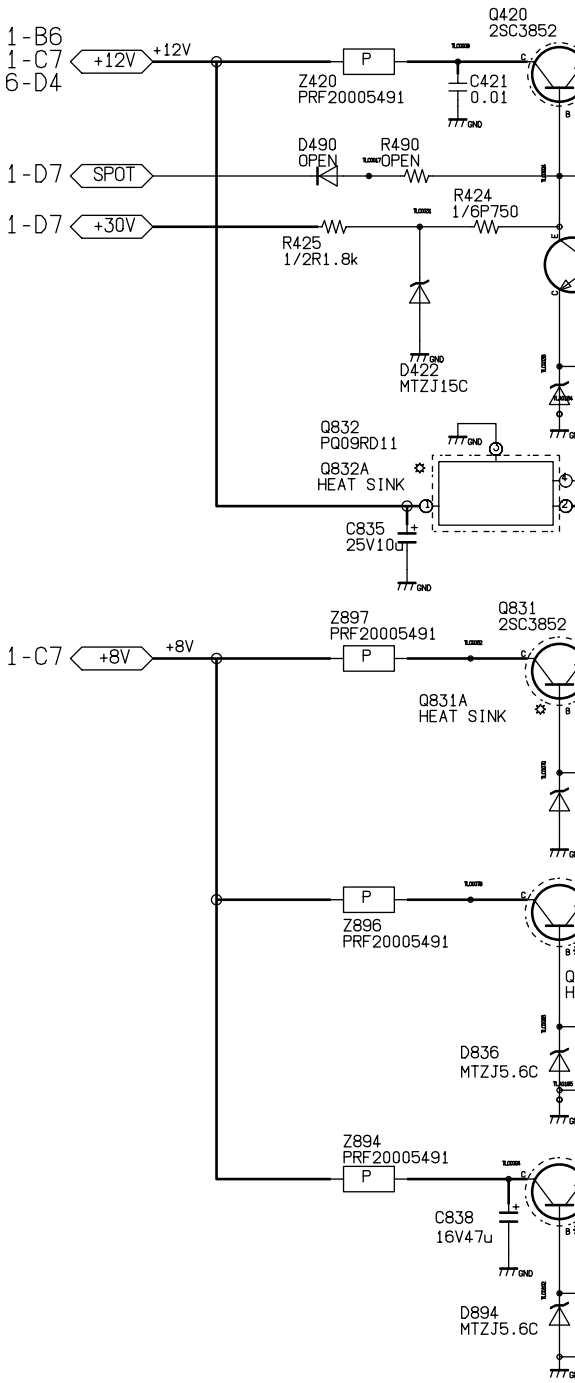
A

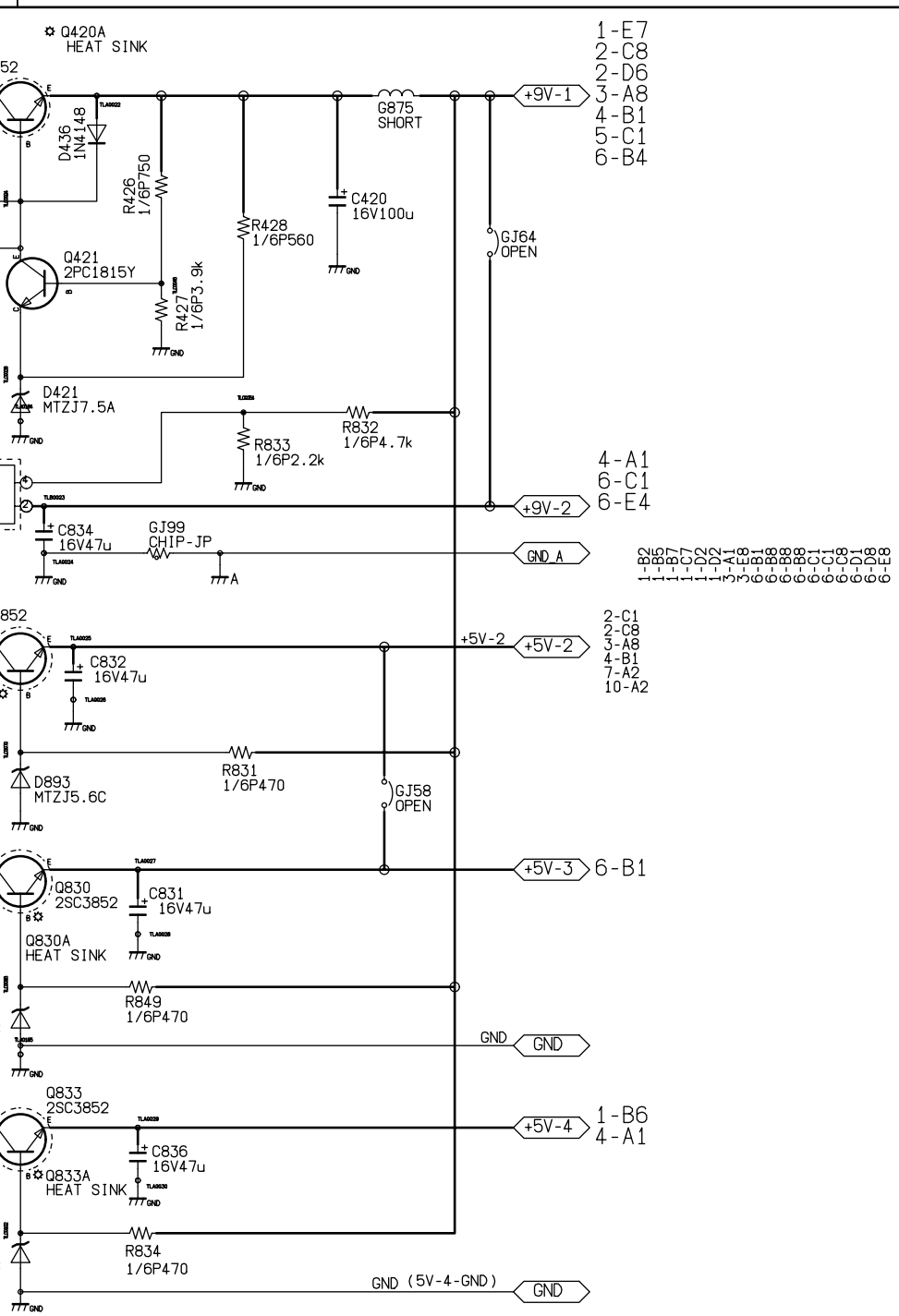
B

32ZP38B
SIGNAL - IF
[SHEET-7/10]

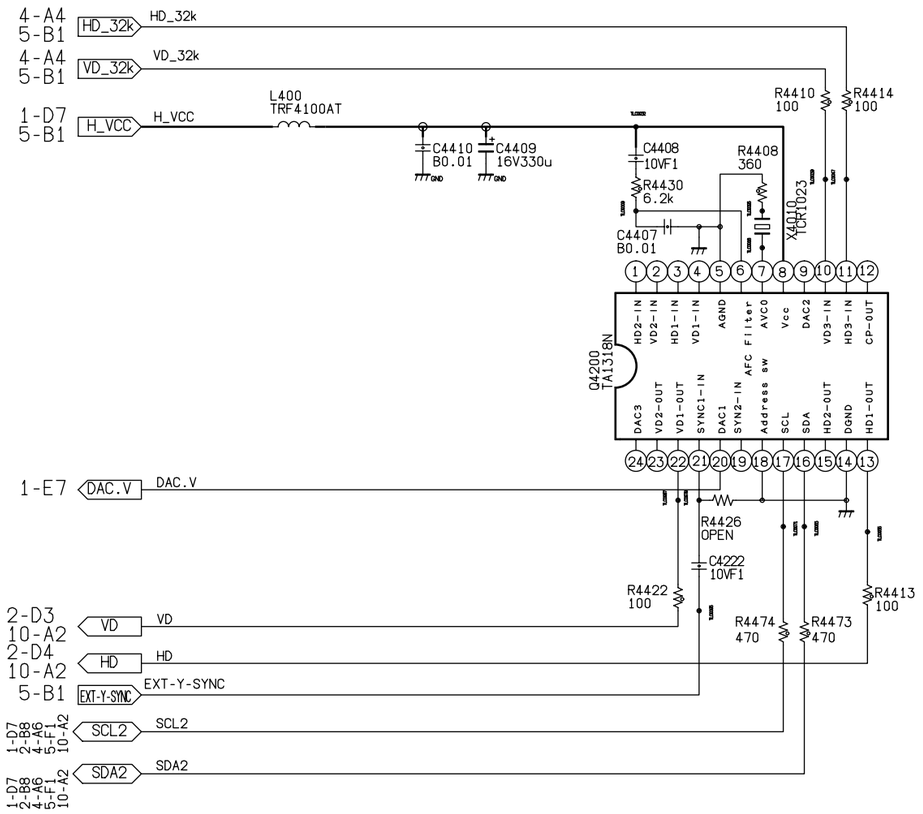


32ZP38B
SIGNAL - LOW-B REGULATOR
[SHEET-8/10]

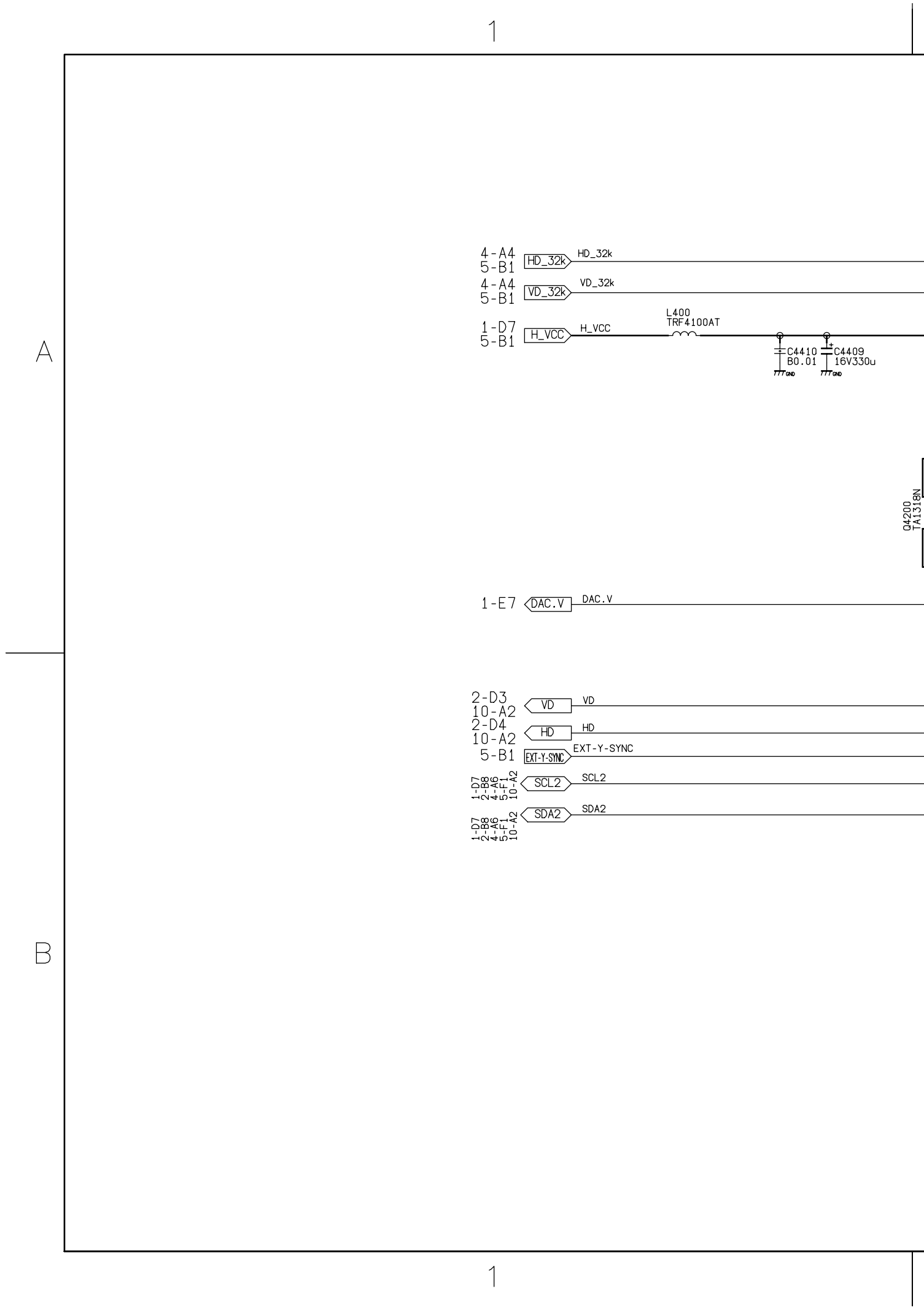

1-B6
1-C7
6-D4
+12V
+12V
P
Z420
PRF20005491
Q420
2SC3852
C421
0.01
GND
D490
OPEN
R490
OPEN
1-D7
SPOT
1-D7
+30V
R424
1/6P750
R425
1/2R1.8k
D422
MTZJ15C
Q832
PQ09RD11
Q832A
HEAT SINK
C835
25V10u
1-C7
+8V
+8V
Z897
PRF20005491
Q831
2SC3852
Q831A
HEAT SINK
P
Z896
PRF20005491
D836
MTZJ5.6C
Z894
PRF20005491
C838
16V47u
D894
MTZJ5.6C

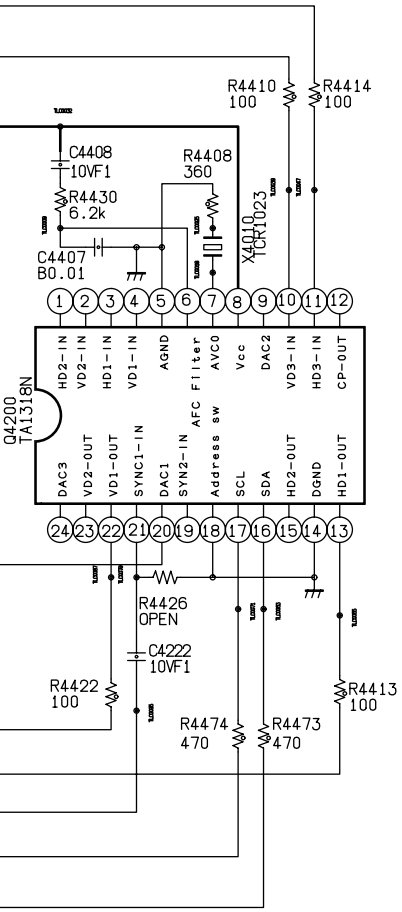


32ZP38B
SIGNAL - LOW-B REGULATOR
[SHEET-8/10]



32ZP38B
SIGNAL - FREQ_DET
[SHEET-9/10]

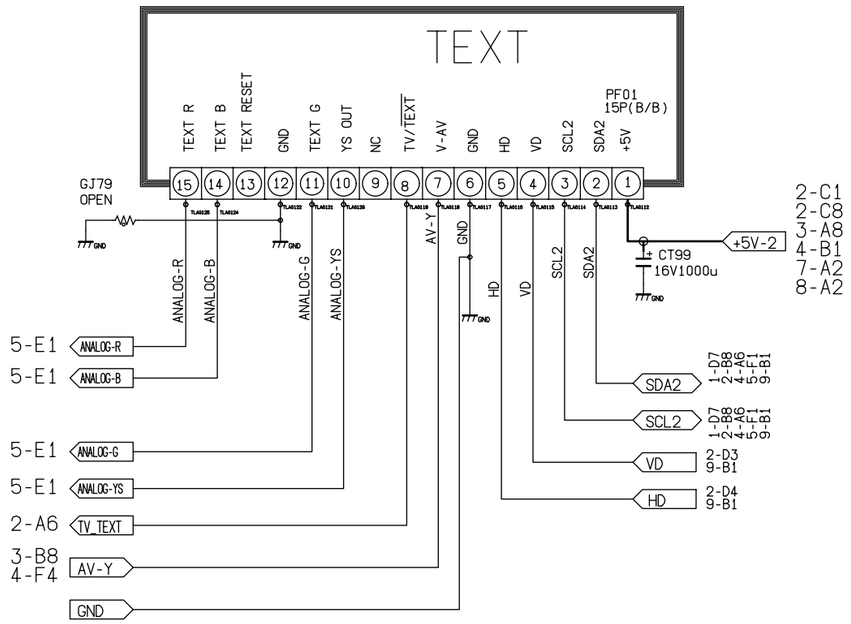

1
A
B
4-A4
5-B1
HD_32k
HD_32k
4-A4
5-B1
VD_32k
VD_32k
1-D7
5-B1
H_VCC
H_VCC
L400
TRF4100AT
C4410
B0.01
C4409
16V330u
GND
GND
Q4200
TA1318N
1-E7
DAC.V
DAC.V
2-D3
10-A2
VD
VD
2-D4
10-A2
HD
HD
5-B1
EXT-Y-SYNC
EXT-Y-SYNC
1-D7
2-B8
4-A6
5-F1
10-A2
SCL2
SCL2
1-D7
2-B8
4-A6
5-F1
10-A2
SDA2
SDA2
1



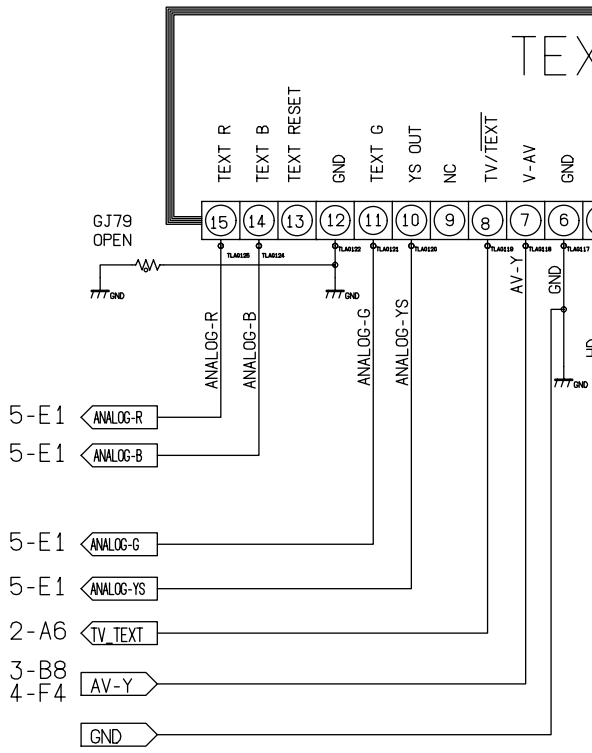
A

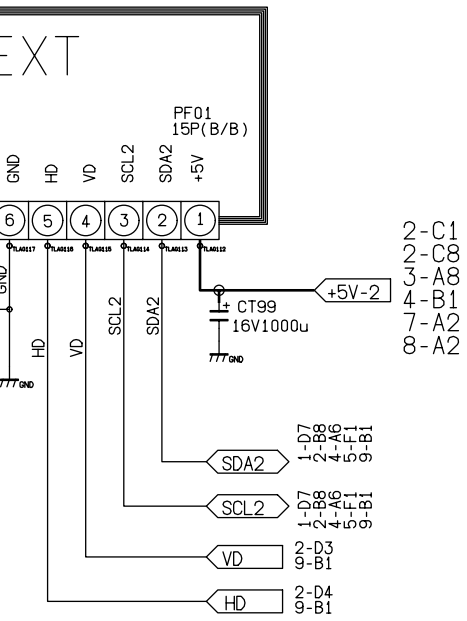
B

32ZP38B
SIGNAL - FREQ_DET
[SHEET-9/10]



32ZP38B
SIGNAL - TEXT
[SHEET-10/10]


TEX
TEXT R
TEXT B
TEXT RESET
GND
TEXT G
YS OUT
NC
TV/TEXT
V-AV
GND
15
14
13
12
11
10
9
8
7
6
GJ79
OPEN
GND
GND
ANALOG-R
ANALOG-B
ANALOG-G
ANALOG-YS
AV-Y
GND
5-E1
ANALOG-R
5-E1
ANALOG-B
5-E1
ANALOG-G
5-E1
ANALOG-YS
2-A6
TV_TEXT
3-B8
4-F4
AV-Y
GND



A

B

32ZP38B
SIGNAL - TEXT
[SHEET-10/10]

U903A PW UNIT POWER BOARD PD1008B-1

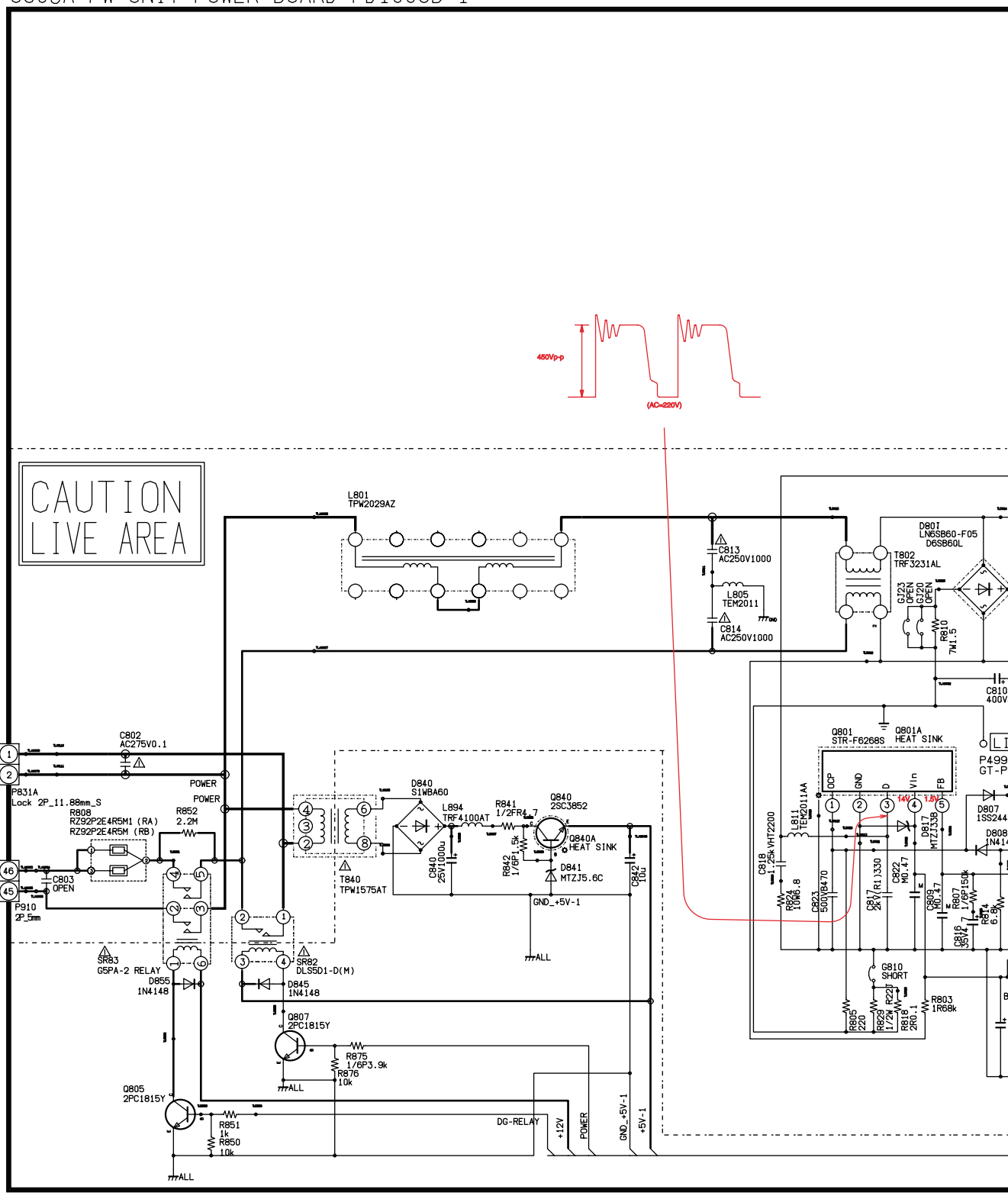
CAUTION
LIVE AREA

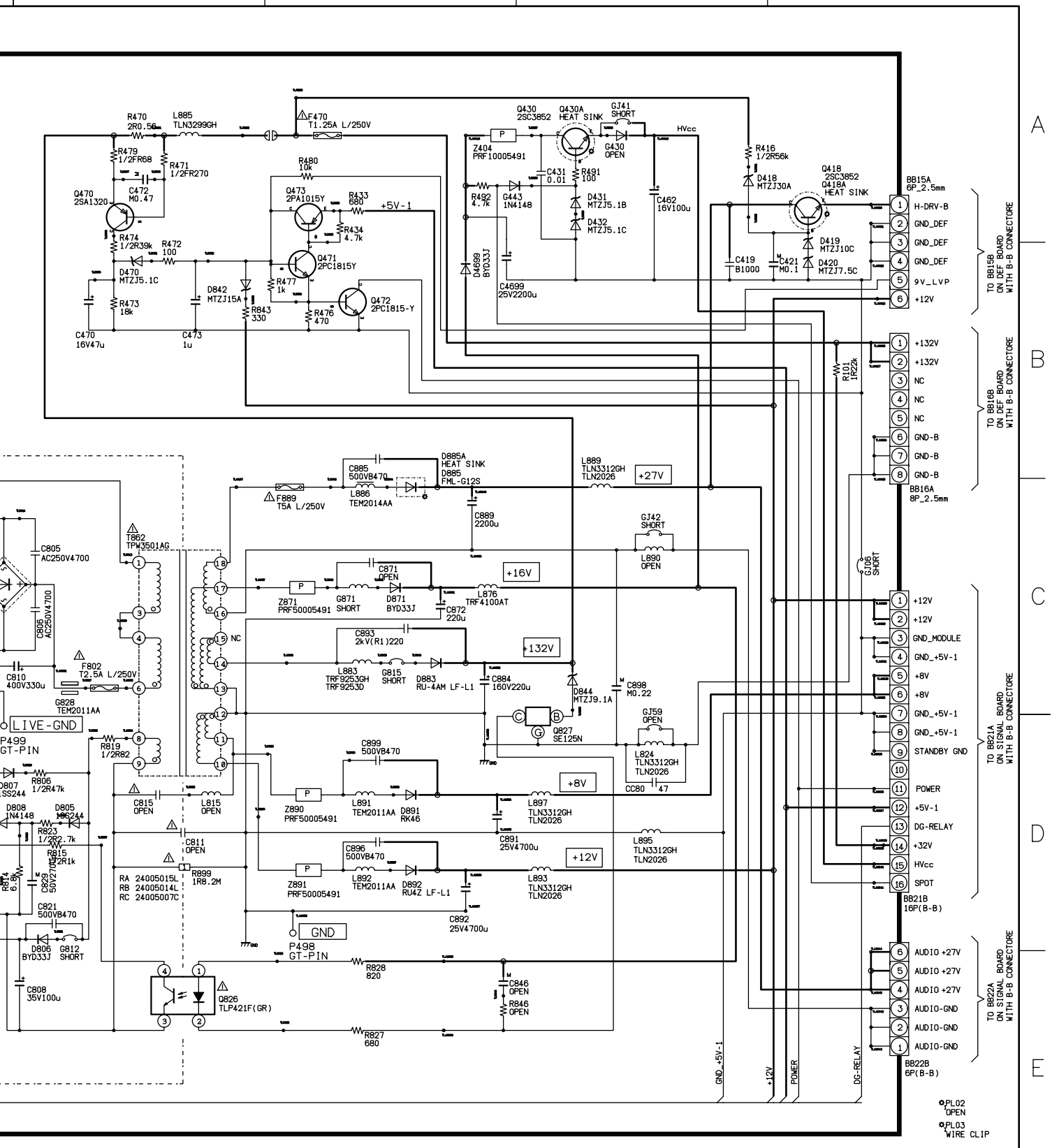
450Vp-p
(AC=220V)

L801 TPW2029AZ
C813 AC250V1000
L805 TEM2011
C814 AC250V1000
D801 LN6SB60-F05 D6SB60L
T802 TRF3231AL
G123 OPEN
G120 OPEN
R810 7W1.5
C805 AC250V4700
C806 AC250V4700
C810 400V330u
F802 T2.5A L/250V
T862 TPW3501AG
G828 TEM2011AA
Q801 STR-F6268S
Q801A HEAT SINK
OCP GND D Vin FB
P499 GT-PIN
LIVE-GND
R819 1/2R82
D807 1SS244
R806 1/2R47k
C818 25kVHT2200
L811 TEM2011AA
R808 8.8
C820 500VB470
C817 25V(R1)330
C822 M0.47
C823 M0.47
R807 150k
R814 6.8
C829 50V2700
R810 35W1.5
C821 500VB470
D806 BYD33J
G812 SHORT
G810 SHORT
R805 220
R829 1/2W
R818 2R2 1/2W
R803 1R68k
C808 35V100u
Q826 TLP421F(GR)
R827 680
R828 820
C846 OPEN
R846 OPEN
C815 OPEN
C811 OPEN
RA 24005015L
RB 24005014L
RC 24005007C
R899 1R8.2M
P498 GT-PIN
GND
C892 25V4700u
C891 25V4700u
L897 TLN3312GH TLN2026
L893 TLN3312GH TLN2026
L895 TLN3312GH TLN2026
Z891 PRF50005491
D892 RU4Z LF-L1
C896 500VB470
L892 TEM2011AA
Z890 PRF50005491
D891 RK46
C899 500VB470
L891 TEM2011AA
L824 TLN3312GH TLN2026
CC80 47
GJ59 OPEN
G827 SE125N
D844 MTZJ9.1A
C898 M0.22
C884 160V220u
D883 RU-4AM LF-L1
G815 SHORT
L883 TRF92530GH TRF92530
C893 2kV(R1)220
Z871 PRF50005491
G871 SHORT
D871 BYD33J
C871 OPEN
L876 TRF4100AT
C872 220u
L890 OPEN
GJ42 SHORT
GJ06 SHORT
C889 2200u
D885A HEAT SINK
D885 FML-G12S
C885 500VB470
L886 TEM2014AA
F889 T5A L/250V
L889 TLN3312GH TLN2026
+27V
+16V
+132V
+12V
+8V
HVcc
R470 2R0.56
L885 TLN3299GH
F470 T1.25A L/250V
R479 1/2FR68
R471 1/2FR270
C472 M0.47
Q470 2SA1320
R480 10k
Q473 2PA1015Y
R433 680
+5V-1
R434 4.7k
Q471 2PC1815Y
R474 1/2R39k
R472 100
D470 MTZJ5.1C
R473 18k
C470 16V47u
D842 MTZJ15A
C473 1u
R477 1k
R843 330
R476 470
Q472 2PC1815-Y
Q430 2SC3852
Q430A HEAT SINK
GJ41 SHORT
G430 OPEN
Z404 PRF10005491
C431 0.01
R491 100
R492 4.7k
G443 1N4148
D431 MTZJ5.1B
D432 MTZJ5.1C
D4699 BYD33J
C4699 25V2200u
C462 16V100u
R416 1/2R56k
D418 MTZJ30A
Q418 2SC3852
Q418A HEAT SINK
D419 MTZJ10C
D420 MTZJ7.5C
C419 B1000
C421 M0.1
R101 1R22k
BB15A 6P_2.5mm
H-DRV-B
GND_DEF
GND_DEF
GND_DEF
9V_LVP
+12V
TO BB15B ON DEF BOARD WITH B-B CONNECTORE
BB16B
+132V
+132V
NC
NC
NC
GND-B
GND-B
GND-B
BB16A 8P_2.5mm
TO BB16B ON DEF BOARD WITH B-B CONNECTORE
+12V
+12V
GND_MODULE
GND_+5V-1
+8V
+8V
GND_+5V-1
GND_+5V-1
STANDBY GND
POWER
+5V-1
DG-RELAY
+32V
HVcc
SPOT
BB21B 16P(B-B)
TO BB21A ON SIGNAL BOARD WITH B-B CONNECTORE
AUDIO +27V
AUDIO +27V
AUDIO +27V
AUDIO-GND
AUDIO-GND
AUDIO-GND
BB22B 6P(B-B)
TO BB22A ON SIGNAL BOARD WITH B-B CONNECTORE
PL02 OPEN
PL03 WIRE CLIP
GND_-5V-1
+12V
POWER
DG-RELAY
TO P831B ON CONT BOARD WITH M831
MAIN AC
COMMON AC
M831
P831A Lock 2P_11.88mm_S
C802 AC275V0.1
POWER
POWER
R808 RZ92P2E4R5M1 (RA) RZ92P2E4R5M (RB)
R852 2.2M
C803 OPEN
P910 2P_5mm
L901 DEGAUSSING COIL
36" TSB-2405AT
32" TSB-2414AT (RA)
TSB-2395AM (RB)
SR83 G5PA-2 RELAY
D855 1N4148
SR82 DLS5D1-D(M)
D845 1N4148
Q807 2PC1815Y
R875 1/6P3.9k
R876 10k
Q805 2PC1815Y
R851 1k
R850 10k
D840 SIWBA60
L894 TRF4100AT
T840 TPW1575AT
C840 25V1000u
R841 1/2FR4.7
R842 1/6P1.5k
Q840 2SC3852
Q840A HEAT SINK
D841 MTZJ5.6C
C842 10u
GND_+5V-1
ALL

32ZP38B
POWER_INDI_CONT - POWER
[SHEET-1/3]

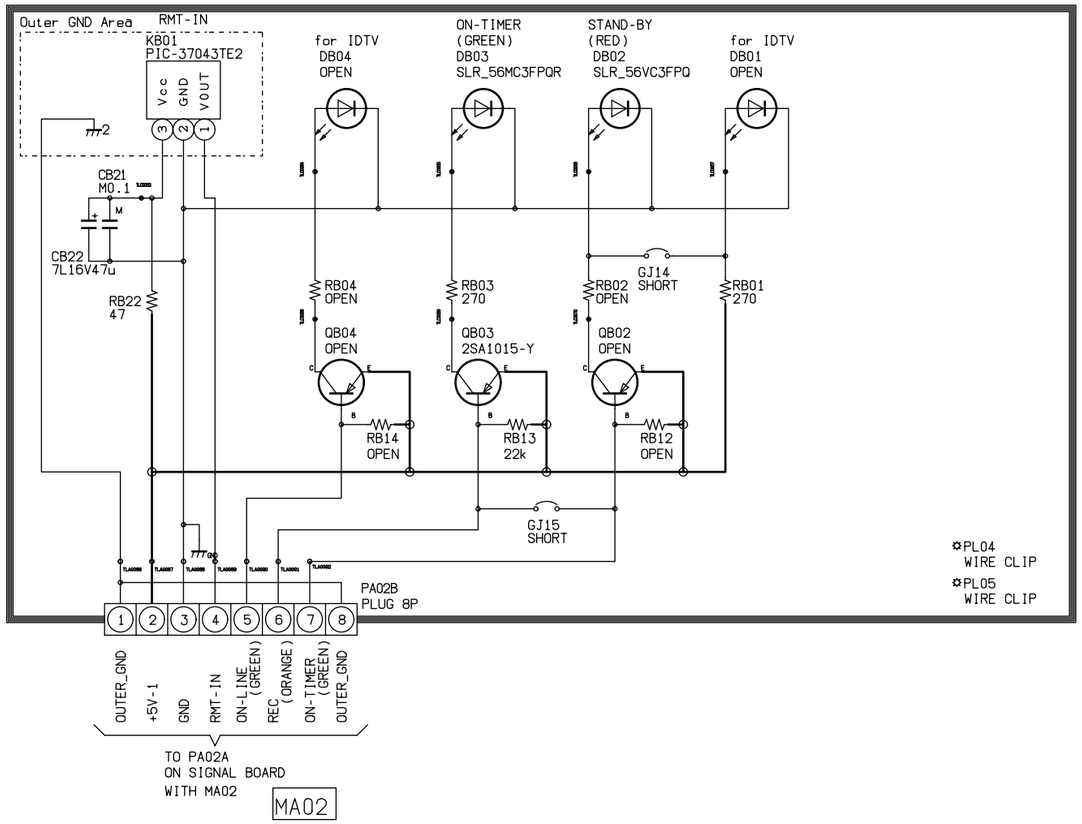
U903A PW UNIT POWER BOARD PD1008B-1





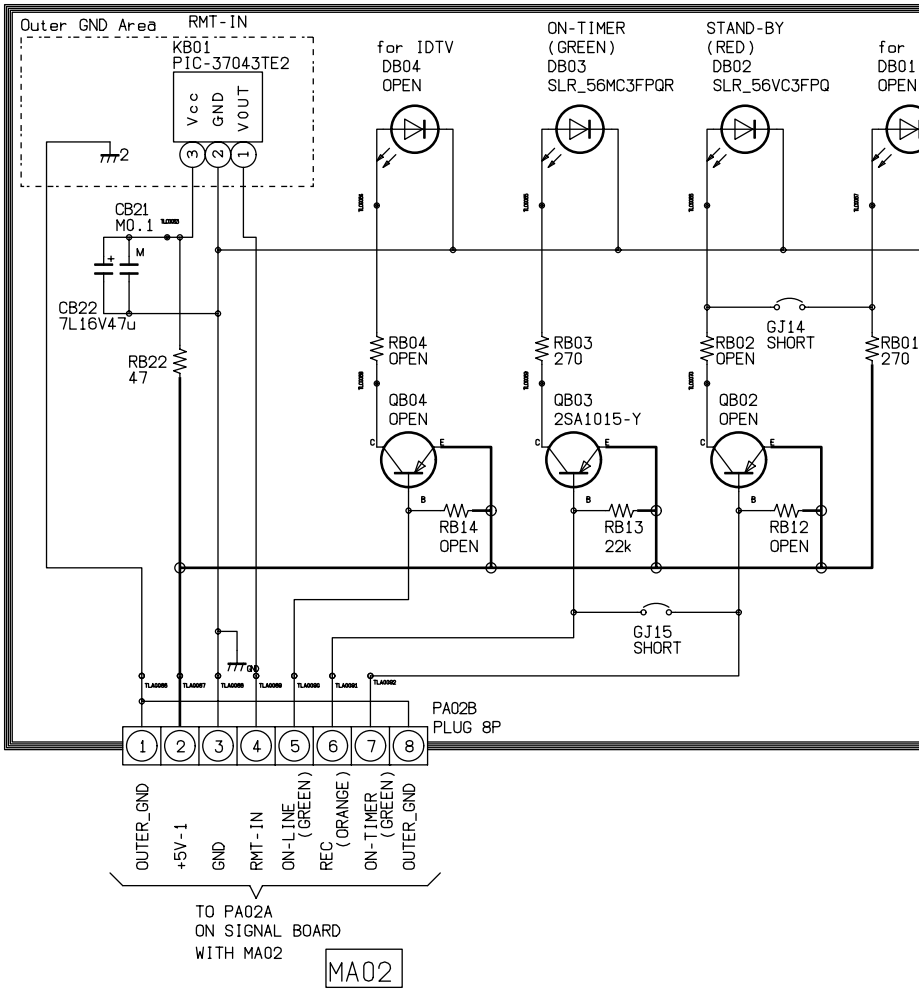
32ZP38B
POWER_INDI_CONT - POWER
[SHEET-1/3]

U903B PW UNIT INDICATOR BAORD PD1008B-2

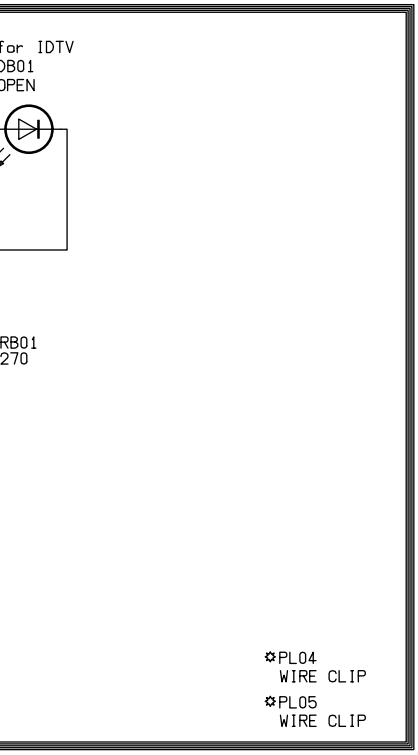


32ZP38B
POWER_INDI_CONT - INDICATOR
[SHEET-2/3]

U903B PW UNIT INDICATOR BAORD PD1008B-



B-2

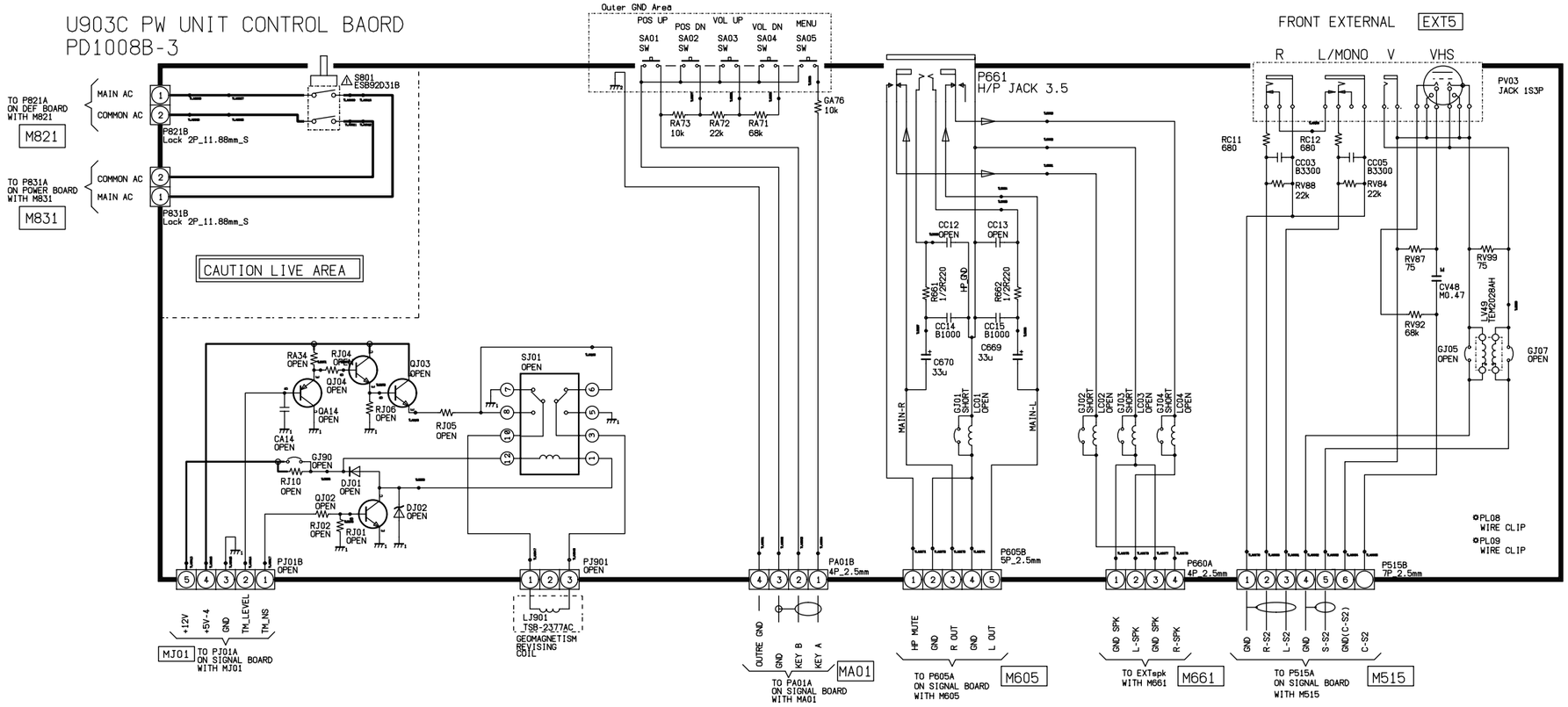


A

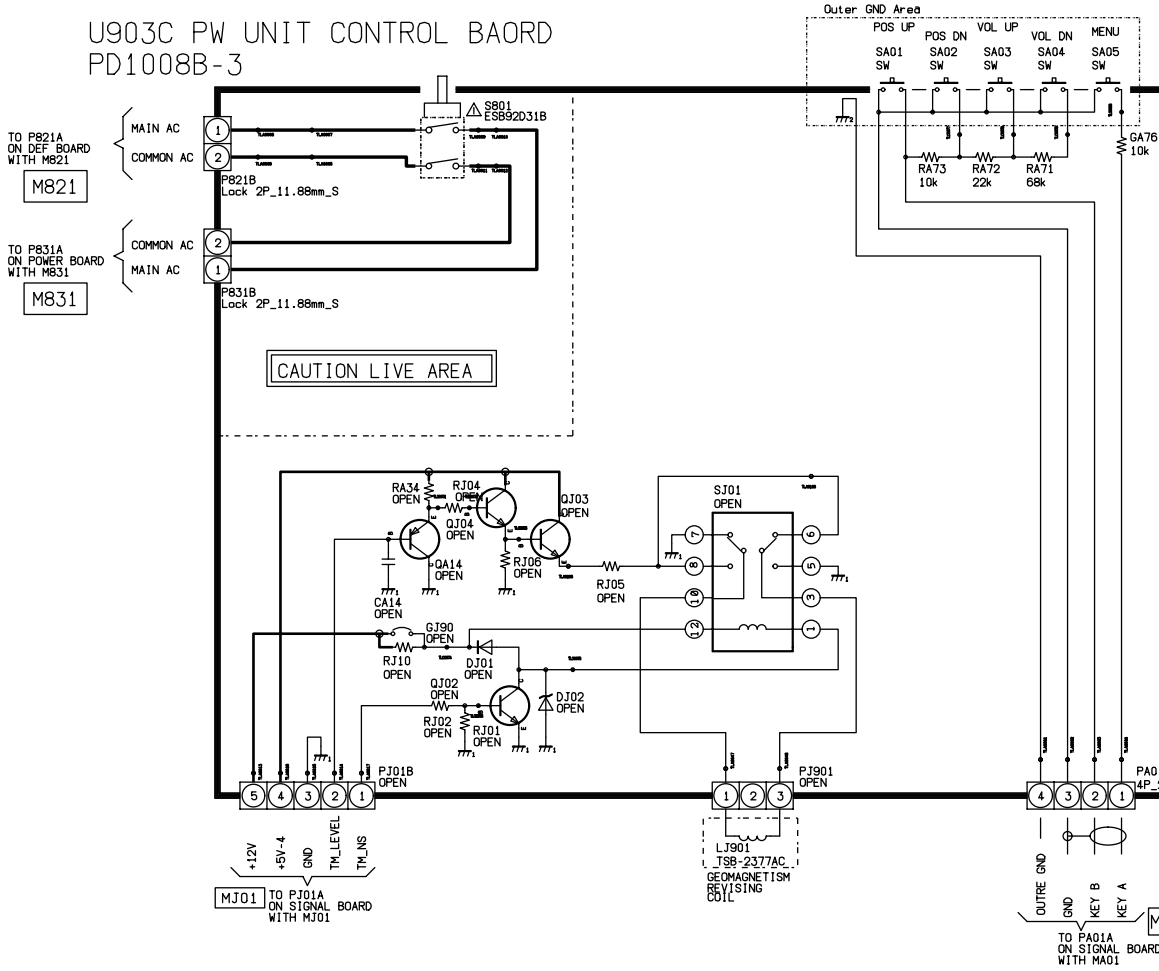
B

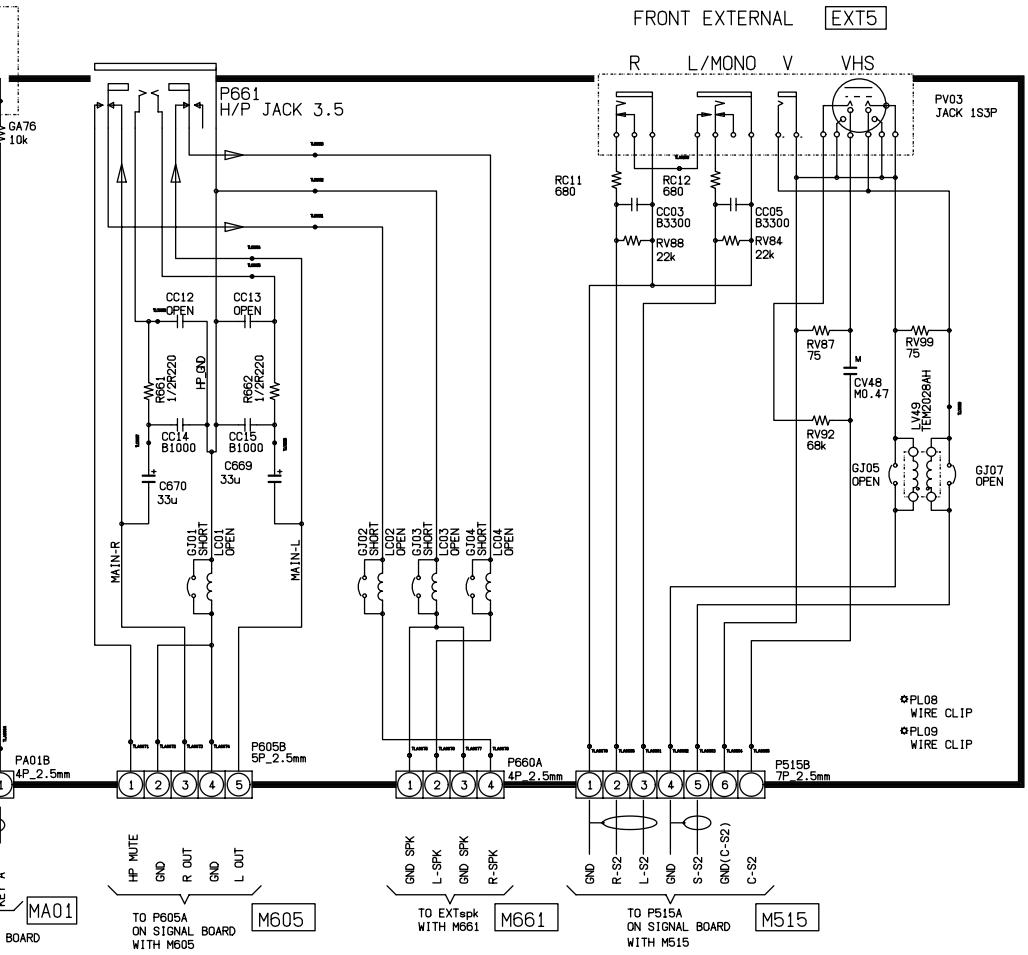
32ZP38B
POWER_INDI_CONT - INDICATOR
[SHEET-2/3]

U903C PW UNIT CONTROL BAORD
PD1008B-3



32ZP38B
POWER_INDI_CONT - CONTROL
[SHEET-3/3]


U903C PW UNIT CONTROL BAORD
PD1008B-3
Outer GND Area
POS UP
POS DN
VOL UP
VOL DN
MENU
SA01 SW
SA02 SW
SA03 SW
SA04 SW
SA05 SW
GA76 10k
RA73 10k
RA72 22k
RA71 68k
S801 ESB92D31B
TO P821A ON DEF BOARD WITH M821
M821
MAIN AC
COMMON AC
P821B Lock 2P_11.88mm_S
TO P831A ON POWER BOARD WITH M831
M831
COMMON AC
MAIN AC
P831B Lock 2P_11.88mm_S
CAUTION LIVE AREA
RA34 OPEN
RJ04 OPEN
QJ03 OPEN
QJ04 OPEN
QA14 OPEN
RJ06 OPEN
RJ05 OPEN
SJ01 OPEN
CA14 OPEN
GJ90 OPEN
RJ10 OPEN
DJ01 OPEN
QJ02 OPEN
DJ02 OPEN
RJ02 OPEN
RJ01 OPEN
PJ01B OPEN
PJ901 OPEN
+12V
+5V-4
GND
TM_LEVEL
TM_NS
MJ01
TO PJ01A ON SIGNAL BOARD WITH MJ01
LJ901 TSB-2377AC
GEOMAGNETISM REVISING COIL
OUTRE GND
GND
KEY B
KEY A
TO PA01A ON SIGNAL BOARD WITH MA01



32ZP38B
POWER_INDI_CONT - CONTROL
[SHEET-3/3]

U904 PW UNIT DEF BOARD PD1009B

TO BB23A
ON SIGNAL BOARD
WITH B-B CONNECTOR

BB23B
BB 16P SOCKET

GND | +9V-1 | GND | ABL-SW | ABL | WPD | AFC | BLK | DAC.V | VP | GND | +30V | SCL-2 | SDA-2 | GND(HDR.) | H-DRIVE

SDA-2 2-B2 | SCL-2 2-B2 | VP 2-B2 | DAC.V 2-B2 | BLK 2-C2 | CNTR-DAC 2-C2 | LVP-IN 2-C2 | CNTR-OUT 2-C2 | H-FILTER 2-C2 | EW-FD 2-C2 | +9V-1 2-D2 | EHT-IN 2-D2

-15V 2-D6 | GND 2-D6 | +15V 2-D7 | AFC 2-D2 | V-DY_AC 2-D7 | H-DRV-B 2-B2 | V-DY_AC 2-D7 | +12V 2-B2

R315 3.3k | D313 1N4148 | LVP-IN | C477 M2.027 | R474 OPEN | C477 OPEN

D499 1N4148 | D498 MTZJ9.1B | R486 10k | R485 10k | Q499 2PA1015Y | R484 10k | GND

R487 470k | R481 12k | NP C481 NP1 | R483 22k | C478 M0.056 | Q470 2PC1815Y | R488 150k | R482 18k | C482 B1500 | GND

+9V-1 | NP C240 OPEN | G299 10k | D240 1N4148

R217 3.9k | C489 M0.039 | D474 MTZJ12B | R478 1/2R33k | C475 630V8200 | +200V

+30V | D370 BYD33J | C372 47u | D371 BYD33J | C373 47u | R375 1/2R15

+15V | C303 500VB470 | D302 EU2A | R327 1R1 | C310 25V2200u | -15V | R326 1R1 | C302 500VB470 | D304 EU2A | C305 25V2200u

R435 180k | R495 1/4R220k | D441 MTZJ9.1B | R405 1R6.8k | C493 OPEN | G484 M1500

P903A
9P_2.5mm
1 +132V
2 NC
3 GND
4 +12V
5 Heater
6 GND Heater
7 NC
8 +200V
9 +200V

M903
TO P903B
ON CRT-D BOARD
WITH M903

+12V | +200V

T461 TFB4189AS/TFB4189AD | C469 OPEN | FOCUS | SCREEN

TO CRT-D BOARDR

R493 OPEN | R494 OPEN | C494 OPEN | GND

Q200 2SC2482 | R227 30k | R211 62k | R218 22k | R219 22k | R208 10k | R209 10k | +132V

H-OUT | C448 160V33u | 1050V(p-p)(H)

C446 250V33u | L410 TEM2011AW | D406 BYD33J | C410 2KV(R1)470

+132V | +132V | NC | NC | NC | GND-B | GND-B | GNC-B

TO BB16A
ON POWER BOARD
WITH B-B CONNECTOR

BB16B
8P B-B

+12V | 9V_LVP | GND | GND | GND | H-DRV-B

TO BB15A
ON POWER BOARD
WITH B-B CONNECTOR

BB15B
6P B-B

Q402 2SC2235-0 FA1 | R411 18 | R410 OPEN | R415 2R270 | C413 500VB3900 | C417 500VB390 | H.DRIVE TRANS | T401 TLN1080AL (RA) TLN1080AH (RB) | R417 2R68 | C416 100V33u

G401 TEM2011AW | GJ42 OPEN | Q404A HEAT SINK | Q404 2SC5859(FA) | R412 2R2 | R429 1R10 | C463 OPEN | D404 FMQ-3GU | D404A HEAT SINK | G404 TEM2011AW | G403 SHORT | C444 1.8K VH6600 | C445 1.8K VH6600

270V(p-p)(H)

R4602 5.6k | C4601 M0.082 | C465 M0.018 | R461 1.8k | R460 10k | R469 82k | R463 47k | C468 1.25K VH0.01 | C467 OPEN | C466 1.25K VH6800 | L470 TEM2011AW

R467 2R22 | L491 TLN3351AD | R466 2R22 | L464 TEM2011AW | D467 EU2A | C462 OPEN | L463 TEM2011AW | C460 250V22u | L461 TLN3500AH | C464 250V3.3u | R4601 100 | Q460 2SK2920 | D462 MTZJ15B

C423 400V0.068 | L442 TLN3459AH | C442 400V0.1 | D415 EU2A | C443 400V0.1 | D442 EU2A | C441 400V0.62 | C496 2KV(R1)680 | C495 2KV(R1)680 | R441 2R560 | GJ04 OPEN | GJ01 OPEN | L443 TLN3451AH | GJ07 OPEN | L441 TLN2209AT | R4493 1R100k | R442 1R15k

M400B | M400 PVC WIRE AWG22 BLACK | M400A

C4490 400V0.24 | C4491 400V0.24 | C430 400V0.02 | C447 400V0.036 | R445 1/2R1.2 | T400 TLN2220AL | PL06 WIRE CLIP

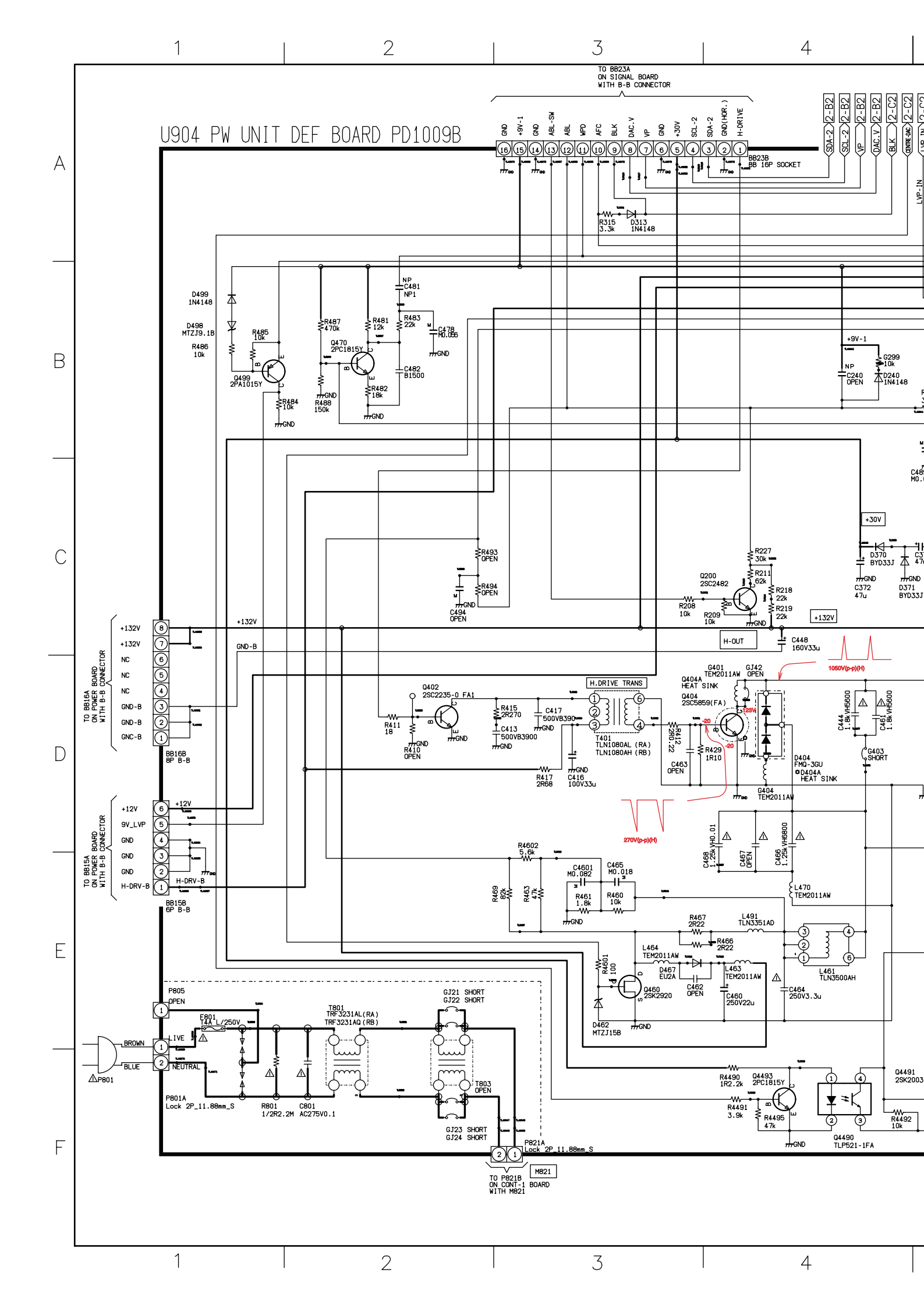
R400 1/2S560 | L462(ITC) | V-DY | H-DY | P401 6P_5mm | M401

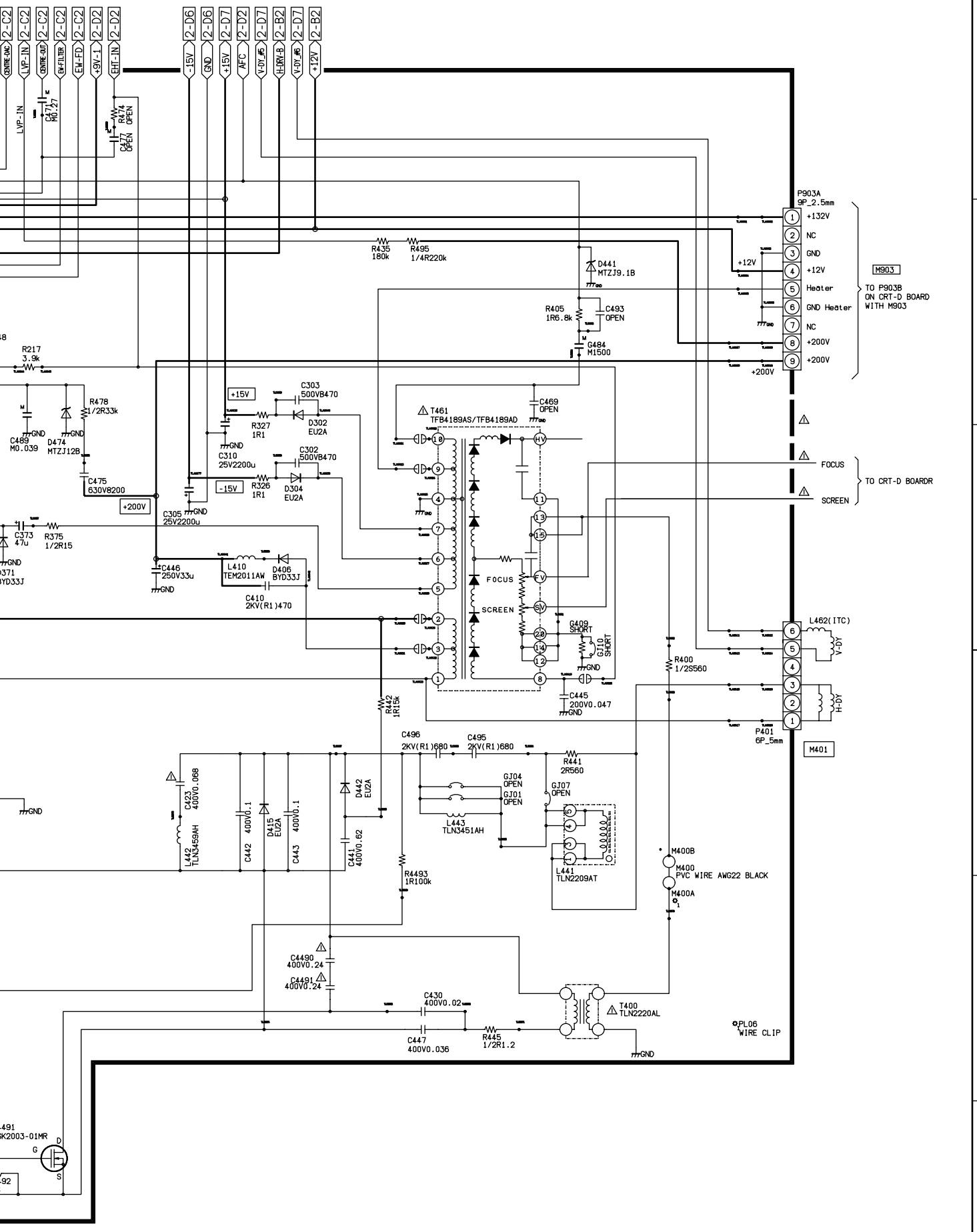
P805 OPEN | BROWN | BLUE | P801 | F801 T4A L/250V | LIVE | NEUTRAL | P801A Lock 2P_11.88mm_S | R801 1/2R2.2M | C801 AC275V0.1

T801 TRF3231AL(RA) TRF3231AQ(RB) | GJ21 SHORT | GJ22 SHORT | T803 OPEN | GJ23 SHORT | GJ24 SHORT | P821A Lock 2P_11.88mm_S | TO P8218 ON CONT-1 BOARD WITH M821 | M821

R4490 1R2.2k | Q4493 2PC1815Y | R4491 3.9k | R4495 47k | Q4491 2SK2003-01MR | R4492 10k | Q4490 TLP521-1FA | GND

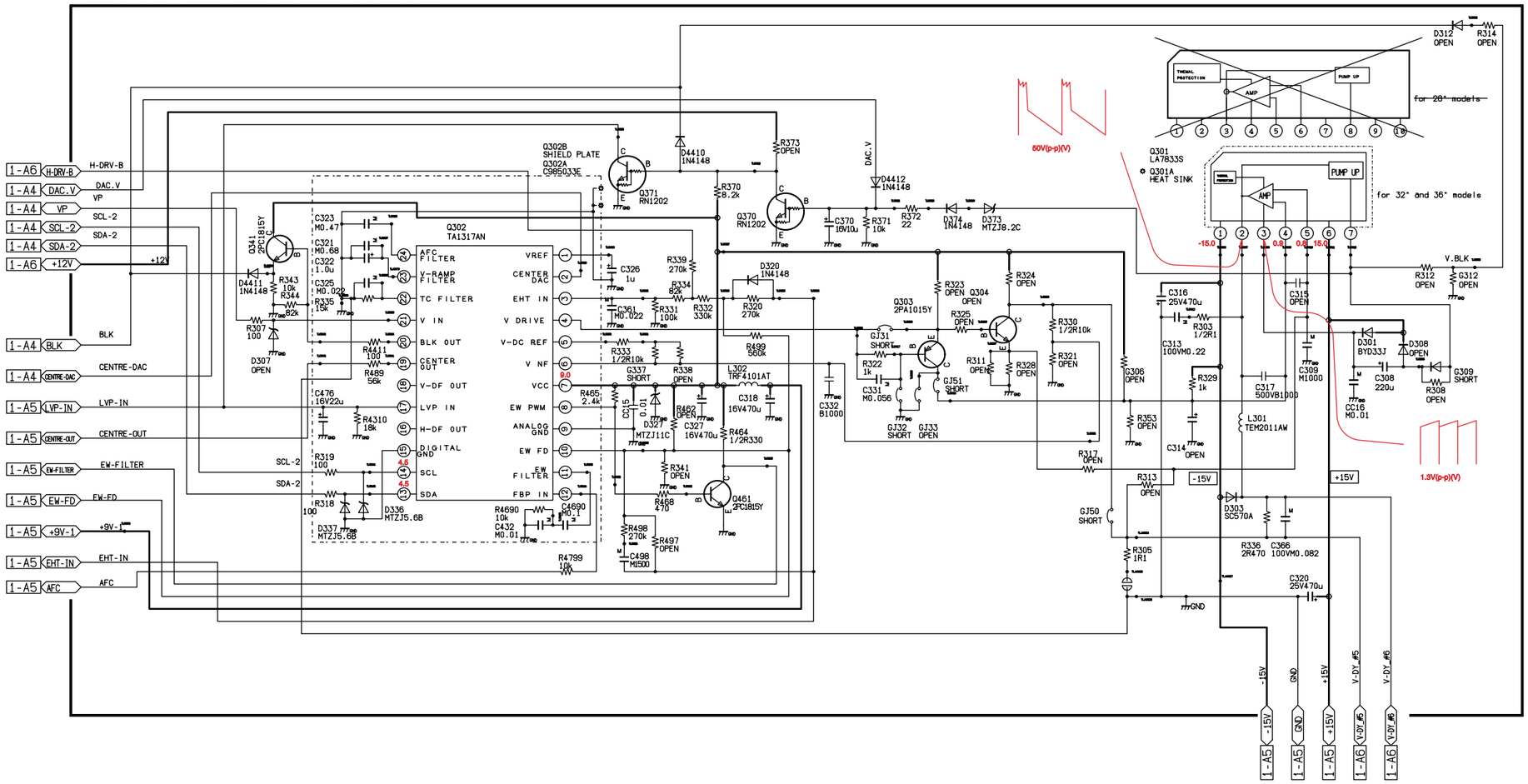
32ZP38B
DEF - HORIZONTAL-DEF
[SHEET-1/2]


U904 PW UNIT DEF BOARD PD1009B
TO BB23A
ON SIGNAL BOARD
WITH B-B CONNECTOR
GND
+9V-1
GND
ABL-SW
ABL
WPD
AFC
BLK
DAC.V
VP
GND
+30V
SCL-2
SDA-2
GND(HDR.)
H-DRIVE
BB23B
BB 16P SOCKET
SDA-2
SCL-2
VP
DAC.V
BLK
R315
3.3k
D313
1N4148
D499
1N4148
D498
MTZJ9.1B
R486
10k
R485
10k
Q499
2PA1015Y
R484
10k
R487
470k
R488
150k
Q470
2PC1815Y
R481
12k
R482
18k
R483
22k
C481
NP1
C478
M0.056
C482
B1500
+9V-1
G299
10k
NP
C240
OPEN
D240
1N4148
+30V
D370
BYD33J
C372
47u
D371
BYD33J
R493
OPEN
R494
OPEN
C494
OPEN
R227
30k
R211
62k
Q200
2SC2482
R208
10k
R209
10k
R218
22k
R219
22k
+132V
H-OUT
C448
160V33u
1050V(p-p)(H)
TO BB16A
ON POWER BOARD
WITH B-B CONNECTOR
+132V
+132V
NC
NC
NC
GND-B
GND-B
GNC-B
BB16B
8P B-B
GND-B
Q402
2SC2235-O FA1
R411
18
R410
OPEN
R415
2R270
C413
500VB3900
C417
500VB3900
H.DRIVE TRANS
T401
TLN1080AL (RA)
TLN1080AH (RB)
R417
2R68
C416
100V33u
G401
TEM2011AW
GJ42
OPEN
Q404A
HEAT SINK
Q404
2SC5859(FA)
R412
22.2
R429
1R10
C463
OPEN
C444
1.8k VH5600
C461
1.8k VH5600
G403
SHORT
D404
FMQ-3GU
D404A
HEAT SINK
G404
TEM2011AW
270V(p-p)(H)
TO BB15A
ON POWER BOARD
WITH B-B CONNECTOR
+12V
9V_LVP
GND
GND
GND
H-DRV-B
+12V
H-DRV-B
BB15B
6P B-B
R4602
5.6k
R459
82k
R463
47k
C4601
M0.082
C465
M0.018
R461
1.8k
R460
10k
C468
1.25k VH0.01
C467
OPEN
C466
1.25k VH6800
L470
TEM2011AW
R467
2R22
L491
TLN3351AD
R466
2R22
L464
TEM2011AW
R4601
100
D467
EU2A
C462
OPEN
L463
TEM2011AW
Q460
2SK2920
C460
250V22u
C464
250V3.3u
L461
TLN3500AH
D462
MTZJ15B
P805
OPEN
E801
T4A L/250V
T801
TRF3231AL(RA)
TRF3231AQ(RB)
GJ21 SHORT
GJ22 SHORT
LIVE
NEUTRAL
BROWN
BLUE
P801
P801A
Lock 2P_11.88mm_S
R801
1/2R2.2M
C801
AC275V0.1
T803
OPEN
GJ23 SHORT
GJ24 SHORT
P821A
Lock 2P_11.88mm_S
TO P821B
ON CONT-1 BOARD
WITH M821
M821
R4490
1R2.2k
Q4493
2PC1815Y
R4491
3.9k
R4495
47k
Q4491
2SK2003
R4492
10k
Q4490
TLP521-1FA



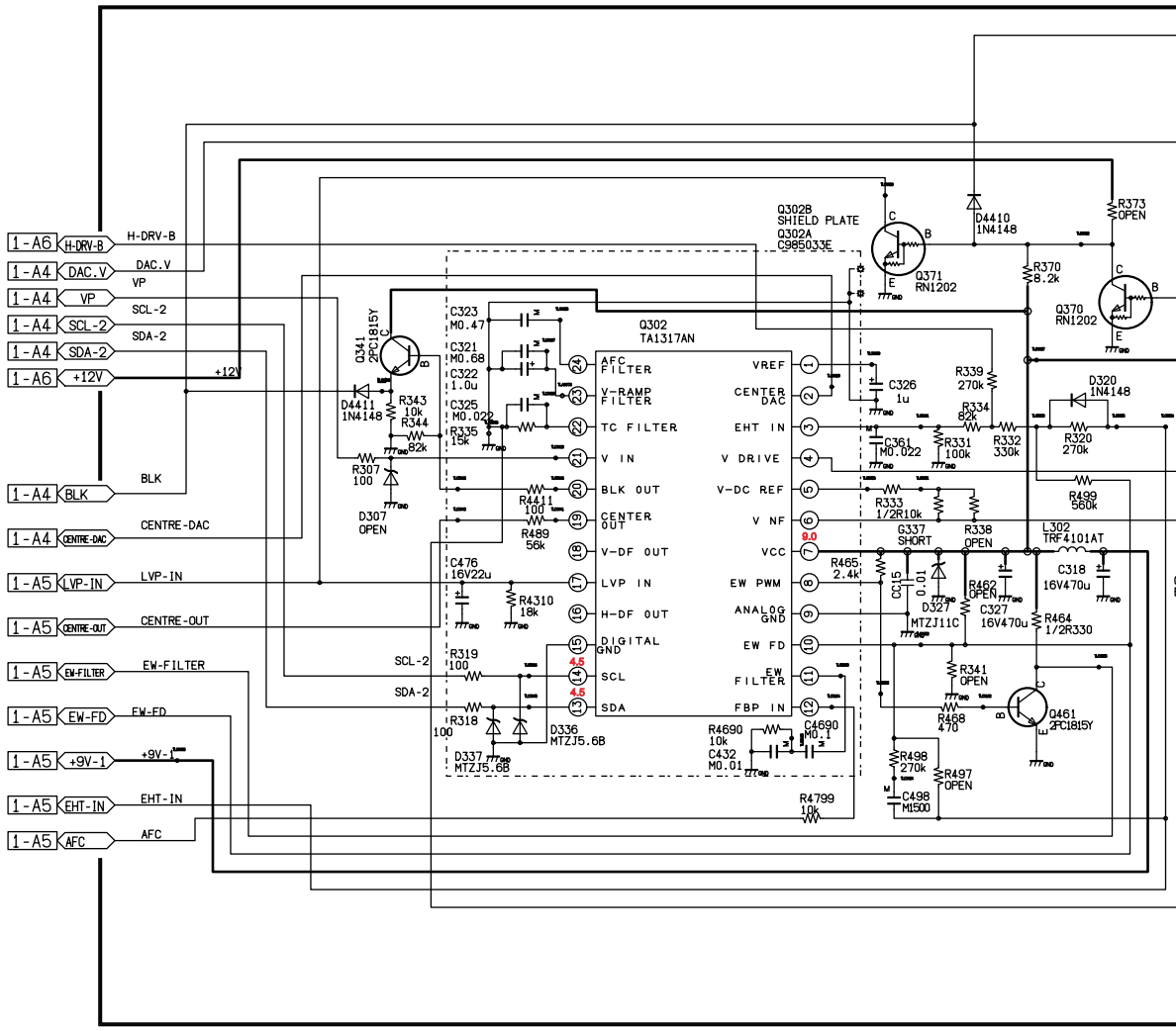
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DEF - HORIZONTAL-DEF
[SHEET-1/2]

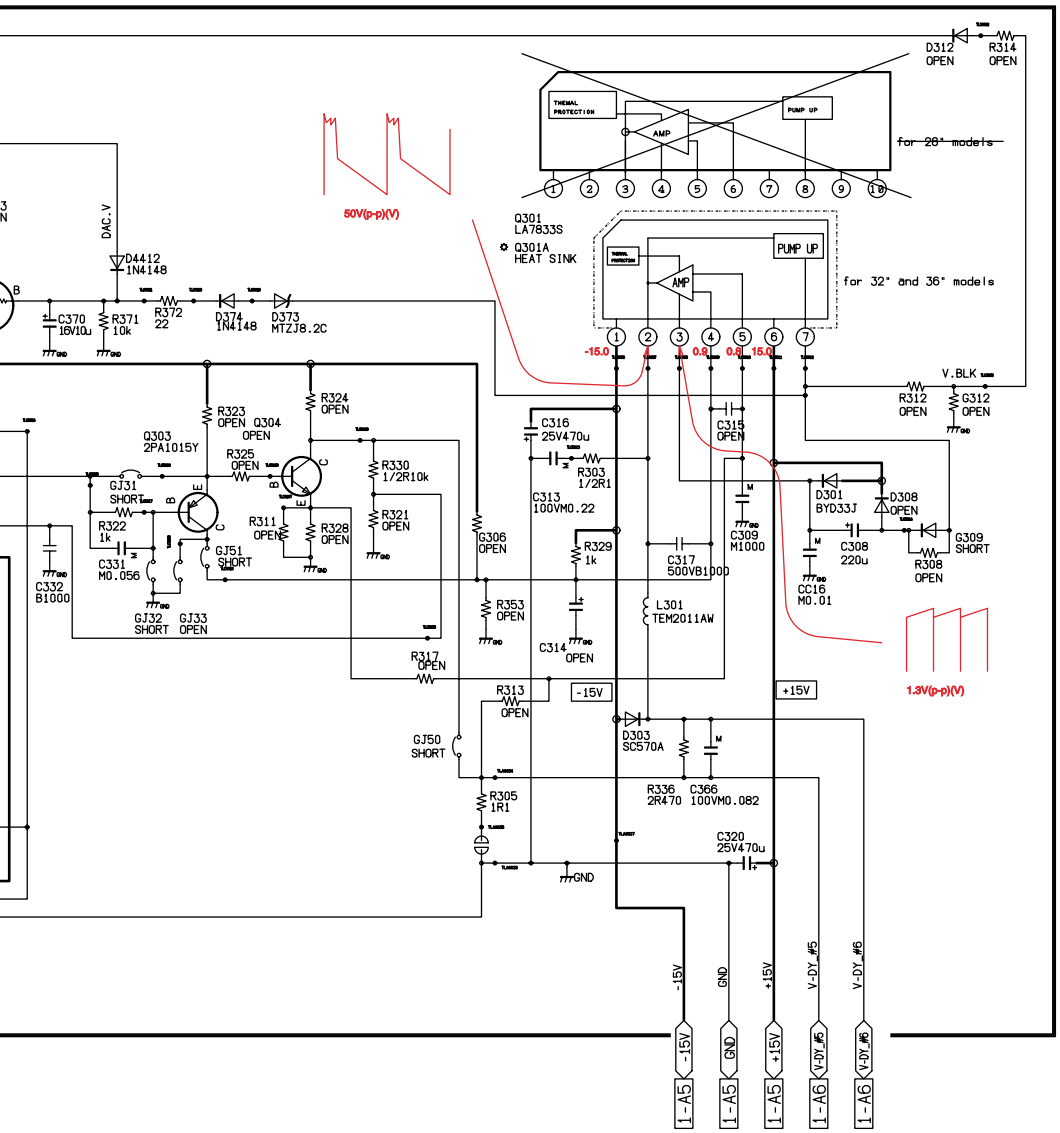
U904 PW UNIT DEF BOARD PD1009B



32ZP38B
DEF - VERTICAL-DEF
[SHEET-2/2]

U904 PW UNIT DEF BOARD PD1009B





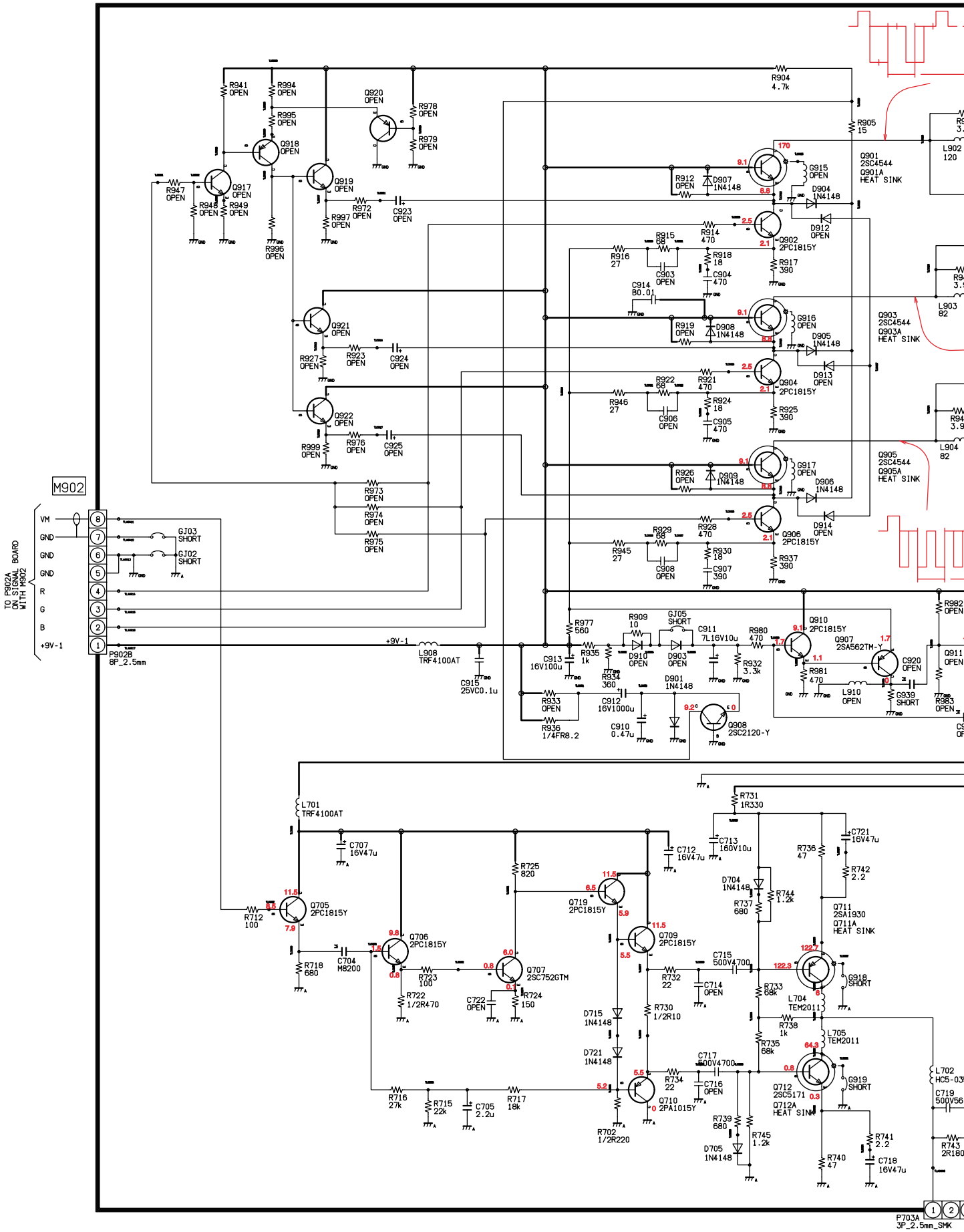
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DEF - VERTICAL-DEF
[SHEET-2/2]

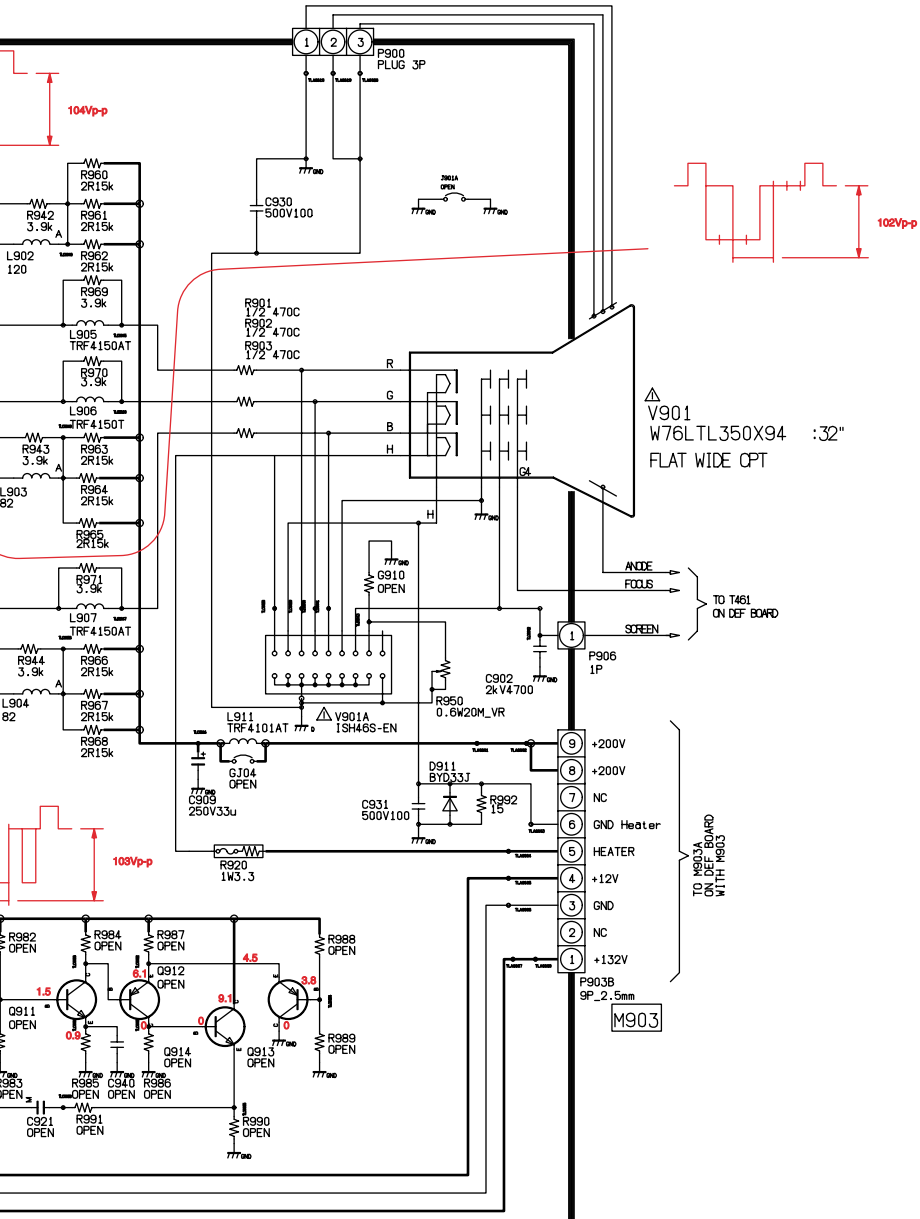
U901 CRT-D BAORD PD0491H

V901
W76LTL350X94 :32"
FLAT WIDE CPT

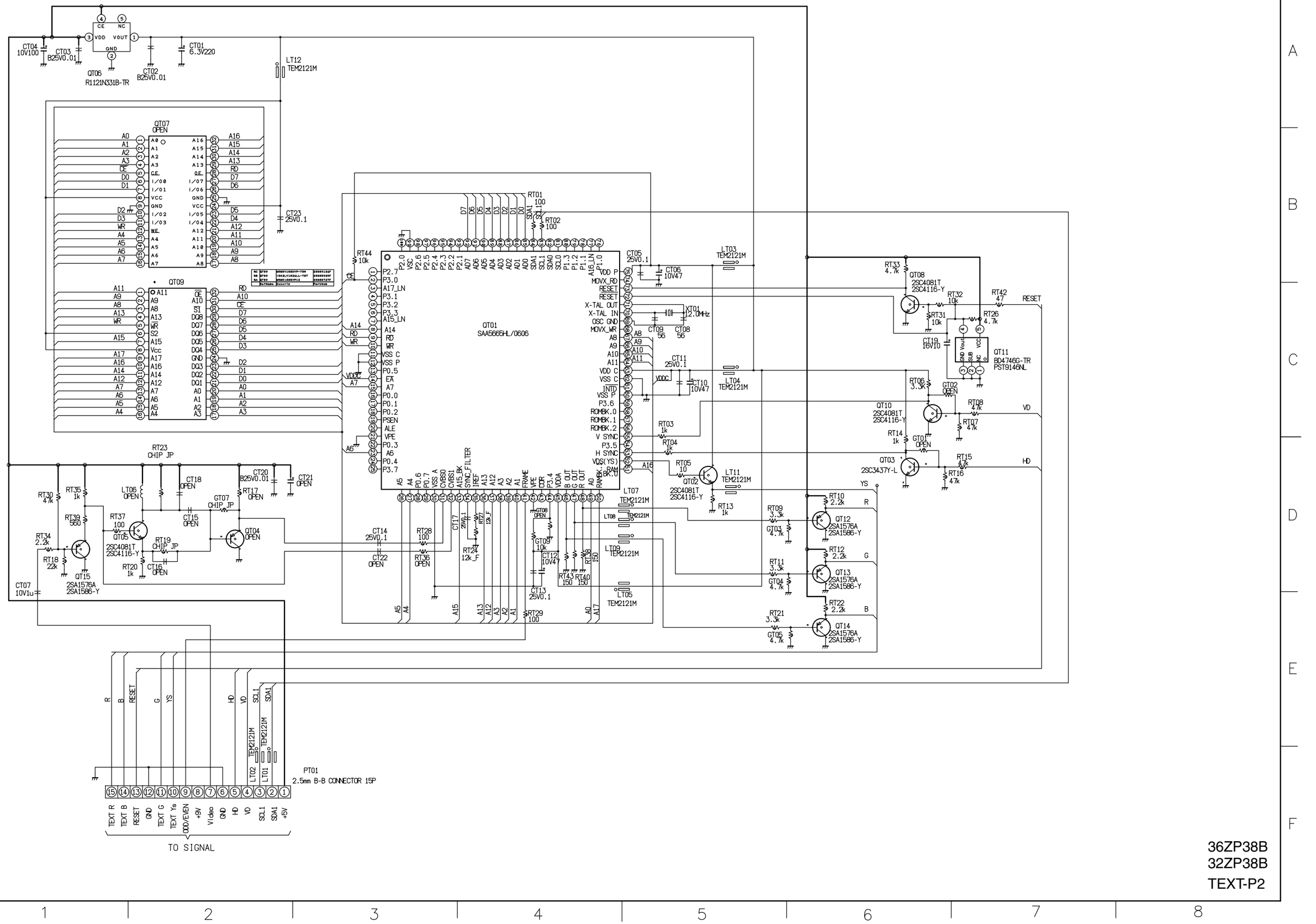
32ZP38B
CRT-D

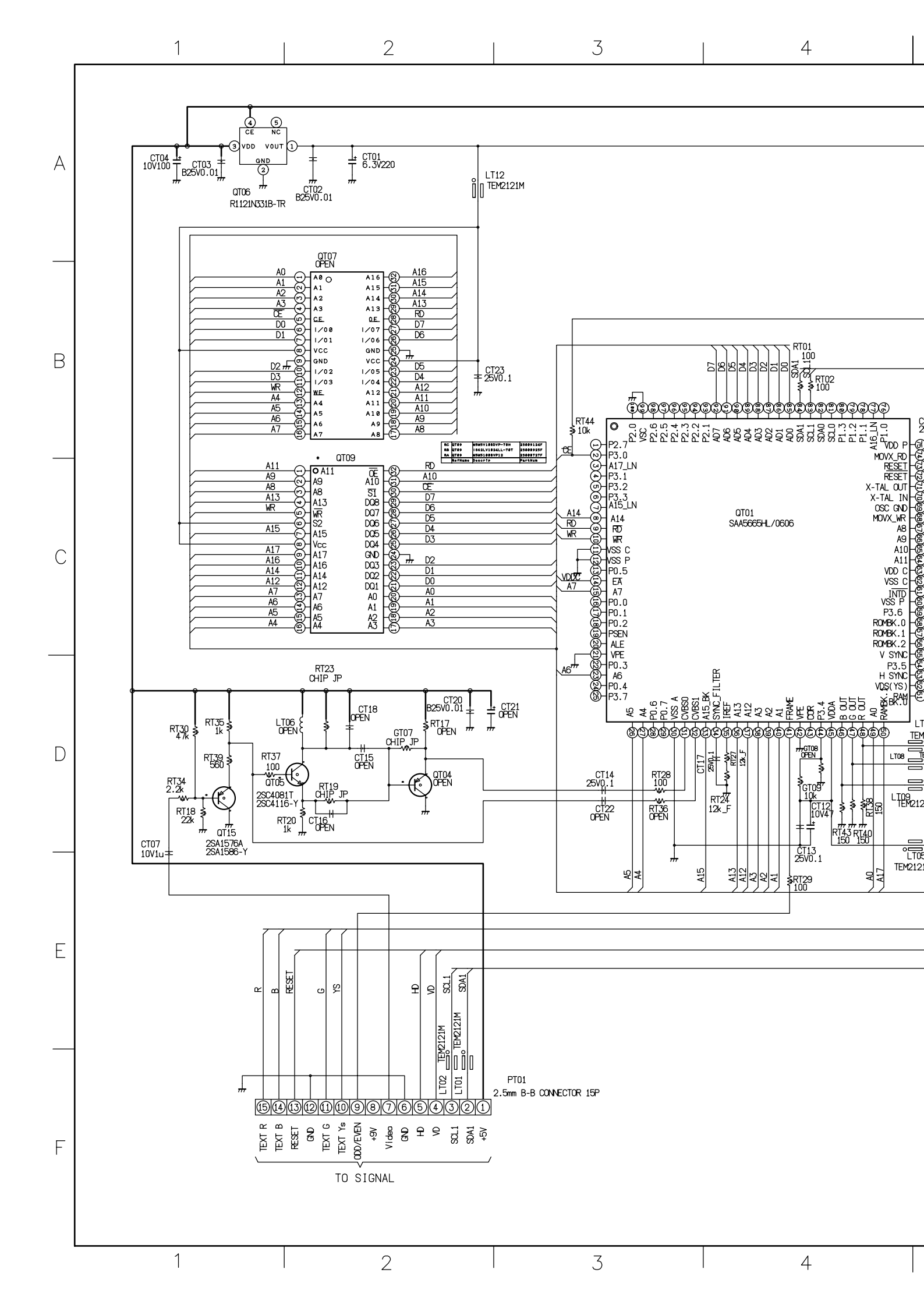
U901 CRT-D BAORD PD0491H

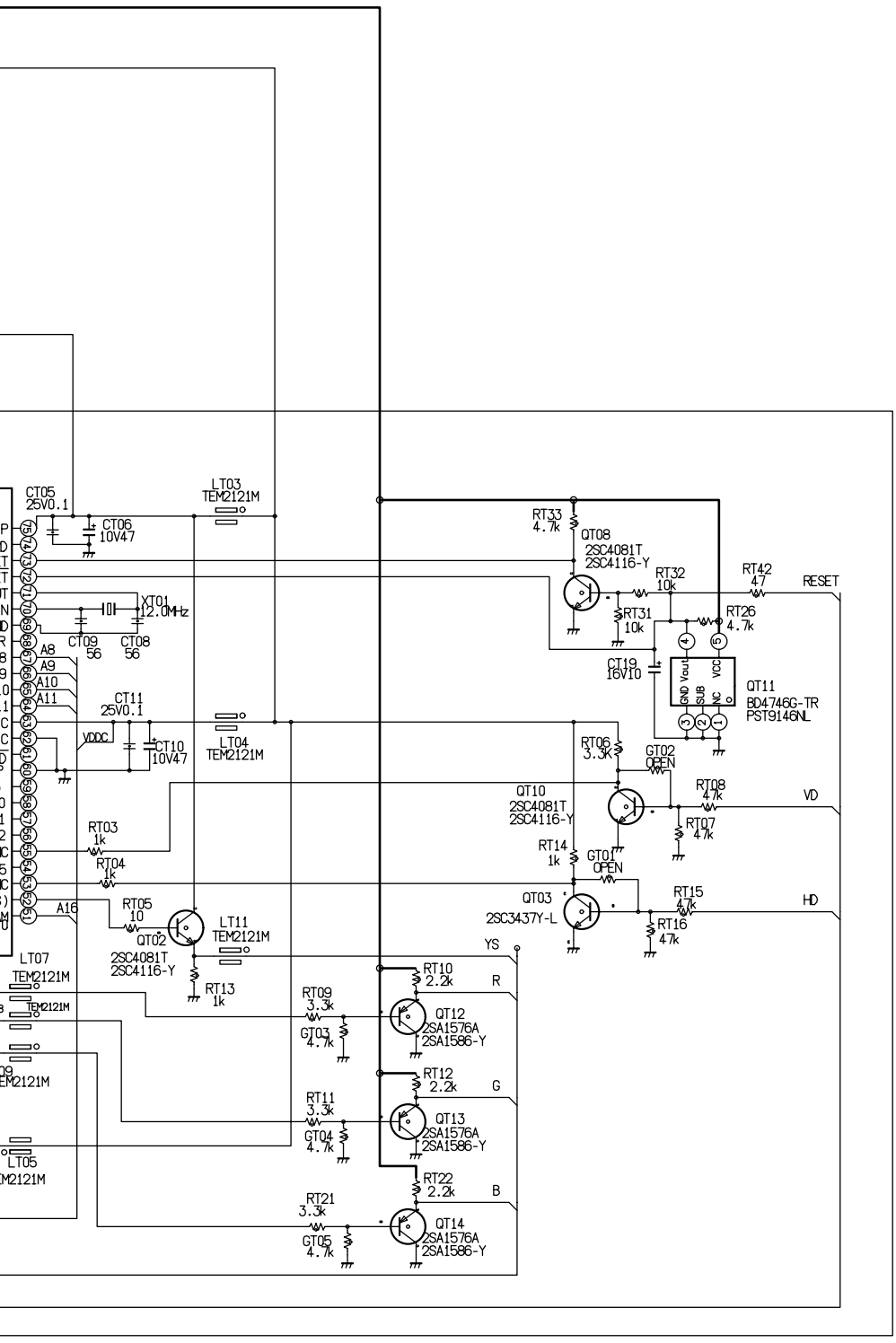




32ZP38B
CRT-D

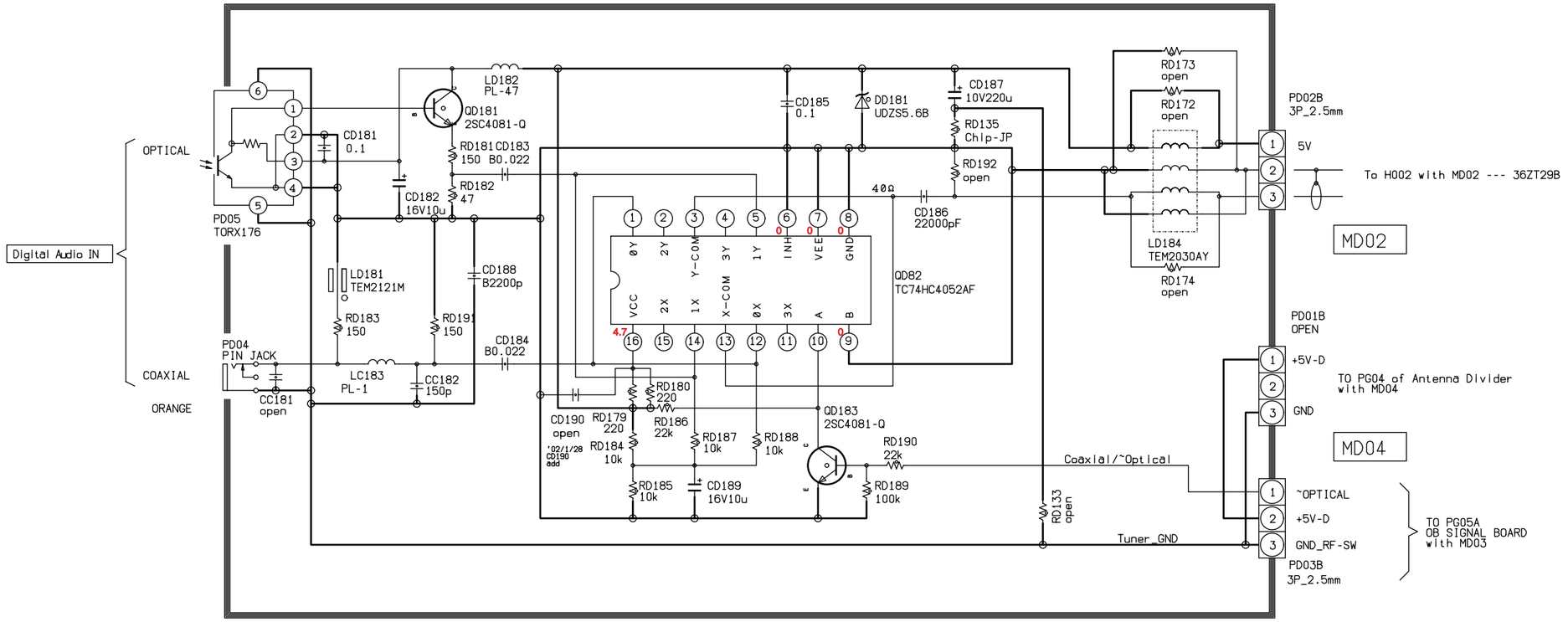

CT04 10V100
CT03 B25V0.01
QT06 R1121N331B-TR
CT02 B25V0.01
CT01 6.3V220
LT12 TEM2121M
QT07 OPEN
CT23 25V0.1
RT01 100
RT02 100
RT44 10k
QT09
QT01 SAA5665HL/0606
CT05 25V0.1
CT06 10V47
LT03 TEM2121M
XT01 12.0MHz
CT09 56
CT08 56
CT11 25V0.1
CT10 10V47
LT04 TEM2121M
RT03 1k
RT04 1k
RT05 10
QT02 2SC4081T 2SC4116-Y
LT11 TEM2121M
RT13 1k
LT07 TEM2121M
LT08 TEM2121M
LT09 TEM2121M
LT05 TEM2121M
RT23 CHIP JP
RT30 4.7k
RT35 1k
RT39 560
RT34 2.2k
RT18 22k
QT15 2SA1576A 2SA1586-Y
LT06 OPEN
RT37 100
QT05 2SC4081T 2SC4116-Y
RT19 CHIP JP
RT20 1k
CT16 OPEN
CT18 OPEN
CT15 OPEN
GT07 CHIP JP
QT04 OPEN
CT20 B25V0.01
RT17 OPEN
CT21 OPEN
CT07 10V1u
CT14 25V0.1
CT22 OPEN
RT28 100
RT36 OPEN
CT17 25V0.1
RT24 12k_F
GT08 OPEN
GT09 10k
CT12 10V47
CT13 25V0.1
RT43 150
RT40 150
RT38 150
RT29 100
RT33 4.7k
QT08 2SC4081T 2SC4116-Y
RT32 10k
RT31 10k
RT42 47
RT26 4.7k
RESET
CT19 16V10
QT11 BD4746G-TR PST9146NL
RT06 3.3k
GT02 OPEN
QT10 2SC4081T 2SC4116-Y
RT08 4.7k
RT07 4.7k
VD
RT14 1k
GT01 OPEN
QT03 2SC3437Y-L
RT15 4.7k
RT16 4.7k
HD
YS
RT10 2.2k
R
QT12 2SA1576A 2SA1586-Y
RT09 3.3k
GT03 4.7k
RT12 2.2k
G
QT13 2SA1576A 2SA1586-Y
RT11 3.3k
GT04 4.7k
RT22 2.2k
B
QT14 2SA1576A 2SA1586-Y
RT21 3.3k
GT05 4.7k
PT01 2.5mm B-B CONNECTOR 15P
TEXT R
TEXT B
RESET
GND
TEXT G
TEXT Ys
COD/EVEN
+9V
Video
GND
HD
VD
SCL1
SDA1
+5V
TO SIGNAL
36ZP38B
32ZP38B
TEXT-P2


CT04 10V100
CT03 B25V0.01
QT06 R1121N331B-TR
CT02 B25V0.01
CT01 6.3V220
LT12 TEM2121M
QT07 OPEN
CT23 25V0.1
QT09
RT01 100
RT02 100
RT44 10k
QT01 SAA5665HL/0606
RT23 CHIP JP
RT30 4.7k
RT35 1k
RT39 560
RT34 2.2k
RT18 22k
QT15 2SA1576A 2SA1586-Y
CT07 10V1u
LT06 OPEN
RT37 100
QT05 2SC4081T 2SC4116-Y
RT19 CHIP JP
RT20 1k
CT16 OPEN
CT18 OPEN
CT15 OPEN
GT07 CHIP JP
QT04 OPEN
RT17 OPEN
CT20 B25V0.01
CT21 OPEN
CT14 25V0.1
CT22 OPEN
RT28 100
RT36 OPEN
CT17 25V0.1
RT27 12k_F
RT24 12k_F
GT08 OPEN
GT09 10k
CT12 10V47
CT13 25V0.1
RT43 150
RT40 150
RT38 150
RT29 100
PT01 2.5mm B-B CONNECTOR 15P
TEXT R
TEXT B
RESET
GND
TEXT G
TEXT Ys
COD/EVEN
+9V
Video
GND
HD
VD
SCL1
SDA1
+5V
TO SIGNAL



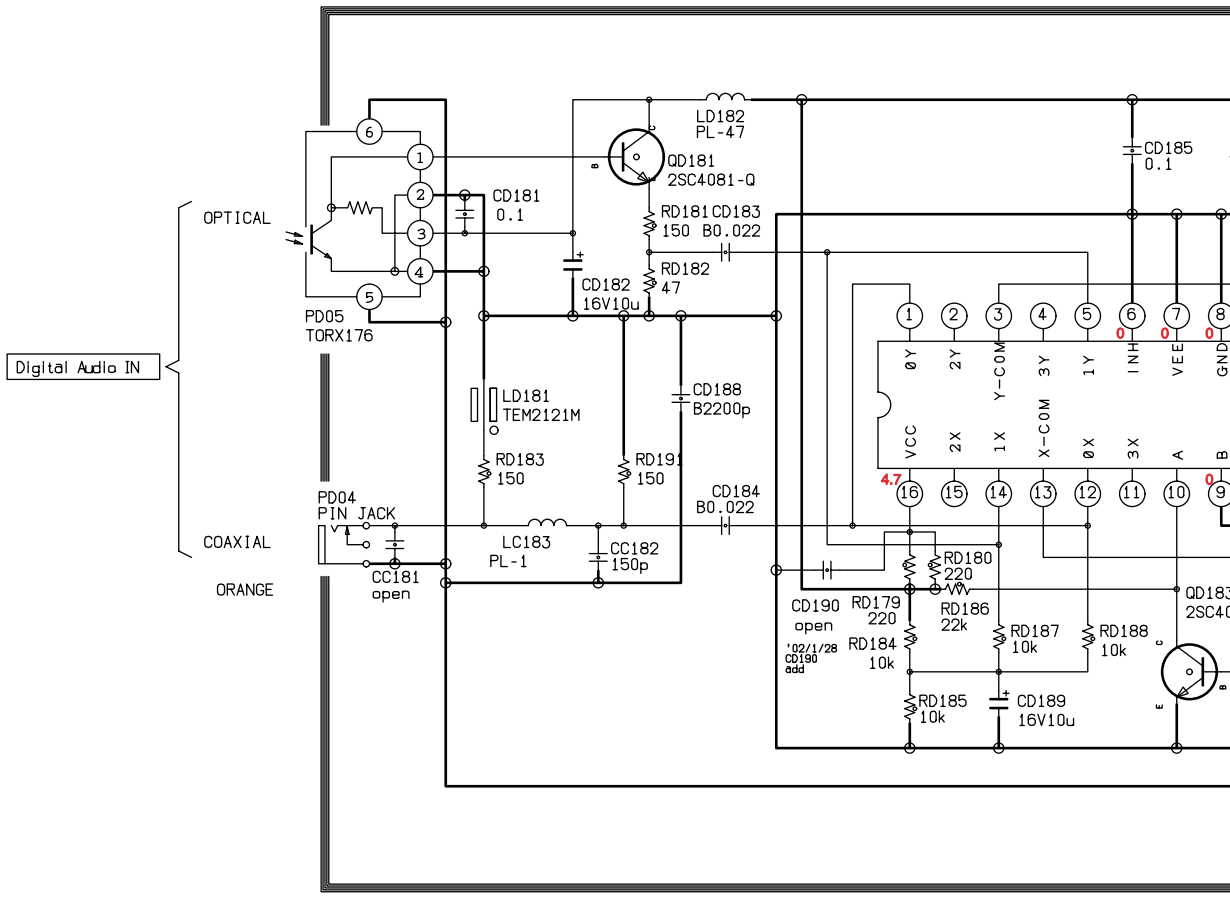
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32ZP38B
TEXT-P2

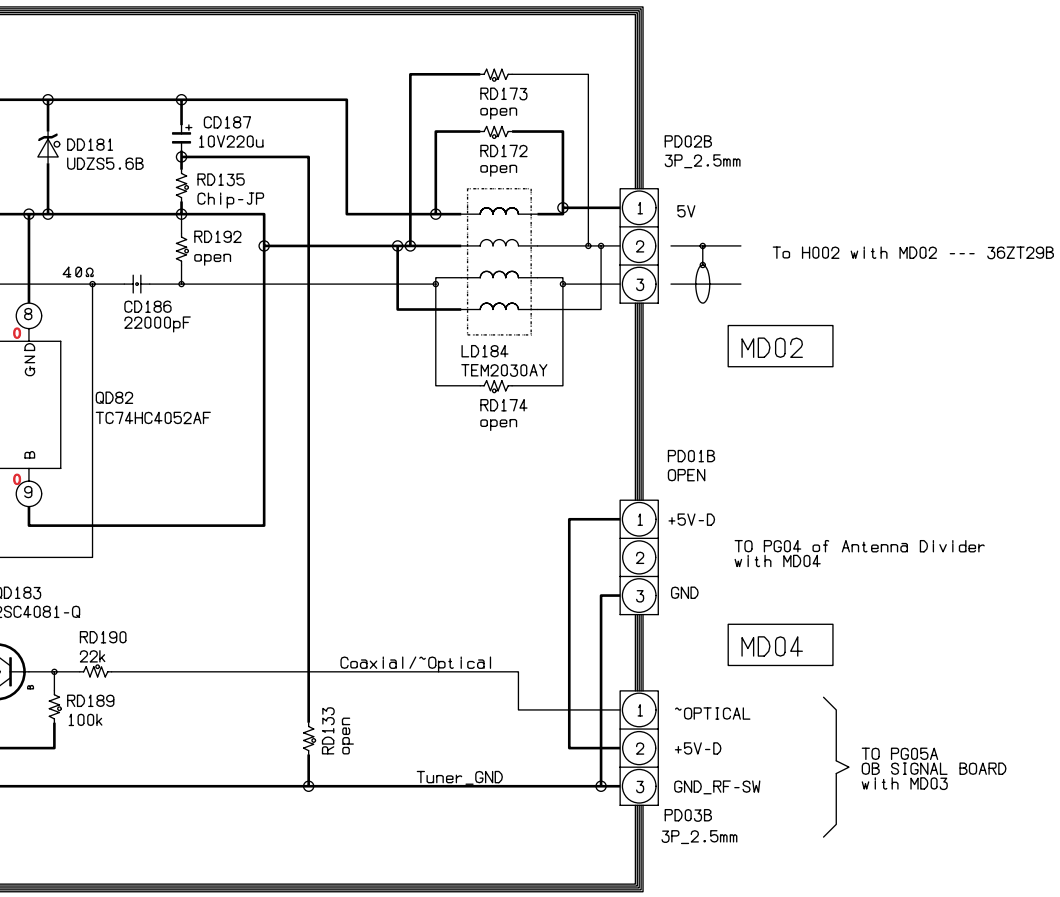
DIGITAL-IN PD0549B



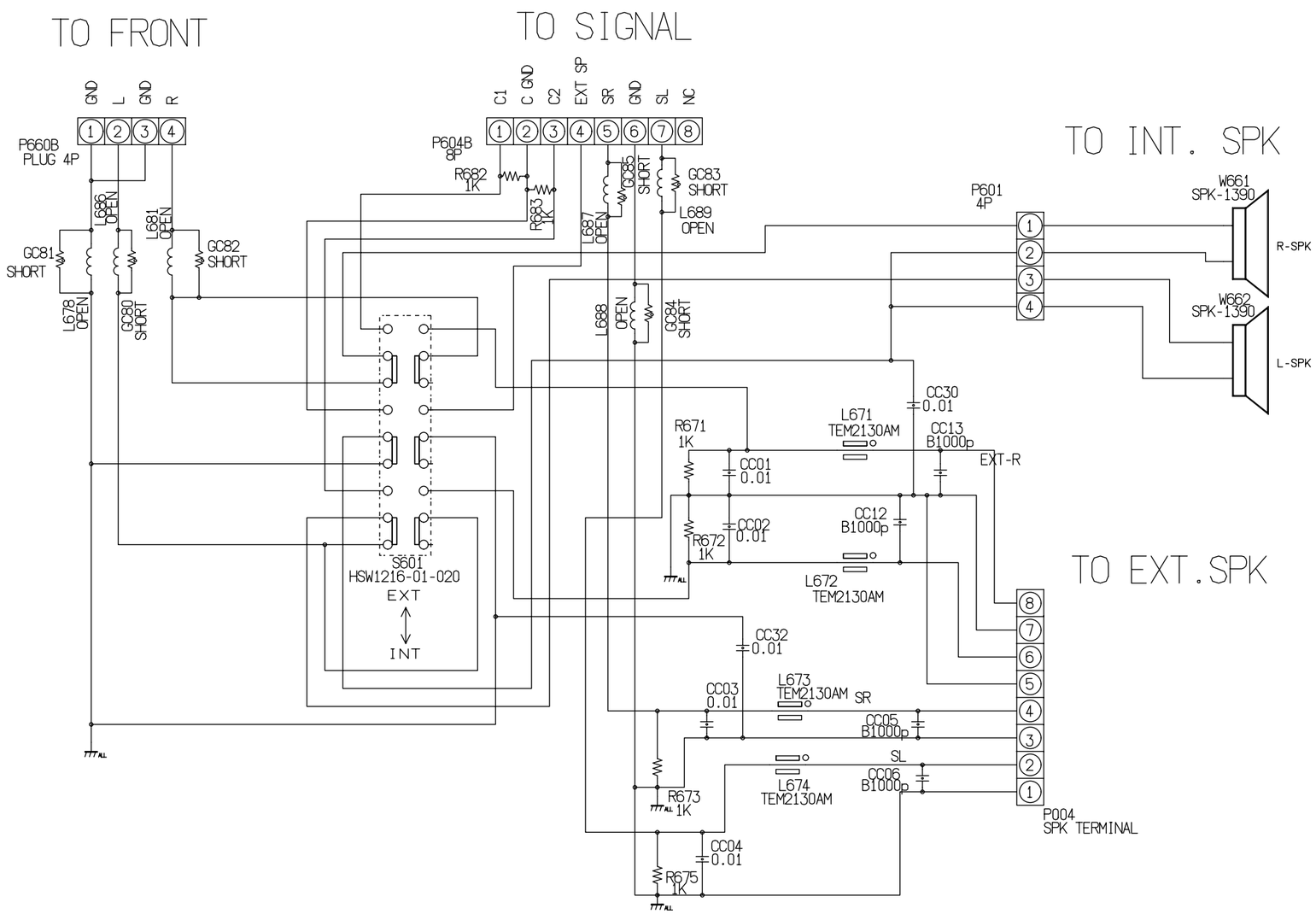
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DIGITAL-IN

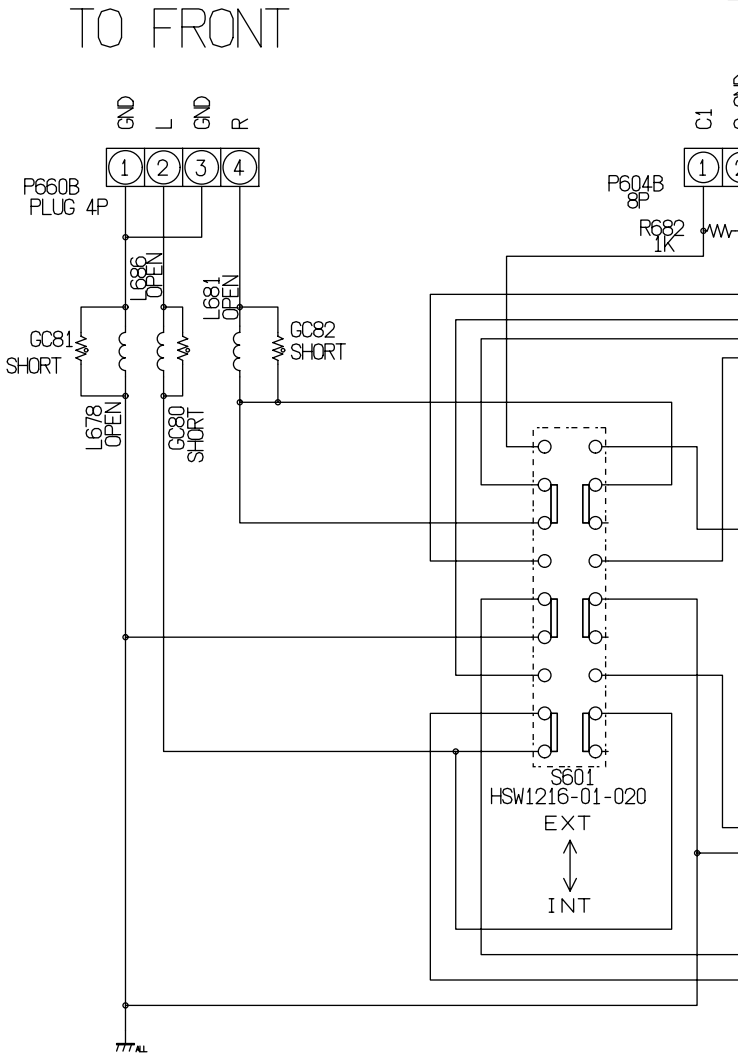
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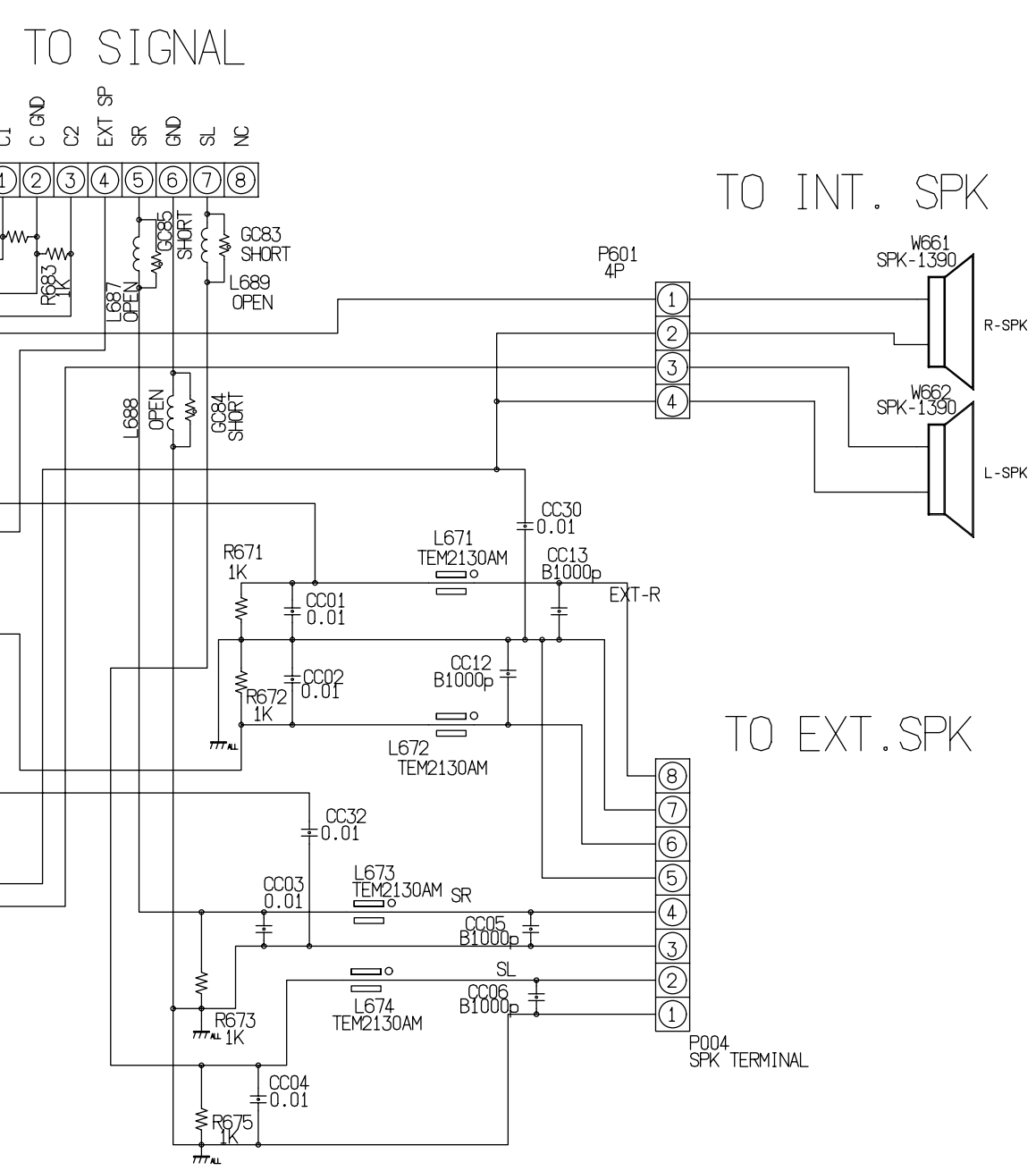




36ZP38B
32ZP38B
DIGITAL-IN


TO FRONT
TO SIGNAL
TO INT. SPK
TO EXT.SPK
P660B
PLUG 4P
GND
L
GND
R
L686
OPEN
L681
OPEN
GC81
SHORT
GC82
SHORT
L678
OPEN
GC80
SHORT
P604B
8P
C1
C GND
C2
EXT SP
SR
GND
SL
NC
R682
1K
R683
1K
L687
OPEN
GC85
SHORT
GC83
SHORT
L689
OPEN
L688
OPEN
GC84
SHORT
S601
HSW1216-01-020
EXT
INT
P601
4P
W661
SPK-1390
R-SPK
W662
SPK-1390
L-SPK
CC30
0.01
R671
1K
L671
TEM2130AM
CC13
B1000p
EXT-R
CC01
0.01
CC02
0.01
R672
1K
CC12
B1000p
L672
TEM2130AM
CC32
0.01
CC03
0.01
L673
TEM2130AM
SR
CC05
B1000p
SL
CC06
B1000p
L674
TEM2130AM
R673
1K
CC04
0.01
R675
1K
P004
SPK TERMINAL
36ZP38B
32ZP38B
EXT-SP


TO FRONT
GND
L
GND
R
P660B
PLUG 4P
L686
OPEN
L681
OPEN
GC81
SHORT
GC82
SHORT
L678
OPEN
GC80
SHORT
C1
P604B
8P
R682
1K
S601
HSW1216-01-020
EXT
INT



A

B

36ZP38B
32ZP38B
EXT-SP

SPECIFICATIONS (Representative: 36ZP38)

Input Power Rating:	AC 220 ~ 240 Volts, 50 Hz
Aerial Input Impedance:	75 ohm unbalanced type for VHF, UHF and CATV
Receiving Channels:	

System	Channel	VHF	UHF	CATV	
PAL B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z + 2,
SECAM B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z +2,
PAL D/K	CHINA	1 ~ 12	13 ~ 57	Z-1 ~ Z-35	
PAL I	UK		21 ~ 69		
SECAM D/K	OIRT	1 ~ 12	21 ~ 69	X-1 ~ X-19	
SECAM L	FRANCE/CCIR	FB ~ F6	21 ~ 69	X ~ Z + 2	S1 ~ S41

PAL, SECAM 50 Hz/60 Hz (For Video Disk play back)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

Intermediate Frequencies:	Picture I-F carrier frequency ..... 38.9 MHz (L VL) Sound I-F carrier frequency B/G System ..... 33.4 MHz D/K System ..... 32.4 MHz
Picture Tube:	36 inches, 860 mm (measured on diagonal of viewable picture area) 103° deflection
Sound Output:	10 W + 10 W (at 10% Distortion, Main), 13 W (at 10% Distortion, Woofer)
Speakers:	60 mm × 120 mm oval, 2 pcs (Main)
Aux. Terminals:	21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm). DVD Terminal
Cabinet:	Table type
Dimensions:	Height ..... 622 mm Width ..... 855 mm Depth ..... 594 mm
Mass:	74.6 kg

* Pease refer to owner's manual in details.

– END –

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN