TOSHIBA

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SERVICE MANUAL

COLOUR TELEVISION

C9SS Chassis

32WD98B

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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 THIS MANUAL.

SET-UP ADJUSTMENT

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

1. Color Purity
2. Convergence
3. White Balance

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

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

COLOR PURITY ADJUSTMENT

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

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

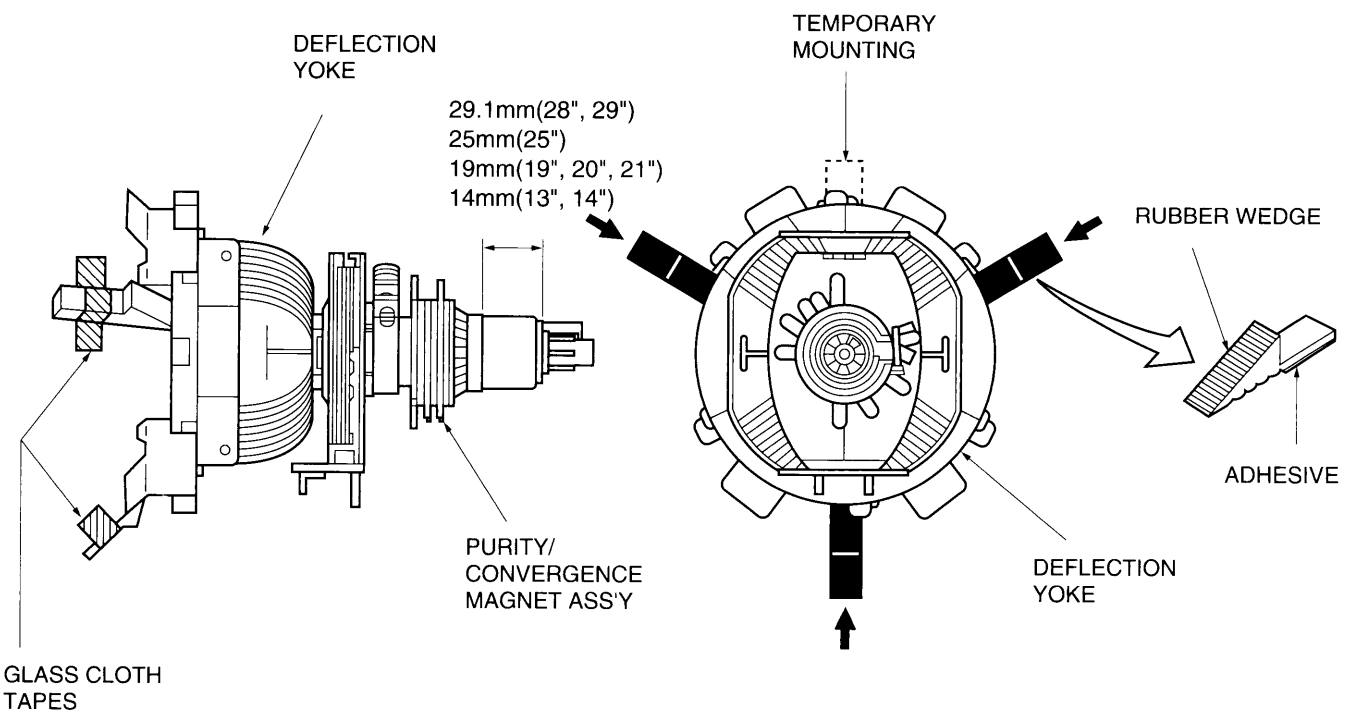


Figure 1.

CONVERGENCE ADJUSTMENTS

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

■ CENTER CONVERGENCE ADJUSTMENT

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

■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

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

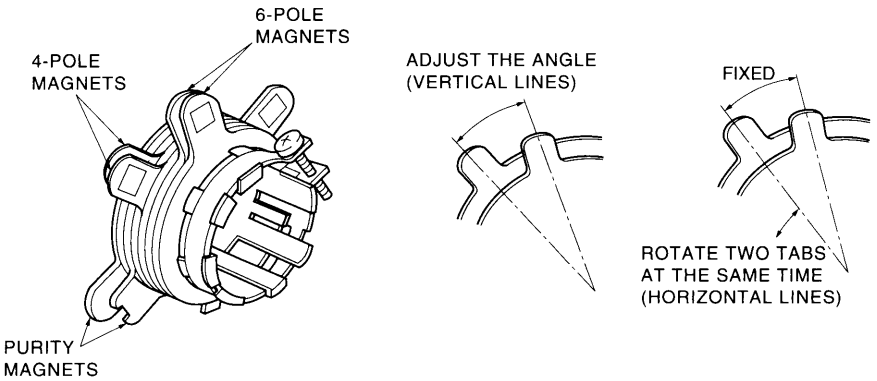
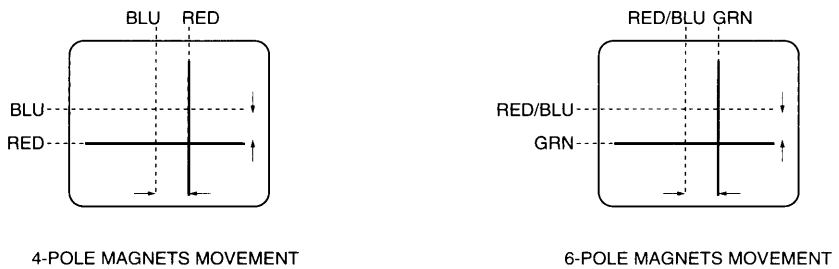


Figure 2.



Center Convergence by Convergence Magnets



Circumference Convergence by DEF Yoke

Figure 3. Dot Movement Pattern

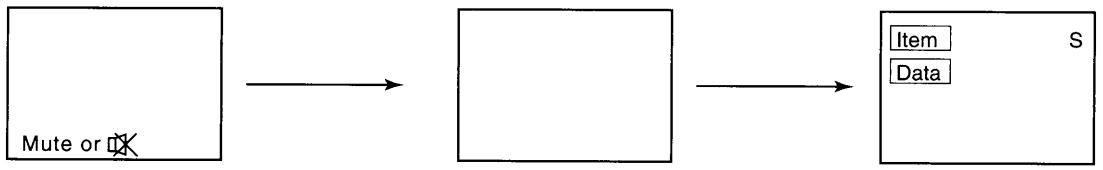
SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

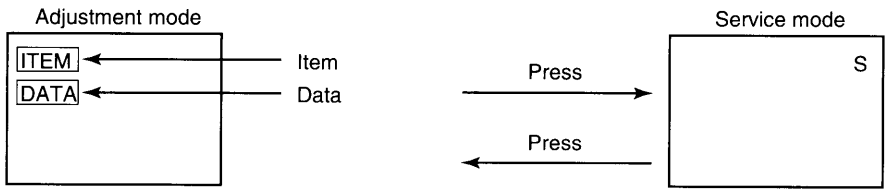
3) While pressing the 🔇 button, press MENU button on TV set



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

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

A single horizontal line ON/OFF:	- / - - button (on Remote) or ⊖ button (on TV)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV or Remote)
Change of the data value :	Volume ◿ +/– (on TV or Remote)
Adjustment menu mode ON/OFF :	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to "00":	CALL + Channel button on TV (▼)
"RCUT" selection :	1 button
"GCUT" selection :	2 button
"BCUT" selection :	3 button
"CNTX" (or "SCNT") selection :	4 button
"COLC" selection :	5 button– – – – Color thickness correction
"TNTC" selection :	6 button note: Displayed differently as shown below, depending on the setting of the receiving color system.
Test audio signal ON/OFF (1kHz) :	8 button
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.

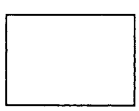
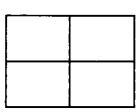
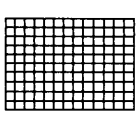
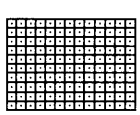
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform "Auto search Memory"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

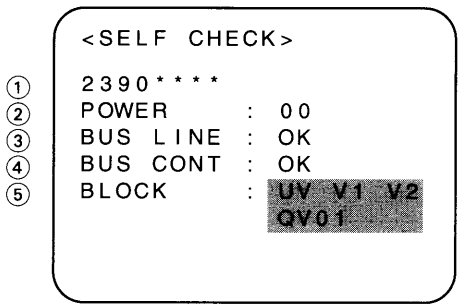
Signal off → NTSC signals (14 patterns)
↑ PAL signals (14 patterns) ←

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

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

8. SELF DIAGNOSTIC FUNCTION

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



① Part number of microcomputer (QA01)
② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apts to flow, and circuit parts may possibly be damaged.
③ BUS LINE CHECK ----"OK" is normal.
"SDA1-GND" ---------- SDA-GND short circuit.
"SCL1-GND" ---------- SCL-GND short circuit.
"SCL1-SDA1" ---------- SCL-SDA short circuit.
④ BUS CONT ----"OK" is normal.
When indication shows "Q ○○○ NG", the device with the number may possibly be damaged.
⑤BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (-C1)
V2 : VIDEO 2 input mode (-C2)

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.

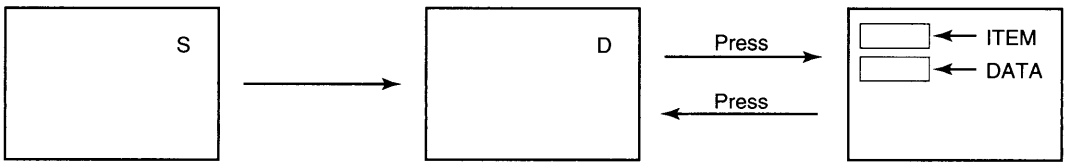
NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC). If this display function fails to operate due to damage in ICF01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current 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

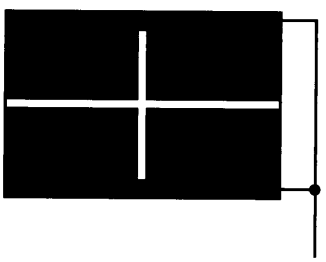
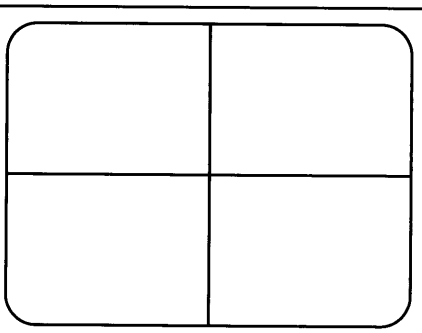
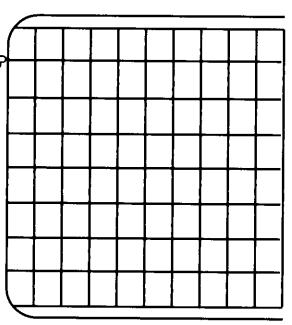
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)

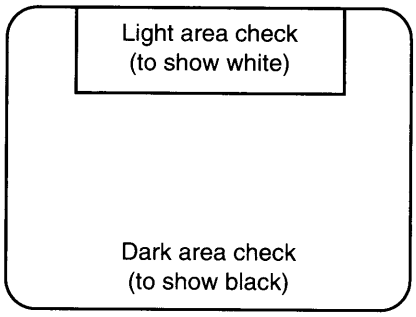
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 18)

3. ADJUSTING THE DATA

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

ELECTRICAL ADJUSTMENTS

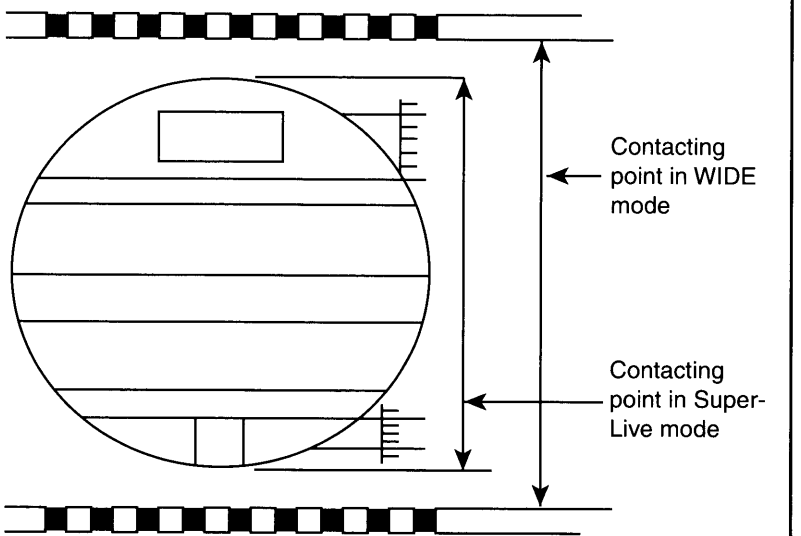
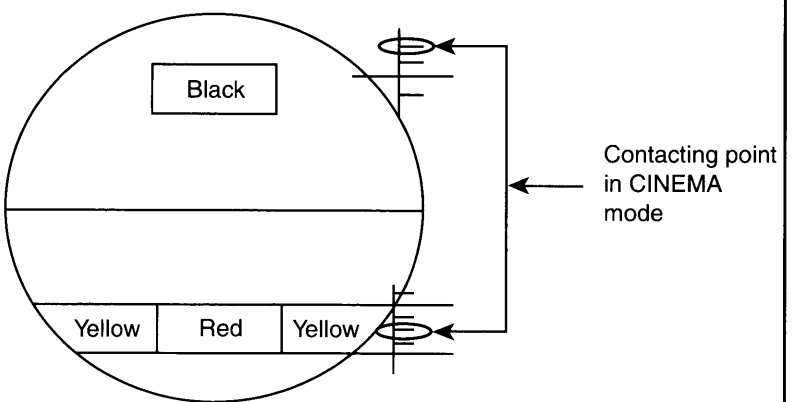
ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ	1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS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

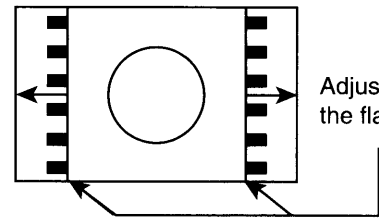
ITEM	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button. 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to Initial reference data, and to set GDRV and BDRV to Initial reference data with VOLUME ◿ – /+ buttons (See page 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. 

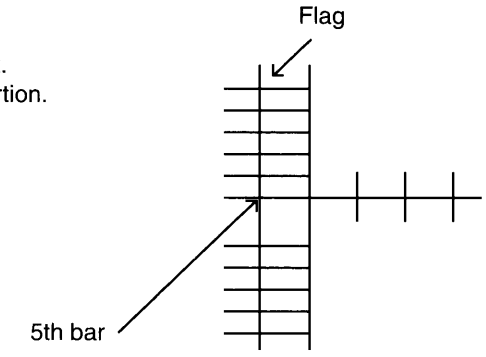
C9SS: Series (Reference Factory Adjustments)

Item	Name	Setting (User control)	Input signal	Measurement point	Adjustment procedure	Adjustment standard
[SCNT]	Sub-contrast	Dynamic Mode 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.	2.5 ± 0.1Vp-p
[BRTC]	Sub-bright center	Dynamic Mode Screen size: Wide	Sub-bright signal	Screen adjustment	① Adjust the number of black collapsed lines in the sub-bright signal. ② This adjustment shall be made after the W/B and [SCNT] adjustments.	4 ± 1.5 lines Screen adjustment
[COLP]	Sub-color center PAL	Dynamic Mode Screen size: Wide	Sub-bright signal (PAL)	TP46B	① Adjust the B-Y amplitude. (Apply Y Mute at time of adjustment)	1.3 ± 0.1Vo-p
Screen VR [RCUT] [GCUT] [BCUT] [GDRV] [BDRV]	R cut-off G cut-off B cut-off G drive B drive	Dynamic Mode Screen size: Wide [RCUT]: 40 [GCUT]: 40 [BCUT]: 40 [GDRV]: 40 [BDRV]: 40		Screen adjustment	① Enter Horizontal Straight-line Mode. ② Gradually increase the screen VR until either R, G, or B line starts to light up slightly. ③ Determine the screen VR adjustment position here. ④ Gradually increase remaining two screen VRs - except the line that lit up as mentioned in item ② above - until respective line starts to light up slightly. (Adjust until the screen becomes almost white.) ⑤ Exit from Horizontal Straight-line Mode. ⑥ Using CA100, repeat this adjustment until correct value is set to both the dark and bright parts.	Bright part (103cd/m²) 8750K-0.002uv Dark part (17cd/m²) 8750K-0.002uv Screen judgment (CA100)

Item	Name	Setting (User control)	Input signal	Measurement point	Adjustment procedure	Adjustment standard
[BELL]	BELL filter		SECAM color bar	TPM01	① Vary the [BELL] until the wave form on the synchroscope becomes flat.	100 ± 10%
[SBY]	SECAM B-Y black level	Screen size: Wide	SECAM color bar	TP01	① Vary the [SBY] until the level of the B/W signal becomes equal to the H. BLK level.	0 ± 10mV
[SRY]	SECAM R-Y black level	Screen size: Wide	SECAM color bar	TP02	① Vary the [SRY] until the level of the B/W signal becomes equal to the H. BLK level.	0 ± 10mV
[COLS]	Sub-color Center SECAM	Dynamic Mode Screen size: Wide	SECAM color bar	TP46B	① Adjust the B - Y amplitude. (Apply Y Mute at time of adjustment)	1.7 ± 0.1Vop *(Pedestal to Peak)

	Adjustment Item	Adjustment Procedure	
Vertical	WIDE Mode Vertical amplitude [HIT]	PAL WG Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that both upper and lower flags will disappear from the screen.	
	Vertical position [GMPO]	PAL Phillips Pattern, User adjustment standard Adjust the vertical position [GMPO] so that the vertical screen position of Phillips Pattern will come to the center of the screen (see the right sketch).	
	Super-live Mode Vertical amplitude [HIT]	PAL Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that the top and bottom of the circle of Phillips Pattern will touch the CPT mask (see the right sketch).	
	CINEMA Mode Vertical amplitude [HIT]	Phillips Pattern, User adjustment standard Adjust the vertical amplitude by [HIT] so that the points shown in the right bottom sketch will touch the CRT mask (see the right sketch).	

No	Applicable Models	Adjustment Item	Adjustment Procedures
1	32WD98B 32WD98G 32WD96G	Focus adjustment (1) HOR. FOCUS	Conditions) PAL, RETMA signal WIDE mode, User adjustment standard Adjustment) With the center of the screen being the best focus, set the focus volume (F1) of the focus pack (Z410) to the fully counterclockwise position.
		Focus adjustment (2) VERT. FOCUS	Conditions) PAL, RETMA signal WIDE mode, User adjustment standard Adjustment) With the center of the screen being the best focus, set the focus volume (F2) of the focus pack (Z410) to the fully counterclockwise position.
	28WD98B 28D96G	Focus adjustment	Conditions) PAL, RETMA signal WIDE mode, User adjustment standard Adjustment) With the center of the screen being the best focus, set the focus volume of the flyback transformer (T461) to the fully counterclockwise position.
2	All models	Vertical position adjustment	Conditions) PAL, WG Phillips pattern WIDE mode, User adjustment standard Adjustment) Adjust [GMPO] so that both top and bottom positions touch the mask. (This adjustment shall be done with the CPT facing south or north. If this cannot be done, offset the difference.)
3	All models	Horizontal position adjustment	Conditions) PAL, WG Phillips pattern WIDE mode, User adjustment standard Adjustment) With the VR (R451), adjust the frame of both left and right flags to the mask. (If necessary, also adjust the horizontal amplitude.)  Adjust the frame of the flags to the mask.

	Adjustment Item	Adjustment Procedures
Horizontal	WIDE mode (4:3 mode) Horizontal position (R451) Horizontal phase [HPOS] Horizontal amplitude [WIDE] Side DPC [PARA] Trapezoidal distortion [TRAP]	With the PAL, WG Phillips pattern, in the WIDE mode, adjust the horizontal amplitude so that the mask comes to the frames of left and right flags. With the PAL, WG Phillips pattern, in the WIDE mode, carry out the adjustment in order to minimize the side pincushion distortion and trapezoidal distortion. Note) This adjustment shall be done at the same time as the horizontal position adjustment item in the volume adjustment. If the horizontal position cannot be adjusted to the center by the volume, after having made the adjustment, use HPOS to adjust the horizontal amplitude until the flag frame touches the mask. Confirm the side pincushion distortion in the 4:3 mode. (If necessary, reconfirm it with observing the quality of the side panel in 4:3 mode.)
	Super-Live mode Horizontal amplitude Side DPC Trapezoidal distortion	In the Super-Live, WIDE mode with the PAL Phillips pattern : Adjust the inside of the 5th bar within the left and right flags to the mask. Adjust to optimalize the side pincushion distortion and trapezoidal distortion. 
	CINEMA mode Horizontal amplitude Side DPC Trapezoidal distortion	In the CINEMA mode with the PAL Phillips pattern : Adjust the horizontal amplitude so that mask comes to the frames of the left and right flags. Adjust to optimalize the side pincushion distortion and trapezoidal distortion.

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.

SETTING & ADJUSTING DATA

【 SAFETY INSTRUCTIONS 】

		32"
HIGH VOLTAGE AT ZERO BEAM:	(A)	33.9 kV
MAX HIGH VOLTAGE:	(B)	34.0 kV
AV VOLTAGE	(C)	220~240 V

Table-1

【 SERVICE MODE 】

ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:

Item	Adjustment	Reference data
RCUT	R CUTOFF (B/W)	40H
GCUT	G CUTOFF (B/W)	40H
BCUT	B CUTOFF (B/W)	40H
RDRV	R DRIVE	40H
BDRV	B DRIVE	40H
CNTX	SUB CONTRAST MAX	7FH
BRTC	SUB BRIGHT CEN	80H
COLC	SUB COLOR CEN NTSC	00H
TNTC	SUB TINT CEN	48H
COLP	SUB COLOR CEN PAL	33H
COLS	SUB COLOR CEN SECAM	33H
COLD	SUB COLOR CEN DTV	00H
SCOL	SUB COLOR	0FH
SCNT	SUB CONTRAST	0CH
BELL	SECAM BELL FILTER	80H
SRY	SECAM R-Y	08H

Item	Adjustment	Reference data
SBY	SECAM B-Y	08H
HPOS	50Hz H-POSITION	30H
VPOS	V-POSITION	00H
HIT	HEIGHT	2FH
GMPS	V-POSITION (RASTER)	37H
VLIN	V-LINEARITY	0EH
VSC	V-S CORRECTION	27H
VPS	V-SHIFT	04H
VCP	V-COMPENSATION	04H
WID	PICTURE WIDTH	2DH
PARA	E-W PARABOLA	19H
CNR	E-W CORNER	13H
TRAP	TRAPEZIUM	36H
HCP	H-COMPENSATION	02H
VFC	V-F CORRECTION	00H

Table-2

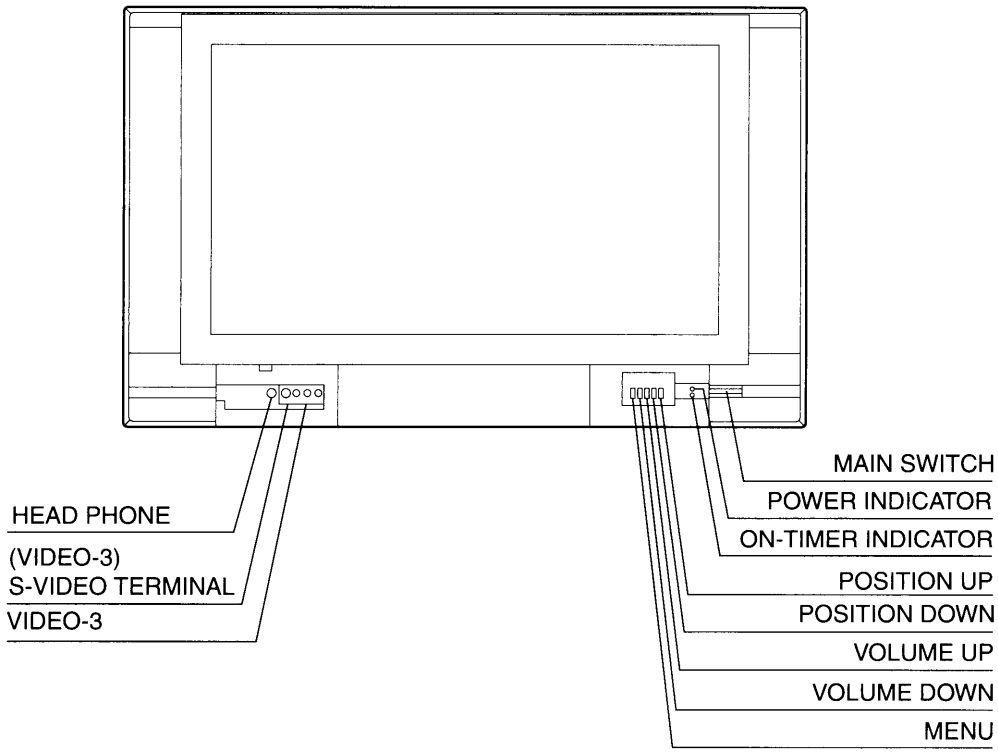
【 DESIGN MODE 】

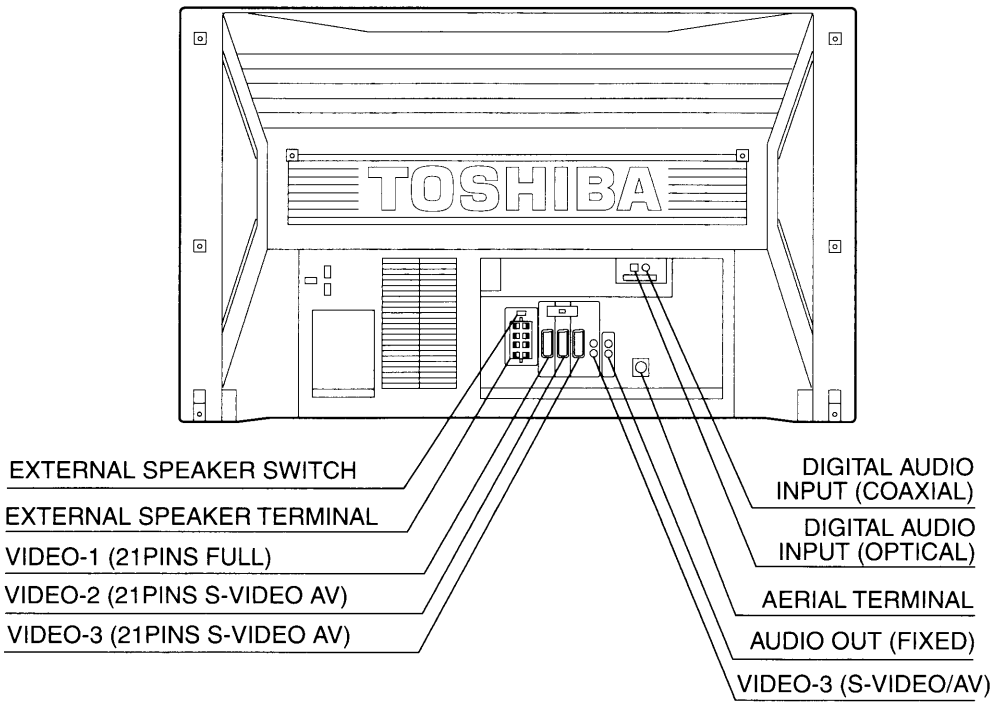
ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

Item	Name of adjustment		Data	Remarks
		Preset Data		
* There are no adjusting item in the DESIGN MODE.				

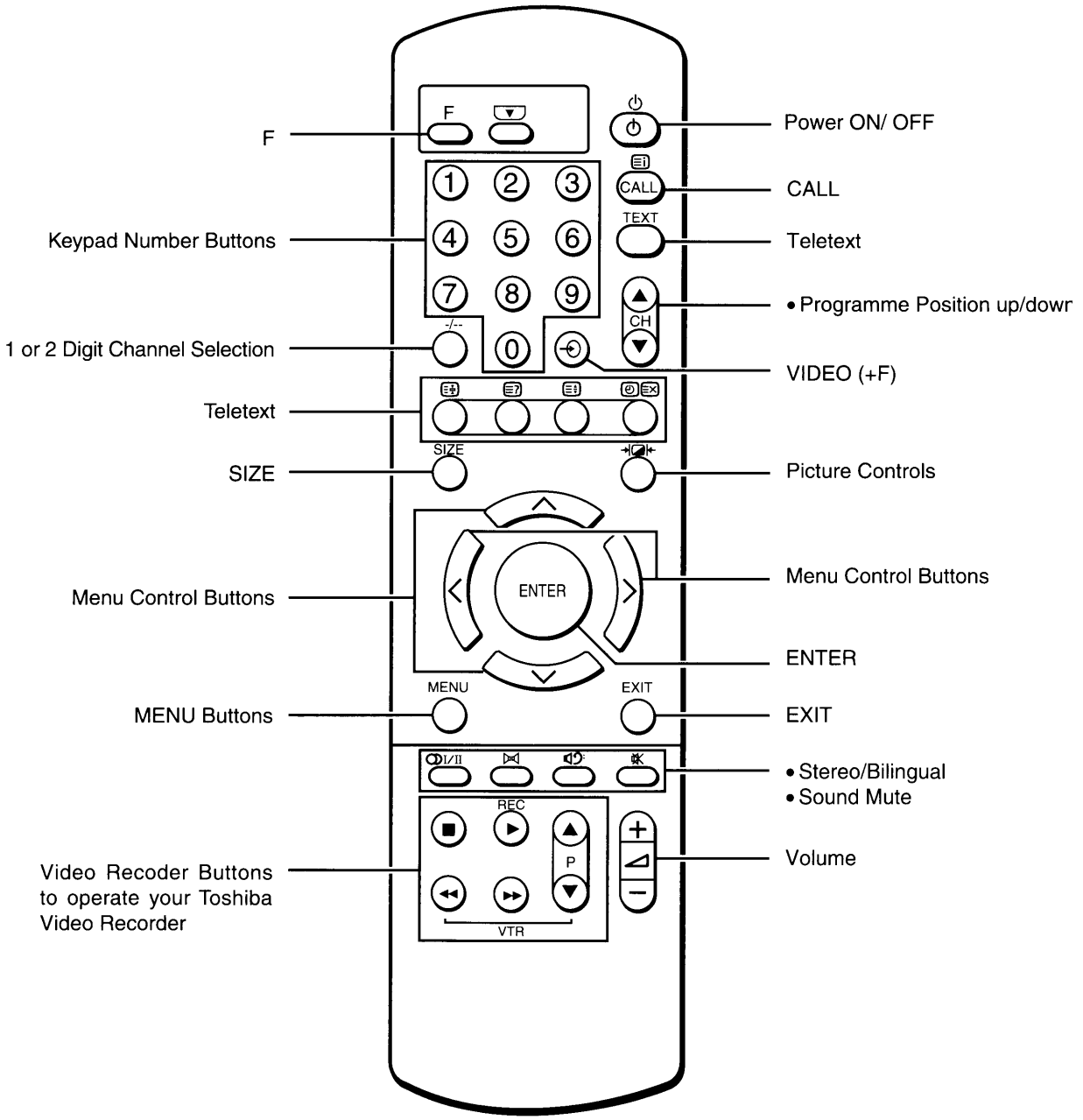
Table-3

LOCATION OF CONTROLS

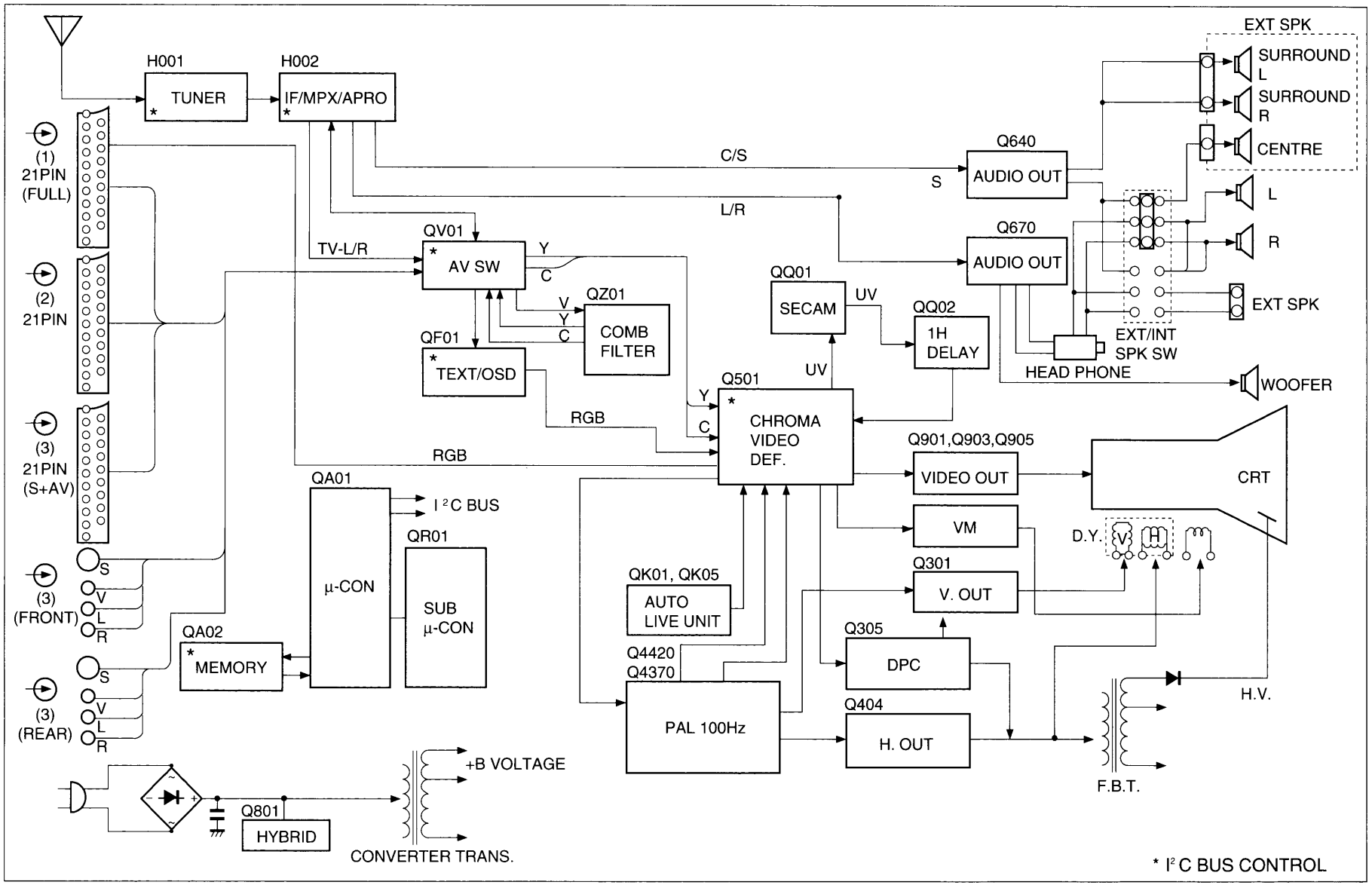




Remote Controller



CIRCUIT BLOCK DIAGRAM



CHASSIS AND CABINET REPLACEMENT PARTS LIST

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

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

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

Models : 32WD98B

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.	Part No.	Description
CAPACITORS		
C101	24763221	EL, 220μF, ±20%, 16V
C102	24763221	EL, 220μF, ±20%, 16V
C105	24212102	CD, 1000pF, ±10%
C106	24797100	EL, 10μF, ±20%, 50V
C108	24793101	EL, 100μF, ±20%, 10V
C109	24232103	CD, 0.01μF, +80%, −20%
C110	24797229	EL, 2.2μF, ±20%, 50V
C111	24797229	EL, 2.2μF, ±20%, 50V
C115	24232103	CD, 0.01μF, +80%, −20%
C201	24567104	PF, 0.1μF
C202	24814103	Chip, 0.01μF, +80%, −20%
C203	24567104	PF, 0.1μF
C204	24669010	EL, 1μF, ±20%, 50V
C205	24669229	EL, 2.2μF, ±20%, 50V
C206	24206220	EL, 22μF, 50V
C212	24794100	EL, 10μF, ±20%, 16V
C214	24567334	PF, 0.33μF
C215	24781101	Chip, 100pF, SL
C219	24781100	Chip, 10pF, ±0.5%, SL
C220	24781100	Chip, 10pF, ±0.5%, SL
C221	24781100	Chip, 10pF, ±0.5%, SL
C228	24814103	Chip, 0.01μF, +80%, −20%
C229	24669010	EL, 1μF, ±20%, 50V
C230	24763221	EL, 220μF, ±20%, 16V
C231	24814103	Chip, 0.01μF, +80%, −20%
C232	24669010	EL, 1μF, ±20%, 50V
C260	24085967	EL, 47μF, ±20%, 16V, Non-Polar
C261	24669101	EL, 100μF, ±20%, 50V
C262	24814103	Chip, 0.01μF, +80%, −20%
C264	24781150	Chip, 15pF, SL
C273	24206229	EL, 2.2μF, 50V
C303	24214471	CD, 470pF, ±10%, 500V
C304	24082049	PF, 0.047μF, 100V
C306	24073059	EL, 3300μF, ±20%, 25V
C308	24797221	EL, 220μF, ±20%, 50V
C310	24797222	EL, 2200μF, ±20%, 50V
C311	24567473	PF, 0.047μF
C312	24567273	PF, 0.027μF
C313	24082057	PF, 0.22μF, 100V

Location No.	Part No.	Description
C314	24793101	EL, 100μF, ±20%, 10V
C315	24797478	EL, 0.47μF, ±20%, 50V
C315	24212102	CD, 1000pF, ±10%
C320	24797101	EL, 100μF, ±20%, 50V
C341	24797478	EL, 0.47μF, ±20%, 50V
C352	24617912	EL, 2.2μF, ±10%, 50V
C366	24082049	PF, 0.047μF, 100V
C370	24797101	EL, 100μF, ±20%, 50V
C371	24797100	EL, 10μF, ±20%, 50V
C403	24567103	PF, 0.01μF
C404	24797229	EL, 2.2μF, ±20%, 50V
C410	24092341	CD, 470pF, ±10%, 2kV
C413	24214332	CD, 3300pF, ±10%, 500V
C416	24668101	EL, 100μF, ±20%, 35V
C417	24214391	CD, 390pF, ±10%, 500V
C419	24212102	CD, 1000pF, ±10%
C420	24794101	EL, 100μF, ±20%, 16V
C421	24567104	PF, 0.1μF
C423	24829473	PF, 0.047μF, 400V
C430	24814103	Chip, 0.01μF, +80%, −20%
C431	24763102	EL, 1000μF, ±20%, 16V
C431	24232103	CD, 0.01μF, +80%, −20%
C440	24082942	PF, 3300pF, ±3%, 1500V
C442	24082643	PF, 0.18μF, ±5%, 400V
C443	24082644	PF, 0.2μF, 400V
C444	24082830	PF, 3000pF, ±3%, 1800V
C445	24828473	PF, 0.047μF, 200V
C446	24679330	EL, 33μF, ±20%, 250V
C447	24829223	PF, 0.1μF, 400V
C448	24640908	EL, 33μF, ±20%, 160V
C460	24796331	EL, 330μF, ±20%, 35V
C461	24082835	PF, 4700pF, ±3%, 1800V
C462	24794222	EL, 2200μF, ±20%, 16V
C463	24212392	CD, 3900pF, ±10%
C464	24640900	EL, 4.7μF, ±20%, 100V
C466	24082414	PF, 5600pF, ±3%, 1250V
C470	24794220	EL, 22μF, ±20%, 16V
C472	24567474	PF, 0.47μF
C473	24669010	EL, 1μF, ±20%, 50V
C475	24095887	PF, 0.01μF, ±3%, 630V
C477	24591563	PF, 0.056μF

Location No.	Part No.	Description
C478	24567334	PF, 0.33μF
C479	24214471	CD, 470pF, ±10%, 500V
C481	24085988	EL, 1μF, ±20%, 50V, Non-Polar
C482	24212152	CD, 1500pF, ±10%
C484	24591152	PF, 1500pF
C491	24082749	PF, 1.5μF, 250V
C492	24082645	PF, 0.22μF, 400V
C494	24082644	PF, 0.2μF, 400V
C495	24092343	CD, 680pF, ±10%, 2kV
C496	24092343	CD, 680pF, ±10%, 2kV
C501	24781101	Chip, 100pF, SL
C502	24814103	Chip, 0.01μF, +80%, –20%
C503	24763221	EL, 220μF, ±20%, 16V
C504	24590222	PF, 2200pF
C505	24774120	Chip, 12pF, CH
C507	24774120	Chip, 12pF, CH
C508	24669010	EL, 1μF, ±20%, 50V
C509	24763101	EL, 100μF, ±20%, 16V
C510	24763101	EL, 100μF, ±20%, 16V
C511	24814103	Chip, 0.01μF, +80%, –20%
C512	24206228	EL, 0.22μF, 50V
C513	24814103	Chip, 0.01μF, +80%, –20%
C514	24567104	PF, 0.1μF
C515	24567104	PF, 0.1μF
C516	24781102	Chip, 1000pF, SL
C517	24774010	Chip, 1pF
C518	24436101	CD, 100pF
C519	24774010	Chip, 1pF
C520	24781102	Chip, 1000pF, SL
C521	24781102	Chip, 1000pF, SL
C524	24781122	Chip, 1200pF
C525	24774181	Chip, 180pF
C554	24814103	Chip, 0.01μF, +80%, –20%
C555	24669010	EL, 1μF, ±20%, 50V
C556	24669010	EL, 1μF, ±20%, 50V
C613	24794471	EL, 470μF, ±20%, 16V
C614	24762222	EL, 2200μF, ±20%, 10V
C615	24085960	EL, 4.7μF, ±20%, 50V, Non-Polar
C616	24567183	PF, 0.018μF
C617	24590102	PF, 1000pF
C618	24567823	PF, 0.082μF
C619	24794221	EL, 220μF, ±20%, 16V
C620	24794101	EL, 100μF, ±20%, 16V
C631	24797010	EL, 1μF, ±20%, 50V
C632	24797479	EL, 4.7μF, ±20%, 50V
C633	24591124	PF, 0.12μF
C634	24668471	EL, 470μF, ±20%, 35V
C641	24206010	EL, 1μF, 50V
C644	24797010	EL, 1μF, ±20%, 50V
C645	24795470	EL, 47μF, ±20%, 25V
C647	24591102	PF, 1000pF
C648	24590102	PF, 1000pF
C649	24797229	EL, 2.2μF, ±20%, 50V
C650	24796102	EL, 1000μF, ±20%, 35V
C651	24668471	EL, 470μF, ±20%, 35V
C652	24668471	EL, 470μF, ±20%, 35V
C654	24591124	PF, 0.12μF
C655	24591124	PF, 0.12μF
C656	24232103	CD, 0.01μF, +80%, –20%
C657	24797229	EL, 2.2μF, ±20%, 50V
C660	24797229	EL, 2.2μF, ±20%, 50V
C661	24797478	EL, 0.47μF, ±20%, 50V

Location No.	Part No.	Description
C662	24206229	EL, 2.2μF, 50V
C663	24206229	EL, 2.2μF, 50V
C664	24203100	EL, 10μF, ±20%, 16V
C665	24206229	EL, 2.2μF, 50V
C666	24206229	EL, 2.2μF, 50V
C667	24212102	CD, 1000pF, ±10%
C667	24206229	EL, 2.2μF, 50V
C668	24590102	PF, 1000pF
C668	24212102	CD, 1000pF, ±10%
C669	24797330	EL, 33μF, ±20%, 50V
C670	24814103	Chip, 0.01μF, +80%, –20%
C670	24797330	EL, 33μF, ±20%, 50V
C671	24814103	Chip, 0.01μF, +80%, –20%
C671	24797010	EL, 1μF, ±20%, 50V
C672	24814103	Chip, 0.01μF, +80%, –20%
C673	24781102	Chip, 1000pF, SL
C673	24797010	EL, 1μF, ±20%, 50V
C674	24781102	Chip, 1000pF, SL
C674	24797010	EL, 1μF, ±20%, 50V
C675	24781102	Chip, 1000pF, SL
C675	24795470	EL, 47μF, ±20%, 25V
C676	24797479	EL, 4.7μF, ±20%, 50V
C676	24781102	Chip, 1000pF, SL
C677	24590102	PF, 1000pF
C677	24814103	Chip, 0.01μF, +80%, –20%
C678	24781102	Chip, 1000pF, SL
C678	24590102	PF, 1000pF
C679	24781102	Chip, 1000pF, SL
C679	24538104	PF, 0.1μF
C680	24668102	EL, 1000μF, ±20%, 35V
C681	24668471	EL, 470μF, ±20%, 35V
C681	24781102	Chip, 1000pF, SL
C682	24781102	Chip, 1000pF, SL
C682	24668471	EL, 470μF, ±20%, 35V
C683	24668102	EL, 1000μF, ±20%, 35V
C685	24591124	PF, 0.12μF
C686	24591124	PF, 0.12μF
C687	24232103	CD, 0.01μF, +80%, –20%
C688	24203220	EL, 22μF, ±20%, 16V
C689	24591124	PF, 0.12μF
C704	24591822	PF, 8200pF
C705	24797229	EL, 2.2μF, ±20%, 50V
C707	24794470	EL, 47μF, ±20%, 16V
C712	24666470	EL, 47μF, ±20%, 16V
C713	24790100	EL, 10μF, ±20%, 160V
C714	24436101	CD, 100pF
C715	24214472	CD, 4700pF, ±10%, 500V
C716	24436101	CD, 100pF
C717	24214472	CD, 4700pF, ±10%, 500V
C718	24794470	EL, 47μF, ±20%, 16V
C719	24435151	CD, 150pF, 500V
C720	24790100	EL, 10μF, ±20%, 160V
C721	24794470	EL, 47μF, ±20%, 16V
⚠C801	24082927	PF, 0.22μF, ±20%, AC275V
⚠C802	24082927	PF, 0.22μF, ±20%, AC275V
C805	24092281	CD, 4700pF, ±20%, AC250V
C806	24092281	CD, 4700pF, ±20%, AC250V
C808	24667331	EL, 330μF, ±20%, 25V
C810	24763102	EL, 1000μF, ±20%, 16V
C810	24086063	EL, 330μF, ±20%, 400V
⚠C813	24092555	CD, 1000pF, ±10%, AC250V
⚠C814	24092555	CD, 1000pF, ±10%, AC250V
C817	24092339	CD, 330pF, ±10%, 2kV
C818	24095931	PF, 2200pF, 1250V

Location No.	Part No.	Description
C819	24676220	EL, 22μF, ±20%, 100V
C821	24214471	CD, 470pF, ±10%, 500V
C822	24567474	PF, 0.47μF
C823	24214471	CD, 470pF, ±10%, 500V
C829	24590272	PF, 2700pF
C831	24666470	EL, 47μF, ±20%, 16V
C832	24666470	EL, 47μF, ±20%, 16V
C833	24669100	EL, 10μF, ±20%, 50V
C834	24667100	EL, 10μF, ±20%, 25V
C835	24666470	EL, 47μF, ±20%, 16V
C836	24794470	EL, 47μF, ±20%, 16V
C841	24669100	EL, 10μF, ±20%, 50V
C842	24669100	EL, 10μF, ±20%, 50V
C843	24567104	PF, 0.1μF
C846	24567224	PF, 0.22μF
C872	24669221	EL, 220μF, ±20%, 50V
C884	24086916	EL, 330μF, ±20%, 160V
⚠C885	24214471	CD, 470pF, ±10%, 500V
C887	24214471	CD, 470pF, ±10%, 500V
C889	24669102	EL, 1000μF, ±20%, 50V
C890	24667222	EL, 2200μF, ±20%, 25V
⚠C891	24667332	EL, 3300μF, ±20%, 25V
C892	24667222	EL, 2200μF, ±20%, 25V
C893	24092337	CD, 220pF, ±10%, 2kV
C894	24669102	EL, 1000μF, ±20%, 50V
C895	24669470	EL, 47μF, ±20%, 50V
C896	24214471	CD, 470pF, ±10%, 500V
C897	24667332	EL, 3300μF, ±20%, 25V
C898	24567224	PF, 0.22μF
C899	24214471	CD, 470pF, ±10%, 500V
C902	24092345	CD, 1000pF, ±10%, 2kV
C904	24436391	CD, 390pF
C905	24436391	CD, 390pF
C907	24436391	CD, 390pF
C909	24679220	EL, 22μF, ±20%, 250V
C910	24797478	EL, 0.47μF, ±20%, 50V
C911	24203100	EL, 10μF, ±20%, 16V
C912	24794102	EL, 1000μF, ±20%, 16V
C913	24763102	EL, 1000μF, ±20%, 16V
C914	24212103	CD, 0.01μF, ±10%
C915	24092398	CD, 0.1μF, +80%,–20%
C920	24591104	PF, 0.1μF
C921	24591104	PF, 0.1μF
C923	24794470	EL, 47μF, ±20%, 16V
C924	24666470	EL, 47μF, ±20%, 16V
C925	24794470	EL, 47μF, ±20%, 16V
C930	24214101	CD, 100pF, ±10%, 500V
C931	24214101	CD, 100pF, ±10%, 500V
C940	24436390	CD, 39pF
C4371	24590393	PF, 0.039μF
C4373	24539474	PF, 0.47μF
C4374	24617915	EL, 1μF, ±10%, 50V
C4375	24591203	PF, 0.02μF
C4376	24232103	CD, 0.01μF, +80%, –20%
C4377	24590102	PF, 1000pF
C4378	24617787	EL, 470μF, ±20%, 16V
C4379	24794101	EL, 100μF, ±20%, 16V
C4380	24212102	CD, 1000pF, ±10%
C4382	24539684	PF, 0.68μF
C4405	24590103	PF, 0.01μF
C4408	24590103	PF, 0.01μF
C4418	24590103	PF, 0.01μF
C4425	24797010	EL, 1μF, ±20%, 50V
C4426	24797101	EL, 100μF, ±20%, 50V

Location No.	Part No.	Description
C4447	24590103	PF, 0.01μF
C4447	24590103	PF, 0.01μF
C4461	24567104	PF, 0.1μF
C4490	24082646	PF, 0.24μF, ±5%, 400V
C4491	24082646	PF, 0.24μF, ±5%, 400V
CA12	24436101	CD, 100pF
CA13	24436101	CD, 100pF
CA14	24232103	CD, 0.01μF, +80%, –20%
CA15	24436101	CD, 100pF
CA16	24436101	CD, 100pF
CA17	24436101	CD, 100pF
CA33	24232103	CD, 0.01μF, +80%, –20%
CA42	24794100	EL, 10μF, ±20%, 16V
CA43	24232103	CD, 0.01μF, +80%, –20%
CA44	24232103	CD, 0.01μF, +80%, –20%
CA68	24794100	EL, 10μF, ±20%, 16V
CA69	24232103	CD, 0.01μF, +80%, –20%
CB01	24794470	EL, 47μF, ±20%, 16V
CB01	24794470	EL, 47μF, ±20%, 16V
CB90	24232103	CD, 0.01μF, +80%, –20%
CC08	24781102	Chip, 1000pF, SL
CC09	24814103	Chip, 0.01μF, +80%, –20%
CC10	24814103	Chip, 0.01μF, +80%, –20%
CC42	24781220	Chip, 22pF, SL
CC43	24567184	PF, 0.18μF
CD88	24794100	EL, 10μF, ±20%, 16V
CD89	24567104	PF, 0.1μF
CF03	24567104	PF, 0.1μF
CF04	24766101	PF, 0.1μF
CF05	24766101	PF, 0.1μF
CF06	24774220	Chip, 22pF, CH
CF07	24774220	Chip, 22pF, CH
CF08	24567104	PF, 0.1μF
CF09	24567104	PF, 0.1μF
CF10	24206100	EL, 10μF, 50V
CF11	24567104	PF, 0.1μF
CF12	24814103	Chip, 0.01μF, +80%, –20%
CF14	24814103	Chip, 0.01μF, +80%, –20%
CF16	24567224	PF, 0.22μF
CF17	24794101	EL, 100μF, ±20%, 16V
CF18	24794101	EL, 100μF, ±20%, 16V
CF19	24814103	Chip, 0.01μF, +80%, –20%
CK01	24781101	Chip, 100pF, SL
CK03	24781330	Chip, 33pF, SL
CK08	24781330	Chip, 33pF, SL
CK09	24781330	Chip, 33pF, SL
CK10	24781330	Chip, 33pF, SL
CK12	24781330	Chip, 33pF, SL
CK13	24781330	Chip, 33pF, SL
CK14	24814103	Chip, 0.01μF, +80%, –20%
CK15	24781330	Chip, 33pF, SL
CK16	24781101	Chip, 100pF, SL
CK17	24781330	Chip, 33pF, SL
CK18	24781330	Chip, 33pF, SL
CK19	24814103	Chip, 0.01μF, +80%, –20%
CK20	24794100	EL, 10μF, ±20%, 16V
CK21	24814103	Chip, 0.01μF, +80%, –20%
CK26	24814103	Chip, 0.01μF, +80%, –20%
CK30	24085961	EL, 10μF, ±20%, 50V, Non-Polar
CK31	24085958	EL, 1.0μF, ±20%, 50V, Non-Polar
CK32	24085958	EL, 1.0μF, ±20%, 50V, Non-Polar

Location No.	Part No.	Description
CK50	24795470	EL, 47μF, ±20%, 25V
CK51	24567104	PF, 0.1μF
CK52	24567104	PF, 0.1μF
CK53	24085958	EL, 1.0μF, ±20%, 50V, Non-Polar
CK54	24781561	Chip, 560pF, SL
CK55	24797010	EL, 1μF, ±20%, 50V
CK56	24814103	Chip, 0.01μF, +80%, –20%
CK57	24781681	Chip, 680pF, SL
CK58	24781331	Chip, 330pF, SL
CK60	24567104	PF, 0.1μF
CK61	24781100	Chip, 10pF, ±0.5%, SL
CQ18	24781820	Chip, 82pF, SL
CQ19	24567103	PF, 0.01μF
CQ20	24567104	PF, 0.1μF
CQ21	24794470	EL, 47μF, ±20%, 16V
CQ22	24814103	Chip, 0.01μF, +80%, –20%
CQ23	24567104	PF, 0.1μF
CQ24	24567104	PF, 0.1μF
CQ25	24797100	EL, 10μF, ±20%, 50V
CQ26	24567104	PF, 0.1μF
CQ27	24567104	PF, 0.1μF
CQ28	24797478	EL, 0.47μF, ±20%, 50V
CQ29	24794101	EL, 100μF, ±20%, 16V
CQ30	24814103	Chip, 0.01μF, +80%, –20%
CQ31	24797478	EL, 0.47μF, ±20%, 50V
CQ32	24590103	PF, 0.01μF
CQ33	24567104	PF, 0.1μF
CQ34	24567104	PF, 0.1μF
CQ35	24206478	EL, 0.47μF, 50V
CQ36	24206478	EL, 0.47μF, 50V
CQ37	24669010	EL, 1μF, ±20%, 50V
CQ38	24669010	EL, 1μF, ±20%, 50V
CQ39	24669010	EL, 1μF, ±20%, 50V
CQ61	24781102	Chip, 1000pF, SL
CQ62	24781470	Chip, 47pF, SL
CQ63	24781470	Chip, 47pF, SL
CR01	24567104	PF, 0.1μF
CR01	24206010	EL, 1μF, 50V
CR02	24567104	PF, 0.1μF
CR02	24232103	CD, 0.01μF, +80%, –20%
CR03	24436101	CD, 100pF
CR03	24567104	PF, 0.1μF
CR04	24567104	PF, 0.1μF
CR05	24567104	PF, 0.1μF
CR06	24567104	PF, 0.1μF
CR07	24814103	Chip, 0.01μF, +80%, –20%
CR08	24794100	EL, 10μF, ±20%, 16V
CR09	24538104	PF, 0.1μF
CR09	24814103	Chip, 0.01μF, +80%, –20%
CR10	24794470	EL, 47μF, ±20%, 16V
CR11	24538104	PF, 0.1μF
CR12	24567104	PF, 0.1μF
CR13	24567104	PF, 0.1μF
CR14	24567104	PF, 0.1μF
CR18	24538104	PF, 0.1μF
CR19	24538104	PF, 0.1μF
CR20	24538104	PF, 0.1μF
CS01	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS02	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS03	24206229	EL, 2.2μF, 50V
CS04	24206229	EL, 2.2μF, 50V

Location No.	Part No.	Description
CS05	24206229	EL, 2.2μF, 50V
CS06	24206229	EL, 2.2μF, 50V
CS07	24206229	EL, 2.2μF, 50V
CS08	24206229	EL, 2.2μF, 50V
CS12	24781102	Chip, 1000pF, SL
CS13	24781102	Chip, 1000pF, SL
CS14	24206100	EL, 10μF, 50V
CS15	24206100	EL, 10μF, 50V
CS17	24203100	EL, 10μF, ±20%, 16V
CS18	24203100	EL, 10μF, ±20%, 16V
CS19	24206478	EL, 0.47μF, 50V
CS22	24203100	EL, 10μF, ±20%, 16V
CS23	24203100	EL, 10μF, ±20%, 16V
CV01	24567103	PF, 0.01μF
CV02	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV03	24203100	EL, 10μF, ±20%, 16V
CV04	24203100	EL, 10μF, ±20%, 16V
CV05	24814103	Chip, 0.01μF, +80%, –20%
CV06	24203100	EL, 10μF, ±20%, 16V
CV08	24763102	EL, 1000μF, ±20%, 16V
CV10	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV11	24781331	Chip, 330pF, SL
CV12	24092178	Chip, 0.1μF, ±10%, B
CV13	24814103	Chip, 0.01μF, +80%, –20%
CV14	24781102	Chip, 1000pF, SL
CV15	24781102	Chip, 1000pF, SL
CV16	24781102	Chip, 1000pF, SL
CV17	24781102	Chip, 1000pF, SL
CV18	24781102	Chip, 1000pF, SL
CV19	24781102	Chip, 1000pF, SL
CV20	24781430	Chip, 43pF, ±5%, SL
CV23	24203101	EL, 100μF, ±20%, 16V
CV24	24814103	Chip, 0.01μF, +80%, –20%
CV25	24763471	EL, 470μF, ±20%, 16V
CV31	24781102	Chip, 1000pF, SL
CV34	24781102	Chip, 1000pF, SL
CV35	24814103	Chip, 0.01μF, +80%, –20%
CV37	24781102	Chip, 1000pF, SL
CV39	24203101	EL, 100μF, ±20%, 16V
CV40	24814103	Chip, 0.01μF, +80%, –20%
CV46	24212332	CD, 3300pF, ±10%
CV47	24212332	CD, 3300pF, ±10%
CV48	24212102	CD, 1000pF, ±10%
CV65	24203101	EL, 100μF, ±20%, 16V
CV66	24203101	EL, 100μF, ±20%, 16V
CV67	24763471	EL, 470μF, ±20%, 16V
CV68	24763471	EL, 470μF, ±20%, 16V
CV78	24781390	Chip, 39pF, SL
CX101	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX102	24794470	EL, 47μF, ±20%, 16V
CX103	24092441	Chip, 1μF, +80%, –20%, 16V
CX104	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX105	24774330	Chip, 33pF
CX106	24774220	Chip, 22pF, CH
CX107	24774560	Chip, 56pF, CH
CX108	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX109	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX110	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX111	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX112	24794100	EL, 10μF, ±20%, 16V
CX113	24092293	Chip, 0.1μF, +80%,–20%, 25V

Location No.	Part No.	Description
CX114	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX115	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX116	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX117	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX118	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX119	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX120	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX121	24774330	Chip, 33pF
CX122	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX123	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX124	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX125	24794220	EL, 22μF, ±20%, 16V
CX126	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX127	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX128	24092441	Chip, 1μF, +80%,–20%, 16V
CX129	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX141	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX142	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX143	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX144	24794470	EL, 47μF, ±20%, 16V
CX145	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX146	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX147	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX148	24774101	Chip, 100pF, CH
CX149	24774470	Chip, 47pF, CH
CX150	24774271	Chip, 270pF, CH
CX151	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX152	24794100	EL, 10μF, ±20%, 16V
CX153	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX154	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX155	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX156	24794220	EL, 22μF, ±20%, 16V
CX157	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX158	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX159	24092441	Chip, 1μF, +80%,–20%, 16V
CX160	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX161	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX162	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX163	24085981	EL, 10μF, ±20%, 16V, Non-Polar
CX164	24794470	EL, 47μF, ±20%, 16V
CX165	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX166	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX167	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX168	24774101	Chip, 100pF, CH
CX169	24774470	Chip, 47pF, CH
CX170	24774271	Chip, 270pF, CH
CX171	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX172	24794100	EL, 10μF, ±20%, 16V
CX173	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX174	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX175	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX176	24794220	EL, 22μF, ±20%, 16V
CX177	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX178	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX179	24092441	Chip, 1μF, +80%,–20%, 16V
CX180	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX184	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX185	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX186	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX187	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX188	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX189	24092293	Chip, 0.1μF, +80%,–20%, 25V

Location No.	Part No.	Description
CX190	24774330	Chip, 33pF
CX191	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX192	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX193	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX194	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX201	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX202	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX203	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX204	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX205	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX206	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX207	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX208	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX209	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX210	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX211	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX212	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX213	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX214	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX215	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX216	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX217	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX218	24794471	EL, 470μF, ±20%, 16V
CX221	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX222	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX224	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX225	24794220	EL, 22μF, ±20%, 16V
CX226	24794101	EL, 100μF, ±20%, 16V
CX227	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX228	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX230	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX231	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX232	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX234	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX235	24794100	EL, 10μF, ±20%, 16V
CX236	24794101	EL, 100μF, ±20%, 16V
CX237	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX238	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX239	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX240	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX241	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX242	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX243	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX244	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX245	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX246	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX247	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX248	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX249	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX250	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX251	24794471	EL, 470μF, ±20%, 16V
CX261	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX262	24774470	Chip, 47pF, CH
CX271	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX301	24794100	EL, 10μF, ±20%, 16V
CX302	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX303	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX304	24794100	EL, 10μF, ±20%, 16V
CX305	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX306	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX307	24794100	EL, 10μF, ±20%, 16V
CX308	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX309	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX310	24092293	Chip, 0.1μF, +80%,–20%, 25V

Location No.	Part No.	Description
CX311	24794100	EL, 10μF, ±20%, 16V
CX321	24794100	EL, 10μF, ±20%, 16V
CX322	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX323	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX324	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX325	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX326	24774680	Chip, 68pF
CX328	24774330	Chip, 33pF
CX329	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX330	24794470	EL, 47μF, ±20%, 16V
CX341	24794100	EL, 10μF, ±20%, 16V
CX342	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX343	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX344	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX345	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX346	24774181	Chip, 180pF
CX348	24774181	Chip, 180pF
CX349	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX350	24794470	EL, 47μF, ±20%, 16V
CX361	24794100	EL, 10μF, ±20%, 16V
CX362	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX363	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX364	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX365	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX366	24774181	Chip, 180pF
CX368	24774181	Chip, 180pF
CX369	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX370	24794470	EL, 47μF, ±20%, 16V
CX401	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX402	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX403	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX404	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX405	24794471	EL, 470μF, ±20%, 16V
CX406	24794471	EL, 470μF, ±20%, 16V
CX407	24774220	Chip, 22pF, CH
CX408	24774220	Chip, 22pF, CH
CX409	24774220	Chip, 22pF, CH
CX410	24774220	Chip, 22pF, CH
CX411	24774220	Chip, 22pF, CH
CX412	24774220	Chip, 22pF, CH
CX421	24774221	Chip, 220pF, ±5%, 50V, CH
CX422	24774221	Chip, 220pF, ±5%, 50V, CH
CX423	24774221	Chip, 220pF, ±5%, 50V, CH
CX424	24774221	Chip, 220pF, ±5%, 50V, CH
CX425	24774221	Chip, 220pF, ±5%, 50V, CH
CX427	24774221	Chip, 220pF, ±5%, 50V, CH
CX428	24774330	Chip, 33pF
CX429	24774330	Chip, 33pF
CX430	24774221	Chip, 220pF, ±5%, 50V, CH
CX431	24073020	EL, 1000μF, ±20%, 10V
CX432	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX433	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX434	24092441	Chip, 1μF, +80%,–20%, 16V
CX435	24092293	Chip, 0.1μF, +80%,–20%, 25V
CX436	24092293	Chip, 0.1μF, +80%,–20%, 25V
CZ03	24092442	Chip, 0.47μF, +80%,–20%, 16V
CZ05	24814103	Chip, 0.01μF, +80%,–20%
CZ07	24092178	Chip, 0.1μF, ±10%, B
CZ09	24781220	Chip, 22pF, SL
CZ10	24781100	Chip, 10pF, ±0.5%, SL
CZ11	24781220	Chip, 22pF, SL
CZ12	24814103	Chip, 0.01μF, +80%,–20%
CZ13	24814103	Chip, 0.01μF, +80%,–20%
CZ14	24203100	EL, 10μF, ±20%, 16V

Location No.	Part No.	Description
CZ17	24814103	Chip, 0.01μF, +80%,–20%
CZ19	24781181	Chip, 180pF, SL
CZ20	24815103	Chip, 0.01μF, ±10%, B
CZ21	24781122	Chip, 1200pF
CZ22	24203100	EL, 10μF, ±20%, 16V
CZ23	24814103	Chip, 0.01μF, +80%,–20%
CZ24	24814103	Chip, 0.01μF, +80%,–20%
CZ25	24203100	EL, 10μF, ±20%, 16V
CZ26	24814103	Chip, 0.01μF, +80%,–20%
CZ28	24814103	Chip, 0.01μF, +80%,–20%
CZ29	24814103	Chip, 0.01μF, +80%,–20%
CZ30	24203100	EL, 10μF, ±20%, 16V
CZ31	24092178	Chip, 0.1μF, ±10%, B
CZ32	24781470	Chip, 47pF, SL
CZ33	24781470	Chip, 47pF, SL
CZ34	24781470	Chip, 47pF, SL
CZ35	24781470	Chip, 47pF, SL
CZ45	24781100	Chip, 10pF, ±0.5%, SL

RESISTORS

R101	24366101	CF, 100 ohm
R101	24553223	OMF, 22k ohm, 1W
R102	24366103	CF, 10k ohm
R201	24872821	Chip, 820 ohm, 1/16W
R202	24872102	Chip, 1k ohm, 1/16W
R204	24872104	Chip, 100k ohm, 1/16W
R205	24872101	Chip, 100 ohm, 1/16W
R206	24872471	Chip, 470 ohm, 1/16W
R207	24872103	Chip, 10k ohm, 1/16W
R208	24872103	Chip, 10k ohm, 1/16W
R208	24366103	CF, 10k ohm
R209	24872103	Chip, 10k ohm, 1/16W
R209	24366103	CF, 10k ohm
R210	24872101	Chip, 100 ohm, 1/16W
R211	24366563	CF, 56k ohm
R211	24872101	Chip, 100 ohm, 1/16W
R212	24872101	Chip, 100 ohm, 1/16W
R213	24872681	Chip, 680 ohm, 1/16W
R214	24872681	Chip, 680 ohm, 1/16W
R215	24872681	Chip, 680 ohm, 1/16W
R216	24872103	Chip, 10k ohm, 1/16W
R217	24366392	CF, 3900 ohm
R218	24872101	Chip, 100 ohm, 1/16W
R219	24366473	CF, 47k ohm
R219	24872101	Chip, 100 ohm, 1/16W
R220	24872101	Chip, 100 ohm, 1/16W
R223	24872472	Chip, 4700 ohm, 1/16W
R227	24366223	CF, 22k ohm
R229	24872392	Chip, 3900 ohm, 1/16W
R231	24872222	Chip, 2200 ohm, 1/16W
R235	24872222	Chip, 2200 ohm, 1/16W
R236	24872101	Chip, 100 ohm, 1/16W
R237	24872101	Chip, 100 ohm, 1/16W
R238	24872562	Chip, 5600 ohm, 1/16W
R240	24366102	CF, 1k ohm
R260	24872153	Chip, 15k ohm, 1/16W
R261	24872682	Chip, 6800 ohm, 1/16W
R266	24872102	Chip, 1k ohm, 1/16W
R267	24872222	Chip, 2200 ohm, 1/16W
R268	24872101	Chip, 100 ohm, 1/16W
R269	24872471	Chip, 470 ohm, 1/16W
R273	24872473	Chip, 47k ohm, 1/16W
R274	24872102	Chip, 1k ohm, 1/16W
R275	24872101	Chip, 100 ohm, 1/16W

Location No.	Part No.	Description
R276	24872683	Chip, 68k ohm, 1/16W
R277	24872103	Chip, 10k ohm, 1/16W
R303	24321109	MF, 1 ohm, 1/2W
R305	24322159	OMF, 1.5 ohm, 1W
R306	24366243	CF, 24k ohm
R309	24366303	CF, 30k ohm
R310	24366102	CF, 1k ohm
R312	24366153	CF, 15k ohm
R313	24366153	CF, 15k ohm
R314	24366102	CF, 1k ohm
R315	24872474	Chip, 470k ohm, 1/16W
R315	24366332	CF, 3300 ohm
R317	24366472	CF, 4700 ohm
R321	24366133	CF, 13k ohm
R322	24366102	CF, 1k ohm
R323	24366103	CF, 10k ohm
R324	24366681	CF, 680 ohm
R325	24366103	CF, 10k ohm
R325	24366103	CF, 10k ohm
R327	24339159	MF, 1.5 ohm, 2W
R328	24366471	CF, 470 ohm
R330	24366103	CF, 10k ohm
R336	24383391	OMF, 390 ohm, 2W
R341	24366822	CF, 8200 ohm
R343	24366273	CF, 27k ohm
R344	24382102	OMF, 1k ohm, 1W
R353	24366621	CF, 620 ohm
R360	24872223	Chip, 22k ohm, 1/16W
R364	24872223	Chip, 22k ohm, 1/16W
R365	24872223	Chip, 22k ohm, 1/16W
R366	24872472	Chip, 4700 ohm, 1/16W
R370	24338159	MF, 1.5 ohm, 1W
R371	24366682	CF, 6800 ohm
R372	24366362	CF, 3600 ohm
R373	24366182	CF, 1800 ohm
R374	24366153	CF, 15k ohm
R381	24366103	CF, 10k ohm
R382	24366433	CF, 43k ohm
R383	24366103	CF, 10k ohm
R384	24552100	OMF, 10 ohm, 1/2W
R385	24383101	OMF, 100 ohm, 2W
R399	24366684	CF, 680k ohm
R401	24872391	Chip, 390 ohm, 1/16W
R402	24872102	Chip, 1k ohm, 1/16W
R403	24872392	Chip, 3900 ohm, 1/16W
R405	24553682	OMF, 6800 ohm, 1W
R407	24872103	Chip, 10k ohm, 1/16W
R411	24366180	CF, 18 ohm
R414	24531560	FR, 56 ohm, 1/2W
R415	24553561	OMF, 560 ohm, 1W
R416	24381563	OMF, 56k ohm, 1/2W
R417	24510101	Cement, 100 ohm, 5W
R424	24366152	CF, 1500 ohm
R425	24366182	CF, 1800 ohm
R426	24366751	CF, 750 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24552560	OMF, 56 ohm, 1/2W
R435	24366184	CF, 180k ohm
R441	24383561	OMF, 560 ohm, 2W
R4371	24366684	CF, 680k ohm
R4372	24366153	CF, 15k ohm
R4373	24366101	CF, 100 ohm
R4374	24366101	CF, 100 ohm

Location No.	Part No.	Description
R4375	24366101	CF, 100 ohm
R4378	24366154	CF, 150k ohm
R4379	24366104	CF, 100k ohm
R4385	24366301	CF, 300 ohm
R4386	24366473	CF, 47k ohm
R4387	24366681	CF, 680 ohm
R4403	24366101	CF, 100 ohm
R4404	24366101	CF, 100 ohm
R4406	24366752	CF, 7500 ohm
R4407	24366361	CF, 360 ohm
R4410	24366103	CF, 10k ohm
R4416	24366101	CF, 100 ohm
R4417	24366101	CF, 100 ohm
R4418	24366102	CF, 1k ohm
R4422	24366101	CF, 100 ohm
R4425	24552471	OMF, 470 ohm, 1/2W
R4426	24366152	CF, 1500 ohm
R4460	24872102	Chip, 1k ohm, 1/16W
R4461	24872102	Chip, 1k ohm, 1/16W
R4462	24872133	Chip, 13k ohm, 1/16W
R4463	24872682	Chip, 6800 ohm, 1/16W
R4464	24872223	Chip, 22k ohm, 1/16W
R4472	24872223	Chip, 22k ohm, 1/16W
R4490	24382222	OMF, 2200 ohm, 1W
R4491	24366392	CF, 3900 ohm
R4492	24366103	CF, 10k ohm
R4493	24382104	OMF, 100k ohm, 1W
R445	24321129	MF, 1.2 ohm, 1/2W
R460	24552122	OMF, 1200 ohm, 1/2W
R461	24381123	OMF, 12k ohm, 1/2W
R462	24366333	CF, 33k ohm
R463	24323229	MF, 2.2 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366101	CF, 100 ohm
R466	24366272	CF, 2700 ohm
R467	24327224	MF, 220k ohm, ±1%, 1/4W
R468	24366163	CF, 16k ohm
R469	24000211	FR, 15 ohm, 1/2W
R470	24339568	OMF, 0.56 ohm, 2W
R471	24531271	FR, 270 ohm, 1/2W
R473	24366103	CF, 10k ohm
R474	24366473	CF, 47k ohm
R478	24381333	OMF, 33k ohm, 1/2W
R479	24531680	FR, 68 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366392	CF, 3900 ohm
R482	24366183	CF, 18k ohm
R483	24366223	CF, 22k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R490	24366101	CF, 100 ohm
R491	24366101	CF, 100 ohm
R492	24366472	CF, 4700 ohm
R499	24366101	CF, 100 ohm
R501	24872223	Chip, 22k ohm, 1/16W
R502	24872101	Chip, 100 ohm, 1/16W
R503	24872101	Chip, 100 ohm, 1/16W
R505	24872102	Chip, 1k ohm, 1/16W
R506	24872103	Chip, 10k ohm, 1/16W
R508	24872102	Chip, 1k ohm, 1/16W
R509	24872102	Chip, 1k ohm, 1/16W
R510	24872472	Chip, 4700 ohm, 1/16W
R511	24872101	Chip, 100 ohm, 1/16W
R513	24366472	CF, 4700 ohm

Location No.	Part No.	Description
R514	24366101	CF, 100 ohm
R516	24872101	Chip, 100 ohm, 1/16W
R517	24872101	Chip, 100 ohm, 1/16W
R517	24366102	CF, 1k ohm
R518	24366102	CF, 1k ohm
R518	24872472	Chip, 4700 ohm, 1/16W
R519	24872101	Chip, 100 ohm, 1/16W
R520	24872103	Chip, 10k ohm, 1/16W
R521	24872223	Chip, 22k ohm, 1/16W
R522	24872104	Chip, 100k ohm, 1/16W
R532	24000824	Chip, Jumper, 2125 type
R533	24000824	Chip, Jumper, 2125 type
R534	24000824	Chip, Jumper, 2125 type
R609	24366563	CF, 56k ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R613	24366224	CF, 220k ohm
R615	24366273	CF, 27k ohm
R616	24366333	CF, 33k ohm
R617	24366472	CF, 4700 ohm
R618	24366223	CF, 22k ohm
R619	24366472	CF, 4700 ohm
R620	24366273	CF, 27k ohm
R621	24366273	CF, 27k ohm
R622	24366392	CF, 3900 ohm
R623	24366332	CF, 3300 ohm
R624	24366103	CF, 10k ohm
R625	24366103	CF, 10k ohm
R626	24366562	CF, 5600 ohm
R627	24366102	CF, 1k ohm
R628	24366102	CF, 1k ohm
R634	24366229	CF, 2.2 ohm
R637	24366562	CF, 5600 ohm
R639	24366223	CF, 22k ohm
R640	24366562	CF, 5600 ohm
R641	24366272	CF, 2700 ohm
R642	24366562	CF, 5600 ohm
R643	24366682	CF, 6800 ohm
R644	24366473	CF, 47k ohm
R645	24366229	CF, 2.2 ohm
R646	24366223	CF, 22k ohm
R648	24366229	CF, 2.2 ohm
R649	24366223	CF, 22k ohm
R661	24510159	Cement, 1.5 ohm, 5W
R661	24552221	OMF, 220 ohm, 1/2W
R662	24366104	CF, 100k ohm
R662	24552221	OMF, 220 ohm, 1/2W
R662	24552221	OMF, 220 ohm, 1/2W
R670	24366562	CF, 5600 ohm
R671	24366182	CF, 1800 ohm
R671	24366102	CF, 1k ohm
R672	24366102	CF, 1k ohm
R672	24366562	CF, 5600 ohm
R673	24366102	CF, 1k ohm
R673	24366182	CF, 1800 ohm
R674	24366152	CF, 1500 ohm
R674	24366102	CF, 1k ohm
R675	24366153	CF, 15k ohm
R676	24366223	CF, 22k ohm
R676	24872223	Chip, 22k ohm, 1/16W
R677	24366223	CF, 22k ohm
R677	24872223	Chip, 22k ohm, 1/16W
R678	24872223	Chip, 22k ohm, 1/16W

Location No.	Part No.	Description
R679	24872223	Chip, 22k ohm, 1/16W
R680	24872223	Chip, 22k ohm, 1/16W
R681	24872223	Chip, 22k ohm, 1/16W
R682	24366104	CF, 100k ohm
R683	24366273	CF, 27k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R686	24366229	CF, 2.2 ohm
R687	24366222	CF, 2200 ohm
R688	24366222	CF, 2200 ohm
R689	24366104	CF, 100k ohm
R690	24872681	Chip, 680 ohm, 1/16W
R691	24872681	Chip, 680 ohm, 1/16W
R692	24872681	Chip, 680 ohm, 1/16W
R693	24872681	Chip, 680 ohm, 1/16W
R702	24552221	OMF, 220 ohm, 1/2W
R712	24366101	CF, 100 ohm
R715	24366223	CF, 22k ohm
R716	24366273	CF, 27k ohm
R717	24366333	CF, 33k ohm
R718	24366681	CF, 680 ohm
R722	24552471	OMF, 470 ohm, 1/2W
R723	24366101	CF, 100 ohm
R724	24366151	CF, 150 ohm
R725	24366821	CF, 820 ohm
R730	24552100	OMF, 10 ohm, 1/2W
R731	24553331	OMF, 330 ohm, 1W
R732	24366220	CF, 22 ohm
R733	24366683	CF, 68k ohm
R734	24366220	CF, 22 ohm
R735	24366683	CF, 68k ohm
R736	24366470	CF, 47 ohm
R737	24366681	CF, 680 ohm
R738	24366123	CF, 12k ohm
R739	24366681	CF, 680 ohm
R740	24366470	CF, 47 ohm
R741	24366229	CF, 2.2 ohm
R742	24366229	CF, 2.2 ohm
R743	24554101	OMF, 100 ohm, 2W
R744	24366122	CF, 1200 ohm
R745	24366122	CF, 1200 ohm
⚠R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W
R803	24383333	OMF, 33k ohm, 2W
R804	24366334	CF, 330k ohm
R805	24366681	CF, 680 ohm
R807	24366334	CF, 330k ohm
R808	24019340	PTC Thermistor, 18 ohm
R809	24366393	CF, 39k ohm
R810	24007863	Cement, 3.3 ohm, 15W
R811	24568271	Cement, 270 ohm, 7W
R814	24366682	CF, 6800 ohm
R815	24366332	CF, 3300 ohm
R818	24019460	MF, 0.1 ohm, 2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24552682	OMF, 6800 ohm, 1/2W
R824	24569689	Cement, 6.8 ohm, 10W
R827	24366681	CF, 680 ohm
R828	24366821	CF, 820 ohm
R829	24321338	MF, 0.33 ohm, 1/2W
R831	24366471	CF, 470 ohm
R832	24366472	CF, 4700 ohm
R833	24366222	CF, 2200 ohm

Location No.	Part No.	Description
R834	24366471	CF, 470 ohm
R841	24531120	FR, 12 ohm, 1/2W
R842	24552392	OMF, 3900 ohm, 1/2W
R846	24366101	CF, 100 ohm
R847	24366472	CF, 4700 ohm
R849	24366471	CF, 470 ohm
R890	24553333	OMF, 33k ohm, 1W
⚠R899	24005007	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376561	CF, 560 ohm, 1/2W
R902	24376561	CF, 560 ohm, 1/2W
R903	24376561	CF, 560 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R909	24366100	CF, 10 ohm
R912	24366102	CF, 1k ohm
R914	24366331	CF, 330 ohm
R915	24366680	CF, 68 ohm
R916	24366180	CF, 18 ohm
R917	24366471	CF, 470 ohm
R918	24366180	CF, 18 ohm
R919	24366102	CF, 1k ohm
R920	24000880	FR, 5.1 ohm, 1W
R921	24366331	CF, 330 ohm
R922	24366680	CF, 68 ohm
R923	24366152	CF, 1500 ohm
R924	24366180	CF, 18 ohm
R925	24366471	CF, 470 ohm
R926	24366102	CF, 1k ohm
R927	24366102	CF, 1k ohm
R928	24366331	CF, 330 ohm
R929	24366680	CF, 68 ohm
R930	24366180	CF, 18 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366361	CF, 360 ohm
R935	24366102	CF, 1k ohm
R936	24366750	CF, 75 ohm
R937	24366471	CF, 470 ohm
R939	24366470	CF, 47 ohm
R941	24366471	CF, 470 ohm
R942	24366392	CF, 3900 ohm
R943	24366392	CF, 3900 ohm
R944	24366392	CF, 3900 ohm
R945	24366180	CF, 18 ohm
R946	24366180	CF, 18 ohm
R947	24366561	CF, 560 ohm
R948	24366822	CF, 8200 ohm
R949	24366271	CF, 270 ohm
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R962	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R965	24383153	OMF, 15k ohm, 2W
R966	24383153	OMF, 15k ohm, 2W
R967	24383153	OMF, 15k ohm, 2W
R968	24383153	OMF, 15k ohm, 2W
R969	24366682	CF, 6800 ohm
R970	24366682	CF, 6800 ohm
R971	24366682	CF, 6800 ohm
R972	24366152	CF, 1500 ohm
R973	24366103	CF, 10k ohm
R974	24366103	CF, 10k ohm

Location No.	Part No.	Description
R975	24366103	CF, 10k ohm
R976	24366152	CF, 1500 ohm
R977	24366561	CF, 560 ohm
R978	24366182	CF, 1800 ohm
R979	24366272	CF, 2700 ohm
R980	24366471	CF, 470 ohm
R981	24366471	CF, 470 ohm
R982	24366682	CF, 6800 ohm
R983	24366222	CF, 2200 ohm
R984	24366821	CF, 820 ohm
R985	24367471	CF, 470 ohm, ±2%
R986	24367681	CF, 680 ohm, ±2%
R987	24367681	CF, 680 ohm, ±2%
R988	24367472	CF, 4700 ohm, ±2%
R989	24367472	CF, 4700 ohm, ±2%
R990	24366561	CF, 560 ohm
R991	24367391	CF, 390 ohm, ±2%
R992	24366150	CF, 15 ohm
R994	24366331	CF, 330 ohm
R995	24366561	CF, 560 ohm
R996	24366222	CF, 2200 ohm
R997	24366102	CF, 1k ohm
R999	24366102	CF, 1k ohm
RA02	24366102	CF, 1k ohm
RA03	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA10	24366101	CF, 100 ohm
RA12	24366472	CF, 4700 ohm
RA13	24366153	CF, 15k ohm
RA14	24366153	CF, 15k ohm
RA15	24366103	CF, 10k ohm
RA16	24366102	CF, 1k ohm
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA19	24366331	CF, 330 ohm
RA20	24366331	CF, 330 ohm
RA21	24366331	CF, 330 ohm
RA22	24366331	CF, 330 ohm
RA23	24366472	CF, 4700 ohm
RA24	24366472	CF, 4700 ohm
RA26	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA29	24366104	CF, 100k ohm
RA29	24366102	CF, 1k ohm
RA30	24366103	CF, 10k ohm
RA30	24366102	CF, 1k ohm
RA31	24366561	CF, 560 ohm
RA33	24366103	CF, 10k ohm
RA35	24366102	CF, 1k ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA40	24366331	CF, 330 ohm
RA41	24366273	CF, 27k ohm
RA43	24366102	CF, 1k ohm
RA44	24366103	CF, 10k ohm
RA46	24366103	CF, 10k ohm
RA47	24366103	CF, 10k ohm
RA48	24366103	CF, 10k ohm
RA65	24366103	CF, 10k ohm
RA66	24366103	CF, 10k ohm
RA67	24366472	CF, 4700 ohm

Location No.	Part No.	Description
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RA77	24366223	CF, 22k ohm
RA78	24366102	CF, 1k ohm
RA78	24366683	CF, 68k ohm
RA91	24366223	CF, 22k ohm
RB01	24366271	CF, 270 ohm
RB02	24366271	CF, 270 ohm
RB03	24366223	CF, 22k ohm
RB03	24366101	CF, 100 ohm
RB04	24366223	CF, 22k ohm
RB06	24366271	CF, 270 ohm
RB07	24366271	CF, 270 ohm
RB09	24366470	CF, 47 ohm
RB10	24366101	CF, 100 ohm
RB11	24366103	CF, 10k ohm
RB30	24366103	CF, 10k ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RB81	24366122	CF, 1200 ohm
RB82	24366123	CF, 12k ohm
RB83	24366123	CF, 12k ohm
RB84	24366562	CF, 5600 ohm
RB90	24366392	CF, 3900 ohm
RB91	24366473	CF, 47k ohm
RB92	24366271	CF, 270 ohm
RB93	24366271	CF, 270 ohm
RB94	24366222	CF, 2200 ohm
RB95	24366222	CF, 2200 ohm
RB96	24366273	CF, 27k ohm
RB97	24366273	CF, 27k ohm
RB98	24366102	CF, 1k ohm
RD08	24366102	CF, 1k ohm
RD10	24366102	CF, 1k ohm
RD14	24366102	CF, 1k ohm
RD15	24366102	CF, 1k ohm
RD16	24366333	CF, 33k ohm
RD28	24366102	CF, 1k ohm
RD30	24366223	CF, 22k ohm
RD31	24366103	CF, 10k ohm
RD85	24366151	CF, 150 ohm
RD87	24366151	CF, 150 ohm
RD88	24366222	CF, 2200 ohm
RD89	24366151	CF, 150 ohm
RF01	24872222	Chip, 2200 ohm, 1/16W
RF02	24366393	CF, 39k ohm
RF02	24366393	CF, 39k ohm
RF04	24872472	Chip, 4700 ohm, 1/16W
RF06	24872102	Chip, 1k ohm, 1/16W
RF08	24872100	Chip, 10 ohm, 1/16W
RF09	24872100	Chip, 10 ohm, 1/16W
RF10	24872100	Chip, 10 ohm, 1/16W
RF11	24872103	Chip, 10k ohm, 1/16W
RF12	24872101	Chip, 100 ohm, 1/16W
RF13	24872101	Chip, 100 ohm, 1/16W
RF14	24872101	Chip, 100 ohm, 1/16W
RF15	24872103	Chip, 10k ohm, 1/16W
RF16	24872471	Chip, 470 ohm, 1/16W
RF20	24872222	Chip, 2200 ohm, 1/16W

Location No.	Part No.	Description
RF21	24872471	Chip, 470 ohm, 1/16W
RF22	24872471	Chip, 470 ohm, 1/16W
RF26	24872102	Chip, 1k ohm, 1/16W
RJ02	24872101	Chip, 100 ohm, 1/16W
RK01	24872102	Chip, 1k ohm, 1/16W
RK03	24872101	Chip, 100 ohm, 1/16W
RK09	24872102	Chip, 1k ohm, 1/16W
RK11	24872102	Chip, 1k ohm, 1/16W
RK12	24872102	Chip, 1k ohm, 1/16W
RK13	24872472	Chip, 4700 ohm, 1/16W
RK14	24872102	Chip, 1k ohm, 1/16W
RK15	24872103	Chip, 10k ohm, 1/16W
RK16	24872101	Chip, 100 ohm, 1/16W
RK17	24872101	Chip, 100 ohm, 1/16W
RK23	24872472	Chip, 4700 ohm, 1/16W
RK25	24872103	Chip, 10k ohm, 1/16W
RK30	24872101	Chip, 100 ohm, 1/16W
RK31	24872103	Chip, 10k ohm, 1/16W
RK32	24872333	Chip, 33k ohm, 1/16W
RK33	24872223	Chip, 22k ohm, 1/16W
RK34	24872101	Chip, 100 ohm, 1/16W
RK35	24872102	Chip, 1k ohm, 1/16W
RK36	24872333	Chip, 33k ohm, 1/16W
RK37	24872223	Chip, 22k ohm, 1/16W
RK38	24872101	Chip, 100 ohm, 1/16W
RK39	24872102	Chip, 1k ohm, 1/16W
RK40	24872103	Chip, 10k ohm, 1/16W
RK41	24872103	Chip, 10k ohm, 1/16W
RK43	24872223	Chip, 22k ohm, 1/16W
RK51	24872101	Chip, 100 ohm, 1/16W
RK52	24872101	Chip, 100 ohm, 1/16W
RK53	24872101	Chip, 100 ohm, 1/16W
RK54	24872103	Chip, 10k ohm, 1/16W
RK55	24872102	Chip, 1k ohm, 1/16W
RK56	24872561	Chip, 560 ohm, 1/16W
RK57	24872102	Chip, 1k ohm, 1/16W
RK58	24872153	Chip, 15k ohm, 1/16W
RK59	24872101	Chip, 100 ohm, 1/16W
RK60	24872223	Chip, 22k ohm, 1/16W
RK61	24872822	Chip, 8200 ohm, 1/16W
RK62	24872103	Chip, 10k ohm, 1/16W
RK63	24872103	Chip, 10k ohm, 1/16W
RK64	24872103	Chip, 10k ohm, 1/16W
RK65	24872103	Chip, 10k ohm, 1/16W
RK66	24872103	Chip, 10k ohm, 1/16W
RK67	24872102	Chip, 1k ohm, 1/16W
RK68	24872563	Chip, 56k ohm, 1/16W
RK69	24872392	Chip, 3900 ohm, 1/16W
RK70	24872472	Chip, 4700 ohm, 1/16W
RK71	24872272	Chip, 2700 ohm, 1/16W
RK72	24872822	Chip, 8200 ohm, 1/16W
RK73	24872822	Chip, 8200 ohm, 1/16W
RK74	24872222	Chip, 2200 ohm, 1/16W
RK76	24872102	Chip, 1k ohm, 1/16W
RK79	24872822	Chip, 8200 ohm, 1/16W
RK80	24872472	Chip, 4700 ohm, 1/16W
RK81	24872222	Chip, 2200 ohm, 1/16W
RK82	24872472	Chip, 4700 ohm, 1/16W
RK83	24872472	Chip, 4700 ohm, 1/16W
RQ07	24872103	Chip, 10k ohm, 1/16W
RQ08	24872102	Chip, 1k ohm, 1/16W
RQ09	24872102	Chip, 1k ohm, 1/16W
RQ10	24872102	Chip, 1k ohm, 1/16W
RQ11	24872561	Chip, 560 ohm, 1/16W

Location No.	Part No.	Description
RQ12	24872561	Chip, 560 ohm, 1/16W
RQ20	24872563	Chip, 56k ohm, 1/16W
RR01	24366102	CF, 1k ohm
RR01	24872181	Chip, 180 ohm, 1/16W
RR02	24366104	CF, 100k ohm
RR02	24872181	Chip, 180 ohm, 1/16W
RR03	24366222	CF, 2200 ohm
RR03	24872181	Chip, 180 ohm, 1/16W
RR04	24872102	Chip, 1k ohm, 1/16W
RR04	24366101	CF, 100 ohm
RR05	24872102	Chip, 1k ohm, 1/16W
RR05	24366102	CF, 1k ohm
RR06	24000824	Chip, Jumper, 2125 type
RR06	24366223	CF, 22k ohm
RR07	24366152	CF, 1500 ohm
RR07	24000824	Chip, Jumper, 2125 type
RR08	24366332	CF, 3300 ohm
RR09	24000824	Chip, Jumper, 2125 type
RR09	24366222	CF, 2200 ohm
RR10	24872103	Chip, 10k ohm, 1/16W
RR10	24366102	CF, 1k ohm
RR11	24872473	Chip, 47k ohm, 1/16W
RR11	24366681	CF, 680 ohm
RR12	24872102	Chip, 1k ohm, 1/16W
RR12	24366152	CF, 1500 ohm
RR13	24366152	CF, 1500 ohm
RR13	24872622	Chip, 6200 ohm, 1/16W
RR15	24366391	CF, 390 ohm
RR16	24366391	CF, 390 ohm
RR17	24366391	CF, 390 ohm
RR18	24366102	CF, 1k ohm
RR20	24872103	Chip, 10k ohm, 1/16W
RR22	24366103	CF, 10k ohm
RR23	24366103	CF, 10k ohm
RR24	24000824	Chip, Jumper, 2125 type
RR25	24872102	Chip, 1k ohm, 1/16W
RR28	24872473	Chip, 47k ohm, 1/16W
RR29	24872473	Chip, 47k ohm, 1/16W
RR32	24872331	Chip, 330 ohm, 1/16W
RR33	24872331	Chip, 330 ohm, 1/16W
RR34	24872331	Chip, 330 ohm, 1/16W
RR35	24366392	CF, 3900 ohm
RR36	24366392	CF, 3900 ohm
RR37	24366392	CF, 3900 ohm
RR40	24366102	CF, 1k ohm
RR41	24366332	CF, 3300 ohm
RR48	24366102	CF, 1k ohm
RR99	24366152	CF, 1500 ohm
RS01	24872681	Chip, 680 ohm, 1/16W
RS02	24872681	Chip, 680 ohm, 1/16W
RS03	24872101	Chip, 100 ohm, 1/16W
RS04	24872101	Chip, 100 ohm, 1/16W
RS05	24872472	Chip, 4700 ohm, 1/16W
RS06	24872472	Chip, 4700 ohm, 1/16W
RS07	24872472	Chip, 4700 ohm, 1/16W
RS08	24872472	Chip, 4700 ohm, 1/16W
RS09	24872472	Chip, 4700 ohm, 1/16W
RS10	24872472	Chip, 4700 ohm, 1/16W
RS13	24872101	Chip, 100 ohm, 1/16W
RS14	24872101	Chip, 100 ohm, 1/16W
RS15	24872104	Chip, 100k ohm, 1/16W
RS16	24872104	Chip, 100k ohm, 1/16W
RS17	24872223	Chip, 22k ohm, 1/16W
RS18	24872223	Chip, 22k ohm, 1/16W

Location No.	Part No.	Description
RS19	24872102	Chip, 1k ohm, 1/16W
RS20	24872102	Chip, 1k ohm, 1/16W
RS21	24872222	Chip, 2200 ohm, 1/16W
RS22	24872222	Chip, 2200 ohm, 1/16W
RS23	24872101	Chip, 100 ohm, 1/16W
RS24	24872101	Chip, 100 ohm, 1/16W
RS27	24872104	Chip, 100k ohm, 1/16W
RS28	24872104	Chip, 100k ohm, 1/16W
RS29	24872223	Chip, 22k ohm, 1/16W
RS30	24872223	Chip, 22k ohm, 1/16W
RS31	24872103	Chip, 10k ohm, 1/16W
RS32	24872104	Chip, 100k ohm, 1/16W
RS35	24872223	Chip, 22k ohm, 1/16W
RS36	24872223	Chip, 22k ohm, 1/16W
RS37	24872104	Chip, 100k ohm, 1/16W
RS38	24872104	Chip, 100k ohm, 1/16W
RS43	24872681	Chip, 680 ohm, 1/16W
RS44	24872681	Chip, 680 ohm, 1/16W
RS45	24872681	Chip, 680 ohm, 1/16W
RS46	24872681	Chip, 680 ohm, 1/16W
RV01	24872101	Chip, 100 ohm, 1/16W
RV02	24872101	Chip, 100 ohm, 1/16W
RV03	24872101	Chip, 100 ohm, 1/16W
RV04	24872101	Chip, 100 ohm, 1/16W
RV05	24872101	Chip, 100 ohm, 1/16W
RV06	24872101	Chip, 100 ohm, 1/16W
RV07	24872162	Chip, 1600 ohm, 1/16W
RV08	24872162	Chip, 1600 ohm, 1/16W
RV09	24872101	Chip, 100 ohm, 1/16W
RV10	24872101	Chip, 100 ohm, 1/16W
RV12	24872681	Chip, 680 ohm, 1/16W
RV13	24872681	Chip, 680 ohm, 1/16W
RV16	24872271	Chip, 270 ohm, 1/16W
RV18	24872123	Chip, 12k ohm, 1/16W
RV19	24872101	Chip, 100 ohm, 1/16W
RV22	24366222	CF, 2200 ohm
RV23	24366101	CF, 100 ohm
RV23	24552101	OMF, 100 ohm, 1/2W
RV24	24366181	CF, 180 ohm
RV25	24872101	Chip, 100 ohm, 1/16W
RV26	24366181	CF, 180 ohm
RV27	24872750	Chip, 75 ohm, 1/16W
RV28	24872683	Chip, 68k ohm, 1/16W
RV29	24872273	Chip, 27k ohm, 1/16W
RV30	24872750	Chip, 75 ohm, 1/16W
RV31	24872750	Chip, 75 ohm, 1/16W
RV32	24872750	Chip, 75 ohm, 1/16W
RV33	24872123	Chip, 12k ohm, 1/16W
RV34	24872123	Chip, 12k ohm, 1/16W
RV35	24872103	Chip, 10k ohm, 1/16W
RV36	24872101	Chip, 100 ohm, 1/16W
RV37	24872750	Chip, 75 ohm, 1/16W
RV60	24872332	Chip, 3300 ohm, 1/16W
RV61	24552101	OMF, 100 ohm, 1/2W
RV62	24872101	Chip, 100 ohm, 1/16W
RV63	24366151	CF, 150 ohm
RV64	24872750	Chip, 75 ohm, 1/16W
RV65	24552101	OMF, 100 ohm, 1/2W
RV66	24872750	Chip, 75 ohm, 1/16W
RV67	24366151	CF, 150 ohm
RV68	24872101	Chip, 100 ohm, 1/16W
RV70	24872101	Chip, 100 ohm, 1/16W
RV71	24872472	Chip, 4700 ohm, 1/16W
RV73	24872103	Chip, 10k ohm, 1/16W

Location No.	Part No.	Description
RV74	24872104	Chip, 100k ohm, 1/16W
RV78	24872100	Chip, 10 ohm, 1/16W
RV79	24872471	Chip, 470 ohm, 1/16W
RV80	24366681	CF, 680 ohm
RV80	24872271	Chip, 270 ohm, 1/16W
RV81	24872750	Chip, 75 ohm, 1/16W
RV82	24872101	Chip, 100 ohm, 1/16W
RV83	24366681	CF, 680 ohm
RV85	24872750	Chip, 75 ohm, 1/16W
RV86	24872750	Chip, 75 ohm, 1/16W
RV87	24872750	Chip, 75 ohm, 1/16W
RV89	24872750	Chip, 75 ohm, 1/16W
RV90	24872681	Chip, 680 ohm, 1/16W
RV91	24872681	Chip, 680 ohm, 1/16W
RV92	24872100	Chip, 10 ohm, 1/16W
RV93	24872104	Chip, 100k ohm, 1/16W
RV94	24872103	Chip, 10k ohm, 1/16W
RV95	24872472	Chip, 4700 ohm, 1/16W
RV97	24872101	Chip, 100 ohm, 1/16W
RX101	24872220	Chip, 22 ohm, 1/16W
RX102	24872681	Chip, 680 ohm, 1/16W
RX103	24872221	Chip, 220 ohm, 1/16W
RX104	24872821	Chip, 820 ohm, 1/16W
RX106	24872331	Chip, 330 ohm, 1/16W
RX107	24872221	Chip, 220 ohm, 1/16W
RX108	24872680	Chip, 68 ohm, 1/16W
RX109	24872331	Chip, 330 ohm, 1/16W
RX110	24872821	Chip, 820 ohm, 1/16W
RX111	24872121	Chip, 120 ohm, 1/16W
RX112	24872100	Chip, 10 ohm, 1/16W
RX113	24872471	Chip, 470 ohm, 1/16W
RX114	24872681	Chip, 680 ohm, 1/16W
RX115	24872105	Chip, 1M ohm, 1/16W
RX141	24872220	Chip, 22 ohm, 1/16W
RX142	24872471	Chip, 470 ohm, 1/16W
RX143	24872153	Chip, 15k ohm, 1/16W
RX144	24872103	Chip, 10k ohm, 1/16W
RX145	24872331	Chip, 330 ohm, 1/16W
RX146	24872301	Chip, 300 ohm, 1/16W
RX147	24872681	Chip, 680 ohm, 1/16W
RX148	24872103	Chip, 10k ohm, 1/16W
RX149	24872103	Chip, 10k ohm, 1/16W
RX150	24872100	Chip, 10 ohm, 1/16W
RX151	24872102	Chip, 1k ohm, 1/16W
RX152	24872331	Chip, 330 ohm, 1/16W
RX155	24872102	Chip, 1k ohm, 1/16W
RX156	24872331	Chip, 330 ohm, 1/16W
RX157	24872471	Chip, 470 ohm, 1/16W
RX158	24872471	Chip, 470 ohm, 1/16W
RX161	24872220	Chip, 22 ohm, 1/16W
RX162	24872471	Chip, 470 ohm, 1/16W
RX163	24872153	Chip, 15k ohm, 1/16W
RX164	24872103	Chip, 10k ohm, 1/16W
RX165	24872331	Chip, 330 ohm, 1/16W
RX166	24872301	Chip, 300 ohm, 1/16W
RX167	24872681	Chip, 680 ohm, 1/16W
RX168	24872103	Chip, 10k ohm, 1/16W
RX169	24872103	Chip, 10k ohm, 1/16W
RX170	24872100	Chip, 10 ohm, 1/16W
RX171	24872102	Chip, 1k ohm, 1/16W
RX172	24872331	Chip, 330 ohm, 1/16W
RX175	24872102	Chip, 1k ohm, 1/16W
RX176	24872331	Chip, 330 ohm, 1/16W
RX177	24872471	Chip, 470 ohm, 1/16W

Location No.	Part No.	Description
RX178	24872471	Chip, 470 ohm, 1/16W
RX181	24872680	Chip, 68 ohm, 1/16W
RX185	24872100	Chip, 10 ohm, 1/16W
RX186	24000824	Chip, Jumper, 2125 type
RX201	24872103	Chip, 10k ohm, 1/16W
RX202	24872103	Chip, 10k ohm, 1/16W
RX203	24872103	Chip, 10k ohm, 1/16W
RX204	24000824	Chip, Jumper, 2125 type
RX205	24019439	Chip, 47 ohm, 1/16W
RX206	24019439	Chip, 47 ohm, 1/16W
RX207	24019439	Chip, 47 ohm, 1/16W
RX208	24019439	Chip, 47 ohm, 1/16W
RX209	24019439	Chip, 47 ohm, 1/16W
RX210	24019439	Chip, 47 ohm, 1/16W
RX211	24019439	Chip, 47 ohm, 1/16W
RX212	24019439	Chip, 47 ohm, 1/16W
RX213	24872103	Chip, 10k ohm, 1/16W
RX214	24872103	Chip, 10k ohm, 1/16W
RX215	24872103	Chip, 10k ohm, 1/16W
RX221	24000824	Chip, Jumper, 2125 type
RX222	24872100	Chip, 10 ohm, 1/16W
RX223	24872100	Chip, 10 ohm, 1/16W
RX225	24872151	Chip, 150 ohm, 1/16W
RX226	24872331	Chip, 330 ohm, 1/16W
RX229	24872332	Chip, 3300 ohm, 1/16W
RX230	24872103	Chip, 10k ohm, 1/16W
RX231	24000824	Chip, Jumper, 2125 type
RX232	24872100	Chip, 10 ohm, 1/16W
RX233	24872100	Chip, 10 ohm, 1/16W
RX235	24872102	Chip, 1k ohm, 1/16W
RX236	24872472	Chip, 4700 ohm, 1/16W
RX237	24872681	Chip, 680 ohm, 1/16W
RX240	24872272	Chip, 2700 ohm, 1/16W
RX251	24872470	Chip, 47 ohm, 1/16W
RX252	24872470	Chip, 47 ohm, 1/16W
RX253	24872470	Chip, 47 ohm, 1/16W
RX254	24872470	Chip, 47 ohm, 1/16W
RX255	24872470	Chip, 47 ohm, 1/16W
RX256	24000824	Chip, Jumper, 2125 type
RX258	24000824	Chip, Jumper, 2125 type
RX259	24000824	Chip, Jumper, 2125 type
RX261	24872101	Chip, 100 ohm, 1/16W
RX263	24872101	Chip, 100 ohm, 1/16W
RX271	24872103	Chip, 10k ohm, 1/16W
RX272	24872103	Chip, 10k ohm, 1/16W
RX273	24872103	Chip, 10k ohm, 1/16W
RX281	24019439	Chip, 47 ohm, 1/16W
RX282	24872470	Chip, 47 ohm, 1/16W
RX283	24872470	Chip, 47 ohm, 1/16W
RX284	24872332	Chip, 3300 ohm, 1/16W
RX285	24872470	Chip, 47 ohm, 1/16W
RX286	24872470	Chip, 47 ohm, 1/16W
RX287	24872470	Chip, 47 ohm, 1/16W
RX288	24872470	Chip, 47 ohm, 1/16W
RX289	24872470	Chip, 47 ohm, 1/16W
RX301	24872151	Chip, 150 ohm, 1/16W
RX302	24872272	Chip, 2700 ohm, 1/16W
RX303	24872151	Chip, 150 ohm, 1/16W
RX304	24872272	Chip, 2700 ohm, 1/16W
RX305	24872151	Chip, 150 ohm, 1/16W
RX306	24872272	Chip, 2700 ohm, 1/16W
RX307	24872222	Chip, 2200 ohm, 1/16W
RX308	24872242	Chip, 2400 ohm, 1/16W
RX309	24872122	Chip, 1200 ohm, 1/16W

Location No.	Part No.	Description
RX310	24872122	Chip, 1200 ohm, 1/16W
RX311	24872122	Chip, 1200 ohm, 1/16W
RX321	24872153	Chip, 15k ohm, 1/16W
RX322	24872103	Chip, 10k ohm, 1/16W
RX323	24872103	Chip, 10k ohm, 1/16W
RX324	24872103	Chip, 10k ohm, 1/16W
RX325	24000824	Chip, Jumper, 2125 type
RX326	24872331	Chip, 330 ohm, 1/16W
RX327	24872471	Chip, 470 ohm, 1/16W
RX328	24872681	Chip, 680 ohm, 1/16W
RX329	24872100	Chip, 10 ohm, 1/16W
RX330	24872102	Chip, 1k ohm, 1/16W
RX331	24872151	Chip, 150 ohm, 1/16W
RX332	24872102	Chip, 1k ohm, 1/16W
RX334	24872681	Chip, 680 ohm, 1/16W
RX335	24872220	Chip, 22 ohm, 1/16W
RX341	24872153	Chip, 15k ohm, 1/16W
RX342	24872103	Chip, 10k ohm, 1/16W
RX343	24872103	Chip, 10k ohm, 1/16W
RX344	24872103	Chip, 10k ohm, 1/16W
RX345	24000824	Chip, Jumper, 2125 type
RX346	24872331	Chip, 330 ohm, 1/16W
RX347	24872471	Chip, 470 ohm, 1/16W
RX348	24872681	Chip, 680 ohm, 1/16W
RX349	24872100	Chip, 10 ohm, 1/16W
RX350	24872102	Chip, 1k ohm, 1/16W
RX351	24872121	Chip, 120 ohm, 1/16W
RX352	24872681	Chip, 680 ohm, 1/16W
RX354	24872681	Chip, 680 ohm, 1/16W
RX355	24872220	Chip, 22 ohm, 1/16W
RX361	24872153	Chip, 15k ohm, 1/16W
RX362	24872103	Chip, 10k ohm, 1/16W
RX363	24872103	Chip, 10k ohm, 1/16W
RX364	24872103	Chip, 10k ohm, 1/16W
RX365	24000824	Chip, Jumper, 2125 type
RX366	24872331	Chip, 330 ohm, 1/16W
RX367	24872471	Chip, 470 ohm, 1/16W
RX368	24872681	Chip, 680 ohm, 1/16W
RX369	24872100	Chip, 10 ohm, 1/16W
RX370	24872102	Chip, 1k ohm, 1/16W
RX371	24872121	Chip, 120 ohm, 1/16W
RX372	24872681	Chip, 680 ohm, 1/16W
RX374	24872681	Chip, 680 ohm, 1/16W
RX375	24872220	Chip, 22 ohm, 1/16W
RX401	24000824	Chip, Jumper, 2125 type
RX402	24872101	Chip, 100 ohm, 1/16W
RX403	24000824	Chip, Jumper, 2125 type
RX404	24872101	Chip, 100 ohm, 1/16W
RX405	24000824	Chip, Jumper, 2125 type
RX406	24872101	Chip, 100 ohm, 1/16W
RX407	24000824	Chip, Jumper, 2125 type
RX408	24872101	Chip, 100 ohm, 1/16W
RX409	24000824	Chip, Jumper, 2125 type
RX410	24872101	Chip, 100 ohm, 1/16W
RX411	24000824	Chip, Jumper, 2125 type
RX412	24872101	Chip, 100 ohm, 1/16W
RX421	24872221	Chip, 220 ohm, 1/16W
RX422	24872221	Chip, 220 ohm, 1/16W
RX423	24872221	Chip, 220 ohm, 1/16W
RX424	24872221	Chip, 220 ohm, 1/16W
RX425	24872221	Chip, 220 ohm, 1/16W
RX427	24872221	Chip, 220 ohm, 1/16W
RX428	24872221	Chip, 220 ohm, 1/16W
RX429	24872221	Chip, 220 ohm, 1/16W

Location No.	Part No.	Description
RX430	24872221	Chip, 220 ohm, 1/16W
RX431	24547688	FR, 0.68 ohm, 1W
RX432	24871181	Chip, 180 ohm, 1/8W
RZ01	24872102	Chip, 1k ohm, 1/16W
RZ02	24872102	Chip, 1k ohm, 1/16W
RZ03	24872332	Chip, 3300 ohm, 1/16W
RZ04	24872102	Chip, 1k ohm, 1/16W
RZ05	24872221	Chip, 220 ohm, 1/16W
RZ06	24872821	Chip, 820 ohm, 1/16W
RZ07	24872101	Chip, 100 ohm, 1/16W
RZ08	24872471	Chip, 470 ohm, 1/16W
RZ09	24872101	Chip, 100 ohm, 1/16W
RZ10	24872222	Chip, 2200 ohm, 1/16W
RZ11	24872101	Chip, 100 ohm, 1/16W
RZ12	24872122	Chip, 1200 ohm, 1/16W
RZ13	24872102	Chip, 1k ohm, 1/16W
RZ14	24872102	Chip, 1k ohm, 1/16W
RZ15	24872102	Chip, 1k ohm, 1/16W
RZ17	24872221	Chip, 220 ohm, 1/16W
RZ18	24872471	Chip, 470 ohm, 1/16W
RZ19	24872102	Chip, 1k ohm, 1/16W
RZ20	24872101	Chip, 100 ohm, 1/16W
RZ22	24872222	Chip, 2200 ohm, 1/16W
RZ29	24872331	Chip, 330 ohm, 1/16W
RZ30	24872331	Chip, 330 ohm, 1/16W

COILS & TRANSFORMERS

L101	23221803	Coil, Choke, TLN3040D
L200	23289479	Coil, Peaking, TRF44R7AF
L201	23289100	Coil, Peaking, TRF4100AF
L301	23103859	Coil (Ferrite Bead), TEM2011
L333	23238702	Coil, Peaking, TRF4101AJ
L400	23289101	Coil, Peaking, TRF4101AF
L400	23289101	Coil, Peaking, TRF4101AF
L410	23103859	Coil (Ferrite Bead), TEM2011
L441	23233982	Coil, Linearity, TLN2158AG
L442	23248216	Coil, Choke, TLN3459AH
L443	23248165	Coil, Choke, TLN3438AD
L449	23103859	Coil (Ferrite Bead), TEM2011
L461	23248183	Coil, Choke, TLN3343AD
L470	23103859	Coil (Ferrite Bead), TEM2011
L491	23211923	Coil, Choke, AT4043/100
L501	23289100	Coil, Peaking, TRF4100AF
L502	23103852	Coil, Filter, TEM2028AH
L503	23289470	Coil, Peaking, TRF4470AF
L507	23103852	Coil, Filter, TEM2028AH
L508	23103852	Coil, Filter, TEM2028AH
L509	23103852	Coil, Filter, TEM2028AH
L510	23238718	Coil, Peaking, TRF4479AJ
L512	23103845	Filter, TEM2030AY
L513	23103845	Filter, TEM2030AY
L601	23238714	Coil, Peaking, TRF4100AJ
L602	23238714	Coil, Peaking, TRF4100AJ
L605	23289109	Coil, Peaking, TRF41R0AF
L643	23103888	Chip (Ferrite Bead), TEM2131AM
L644	23103888	Chip (Ferrite Bead), TEM2131AM
L671	23103888	Chip (Ferrite Bead), TEM2131AM
L672	23103888	Chip (Ferrite Bead), TEM2131AM
L676	23103832	Chip (Ferrite Bead), TEM2125AM

Location No.	Part No.	Description
L677	23103832	Chip (Ferrite Bead), TEM2125AM
L682	23103832	Chip (Ferrite Bead), TEM2125AM
L683	23103832	Chip (Ferrite Bead), TEM2125AM
L684	23289109	Coil, Peaking, TRF41R0AF
L685	23289109	Coil, Peaking, TRF41R0AF
L701	23289100	Coil, Peaking, TRF4100AF
L702	23261974	Coil, Choke, HC5-035
L704	23103859	Coil (Ferrite Bead), TEM2011
L705	23103859	Coil (Ferrite Bead), TEM2011
L801	23217383	Transformer, Choke, TPW2012AE
L811	23103859	Coil (Ferrite Bead), TEM2011
L876	23280016	Coil, Peaking, TRF4100AZ
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011
L893	23280016	Coil, Peaking, TRF4100AZ
L894	23289100	Coil, Peaking, TRF4100AF
L896	23103859	Coil (Ferrite Bead), TEM2011
L897	23222694	Coil, Width, TLN2026
⚠L901	23200299	Coil, Degaussing, TSB-2370AR
L902	23289101	Coil, Peaking, TRF4101AF
L903	23289101	Coil, Peaking, TRF4101AF
L904	23289101	Coil, Peaking, TRF4101AF
L905	23289150	Coil, Peaking, TRF4150AF
L906	23289150	Coil, Peaking, TRF4150AF
L907	23289150	Coil, Peaking, TRF4150AF
L908	23289100	Coil, Peaking, TRF4100AF
L910	23289109	Coil, Peaking, TRF41R0AF
L4370	23289101	Coil, Peaking, TRF4101AF
LA01	23289100	Coil, Peaking, TRF4100AF
LB01	23262261	Coil, IF, TRF1177D
LD89	23289470	Coil, Peaking, TRF4470AF
LF01	23238506	Coil, Peaking, TRF4229AJ
LF02	23238506	Coil, Peaking, TRF4229AJ
LF03	23238506	Coil, Peaking, TRF4229AJ
LF04	23238506	Coil, Peaking, TRF4229AJ
LF06	23238562	Coil, Peaking, TRF4109AJ
LF07	23238562	Coil, Peaking, TRF4109AJ
LF08	23238714	Coil, Peaking, TRF4100AJ
LF09	23238714	Coil, Peaking, TRF4100AJ
LF10	23238562	Coil, Peaking, TRF4109AJ
LF11	23289109	Coil, Peaking, TRF41R0AF
LF13	23289100	Coil, Peaking, TRF4100AF
LF17	23289100	Coil, Peaking, TRF4100AF
LK01	23289100	Coil, Peaking, TRF4100AF
LK50	23289100	Coil, Peaking, TRF4100AF
LQ03	23289470	Coil, Peaking, TRF4470AF
LQ04	23238718	Coil, Peaking, TRF4479AJ
LR01	23289109	Coil, Peaking, TRF41R0AF
LR01	23289100	Coil, Peaking, TRF4100AF
LR02	23289109	Coil, Peaking, TRF41R0AF
LR25	23103845	Filter, TEM2030AY
LR26	23103845	Filter, TEM2030AY
LR27	23103845	Filter, TEM2030AY
LV03	23103852	Coil, Filter, TEM2028AH

Location No.	Part No.	Description
LV06	23103832	Chip (Ferrite Bead), TEM2125AM
LV07	23103832	Chip (Ferrite Bead), TEM2125AM
LV08	23289330	Coil, Peaking, TRF4330AF
LV09	23289100	Coil, Peaking, TRF4100AF
LV10	23289220	Coil, Peaking, TRF4220AF
LV11	23289330	Coil, Peaking, TRF4330AF
LV42	23289100	Coil, Peaking, TRF4100AF
LV43	23289100	Coil, Peaking, TRF4100AF
LV49	23103852	Coil, Filter, TEM2028AH
LX101	23103822	Chip (Ferrite Bead), TEM2117T
LX102	23103822	Chip (Ferrite Bead), TEM2117T
LX103	23103822	Chip (Ferrite Bead), TEM2117T
LX104	23245827	Chip, Inductor, TRF45R6CB
LX105	23103822	Chip (Ferrite Bead), TEM2117T
LX106	23103822	Chip (Ferrite Bead), TEM2117T
LX107	23103822	Chip (Ferrite Bead), TEM2117T
LX108	24000824	Chip, Jumper, 2125 type
LX110	23103822	Chip (Ferrite Bead), TEM2117T
LX141	23103822	Chip (Ferrite Bead), TEM2117T
LX142	23103822	Chip (Ferrite Bead), TEM2117T
LX143	23245835	Chip, Inductor, TRF4270CB
LX144	23103822	Chip (Ferrite Bead), TEM2117T
LX145	23103822	Chip (Ferrite Bead), TEM2117T
LX146	23103822	Chip (Ferrite Bead), TEM2117T
LX147	23103822	Chip (Ferrite Bead), TEM2117T
LX148	23245835	Chip, Inductor, TRF4270CB
LX149	23103822	Chip (Ferrite Bead), TEM2117T
LX150	23103822	Chip (Ferrite Bead), TEM2117T
LX152	23103822	Chip (Ferrite Bead), TEM2117T
LX153	23103822	Chip (Ferrite Bead), TEM2117T
LX154	24000824	Chip, Jumper, 2125 type
LX156	23103822	Chip (Ferrite Bead), TEM2117T
LX157	23103822	Chip (Ferrite Bead), TEM2117T
LX158	24000824	Chip, Jumper, 2125 type
LX201	23103886	Chip (Ferrite Bead), TEM2129AM
LX202	24000824	Chip, Jumper, 2125 type
LX221	23103822	Chip (Ferrite Bead), TEM2117T
LX222	23103822	Chip (Ferrite Bead), TEM2117T
LX223	23103822	Chip (Ferrite Bead), TEM2117T
LX224	23103822	Chip (Ferrite Bead), TEM2117T
LX226	23103822	Chip (Ferrite Bead), TEM2117T
LX227	23103822	Chip (Ferrite Bead), TEM2117T
LX231	23103822	Chip (Ferrite Bead), TEM2117T
LX232	23103822	Chip (Ferrite Bead), TEM2117T
LX233	23103822	Chip (Ferrite Bead), TEM2117T
LX234	23103822	Chip (Ferrite Bead), TEM2117T
LX236	23103822	Chip (Ferrite Bead), TEM2117T
LX237	23103822	Chip (Ferrite Bead), TEM2117T
LX241	23103822	Chip (Ferrite Bead), TEM2117T
LX242	24000824	Chip, Jumper, 2125 type
LX261	23103822	Chip (Ferrite Bead), TEM2117T
LX262	24000824	Chip, Jumper, 2125 type
LX271	23103822	Chip (Ferrite Bead), TEM2117T
LX272	24000824	Chip, Jumper, 2125 type
LX301	23103822	Chip (Ferrite Bead), TEM2117T
LX302	23103822	Chip (Ferrite Bead), TEM2117T
LX303	23103822	Chip (Ferrite Bead), TEM2117T
LX304	23103822	Chip (Ferrite Bead), TEM2117T
LX305	24000824	Chip, Jumper, 2125 type
LX321	23103822	Chip (Ferrite Bead), TEM2117T
LX322	23245825	Chip, Inductor, TRF43R9CB

Location No.	Part No.	Description
LX323	24000824	Chip, Jumper, 2125 type
LX341	23103822	Chip (Ferrite Bead), TEM2117T
LX342	23245826	Chip, Inductor, TRF44R7CB
LX343	24000824	Chip, Jumper, 2125 type
LX361	23103822	Chip (Ferrite Bead), TEM2117T
LX362	23245826	Chip, Inductor, TRF44R7CB
LX363	24000824	Chip, Jumper, 2125 type
LX401	23103880	Coil (Ferrite Bead), TEM2011Y
LX402	23103822	Chip (Ferrite Bead), TEM2117T
LX403	23103822	Chip (Ferrite Bead), TEM2117T
LX404	23103822	Chip (Ferrite Bead), TEM2117T
LX405	23103822	Chip (Ferrite Bead), TEM2117T
LX407	23103822	Chip (Ferrite Bead), TEM2117T
LX421	23238562	Coil, Peaking, TRF4109AJ
LX422	23238562	Coil, Peaking, TRF4109AJ
LX423	23238562	Coil, Peaking, TRF4109AJ
LX424	23238562	Coil, Peaking, TRF4109AJ
LX425	23238562	Coil, Peaking, TRF4109AJ
LX427	23238562	Coil, Peaking, TRF4109AJ
LX428	23238562	Coil, Peaking, TRF4109AJ
LX429	23238562	Coil, Peaking, TRF4109AJ
LX430	23238562	Coil, Peaking, TRF4109AJ
LX431	23103880	Coil (Ferrite Bead), TEM2011Y
LX432	23103880	Coil (Ferrite Bead), TEM2011Y
LX434	23103880	Coil (Ferrite Bead), TEM2011Y
LZ01	23238710	Coil, Peaking, TRF4220AJ
LZ02	23238714	Coil, Peaking, TRF4100AJ
LZ03	23238714	Coil, Peaking, TRF4100AJ
LZ04	23238714	Coil, Peaking, TRF4100AJ
LZ05	23238714	Coil, Peaking, TRF4100AJ
LZ08	23238707	Coil, Peaking, TRF4390AJ
LZ09	70131060	Filter, ZBF253D-00
LZ10	70131060	Filter, ZBF253D-00
T400	23224364	Transformer, Focus, TLN2168AH
T401	23224371	Transformer, Horiz Drive, TLN1080AH
⚠T461	23236517	Transformer, Flyback, TFB3079AR
⚠T461A	23236447	Transformer, Flyback, TFB4115AR
T801	23211717	Line Filter, TRF3164AM
T802	23211717	Line Filter, TRF3164AM
T803	23211719	Line Filter, TRF3209AM
⚠T863	23217434	Transformer, Converter, TPW3427AG

SEMICONDUCTORS

Q200	A6330059	Transistor, 2SC2482(C)
Q201	A6335470	Transistor, 2SC2712-Y
Q202	A6541130	Transistor, 2SA1162-Y
Q203	A6541130	Transistor, 2SA1162-Y
Q204	A6541130	Transistor, 2SA1162-Y
Q205	A6541130	Transistor, 2SA1162-Y
Q206	A6335470	Transistor, 2SC2712-Y
Q237	A6335470	Transistor, 2SC2712-Y
Q261	A6335470	Transistor, 2SC2712-Y
Q262	A6541130	Transistor, 2SA1162-Y
Q270	A6004040	Transistor, RN1404
Q271	A6004040	Transistor, RN1404
Q272	A6014040	Transistor, RN2404
Q273	A6335470	Transistor, 2SC2712-Y
Q301	23905610	IC, LA7846N
Q301B	70391355	Screw, BITTB3X8SZN

Location No.	Part No.	Description
Q303	A6534040	Transistor, 2SA1015-Y
Q304	A6317440	Transistor, 2SC1815-Y
Q305	23906077	IC, TCA0372DP1
Q360	A6335470	Transistor, 2SC2712-Y
Q362	A6002050	Transistor, RN1205
Q370	A6534040	Transistor, 2SA1015-Y
Q402	A6325419	Transistor, 2SC2235-O(FA
Q404	A6374144	Transistor, 2SC5570
Q404B	A8012650	Spacer, AC263
Q404D	72471082	Screw, BRDT2W3X10 SZN
Q418	23314141	Transistor, 2SC3852
Q418B	70391355	Screw, BITTB3X8SZN
Q420	23314141	Transistor, 2SC3852
Q420B	70391355	Screw, BITTB3X8SZN
Q421	A6317440	Transistor, 2SC1815-Y
Q430	23314141	Transistor, 2SC3852
Q430B	70391355	Screw, BITTB3X8SZN
Q460	23314850	Transistor, 2SA1788-E
Q460B	72471082	Screw, BRDT2W3X10 SZN
Q461	A6317440	Transistor, 2SC1815-Y
Q462	A6317440	Transistor, 2SC1815-Y
Q470	A6317440	Transistor, 2SC1815-Y
Q501	B0386208	IC, TA1276AN
Q502	A6335470	Transistor, 2SC2712-Y
Q503	A6541130	Transistor, 2SA1162-Y
Q504	A6335470	Transistor, 2SC2712-Y
Q518	A6335470	Transistor, 2SC2712-Y
Q608	A6534040	Transistor, 2SA1015-Y
Q612	A6534040	Transistor, 2SA1015-Y
Q620	23906596	IC, BA4558
Q639	A6342200	Transistor, 2SC2878-A
Q640	B0377308	IC, TA8256BH
Q640B	70391355	Screw, BITTB3X8SZN
Q641	A6342200	Transistor, 2SC2878-A
Q642	A6342200	Transistor, 2SC2878-A
Q670	B0377308	IC, TA8256BH
Q670B	70391355	Screw, BITTB3X8SZN
Q671	A6342200	Transistor, 2SC2878-A
Q672	A6342200	Transistor, 2SC2878-A
Q673	A6342200	Transistor, 2SC2878-A
Q688	A6002040	Transistor, RN1204
Q705	A6317440	Transistor, 2SC1815-Y
Q706	A6317440	Transistor, 2SC1815-Y
Q707	A6734590	Transistor, 2SC752(G)TM-Y
Q709	A6317440	Transistor, 2SC1815-Y
Q710	A6534040	Transistor, 2SA1015-Y
Q711	23314911	Transistor, 2SB1569A
Q711B	70391355	Screw, BITTB3X8SZN
Q712	23314914	Transistor, 2SD2400A
Q712B	70391355	Screw, BITTB3X8SZN
Q719	A6317440	Transistor, 2SC1815-Y
Q801	23135008	IC, STR-F6668B
Q801B	72471082	Screw, BRDT2W3X10 SZN
Q802	23314141	Transistor, 2SC3852
Q802B	70391355	Screw, BITTB3X8SZN
Q807	A6317440	Transistor, 2SC1815-Y
⚠Q826	A8643108	Photo Coupler, TLP621(GR-LF
Q830	23314141	Transistor, 2SC3852
Q830B	70391355	Screw, BITTB3X8SZN
Q831	23314141	Transistor, 2SC3852
Q831B	70391355	Screw, BITTB3X8SZN
Q832	23905977	IC, PQ09RD11
Q832B	70391355	Screw, BITTB3X8SZN
Q833	23314141	Transistor, 2SC3852

Location No.	Part No.	Description
Q833B	70391355	Screw, BITTB3X8SZN
Q840	23318299	IC, L78MR05
Q840B	70391355	Screw, BITTB3X8SZN
Q901	A6368700	Transistor, 2SC4544
Q901B	70391355	Screw, BITTB3X8SZN
Q902	A6317440	Transistor, 2SC1815-Y
Q903	A6368700	Transistor, 2SC4544
Q903B	70391355	Screw, BITTB3X8SZN
Q904	A6317440	Transistor, 2SC1815-Y
Q905	A6368700	Transistor, 2SC4544
Q905B	70391355	Screw, BITTB3X8SZN
Q906	A6317440	Transistor, 2SC1815-Y
Q907	A6509140	Transistor, 2SA562TMY
Q908	A6321240	Transistor, 2SC2120-Y
Q910	A6317440	Transistor, 2SC1815-Y
Q911	A6317440	Transistor, 2SC1815-Y
Q912	A6534040	Transistor, 2SA1015-Y
Q913	A6534040	Transistor, 2SA1015-Y
Q914	A6317440	Transistor, 2SC1815-Y
Q917	A6317440	Transistor, 2SC1815-Y
Q918	A6534040	Transistor, 2SA1015-Y
Q919	A6317440	Transistor, 2SC1815-Y
Q920	A6534040	Transistor, 2SA1015-Y
Q921	A6317440	Transistor, 2SC1815-Y
Q922	A6317440	Transistor, 2SC1815-Y
Q4370	B0385853	IC, TA1241AN
Q4420	B0386500	IC, TA1300N
Q4460	A6335470	Transistor, 2SC2712-Y
Q4462	A6335470	Transistor, 2SC2712-Y
Q4490	A8641063	Photo Coupler, TLP521-1
Q4491	23314917	Transistor, 2SK2003-01MR
Q4493	A6317440	Transistor, 2SC1815-Y
QA01	23000099	IC, 750096-103S
QA02	23905666	IC, AT24C161OPC
QA03	A6534040	Transistor, 2SA1015-Y
QA05	A6734590	Transistor, 2SC752(G)TM-Y
QB01	A6317440	Transistor, 2SC1815-Y
QB03	A6002050	Transistor, RN1205
QB30	A6317440	Transistor, 2SC1815-Y
QB81	A6342200	Transistor, 2SC2878-A
QB82	A6342200	Transistor, 2SC2878-A
QB83	A6534040	Transistor, 2SA1015-Y
QB92	A6317440	Transistor, 2SC1815-Y
QB93	A6534040	Transistor, 2SA1015-Y
QB94	A6534040	Transistor, 2SA1015-Y
QB95	A6534040	Transistor, 2SA1015-Y
QB96	A6534040	Transistor, 2SA1015-Y
QD89	A6317440	Transistor, 2SC1815-Y
QF01	23906822	IC, SDA5273-2S C
QF03	23314204	Transistor, 2SC2412K,Q
QF04	A6734590	Transistor, 2SC752(G)TM-Y
QF10	23906641	IC, AS4C14400
QK05	23906179	IC, MM1327XD
QK06	A6335470	Transistor, 2SC2712-Y
QK07	70119743	IC, PST523D
QK10	A6335470	Transistor, 2SC2712-Y
QK11	A6541130	Transistor, 2SA1162-Y
QK12	A6361770	Transistor, 2SC3437-Y
QK30	A6335470	Transistor, 2SC2712-Y
QK31	A6335470	Transistor, 2SC2712-Y
QK32	A6335470	Transistor, 2SC2712-Y
QQ02	B0383881	IC, TA8772AN
QQ03	A6335470	Transistor, 2SC2712-Y
QQ04	A6335470	Transistor, 2SC2712-Y

Location No.	Part No.	Description
QR01	B0386235	IC, TA1287P
QR01	23000947	IC, MB90096-186
QR03	23114530	Transistor, 2SA933S-Q
QR05	A6317440	Transistor, 2SC1815-Y
QR21	A6335470	Transistor, 2SC2712-Y
QR24	A6335470	Transistor, 2SC2712-Y
QS01	A6359870	Transistor, 2SC3326-B
QS02	A6359870	Transistor, 2SC3326-B
QS03	A6335470	Transistor, 2SC2712-Y
QS04	A6335470	Transistor, 2SC2712-Y
QS05	A6359870	Transistor, 2SC3326-B
QS06	A6359870	Transistor, 2SC3326-B
QS07	A6014040	Transistor, RN2404
QS08	A6359870	Transistor, 2SC3326-B
QS09	A6359870	Transistor, 2SC3326-B
QV01	B0385650	IC, TA1218N
QV02	A6317440	Transistor, 2SC1815-Y
QV06	A6541130	Transistor, 2SA1162-Y
QV07	A6359870	Transistor, 2SC3326-B
QV08	A6335470	Transistor, 2SC2712-Y
QV09	A6317440	Transistor, 2SC1815-Y
QV10	A6335470	Transistor, 2SC2712-Y
QV11	A6335470	Transistor, 2SC2712-Y
QV12	A6317440	Transistor, 2SC1815-Y
QV14	A6317440	Transistor, 2SC1815-Y
QV15	A6359870	Transistor, 2SC3326-B
QX01	23906921	IC, TC90A61F
QX02	23906657	IC, MB81G163222
QX03	23905013	IC, TLC2932IPW
QX04	A6030620	IC, TC7S04F
QX05	23906951	IC, SN74AHCT1G32
QX07	23905939	IC, TLC2933IPW
QX08	A6030620	IC, TC7S04F
QX09	23906951	IC, SN74AHCT1G32
QX10	23906951	IC, SN74AHCT1G32
QX11	23906318	IC, ADS932E
QX12	23906318	IC, ADS932E
QX13	B0489209	IC, TC74ACT74F
QX14	A6335470	Transistor, 2SC2712-Y
QX15	70128490	IC, MM1031XMR
QX16	23314345	Transistor, IMZ1
QX17	A6335470	Transistor, 2SC2712-Y
QX18	A6541130	Transistor, 2SA1162-Y
QX19	A6541130	Transistor, 2SA1162-Y
QX20	A6030670	IC, TC7S66F
QX21	A6335470	Transistor, 2SC2712-Y
QX22	23314347	IC, IMX2T109
QX23	A6335470	Transistor, 2SC2712-Y
QX24	23314344	Transistor, IMX1
QX25	A6030670	IC, TC7S66F
QX26	A6541130	Transistor, 2SA1162-Y
QX27	A6030670	IC, TC7S66F
QX28	A6335470	Transistor, 2SC2712-Y
QX29	23314347	IC, IMX2T109
QX30	A6335470	Transistor, 2SC2712-Y
QX31	23314344	Transistor, IMX1
QX32	A6030670	IC, TC7S66F
QX33	A6541130	Transistor, 2SA1162-Y
QX34	A6030670	IC, TC7S66F
QX35	A6335470	Transistor, 2SC2712-Y
QX36	A6541130	Transistor, 2SA1162-Y
QX37	A6335470	Transistor, 2SC2712-Y
QX38	A6335470	Transistor, 2SC2712-Y
QX39	A6335470	Transistor, 2SC2712-Y

Location No.	Part No.	Description
QX40	23314347	IC, IMX2T109
QX41	A6335470	Transistor, 2SC2712-Y
QX42	A6335470	Transistor, 2SC2712-Y
QX43	23314347	IC, IMX2T109
QX44	A6335470	Transistor, 2SC2712-Y
QX45	A6335470	Transistor, 2SC2712-Y
QX46	23314347	IC, IMX2T109
QX47	A6335470	Transistor, 2SC2712-Y
QX48	A6335470	Transistor, 2SC2712-Y
QX49	A6030871	IC, TC7W04F(BRA)
QX50	B0485484	IC, TC74HCT541AF
QX51	23906770	IC, BA033FP-E2
QX52	A6030695	IC, TC7SH32FU(BR
QX53	A6030695	IC, TC7SH32FU(BR
QX54	A6004010	Transistor, RN1401
QX55	B0370000	IC, TA78L05F
QZ01	B0410895	IC, TC90A49P
QZ02	A6335470	Transistor, 2SC2712-Y
QZ03	A6541130	Transistor, 2SA1162-Y
QZ04	A6541130	Transistor, 2SA1162-Y
QZ05	A6541130	Transistor, 2SA1162-Y
QZ06	A6541130	Transistor, 2SA1162-Y
QZ07	A6541130	Transistor, 2SA1162-Y
QZ08	A6335470	Transistor, 2SC2712-Y
D101	23316411	Diode, 1SS184
D201	23118041	Diode, MA111-(TX)
D240	23115599	Diode, 1N4148
D301	23118479	Diode, BYD33J
D302	23118479	Diode, BYD33J
D303	23316794	Diode, SC570A
D312	23115599	Diode, 1N4148
D313	23115599	Diode, 1N4148
D370	23316658	Diode, Zener, MTZJ3.6A
D371	23115599	Diode, 1N4148
D404	23357043	Diode, FMQ-G5GS
D404B	72471082	Screw, BRDT2W3X10 SZN
D406	23118479	Diode, BYD33J
D418	23316749	Diode, Zener, MTZJ30A
D419	23316691	Diode, Zener, MTZJ10C
D420	23316715	Diode, Zener, MTZJ11A
D421	23316680	Diode, Zener, MTZJ7.5A
D422	23316726	Diode, Zener, MTZJ15C
D431	23316670	Diode, Zener, MTZJ5.1C
D432	23316670	Diode, Zener, MTZJ5.1C
D436	23115599	Diode, 1N4148
D441	23316687	Diode, Zener, MTZJ9.1B
D460	23118479	Diode, BYD33J
D461	23316803	Diode, FMU-G16S
D461B	70391355	Screw, BITTB3X8SZN
D463	23115599	Diode, 1N4148
D464	23316749	Diode, Zener, MTZJ30A
D466	23316672	Diode, Zener, MTZJ5.6B
D467	23118479	Diode, BYD33J
D474	23316719	Diode, Zener, MTZJ12B
D488	23115599	Diode, 1N4148
D490	23115599	Diode, 1N4148
D498	23316742	Diode, Zener, MTZJ24B
D499	23115599	Diode, 1N4148
D501	23115599	Diode, 1N4148
D505	23115599	Diode, 1N4148
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148

Location No.	Part No.	Description
D624	23115599	Diode, 1N4148
D625	23115599	Diode, 1N4148
D626	23115599	Diode, 1N4148
D627	23115599	Diode, 1N4148
D628	23115599	Diode, 1N4148
D630	23115599	Diode, 1N4148
D640	23115599	Diode, 1N4148
D641	23115599	Diode, 1N4148
D642	23115599	Diode, 1N4148
D643	23115599	Diode, 1N4148
D647	23115599	Diode, 1N4148
D648	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D683	23115599	Diode, 1N4148
D684	23115599	Diode, 1N4148
D704	23115599	Diode, 1N4148
D705	23115599	Diode, 1N4148
D715	23115599	Diode, 1N4148
D721	23115599	Diode, 1N4148
D801	23357041	Diode, LN6SB60-F05
D804	23316725	Diode, Zener, MTZJ15B
D805	23316553	Diode, 1SS145
D806	23118479	Diode, BYD33J
D810	23316738	Diode, Zener, MTZJ22B
D811	23115599	Diode, 1N4148
D815	23316746	Diode, Zener, MTZJ27B
D817	23115599	Diode, 1N4148
D818	23316738	Diode, Zener, MTZJ22B
D819	23316678	Diode, Zener, MTZJ6.8B
D828	23115599	Diode, 1N4148
D836	23316673	Diode, Zener, MTZJ5,6C
D841	23115599	Diode, 1N4148
D871	23118479	Diode, BYD33J
D883	23316406	Diode, FML-G16S
D883B	70391355	Screw, BITTB3X8SZN
D885	23316642	Diode, YG911S2R
D885B	70391355	Screw, BITTB3X8SZN
D891	23357020	Diode, SF5S4
D891B	70391355	Screw, BITTB3X8SZN
D892	23316184	Diode, FML-G12S
D892B	70391355	Screw, BITTB3X8SZN
D893	23316673	Diode, Zener, MTZJ5,6C
D894	23316673	Diode, Zener, MTZJ5,6C
D896	23118479	Diode, BYD33J
D901	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D911	23118479	Diode, BYD33J
D912	23115599	Diode, 1N4148
D4371	23115599	Diode, 1N4148
D4386	23316718	Diode, Zener, MTZJ12A
D4387	23316718	Diode, Zener, MTZJ12A
D4388	23316718	Diode, Zener, MTZJ12A
DA01	23115599	Diode, 1N4148
DA02	23115599	Diode, 1N4148
DA03	23115599	Diode, 1N4148
DA42	23115599	Diode, 1N4148

Location No.	Part No.	Description
DB01	23358505	LED, SLR56VC196F
DB02	23358503	LED, SCL003MC3FX
DB30	23115599	Diode, 1N4148
DF01	23316654	Diode, Zener, MTZJ3.0A
DR01	23115599	Diode, 1N4148
DR02	23316557	Diode, HSM221C
DR02	23115599	Diode, 1N4148
DR03	23118351	Diode, Zener, RD4.7M-T1BB2
DR03	23115599	Diode, 1N4148
DV01	23118296	Diode, Zener, RD9.1M-T1BB2
DV01	23115599	Diode, 1N4148
DV02	23118296	Diode, Zener, RD9.1M-T1BB2
DV03	23118296	Diode, Zener, RD9.1M-T1BB2
DV04	23118296	Diode, Zener, RD9.1M-T1BB2
DV05	23118296	Diode, Zener, RD9.1M-T1BB2
DV06	23118296	Diode, Zener, RD9.1M-T1BB2
DV07	23118296	Diode, Zener, RD9.1M-T1BB2
DV10	23316557	Diode, HSM221C
DV11	23316557	Diode, HSM221C
DV12	23118296	Diode, Zener, RD9.1M-T1BB2
DV14	23118296	Diode, Zener, RD9.1M-T1BB2
DX201	A7238420	Diode, Zener, 02CZ5.1-Y
DX202	A7238420	Diode, Zener, 02CZ5.1-Y
DX203	A7238420	Diode, Zener, 02CZ5.1-Y
DX401	A7238420	Diode, Zener, 02CZ5.1-Y
MISCELLANEOUS		
B207	23037312	Screw, BTBW3X12SZN
B221	23037312	Screw, BTBW3X12SZN
B223	23035412	Screw, BTB4X12SZN
B224	23037312	Screw, BTBW3X12SZN
B228	23037312	Screw, BTBW3X12SZN
BB10	23368627	Plug, 8P, 2.5
BB10A	23903022	Socket, 8P, 2.5
BB10B	23903022	Socket, 8P, 2.5
BB11	23368627	Plug, 8P, 2.5
BB11A	23903022	Socket, 8P, 2.5
BB11B	23903022	Socket, 8P, 2.5
BB12	23368627	Plug, 8P, 2.5
BB12A	23903022	Socket, 8P, 2.5
BB12B	23903022	Socket, 8P, 2.5
BB13	23368627	Plug, 8P, 2.5
BB13A	23903022	Socket, 8P, 2.5
BB13B	23903022	Socket, 8P, 2.5
BB14	23368627	Plug, 8P, 2.5
BB14A	23903022	Socket, 8P, 2.5
BB14B	23903022	Socket, 8P, 2.5
BB15	23368627	Plug, 8P, 2.5
BB15A	23903022	Socket, 8P, 2.5
BB15B	23903022	Socket, 8P, 2.5
BB16	23368627	Plug, 8P, 2.5
BB16A	23903022	Socket, 8P, 2.5
BB16B	23903022	Socket, 8P, 2.5
⚠F470	23144503	Fuse, 1.25A
F470A	23165433	Holder, Fuse
⚠F801	23144508	Fuse, 4.0A
F801A	23165433	Holder, Fuse
⚠F802	23144506	Fuse, 2.5A
F802A	23165433	Holder, Fuse
⚠F889	23144458	Fuse, 5.0A
F889A	23165433	Holder, Fuse
G299	24366103	CF, 10k ohm
G301	24366472	CF, 4700 ohm
G306	24366222	CF, 2200 ohm

Location No.	Part No.	Description
G312	24366272	CF, 2700 ohm
G401	23103859	Coil (Ferrite Bead), TEM2011
G402	23103859	Coil (Ferrite Bead), TEM2011
G403	23103859	Coil (Ferrite Bead), TEM2011
G404	23103859	Coil (Ferrite Bead), TEM2011
G405	24366101	CF, 100 ohm
G430	23115532	Diode, ERB12-01
G465	23316672	Diode, Zener, MTZJ5.6B
G510	23289479	Coil, Peaking, TRF44R7AF
G527	24567104	PF, 0.1μF
G528	24567104	PF, 0.1μF
G529	24567104	PF, 0.1μF
G604	23103859	Coil (Ferrite Bead), TEM2011
G638	24366682	CF, 6800 ohm
G824	23222694	Coil, Width, TLN2026
G911	23289101	Coil, Peaking, TRF4101AF
GJ02	24000824	Chip, Jumper, 2125 type
GJ06	24000824	Chip, Jumper, 2125 type
GJ06	24000824	Chip, Jumper, 2125 type
GJ07	24000824	Chip, Jumper, 2125 type
GJ08	24000824	Chip, Jumper, 2125 type
GJ09	24000824	Chip, Jumper, 2125 type
GJ10	24000824	Chip, Jumper, 2125 type
GJ26	24000824	Chip, Jumper, 2125 type
GJ27	24000824	Chip, Jumper, 2125 type
GJ28	24000824	Chip, Jumper, 2125 type
GJ34	24000824	Chip, Jumper, 2125 type
GJ35	24000824	Chip, Jumper, 2125 type
GJ36	24000824	Chip, Jumper, 2125 type
GJ37	24000824	Chip, Jumper, 2125 type
GJ38	24000824	Chip, Jumper, 2125 type
GJ61	24000824	Chip, Jumper, 2125 type
GJ62	24000824	Chip, Jumper, 2125 type
GS01	24000824	Chip, Jumper, 2125 type
GS43	24000824	Chip, Jumper, 2125 type
GS44	24000824	Chip, Jumper, 2125 type
GV05	23103832	Chip (Ferrite Bead), TEM2125M
GV07	24000824	Chip, Jumper, 2125 type
GV08	24000824	Chip, Jumper, 2125 type
GV11	24000824	Chip, Jumper, 2125 type
GV13	24872681	Chip, 680 ohm, 1/16W
GV14	24000824	Chip, Jumper, 2125 type
GV15	24000824	Chip, Jumper, 2125 type
GV17	24000824	Chip, Jumper, 2125 type
GV38	24000824	Chip, Jumper, 2125 type
GV39	24000824	Chip, Jumper, 2125 type
GV40	24000824	Chip, Jumper, 2125 type
GV41	24872332	Chip, 3300 ohm, 1/16W
GV97	24872101	Chip, 100 ohm, 1/16W
H002	23148355	Module, MPSA11, MPX APRO AC3
KB01	23904946	Remote Sensor, RPM-676CBR-S
P004	23161702	Terminal, 8P
P402A	23902781	Socket, 12P, 2.5MM
P402B	23368531	Plug, 12P, 2.5MM
P501A	23903025	Socket, 25P
P502A	23903025	Socket, 25P
P507	23902655	Socket, B-B, 15P
P512	23902863	Socket, 20P 2MM
P513	23902863	Socket, 20P 2MM
P610A	23902063	Socket, 6P, 2.5MM
P610B	23368005	Plug, 6P, 2.5MM

Location No.	Part No.	Description
P661	23363607	Headphone Jack, 3.5mm
⚠P801	23372012	Power Cord
PD04	23364092	Jack, Pin(Orage)
PD05	A5812240	Optic Receiver, TORX176
PF01A	23367724	Connector, B-B, 15P
PH01	23902604	Socket, 21P
PH02	23902604	Socket, 21P
PH03	23902604	Socket, 21P
PK01B	23368130	Plug, 10P 2.5MM
PK02B	23368130	Plug, 10P 2.5MM
PU01	23368634	Plug, 25P 1.5MM
PU02	23368634	Plug, 25P 1.5MM
PV10B	23368520	Plug, 20P 2MM
PV11B	23368520	Plug, 20P 2MM
PW01A	23902213	Socket, 10P 2.5MM
PW02A	23902213	Socket, 10P 2.5MM
PX01	23367724	Connector, B-B, 15P
PX01A	23902655	Socket, B-B, 15P
PX02	23368531	Plug, 12P, 2.5MM
PX02A	23902781	Socket, 12P, 2.5MM
S601	23145355	Switch, Slide, 4C-2P
⚠S801	23344416	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
⚠V901A	23903027	Socket, CRT, 8P
W661	23351143	Speaker, SPK-1400, 60x120mm, 8 ohm
W662	23351143	Speaker, SPK-1400, 60x120mm, 8 ohm
W663	23351143	Speaker, SPK-1400, 60x120mm, 8 ohm
W664	23351143	Speaker, SPK-1400, 60x120mm, 8 ohm
W665	23351080	Speaker, SPK-1352, 100x100mm, 6 ohm
X401	23153721	Ceramic Resonator, 503kHz, TCR1023
X4401	23153721	Ceramic Resonator, 503kHz, TCR1023
X501	23153961	Crystal, 3.58MHz
X503	23153979	Crystal, 4.43MHz
XA01	23153497	Crystal, 16.0MHz
XF01	23153421	Crystal, 20.48MHz
Z410	23110840	Coil, Forcus, TPA6029
Z410B	23035308	Screw, BTB3X8SZN
⚠Z420	23144539	Protector, PRF20005491, 125V, 2A
⚠Z801	23904998	IC, HIC1016
⚠Z871	23144543	Protector, PRF50005491, 125V, 5A
⚠Z890	23144543	Protector, PRF50005491, 125V, 5A
⚠Z891	23144543	Protector, PRF50005491, 125V, 5A
⚠Z894	23144539	Protector, PRF20005491, 125V, 2A
⚠Z896	23144539	Protector, PRF20005491, 125V, 2A
⚠Z897	23144539	Protector, PRF20005491, 125V, 2A
⚠Z898	23144539	Protector, PRF20005491, 125V, 2A
ZC01	23107626	Filter, TEM1022
ZK01	23262661	Coil, IF, TRF1155D
ZK02	23153325	Ceramic Resonator, 8.00M, TCR1056
ZX101	23103852	Coil, Filter, TEM2028AH
ZX141	23103852	Coil, Filter, TEM2028AH
ZX161	23103852	Coil, Filter, TEM2028AH
ZX201	23103823	Filter, TEM2027D
ZX202	23103823	Filter, TEM2027D
ZX321	23103823	Filter, TEM2027D
ZX341	23103823	Filter, TEM2027D
ZX361	23103823	Filter, TEM2027D
ZX401	23303181	Filter, TEM1012N
ZX402	23303181	Filter, TEM1012N

PC BOARD ASSEMBLIES

* U102	23783279	Back-T Board, PB8836A
* U103	23783278	VCD Board, PB8768C
* U104A	23783717	TEXT Board, PB7928B
* U105	23783241	Digital-SCAN Board, PB8826A
* U106	23783242	AUTO LIVE Board, PB8827A
* U901	23783290	CRT Drive Board, PB8813B
* U902C	23783691	Signal Board, PB8829B-3
* U903	23783274	Power Board, PB8830B
* U904	23783275	DEF Board, PB8831B
* U905	23783248	100Hz Board, PB8832A
* U906A	23783276	CONT-1 Board, PB8835A-1
* U906B	23783277	CONT-2 Board, PB8835A-2
* U907	23783252	Digital Board, PB8834A
* U908	23783301	Focus Board, PB8856A

PICTURE TUBE

⚠V901	23312708	Picture Tube, W76ESF031X44

TUNER

H001	23321346	Tuner, UF822BLW1

ACCESSORIES

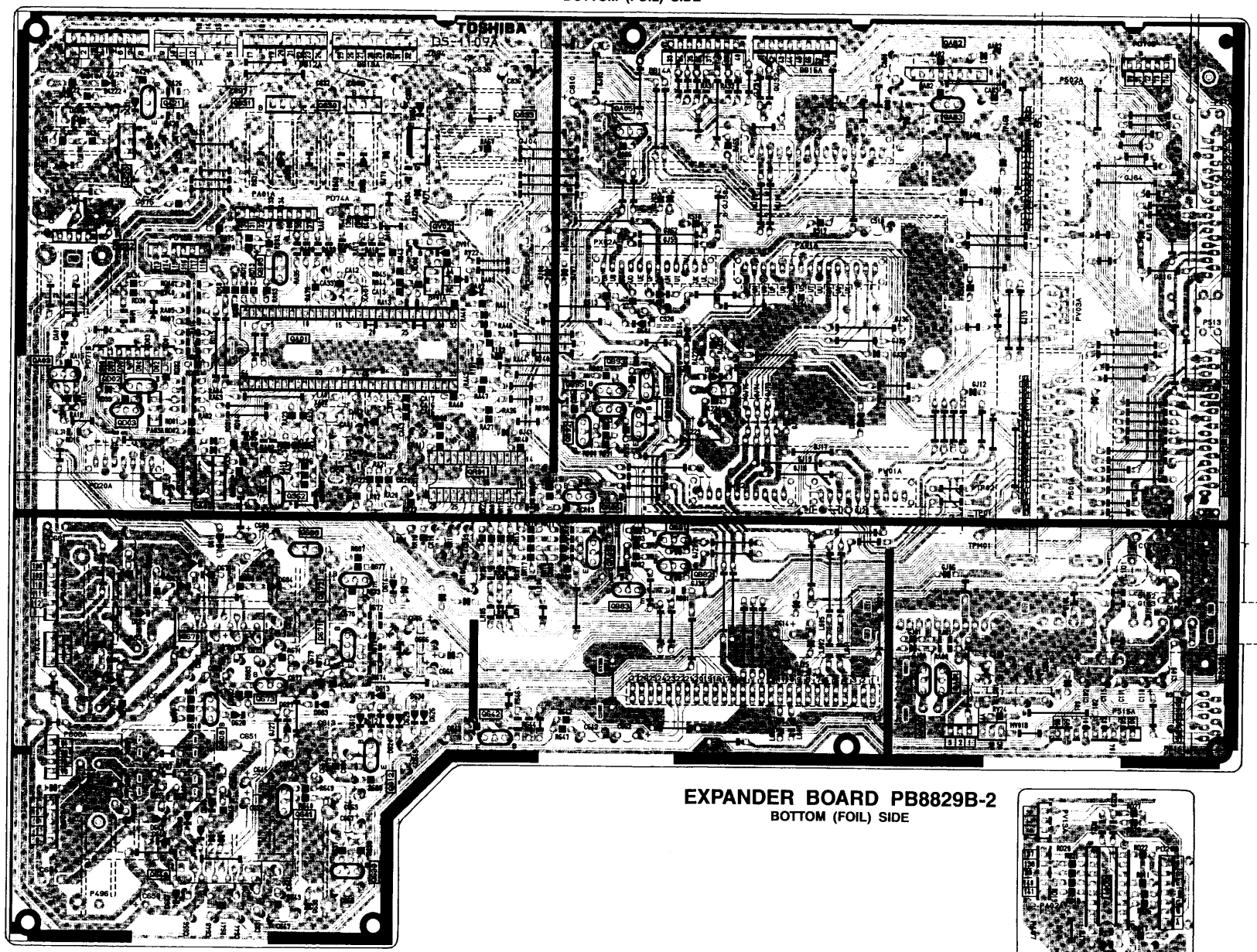
K902	23306325	Remote Hand Unit, CT-90004
AT03	23588265	Battery Cover
Y101	23563612	Owner's Manual, English, 32WD98B

CABINET PARTS

⚠A004	23003130	Back Cover
A201	23549009	Front Cover
A214	23035412	Screw, BTB4X12SZN
A215	23035412	Screw, BTB4X12SZN
A231	23445268	Button, Power
A241	70368125	Push Catch for Door
A242	23427666	Door Right
A243	23427667	Door Left
A403	23796410	Woofer Box
A411	23550534	Label, Model No.
A501	23030187	Screw, CRT5X30
A702	23935893	Packing, Bottom
A703	23935894	Packing, Top

SIGNAL BOARD PB8829B-1

BOTTOM (FOIL) SIDE

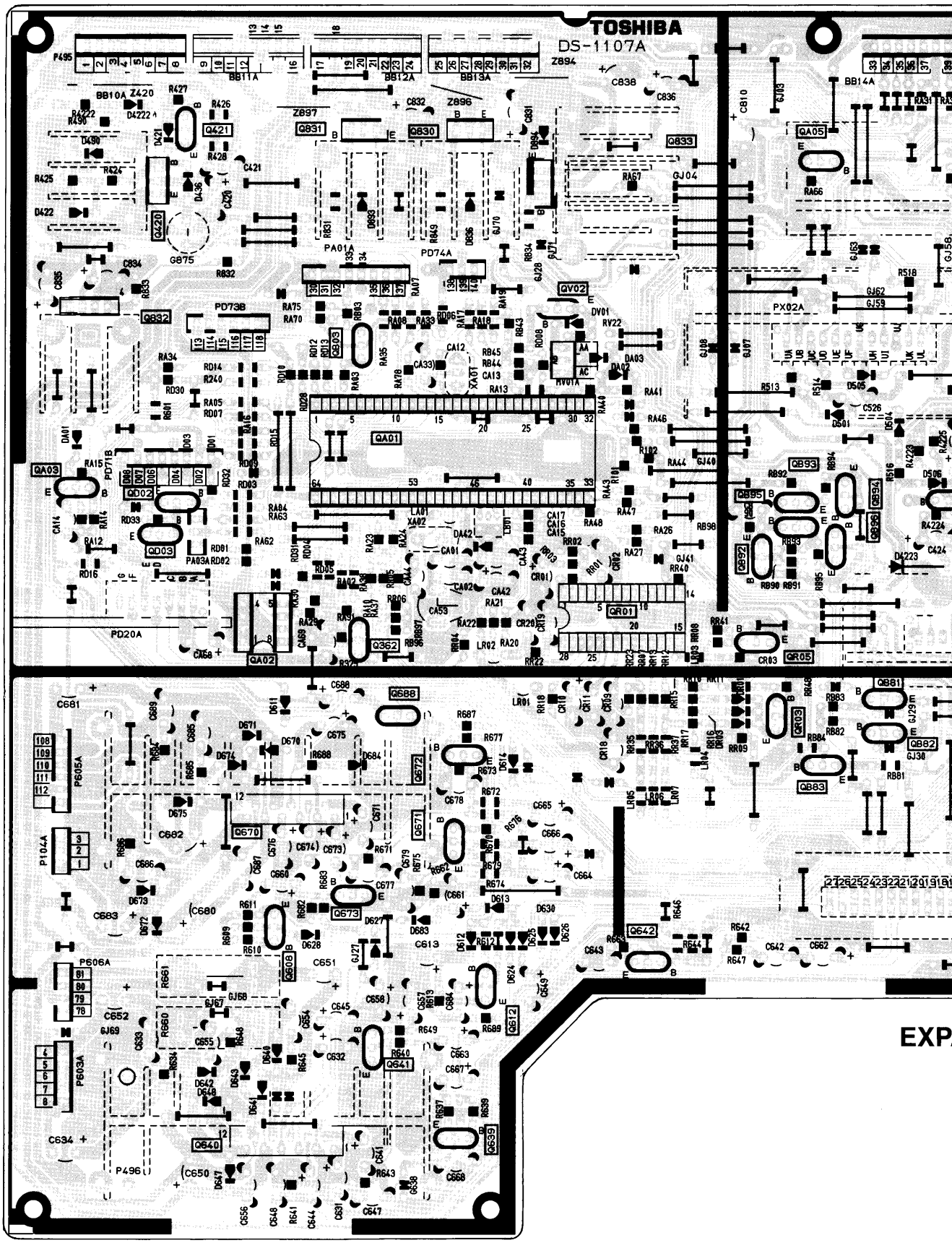


EXPANDER BOARD PB8829B-2

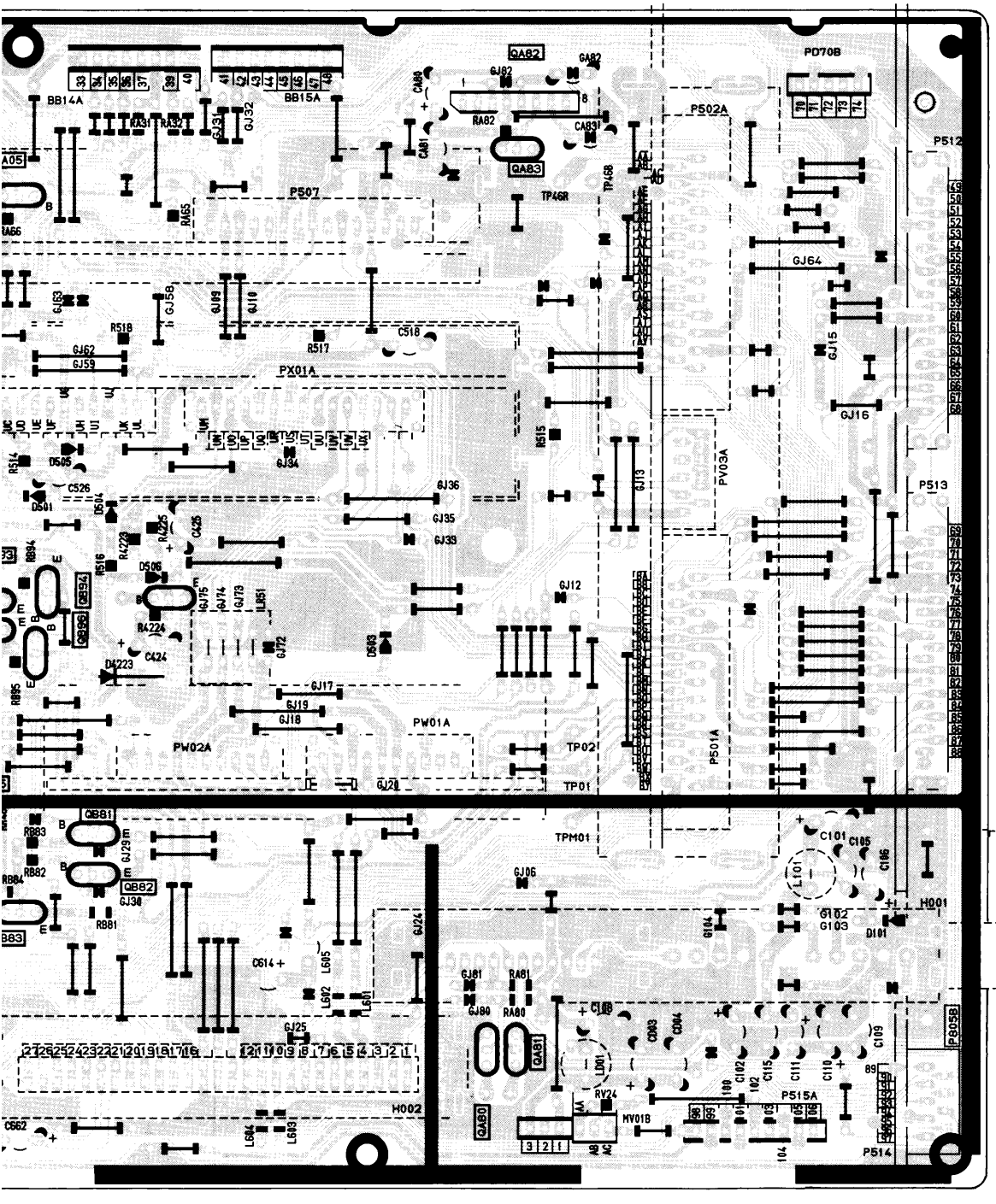
BOTTOM (FOIL) SIDE

SIGNAL BOARD PB882

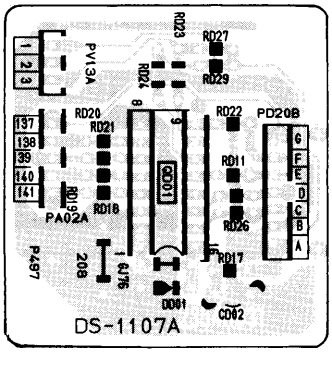
BOTTOM (FOIL) SIDE



ARD PB8829B-1
(FOIL) SIDE

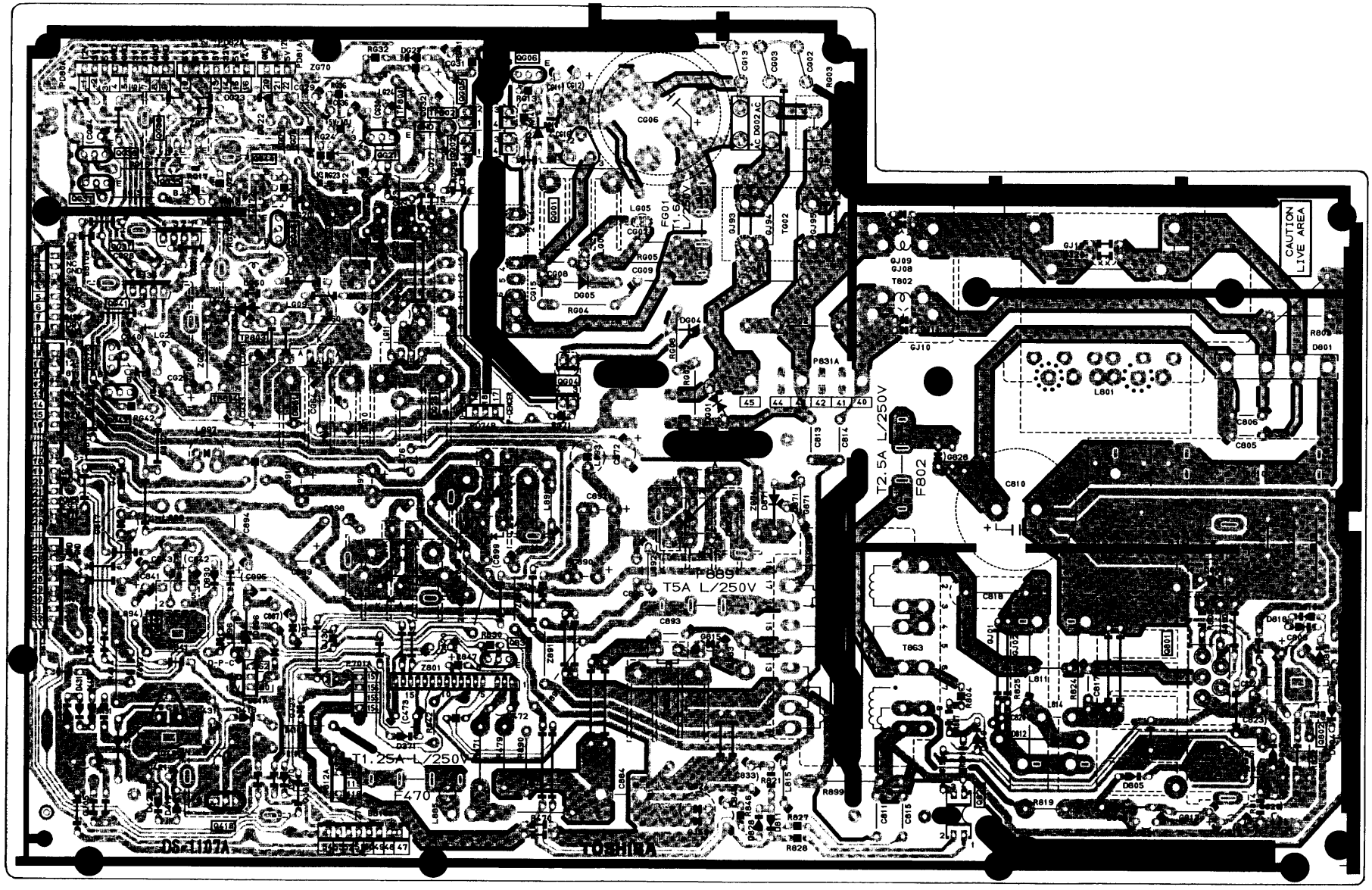


EXPANDER BOARD PB8829B-2
BOTTOM (FOIL) SIDE



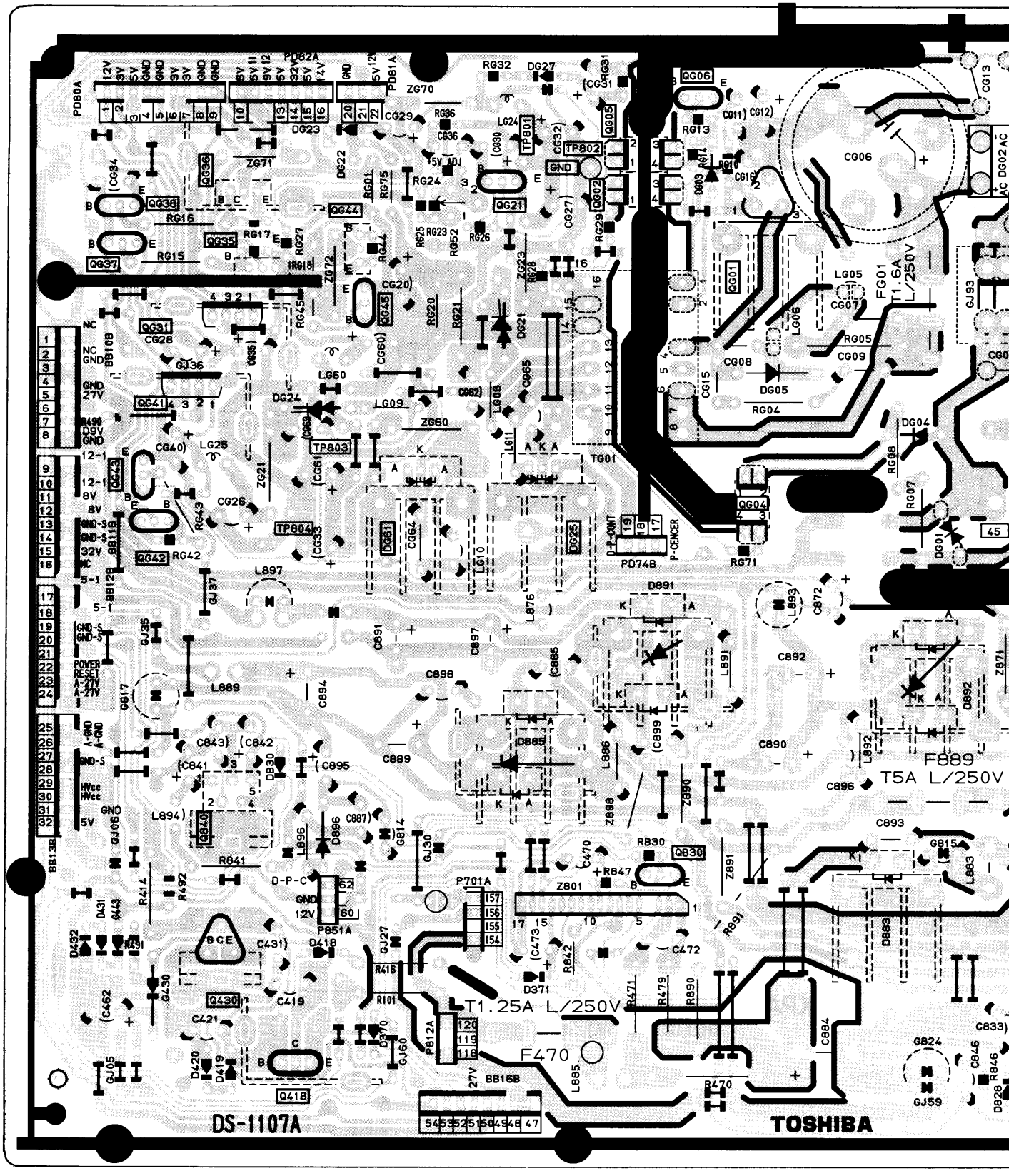
POWER BOARD PB8830B

BOTTOM (FOIL) SIDE



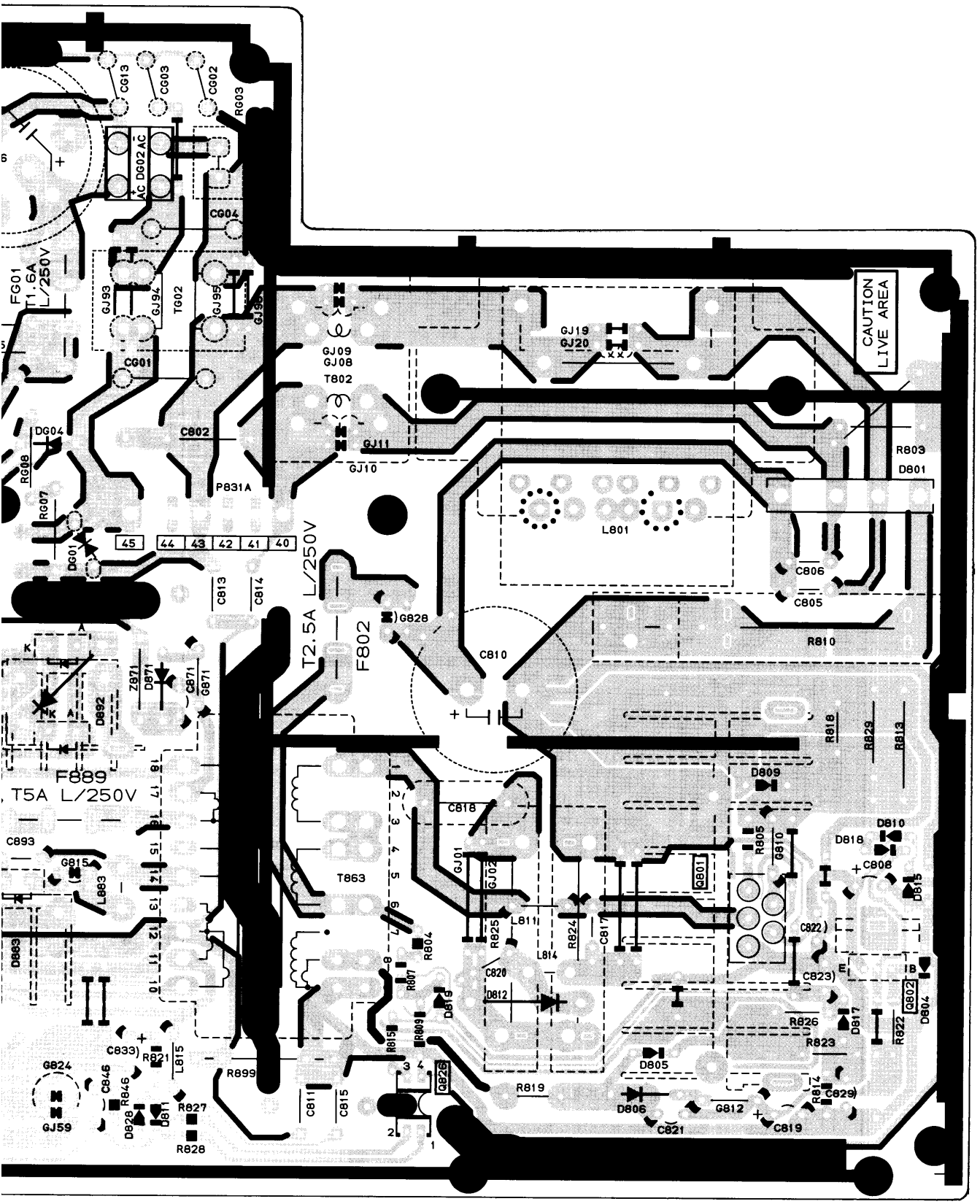
POWER BOARD PB8

BOTTOM (FOIL) SIDE



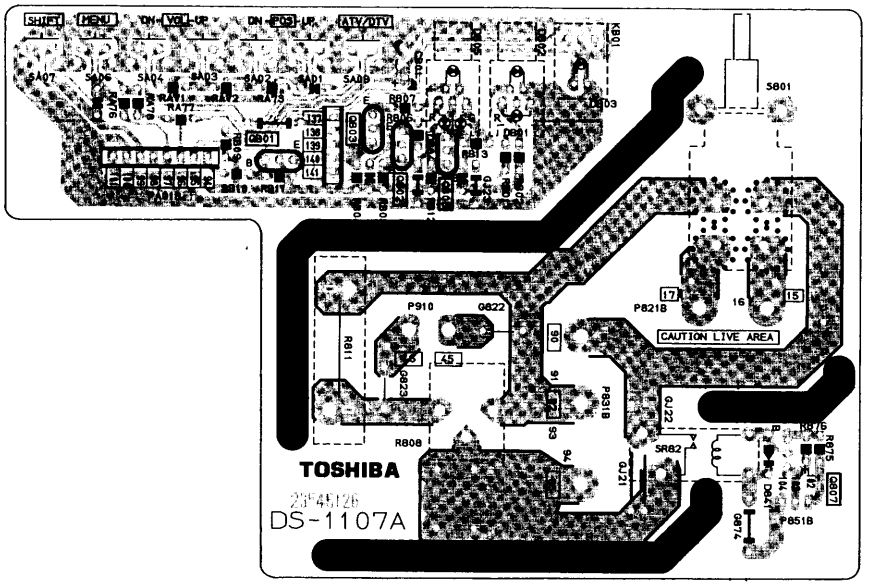
BOARD PB8830B

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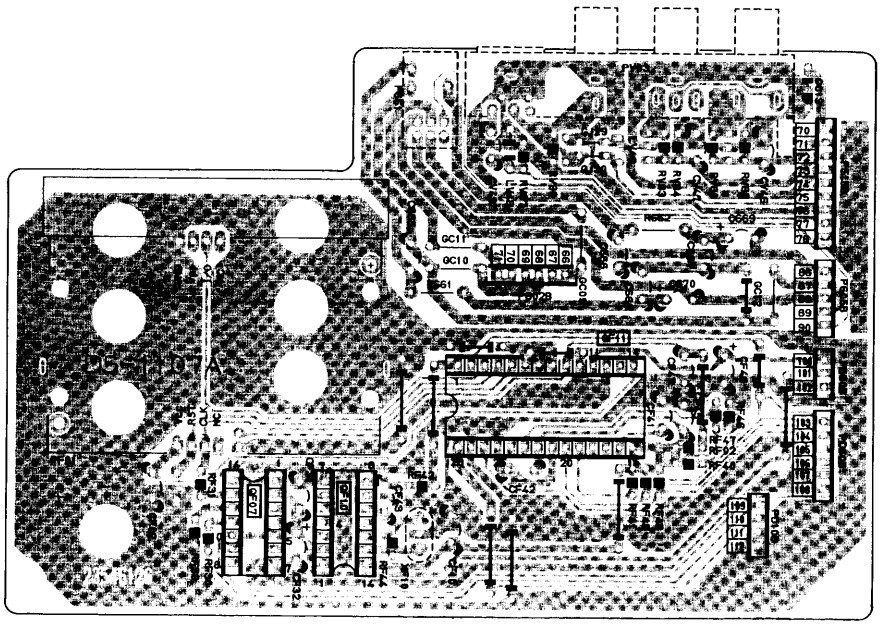
CONT-1 BOARD PB8835A-1

BOTTOM (FOIL) SIDE



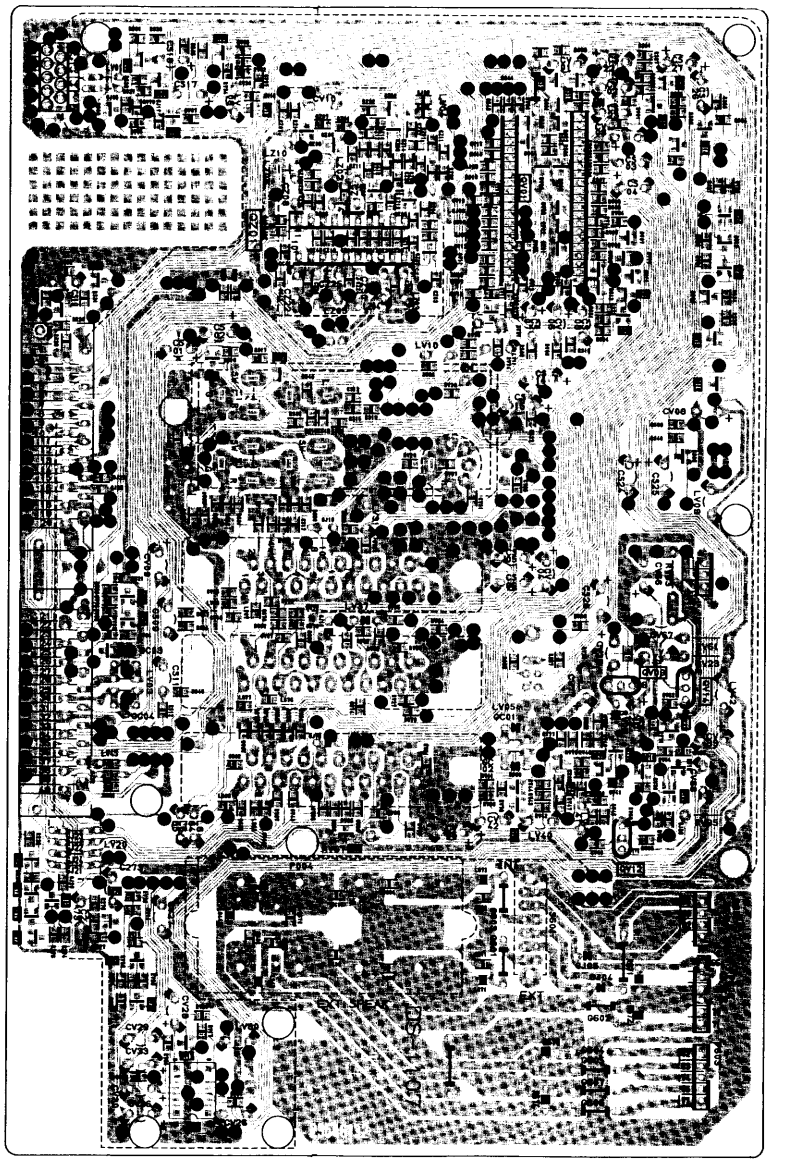
CONT-2 BOARD PB8835A-2

BOTTOM (FOIL) SIDE



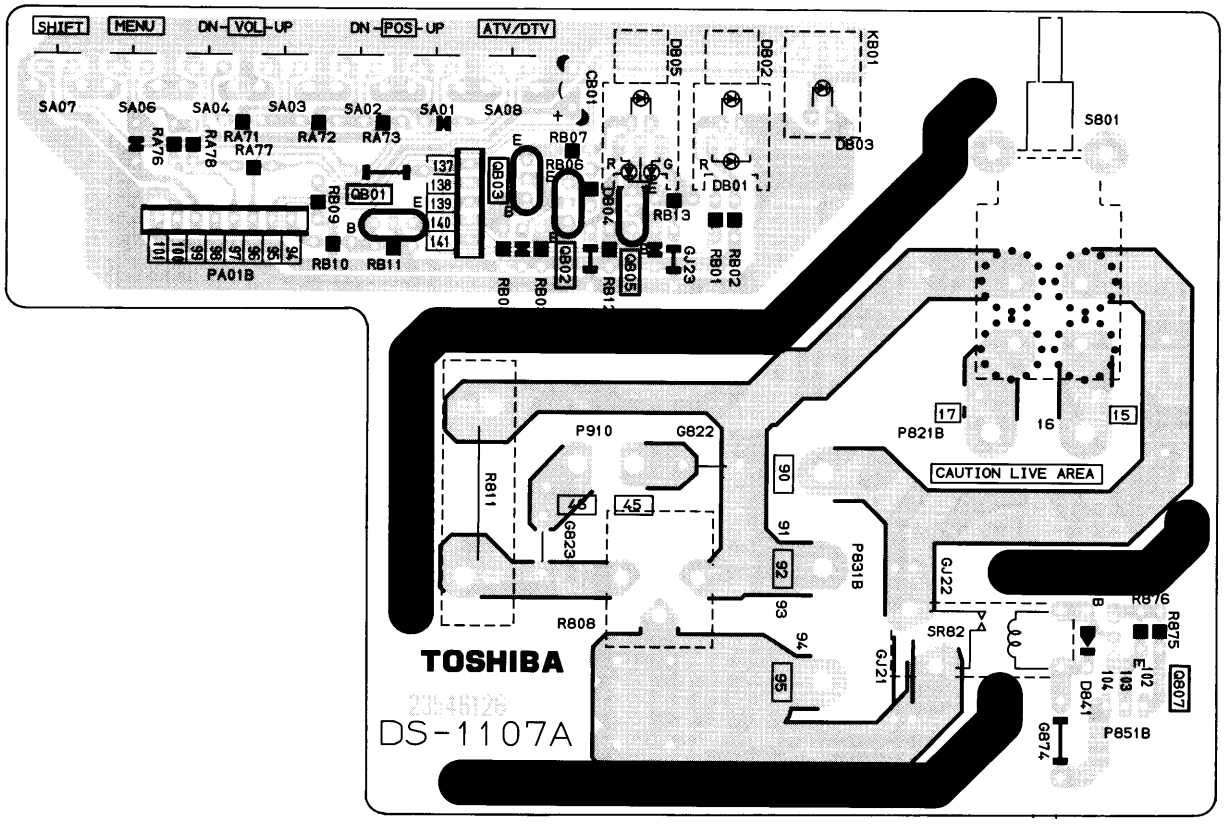
BACK TERMINAL/AV BOARD PB8836A

BOTTOM (FOIL) SIDE



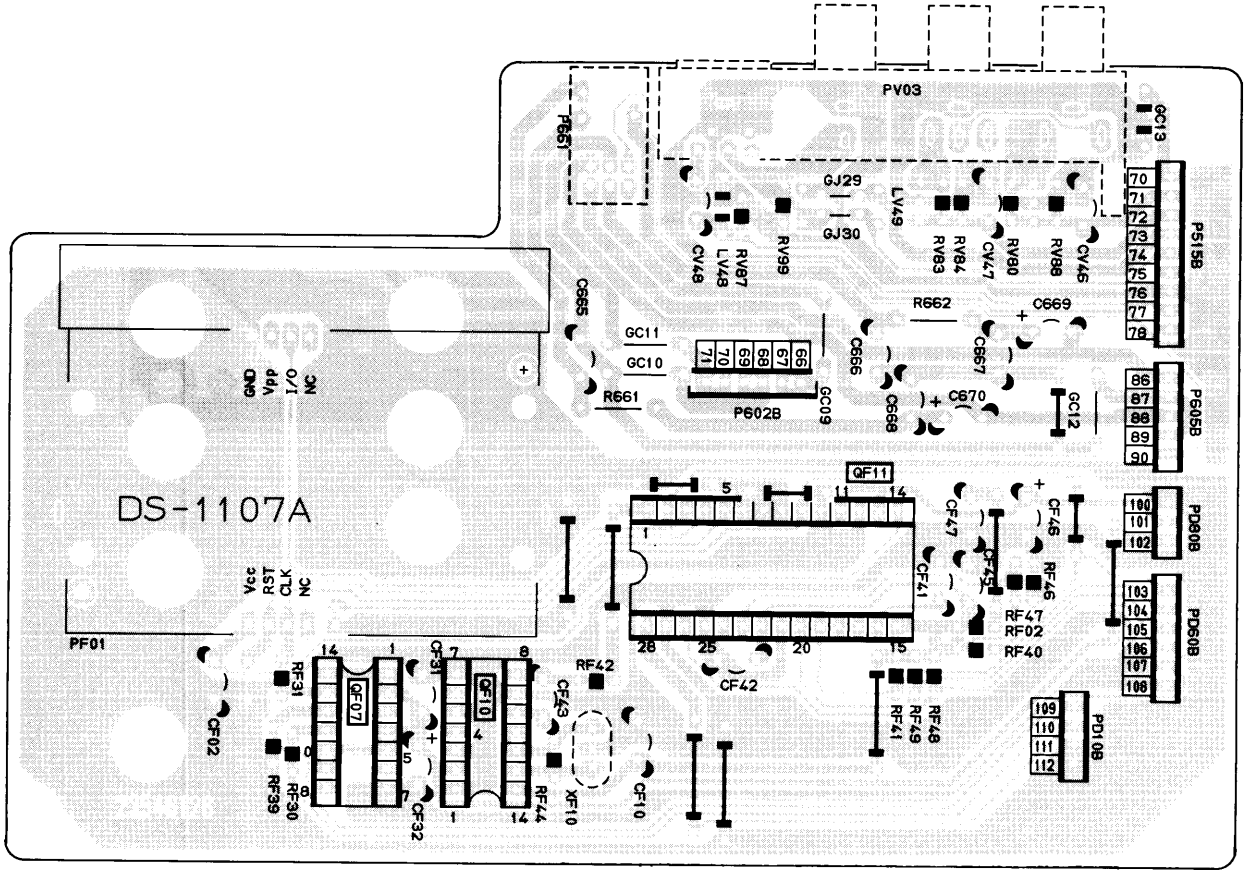
CONT-1 BOARD PB8835A-1

BOTTOM (FOIL) SIDE



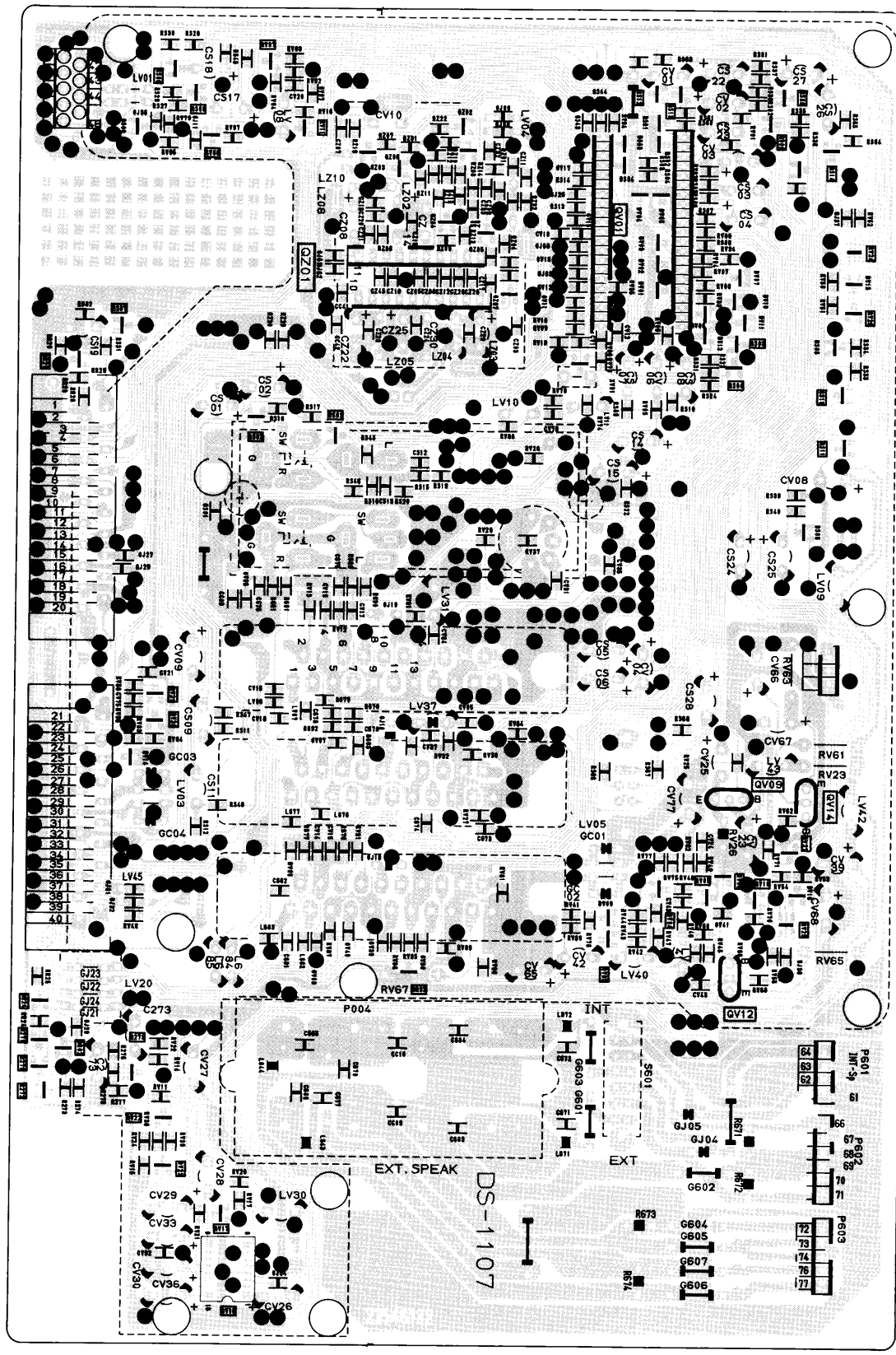
CONT-2 BOARD PB8835A-2

BOTTOM (FOIL) SIDE



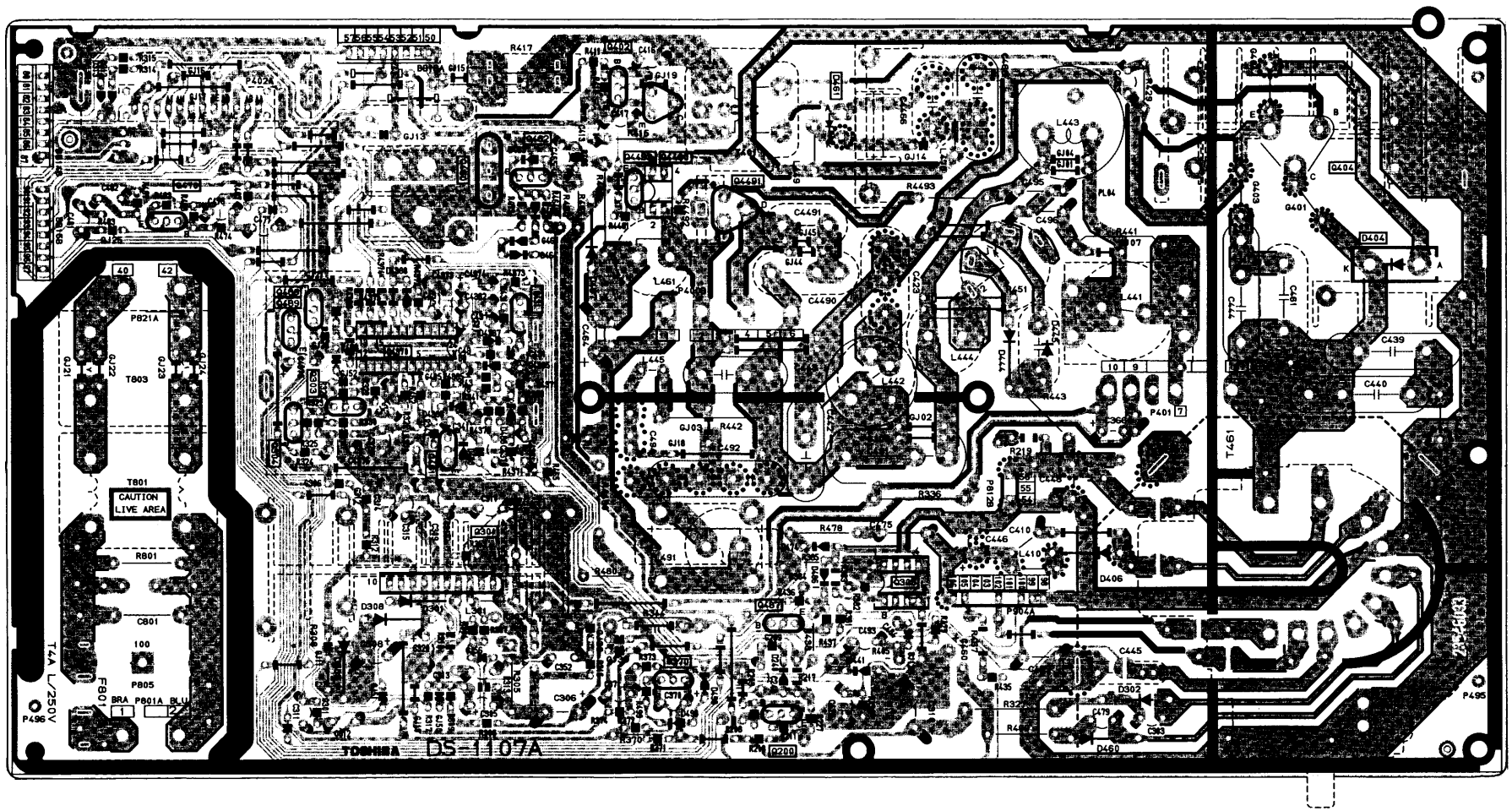
BACK TERMINAL/AV BOARD PB8836A

BOTTOM (FOIL) SIDE



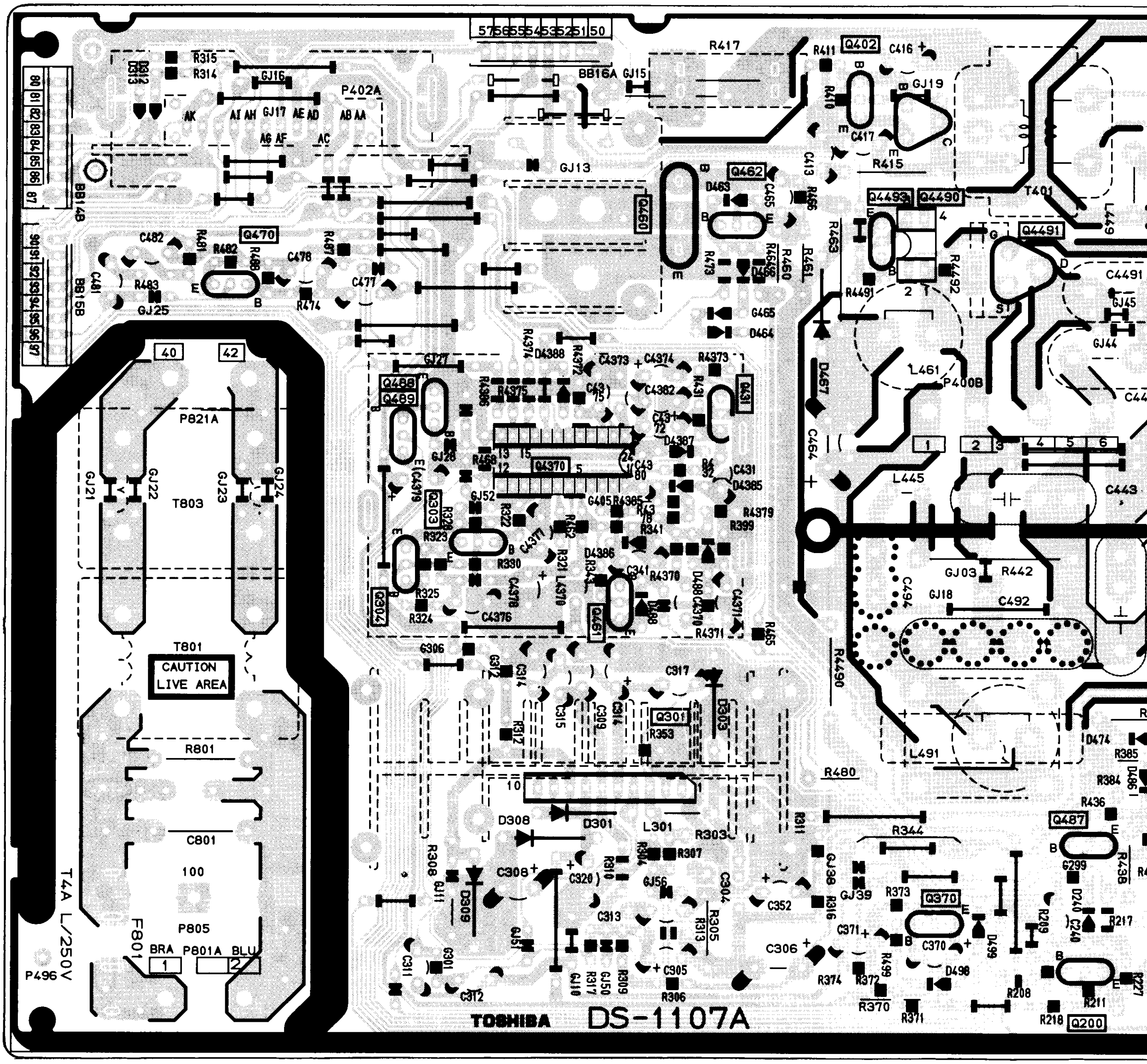
DEF BOARD PB8831B

BOTTOM (FOIL) SIDE



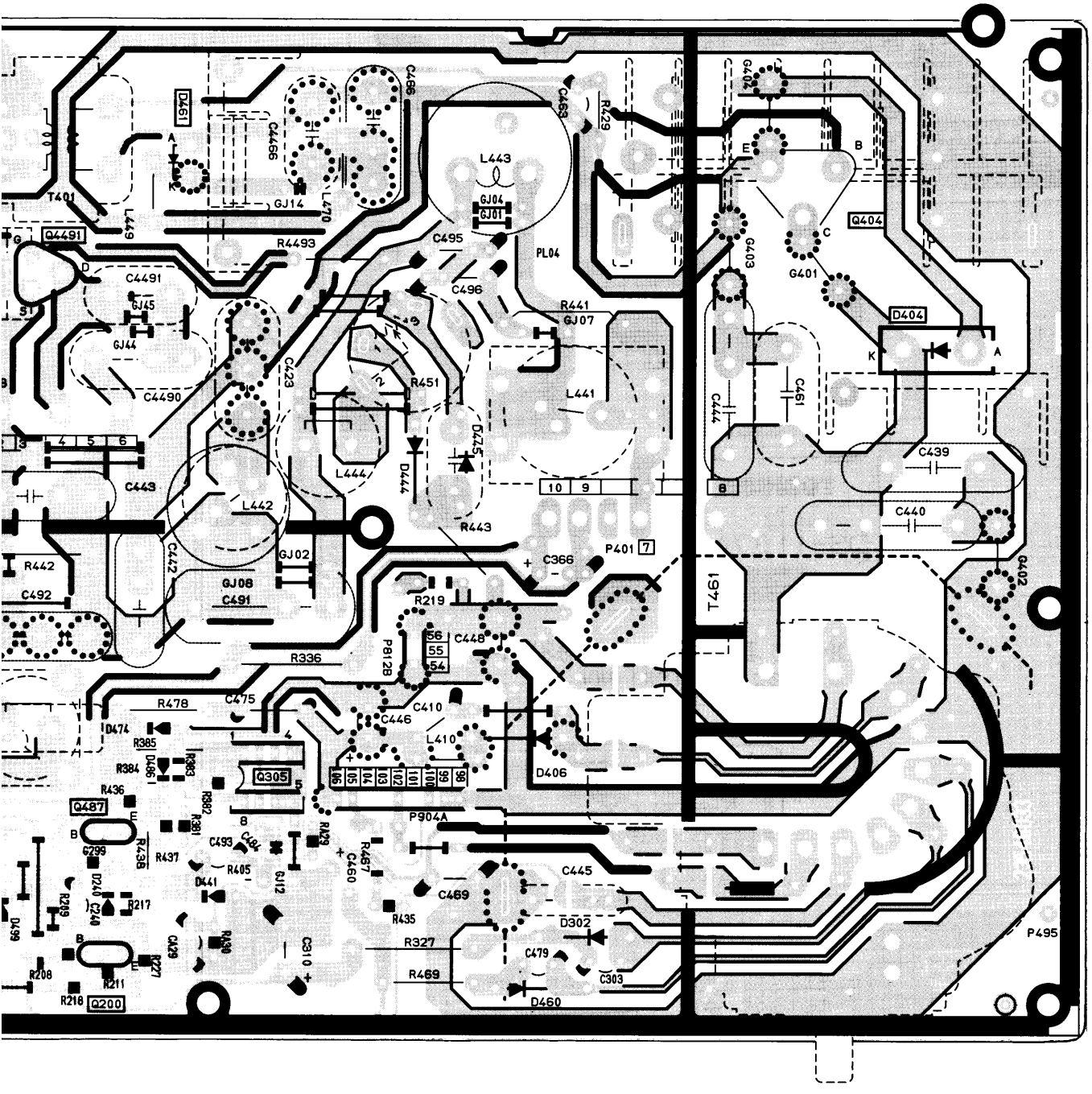
DEF BOARD PB8

BOTTOM (FOIL) SID



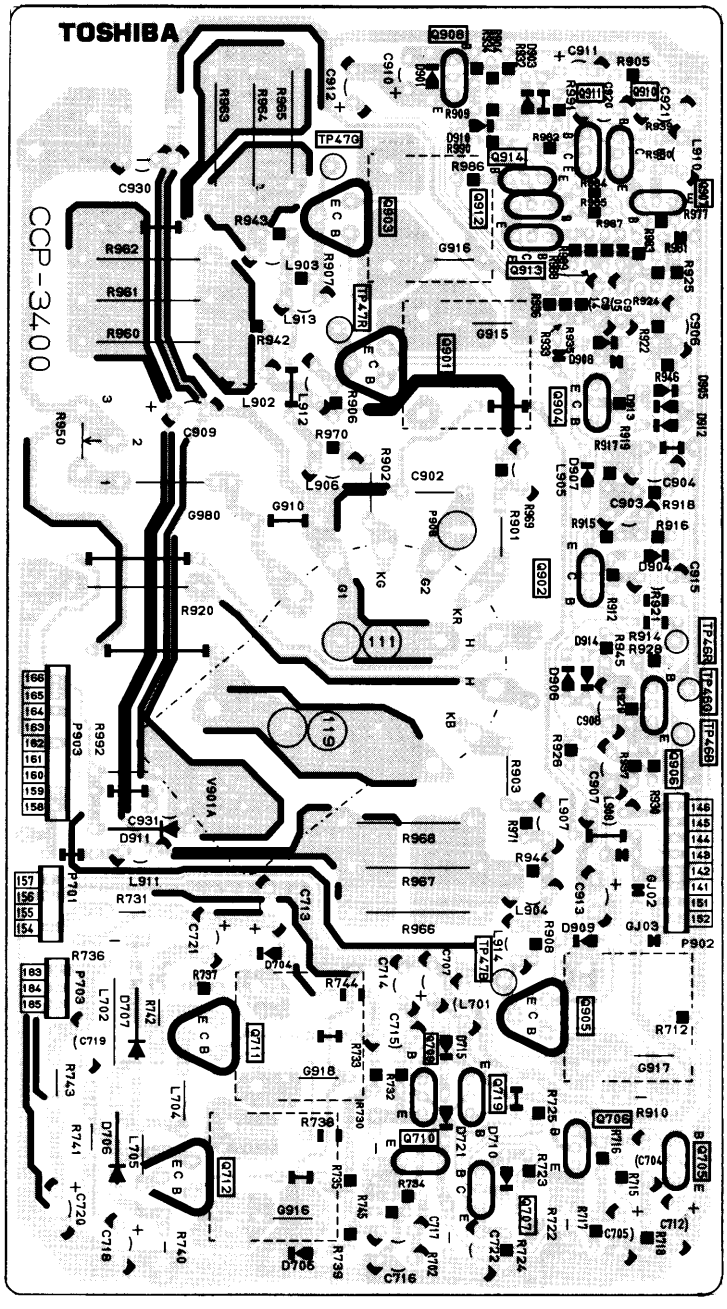
BOARD PB8831B

TTOM (FOIL) SIDE



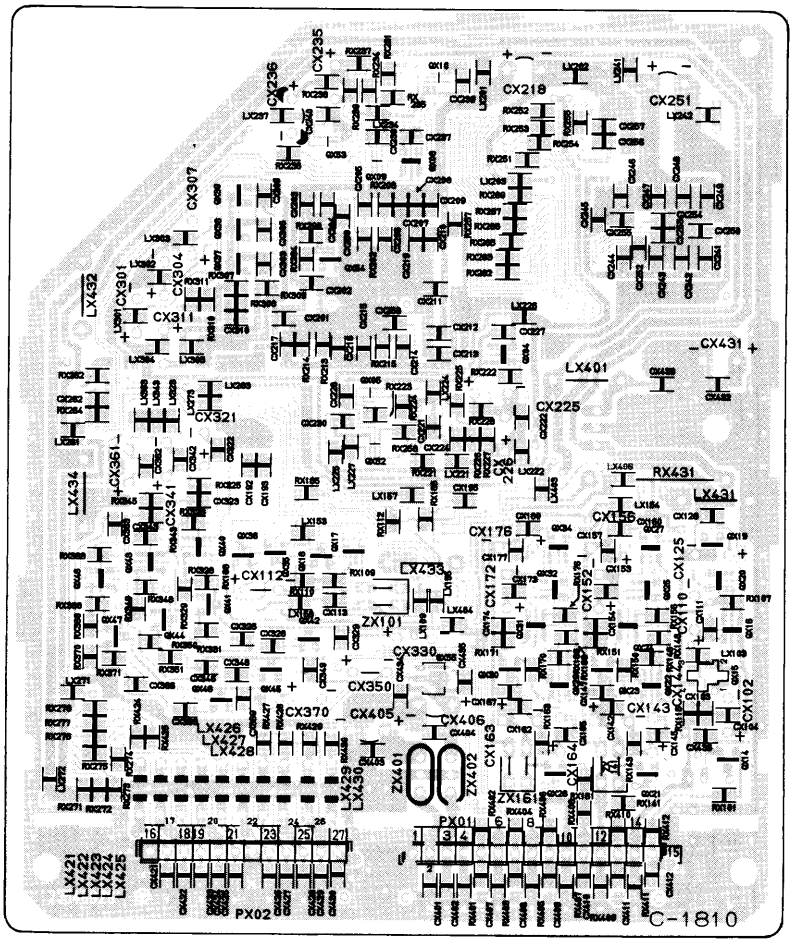
CRT DRIVE/DSM BOARD PB8813B

BOTTOM (FOIL) SIDE



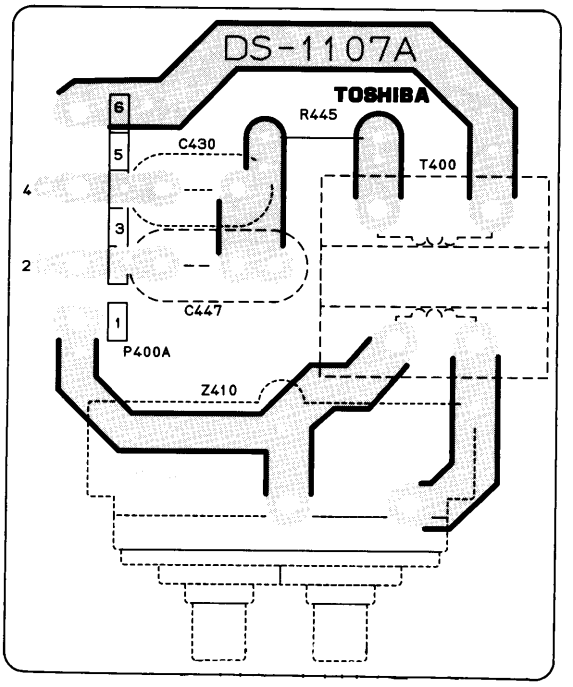
D-SCAN BOARD PB8826A

BOTTOM (FOIL) SIDE



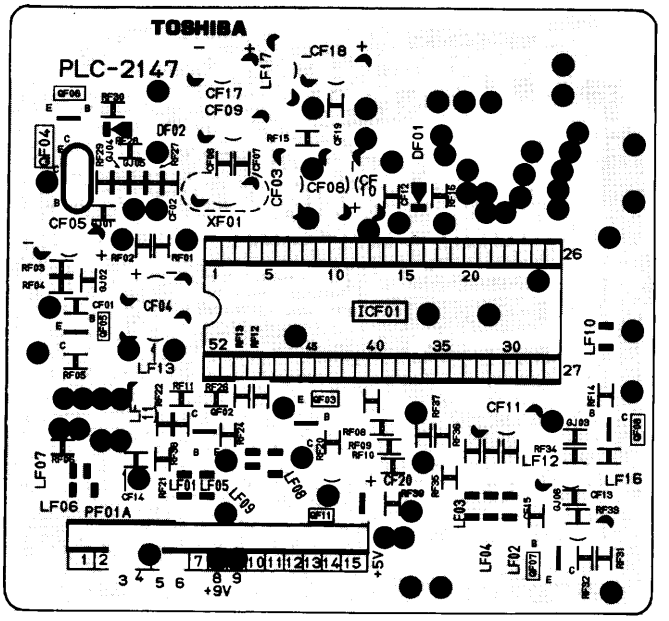
FOCUS BOARD PB8856A

BOTTOM (FOIL) SIDE



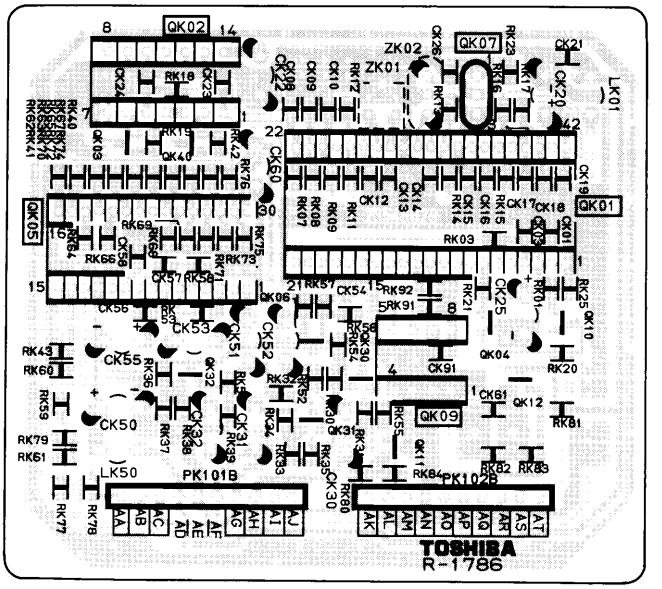
TEXT BOARD PB7928B

BOTTOM (FOIL) SIDE



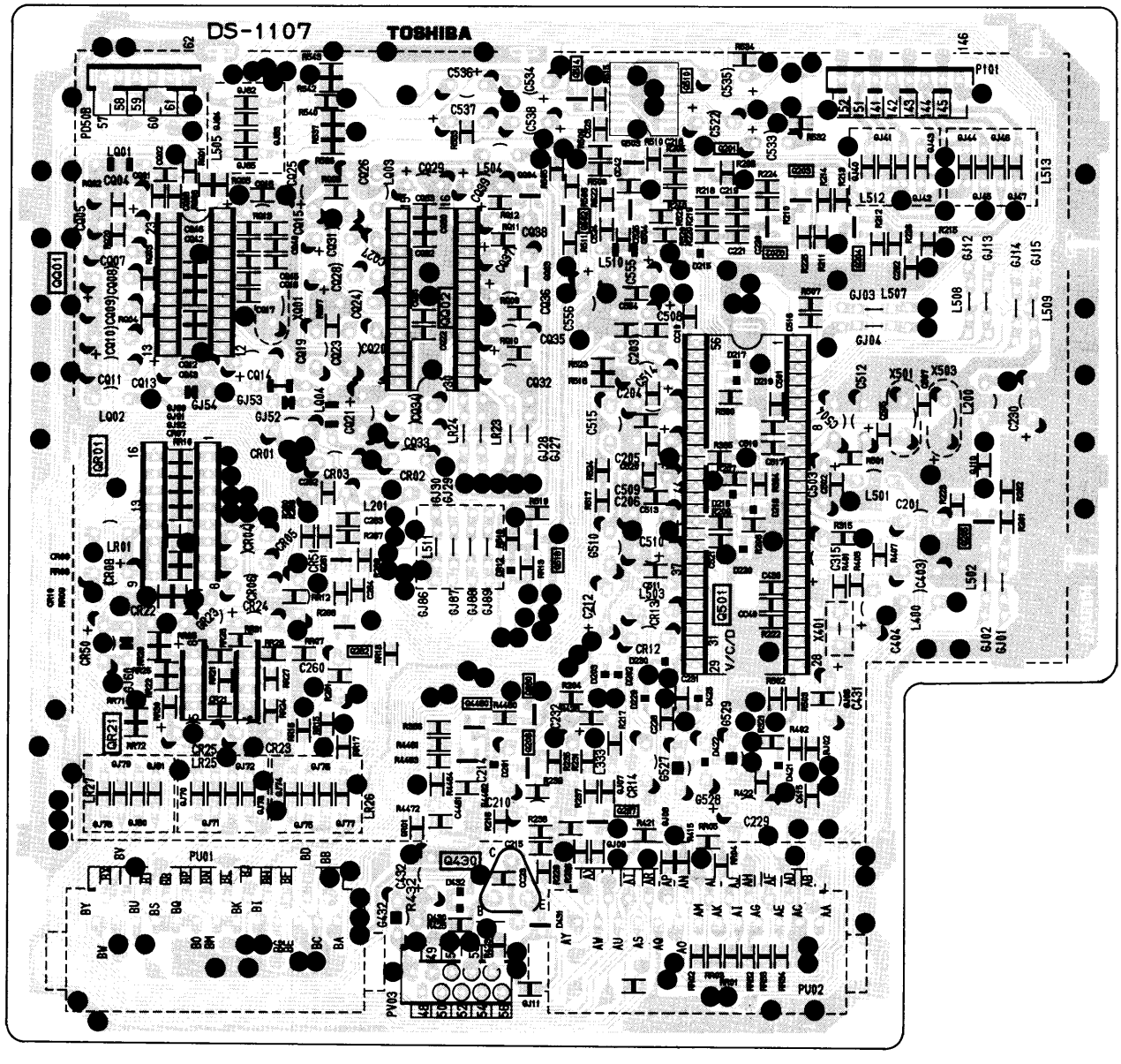
AUTO LIVE BOARD PB8827A

BOTTOM (FOIL) SIDE



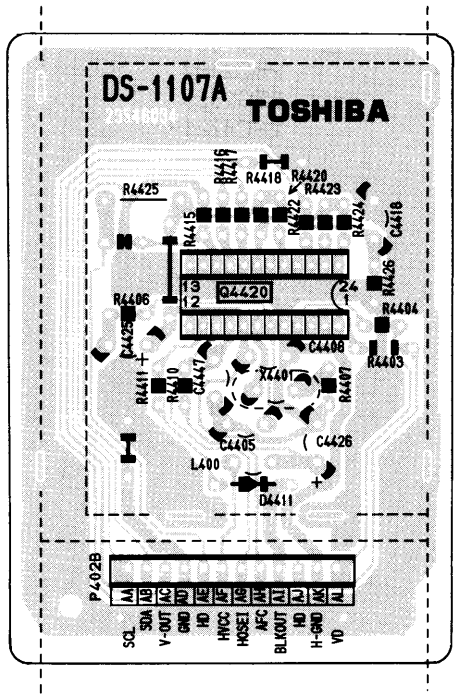
VCD BOARD PB8768C

BOTTOM (FOIL) SIDE



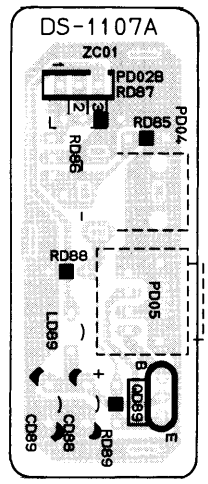
100Hz BOARD PB8832A

BOTTOM (FOIL) SIDE



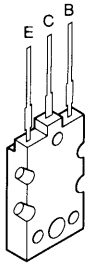
DIGITAL BOARD PB8834A

BOTTOM (FOIL) SIDE

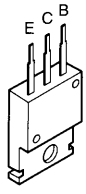


TERMINAL VIEW OF TRANSISTORS

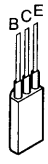
① 2SD2253
(old)
2SC5243
2SC5570



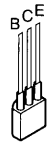
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



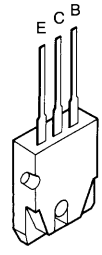
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



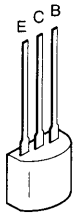
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



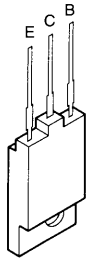
⑤ 2SA1788



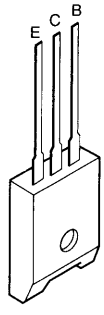
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553



⑧ ON4409



SCHEMATIC DIAGRAM MODEL : 32WD98B (1/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

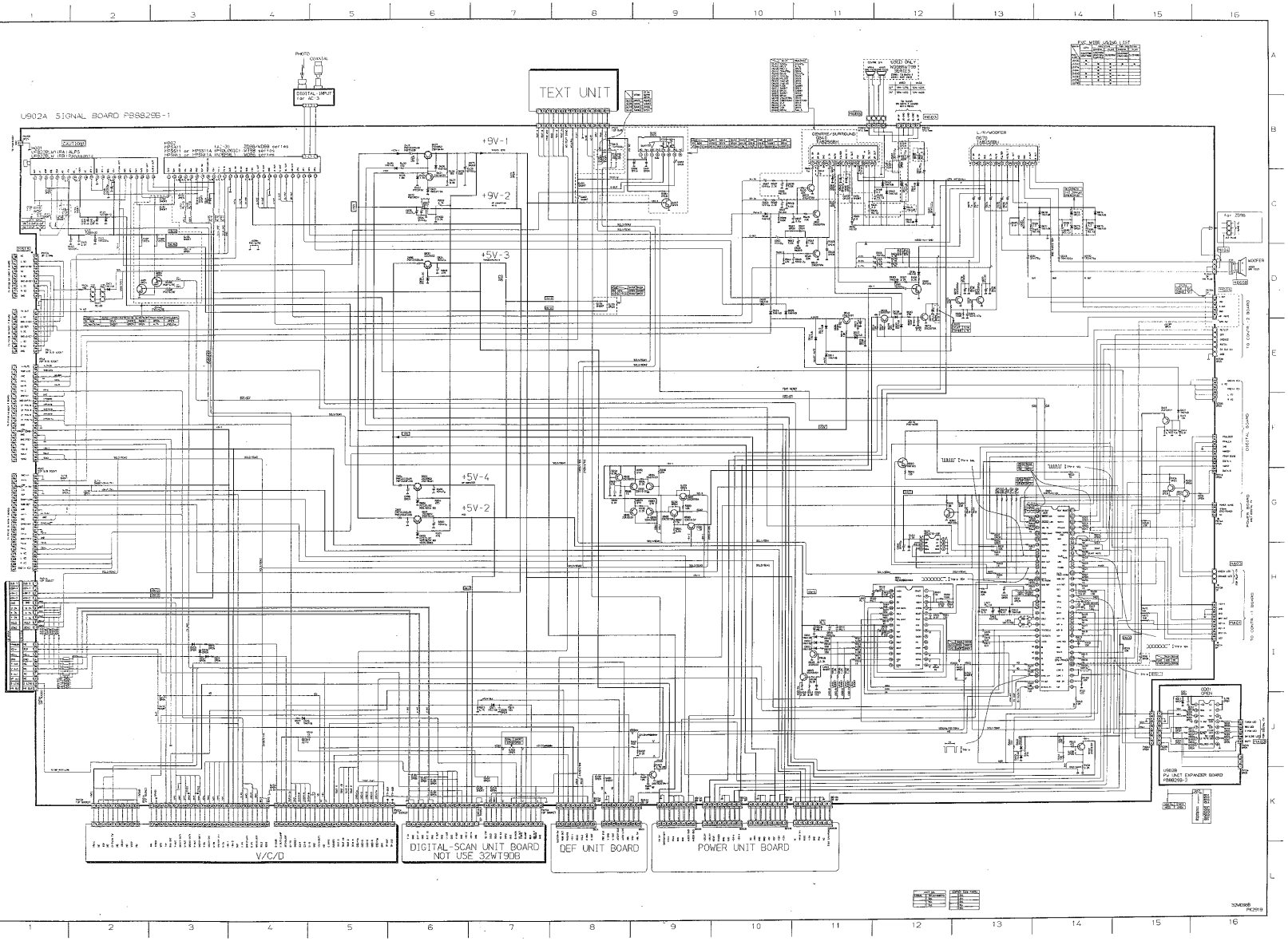
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

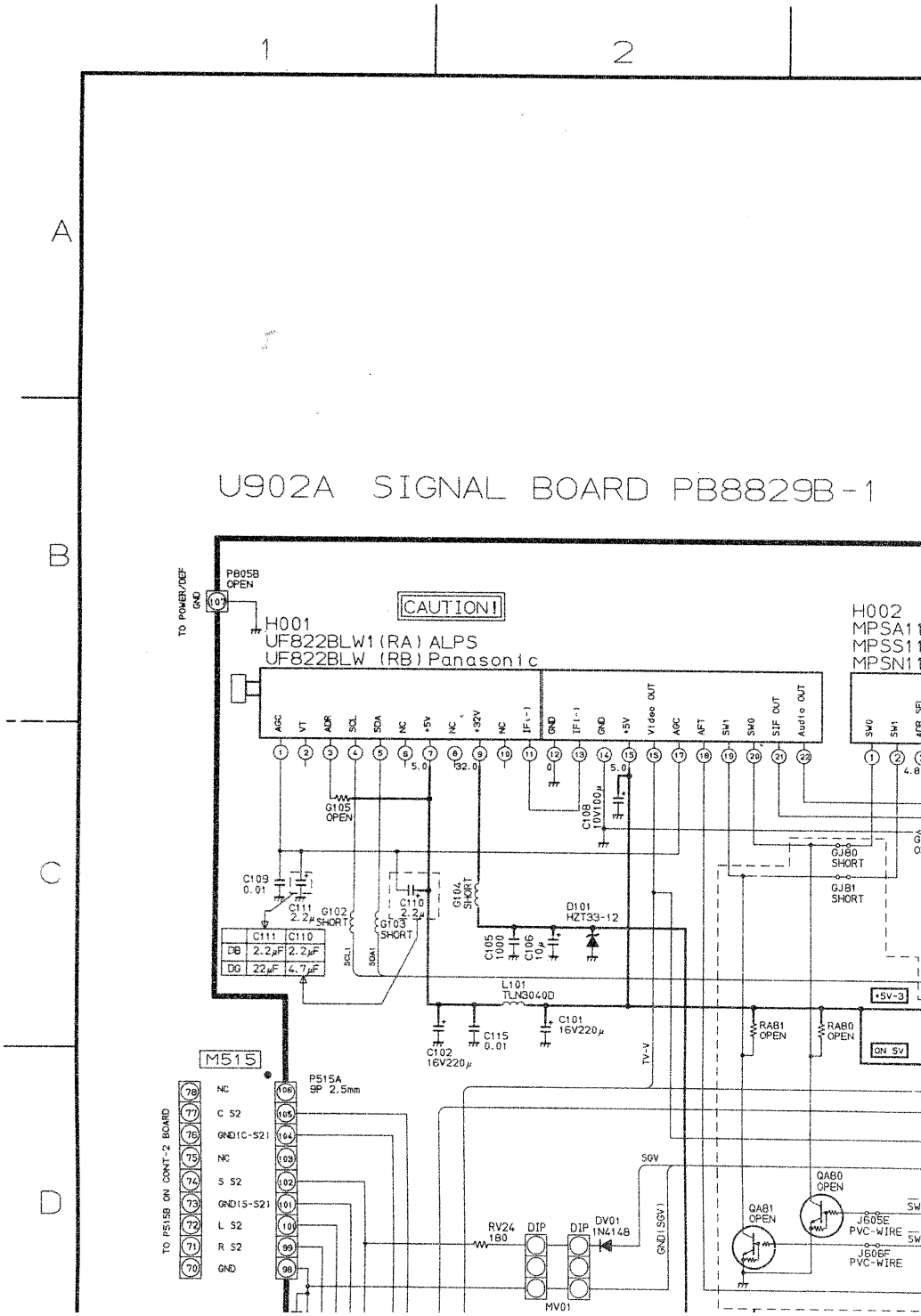
030-9914



SCHEMATIC DIAGRAM MODEL : 32WD98B (1/6)

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

030-9914



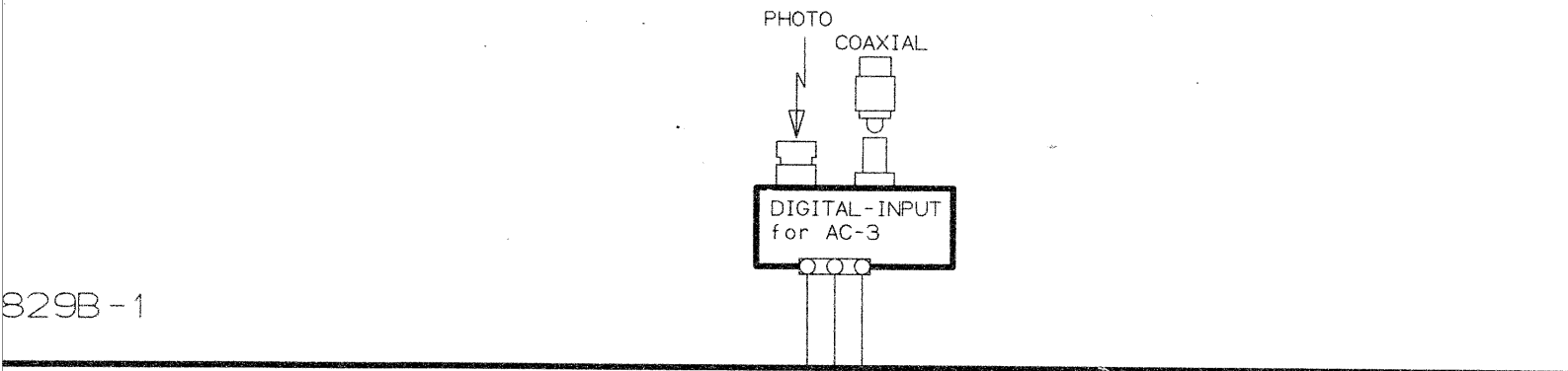
(1/6)

OBSERVATION OF VOLTAGES AND WAVEFORMS

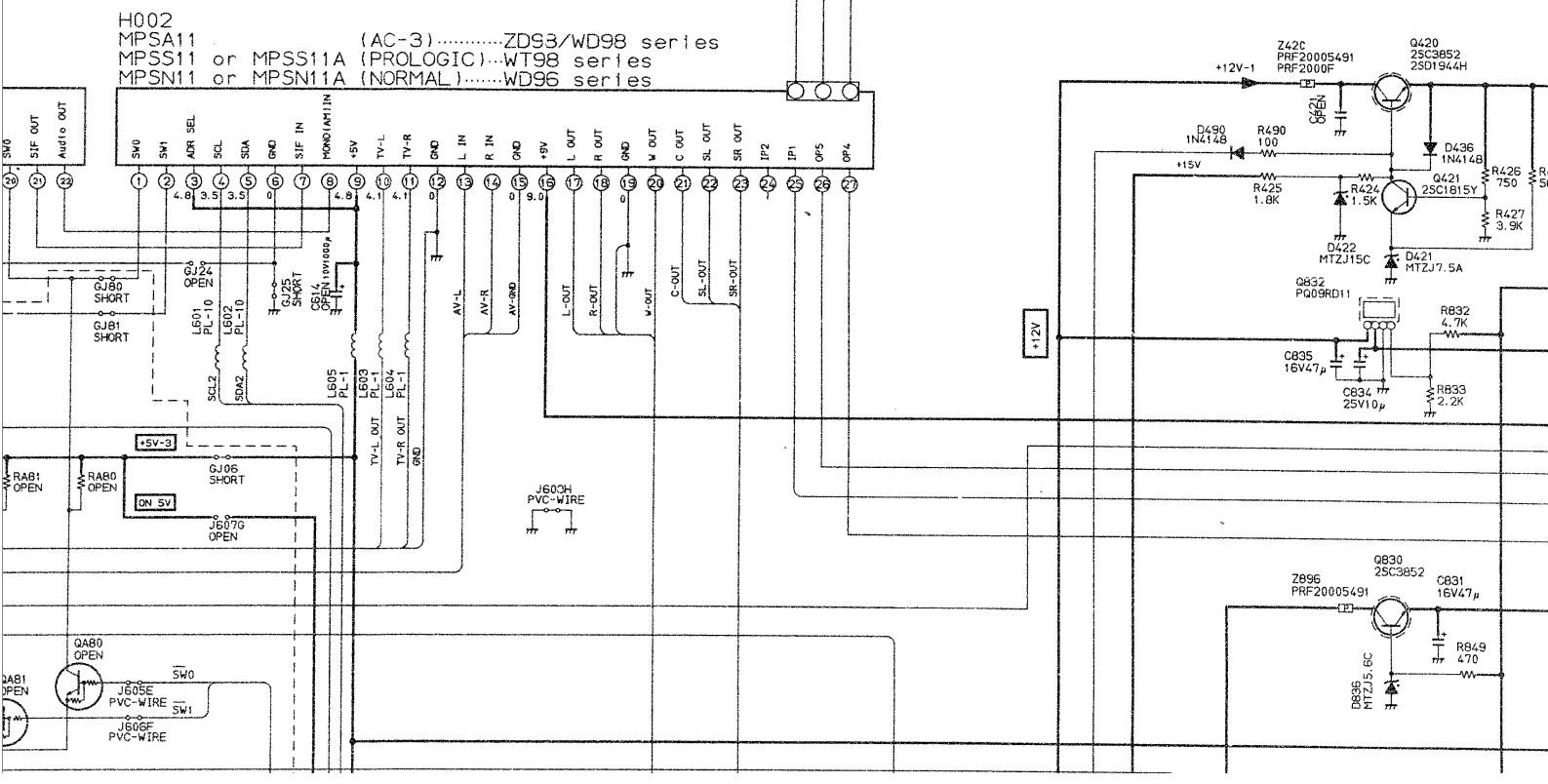
1. Voltages read with VTVM from point shown to chassis ground, line volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low cap
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid p BRIGHTNESS control is almost in maximum position. Set other cont picture.

list designate com-
ly with types identical to
ents is to be identical
AFETY NOTICE on page

3 4 5 6



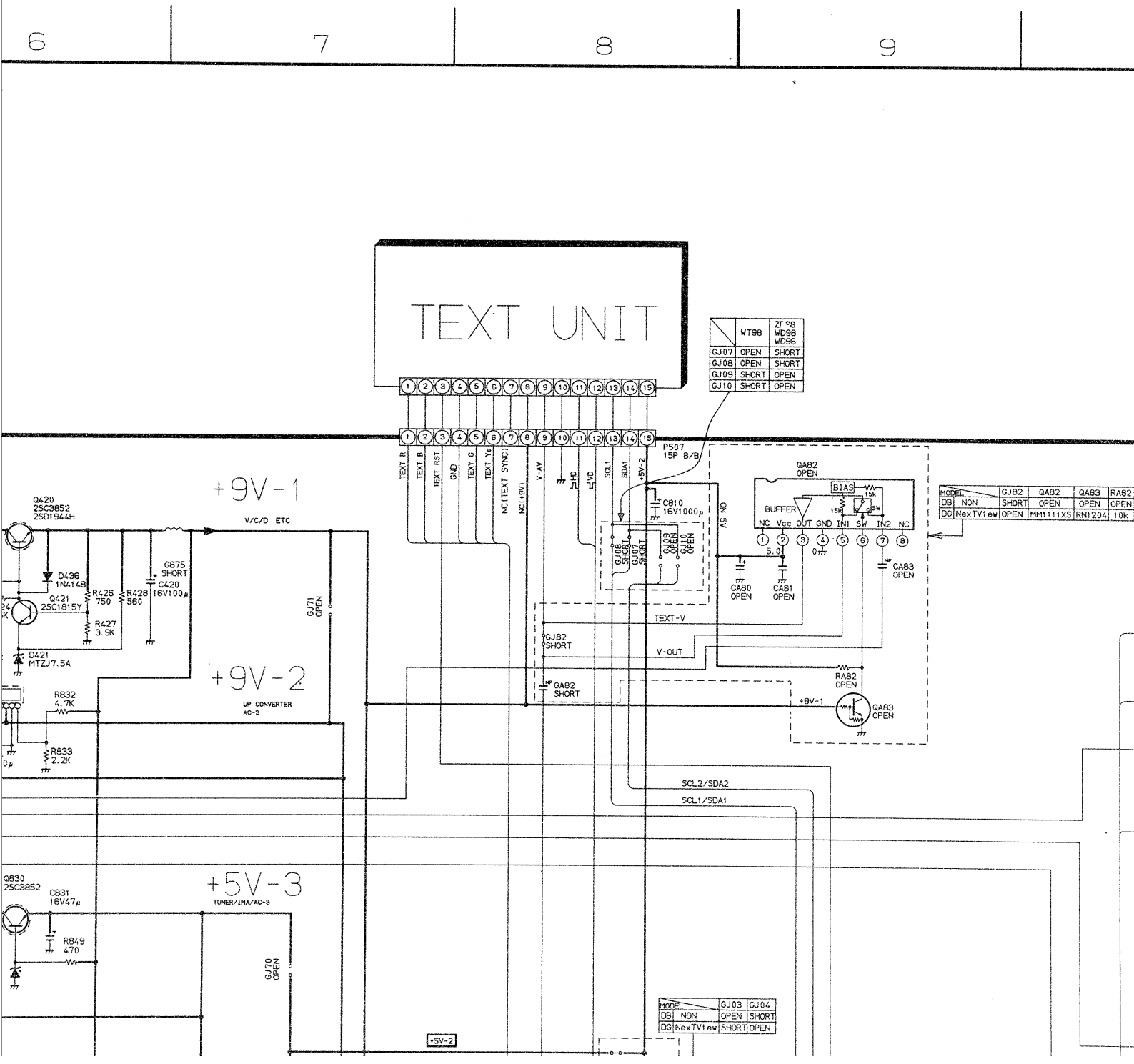
829B-1



ground, line voltage 220
)%.
and a low capacity probe.
ıl.
re in mid position and
et other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is show
   gram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.



	WT98	Zf'98 WD98 WD96
GJ07	OPEN	SHORT
GJ08	OPEN	SHORT
GJ09	SHORT	OPEN
GJ10	SHORT	OPEN

MODEL	GJ82	QA82	QA83	RA82
DB NON	SHORT	OPEN	OPEN	OPEN
DG NexTV1ew	OPEN	MM1111XS	RN1204	10k

MODEL	GJ03	GJ04
DB NON	OPEN	SHORT
DG NexTV1ew	SHORT	OPEN

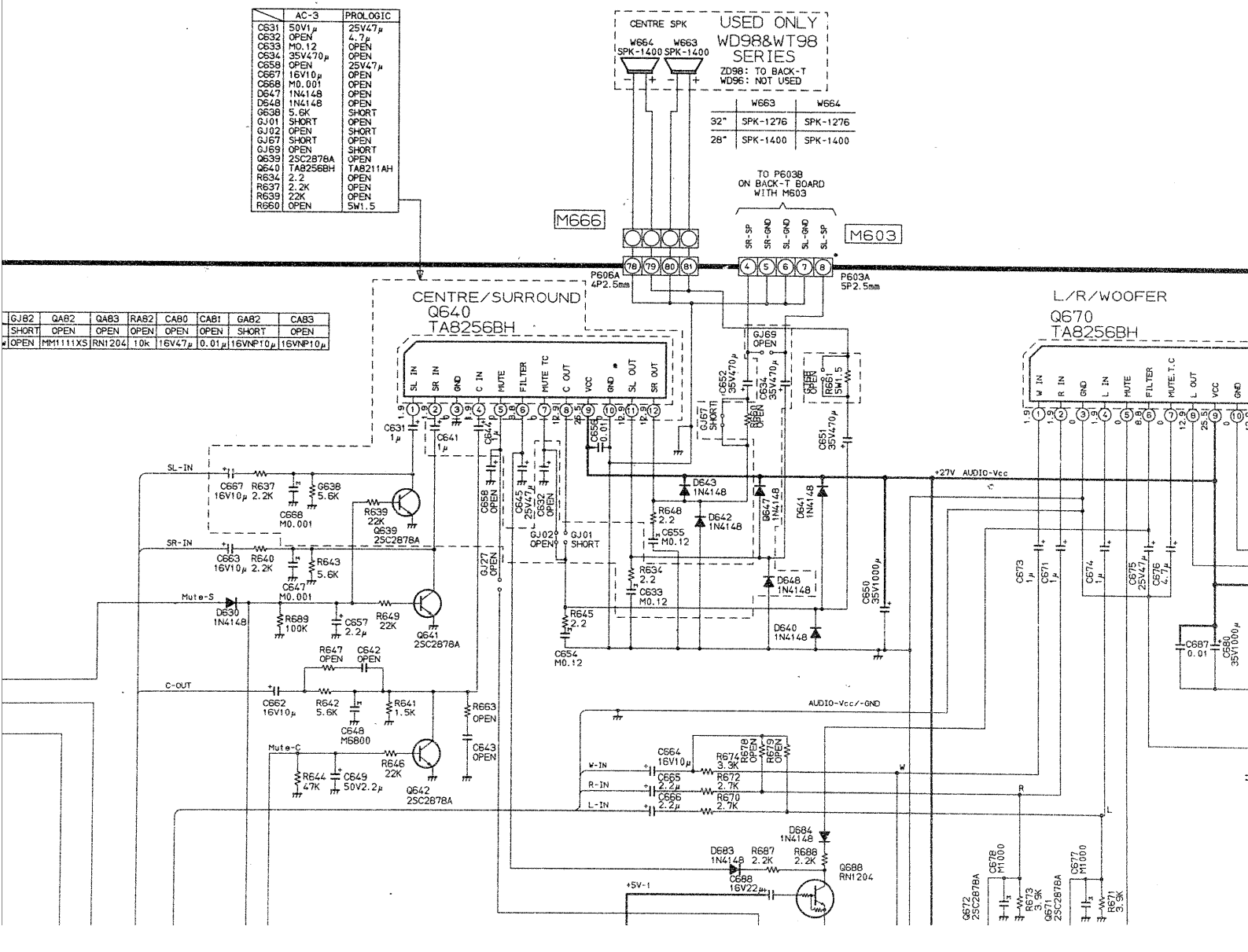
rmer is shown in this schematic dia-
n the circuit.
otice.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and IND

1. Resistance is shown in ohm, k=1,000, M=1,000
2. Unless other wise noted in schematic, all capa
   sed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all induct
   sed in μH, and the values less than 1 in H.

10 11 12 13



ACITOR and INDUCTOR

=1,000, M=1,000,000

chematic, all capacitor values less than 1 are expres-
than 1 in pF.

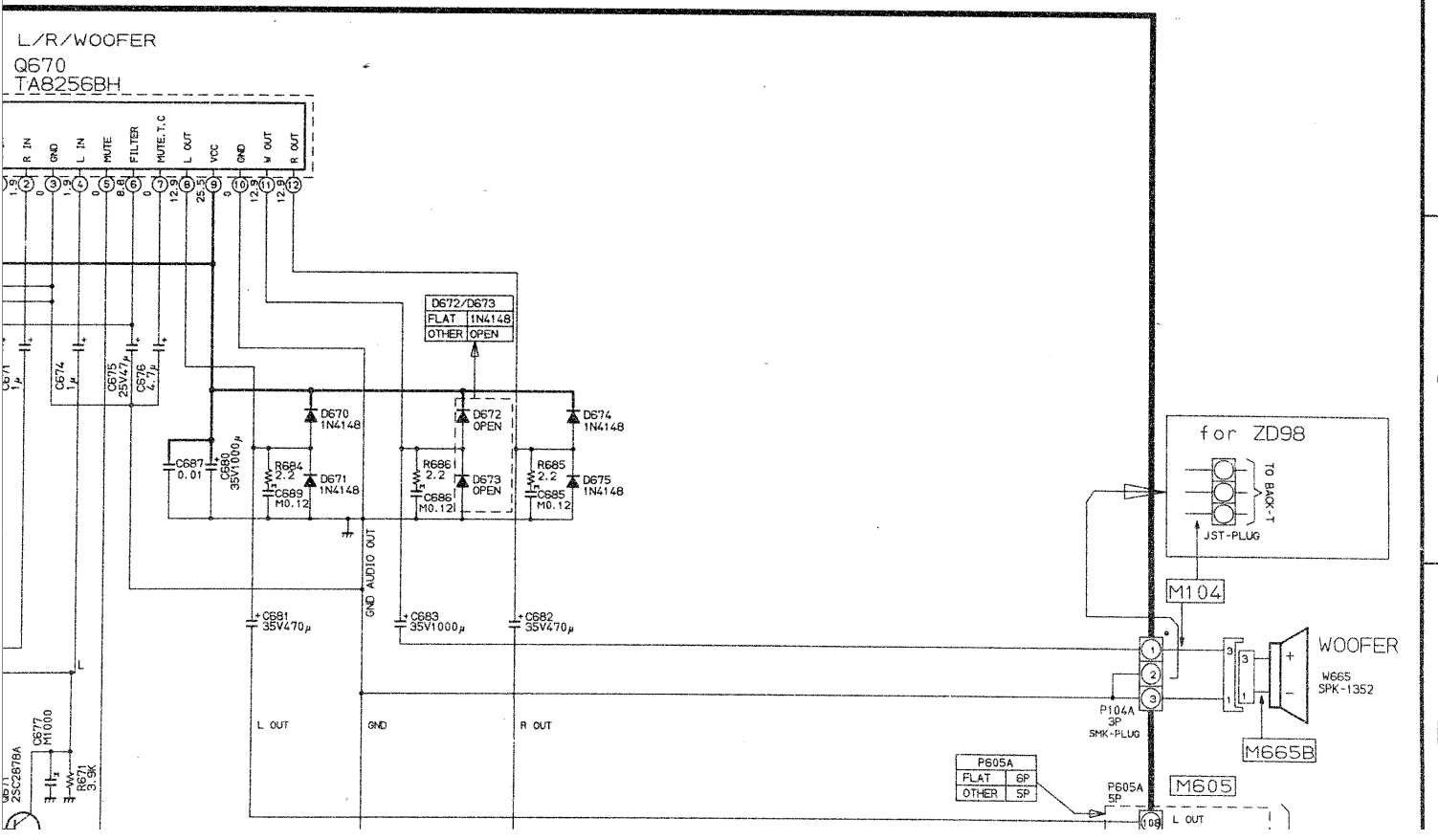
nematic, all inductor values more than 1 are expres-
than 1 in H.

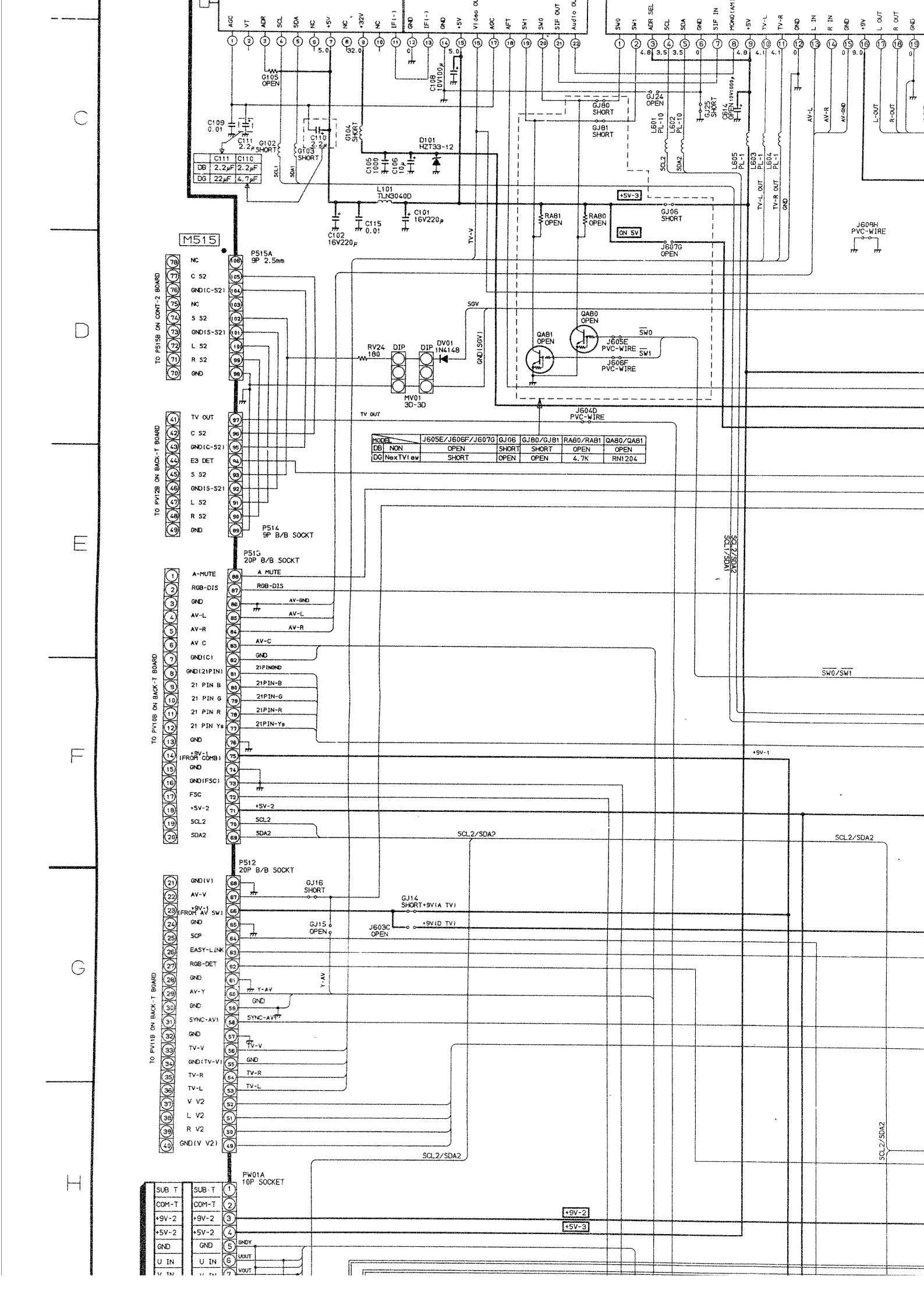
13 14 15 16

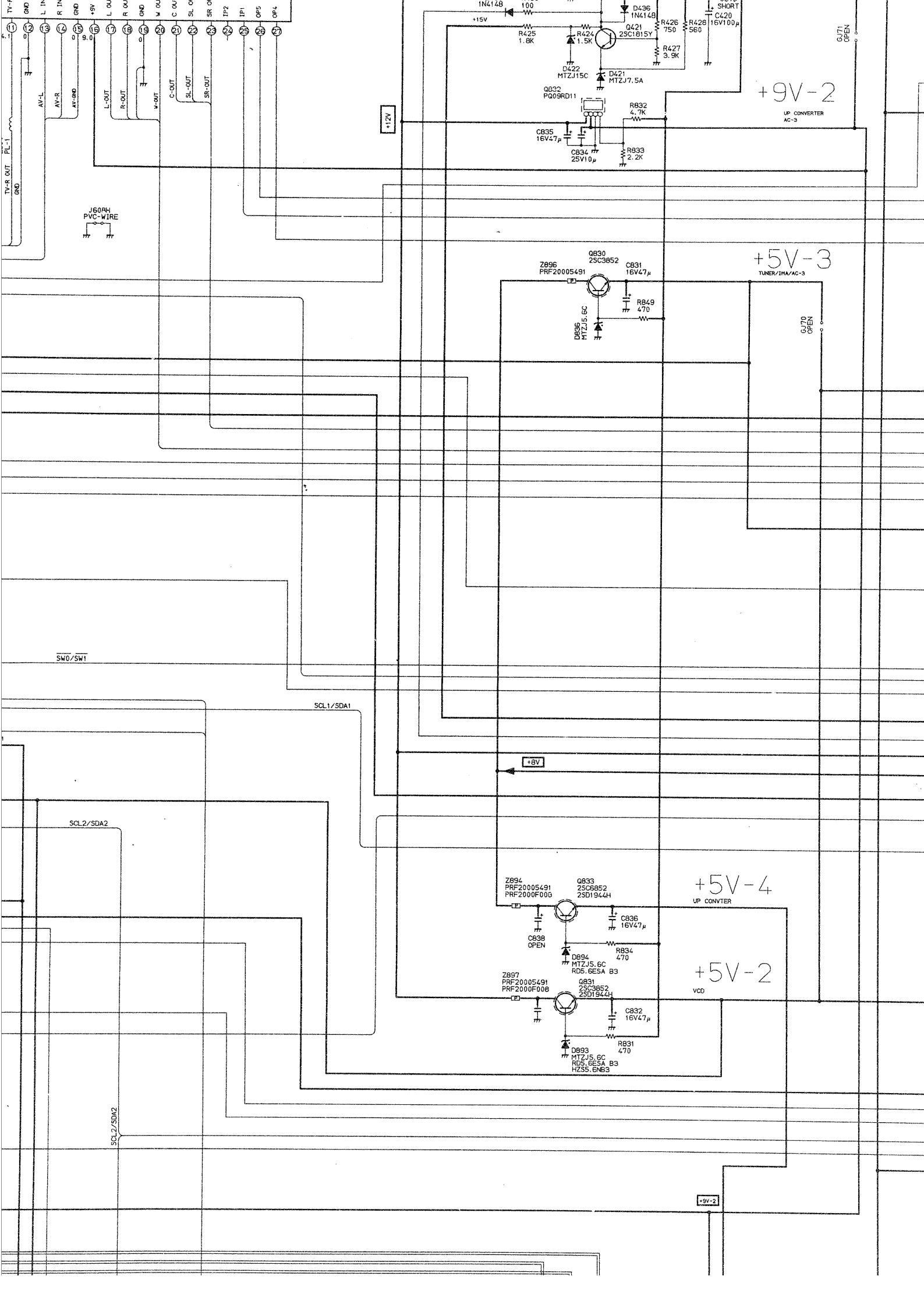
A B C D

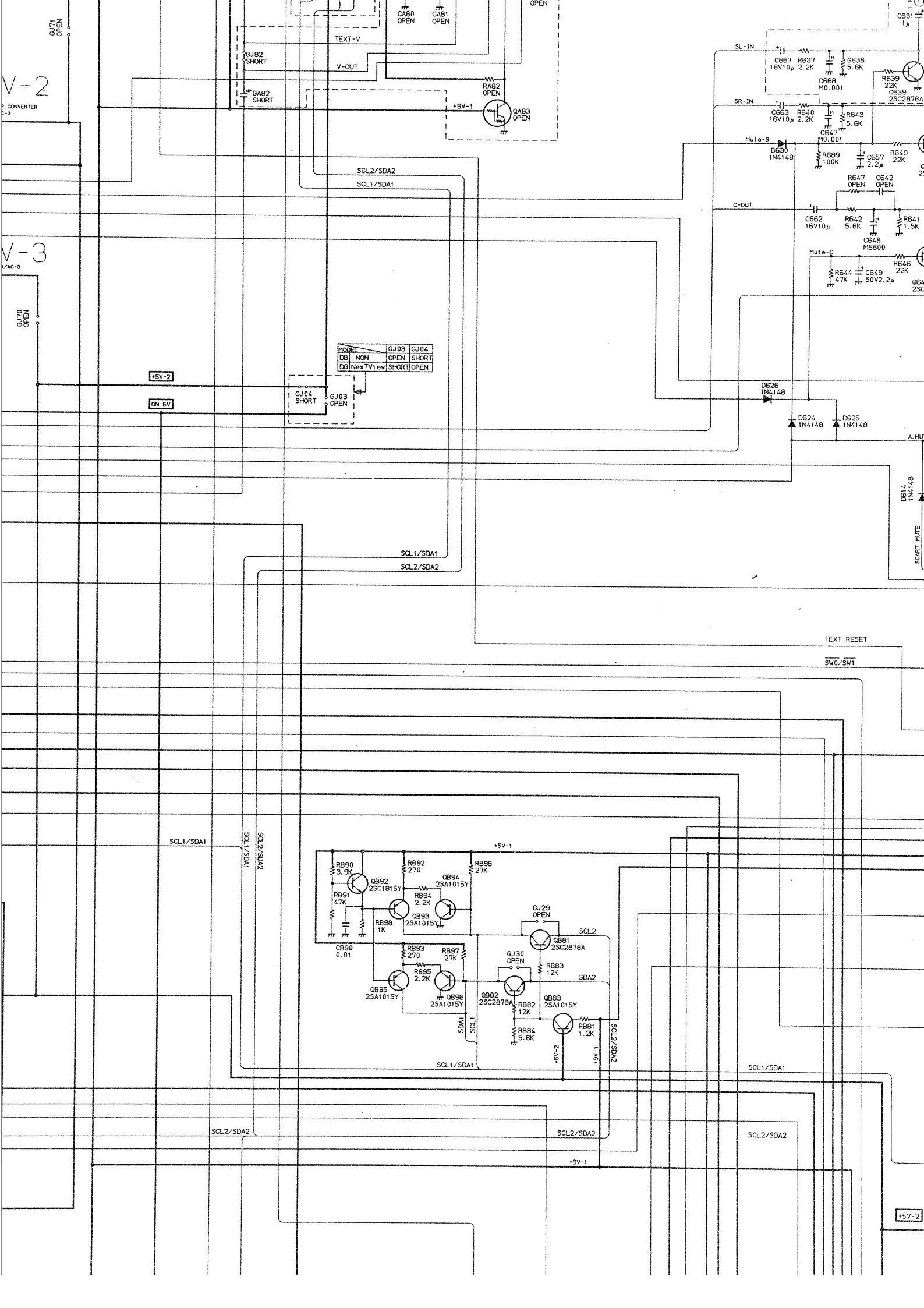
PVC WIRE USING LIST

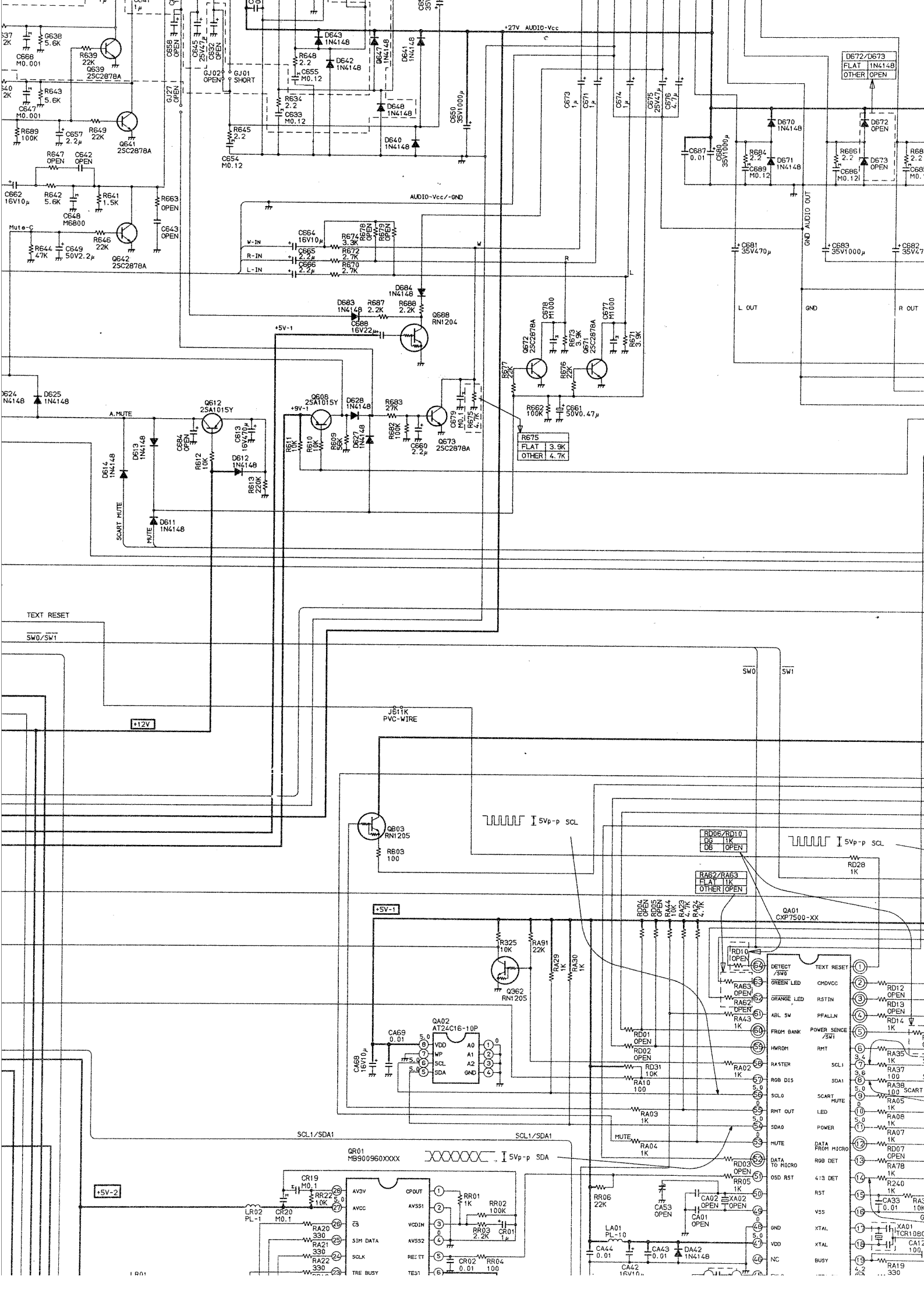
model / PVC WIRE	IDTV	NexTView		non-NexTView	
		NORMAL	FLAT	NORMAL	FLAT
	32WT98B 28WT98B	32WD98G 28WD98G 32WD96G	32ZD98G	32WD98B 28WD98B	32ZD98B
J603C	●				
J604D	●	●	●	●	●
J605E		●	●		
J606F		●	●		
J607G	●	●	●		
J608H	●	●	●		
J611K		●	●		
J613M			●		

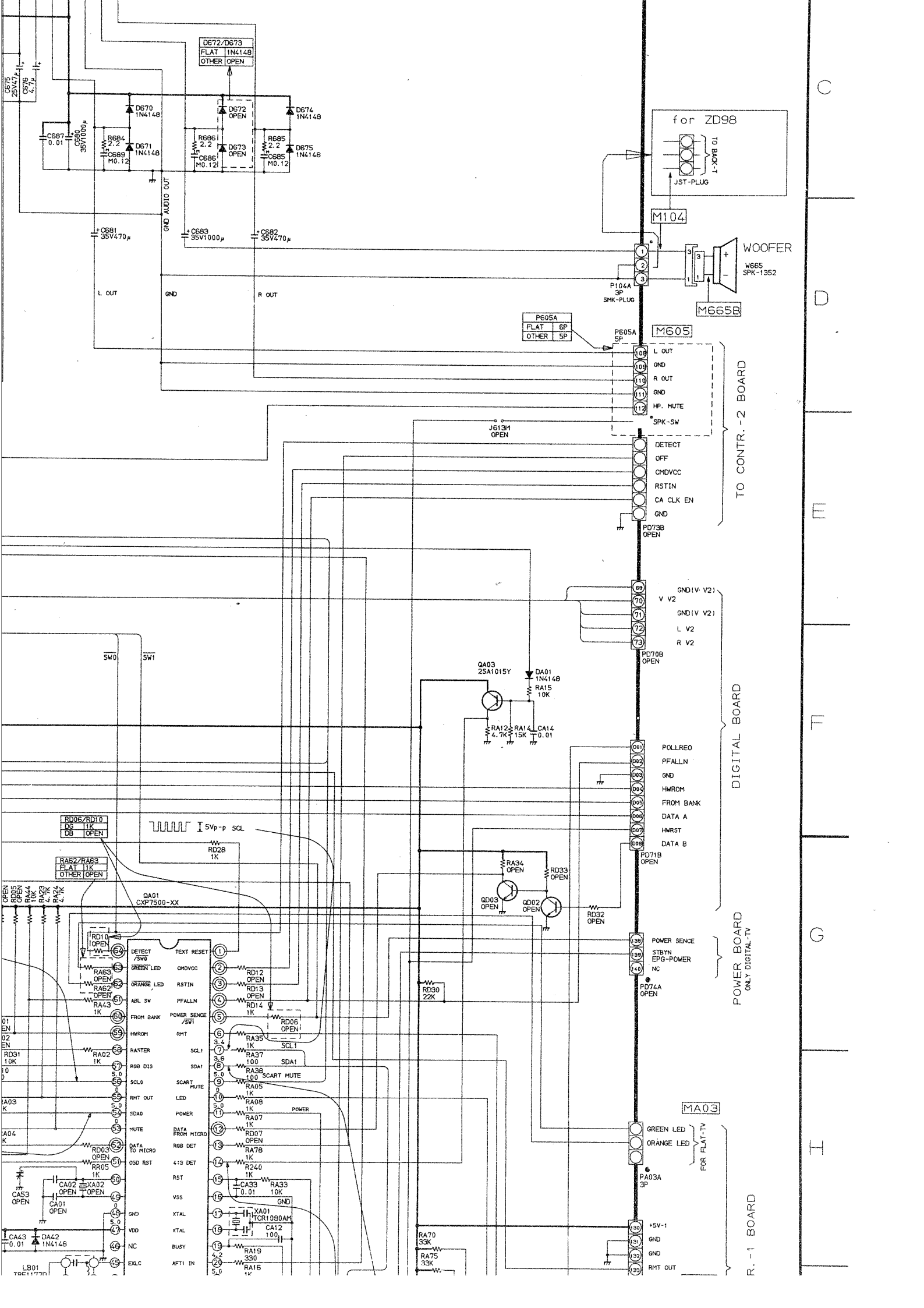


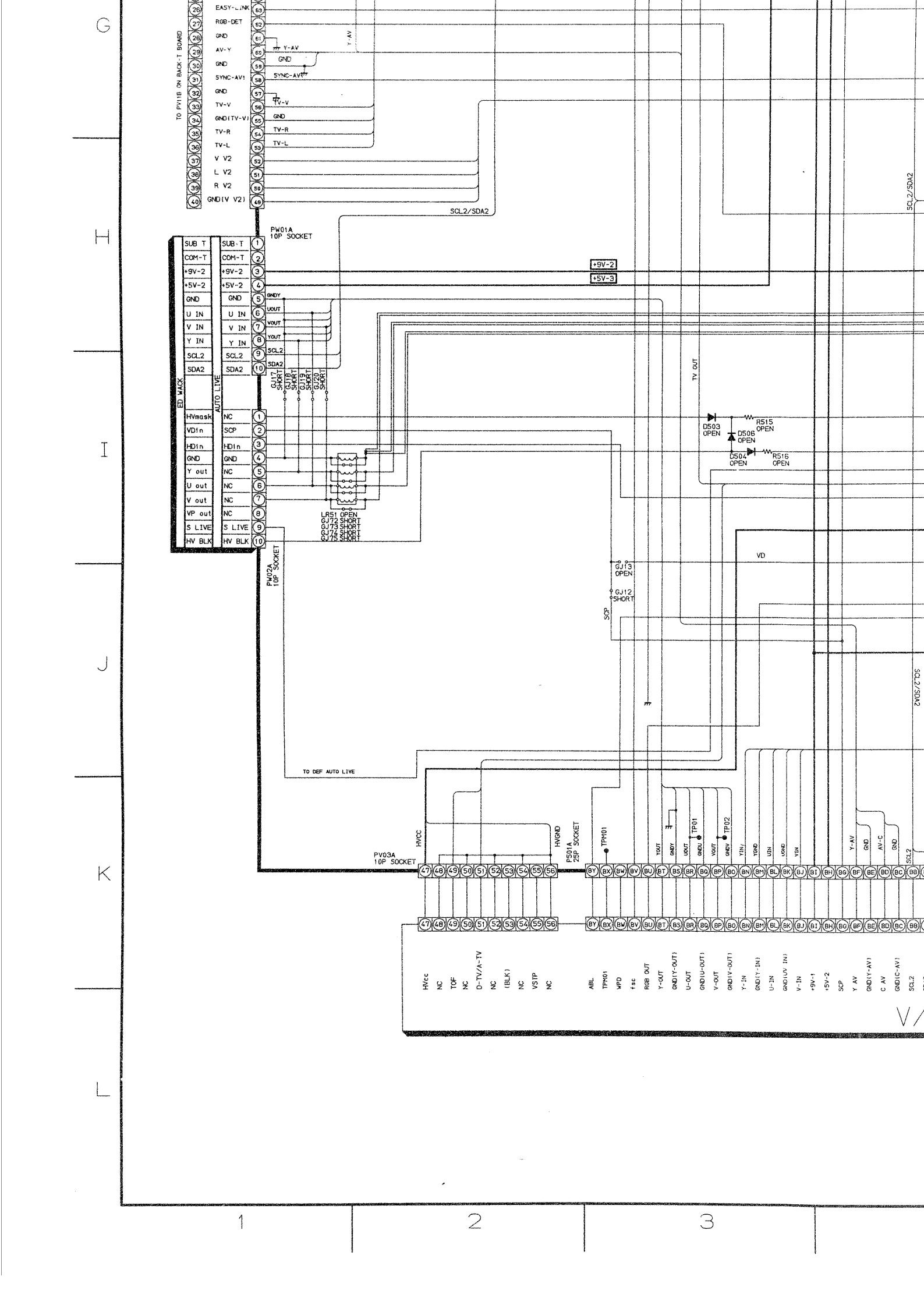

M515
P515A
9P 2.5mm
TO P515B ON CONT-2 BOARD
NC
C S2
GND(C-S2)
NC
S S2
GND(S-S2)
L S2
R S2
GND
TV OUT
C S2
GND(C-S2)
E3 DET
S S2
GND(S-S2)
L S2
R S2
GND
TO PV12B ON BACK-T BOARD
P514
9P B/B SOCKT
P513
20P B/B SOCKT
A-MUTE
RGB-DIS
GND
AV-L
AV-R
AV C
GND(C)
GND(21PIN)
21 PIN B
21 PIN G
21 PIN R
21 PIN Ys
GND
+9V-1 (FROM COMB)
GND
GND(FSC)
FSC
+5V-2
SCL2
SDA2
TO PV10B ON BACK-T BOARD
P512
20P B/B SOCKT
GND(V)
AV-V
+9V-1 (FROM AV SW)
GND
SCP
EASY-LINK
RGB-DET
GND
AV-Y
GND
SYNC-AV1
GND
TV-V
GND(TV-V)
TV-R
TV-L
V V2
L V2
R V2
GND(V V2)
TO PV11B ON BACK-T BOARD
PW01A
10P SOCKET
SUB T
COM-T
+9V-2
+5V-2
GND
U IN
V IN
GNDY
VOUT
AGC
VT
ADR
SCL
SDA
NC
+5V
NC
+32V
NC
IF(-)
IF(-)
GND
+5V
Video OUT
AGC
AFT
SW1
SW0
SIF OUT
Audio OUT
SW0
SW1
ADR SEL
SCL
SDA
GND
SIF IN
MONO(AM)
+5V
TV-L
TV-R
GND
L IN
R IN
GND
+9V
L OUT
R OUT
GND
G105 OPEN
C109 0.01
C111 2.2μ
G102 SHORT
G103 SHORT
C110 2.2μ
G104 SHORT
C105 1000
C106 10μ
D101 HZT33-12
C108 10V100μ
C614 OPEN 10V1000μ
GJ80 SHORT
GJ81 SHORT
GJ24 OPEN
GJ25 SHORT
L601 PL-10
L602 PL-10
L605 PL-1
L603 PL-1
L604 PL-1
TV-L OUT
TV-R OUT
GND
AV-L
AV-R
AV-GND
L-OUT
R-OUT
C111 C110
DB 2.2μF 2.2μF
DG 22μF 4.7μF
SCL1
SDA1
SCL2
SDA2
L101 TLN3040D
C102 16V220μ
C115 0.01
C101 16V220μ
+5V-3
GJ06 SHORT
ON 5V
J607G OPEN
RA81 OPEN
RA80 OPEN
TV-V
J608H PVC-WIRE
SGV
GND(SGV)
RV24 180
DIP
DIP
DV01 1N4148
MV01 3D-3D
QA80 OPEN
QA81 OPEN
SW0
SW1
J605E PVC-WIRE
J606F PVC-WIRE
J604D PVC-WIRE
TV OUT
MODEL
DB NON
DG NexTView
J605E/J606F/J607G
GJ06
GJ80/GJ81
RA80/RA81
QA80/QA81
OPEN
SHORT
OPEN
SHORT
OPEN
SHORT
OPEN
4.7K
OPEN
RN1204
SCL1/SDA1
SCL2/SDA2
SW0/SW1
+9V-1
SCL2/SDA2
GJ16 SHORT
GJ14 SHORT+9V(A TV)
+9V(D TV)
J603C OPEN
GJ15 OPEN
Y-AV
SYNC-AV
TV-V
TV-R
TV-L
SCL2/SDA2
+9V-2
+5V-3
SCL2/SDA2

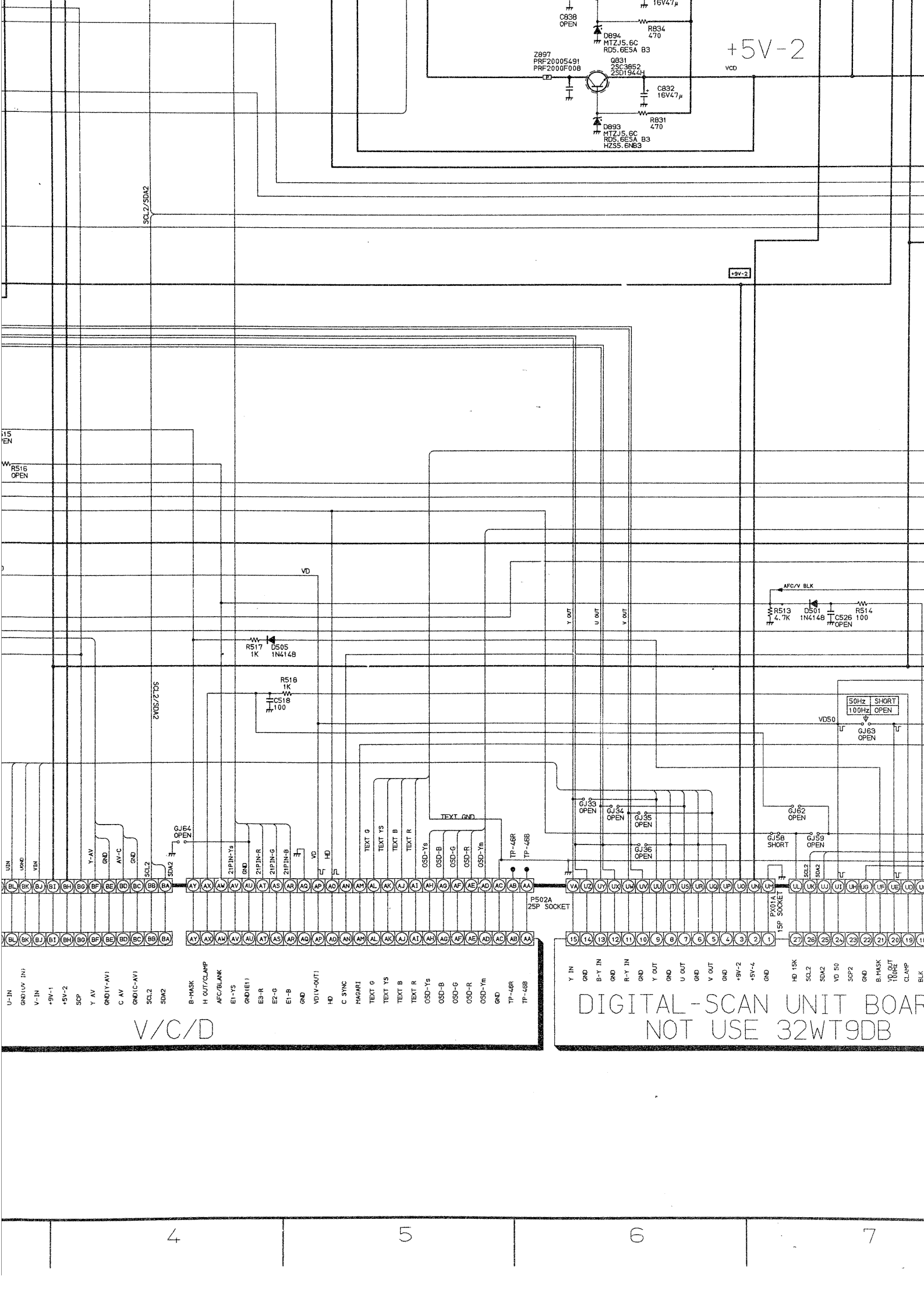

+9V-2
UP CONVERTER
AC-3
+5V-3
TUNER/IMA/AC-3
+5V-4
UP CONVTER
+5V-2
VCD
+12V
+8V
+9V-2
SW0/SW1
SCL1/SDA1
SCL2/SDA2
SCL2/SDA2
J60AH
PVC-WIRE
Q832
PQ09RD11
C835
16V47μ
C834
25V10μ
R832
4.7K
R833
2.2K
D422
MTZJ15C
D421
MTZJ7.5A
Q421
2SC1815Y
R425
1.8K
R424
1.5K
R426
750
R427
3.9K
R428
560
C420
16V100μ
D436
1N4148
Z896
PRF20005491
Q830
2SC3852
C831
16V47μ
R849
470
D836
MTZJ5.6C
GJ70
OPEN
GJ71
OPEN
Z894
PRF20005491
PRF2000F006
Q833
2SC5852
2SD1944H
C836
16V47μ
C838
OPEN
R834
470
D894
MTZJ5.6C
RD5.6ESA B3
Z897
PRF20005491
PRF2000F008
Q831
2SC3852
2SD1944H
C832
16V47μ
R831
470
D893
MTZJ5.6C
RD5.6ESA B3
HZS5.6NB3

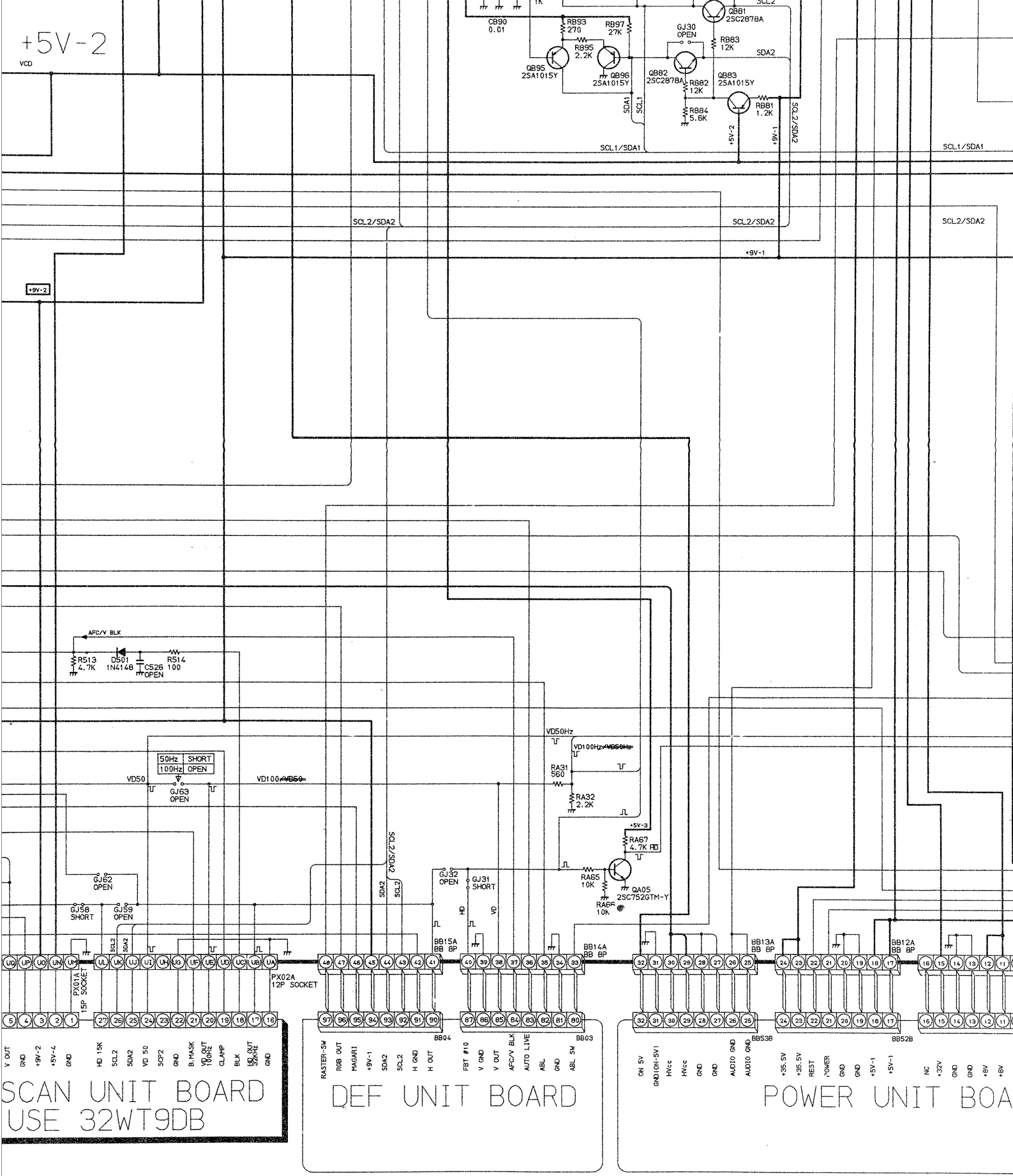

GJ71 OPEN
V-2
CONVERTER
C-3
CA80 OPEN
CA81 OPEN
OPEN
TEXT-V
GJ82 SHORT
V-OUT
GA82 SHORT
RA82 OPEN
+9V-1
QA83 OPEN
SL-IN
C667 16V10μ
R637 2.2K
C668 M0.001
R638 5.6K
C631 1μ
R639 22K
Q639 2SC2878A
SR-IN
C663 16V10μ
R640 2.2K
C647 M0.001
R643 5.6K
Mute-S
D630 1N4148
R689 100K
C657 2.2μ
R649 22K
R647 OPEN
C642 OPEN
C-OUT
C662 16V10μ
R642 5.6K
C648 M6800
R641 1.5K
Mute-C
R644 47K
C649 50V2.2μ
R646 22K
Q64 2SC
SCL2/SDA2
SCL1/SDA1
V-3
VAC-3
GJ70 OPEN
MODEL
DB
DG
NexTView
GJ03
GJ04
NON
OPEN
SHORT
SHORT
OPEN
+5V-2
ON 5V
GJ04 SHORT
GJ03 OPEN
D626 1N4148
D624 1N4148
D625 1N4148
A.MU
D614 1N4148
SCART MUTE
TEXT RESET
SW0/SW1
SCL1/SDA1
SCL2/SDA2
+5V-1
RB90 3.9K
QB92 2SC1815Y
RB92 270
QB94 2SA1015Y
RB96 27K
RB91 47K
RB94 2.2K
QB93 2SA1015Y
RB98 1K
C890 0.01
GJ29 OPEN
QB81 2SC2878A
SCL2
RB93 270
RB97 27K
GJ30 OPEN
RB83 12K
RB95 2.2K
SDA2
QB95 2SA1015Y
QB96 2SA1015Y
QB82 2SC2878A
QB83 2SA1015Y
RB82 12K
RB81 1.2K
R884 5.6K
SDA1
SCL1
+5V-2
+9V-1
SCL2/SDA2
SCL1/SDA1
SCL2/SDA2
SCL2/SDA2
SCL2/SDA2
+9V-1
+5V-2

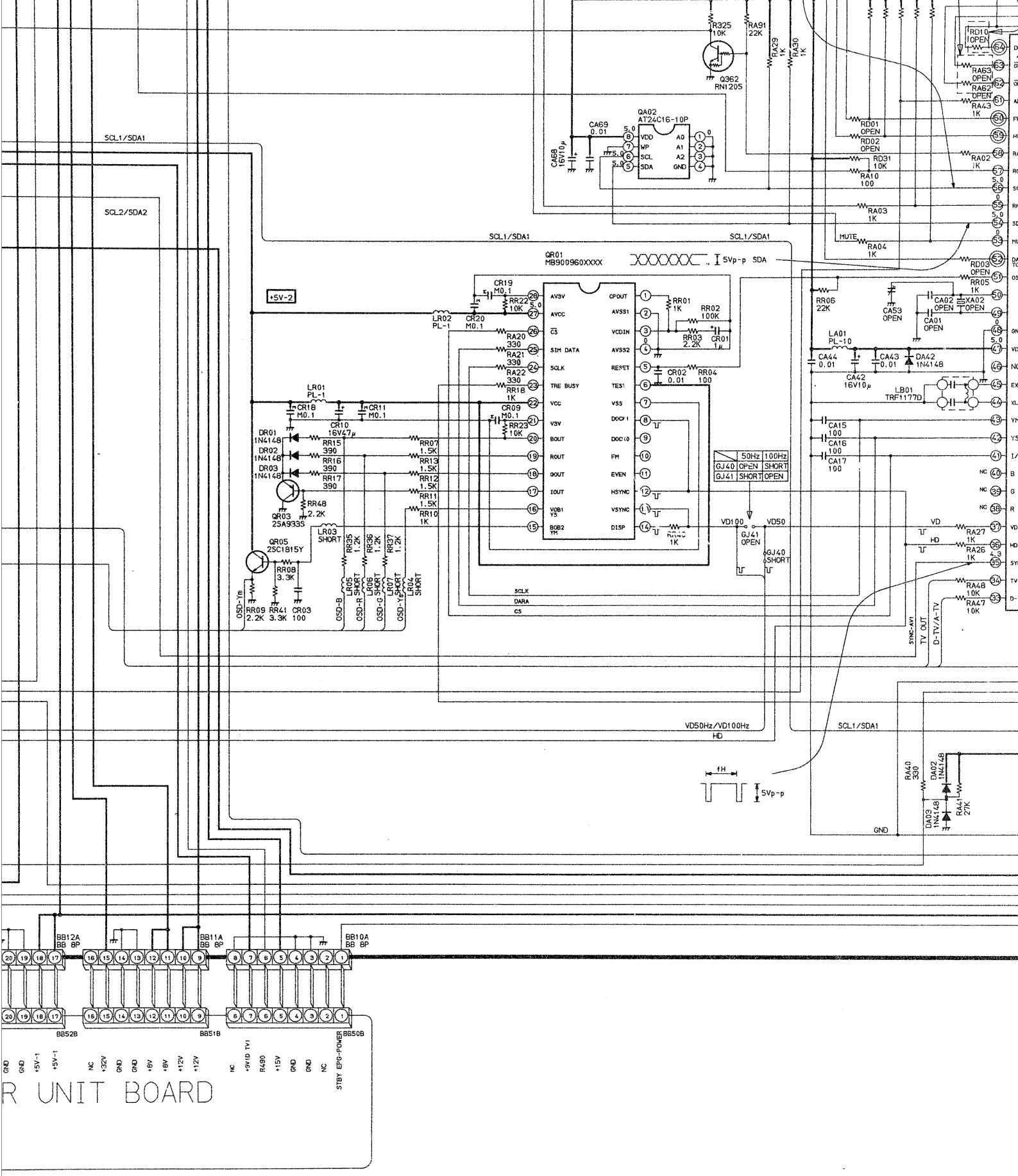

+27V AUDIO-Vcc
AUDIO-Vcc/-GND
GND AUDIO OUT
L OUT
GND
R OUT
W-IN
R-IN
L-IN
Mute-C
A.MUTE
SCART MUTE
MUTE
+9V-1
+5V-1
+12V
+5V-2
TEXT RESET
SW0/SW1
SW0
SW1
J511K
PVC-WIRE
5Vp-p SCL
5Vp-p SDA
SCL1/SDA1
QA01
CXP7500-XX
QA02
AT24C16-10P
QR01
MB900960XXXX
LA01
PL-10
LR02
PL-1
CR19
CR20
D672/D673
FLAT 1N4148
OTHER OPEN
R675
FLAT 3.9K
OTHER 4.7K
RD06/RD10
D6 1K
D6 OPEN
RA62/RA63
FLAT 1K
OTHER OPEN


D672/D673
FLAT 1N4148
OTHER OPEN
D670 1N4148
D672 OPEN
D674 1N4148
D671 1N4148
D673 OPEN
D675 1N4148
C687 0.01
C680 35V1000μ
R684 2.2
C689 M0.12
R686 2.2
C686 M0.12
R685 2.2
C685 M0.12
GND AUDIO OUT
C681 35V470μ
C683 35V1000μ
C682 35V470μ
L OUT
GND
R OUT
for ZD98
TO BACK-T
JST-PLUG
M104
WOOFER
W665 SPK-1352
P104A 3P SMK-PLUG
M665B
P605A FLAT 6P OTHER 5P
P605A 5P
M605
L OUT
GND
R OUT
GND
HP. MUTE
SPK-SW
TO CONTR.-2 BOARD
J613M OPEN
DETECT
OFF
CMDVCC
RSTIN
CA CLK EN
GND
PD73B OPEN
GND(V·V2)
V V2
GND(V V2)
L V2
R V2
PD70B OPEN
DIGITAL BOARD
POLLREQ
PFALLN
GND
HWROM
FROM BANK
DATA A
HWRST
DATA B
PD71B OPEN
SW0
SW1
QA03 2SA1015Y
DA01 1N4148
RA15 10K
RA12 4.7K
RA14 15K
CA14 0.01
RD05/RD10 D6 11K D8 OPEN
5Vp-p SCL
RD28 1K
RA62/RA63 FLAT 11K OTHER OPEN
QA01 CXP7500-XX
RA34 OPEN
RD33 OPEN
QD03 OPEN
QD02 OPEN
RD32 OPEN
POWER SENCE
STBYN
EPG-POWER
NC
POWER BOARD ONLY DIGITAL-TV
PD74A OPEN
RD30 22K
RD10 OPEN
RA63 OPEN
RA62 OPEN
RA43 1K
RA02 1K
RD03 OPEN
RR05 1K
CA53 OPEN
CA02 OPEN
XA02 OPEN
CA01 OPEN
CA43 0.01
DA42 1N4148
LB01
DETECT /SW0
GREEN LED
ORANGE LED
ABL SW
FROM BANK
HWROM
RASTER
RGB DIS
SCL0
RMT OUT
SDA0
MUTE
DATA TO MICRO
OSD RST
RST
VSS
GND
XTAL
VDD
XTAL
NC
BUSY
EXLC
AFT1 IN
TEXT RESET
CMDVCC
RSTIN
PFALLN
POWER SENCE /SW1
RMT
SCL1
SDA1
SCART MUTE
LED
POWER
DATA FROM MICRO
RGB DET
4:3 DET
RD12 OPEN
RD13 OPEN
RD14 1K
RD06 OPEN
RA35 1K
RA37 100
RA38 100
RA05 1K
RA08 1K
RA07 1K
RD07 OPEN
RA78 1K
R240 1K
CA33 0.01
RA33 10K
XA01 TCR1080AM
CA12 100
RA19 330
RA16 1K
MA03
GREEN LED
ORANGE LED
FOR FLAT-TV
PA03A 3P
RA70 33K
RA75 33K
+5V-1
GND
GND
RMT OUT
R.-1 BOARD


TO PV11B ON BACK-T BOARD
EASY-LINK
RGB-DET
GND
AV-Y
GND
SYNC-AV1
GND
TV-V
GND(TV-V)
TV-R
TV-L
V V2
L V2
R V2
GND(V V2)
Y-AV
GND
SYNC-AV
TV-V
GND
TV-R
TV-L
SCL2/SDA2
PW01A
10P SOCKET
SUB T
COM-T
+9V-2
+5V-2
GND
U IN
V IN
Y IN
SCL2
SDA2
+9V-2
+5V-3
GNDY
UOUT
VOUT
YOUT
SCL2
SDA2
GJ17 SHORT
GJ18 SHORT
GJ19 SHORT
GJ20 SHORT
TV OUT
D503 OPEN
D504 OPEN
D506 OPEN
R515 OPEN
R516 OPEN
ED MACK
AUTO LIVE
HVmask
VDin
HDin
GND
Y out
U out
V out
VP out
S LIVE
HV BLK
NC
SCP
HDin
GND
NC
NC
NC
NC
S LIVE
HV BLK
LR51 OPEN
GJ72 SHORT
GJ73 SHORT
GJ74 SHORT
GJ75 SHORT
PW02A
10P SOCKET
VD
GJ13 OPEN
GJ12 SHORT
SCP
SCL2/SDA2
TO DEF AUTO LIVE
HVCC
HVGND
PV03A
10P SOCKET
P501A
25P SOCKET
TPM01
TP01
TP02
YOUT
GNDY
UOUT
GNDU
VOUT
GNDV
YIN
YGND
UIN
VGND
VIN
Y-AV
GND
AV-C
GND
SCL2
HVcc
NC
TOF
NC
D-TV/A-TV
NC
(BLK)
NC
VSTP
NC
ABL
TPM01
WPD
fsc
RGB OUT
Y-OUT
GND(Y-OUT)
U-OUT
GND(U-OUT)
V-OUT
GND(V-OUT)
Y-IN
GND(Y-IN)
U-IN
GND(U/V IN)
V-IN
+9V-1
+5V-2
SCP
Y AV
GND(Y-AV)
C AV
GND(C-AV)
SCL2
1
2
3

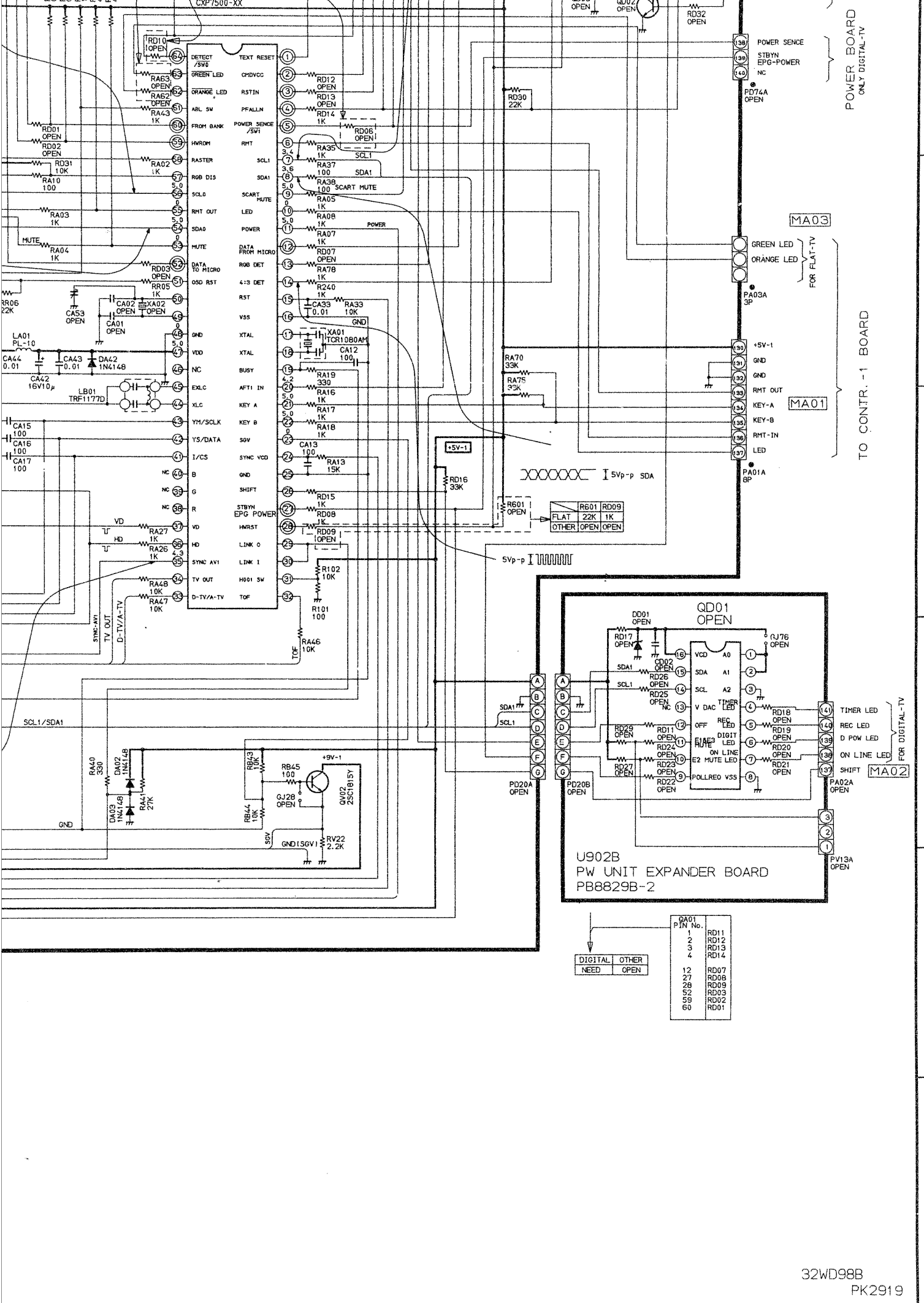

C898
OPEN
16V47μ
R834
470
D894
MTZJ5.6C
RD5.6E5A B3
Z897
PRF20005491
PRF2000F008
Q831
2SC3852
2SD1944H
+5V-2
VCD
C832
16V47μ
R831
470
D893
MTZJ5.6C
RD5.6E5A B3
HZ55.6NB3
SCL2/SDA2
+9V-2
R516
OPEN
VD
AFC/V BLK
R513
4.7K
D501
1N4148
C526
OPEN
R514
100
Y OUT
U OUT
V OUT
R517
1K
D505
1N4148
R518
1K
C518
100
50Hz SHORT
100Hz OPEN
VDSO
GJ63
OPEN
GJ64
OPEN
GJ33
OPEN
GJ34
OPEN
GJ35
OPEN
GJ36
OPEN
GJ62
OPEN
GJ58
SHORT
GJ59
OPEN
TEXT GND
TP-4GR
TP-4GB
P502A
25P SOCKET
PX01A
15P SOCKET
U-IN
GND(UV IN)
V-IN
+9V-1
+5V-2
SCP
Y AV
GND(Y-AV)
C AV
GND(C-AV)
SCL2
SDA2
B-MASK
H OUT/CLAMP
AFC/BLANK
E1-YS
GND(E1)
E3-R
E2-G
E1-B
GND
VD(V-OUT)
HD
C SYNC
MAGARI
TEXT G
TEXT YS
TEXT B
TEXT R
OSD-Ys
OSD-B
OSD-G
OSD-R
OSD-Ym
GND
TP-4GR
TP-4GB
V/C/D
Y IN
GND
B-Y IN
GND
R-Y IN
GND
Y OUT
GND
U OUT
GND
V OUT
GND
+9V-2
+5V-4
GND
HD 15K
SCL2
SDA2
VD 50
SCP2
GND
B.MASK
Y0 OUT
100HZ
CLAMP
BLK
DIGITAL-SCAN UNIT BOAR
NOT USE 32WT9DB


+5V-2
VCD
CB90
0.01
RB93
270
RB97
27K
RB95
2.2K
QB95
2SA1015Y
QB96
2SA1015Y
QB81
2SC2878A
GJ30
OPEN
RB83
12K
SDA2
QB82
2SC2878A
RB82
12K
QB83
2SA1015Y
RB84
5.6K
RB81
1.2K
SDA1
SCL1
SCL2
+5V-2
+9V-1
SCL2/SDA2
SCL1/SDA1
+9V-2
AFC/V BLK
R513
4.7K
D501
1N4148
C526
OPEN
R514
100
50Hz SHORT
100Hz OPEN
VD50
GJ63
OPEN
VD100
VD50Hz
RA31
560
RA32
2.2K
+5V-3
RA67
4.7K RD
RA65
10K
RA66
10K
QA05
2SC752GTM-Y
GJ62
OPEN
GJ58
SHORT
GJ59
OPEN
GJ32
OPEN
GJ31
SHORT
HD
VD
PX01A
15P SOCKET
PX02A
12P SOCKET
BB15A
BB 8P
BB14A
BB 8P
BB13A
BB 8P
BB12A
BB 8P
BB04
BB03
BB53B
BB52B
V OUT
GND
+9V-2
+5V-4
GND
HD 15K
SCL2
SDA2
VD 50
SCP2
GND
B.MASK
VD OUT 100Hz
CLAMP
BLK
VD OUT 50Hz
GND
SCAN UNIT BOARD
USE 32WT9DB
RASTER-SW
RGB OUT
MAGARI
+9V-1
SDA2
SCL2
H GND
H OUT
FBT #10
V GND
V OUT
AFC/V BLK
AUTO LIVE
ABL
GND
ABL SW
DEF UNIT BOARD
ON 5V
GND(ON-5V)
HVcc
GND
GND
AUDIO GND
AUDIO GND
+35.5V
+35.5V
REST
POWER
GND
GND
+5V-1
+5V-1
NC
+32V
GND
GND
+8V
+8V
POWER UNIT BOA



UNIT SN.	
SIGNAL	SN.23783273
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.


CXP7500-XX
DETECT /SW0
GREEN LED
ORANGE LED
ABL SW
FROM BANK
HWROM
RASTER
RGB DIS
SCLO
RMT OUT
SDAO
MUTE
DATA TO MICRO
OSD RST
RST
VSS
XTAL
XTAL
NC
EXLC
XLC
YM/SCLK
YS/DATA
I/CS
B
G
R
VD
HD
SYNC AV1
TV OUT
D-TV/A-TV
TEXT RESET
CMDVCC
RSTIN
PFAILN
POWER SENCE /SW1
RMT
SCL1
SDA1
SCART MUTE
LED
POWER
DATA FROM MICRO
RGB DET
4:3 DET
GND
SHIFT
STBYN EPG POWER
HWRST
LINK O
LINK I
H001 SW
TOF
SYNC VCO
AFT1 IN
KEY A
KEY B
SGV
POWER SENCE
STBYN EPG-POWER
NC
POWER BOARD
ONLY DIGITAL-TV
MA03
GREEN LED
ORANGE LED
FOR FLAT-TV
PA03A 3P
MA01
+5V-1
GND
RMT OUT
KEY-A
KEY-B
RMT-IN
LED
PA01A 8P
TO CONTR.-1 BOARD
5Vp-p SDA
5Vp-p
R601 OPEN
R601 RD09
FLAT 22K 1K
OTHER OPEN OPEN
QD01 OPEN
VCD A0
SDA A1
SCL A2
V DAC TIMER LED
OFF REC LED
MUTE DIGIT LED
E2 MUTE ON LINE LED
POLLREQ VSS
TIMER LED
REC LED
D POW LED
ON LINE LED
SHIFT
FOR DIGITAL-TV
MA02
PA02A OPEN
PV13A OPEN
PD20A OPEN
PD20B OPEN
U902B
PW UNIT EXPANDER BOARD
PB8829B-2
DIGITAL OTHER
NEED OPEN
CA01 PIN No.
1 RD11
2 RD12
3 RD13
4 RD14
12 RD07
27 RD08
28 RD09
52 RD03
59 RD02
60 RD01
32WD98B
PK2919

SCHEMATIC DIAGRAM MODEL : 32WD98B (2/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

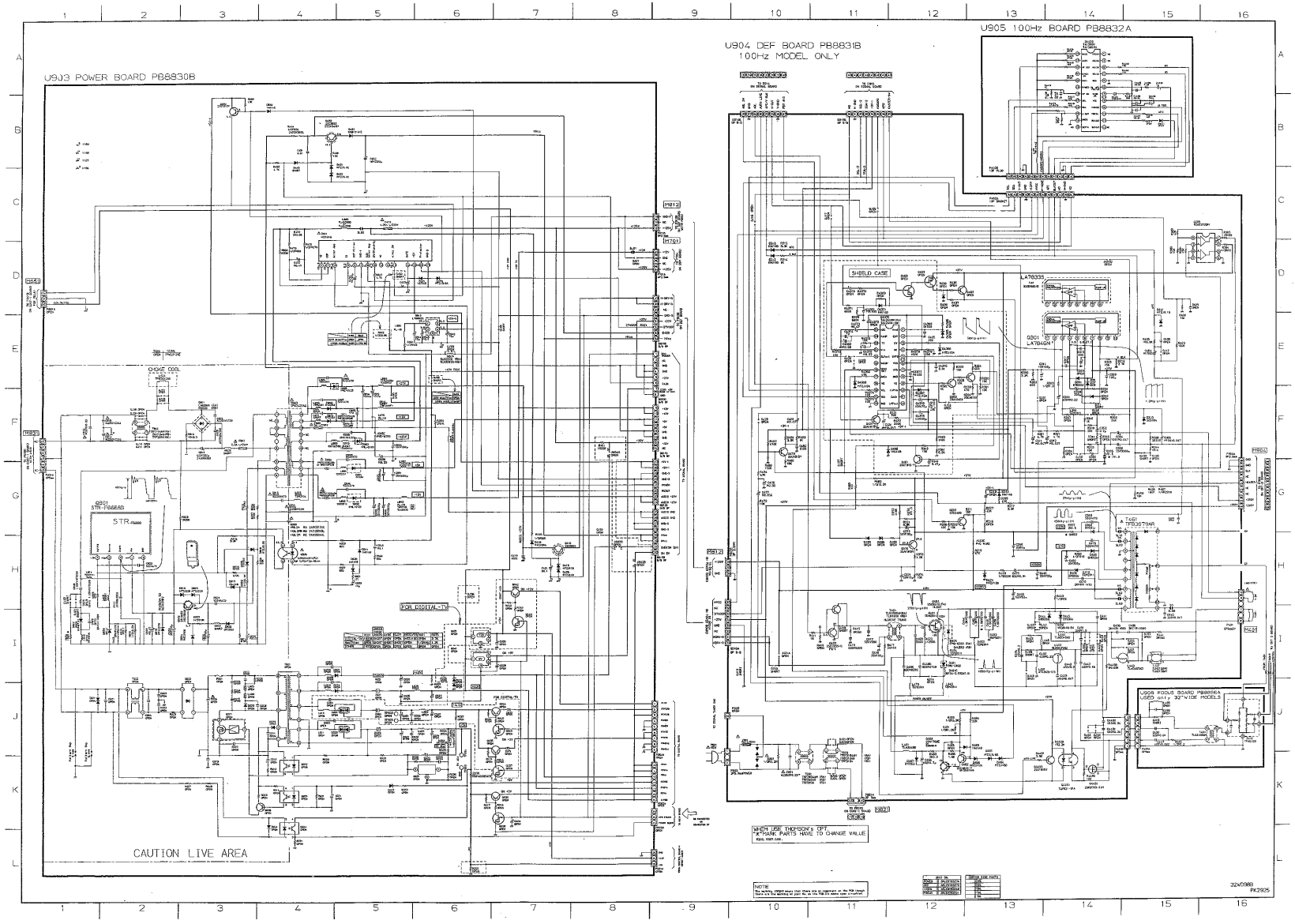
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

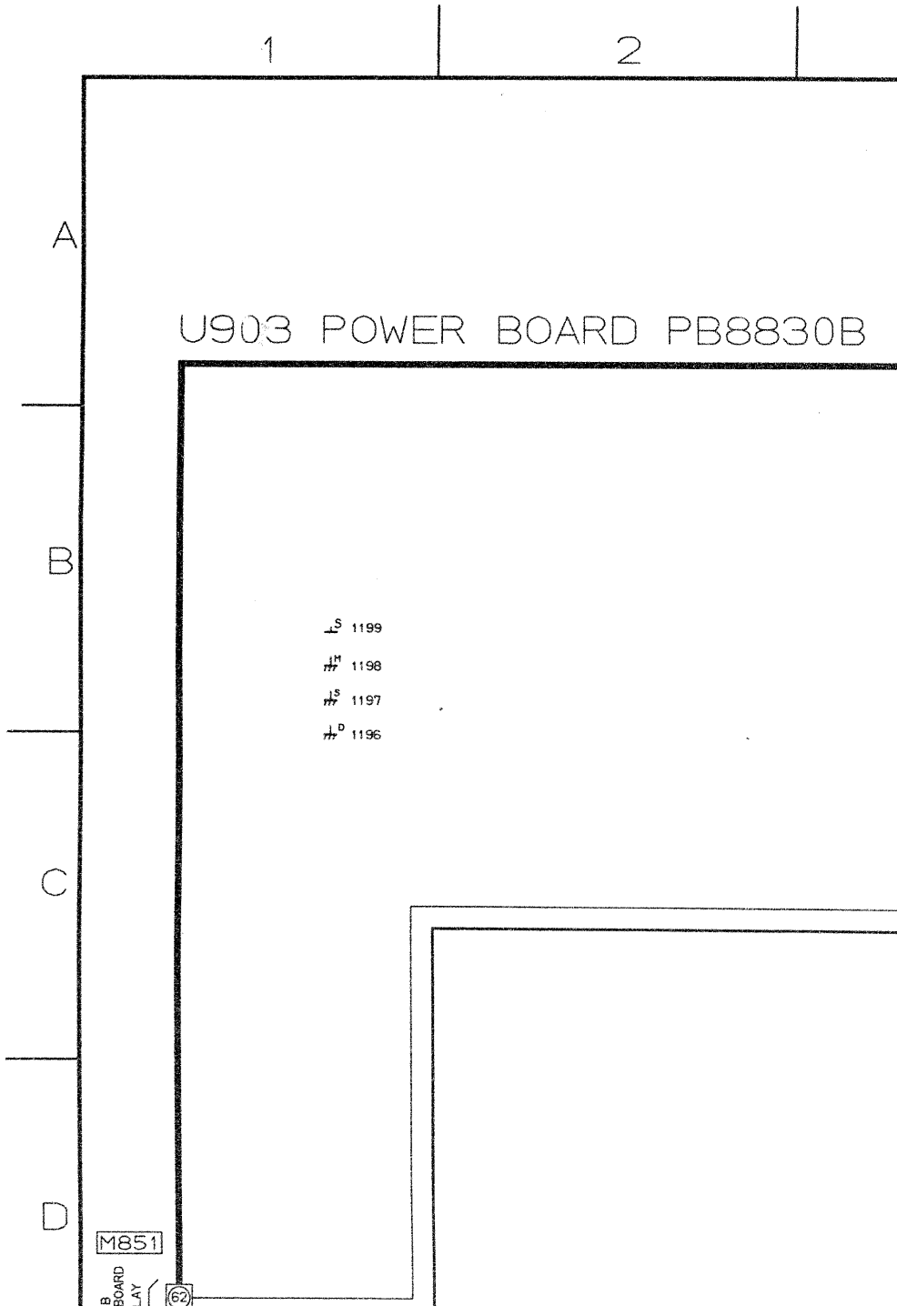
030-9914



SCHEMATIC DIAGRAM MODEL : 32WD98B (2/6)

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

030-9914



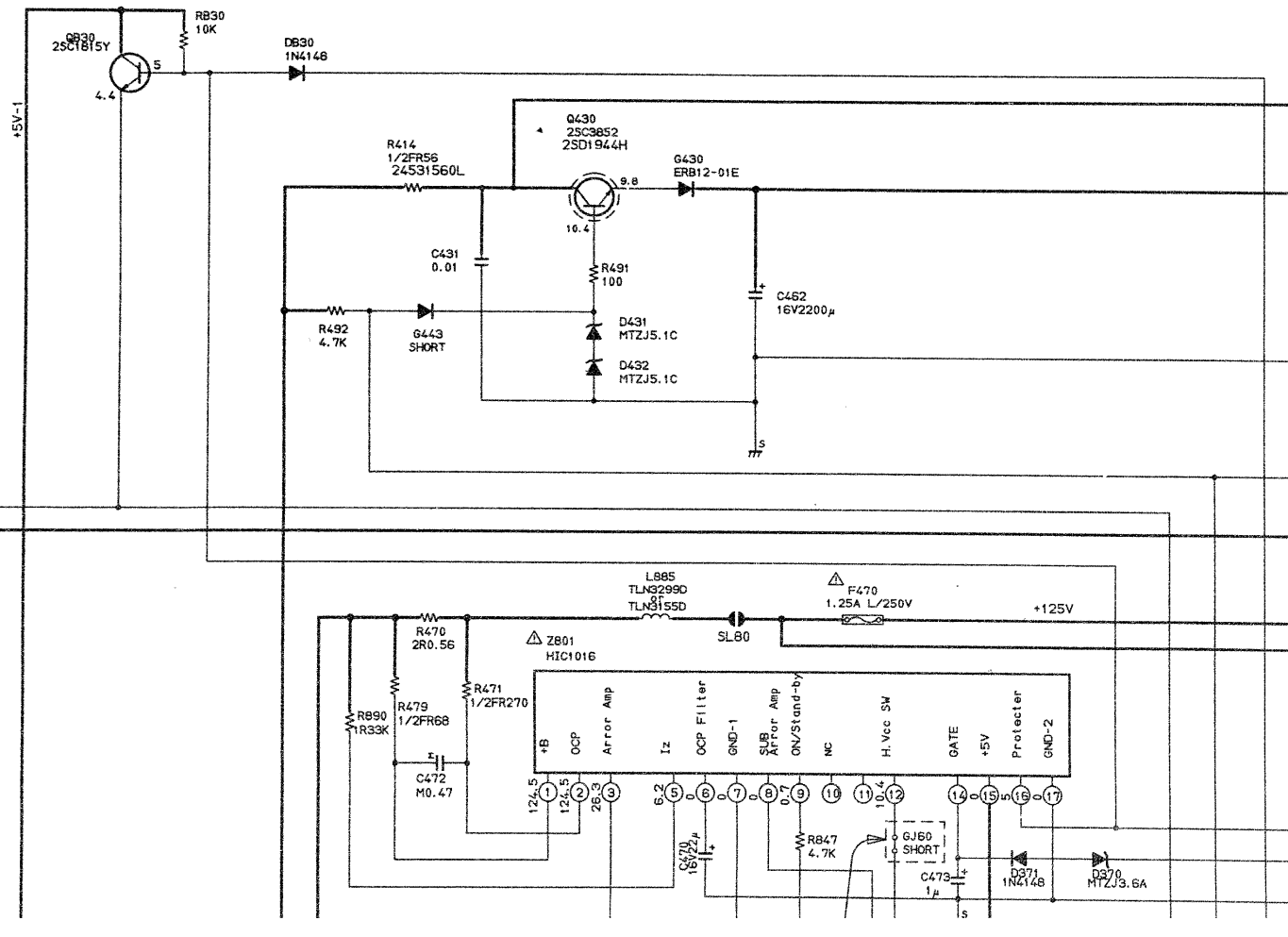
s list designate com-
nly with types identical to
nents is to be identical
SAFETY NOTICE on page

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, lin
   volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low ca
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid
   BRIGHTNESS control is almost in maximum position. Set other con
   picture.

3 4 5 6

8830B



S

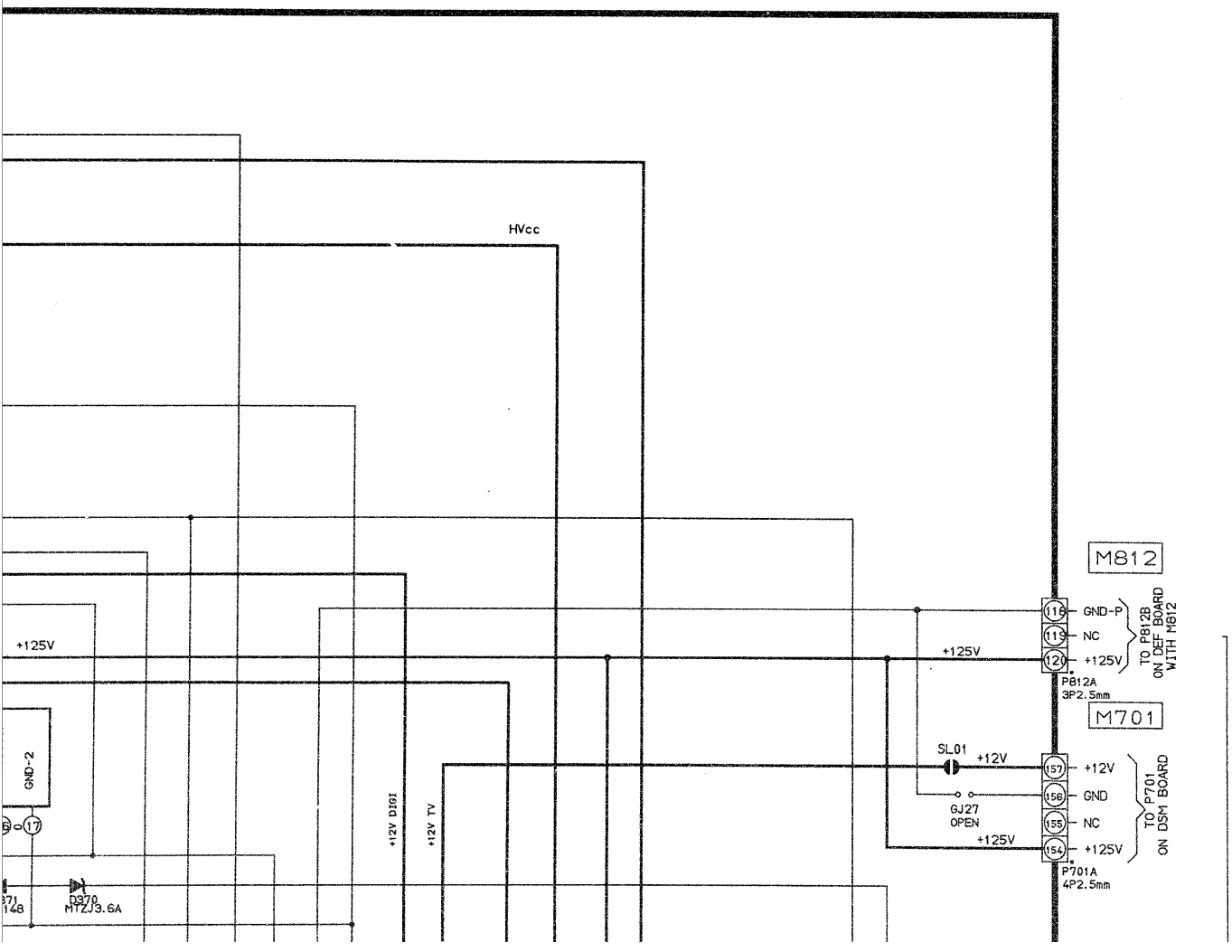
chassis ground, line voltage 220
vary ±20%.
loscope and a low capacity probe.
ar signal.
ntrols are in mid position and
sition. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer
   gram. These are measured for separated from the
2. The circuits are subject to change without notice.
3. ● : Solder links.

6 7 8 9

U90



EXPRESSION

VALUE OF RESISTOR, CAPACITOR an

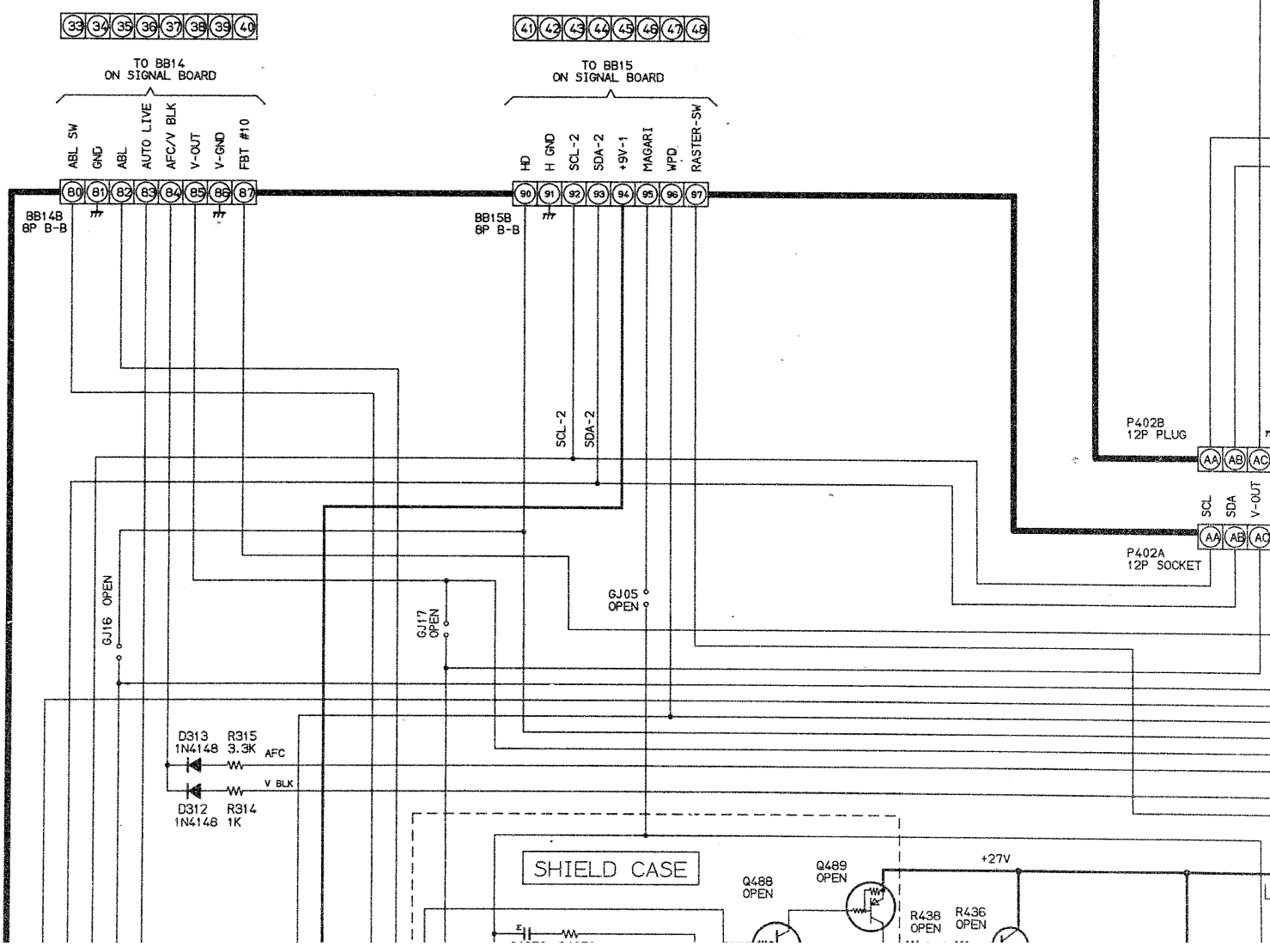
1. Resistance is shown in ohm, k=1,000, M=
2. Unless other wise noted in schematic, a
   sed in μF and the values more than 1 in
3. Unless otherwise noted in schematic, all
   sed in μH, and the values less than 1 in H

transformer is shown in this schematic dia-
ed from the circuit.
hout notice.

10 | 11 | 12 | 13

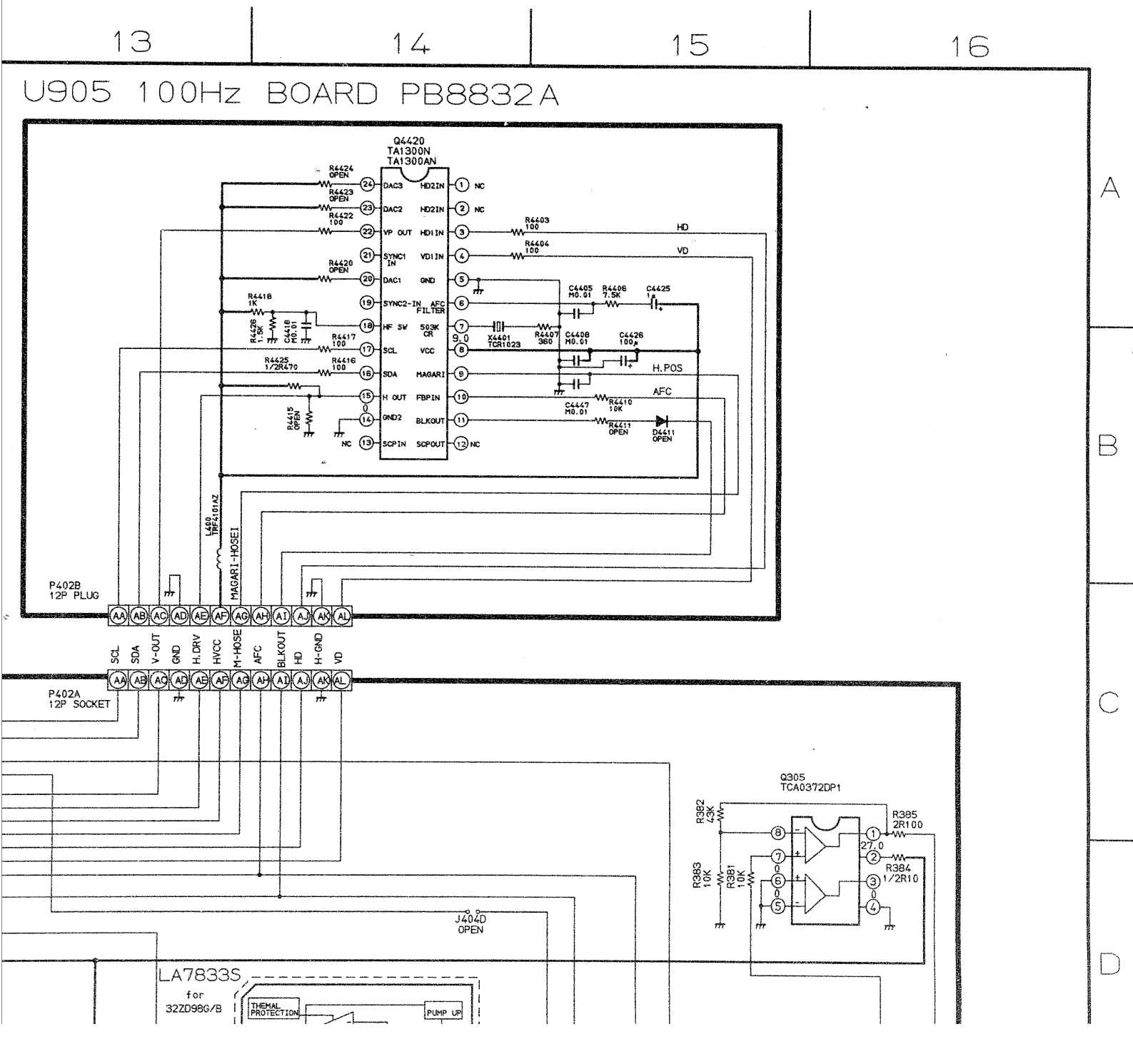
U905 1

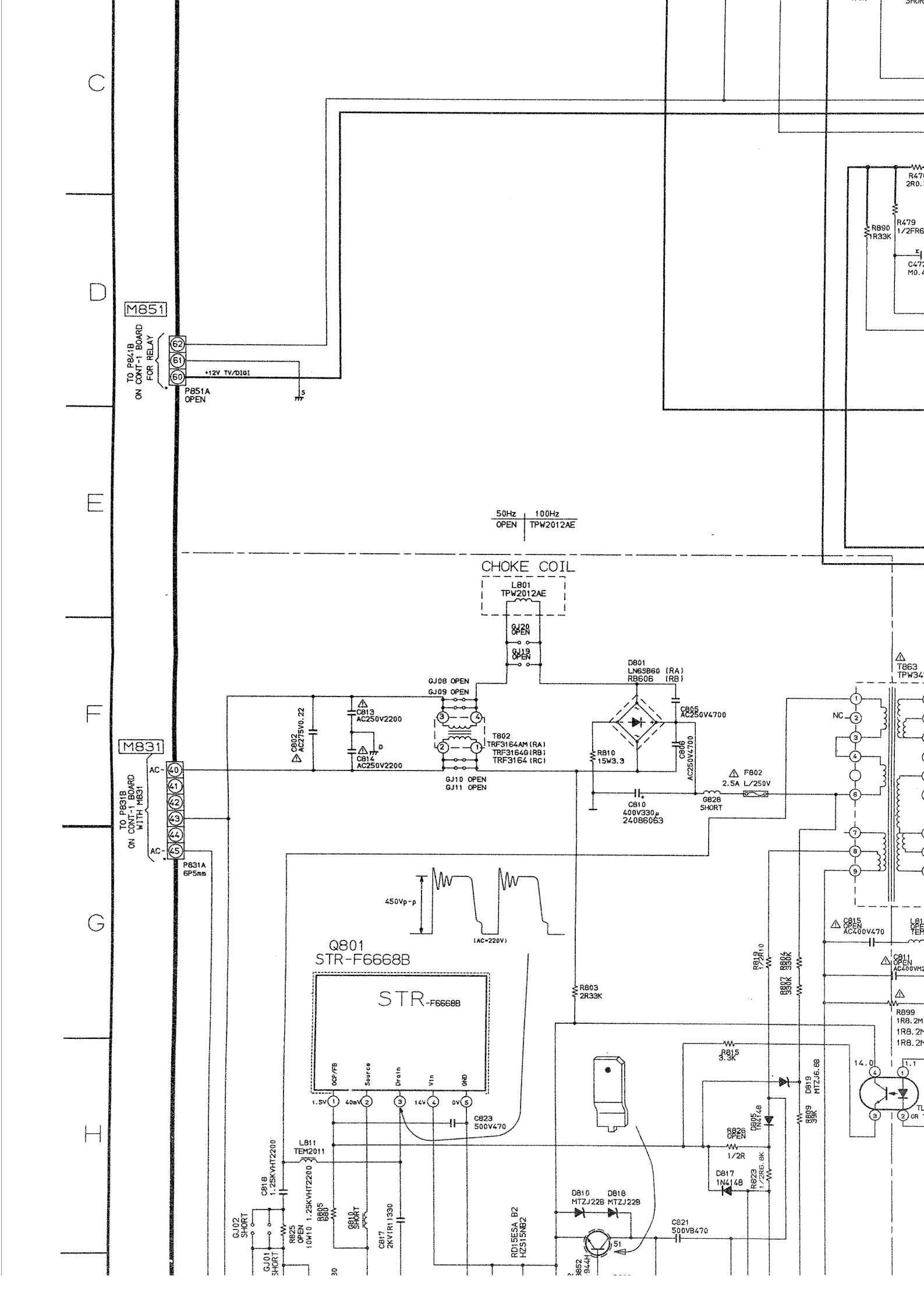
U904 DEF BOARD PB8831B
100Hz MODEL ONLY

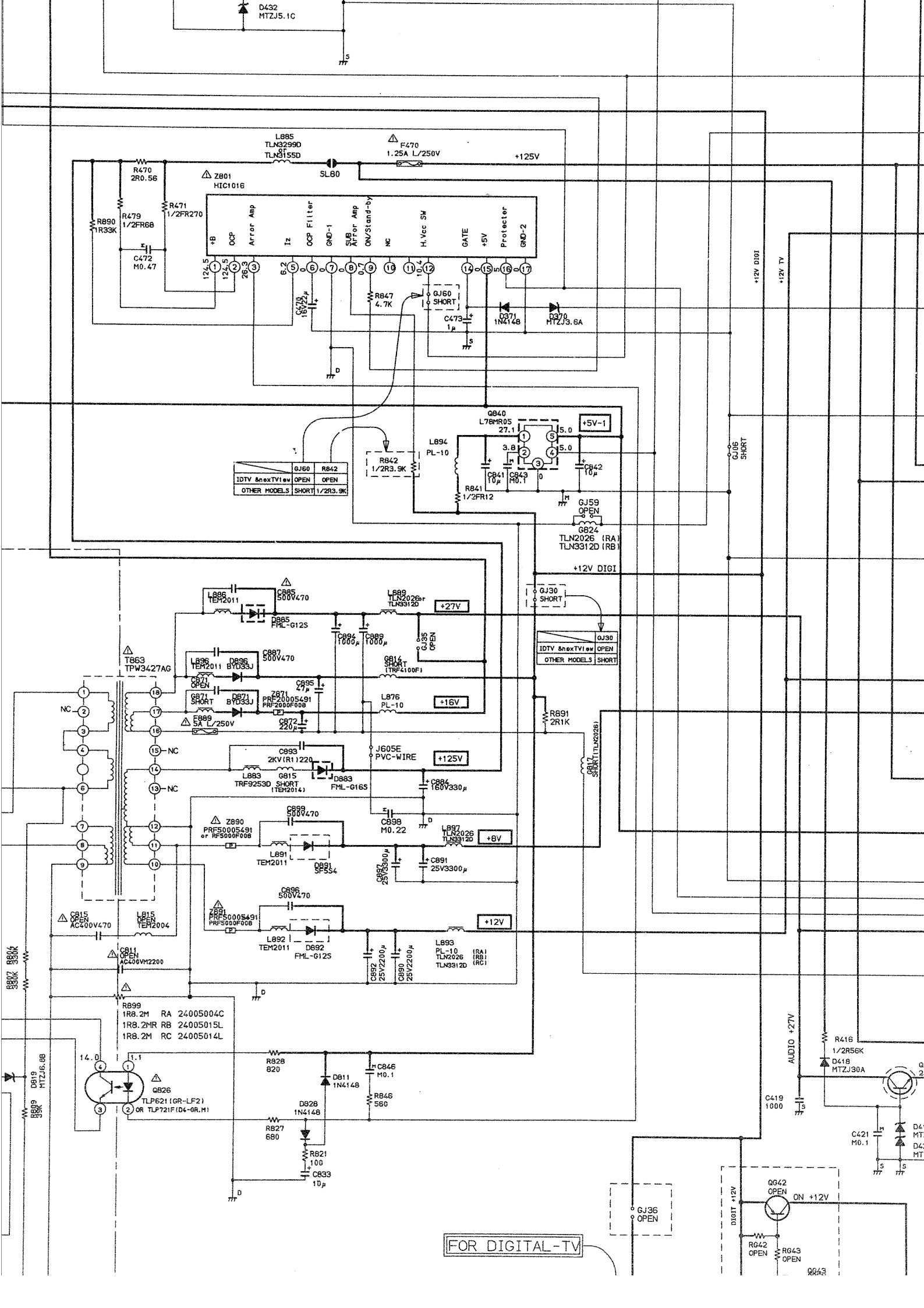


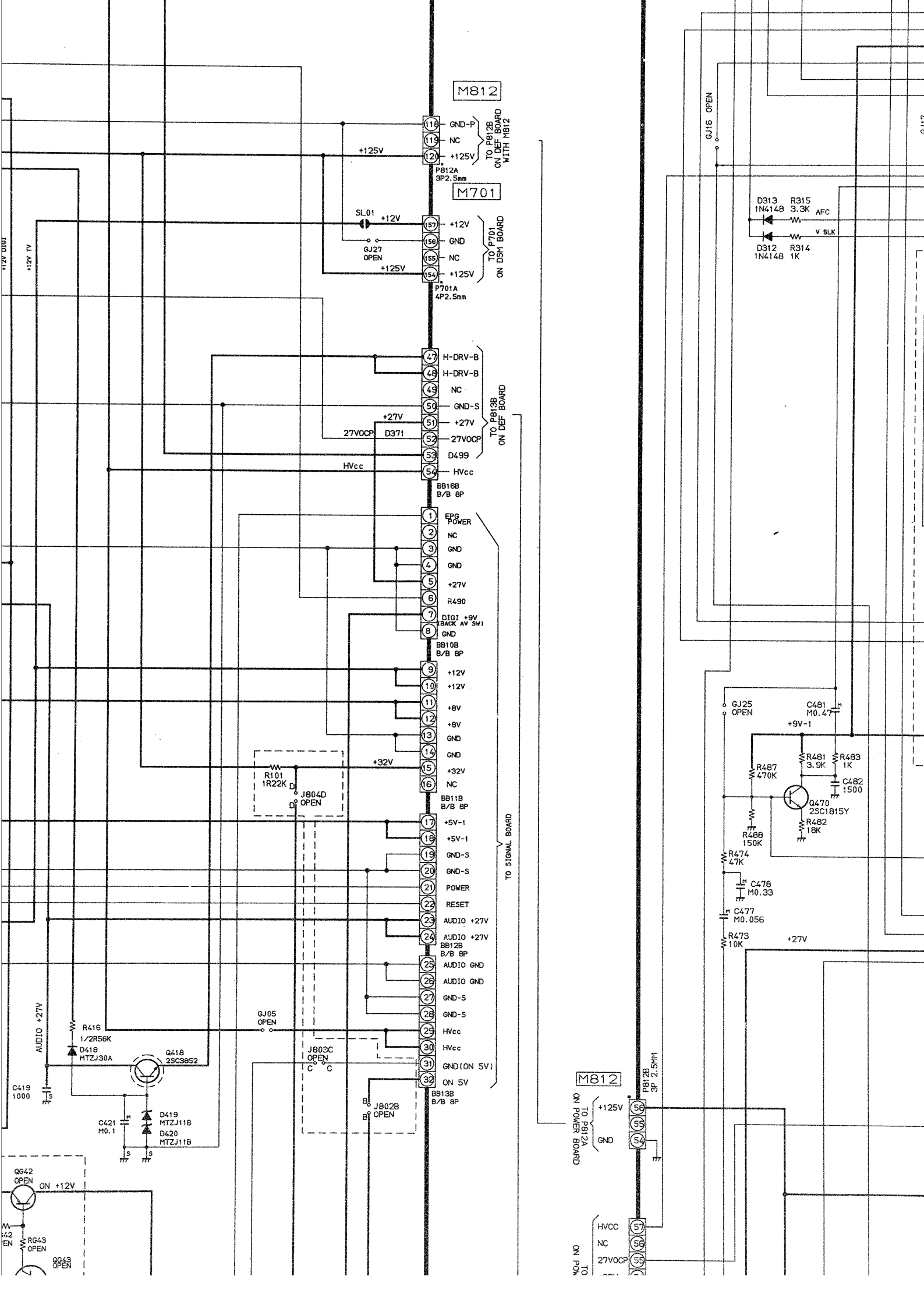
CAPACITOR and INDUCTOR

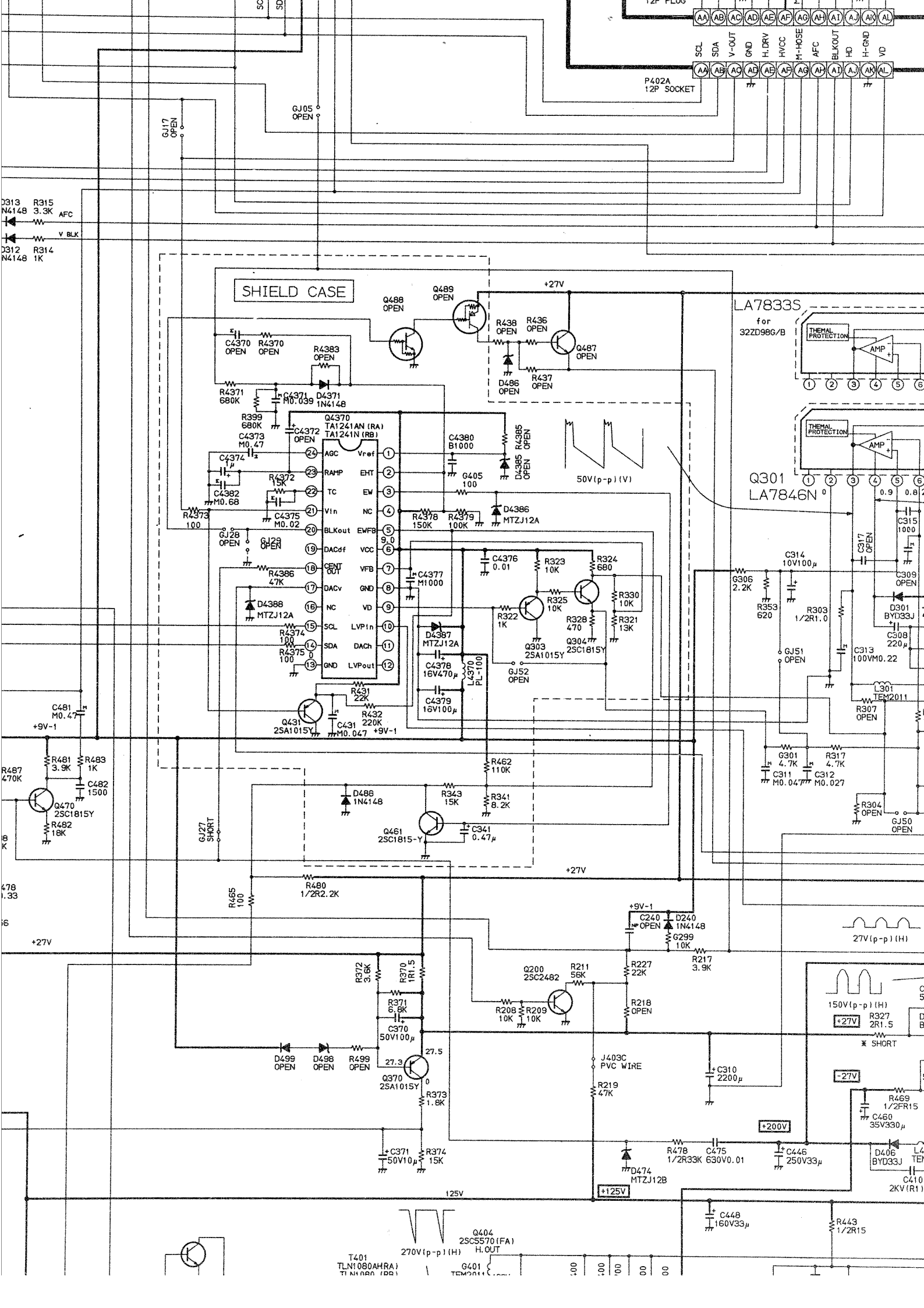
m, k=1,000, M=1,000,000
in schematic, all capacitor values less than 1 are expres-
more than 1 in pF.
n schematic, all inductor values more than 1 are expres-
less than 1 in H.

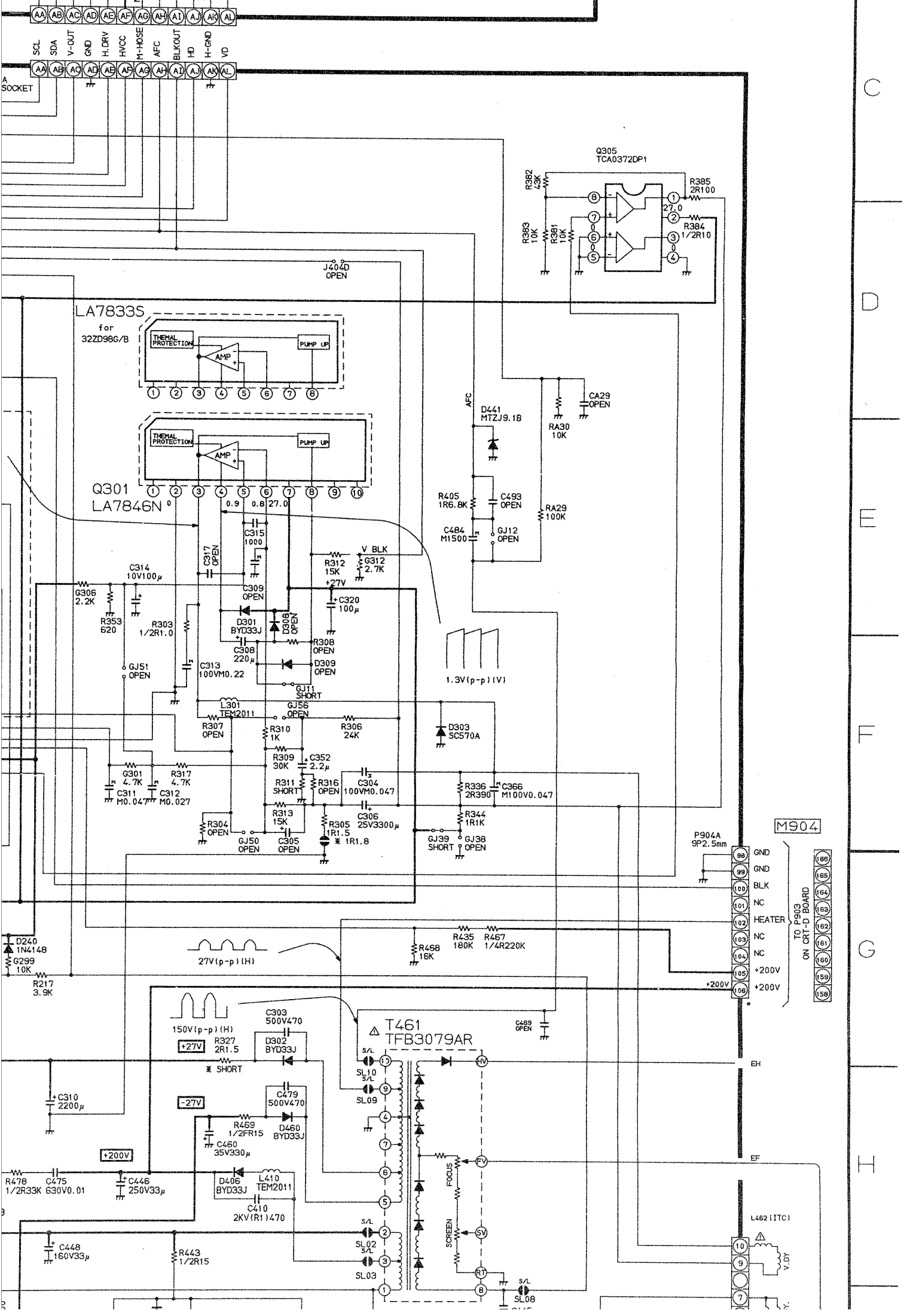


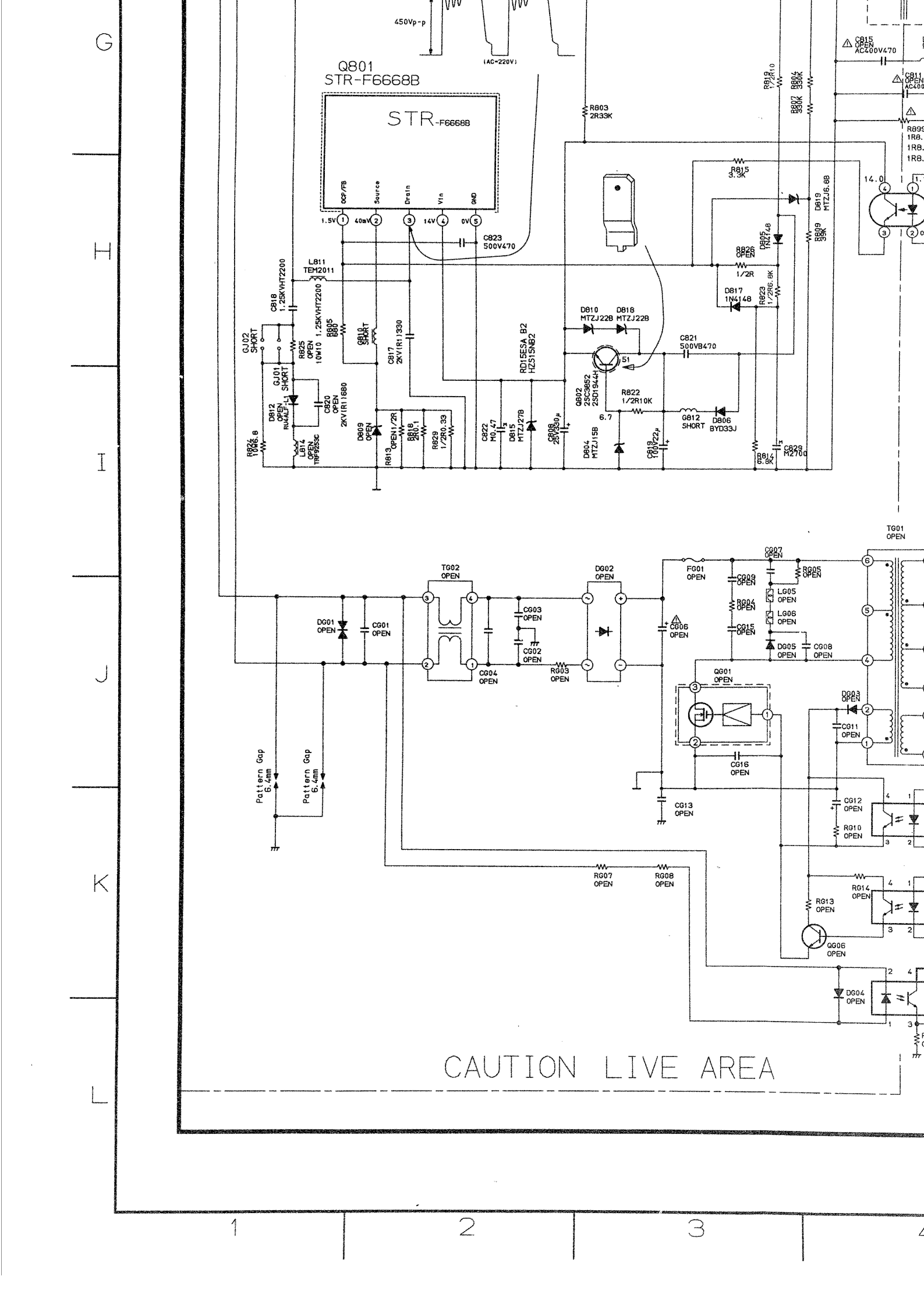

M851
TO P841B ON CONT-1 BOARD FOR RELAY
62
61
60
+12V TV/DIGI
P851A OPEN
50Hz | 100Hz
OPEN | TPW2012AE
CHOKE COIL
L801 TPW2012AE
GJ20 OPEN
GJ19 OPEN
GJ08 OPEN
GJ09 OPEN
D801 LN65B60 (RA) RB606 (RB)
C805 AC250V4700
C813 AC250V2200
C814 AC250V2200
C802 AC275V0.22
T802 TRF3164AM(RA) TRF3164G(RB) TRF3164(RC)
GJ10 OPEN
GJ11 OPEN
R810 15W3.3
C806 AC250V4700
C810 400V330μ 24086063
GB28 SHORT
F802 2.5A L/250V
M831
TO P831B ON CONT-1 BOARD WITH M831
AC-
AC-
P831A 6P5mm
450Vp-p
(AC-220V)
Q801
STR-F6668B
OCP/FB
Source
Drain
Vin
GND
1.5V
40mV
14V
0V
R803 2R33K
C823 500V470
L811 TEM2011
C818 1.25KVHT2200
R825 OPEN 10W10
C817 2KV1R1330
GJ02 SHORT
GJ01 SHORT
RD15ESA B2 HZS15NB2
D810 MTZJ22B
D816 MTZJ22B
C821 500VB470
R826 OPEN 1/2R
D817 1N4148
R823 1/2R6.8K
D805 1N4148
R815 9.3K
D819 MTZJ6.8B
R899 1R8.2M
C815 OPEN AC400V470
C811 OPEN AC400VM2
R818 1/2R10
R804 330K
R807 330K
R809 33K
R890 1R33K
R479 1/2FR6
T863 TPW34
NC

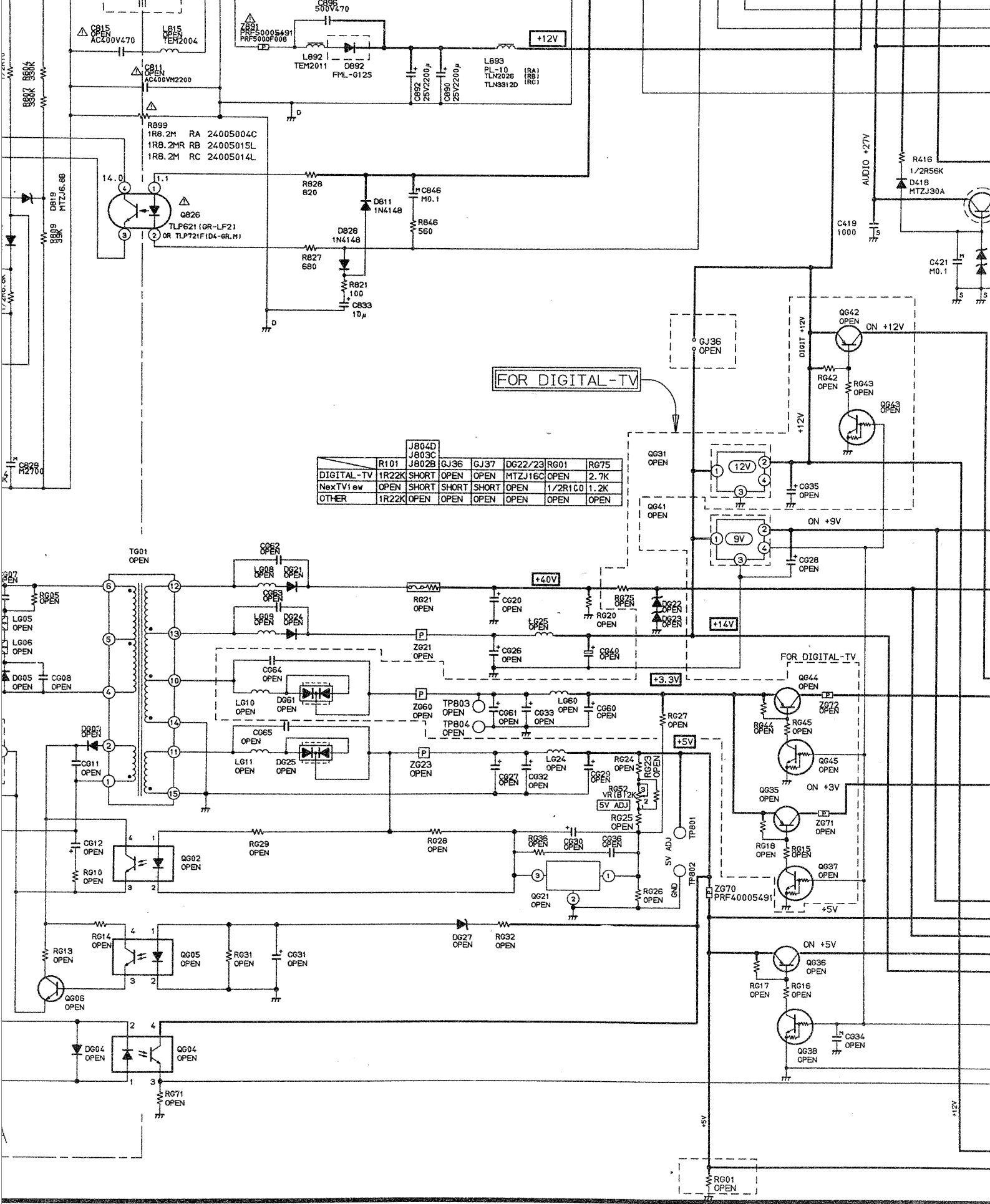

D432
MTZJ5.1C
L885
TLN3299D
or
TLN3155D
F470
1.25A L/250V
+125V
SL80
R470
2R0.56
Z801
HIC1016
R479
1/2FR68
R471
1/2FR270
R890
1R33K
C472
M0.47
+B
OCP
Arror Amp
Iz
OCP Filter
GND-1
SUB Arror Amp
ON/Stand-by
NC
H.Vcc SW
GATE
+5V
Protecter
GND-2
C470
1600μ
R847
4.7K
GJ60
SHORT
C479
1μ
D371
1N4148
D370
MTZJ3.6A
+12V DIGI
+12V TV
Q840
L78MR05
27.1
+5V-1
5.0
3.8
L894
PL-10
R842
1/2R3.9K
C841
10μ
C843
M0.1
C842
10μ
R841
1/2FR12
GJ06
SHORT
GJ59
OPEN
G824
TLN2026 (RA)
TLN3312D (RB)
GJ60 | R842
IDTV &nexTView | OPEN | OPEN
OTHER MODELS | SHORT | 1/2R3.9K
+12V DIGI
GJ30
SHORT
GJ30
IDTV &nexTView | OPEN
OTHER MODELS | SHORT
L886
TEM2011
C885
500V470
D885
FML-G12S
L889
TLN2026 or TLN3312D
+27V
C894
1000μ
C889
1000μ
GJ35
OPEN
T863
TPW3427AG
L896
TEM2011
D896
BYD33J
C887
500V470
G814
SHORT
(TRF4100F)
C871
OPEN
C895
47μ
G871
SHORT
D871
BYD33J
Z871
PRF20005491
PRF2000F008
L876
PL-10
+16V
R891
2R1K
F869
5A L/250V
C872
220μ
C893
2KV(R1)220
J605E
PVC-WIRE
+125V
L883
TRF9253D
G815
SHORT
(TEM2014)
D883
FML-G16S
C884
160V330μ
G817
SHORT(TLN2026)
Z890
PRF50005491
or RF5000F008
C888
500V470
C898
M0.22
L897
TLN2026
TLN3312D
+8V
L891
TEM2011
D891
SF554
C887
25V3300μ
C891
25V3300μ
C886
500V470
Z891
PRF50005491
PRF5000F008
+12V
C815
OPEN
AC400V470
L815
OPEN
TEM2004
L892
TEM2011
D892
FML-G12S
C892
25V2200μ
C890
25V2200μ
L893
PL-10
TLN2026 (RA)
TLN3312D (RB)
TLN3312D (RC)
C811
OPEN
AC400VM2200
R899
1R8.2M RA 24005004C
1R8.2MR RB 24005015L
1R8.2M RC 24005014L
R828
820
D811
1N4148
C846
M0.1
R846
560
Q826
TLP621(GR-LF2)
OR TLP721F(D4-GR,M)
D828
1N4148
R827
680
R821
100
C833
10μ
AUDIO +27V
R416
1/2R56K
D418
MTZJ30A
C419
1000
C421
M0.1
QG42
OPEN
ON +12V
DIGIT +12V
RG42
OPEN
RG43
OPEN
GJ36
OPEN
FOR DIGITAL-TV


M812
GND-P
NC
+125V
+125V
TO P812B ON DEF BOARD WITH M812
P812A 3P2.5mm
M701
SL01 +12V
+12V
GND
NC
+125V
GJ27 OPEN
TO P701 ON DSM BOARD
P701A 4P2.5mm
H-DRV-B
H-DRV-B
NC
GND-S
+27V
27VOCP
D499
HVcc
TO P813B ON DEF BOARD
BB16B B/B 8P
EPG POWER
NC
GND
GND
+27V
R490
DIGI +9V (BACK AV SW)
GND
BB10B B/B 8P
+12V
+12V
+8V
+8V
GND
GND
+32V
NC
R101 1R22K
J804D OPEN
BB11B B/B 8P
+5V-1
+5V-1
GND-S
GND-S
POWER
RESET
AUDIO +27V
AUDIO +27V
BB12B B/B 8P
AUDIO GND
AUDIO GND
GND-S
GND-S
HVcc
HVcc
GND(ON 5V)
ON 5V
BB13B B/B 8P
TO SIGNAL BOARD
GJ05 OPEN
J803C OPEN
J802B OPEN
R416 1/2R56K
D418 MTZJ30A
Q418 2SC3852
C419 1000
C421 M0.1
D419 MTZJ11B
D420 MTZJ11B
AUDIO +27V
QG42 OPEN
ON +12V
RG43 OPEN
QG43 OPEN
GJ16 OPEN
D313 1N4148
R315 3.3K
AFC
V BLK
D312 1N4148
R314 1K
GJ25 OPEN
C481 M0.47
+9V-1
R481 3.9K
R483 1K
R487 470K
C482 1500
Q470 2SC1815Y
R488 150K
R482 18K
R474 47K
C478 M0.33
C477 M0.056
R473 10K
+27V
M812
P812B 3P 2.5MM
+125V
GND
TO P812A ON POWER BOARD
HVCC
NC
27VOCP

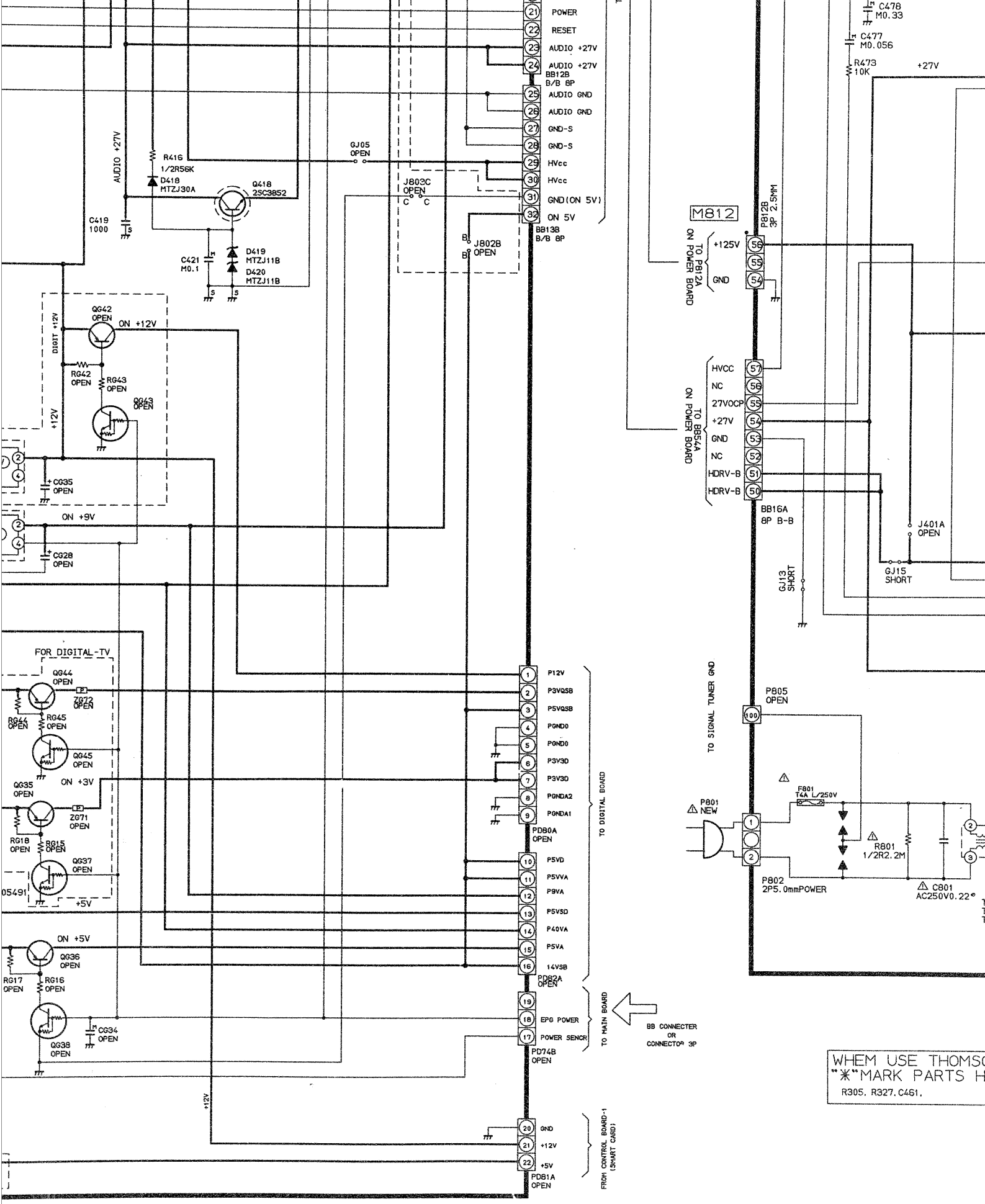

SHIELD CASE
LA7833S
for
32ZD98G/B
THEMAL PROTECTION
AMP
Q301
LA7846N
Q4370
TA1241AN (RA)
TA1241N (RB)
AGC
Vref
RAMP
EHT
TC
EW
Vin
NC
BLKout
EWFB
DACdf
VCC
CENT OUT
VFB
DACv
GND
NC
VD
SCL
LVPin
SDA
DACh
GND
LVPout
P402A
12P SOCKET
SCL
SDA
V-OUT
GND
H.DRV
HVCC
M+HOSE
AFC
BLKOUT
HD
H-GND
VD
+27V
+9V-1
+200V
-27V
+125V
125V
50V(p-p)(V)
27V(p-p)(H)
150V(p-p)(H)
270V(p-p)(H)
Q404
2SC5570(FA)
H.OUT
T401
TLN1080AH(RA)
Q470
2SC1815Y
Q461
2SC1815-Y
Q431
2SA1015Y
Q303
2SA1015Y
Q304
2SC1815Y
Q370
2SA1015Y
Q200
2SC2482
D4371
1N4148
D4386
MTZJ12A
D4387
MTZJ12A
D4388
MTZJ12A
D486
1N4148
D499
OPEN
D498
OPEN
D474
MTZJ12B
D240
1N4148
D406
BYD33J
D301
BYD33J
L4370
PL-100
L301
TEM2011
J403C
PVC WIRE
* SHORT
GJ05
OPEN
GJ17
OPEN
GJ28
OPEN
GJ28a
OPEN
GJ27
SHORT
GJ51
OPEN
GJ52
OPEN
GJ50
OPEN

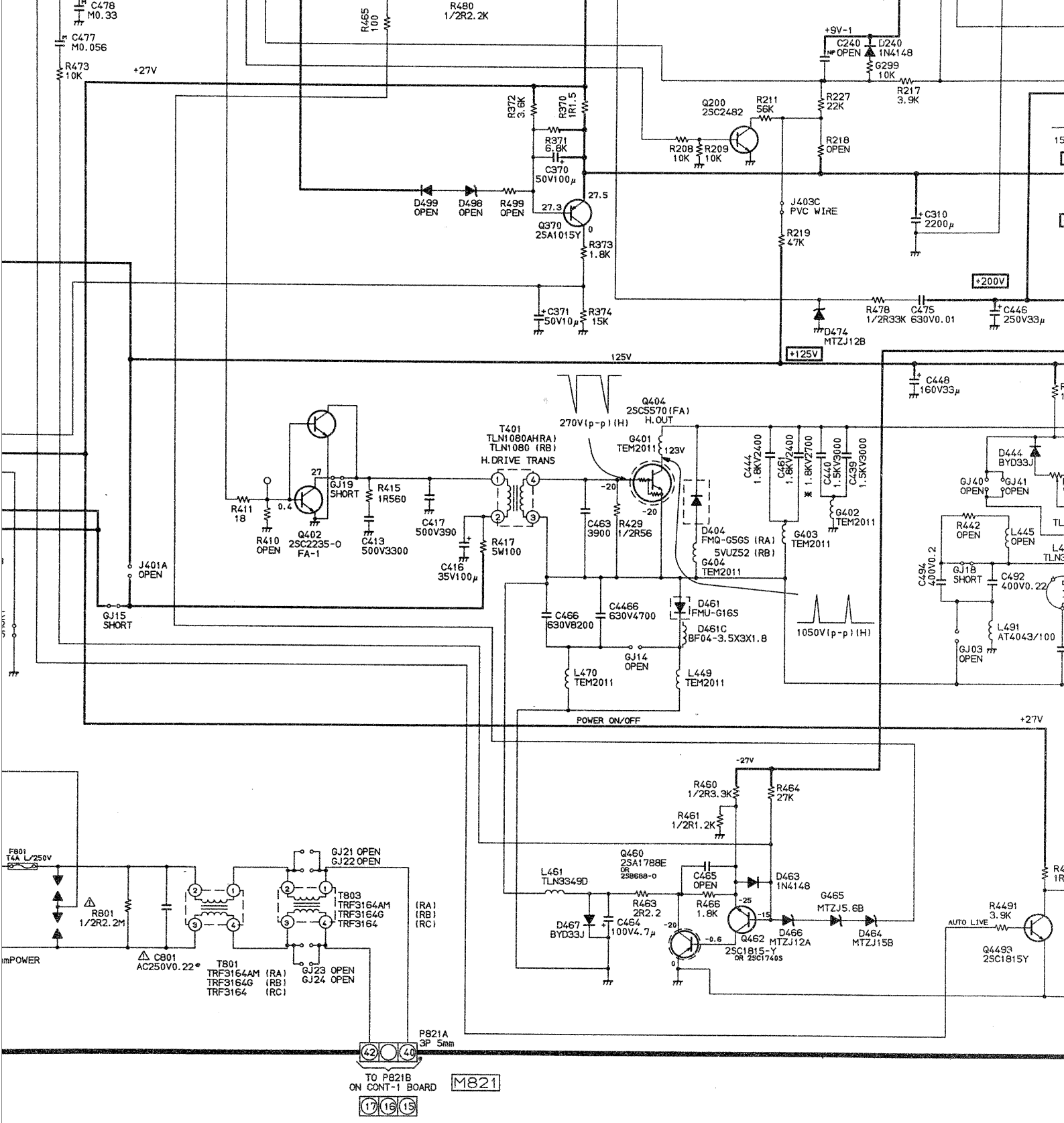

SCL
SDA
V-OUT
GND
H.DRV
HVCC
M-HOSE
AFC
BLKOUT
HD
H-GND
VD
SOCKET
Q305
TCA0372DP1
R382 43K
R383 10K
R381 10K
R385 2R100
27.0
R384 1/2R10
J404D OPEN
LA7833S
for
32ZD98G/B
THEMAL PROTECTION
AMP
PUMP UP
Q301
LA7846N
0.9
0.8
27.0
AFC
D441 MTZJ9.1B
CA29 OPEN
RA30 10K
RA29 100K
R405 1R6.8K
C493 OPEN
C484 M1500
GJ12 OPEN
C315 1000
C317 OPEN
R312 15K
V BLK
G312 2.7K
+27V
C314 10V100μ
G306 2.2K
R353 620
R303 1/2R1.0
C309 OPEN
C320 100μ
D301 BYD33J
D308 OPEN
R308 OPEN
C308 220μ
D309 OPEN
GJ51 OPEN
C313 100VM0.22
GJ11 SHORT
1.3V(p-p)(V)
L301 TEM2011
GJ56 OPEN
R307 OPEN
R310 1K
R306 24K
D303 SC570A
R309 30K
C352 2.2μ
G301 4.7K
R317 4.7K
C311 M0.047
C312 M0.027
R311 SHORT
R316 OPEN
C304 100VM0.047
R336 2R390
C366 M100V0.047
R313 15K
C306 25V3300μ
R344 1R1K
R304 OPEN
GJ50 OPEN
C305 OPEN
R305 1R1.5
* 1R1.8
GJ39 SHORT
GJ38 OPEN
M904
P904A
9P2.5mm
GND
GND
BLK
NC
HEATER
NC
NC
+200V
+200V
TO P903
ON CRT-D BOARD
D240 1N4148
G299 10K
R217 3.9K
27V(p-p)(H)
R468 16K
R435 180K
R467 1/4R220K
150V(p-p)(H)
C303 500V470
+27V
R327 2R1.5
D302 BYD33J
* SHORT
T461
TFB3079AR
C489 OPEN
EH
EF
C310 2200μ
-27V
C479 500V470
R469 1/2FR15
D460 BYD33J
C460 35V330μ
+200V
R478 1/2R33K
C475 630V0.01
C446 250V33μ
D406 BYD33J
L410 TEM2011
C410 2KV(R1)470
FOCUS
SCREEN
SL10
SL09
SL02
SL03
SL08
L462 (ITC)
V.DY
C448 160V33μ
R443 1/2R15


Q801
STR-F6668B
STR-F6668B
OCP/FB
Source
Drain
Vin
GND
1.5V
40mV
14V
0V
450Vp-p
(AC-220V)
C823
500V470
L811
TEM2011
C818
1.25KVHT2200
C817
2KV(R1)330
C821
500VB470
R822
1/2R10K
R823
1/2R6.8K
R826
OPEN
1/2R
R815
3.3K
R803
2R33K
D810
MTZJ22B
D818
MTZJ22B
D817
1N4148
D805
1N4148
D819
MTZJ6.8B
D812
OPEN
RU4ALF
D809
OPEN
D804
MTZJ15B
D806
BYD33J
G812
SHORT
C820
OPEN
2KV(R1)680
R813
OPEN1/2R
R829
1/2R0.33
C822
M0.47
C808
25V330μ
C819
100V22μ
C829
M2700
R814
6.9K
GJ01
SHORT
GJ02
SHORT
R825
OPEN
10W10
Q802
2SC3852
2SD1944H
51
6.7
TG01
OPEN
TG02
OPEN
DG01
OPEN
DG02
OPEN
DG03
OPEN
DG04
OPEN
CG01
OPEN
CG02
OPEN
CG03
OPEN
CG04
OPEN
CG05
OPEN
CG06
OPEN
CG07
OPEN
CG08
OPEN
CG09
OPEN
CG10
OPEN
CG11
OPEN
CG12
OPEN
CG13
OPEN
CG15
OPEN
CG16
OPEN
FG01
OPEN
RG03
OPEN
RG04
OPEN
RG05
OPEN
RG07
OPEN
RG08
OPEN
RG10
OPEN
RG13
OPEN
RG14
OPEN
LG05
OPEN
LG06
OPEN
QG01
OPEN
QG06
OPEN
Pattern Gap
6.4mm
Pattern Gap
6.4mm
CAUTION LIVE AREA


FOR DIGITAL-TV
J804D
J803C
J802B
R101
GJ36
GJ37
DG22/23
RG01
RG75
DIGITAL-TV 1R22K SHORT OPEN OPEN MTZJ16C OPEN 2.7K
NexTView OPEN SHORT SHORT SHORT OPEN 1/2R1C0 1.2K
OTHER 1R22K OPEN OPEN OPEN OPEN OPEN OPEN
R899
1R8.2M RA 24005004C
1R8.2MR RB 24005015L
1R8.2M RC 24005014L
Q826
TLP621(GR-LF2)
OR TLP721F(D4-GR,M)
+12V
+40V
+14V
+3.3V
+5V
ON +12V
ON +9V
ON +3V
ON +5V
5V ADJ
TP801
TP802
TP803
TP804
ZG70 PRF4000549I
TG01
AUDIO +27V
DIGIT +12V

4 5 6 7


21 POWER
22 RESET
23 AUDIO +27V
24 AUDIO +27V
BB12B B/B 8P
25 AUDIO GND
26 AUDIO GND
27 GND-S
28 GND-S
29 HVcc
30 HVcc
31 GND(ON 5V)
32 ON 5V
BB13B B/B 8P
AUDIO +27V
R416 1/2R56K
D418 MTZJ30A
Q418 2SC3852
C419 1000
C421 M0.1
D419 MTZJ11B
D420 MTZJ11B
GJ05 OPEN
J803C OPEN
J802B OPEN
C478 M0.33
C477 M0.056
R473 10K
+27V
M812
P812B 3P 2.5MM
TO P812A ON POWER BOARD
+125V
GND
TO BB54A ON POWER BOARD
HVCC
NC
27VOCP
+27V
GND
NC
HDRV-B
HDRV-B
BB16A 8P B-B
J401A OPEN
GJ15 SHORT
GJ13 SHORT
DIGIT +12V
QG42 OPEN
ON +12V
RG42 OPEN
RG43 OPEN
QG43 OPEN
+12V
CG35 OPEN
ON +9V
CG28 OPEN
FOR DIGITAL-TV
QG44 OPEN
ZG72 OPEN
RG44 OPEN
RG45 OPEN
QG45 OPEN
QG35 OPEN
ON +3V
ZG71 OPEN
RG18 OPEN
RG15 OPEN
QG37 OPEN
+5V
ON +5V
QG36 OPEN
RG17 OPEN
RG16 OPEN
QG38 OPEN
CG34 OPEN
+12V
1 P12V
2 P3VQSB
3 P5VQSB
4 PGND0
5 PGND0
6 P3V3D
7 P3V3D
8 PGNDA2
9 PGNDA1
PD80A OPEN
10 P5VD
11 P5VVA
12 P9VA
13 P5VSD
14 P40VA
15 P5VA
16 14VSB
PD82A OPEN
TO DIGITAL BOARD
19
18 EPG POWER
17 POWER SENCR
PD74B OPEN
TO MAIN BOARD
BB CONNECTER OR CONNECTOR 3P
20 GND
21 +12V
22 +5V
PD81A OPEN
FROM CONTROL BOARD-1 (SMART CARD)
TO SIGNAL TUNER GND
P805 OPEN
100
P801 NEW
F801 T4A L/250V
R801 1/2R2.2M
P802 2P5.0mmPOWER
C801 AC250V0.22*
WHEM USE THOMSO
"*"MARK PARTS H
R305. R327. C461.
NOTE
The marking [OPEN] means that
there are the marking of part

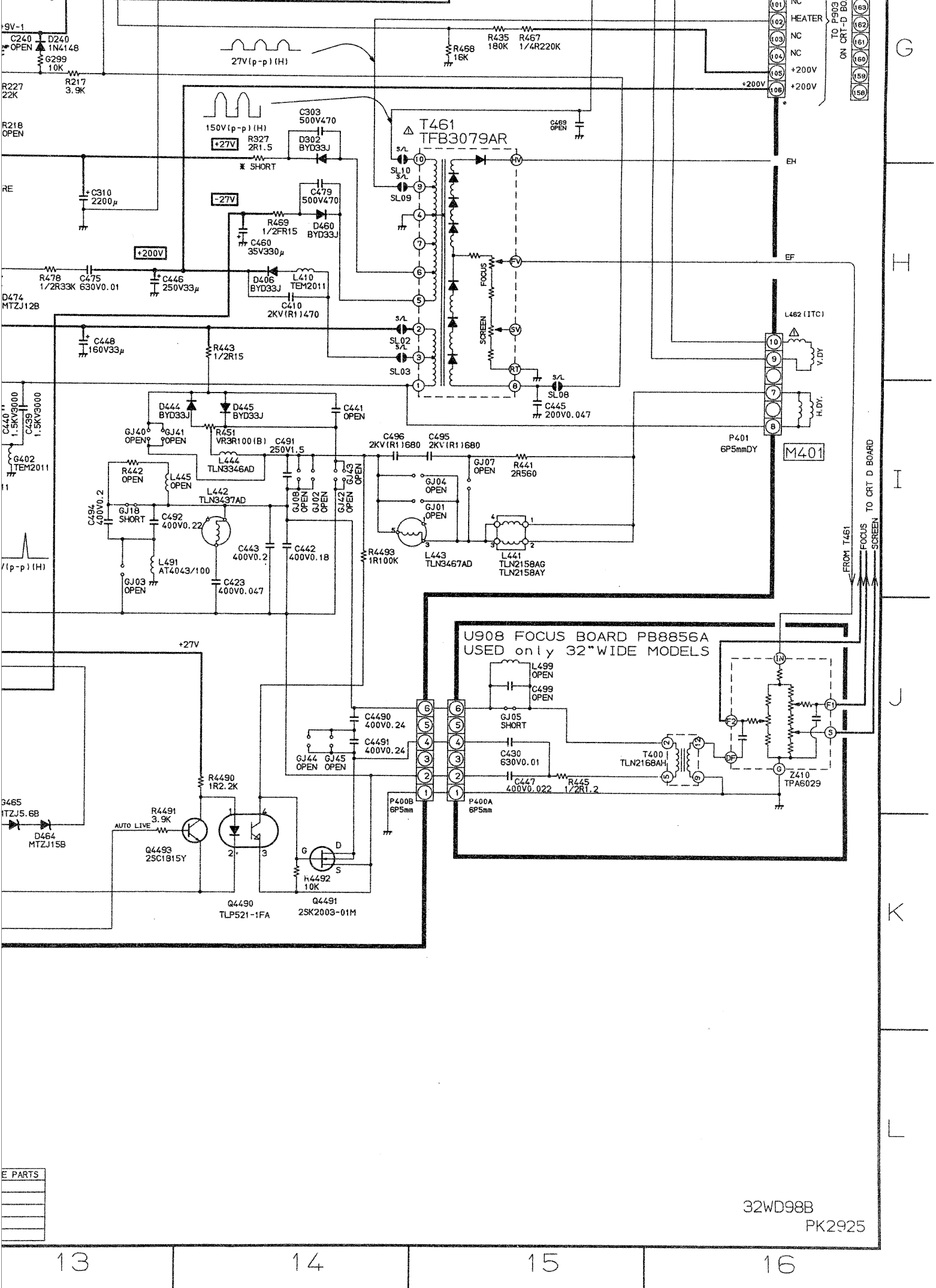


WHEM USE THOMSON's CPT,
"*"MARK PARTS HAVE TO CHANGE VALUE
R305. R327. C461.

NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

UNIT SN.	
POWER	SN. 23783274
DEF	SN. 23783275
100Hz	SN. 23783248
FOCUS	SN. 23783301

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.


U908 FOCUS BOARD PB8856A
USED only 32"WIDE MODELS
T461
TFB3079AR
T400
TLN2168AH
Z410
TPA6029
L462 (ITC)
M401
P401
6P5mmDY
P400B
6P5mm
P400A
6P5mm
Q4493
2SC1815Y
Q4490
TLP521-1FA
Q4491
2SK2003-01M
D464
MTZJ15B
D474
MTZJ12B
G402
TEM2011
L441
TLN2158AG
TLN2158AY
L442
TLN3437AD
L443
TLN3467AD
L444
TLN3346AD
L491
AT4043/100
FROM T461
FOCUS
SCREEN
TO CRT D BOARD
TO P903
ON CRT-D BOARD
HEATER
NC
+200V
+27V
-27V
150V(p-p)(H)
27V(p-p)(H)
AUTO LIVE
SHORT
OPEN
32WD98B
PK2925
E PARTS
13
14
15
16
G
H
I
J
K
L

SCHEMATIC DIAGRAM MODEL : 32WD98B (3/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

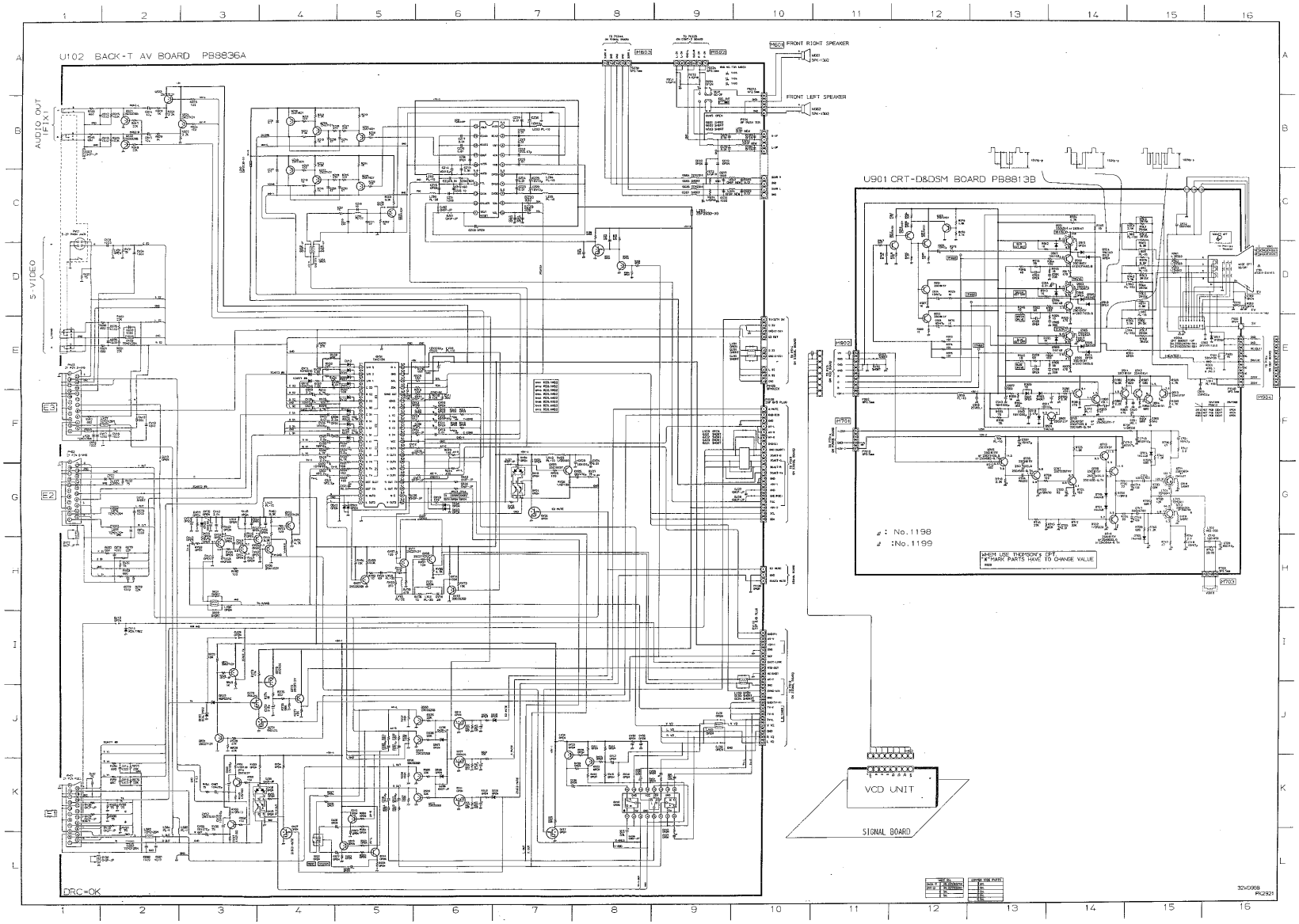
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

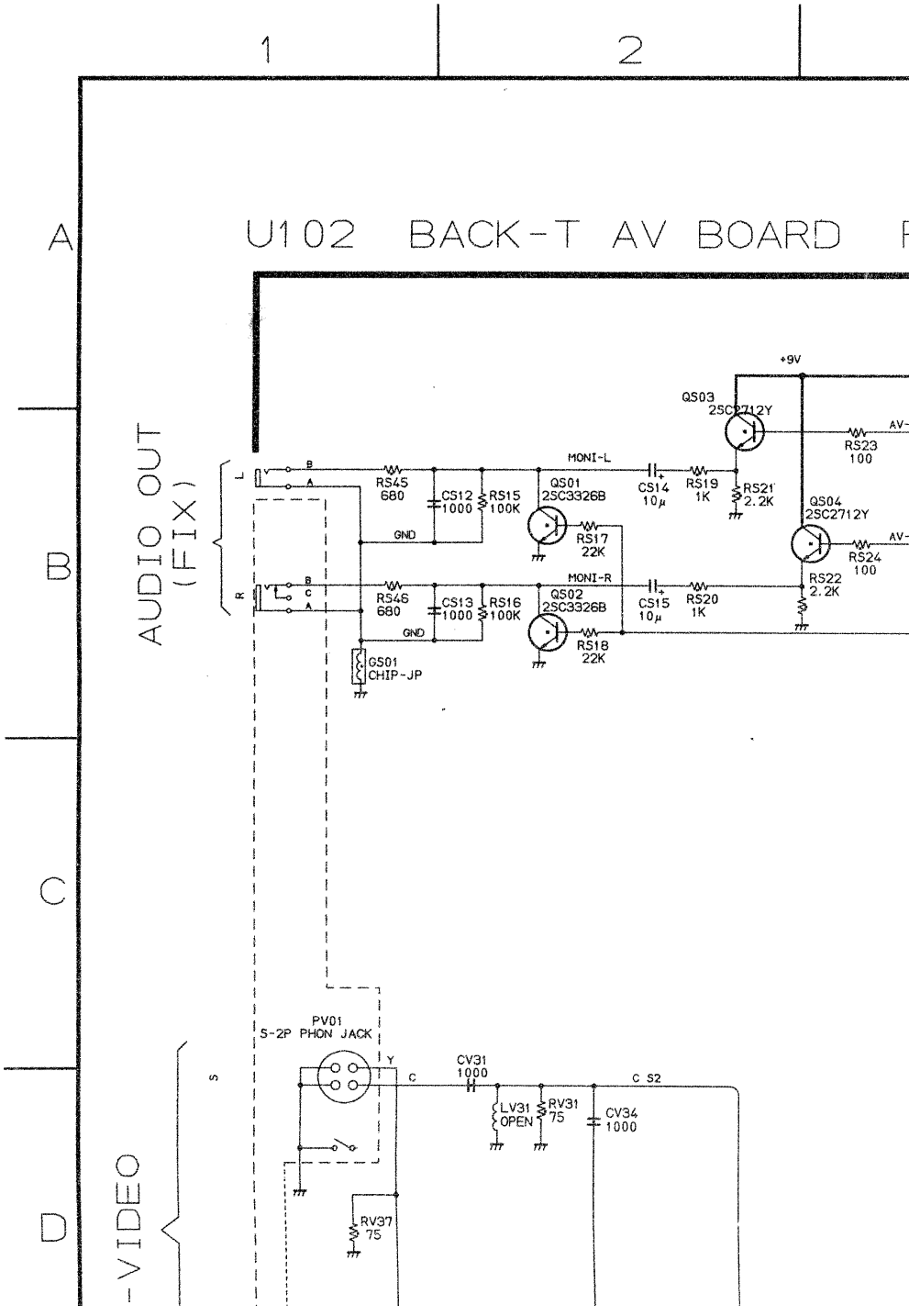
030-9914



SCHEMATIC DIAGRAM MODEL : 32WD98B (3/6)

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

030-9914



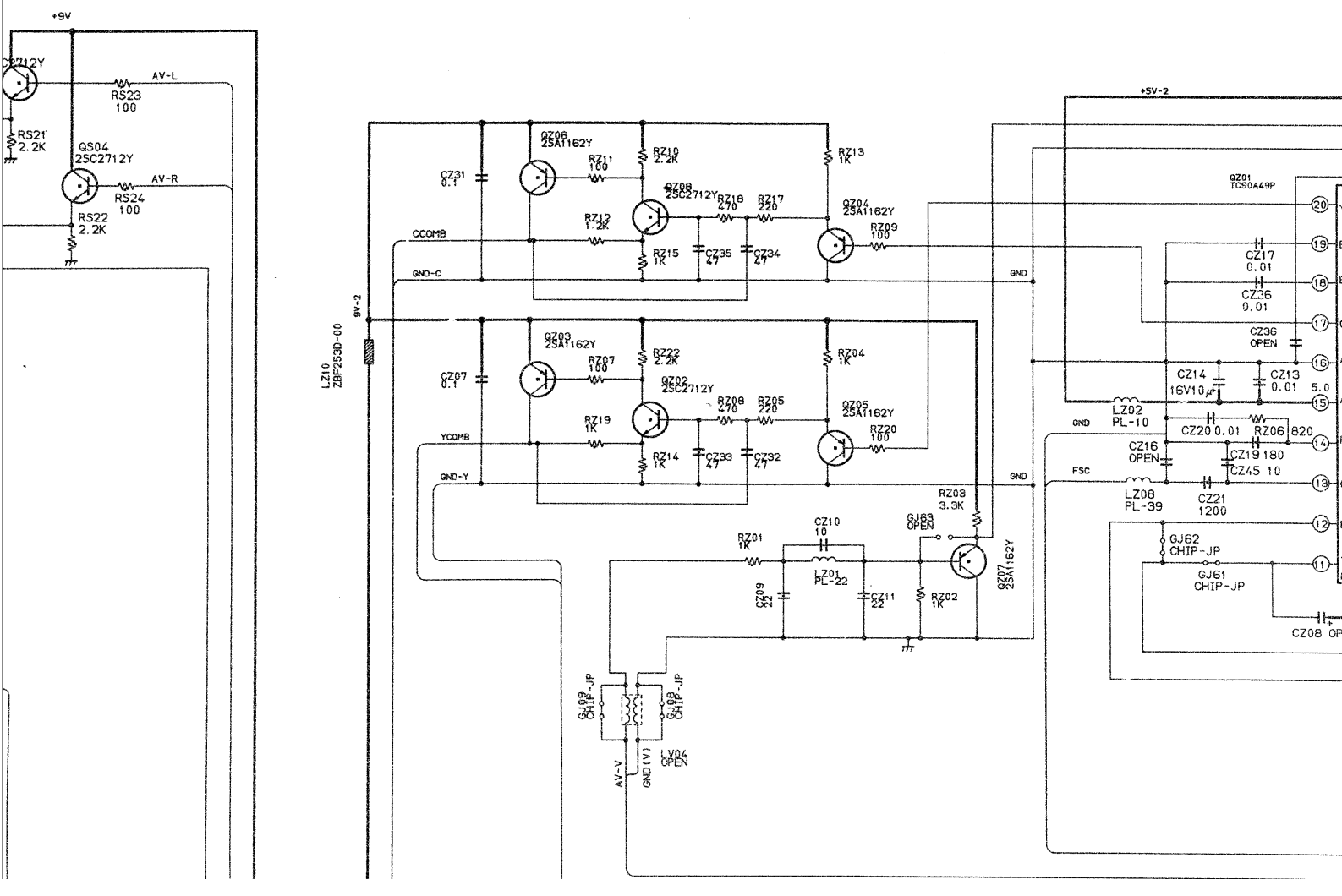
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low ca
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid p BRIGHTNESS control is almost in maximum position. Set other con picture.

list designate com-
ly with types identical to
ents is to be identical
AFETY NOTICE on page

3 4 5 6

OARD PB8836A



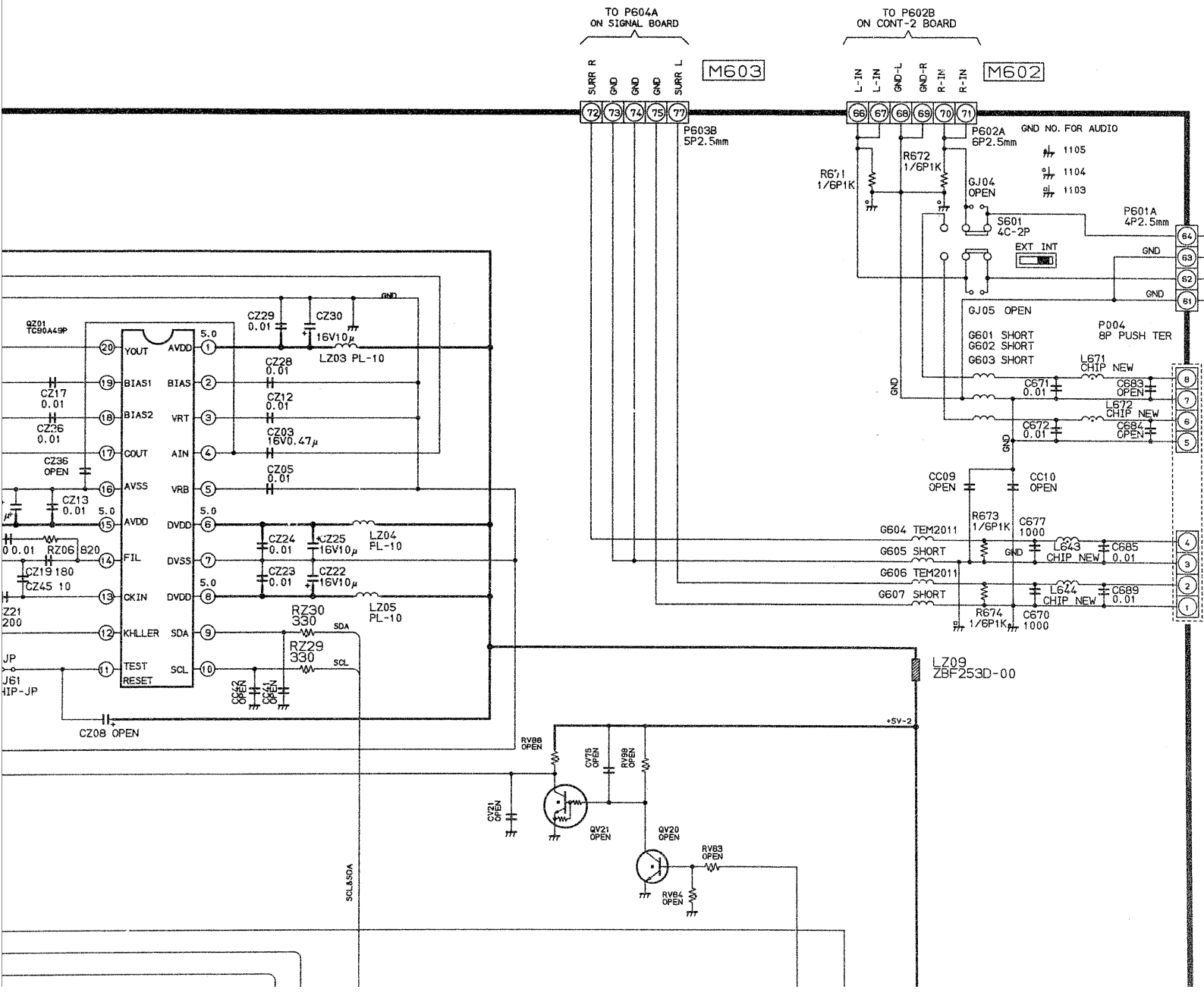
round, line voltage 220
%.
nd a low capacity probe.

e in mid position and
t other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is shown
   gram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

6 7 8 9



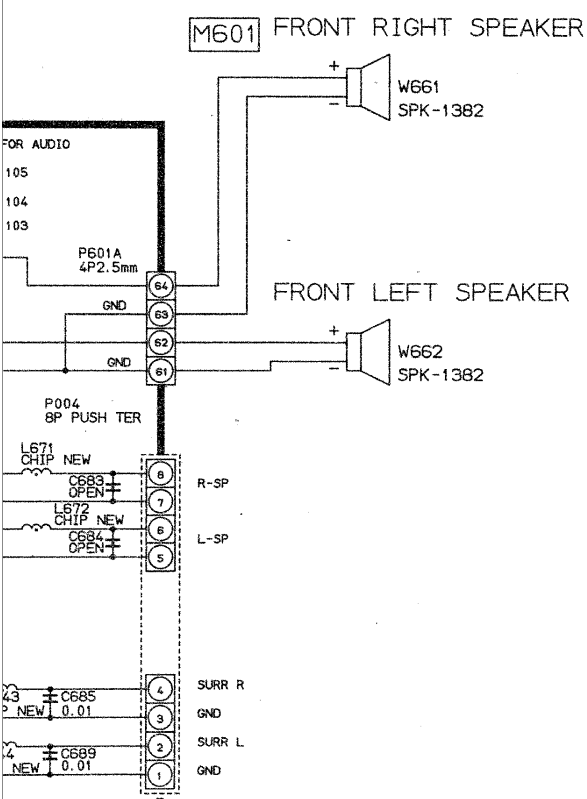
EXPRESSION

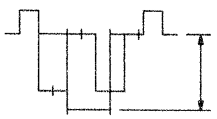
VALUE OF RESISTOR, CAPACITOR and INDU

1. Resistance is shown in ohm, k=1,000, M=1,000,0
2. Unless other wise noted in schematic, all capacit sed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inducto sed in μH, and the values less than 1 in H.

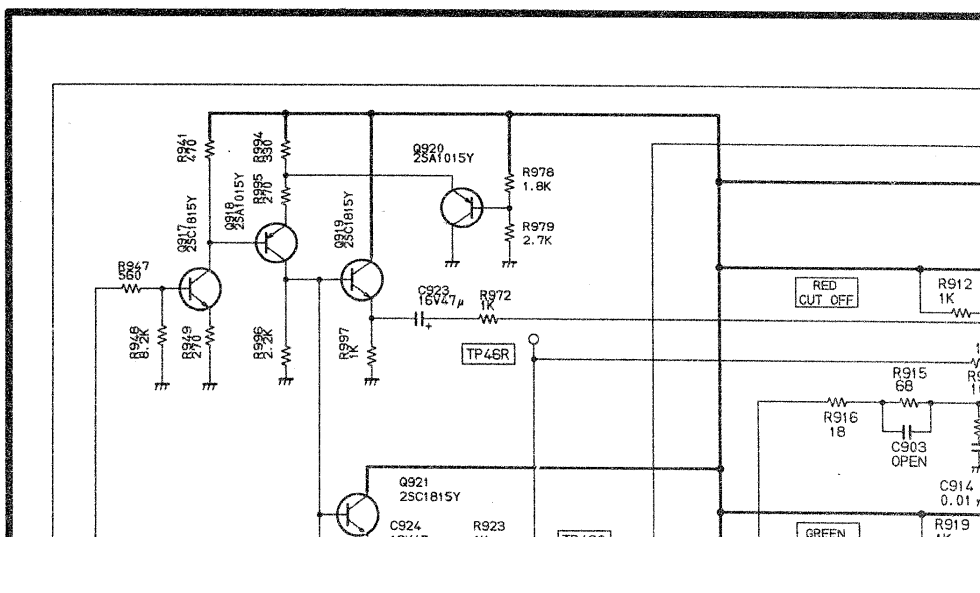
ner is shown in this schematic dia-
the circuit.
ice.

10 | 11 | 12 | 13





U901 CRT-D&DSM BOARD PB8813B

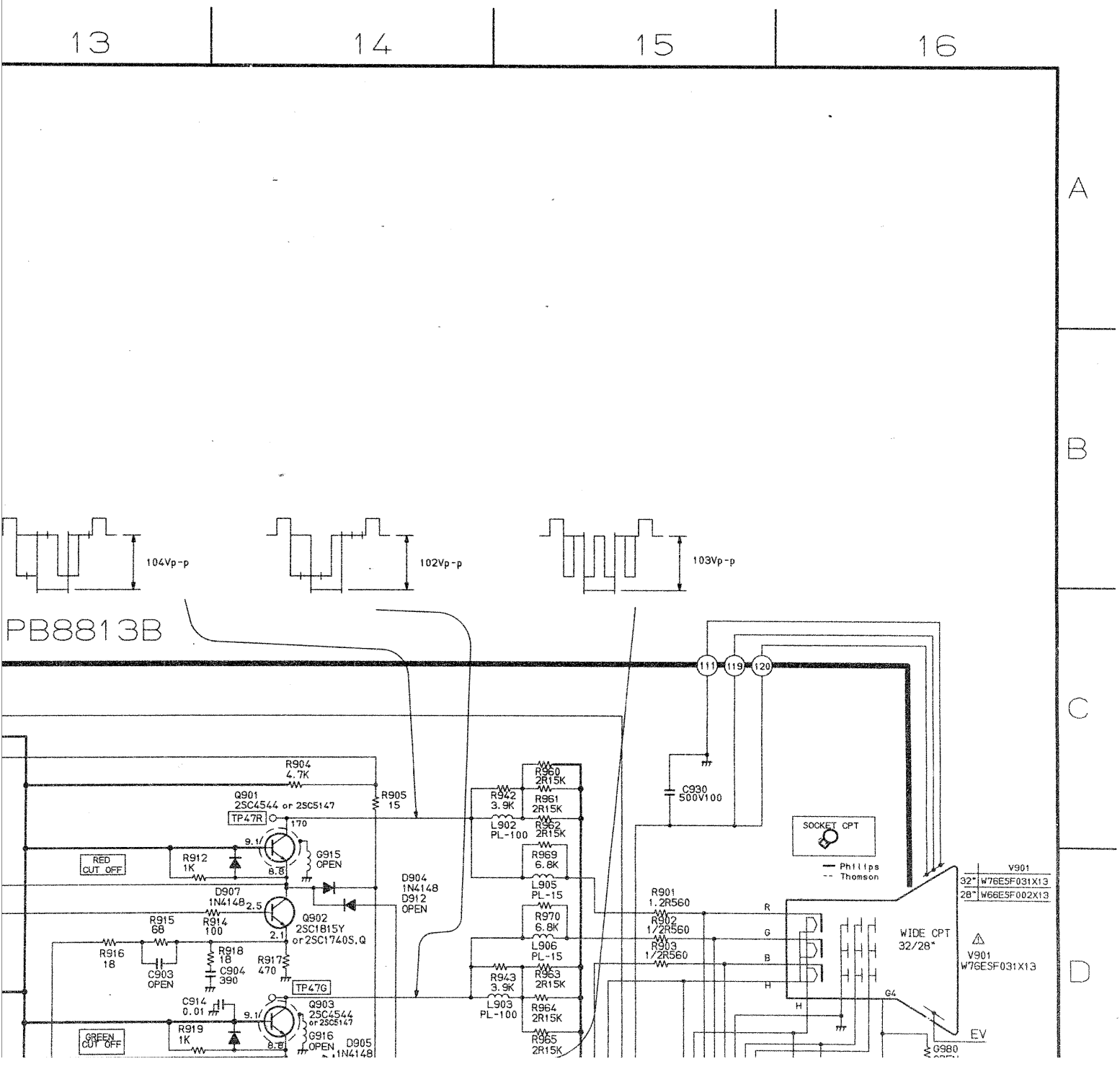


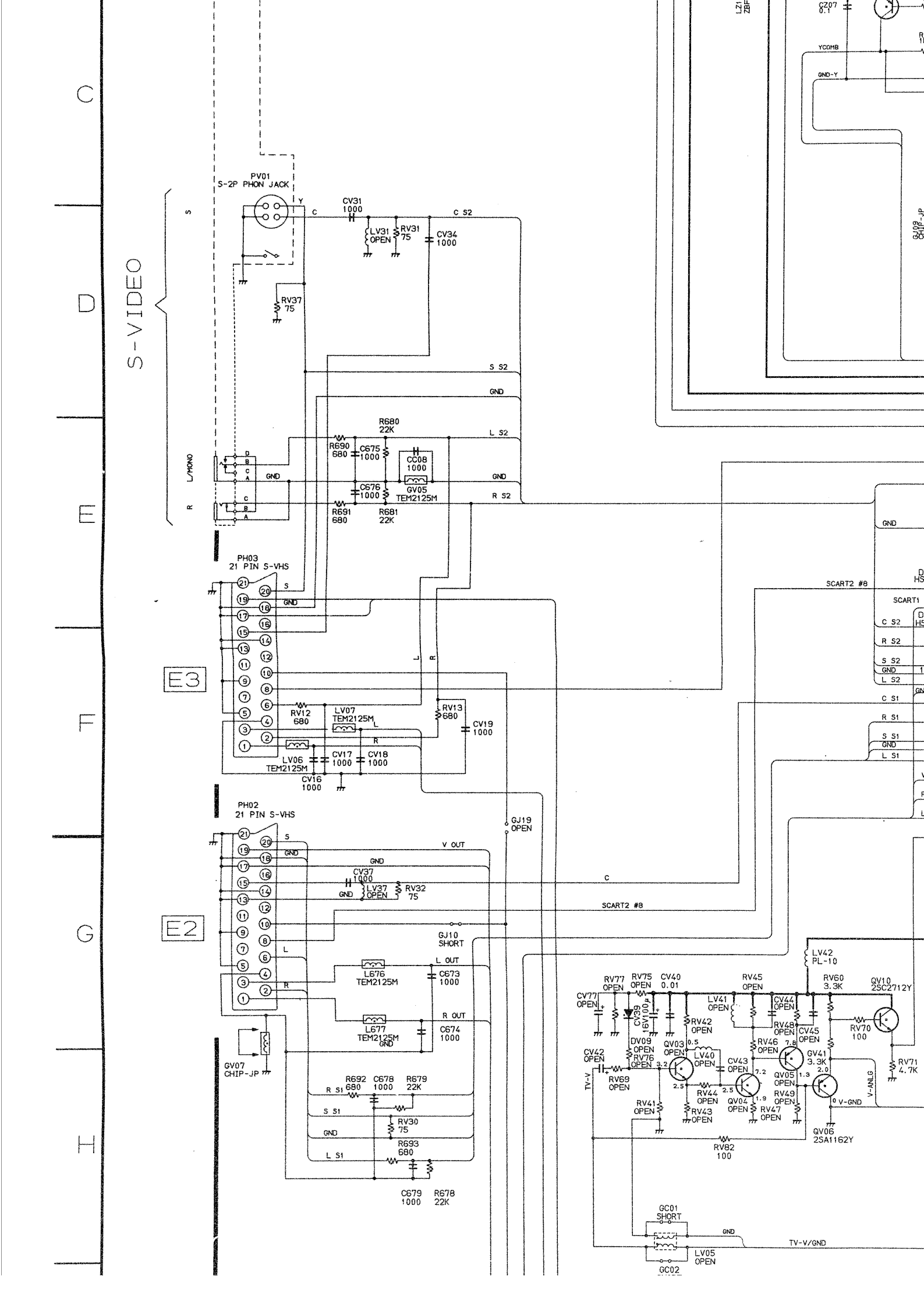
ACITOR and INDUCTOR

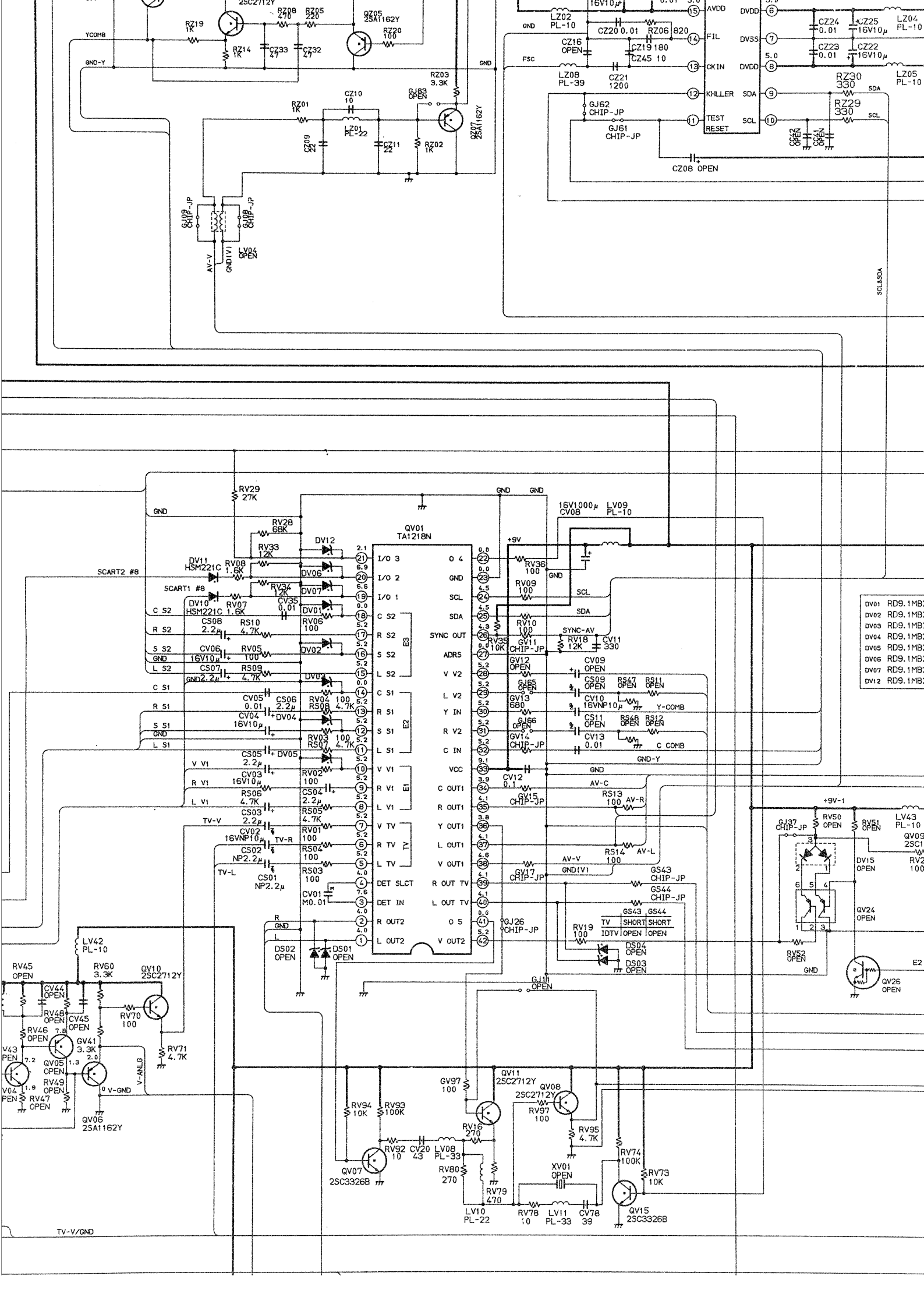
k=1,000, M=1,000,000

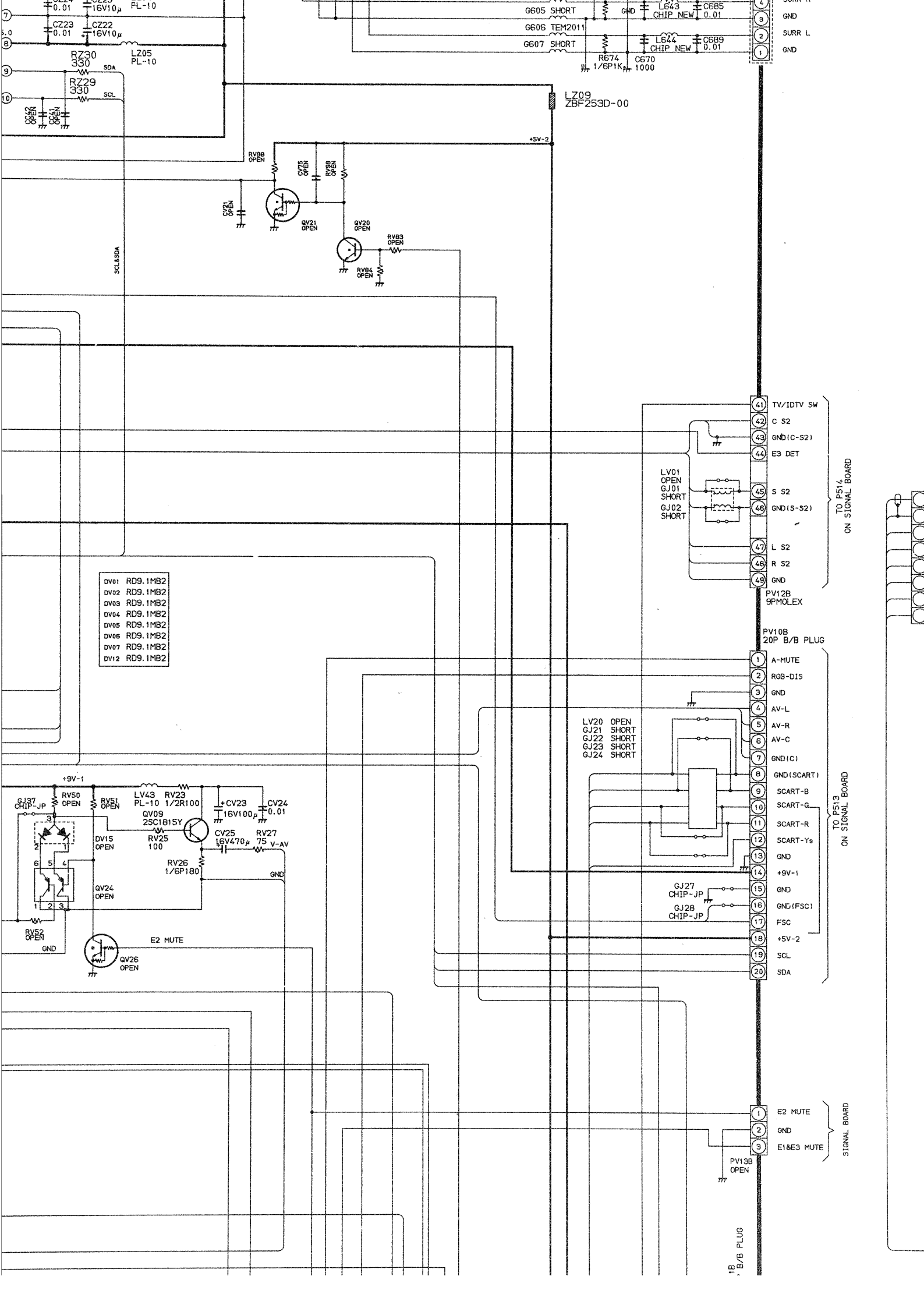
chematic, all capacitor values less than 1 are expres-
e than 1 in pF.

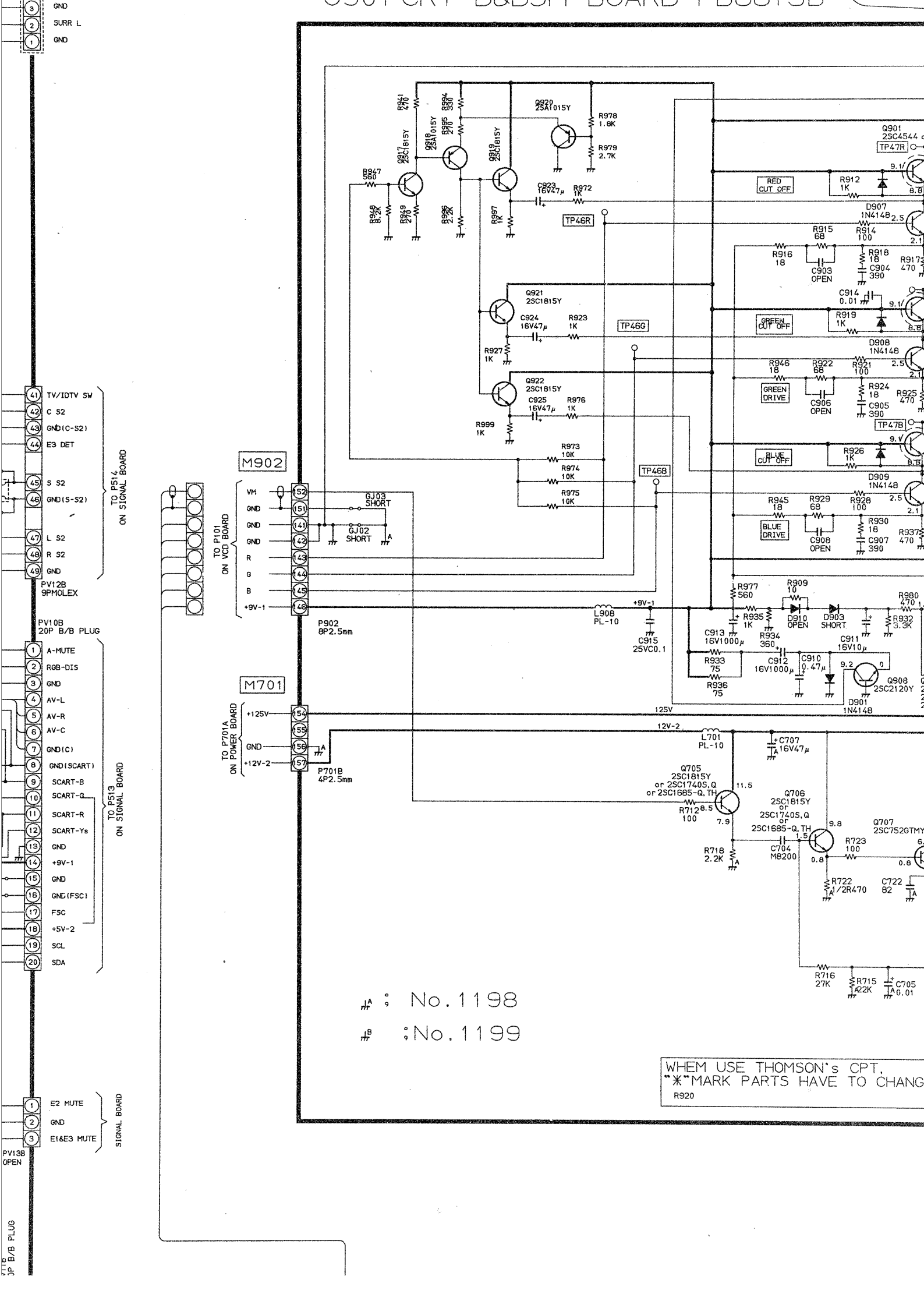
hematic, all inductor values more than 1 are expres-
than 1 in H.

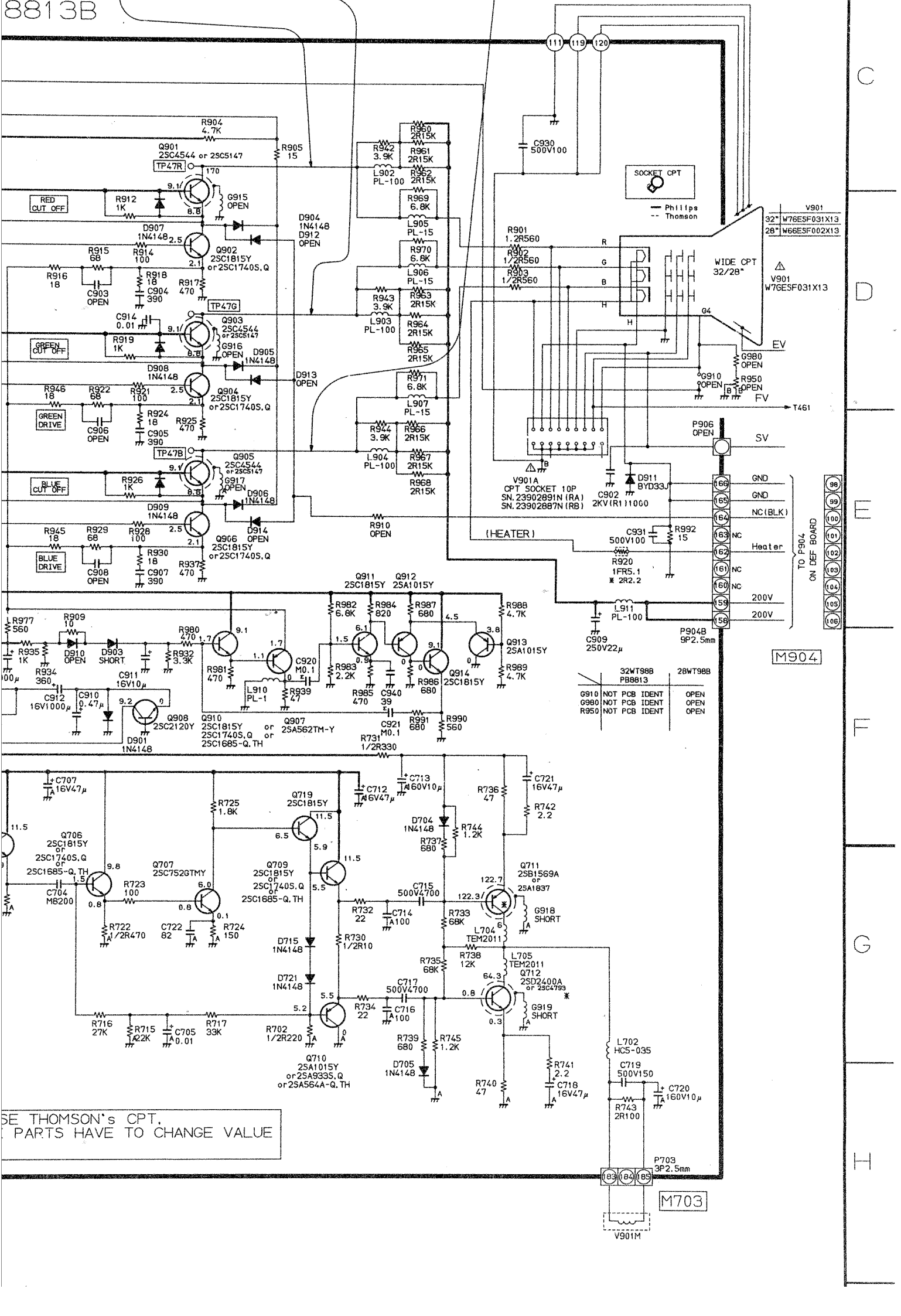


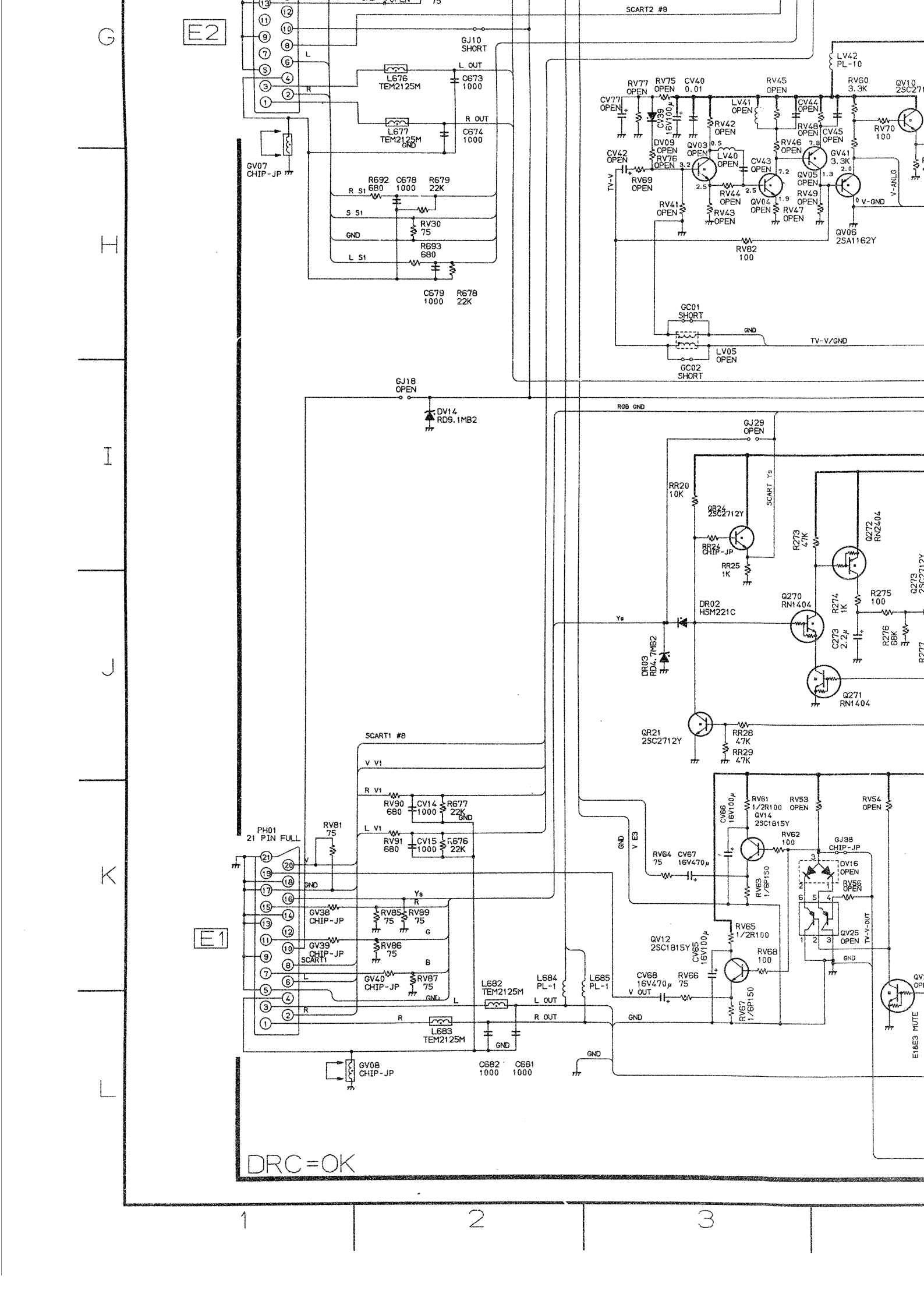

S-VIDEO
PV01
S-2P PHON JACK
CV31
1000
LV31
OPEN
RV31
75
CV34
1000
RV37
75
S S2
GND
R680
22K
R690
680
C675
1000
CC08
1000
L S2
GND
C676
1000
GV05
TEM2125M
GND
R S2
R691
680
R681
22K
PH03
21 PIN S-VHS
PH02
21 PIN S-VHS
E3
E2
RV12
680
LV07
TEM2125M
RV13
680
CV19
1000
LV06
TEM2125M
CV17
1000
CV18
1000
CV16
1000
GJ19
OPEN
V OUT
CV37
1000
LV37
OPEN
RV32
75
GJ10
SHORT
L OUT
L676
TEM2125M
C673
1000
R OUT
L677
TEM2125M
C674
1000
GV07
CHIP-JP
R692
680
C678
1000
R679
22K
RV30
75
R693
680
C679
1000
R678
22K
SCART2 #8
SCART1
C S2
R S2
S S2
GND
L S2
C S1
R S1
S S1
L S1
LV42
PL-10
RV77
OPEN
RV75
OPEN
CV40
0.01
RV45
OPEN
RV60
3.3K
QV10
2SC2712Y
CV77
OPEN
CV39
0.01
LV41
OPEN
CV44
OPEN
RV42
OPEN
RV48
OPEN
CV45
OPEN
RV70
100
DV09
OPEN
QV03
OPEN
RV46
OPEN
GV41
3.3K
RV71
4.7K
CV42
OPEN
RV76
OPEN
LV40
OPEN
CV43
OPEN
QV05
OPEN
RV69
OPEN
RV44
OPEN
RV49
OPEN
QV04
OPEN
RV47
OPEN
RV41
OPEN
RV43
OPEN
TV-V
V-ANLG
V-GND
QV06
2SA1162Y
RV82
100
GC01
SHORT
GC02
LV05
OPEN
TV-V/GND

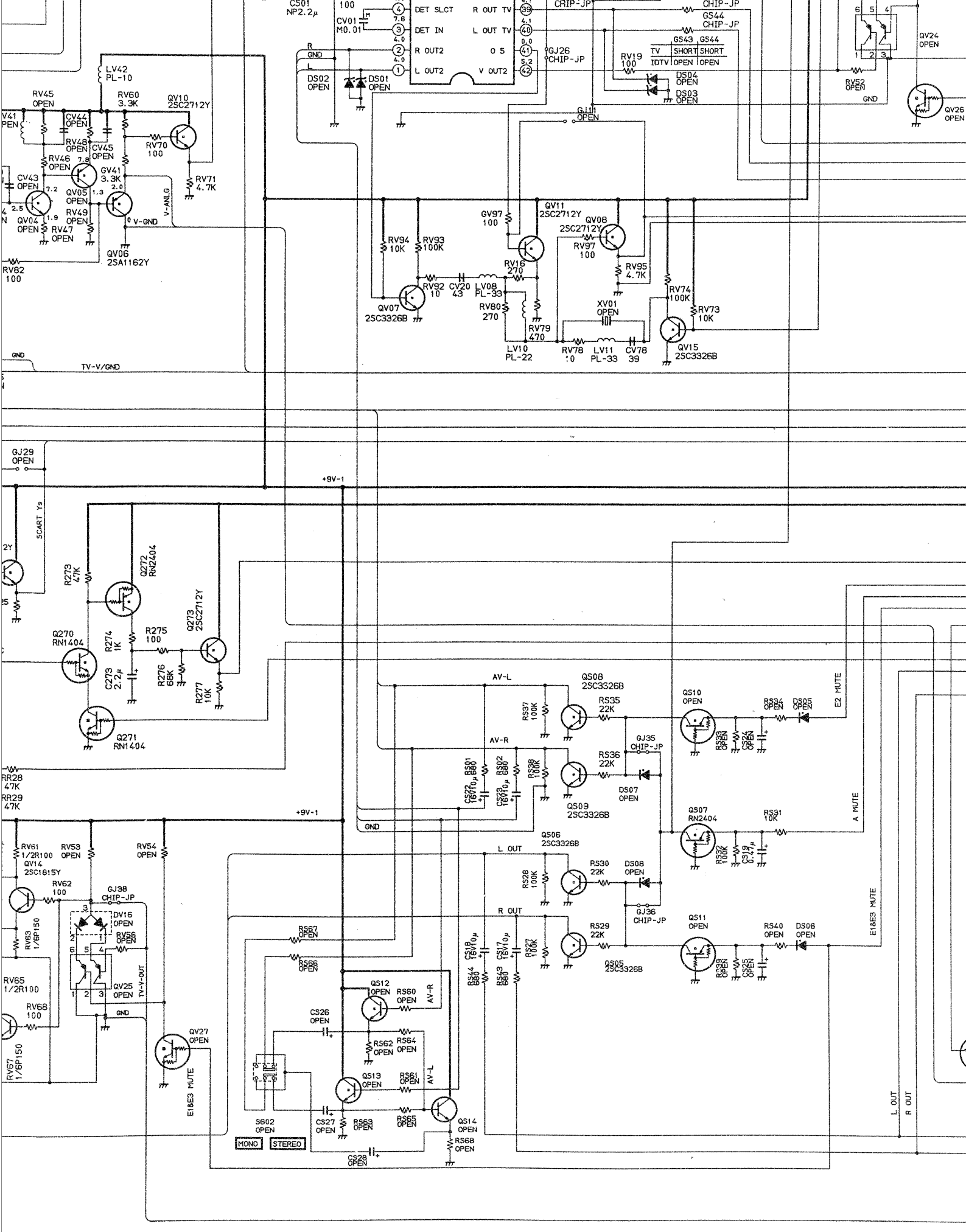

QV01
TA1218N
I/O 3
I/O 2
I/O 1
C S2
R S2
S S2
L S2
C S1
R S1
S S1
L S1
V V1
R V1
L V1
TV-V
TV-R
TV-L
DET SLCT
DET IN
R OUT2
L OUT2
O 4
GND
SCL
SDA
SYNC OUT
ADRS
V V2
L V2
Y IN
R V2
C IN
VCC
C OUT1
R OUT1
Y OUT1
L OUT1
V OUT1
R OUT TV
L OUT TV
O 5
V OUT2
E3
E2
E1
TV
SCART2 #8
SCART1 #8
RV29 27K
RV28 68K
RV33 12K
RV34 12K
RV08 1.6K
RV07 1.6K
RV10 HSM221C
RV11 HSM221C
DV12
DV06
DV07
DV01
DV02
DV03
DV04
DV05
CV35 0.01
CS08 2.2μ
RS10 4.7K
CV06 16V10μ
RV05 100
CS07 2.2μ
RS09 4.7K
CV05 0.01
CS06 2.2μ
RV04 100
RS08 4.7K
CV04 16V10μ
RV03 100
RS07 4.7K
CS05 2.2μ
RV02 100
CV03 16V10μ
RS06 4.7K
CS04 2.2μ
RS05 4.7K
CS03 2.2μ
RV01 100
CV02 16VNP10μ
RS04 100
CS02 NP2.2μ
RS03 100
CS01 NP2.2μ
CV01 M0.01
DS01 OPEN
DS02 OPEN
GND GND
16V1000μ CV08
LV09 PL-10
RV36 100
RV09 100
RV10 100
RV35 10K
GV11 CHIP-JP
RV18 12K
CV11 330
SYNC-AV
SCL
SDA
GV12 OPEN
GJ65 OPEN
GV13 680
GJ66 OPEN
GV14 CHIP-JP
CV12 0.1
GV15 CHIP-JP
CV09 OPEN
CS09 OPEN
RS47 OPEN
RS11 OPEN
CV10 16VNP10μ
CS11 OPEN
RS48 OPEN
RS12 OPEN
CV13 0.01
Y-COMB
C COMB
GND-Y
AV-C
RS13 100
AV-R
RS14 100
AV-L
AV-V
GND(V)
GV17 CHIP-JP
GS43 CHIP-JP
GS44 CHIP-JP
GS43 GS44
TV SHORT SHORT
IDTV OPEN OPEN
RV19 100
DS04 OPEN
DS03 OPEN
GJ26 CHIP-JP
GJ11 OPEN
+9V
+9V-1
GJ37 CHIP-JP
RV50 OPEN
RV51 OPEN
LV43 PL-10
QV09 2SC1
RV2
DV15 OPEN
QV24 OPEN
RV52 OPEN
QV26 OPEN
E2
DV01 RD9.1MB
DV02 RD9.1MB
DV03 RD9.1MB
DV04 RD9.1MB
DV05 RD9.1MB
DV06 RD9.1MB
DV07 RD9.1MB
DV12 RD9.1MB
LV42 PL-10
RV45 OPEN
RV60 3.3K
QV10 2SC2712Y
CV44 OPEN
RV48 OPEN
CV45 OPEN
RV70 100
RV46 OPEN
GV41 3.3K
RV71 4.7K
QV05 OPEN
RV49 OPEN
RV47 OPEN
V-GND
V-ANLG
QV06 2SA1162Y
GV97 100
QV11 2SC2712Y
QV08 2SC2712Y
RV97 100
RV95 4.7K
RV94 10K
RV93 100K
RV16 270
RV92 10
CV20 43
LV08 PL-33
QV07 2SC3326B
RV80 270
RV79 470
LV10 PL-22
RV78 10
LV11 PL-33
CV78 39
XV01 OPEN
RV74 100K
RV73 10K
QV15 2SC3326B
TV-V/GND
YCOMB
GND-Y
RZ19 1K
RZ14 1K
RZ08 470
RZ05 220
QZ05 2SA1162Y
RZ20 100
CZ33 47
CZ32 47
RZ03 3.3K
GJ63 OPEN
RZ01 1K
CZ10 10
LZ01 PL-22
CZ09 22
CZ11 22
RZ02 1K
QZ07 2SA1162Y
GJ09 CHIP-JP
GJ08 CHIP-JP
LV04 OPEN
AV-V
GND(V)
LZ02 PL-10
CZ20 0.01
RZ06 820
CZ16 OPEN
CZ19 180
CZ45 10
FSC
LZ08 PL-39
CZ21 1200
AVDD
FIL
CKIN
KHLLER
TEST
RESET
DVDD
DVSS
DVDD
SDA
SCL
5.0
GJ62 CHIP-JP
GJ61 CHIP-JP
CZ08 OPEN
RZ30 330
RZ29 330
CZ24 0.01
CZ25 16V10μ
CZ23 0.01
CZ22 16V10μ
LZ04 PL-10
LZ05 PL-10
SCL&SDA


G605 SHORT
G606 TEM2011
G607 SHORT
L643 CHIP NEW
C685 0.01
L644 CHIP NEW
C689 0.01
R674 1/6P1K
C670 1000
GND
SURR L
GND
LZ09 ZBF253D-00
+5V-2
RZ30 330 SDA
RZ29 330 SCL
LZ05 PL-10
CZ23 0.01
CZ22 16V10μ
SCL&SDA
RV88 OPEN
CV75 OPEN
RV98 OPEN
CV21 OPEN
QV21 OPEN
QV20 OPEN
RV83 OPEN
RV84 OPEN
TV/IDTV SW
C S2
GND(C-S2)
E3 DET
S S2
GND(S-S2)
L S2
R S2
GND
LV01 OPEN
GJ01 SHORT
GJ02 SHORT
TO P514 ON SIGNAL BOARD
PV12B 9PMOLEX
DV01 RD9.1MB2
DV02 RD9.1MB2
DV03 RD9.1MB2
DV04 RD9.1MB2
DV05 RD9.1MB2
DV06 RD9.1MB2
DV07 RD9.1MB2
DV12 RD9.1MB2
PV10B 20P B/B PLUG
A-MUTE
RGB-DIS
GND
AV-L
AV-R
AV-C
GND(C)
GND(SCART)
SCART-B
SCART-G
SCART-R
SCART-Ys
GND
+9V-1
GND
GND(FSC)
FSC
+5V-2
SCL
SDA
LV20 OPEN
GJ21 SHORT
GJ22 SHORT
GJ23 SHORT
GJ24 SHORT
GJ27 CHIP-JP
GJ28 CHIP-JP
TO P513 ON SIGNAL BOARD
+9V-1
GJ37 CHIP-JP
RV50 OPEN
RV51 OPEN
LV43 PL-10
RV23 1/2R100
+CV23 16V100μ
CV24 0.01
QV09 2SC1815Y
RV25 100
CV25 16V470μ
RV27 75
V-AV
RV26 1/6P180
GND
DV15 OPEN
QV24 OPEN
RV52 OPEN
GND
E2 MUTE
QV26 OPEN
E2 MUTE
GND
E1&E3 MUTE
PV13B OPEN
SIGNAL BOARD

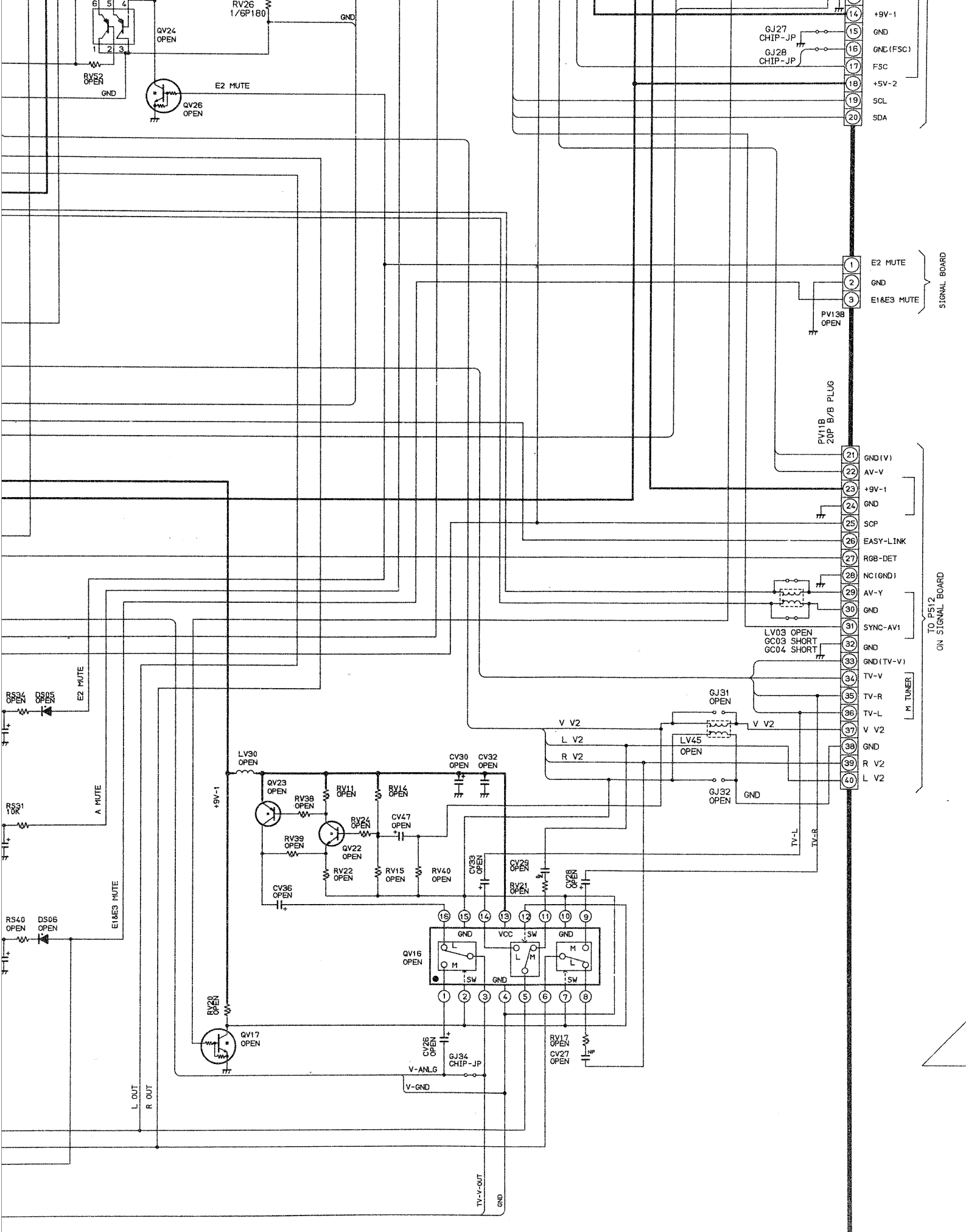

3 GND
2 SURR L
1 GND
41 TV/IDTV SW
42 C S2
43 GND(C-S2)
44 E3 DET
45 S S2
46 GND(S-S2)
47 L S2
48 R S2
49 GND
TO P514 ON SIGNAL BOARD
PV12B 9PMOLEX
PV10B 20P B/B PLUG
1 A-MUTE
2 RGB-DIS
3 GND
4 AV-L
5 AV-R
6 AV-C
7 GND(C)
8 GND(SCART)
9 SCART-B
10 SCART-G
11 SCART-R
12 SCART-Ys
13 GND
14 +9V-1
15 GND
16 GND(FSC)
17 FSC
18 +5V-2
19 SCL
20 SDA
TO P513 ON SIGNAL BOARD
1 E2 MUTE
2 GND
3 E1&E3 MUTE
SIGNAL BOARD
PV13B OPEN
M902
VM 152
GND 151
GND 141
GND 142
R 143
G 144
B 145
+9V-1 146
TO P101 ON VCD BOARD
GJ03 SHORT
GJ02 SHORT
P902 8P2.5mm
M701
+125V 154
155
GND 156
+12V-2 157
TO P701A ON POWER BOARD
P701B 4P2.5mm
Q920 2SA1015Y
Q918 2SA1015Y
Q917 2SC1815Y
Q919 2SC1815Y
R978 1.8K
R979 2.7K
R947 560
R948 8.2K
R949 270
R996 2.2K
R997 1K
C923 16V47μ
R972 1K
TP46R
Q921 2SC1815Y
C924 16V47μ
R923 1K
TP46G
R927 1K
Q922 2SC1815Y
C925 16V47μ
R976 1K
R999 1K
R973 10K
R974 10K
R975 10K
TP46B
Q901 2SC4544
TP47R
RED CUT OFF
R912 1K
D907 1N4148
R915 68
R914 100
R916 18
C903 OPEN
R918 18
C904 390
C914 0.01
GREEN CUT OFF
R919 1K
D908 1N4148
R946 18
R922 68
R921 100
GREEN DRIVE
C906 OPEN
R924 18
C905 390
TP47B
BLUE CUT OFF
R926 1K
D909 1N4148
R945 18
R929 68
R928 100
BLUE DRIVE
C908 OPEN
R930 18
C907 390
R977 560
R909 10
R980 470
R935 1K
D910 OPEN
D903 SHORT
R932 3.3K
C913 16V1000μ
R934 360
C911 16V10μ
R933 75
C912 16V1000μ
C910 0.47μ
R936 75
Q908 2SC2120Y
D901 1N4148
L908 PL-10
+9V-1
C915 25VC0.1
125V
12V-2
L701 PL-10
C707 16V47μ
Q705 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
R712 100
Q706 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
R718 2.2K
C704 M8200
Q707 2SC752GTMY
R723 100
R722 2R470
C722 82
R716 27K
R715 22K
C705 0.01
A : No.1198
B : No.1199
WHEM USE THOMSON's CPT,
"*"MARK PARTS HAVE TO CHANG
R920

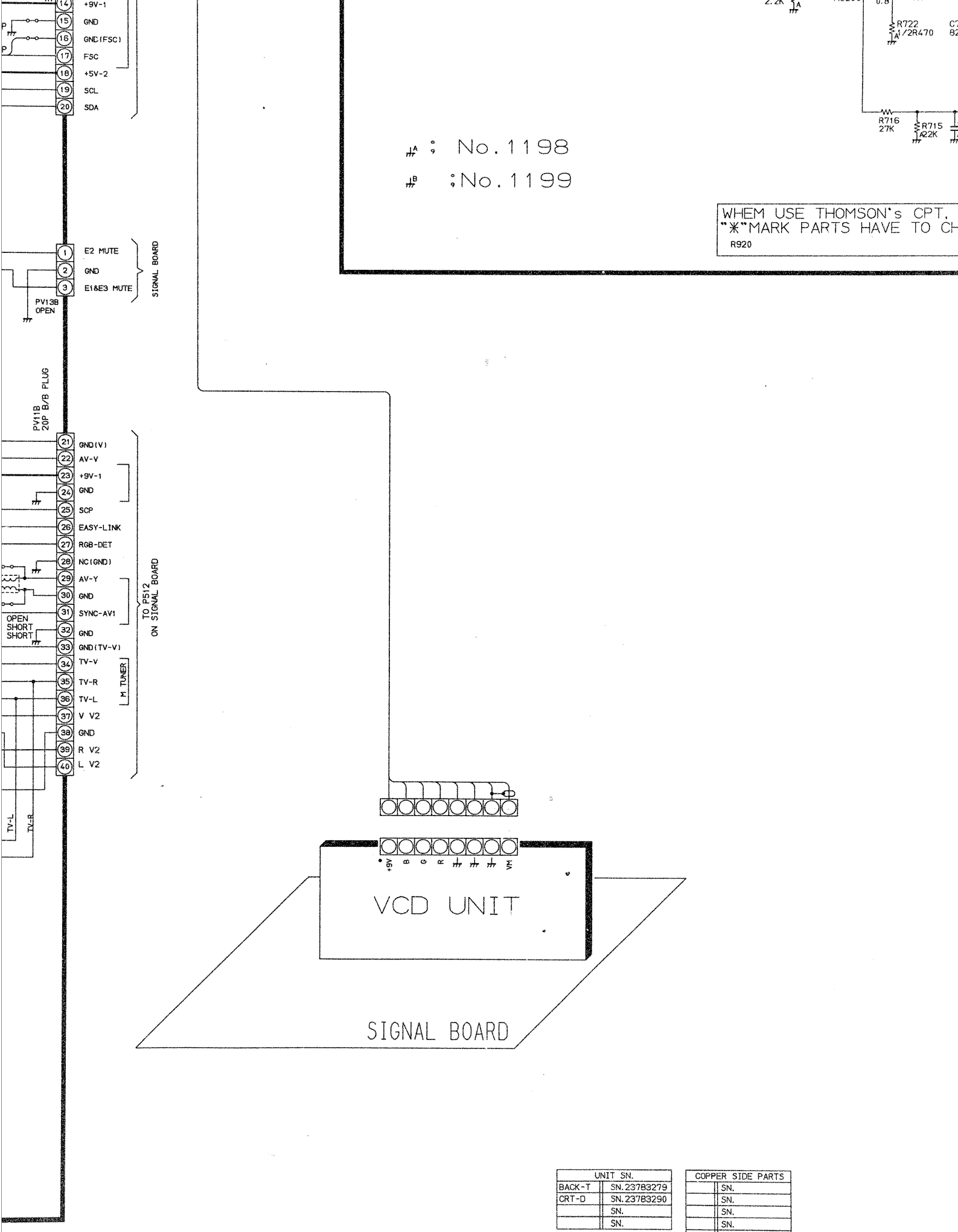

8813B
111
119
120
C930 500V100
SOCKET CPT
Phillips
Thomson
V901
32" W76ESF031X13
28" W66ESF002X13
WIDE CPT 32/28"
V901 W7GESF031X13
R904 4.7K
R905 15
Q901 2SC4544 or 2SC5147
TP47R
RED CUT OFF
R912 1K
G915 OPEN
D904 1N4148
D912 OPEN
D907 1N4148
Q902 2SC1815Y or2SC1740S,Q
R914 100
R915 68
R916 18
R917 470
R918 18
C903 OPEN
C904 390
TP47G
C914 0.01
Q903 2SC4544 or2SC5147
GREEN CUT OFF
R919 1K
G916 OPEN
D905 1N4148
D908 1N4148
Q904 2SC1815Y or2SC1740S,Q
D913 OPEN
R921 100
R922 68
R924 18
R925 470
C905 390
C906 OPEN
GREEN DRIVE
TP47B
Q905 2SC4544 or2SC5147
BLUE CUT OFF
R926 1K
G917 OPEN
D906 1N4148
D909 1N4148
Q906 2SC1815Y or2SC1740S,Q
D914 OPEN
R928 100
R929 68
R930 18
R937 470
C907 390
C908 OPEN
BLUE DRIVE
R910 OPEN
R942 3.9K
R943 3.9K
R944 3.9K
R960 2R15K
R961 2R15K
R962 2R15K
R963 2R15K
R964 2R15K
R965 2R15K
R966 2R15K
R967 2R15K
R968 2R15K
R969 6.8K
R970 6.8K
R971 6.8K
L902 PL-100
L903 PL-100
L904 PL-100
L905 PL-15
L906 PL-15
L907 PL-15
R901 1.2R560
R902 1/2R560
R903 1/2R560
R
G
B
H
G4
EV
FV
G980 OPEN
G910 OPEN
R950 OPEN
T461
P906 OPEN
SV
V901A CPT SOCKET 10P
SN.23902891N (RA)
SN.23902887N (RB)
C902 2KV(R1)1000
D911 BYD33J
(HEATER)
C931 500V100
R992 15
R920 1FR5.1 * 2R2.2
L911 PL-100
C909 250V22μ
P904B 9P2.5mm
166 GND
165 GND
164 NC(BLK)
163 NC
162 Heater
161 NC
160 NC
159 200V
158 200V
TO P904 ON DEF BOARD
98 99 100 101 102 103 104 105 106
M904
Q911 2SC1815Y
Q912 2SA1015Y
R977 560
R909 10
R935 1K
D910 OPEN
D903 SHORT
R934 360
C911 16V10μ
C912 16V1000μ
C910 0.47μ
Q908 2SC2120Y
D901 1N4148
R980 470
R981 470
C920 M0.1
L910 PL-1
R939 47
R982 6.8K
R983 2.2K
R984 820
R985 470
C940 39
R986 680
R987 680
R988 4.7K
R989 4.7K
Q913 2SA1015Y
Q914 2SC1815Y
R932 3.3K
C921 M0.1
R991 680
R990 560
Q910 2SC1815Y or 2SC1740S,Q or 2SC1685-Q.TH
Q907 2SA562TM-Y
R731 1/2R330
32WT98B PB8813
28WT98B
G910 NOT PCB IDENT OPEN
G980 NOT PCB IDENT OPEN
R950 NOT PCB IDENT OPEN
C707 16V47μ
R725 1.8K
Q719 2SC1815Y
C712 16V47μ
C713 160V10μ
R736 47
C721 16V47μ
R742 2.2
D704 1N4148
R744 1.2K
R737 680
Q706 2SC1815Y or 2SC1740S,Q or 2SC1685-Q.TH
Q707 2SC752GTMY
Q709 2SC1815Y or 2SC1740S,Q or 2SC1685-Q.TH
Q711 2SB1569A or 2SA1837
C704 M8200
R723 100
R722 1/2R470
C722 82
R724 150
C715 500V4700
R732 22
C714 A100
R733 68K
G918 SHORT
L704 TEM2011
R738 12K
L705 TEM2011
Q712 2SD2400A or 2SC4793
R735 68K
D715 1N4148
R730 1/2R10
D721 1N4148
C717 500V4700
R734 22
C716 A100
G919 SHORT
R716 27K
R715 A22K
C705 0.01
R717 33K
R702 1/2R220
Q710 2SA1015Y or2SA933S,Q or2SA564A-Q.TH
R739 680
R745 1.2K
D705 1N4148
R740 47
R741 2.2
C718 16V47μ
L702 HC5-035
C719 500V150
C720 160V10μ
R743 2R100
P703 3P2.5mm
183 184 185
M703
V901M
SE THOMSON's CPT.
PARTS HAVE TO CHANGE VALUE


E2
E1
SCART2 #8
GJ10 SHORT
L OUT
R OUT
L676 TEM2125M
L677 TEM2125M
C673 1000
C674 1000
GV07 CHIP-JP
R692 680
C678 1000
R679 22K
R S1
S S1
GND
L S1
RV30 75
R693 680
C679 1000
R678 22K
LV42 PL-10
RV77 OPEN
RV75 OPEN
CV40 0.01
RV45 OPEN
RV60 3.3K
QV10 2SC271
CV77 OPEN
CV39 16V100μ
LV41 OPEN
CV44 OPEN
RV42 OPEN
RV48 OPEN
CV45 OPEN
RV70 100
DV09 OPEN
QV03 OPEN
RV46 OPEN
CV42 OPEN
RV76 OPEN
LV40 OPEN
CV43 OPEN
GV41 3.3K
RV69 OPEN
QV05 OPEN
V-ANLG
TV-V
RV44 OPEN
QV04 OPEN
RV49 OPEN
V-GND
RV41 OPEN
RV43 OPEN
RV47 OPEN
QV06 2SA1162Y
RV82 100
GC01 SHORT
GND
TV-V/GND
LV05 OPEN
GC02 SHORT
GJ18 OPEN
DV14 RD9.1MB2
RGB GND
GJ29 OPEN
RR20 10K
QR24 2SC2712Y
SCART Ys
RR24 CHIP-JP
RR25 1K
R273 47K
Q272 RN2404
R275 100
R274 1K
Q270 RN1404
DR02 HSM221C
Ys
C273 2.2μ
R276 68K
DR03 RD4.7MB2
Q271 RN1404
QR21 2SC2712Y
RR28 47K
RR29 47K
SCART1 #8
V V1
R V1
L V1
RV90 680
CV14 1000
R677 22K
RV91 680
CV15 1000
R676 22K
PH01 21 PIN FULL
RV81 75
GND
Ys
R
G
B
GV38 CHIP-JP
GV39 CHIP-JP
GV40 CHIP-JP
RV85 75
RV89 75
RV86 75
RV87 75
SCART1
L682 TEM2125M
L684 PL-1
L685 PL-1
L683 TEM2125M
L OUT
R OUT
GV08 CHIP-JP
C682 1000
C681 1000
GND
V E3
CV66 16V100μ
RV61 1/2R100
RV53 OPEN
RV54 OPEN
QV14 2SC1815Y
RV62 100
GJ38 CHIP-JP
RV64 75
CV67 16V470μ
RV63 1/6P150
DV16 OPEN
RV66 OPEN
QV12 2SC1815Y
CV65 16V100μ
RV65 1/2R100
QV25 OPEN
TV-V-OUT
RV68 100
CV68 16V470μ
RV66 75
V OUT
RV67 1/6P150
E1&E3 MUTE
DRC=OK


CS01 NP2.2μ
CV01 M0.01
DET SLCT
DET IN
R OUT2
L OUT2
R OUT TV
L OUT TV
O 5
V OUT2
GJ26 CHIP-JP
GS43 GS44
TV SHORT SHORT
IDTV OPEN OPEN
RV19 100
DS01 OPEN
DS02 OPEN
DS03 OPEN
DS04 OPEN
GJ11 OPEN
QV24 OPEN
RV52 OPEN
QV26 OPEN
LV42 PL-10
RV45 OPEN
RV60 3.3K
QV10 2SC2712Y
RV70 100
RV71 4.7K
RV46 OPEN
RV48 OPEN
CV44 OPEN
CV45 OPEN
GV41 3.3K
CV43 OPEN
QV05 OPEN
QV04 OPEN
RV49 OPEN
RV47 OPEN
V-ANLG
V-GND
QV06 2SA1162Y
RV82 100
GV97 100
QV11 2SC2712Y
QV08 2SC2712Y
RV97 100
RV94 10K
RV93 100K
RV16 270
RV92 10
CV20 43
LV08 PL-33
RV80 270
RV79 470
QV07 2SC3326B
RV95 4.7K
RV74 100K
XV01 OPEN
RV73 10K
QV15 2SC3326B
LV10 PL-22
RV78 10
LV11 PL-33
CV78 39
GND
TV-V/GND
GJ29 OPEN
+9V-1
SCART Ys
R273 47K
Q272 RN2404
Q273 2SC2712Y
Q270 RN1404
R274 1K
R275 100
R276 68K
R277 10K
C273 2.2μ
Q271 RN1404
AV-L
AV-R
QS08 2SC3326B
QS09 2SC3326B
QS06 2SC3326B
QS05 2SC3326B
RS35 22K
RS36 22K
RS30 22K
RS29 22K
RS37 100K
RS38 100K
RS28 100K
RS27 100K
RS31 10K
RS32 100K
RS33 OPEN
RS34 OPEN
RS39 OPEN
RS40 OPEN
QS10 OPEN
QS11 OPEN
QS07 RN2404
DS05 OPEN
DS06 OPEN
DS07 OPEN
DS08 OPEN
GJ35 CHIP-JP
GJ36 CHIP-JP
CS19 0.47μ
E2 MUTE
A MUTE
E1&E3 MUTE
L OUT
R OUT
RR28 47K
RR29 47K
RV61 1/2R100
QV14 2SC1815Y
RV53 OPEN
RV54 OPEN
RV62 100
GJ38 CHIP-JP
DV16 OPEN
RV56 OPEN
RV63 1/6P150
RV65 1/2R100
RV68 100
RV67 1/6P150
QV25 OPEN
TV-V-OUT
QV27 OPEN
RS67 OPEN
RS66 OPEN
QS12 OPEN
RS60 OPEN
CS26 OPEN
RS62 OPEN
RS64 OPEN
QS13 OPEN
RS61 OPEN
QS14 OPEN
RS63 OPEN
RS65 OPEN
RS68 OPEN
CS27 OPEN
CS28 OPEN
SG02 OPEN
MONO
STEREO

4 5 6 7

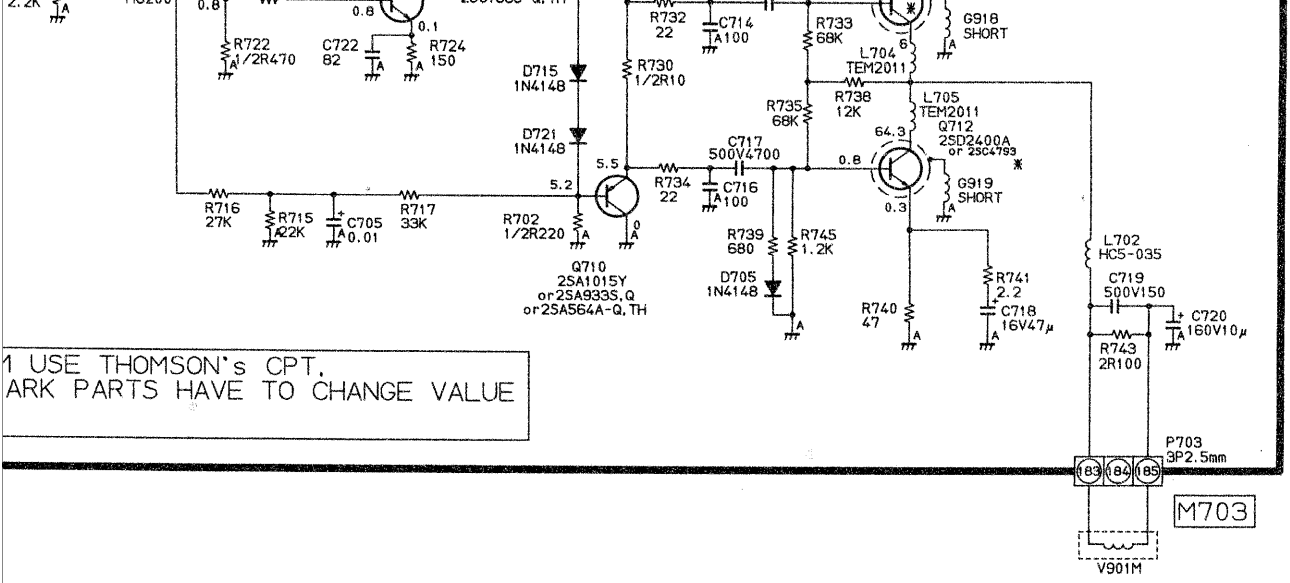

RV26
1/6P180
GND
QV24
OPEN
RV52
OPEN
GND
E2 MUTE
QV26
OPEN
GJ27
CHIP-JP
GJ28
CHIP-JP
14 +9V-1
15 GND
16 GND(FSC)
17 FSC
18 +5V-2
19 SCL
20 SDA
1 E2 MUTE
2 GND
3 E1&E3 MUTE
SIGNAL BOARD
PV13B
OPEN
PV11B
20P B/B PLUG
21 GND(V)
22 AV-V
23 +9V-1
24 GND
25 SCP
26 EASY-LINK
27 RGB-DET
28 NC(GND)
29 AV-Y
30 GND
31 SYNC-AV1
LV03 OPEN
GC03 SHORT
GC04 SHORT
32 GND
33 GND(TV-V)
34 TV-V
35 TV-R
36 TV-L
37 V V2
38 GND
39 R V2
40 L V2
TO P512
ON SIGNAL BOARD
M TUNER
GJ31
OPEN
V V2
LV45
OPEN
GJ32
OPEN
GND
RS34
OPEN
DS05
OPEN
E2 MUTE
RS31
10K
A MUTE
RS40
OPEN
DS06
OPEN
E1&E3 MUTE
LV30
OPEN
+9V-1
QV23
OPEN
RV38
OPEN
RV11
OPEN
RV14
OPEN
CV30
OPEN
CV32
OPEN
RV24
OPEN
CV47
OPEN
QV22
OPEN
RV39
OPEN
RV22
OPEN
RV15
OPEN
RV40
OPEN
CV36
OPEN
CV33
OPEN
CV29
OPEN
RV21
OPEN
CV28
OPEN
QV16
OPEN
GND
VCC
SW
GND
SW
GND
RV20
OPEN
QV17
OPEN
CV26
OPEN
GJ34
CHIP-JP
V-ANLG
V-GND
RV17
OPEN
CV27
OPEN
L V2
R V2
TV-L
TV-R
L OUT
R OUT
TV-V-OUT
GND



UNIT SN.	
BACK-T	SN. 23783279
CRT-D	SN. 23783290
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.

10 11 12 13



1 USE THOMSON's CPT.
ARK PARTS HAVE TO CHANGE VALUE

PARTS

32WD98B
PK2921

G H I J K L

13 14 15 16

SCHEMATIC DIAGRAM MODEL : 32WD98B (4/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ◓ : Solder links.

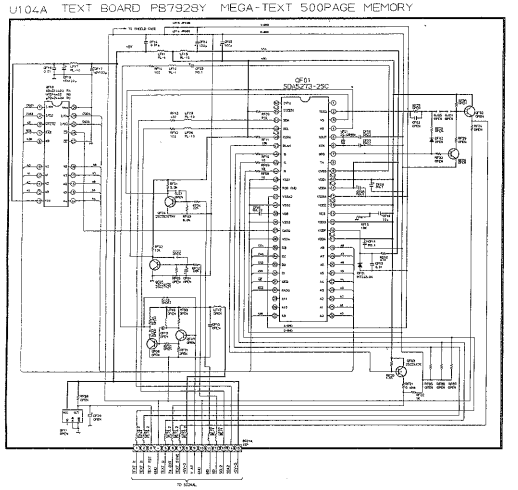
EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

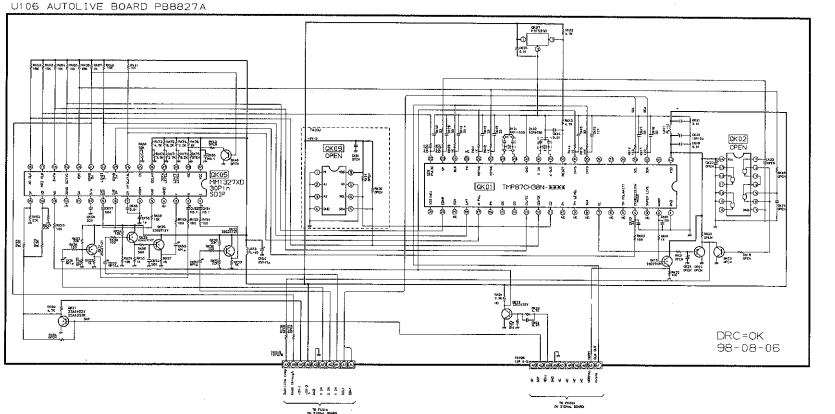
030-9914

U104A TEXT BOARD PB7928Y MEGA-TEXT 500PAGE MEMORY

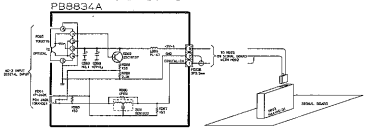


THIS UNIT IS USED ONLY UK-MODELS
(Not nexTView models)

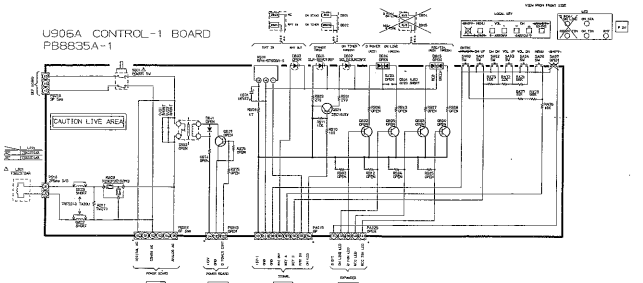
U106 AUTOLIVE BOARD PB8827A



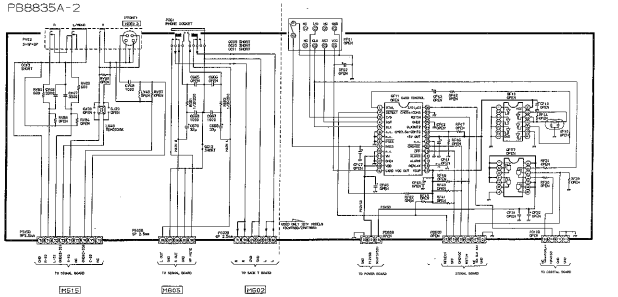
U907 DIGITAL-IN BOARD PB8834A



U906A CONTROL-1 BOARD PB8835A-1



U906B CONTROL-2 BOARD PB8835A-2

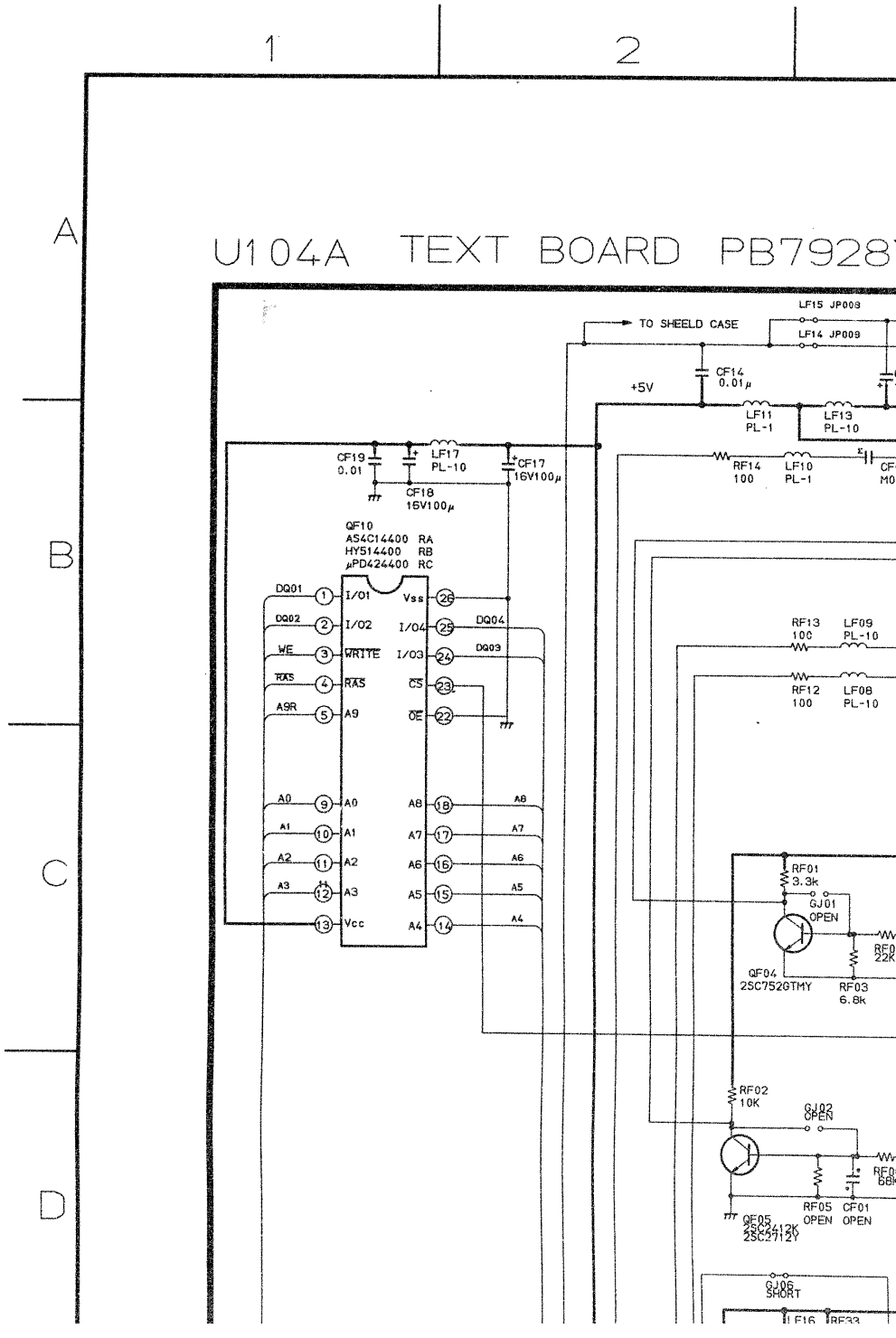


32wD98B
PK2502

SCHEMATIC DIAGRAM MODEL : 32WD98B (4/6)

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

030-9914



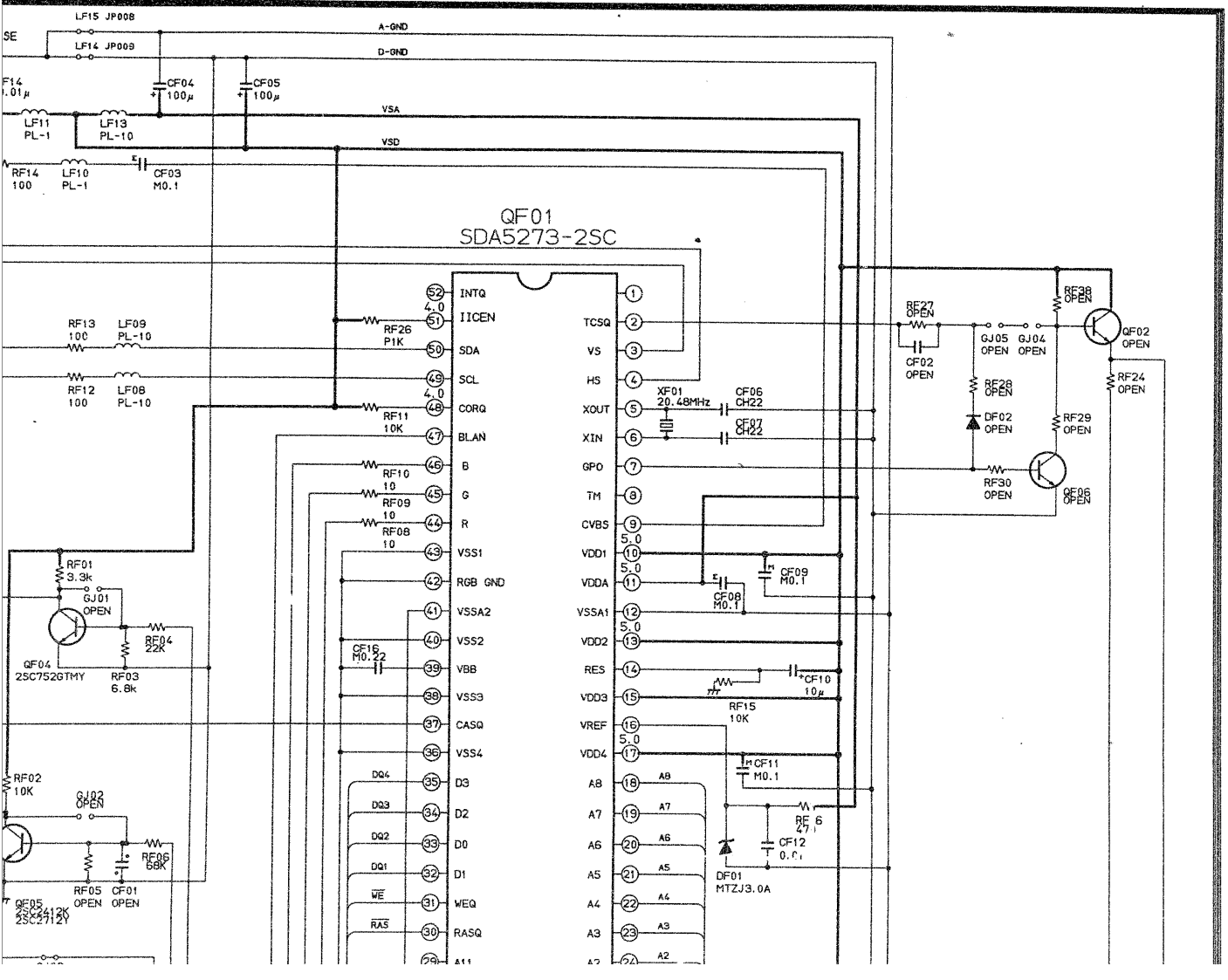
list designate com-
nly with types identical to
ents is to be identical
AFETY NOTICE on page

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low ca
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid p BRIGHTNESS control is almost in maximum position. Set other con picture.

3 4 5 6

PB7928Y MEGA-TEXT 500PAGE MEMORY



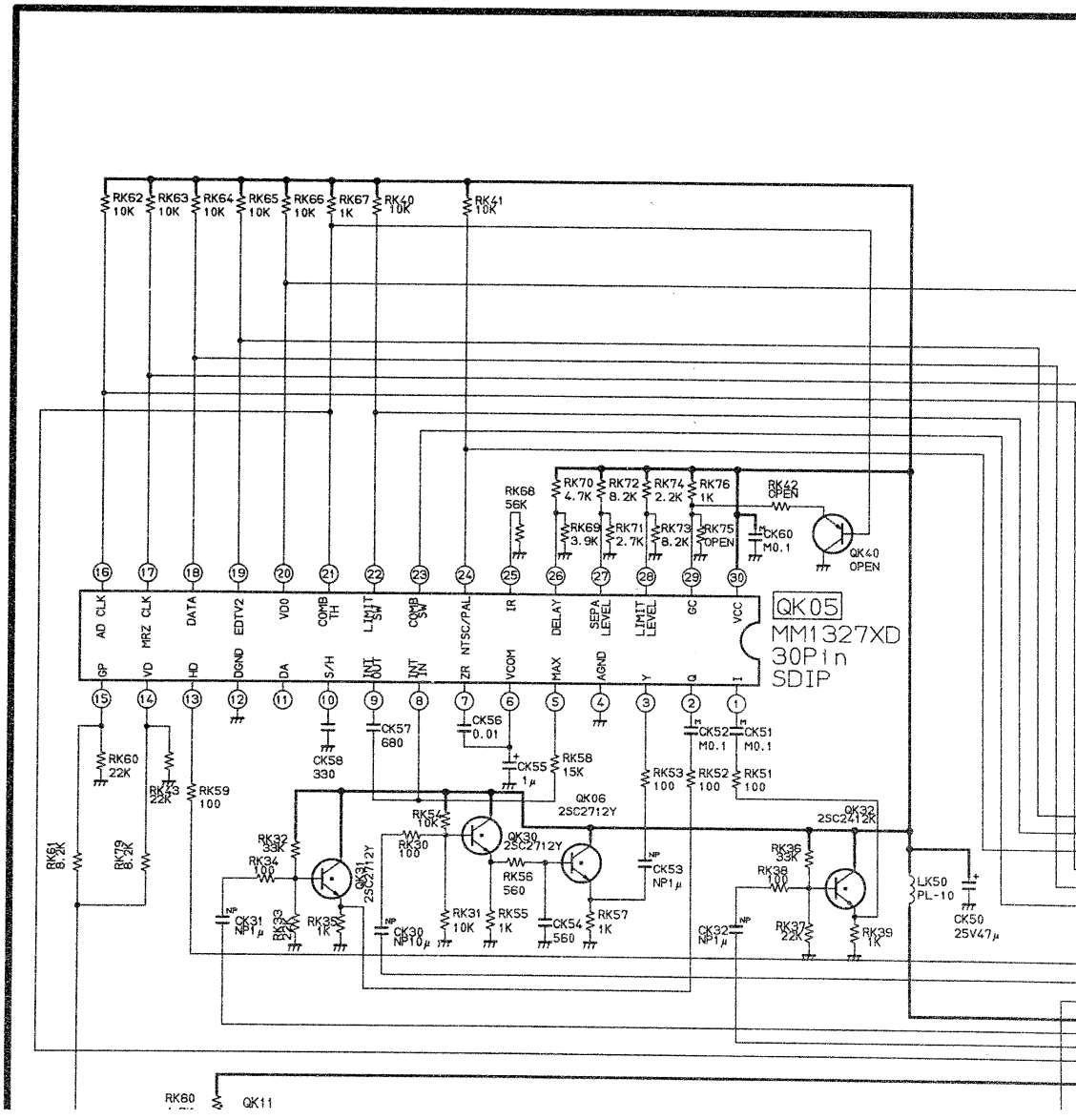
ground, line voltage 220
0%.
and a low capacity probe.
al.
are in mid position and
Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer is show
   gram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

6 | 7 | 8 | 9

U106 AUTOLIVE BOARD PB8827A



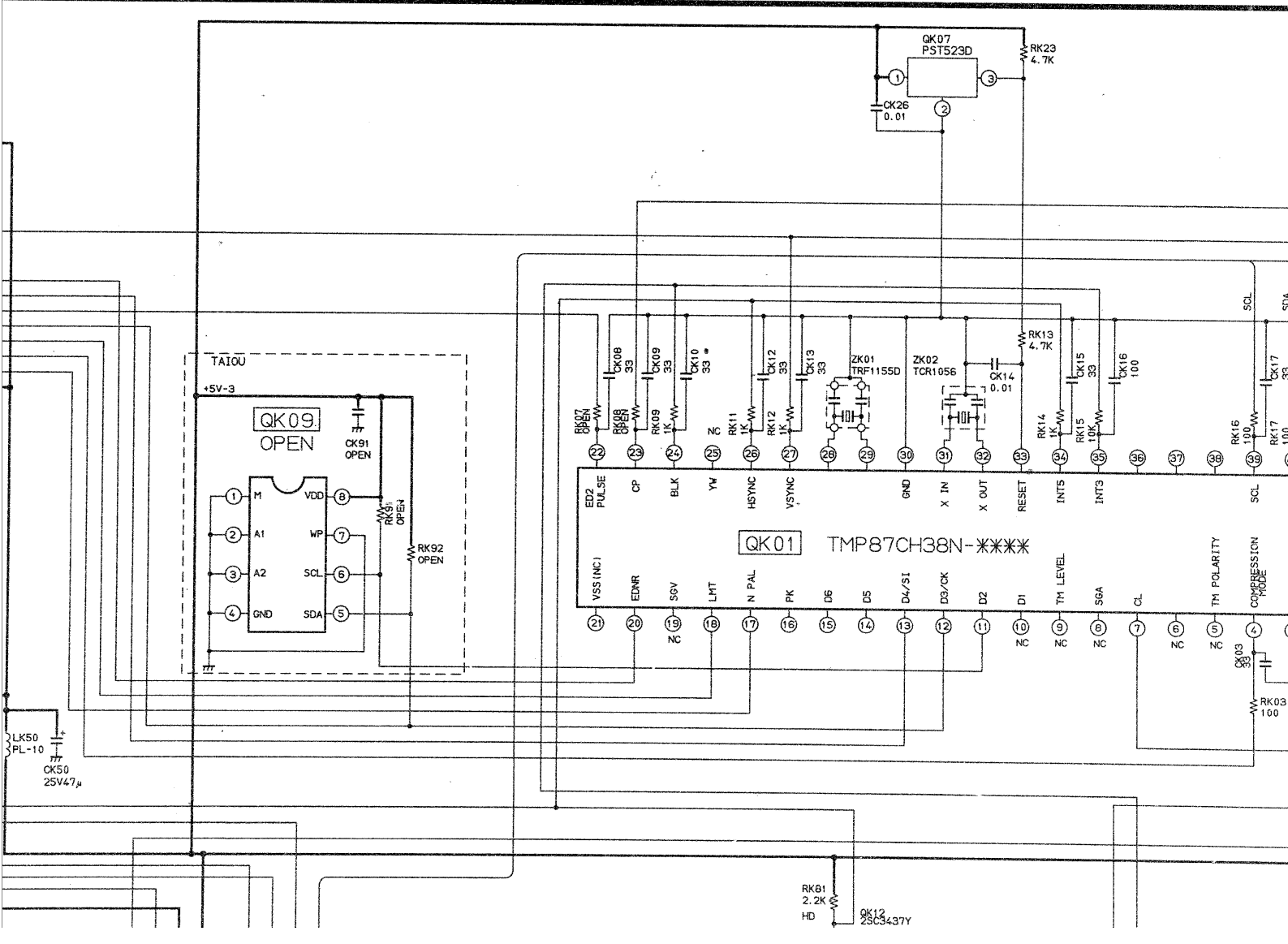
EXPRESSION

mer is shown in this schematic dia-
n the circuit.
otice.

VALUE OF RESISTOR, CAPACITOR and IND

1. Resistance is shown in ohm, k=1,000, M=1,000,
2. Unless other wise noted in schematic, all capac
   sed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all induct
   sed in μH, and the values less than 1 in H.

10 11 12 13

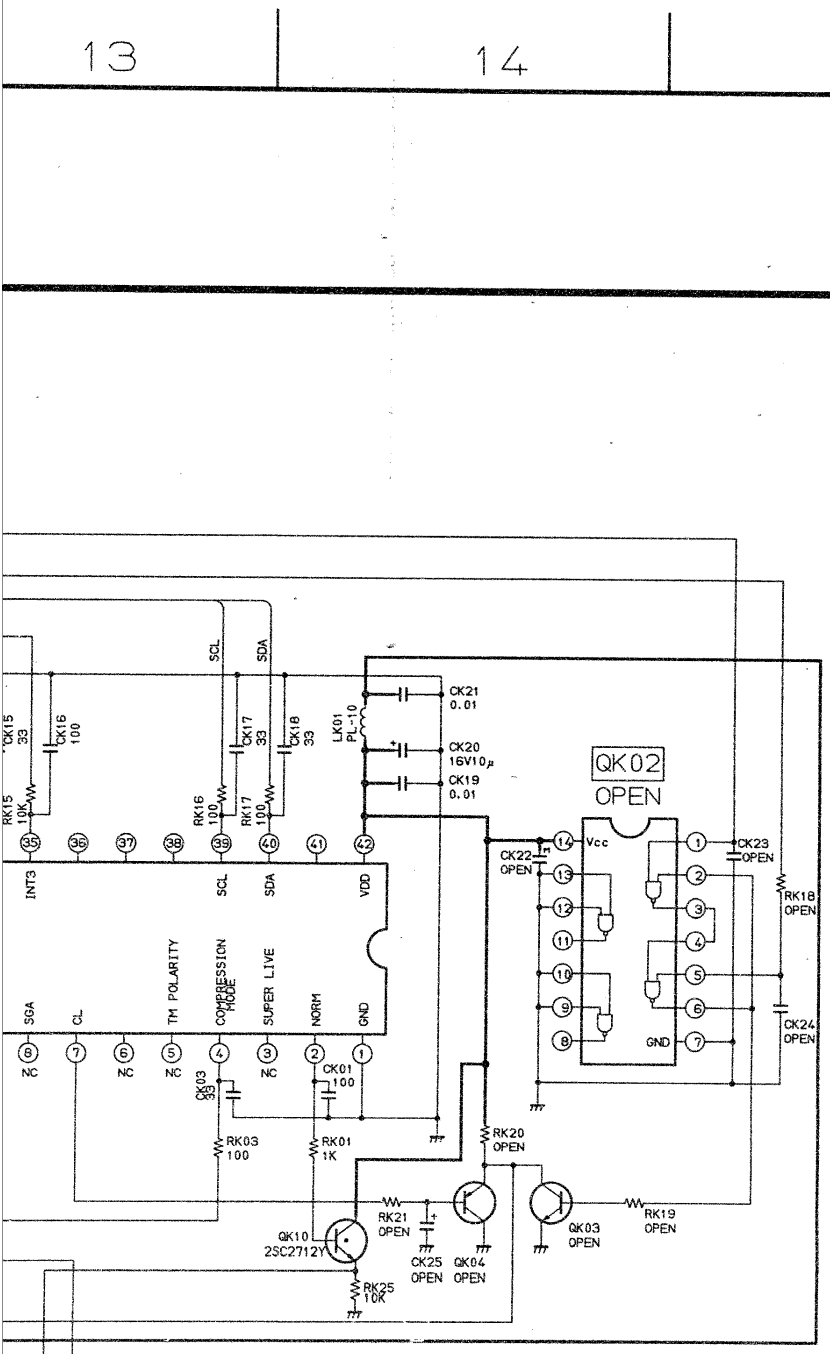


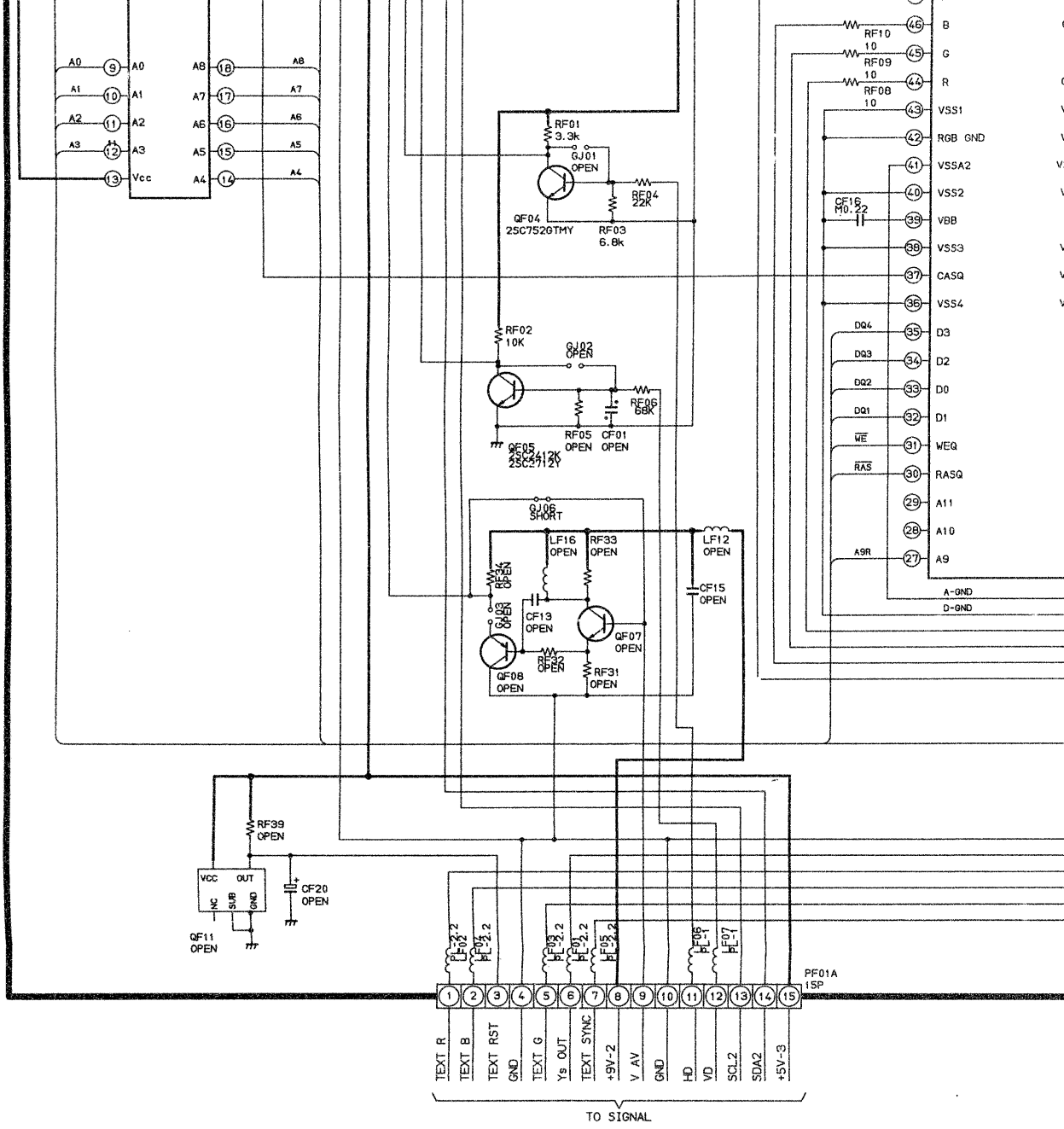
CITOR and INDUCTOR

=1,000, M=1,000,000

hematic, all capacitor values less than 1 are expres-
than 1 in pF.

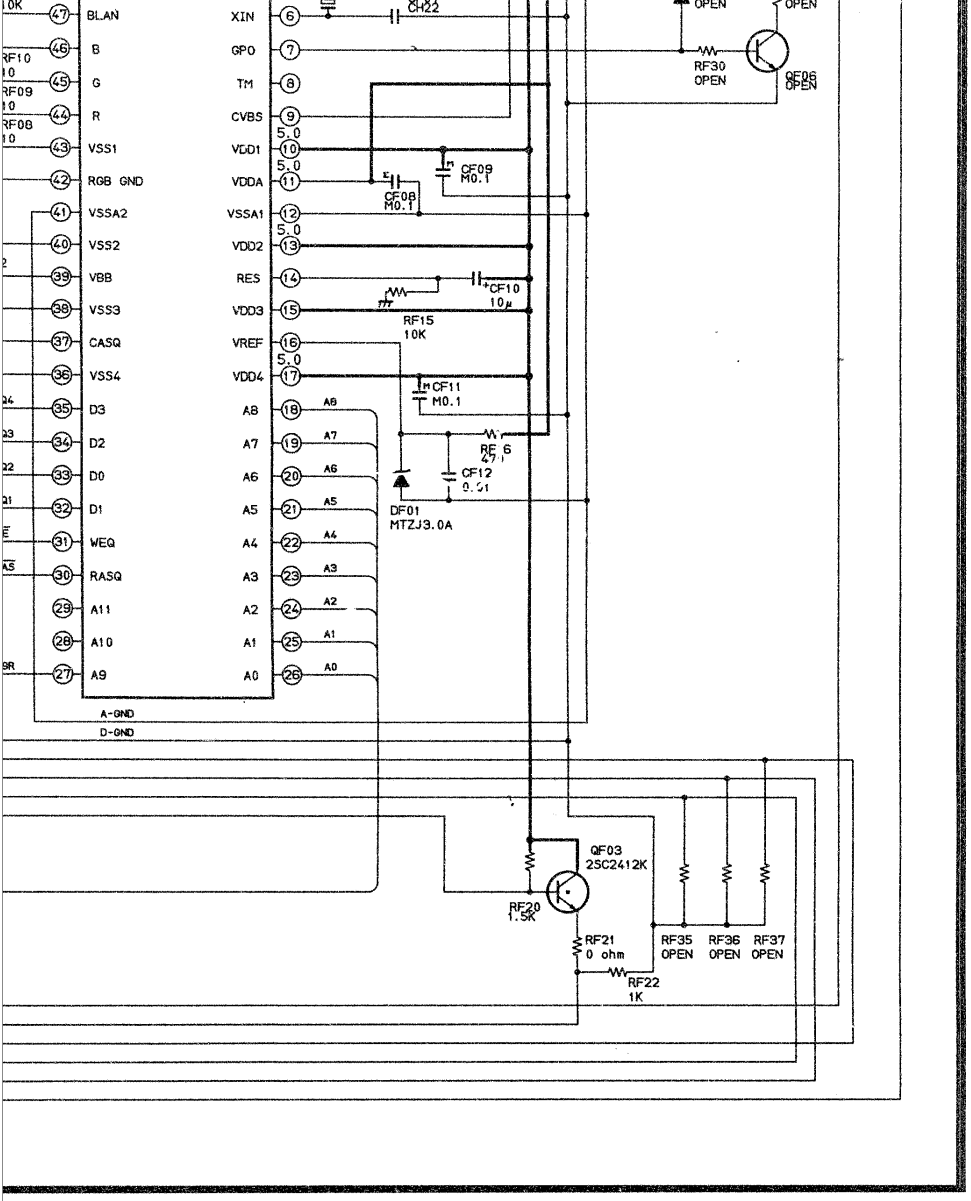
ematic, all inductor values more than 1 are expres-
than 1 in H.





THIS UNIT IS USED ONLY
(Not nexTView m

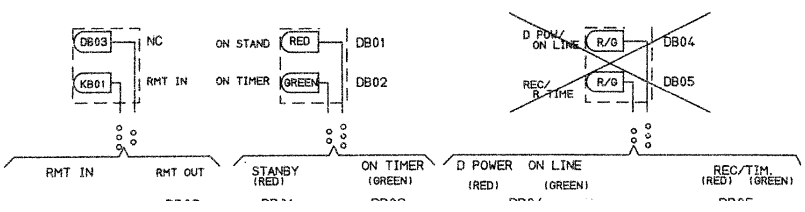
U906A CONTROL-1 BOARD
PB8835A-1



ONLY UK-MODELS

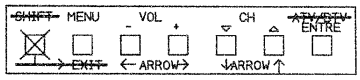
iew models)

ARD

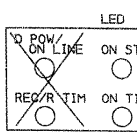


VIEW FROM FRONT SIDE

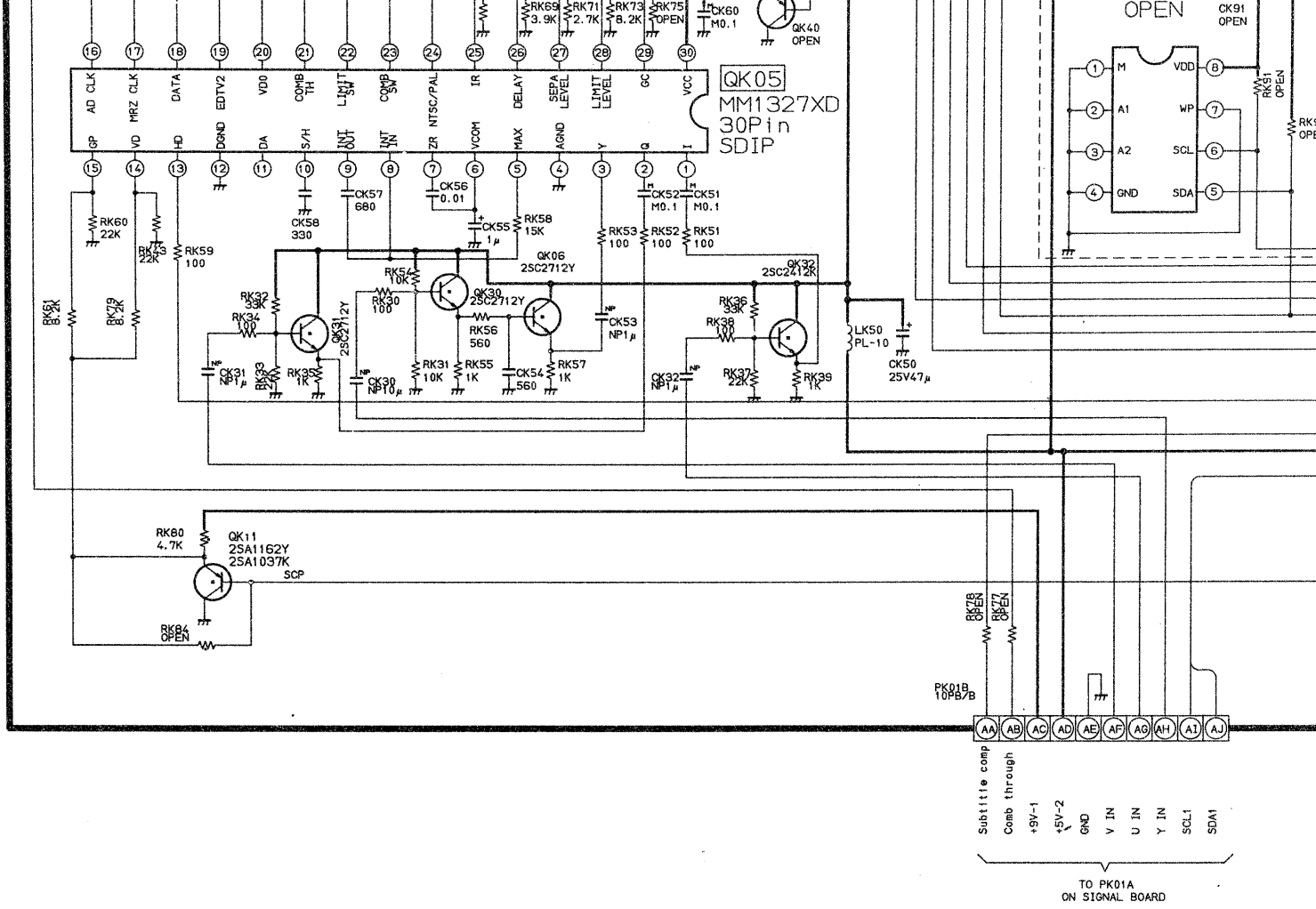
LOCAL KEY



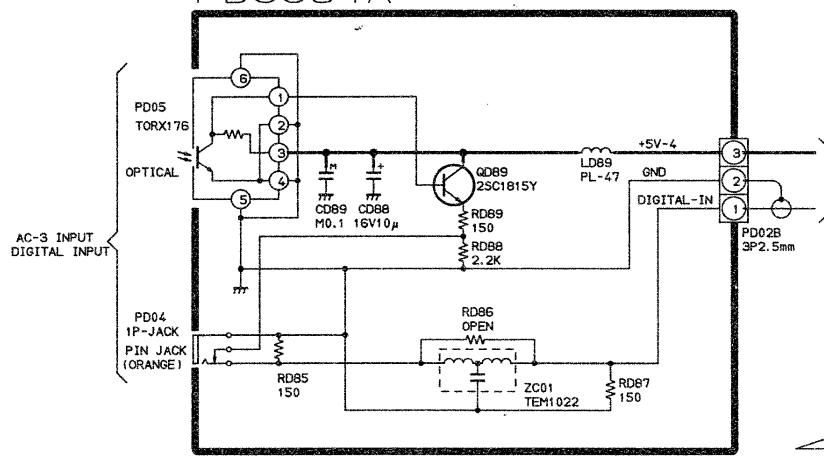
LED

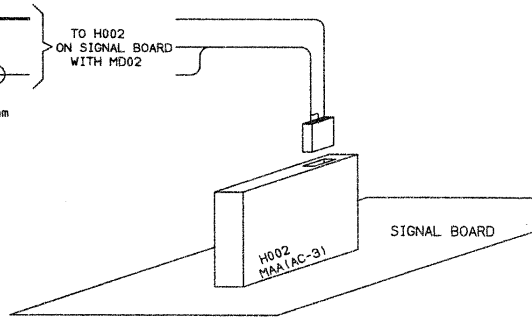


ENTRE ~~ATV/DTV~~ DH UP DH DN VOL UP VOL DN MENU ~~SHIFT~~

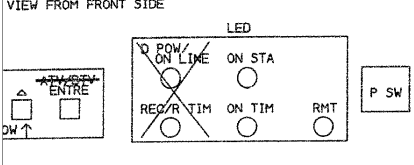


U907 DIGITAL-IN BOARD
PB8834A



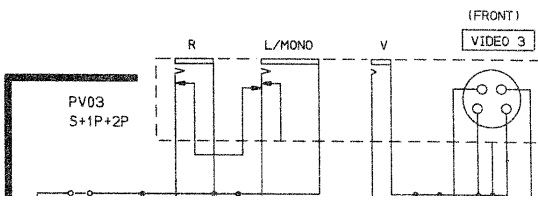


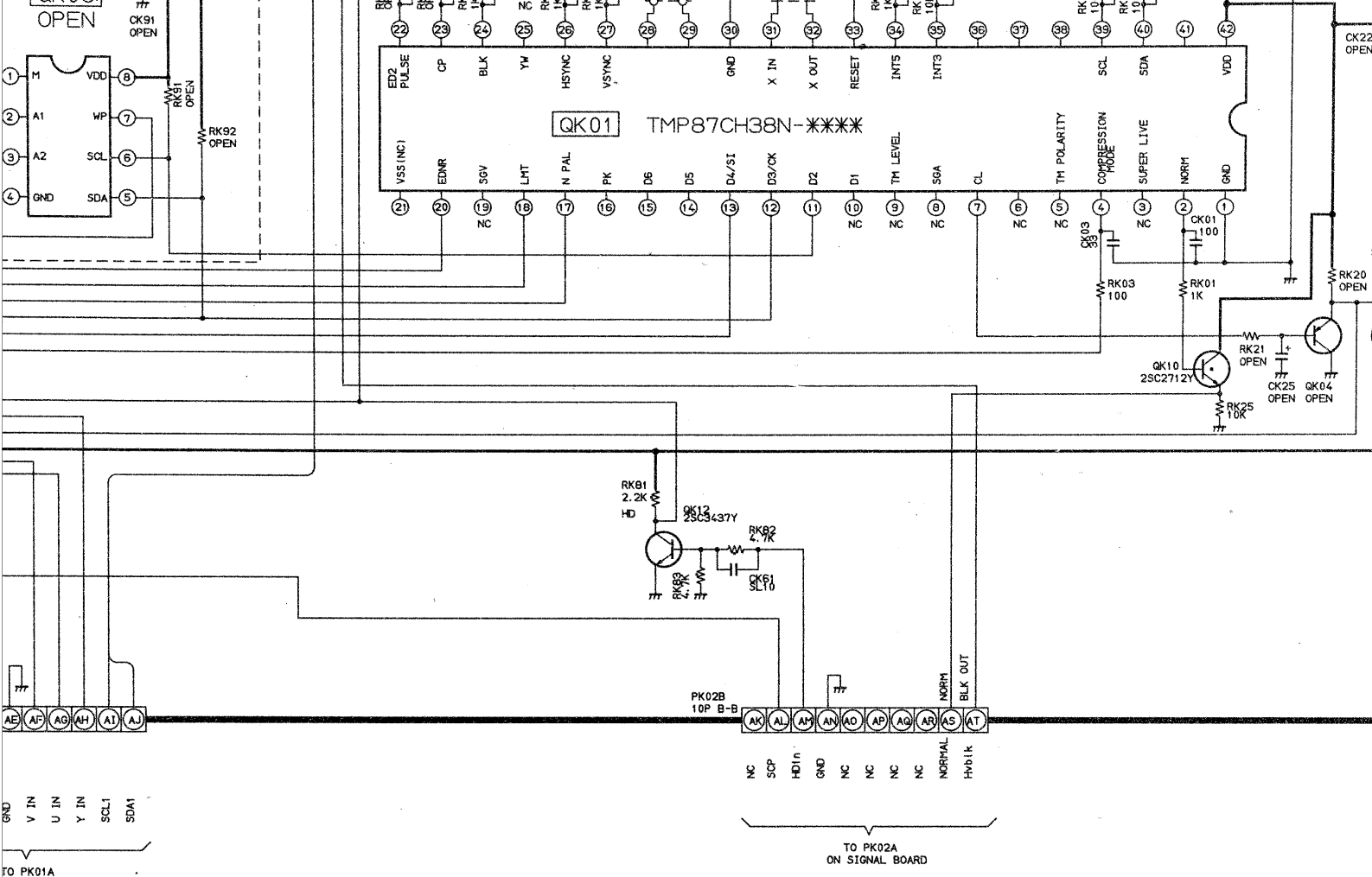
VIEW FROM FRONT SIDE

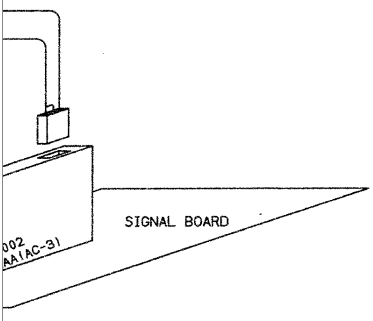


DN MENU ~~SHIFT~~
04 SA06 SA07
SW OPEN

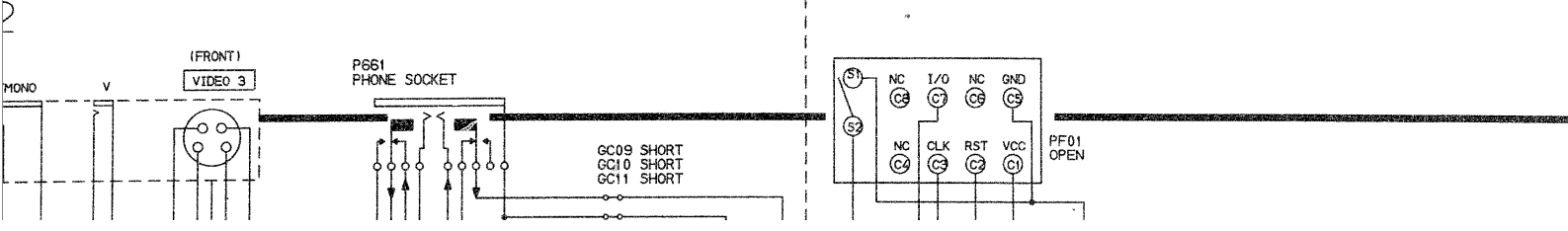
U906B CONTROL-2
PB8835A-2

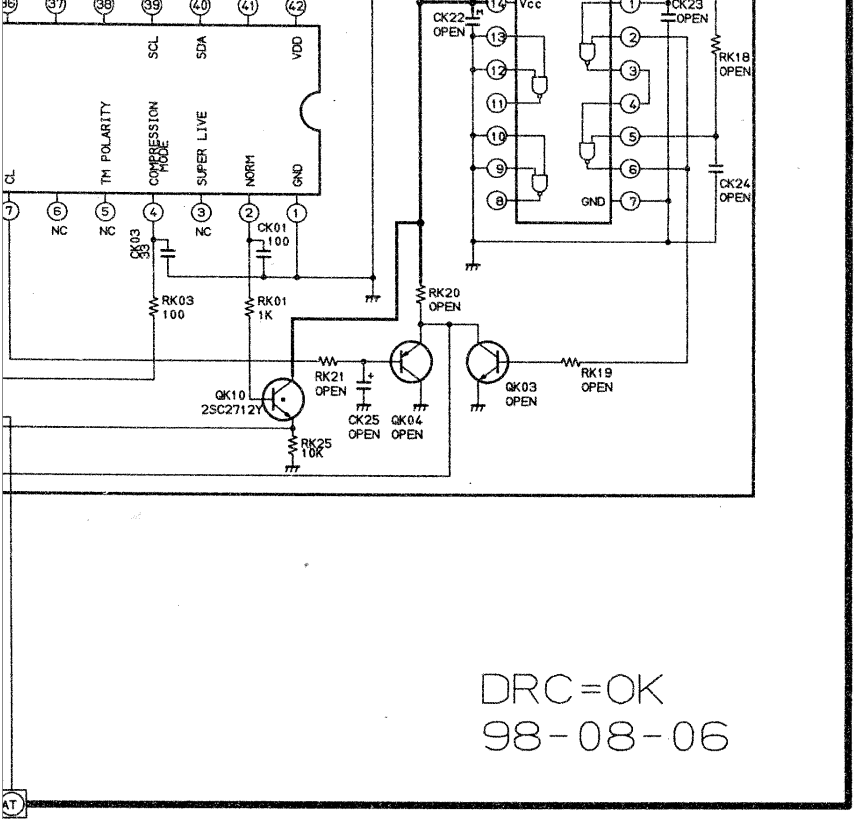






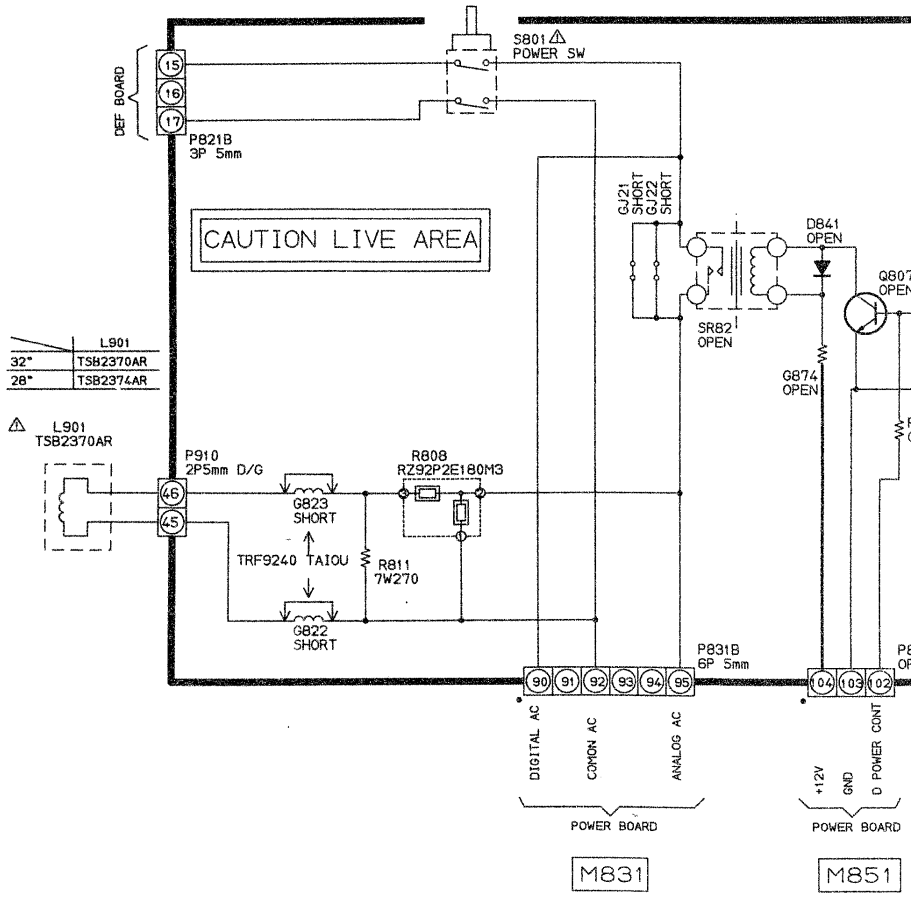
NTROL-2 BOARD



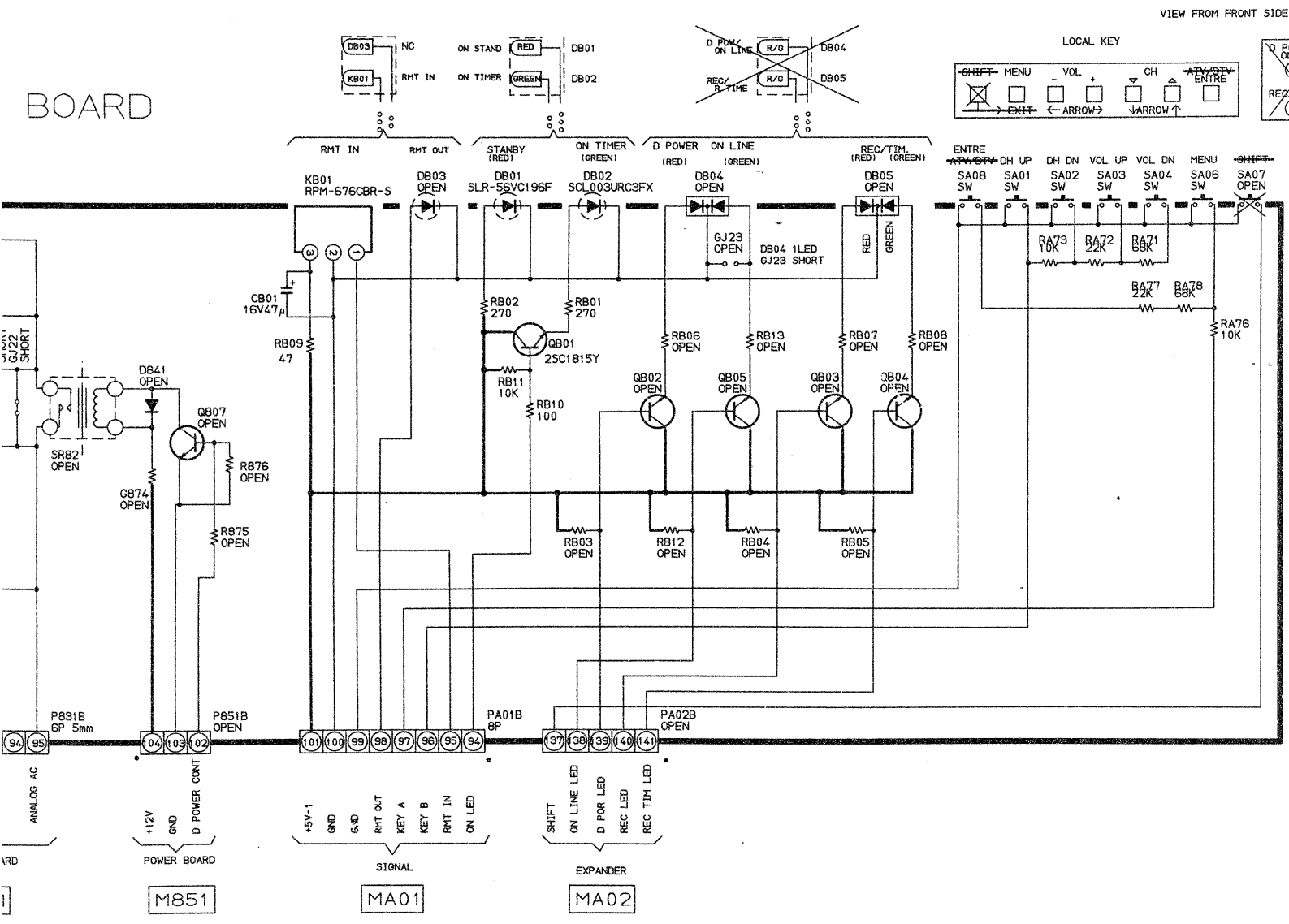


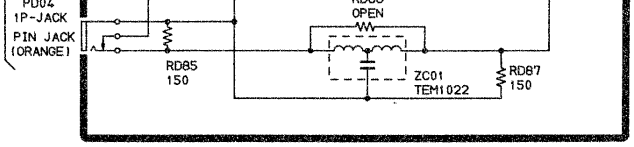
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98-08-06

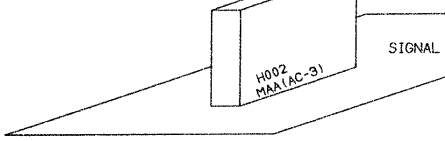
U906A CONTROL-1 BOARD
PB8835A-1



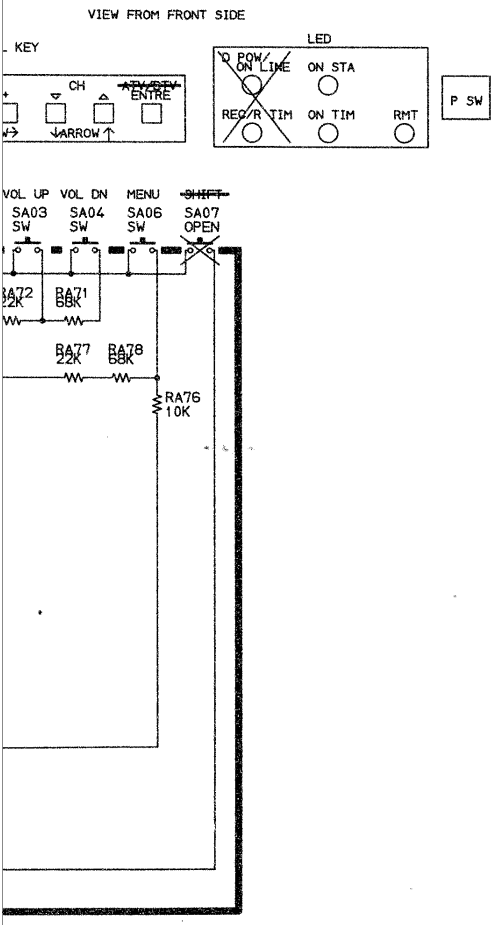
BOARD

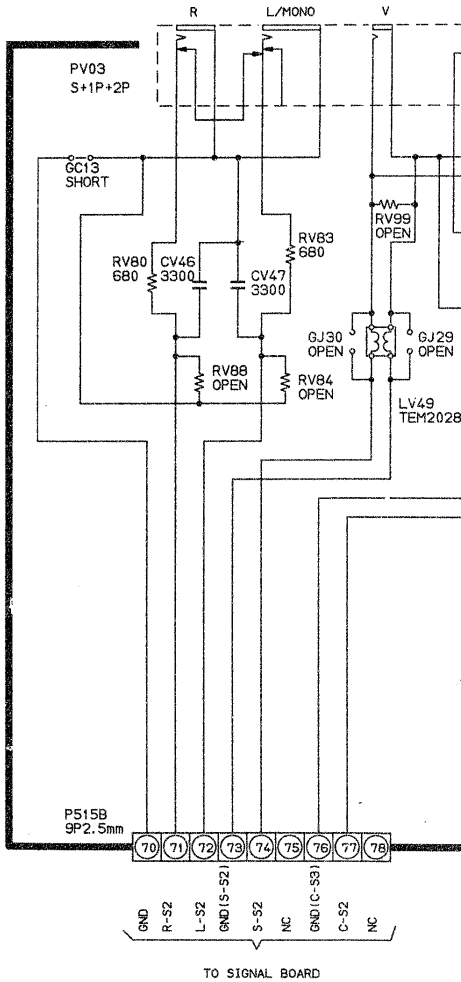

VIEW FROM FRONT SIDE
LOCAL KEY
SHIFT MENU VOL CH ATV/DTV ENTRE
EXIT ARROW ARROW
DB03 NC
KB01 RMT IN
ON STAND RED DB01
ON TIMER GREEN DB02
D PDW/ ON LINE R/G DB04
REC/ R TIME R/G DB05
RMT IN
RMT OUT
STANBY (RED)
ON TIMER (GREEN)
D POWER ON LINE (RED) (GREEN)
REC/TIM. (RED) (GREEN)
KB01 RPM-676CBR-S
DB03 OPEN
DB01 SLR-56VC196F
DB02 SCL003URC3FX
DB04 OPEN
DB05 OPEN
GJ23 OPEN
DB04 1LED GJ23 SHORT
RED
GREEN
ENTRE ATV/DTV SA08 SW
DH UP SA01 SW
DH DN SA02 SW
VOL UP SA03 SW
VOL DN SA04 SW
MENU SA06 SW
SHIFT SA07 OPEN
RA73 10K
RA72 22K
RA71 68K
RA77 22K
RA78 68K
RA76 10K
CB01 16V47μ
RB09 47
RB02 270
RB01 270
QB01 2SC1815Y
RB11 10K
RB10 100
RB06 OPEN
RB13 OPEN
RB07 OPEN
RB08 OPEN
QB02 OPEN
QB05 OPEN
QB03 OPEN
QB04 OPEN
RB03 OPEN
RB12 OPEN
RB04 OPEN
RB05 OPEN
GJ22 SHORT
D841 OPEN
SR82 OPEN
QB07 OPEN
R876 OPEN
G874 OPEN
R875 OPEN
P831B 6P 5mm
P851B OPEN
PA01B 8P
PA02B OPEN
94 95 104 103 102 101 100 99 98 97 96 95 94 137 138 139 140 141
ANALOG AC
+12V GND D POWER CONT
POWER BOARD
M851
+5V-1 GND GND RMT OUT KEY A KEY B RMT IN ON LED
SIGNAL
MA01
SHIFT ON LINE LED D POR LED REC LED REC TIM LED
EXPANDER
MA02



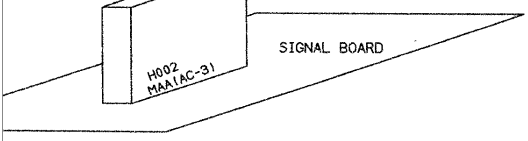


U906B CONTROL-
PB8835A-2

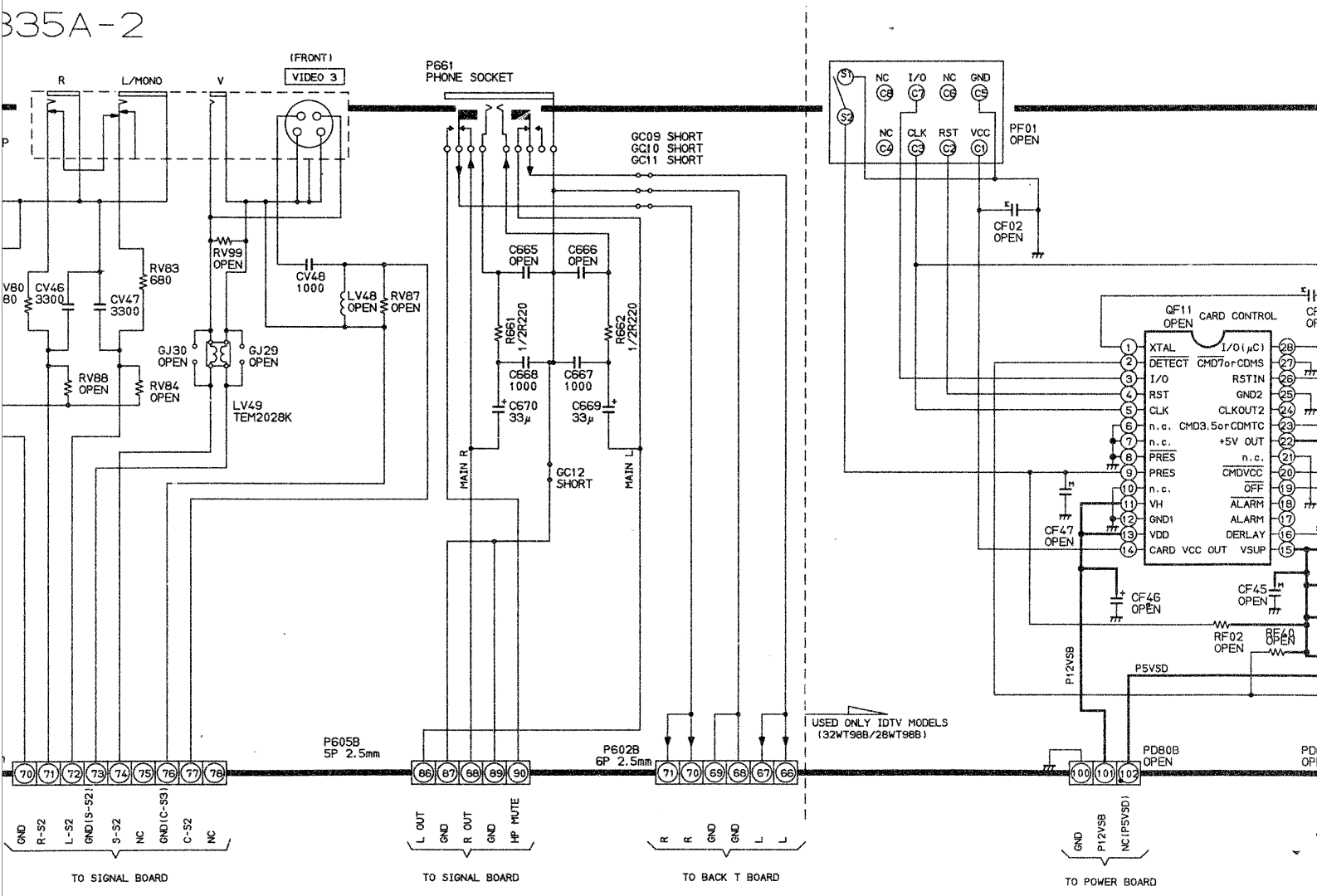




M515

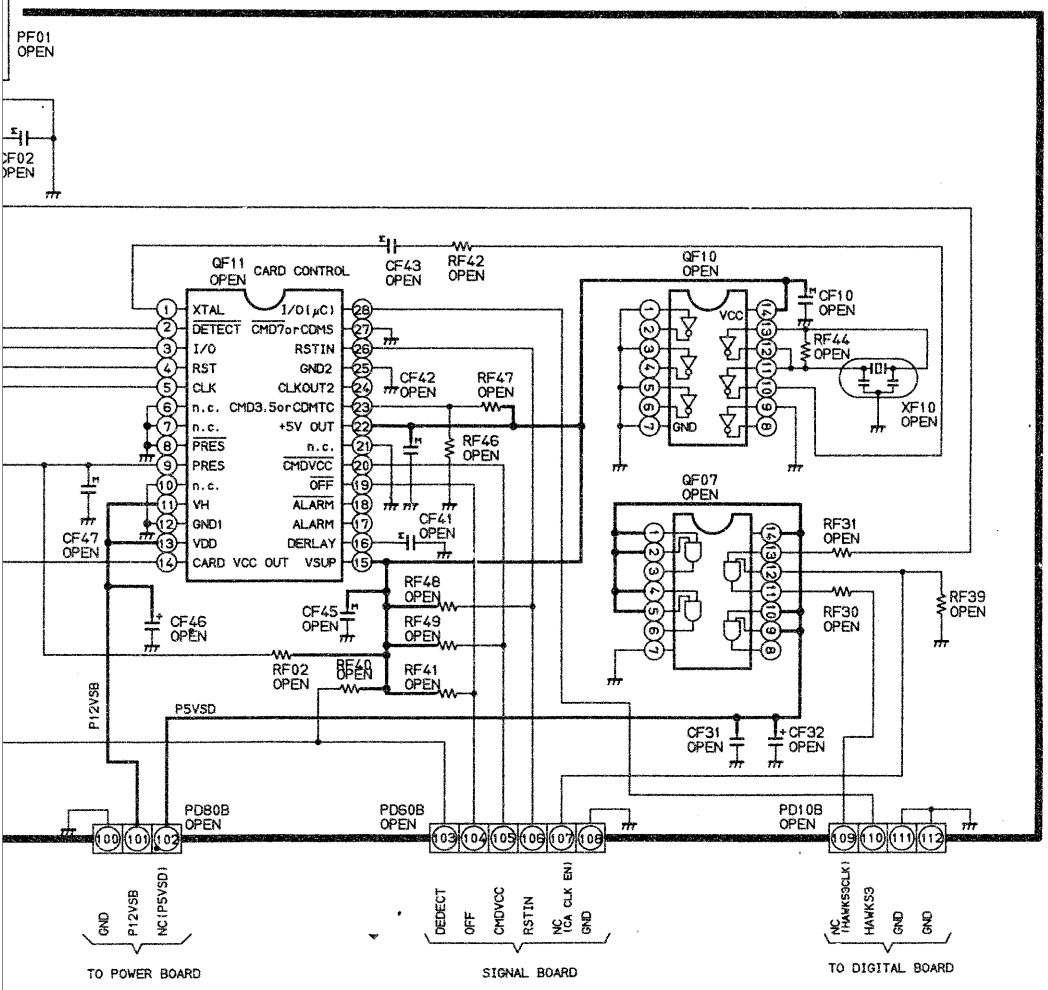


SB CONTROL-2 BOARD
335A-2



UNIT SN.	
TEXT	SN. 23781837
AUTOLIVE	SN. 23783242
CONT-1	SN. 23783276
CONT-2	SN. 23783277
D-IN	SN. 23783252

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.



PARTS

32WD98B

PK2922

G H I J K L

13 14 15 16

SCHEMATIC DIAGRAM MODEL : 32WD98B (5/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

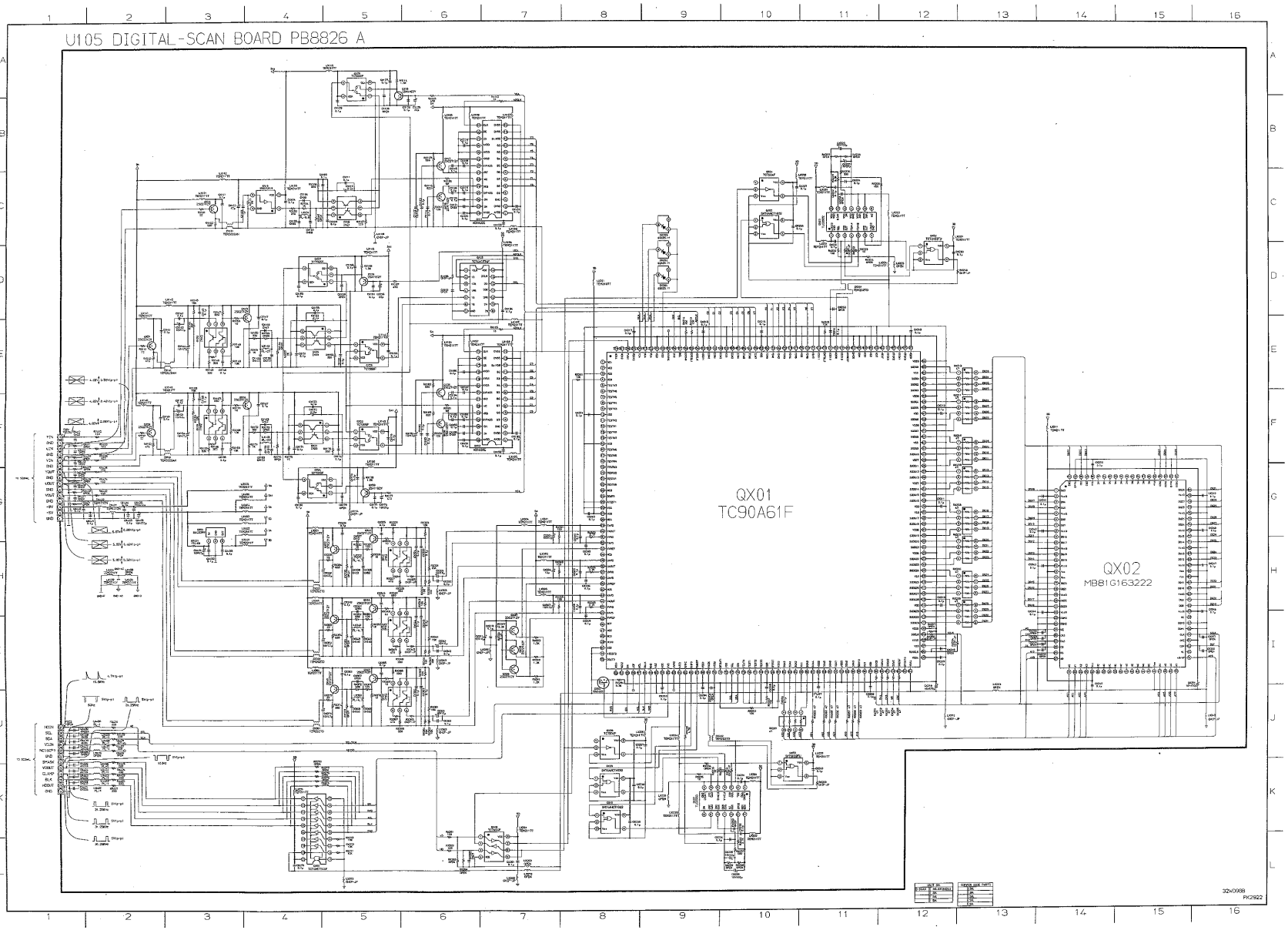
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.

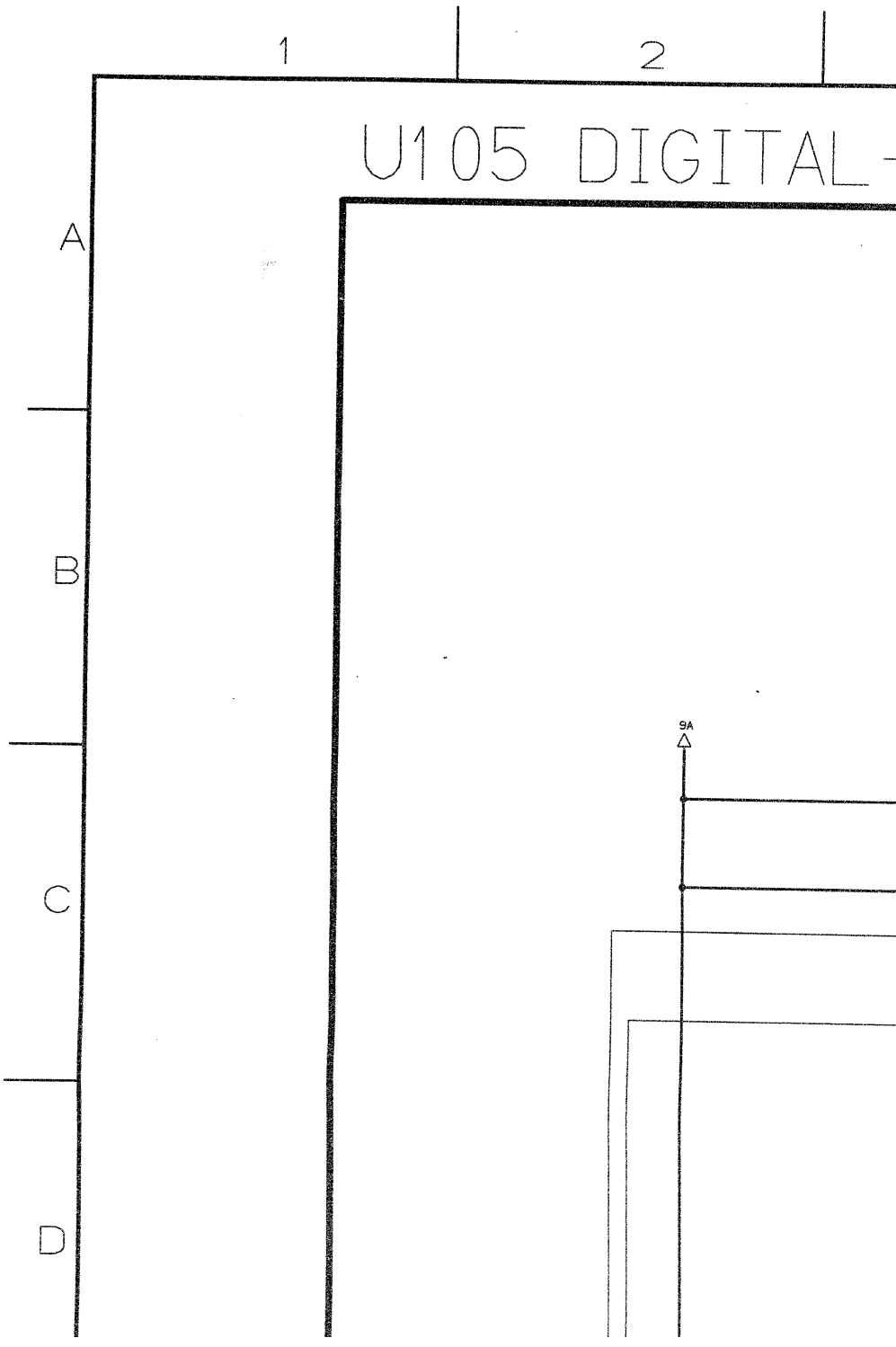
030-9914



SCHEMATIC DIAGRAM MODEL : 32WD98B (5/6)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list desig
ponents which have special characteristics important for safety and should be replaced only with typ
those in the original circuit or specified in the parts list. The mounting position of replacements is to b
with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NO
3. Do not degrade the safety of the receiver through improper servicing.

030-9914



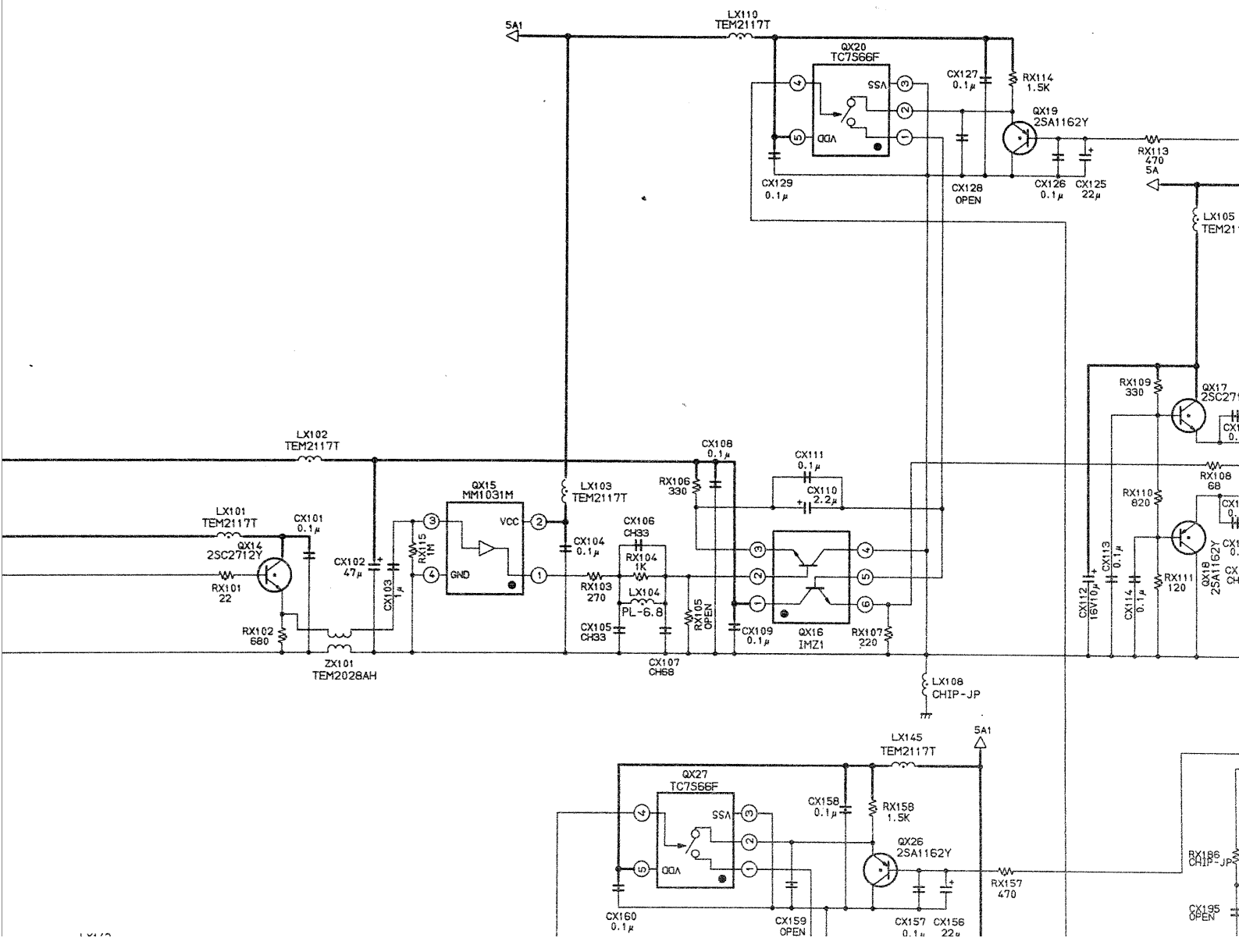
OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a lo
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in n BRIGHTNESS control is almost in maximum position. Set othe picture.

ts list designate com-
only with types identical to
ments is to be identical
SAFETY NOTICE on page

3 4 5 6

TAL-SCAN BOARD PB8826 A



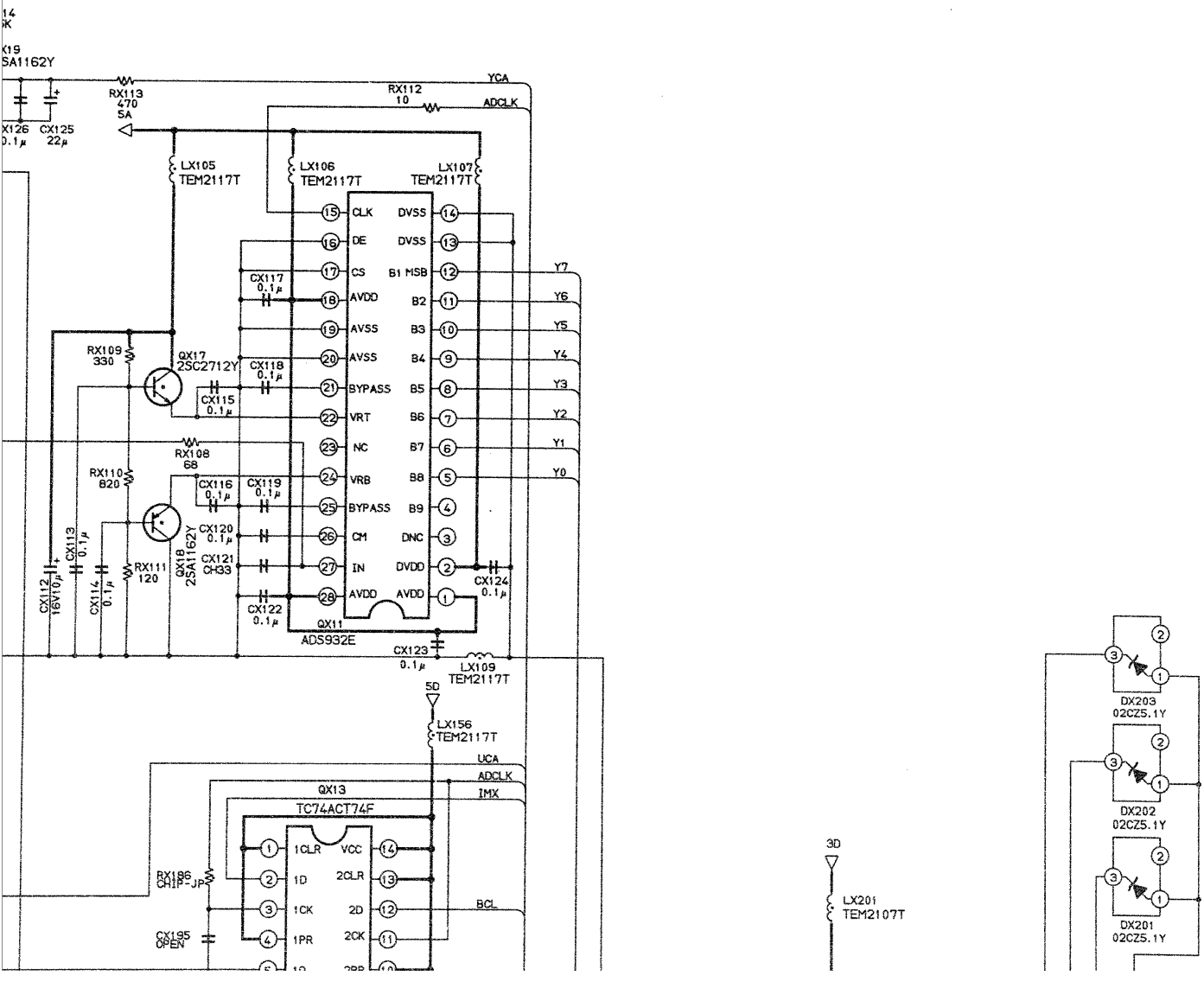
MS

o chassis ground, line voltage 220
y vary ±20%.
illoscope and a low capacity probe.
bar signal.
controls are in mid position and
position. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transfo
   gram. These are measured for separated fro
2. The circuits are subject to change without n
3. ● : Solder links.

6 | 7 | 8 | 9



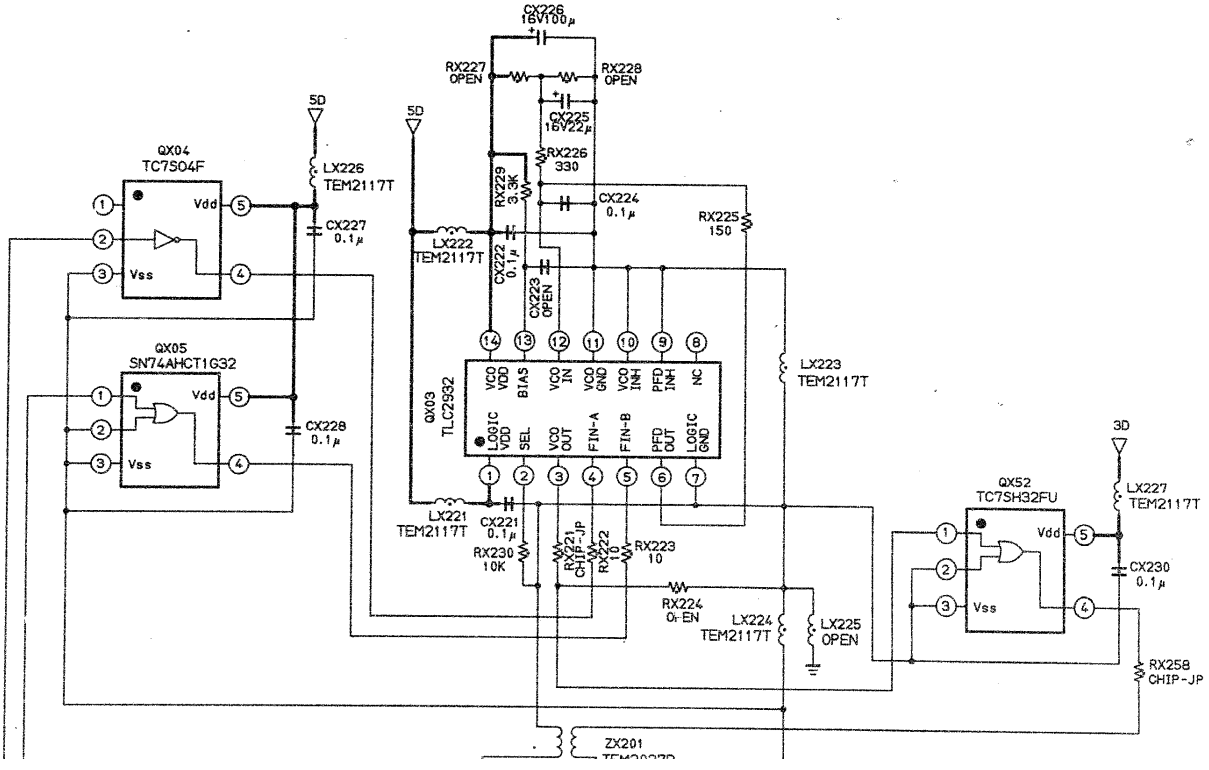
EXPRESSION

VALUE OF RESISTOR, CAPACIT

bal transformer is shown in this schematic dia-
arated from the circuit.
without notice.

1. Resistance is shown in ohm, k=1,
2. Unless other wise noted in scher
   sed in μF and the values more tha
3. Unless otherwise noted in schem
   sed in μH, and the values less thar

9 | 10 | 11 | 12

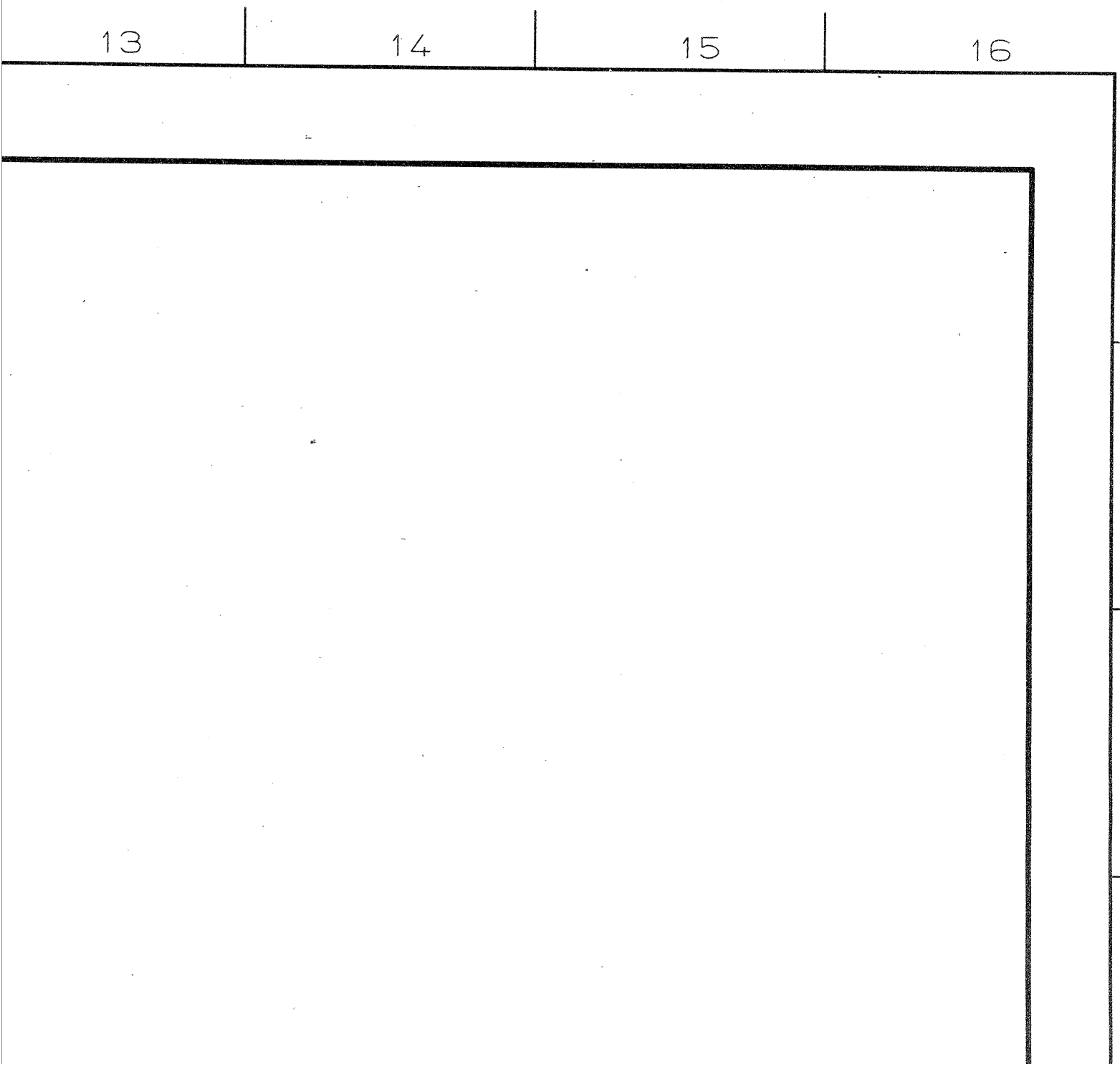


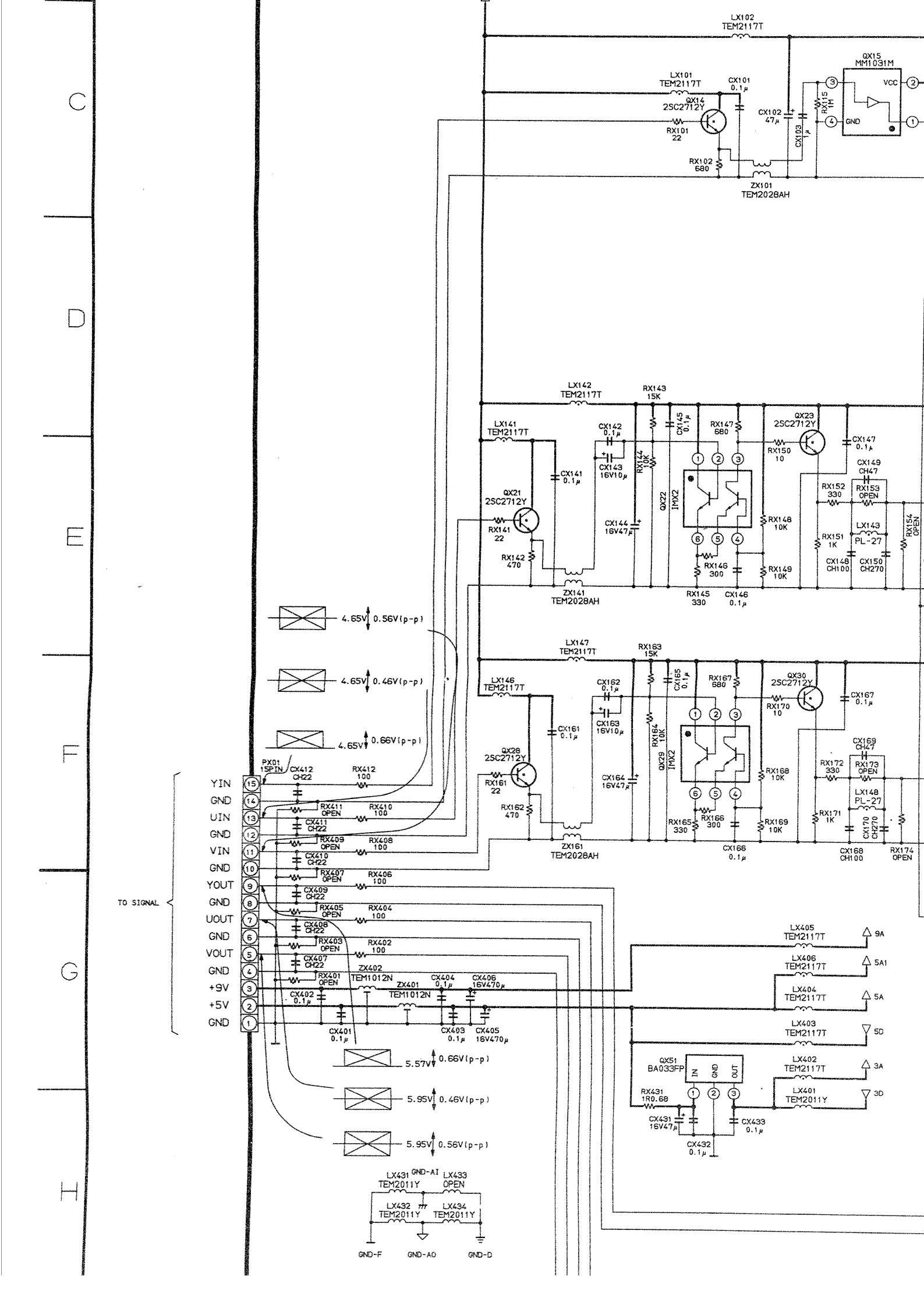
APACITOR and INDUCTOR

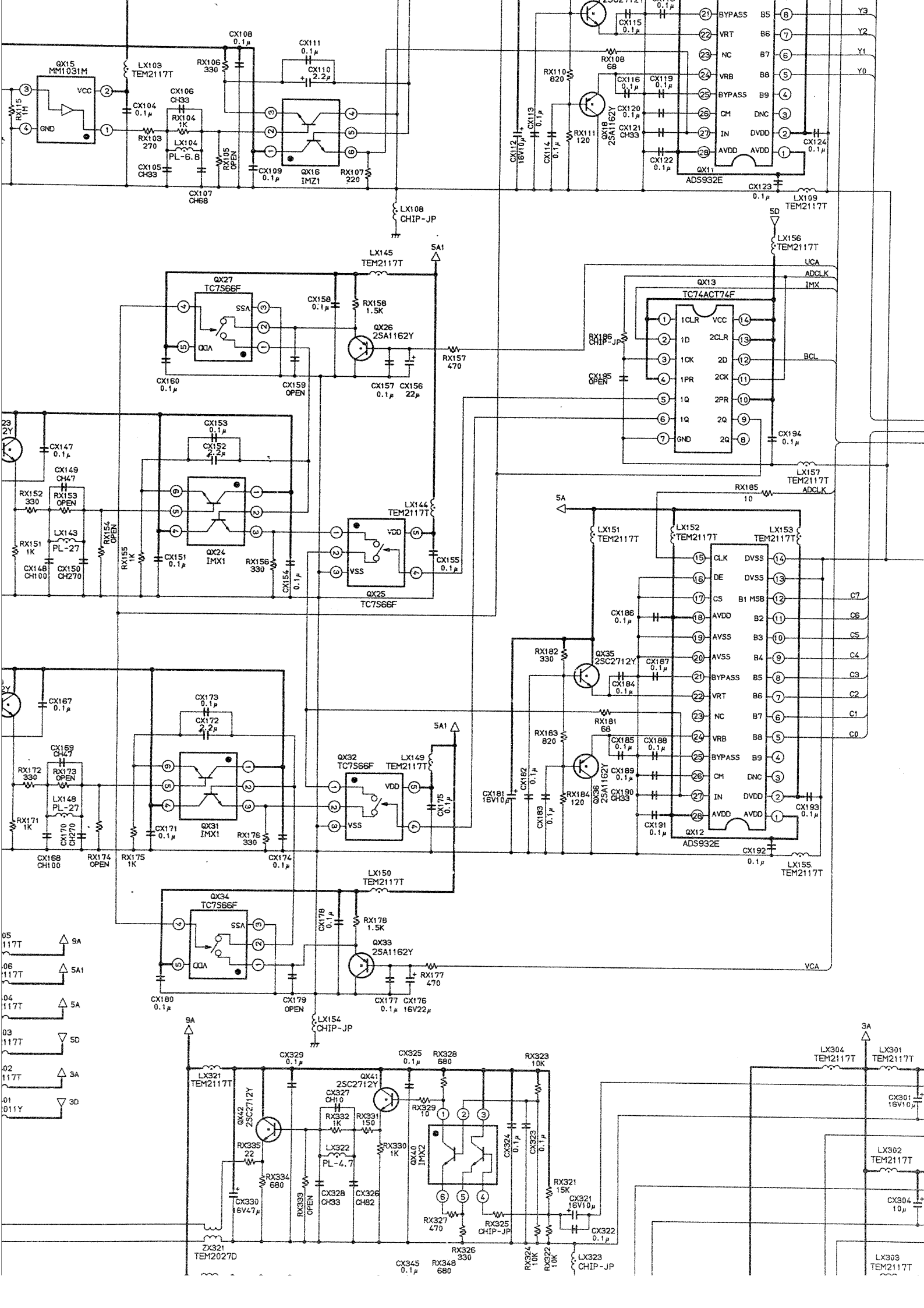
n, k=1,000, M=1,000,000

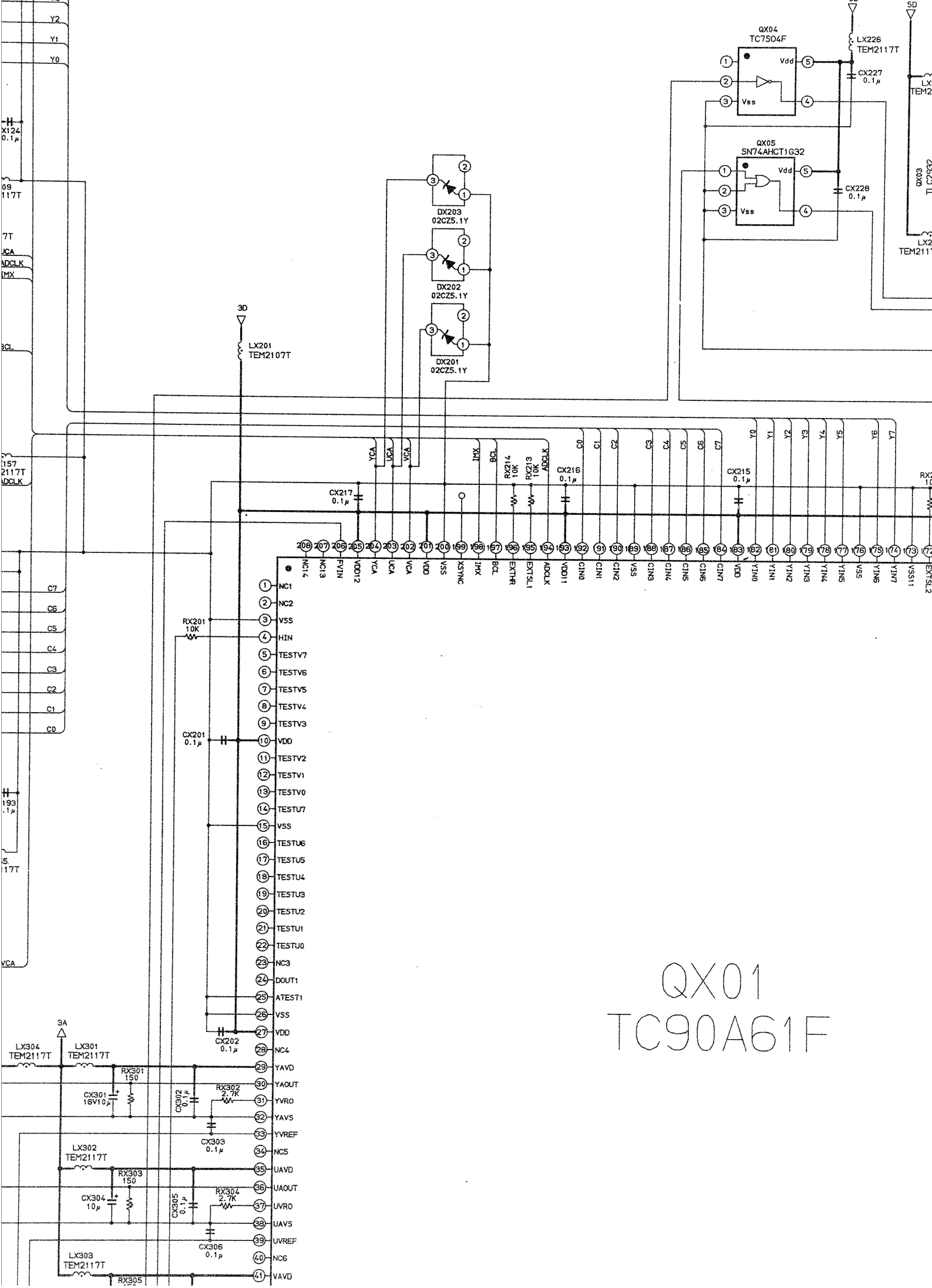
n schematic, all capacitor values less than 1 are expres-
ıore than 1 in pF.

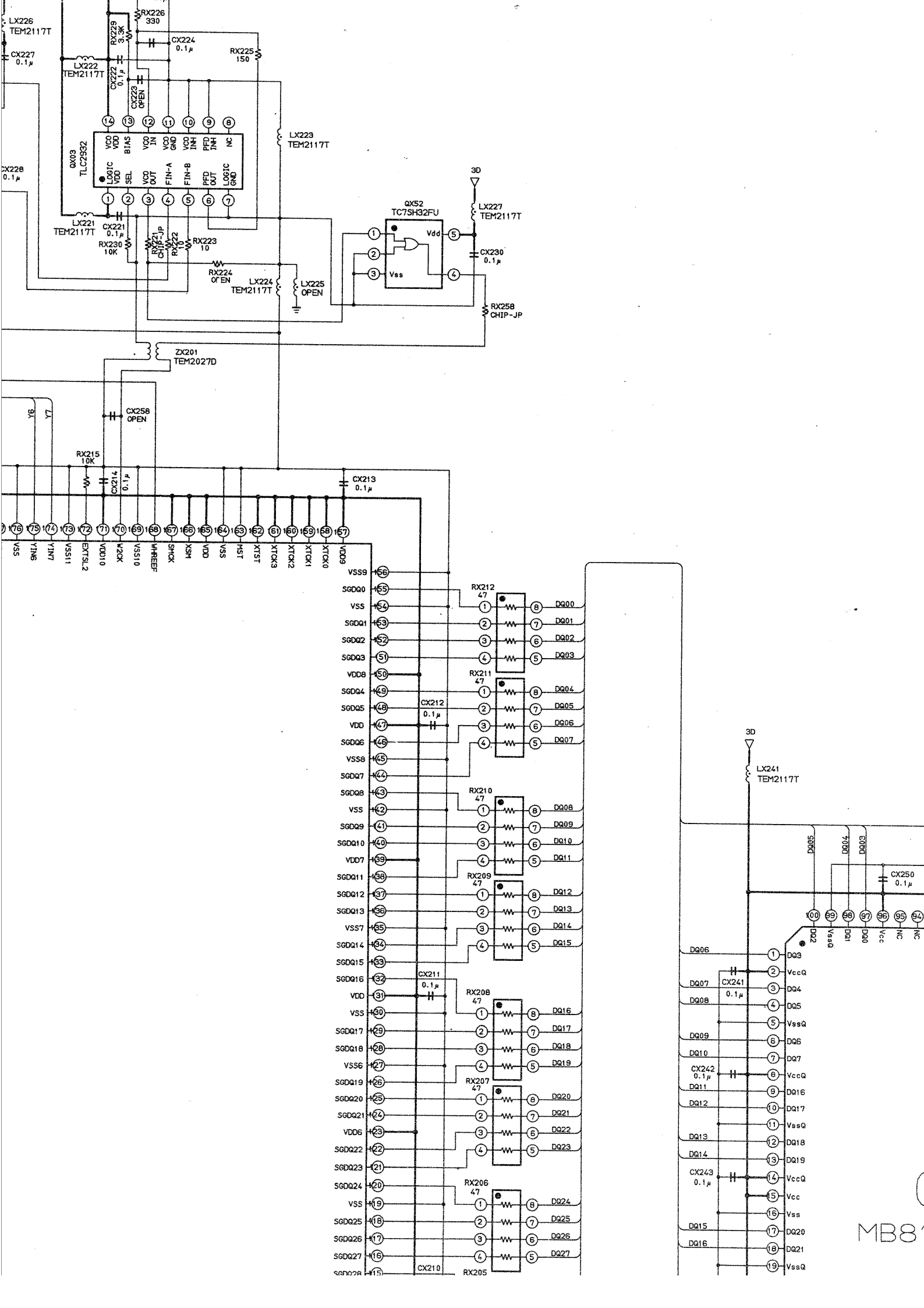
schematic, all inductor values more than 1 are expres-
ess than 1 in H.

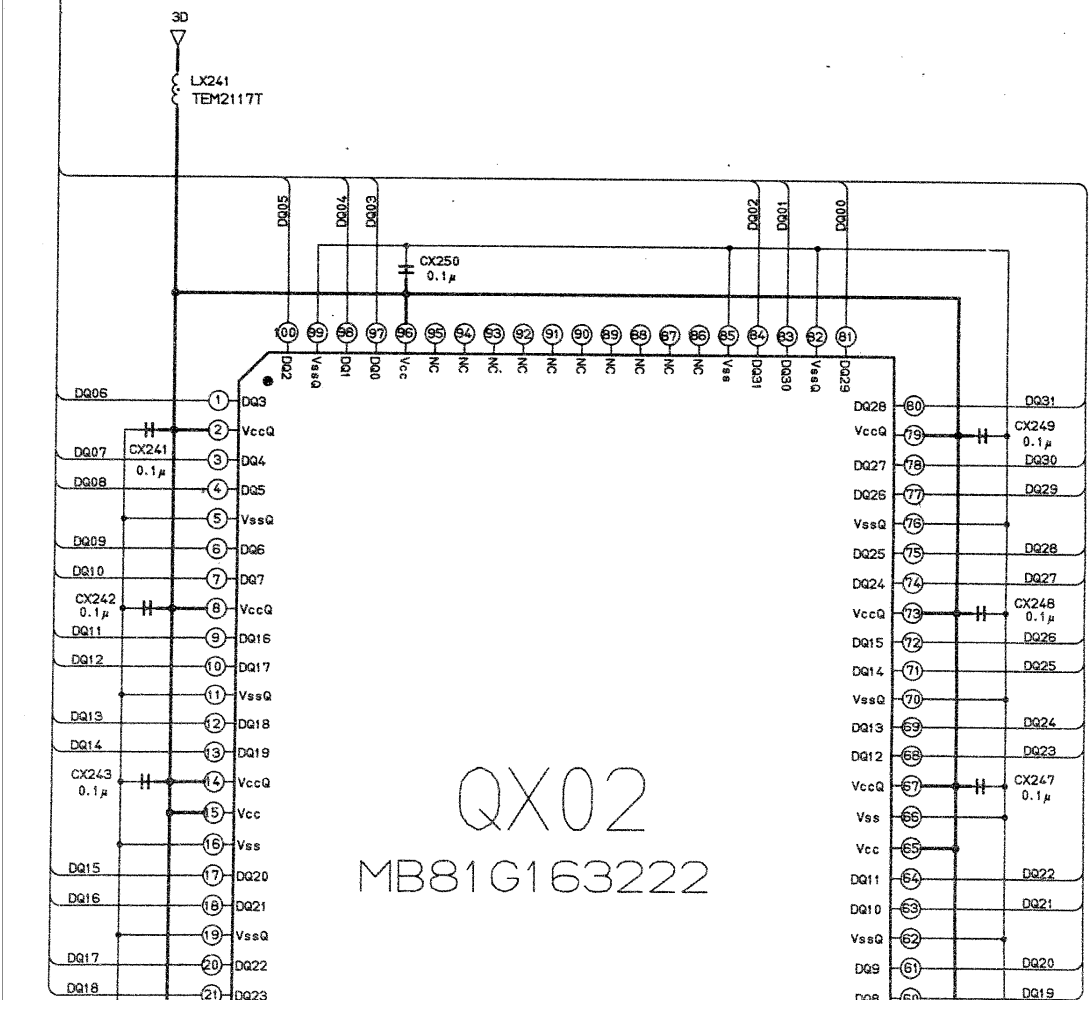


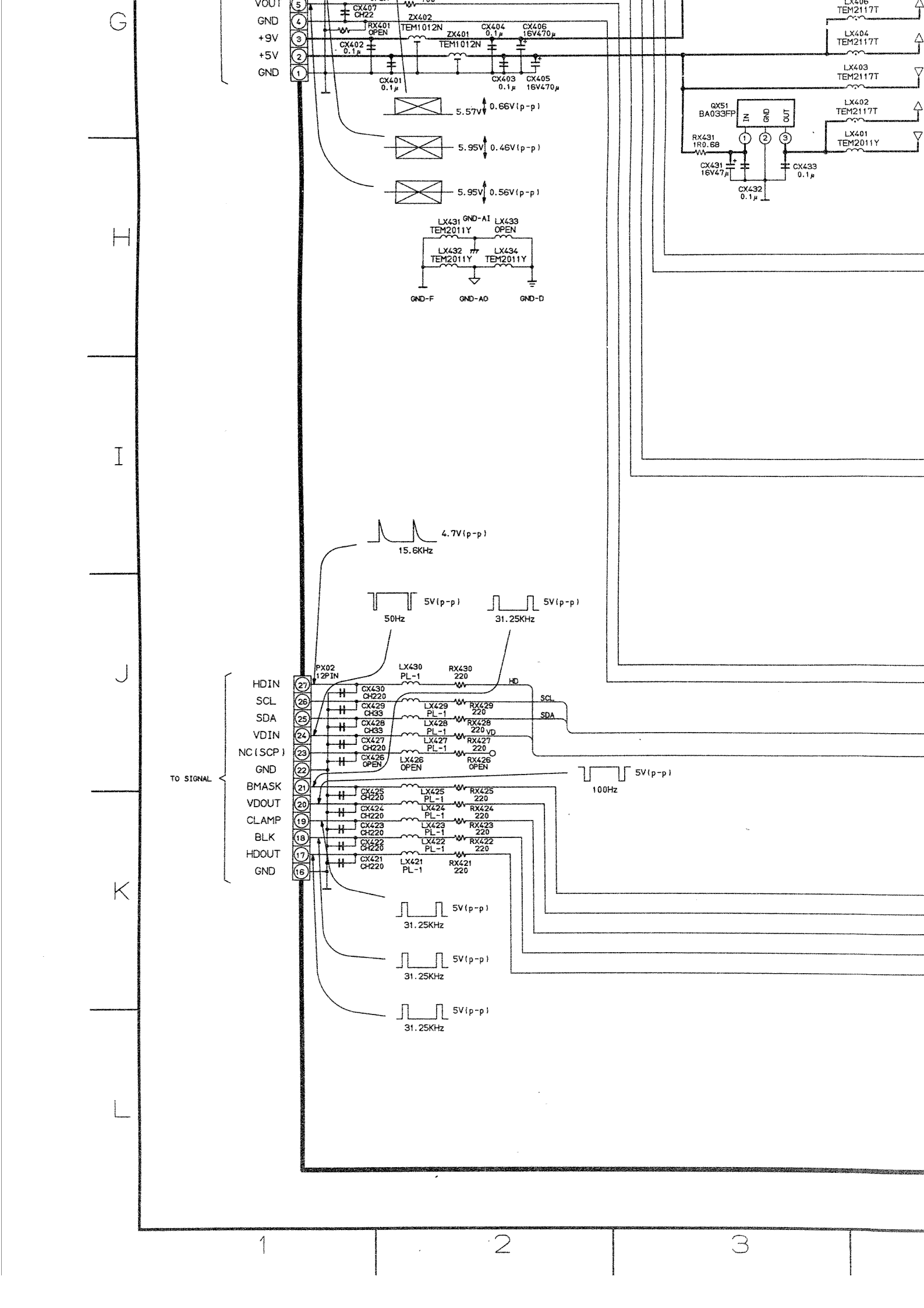

LX102 TEM2117T
LX101 TEM2117T
CX101 0.1μ
QX14 2SC2712Y
RX101 22
CX102 47μ
CX103 1μ
RX115 1M
QX15 MM1031M
VCC
GND
RX102 680
ZX101 TEM2028AH
LX142 TEM2117T
RX143 15K
LX141 TEM2117T
CX142 0.1μ
CX143 16V10μ
CX145 0.1μ
RX147 680
QX23 2SC2712Y
RX150 10
CX147 0.1μ
CX149 CH47
RX144 10K
QX22 IMX2
CX141 0.1μ
QX21 2SC2712Y
RX141 22
CX144 16V47μ
RX148 10K
RX152 330
RX153 OPEN
LX143 PL-27
RX151 1K
RX154 OPEN
CX148 CH100
CX150 CH270
RX142 470
RX146 300
RX149 10K
RX145 330
CX146 0.1μ
ZX141 TEM2028AH
LX147 TEM2117T
RX163 15K
LX146 TEM2117T
CX162 0.1μ
CX165 0.1μ
RX167 680
QX30 2SC2712Y
RX170 10
CX167 0.1μ
CX161 0.1μ
CX163 16V10μ
RX164 10K
QX29 IMX2
QX26 2SC2712Y
RX161 22
CX164 16V47μ
RX168 10K
CX169 CH47
RX172 330
RX173 OPEN
LX148 PL-27
RX171 1K
RX162 470
RX166 300
RX165 330
RX169 10K
CX170 CH270
CX166 0.1μ
CX168 CH100
RX174 OPEN
ZX161 TEM2028AH
4.65V 0.56V(p-p)
4.65V 0.46V(p-p)
4.65V 0.66V(p-p)
PX01 15PIN
CX412 CH22
RX412 100
YIN 15
GND 14
RX411 OPEN
RX410 100
UIN 13
CX411 CH22
GND 12
RX409 OPEN
RX408 100
VIN 11
CX410 CH22
GND 10
RX407 OPEN
RX406 100
YOUT 9
CX409 CH22
GND 8
RX405 OPEN
RX404 100
UOUT 7
CX408 CH22
GND 6
RX403 OPEN
RX402 100
VOUT 5
CX407 CH22
GND 4
RX401 OPEN
ZX402 TEM1012N
ZX401 TEM1012N
CX404 0.1μ
CX406 16V470μ
+9V 3
CX402 0.1μ
+5V 2
GND 1
CX401 0.1μ
CX403 0.1μ
CX405 16V470μ
TO SIGNAL
5.57V 0.66V(p-p)
5.95V 0.46V(p-p)
5.95V 0.56V(p-p)
LX431 TEM2011Y
GND-AI
LX433 OPEN
LX432 TEM2011Y
LX434 TEM2011Y
GND-F
GND-AO
GND-D
LX405 TEM2117T
9A
LX406 TEM2117T
5A1
LX404 TEM2117T
5A
LX403 TEM2117T
5D
QX51 BA033FP
IN
GND
OUT
LX402 TEM2117T
3A
RX431 1R0.68
LX401 TEM2011Y
3D
CX431 16V47μ
CX433 0.1μ
CX432 0.1μ

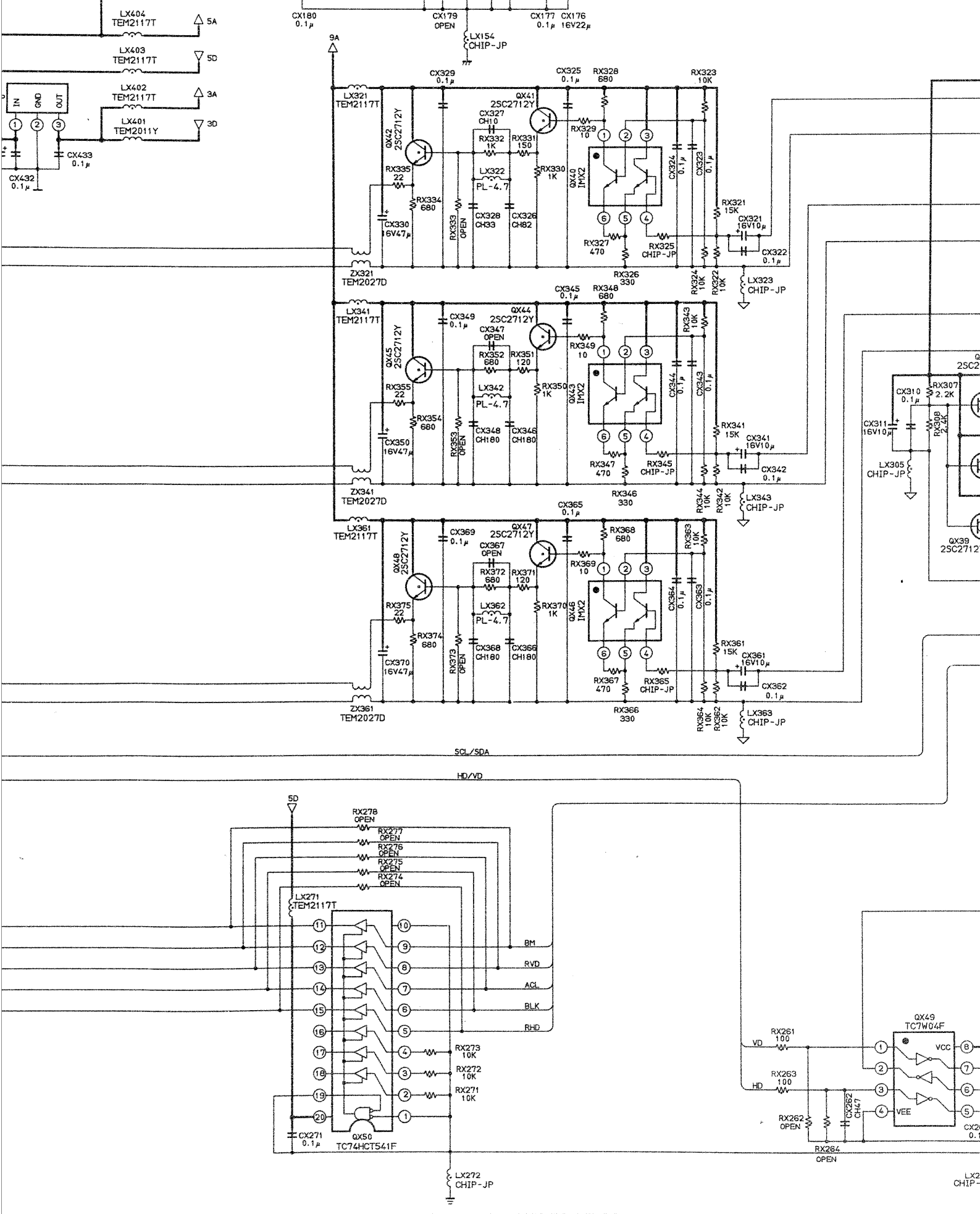

QX15 MM1031M
LX103 TEM2117T
RX106 330
CX108 0.1μ
CX111 0.1μ
CX110 2.2μ
CX106 CH33
CX104 0.1μ
RX104 1K
RX103 270
LX104 PL-6.8
RX105 OPEN
CX105 CH33
CX107 CH68
CX109 0.1μ
QX16 IMZ1
RX107 220
LX108 CHIP-JP
RX108 68
RX110 820
CX116 0.1μ
CX119 0.1μ
CX120 0.1μ
CX121 CH33
QX18 2SA1162Y
RX111 120
CX112 16V10μ
CX113 0.1μ
CX114 0.1μ
CX122 0.1μ
QX11 ADS932E
CX123 0.1μ
LX109 TEM2117T
CX124 0.1μ
BYPASS B5
VRT B6
NC B7
VRB B8
BYPASS B9
CM DNC
IN DVDD
AVDD AVDD
Y3
Y2
Y1
Y0
5D
LX156 TEM2117T
UCA
ADCLK
IMX
QX13 TC74ACT74F
1CLR VCC
1D 2CLR
1CK 2D
1PR 2CK
1Q 2PR
1Q 2Q
GND 2Q
RX186 CHIP-JP
CX195 OPEN
BCL
CX194 0.1μ
LX157 TEM2117T
ADCLK
RX185 10
5A
LX145 TEM2117T
5A1
QX27 TC7S66F
SSA
VDD
CX158 0.1μ
RX158 1.5K
QX26 2SA1162Y
RX157 470
CX160 0.1μ
CX159 OPEN
CX157 0.1μ
CX156 22μ
CX153 0.1μ
CX152 2.2μ
CX147 0.1μ
CX149 CH47
RX152 330
RX153 OPEN
LX143 PL-27
RX154 OPEN
RX151 1K
CX148 CH100
CX150 CH270
RX155 1K
CX151 0.1μ
QX24 IMX1
RX156 330
CX154 0.1μ
LX144 TEM2117T
VDD
VSS
CX155 0.1μ
QX25 TC7S66F
LX151 TEM2117T
LX152 TEM2117T
LX153 TEM2117T
CLK DVSS
DE DVSS
CS B1 MSB
AVDD B2
AVSS B3
AVSS B4
BYPASS B5
VRT B6
NC B7
VRB B8
BYPASS B9
CM DNC
IN DVDD
AVDD AVDD
C7
C6
C5
C4
C3
C2
C1
C0
CX186 0.1μ
CX187 0.1μ
CX184 0.1μ
RX182 330
QX35 2SC2712Y
RX181 68
RX163 820
CX185 0.1μ
CX188 0.1μ
CX189 0.1μ
CX190 CH33
QX36 2SA1162Y
RX184 120
CX181 16V10μ
CX182 0.1μ
CX183 0.1μ
CX191 0.1μ
QX12 ADS932E
CX192 0.1μ
CX193 0.1μ
LX155 TEM2117T
CX167 0.1μ
CX173 0.1μ
CX172 2.2μ
CX169 CH47
RX172 330
RX173 OPEN
LX148 PL-27
RX171 1K
CX170 CH270
CX168 CH100
RX174 OPEN
RX175 1K
CX171 0.1μ
QX31 IMX1
RX176 330
CX174 0.1μ
5A1
QX32 TC7S66F
LX149 TEM2117T
VDD
VSS
CX175 0.1μ
LX150 TEM2117T
QX34 TC7S66F
SSA
VDD
CX178 0.1μ
RX178 1.5K
QX33 2SA1162Y
RX177 470
VCA
CX180 0.1μ
CX179 OPEN
CX177 0.1μ
CX176 16V22μ
LX154 CHIP-JP
9A
5A1
5A
5D
3A
3D
LX321 TEM2117T
CX329 0.1μ
CX325 0.1μ
RX328 680
RX323 10K
QX41 2SC2712Y
CX327 CH10
RX329 10
QX42 2SC2712Y
RX332 1K
RX331 150
RX335 22
LX322 PL-4.7
RX330 1K
QX40 IMX2
CX324 0.1μ
CX323 0.1μ
RX334 680
CX330 16V47μ
RX333 OPEN
CX328 CH33
CX326 CH82
RX321 15K
CX321 16V10μ
RX327 470
RX325 CHIP-JP
CX322 0.1μ
ZX321 TEM2027D
RX326 330
CX345 0.1μ
RX348 680
RX324 10K
RX322 10K
LX323 CHIP-JP
3A
LX304 TEM2117T
LX301 TEM2117T
CX301 16V10μ
LX302 TEM2117T
CX304 10μ
LX303 TEM2117T


QX01
TC90A61F
QX04
TC7S04F
QX05
SN74AHCT1G32
LX201
TEM2107T
LX226
TEM2117T
LX301
TEM2117T
LX302
TEM2117T
LX303
TEM2117T
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TEM2117T
DX201
02CZ5.1Y
DX202
02CZ5.1Y
DX203
02CZ5.1Y
CX201
CX202
CX215
CX216
CX217
CX226
CX227
RX201
RX213
RX214
RX301
RX302
RX303
RX304
NC1
NC2
VSS
HIN
TESTV7
TESTV6
TESTV5
TESTV4
TESTV3
VDD
TESTV2
TESTV1
TESTV0
TESTU7
VSS
TESTU6
TESTU5
TESTU4
TESTU3
TESTU2
TESTU1
TESTU0
NC3
DOUT1
ATEST1
VSS
VDD
NC4
YAVD
YAOUT
YVRO
YAVS
YVREF
NC5
UAVD
UAOUT
UVRO
UAVS
UVREF
NC6
VAVD

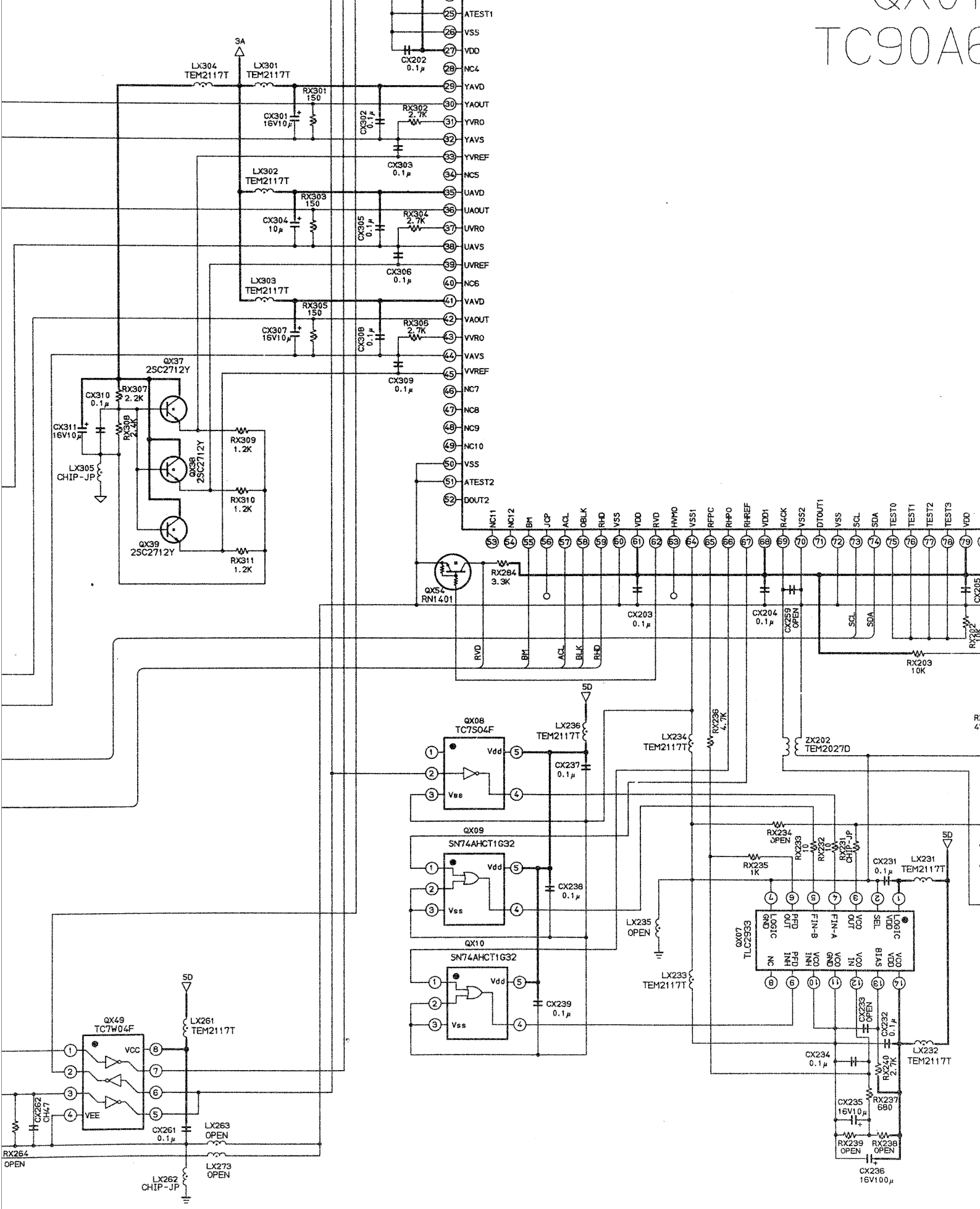

LX226 TEM2117T
CX227 0.1μ
RX226 330
RX229 3.3K
CX224 0.1μ
RX225 150
LX222 TEM2117T
CX222 0.1μ
CX223 OPEN
QX03 TLC2932
VCO VDD
BIAS
VCO IN
VCO GND
VCO INH
PFD INH
NC
LOGIC VDD
SEL
VCO OUT
FIN-A
FIN-B
PFD OUT
LOGIC GND
LX223 TEM2117T
CX228 0.1μ
LX221 TEM2117T
CX221 0.1μ
RX230 10K
RX221 CHIP-JP
RX222 10
RX223 10
RX224 OPEN
LX224 TEM2117T
LX225 OPEN
QX52 TC7SH32FU
Vdd
Vss
3D
LX227 TEM2117T
CX230 0.1μ
RX258 CHIP-JP
ZX201 TEM2027D
CX258 OPEN
RX215 10K
CX214 0.1μ
CX213 0.1μ
Y6
Y7
VSS
YIN6
YIN7
VSS11
EXTSL2
VDD10
W2CK
VSS10
WHREEF
SMCK
XSM
VDD
VSS
MST
XTST
XTCK3
XTCK2
XTCK1
XTCK0
VDD9
VSS9
SGDQ0
VSS
SGDQ1
SGDQ2
SGDQ3
VDD8
SGDQ4
SGDQ5
VDD
SGDQ6
VSS8
SGDQ7
SGDQ8
VSS
SGDQ9
SGDQ10
VDD7
SGDQ11
SGDQ12
SGDQ13
VSS7
SGDQ14
SGDQ15
SGDQ16
VDD
VSS
SGDQ17
SGDQ18
VSS6
SGDQ19
SGDQ20
SGDQ21
VDD6
SGDQ22
SGDQ23
SGDQ24
VSS
SGDQ25
SGDQ26
SGDQ27
CX212 0.1μ
CX211 0.1μ
CX210
RX212 47
RX211 47
RX210 47
RX209 47
RX208 47
RX207 47
RX206 47
RX205
DQ00
DQ01
DQ02
DQ03
DQ04
DQ05
DQ06
DQ07
DQ08
DQ09
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
DQ16
DQ17
DQ18
DQ19
DQ20
DQ21
DQ22
DQ23
DQ24
DQ25
DQ26
DQ27
3D
LX241 TEM2117T
CX250 0.1μ
DQ05
DQ04
DQ03
DQ2
VssQ
DQ1
DQ0
Vcc
NC
NC
CX241 0.1μ
CX242 0.1μ
CX243 0.1μ
DQ3
VccQ
DQ4
DQ5
VssQ
DQ6
DQ7
VccQ
DQ16
DQ17
VssQ
DQ18
DQ19
VccQ
Vcc
Vss
DQ20
DQ21
VssQ


3D
LX241
TEM2117T
CX250
0.1μ
CX241
0.1μ
CX242
0.1μ
CX243
0.1μ
CX247
0.1μ
CX248
0.1μ
CX249
0.1μ
QX02
MB81G163222

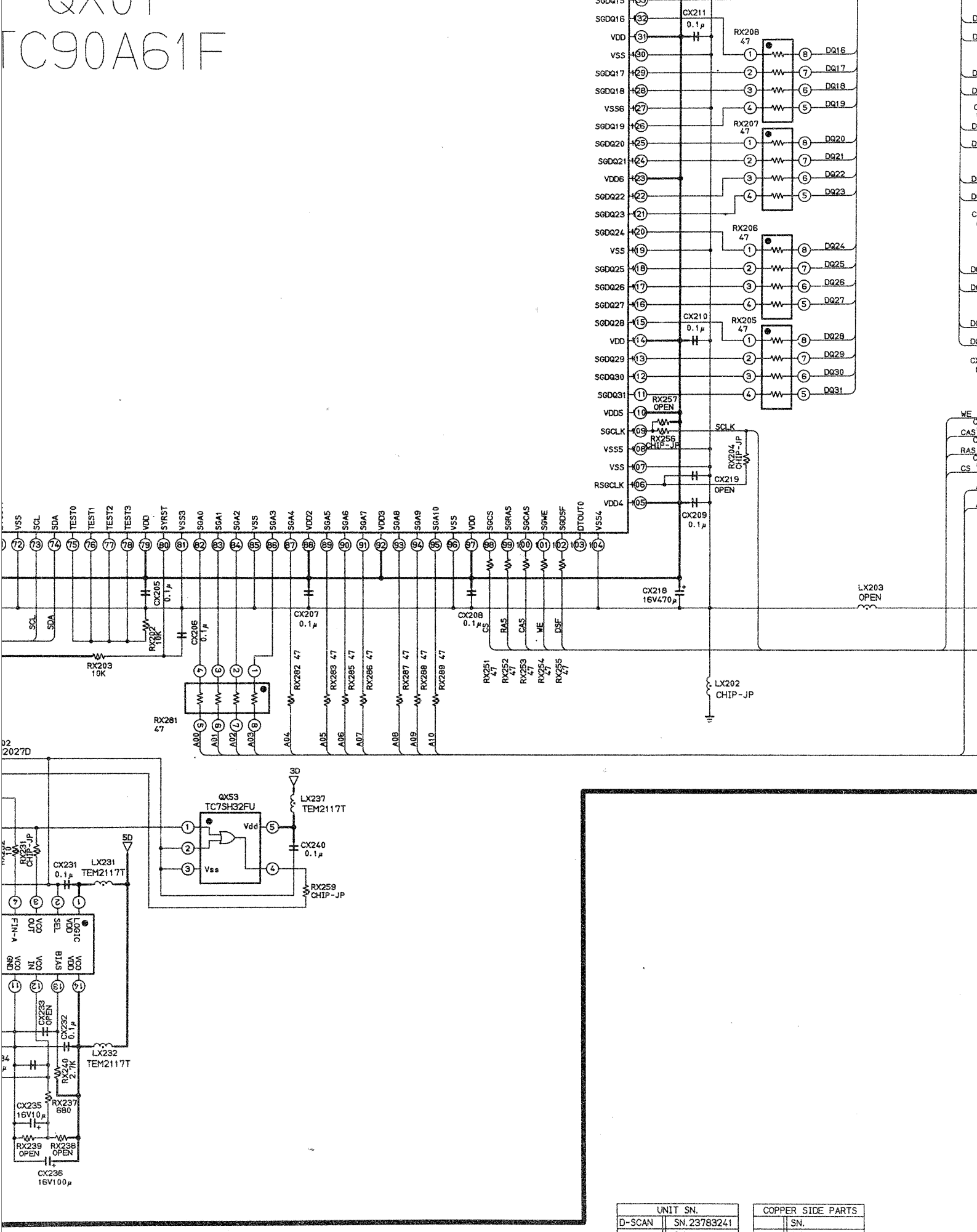

VOUT
GND
+9V
+5V
GND
CX407 CH22
RX401 OPEN
ZX402 TEM1012N
ZX401 TEM1012N
CX404 0.1μ
CX406 16V470μ
CX402 0.1μ
CX401 0.1μ
CX403 0.1μ
CX405 16V470μ
5.57V 0.66V(p-p)
5.95V 0.46V(p-p)
5.95V 0.56V(p-p)
LX431 TEM2011Y
GND-AI
LX433 OPEN
LX432 TEM2011Y
LX434 TEM2011Y
GND-F
GND-AO
GND-D
LX406 TEM2117T
LX404 TEM2117T
LX403 TEM2117T
LX402 TEM2117T
LX401 TEM2011Y
QX51 BA033FP
IN
GND
OUT
RX431 1R0.68
CX431 16V47μ
CX433 0.1μ
CX432 0.1μ
4.7V(p-p)
15.6KHz
5V(p-p)
50Hz
5V(p-p)
31.25KHz
PX02 12PIN
HDIN
SCL
SDA
VDIN
NC(SCP)
GND
BMASK
VDOUT
CLAMP
BLK
HDOUT
GND
TO SIGNAL
LX430 PL-1
RX430 220
HD
CX430 CH220
CX429 CH33
LX429 PL-1
RX429 220
SCL
CX428 CH33
LX428 PL-1
RX428 220
SDA
VD
CX427 CH220
LX427 PL-1
RX427 220
CX426 OPEN
LX426 OPEN
RX426 OPEN
5V(p-p)
100Hz
CX425 CH220
LX425 PL-1
RX425 220
CX424 CH220
LX424 PL-1
RX424 220
CX423 CH220
LX423 PL-1
RX423 220
CX422 CH220
LX422 PL-1
RX422 220
CX421 CH220
LX421 PL-1
RX421 220
5V(p-p)
31.25KHz
5V(p-p)
31.25KHz
5V(p-p)
31.25KHz
G
H
I
J
K
L
1
2
3


LX404 TEM2117T
LX403 TEM2117T
LX402 TEM2117T
LX401 TEM2011Y
IN
GND
OUT
CX432 0.1μ
CX433 0.1μ
CX180 0.1μ
CX179 OPEN
CX177 0.1μ
CX176 16V22μ
LX154 CHIP-JP
9A
LX321 TEM2117T
QX41 2SC2712Y
QX42 2SC2712Y
CX327 CH10
RX332 1K
RX331 150
RX335 22
LX322 PL-4.7
RX330 1K
QX40 IMX2
RX334 680
RX333 OPEN
CX328 CH33
CX326 CH82
CX330 16V47μ
CX329 0.1μ
CX325 0.1μ
RX328 680
RX323 10K
RX329 10
CX324 0.1μ
CX323 0.1μ
RX321 15K
CX321 16V10μ
RX327 470
RX325 CHIP-JP
CX322 0.1μ
RX326 330
RX324 10K
RX322 10K
LX323 CHIP-JP
ZX321 TEM2027D
LX341 TEM2117T
QX44 2SC2712Y
QX45 2SC2712Y
CX347 OPEN
RX352 680
RX351 120
RX355 22
LX342 PL-4.7
RX350 1K
QX43 IMX2
RX354 680
RX353 OPEN
CX348 CH180
CX346 CH180
CX350 16V47μ
CX349 0.1μ
CX345 0.1μ
RX348 680
RX343 10K
RX349 10
CX344 0.1μ
CX343 0.1μ
RX341 15K
CX341 16V10μ
RX347 470
RX345 CHIP-JP
CX342 0.1μ
RX346 330
RX344 10K
RX342 10K
LX343 CHIP-JP
ZX341 TEM2027D
LX361 TEM2117T
QX47 2SC2712Y
QX48 2SC2712Y
CX367 OPEN
RX372 680
RX371 120
RX375 22
LX362 PL-4.7
RX370 1K
QX46 IMX2
RX374 680
RX373 OPEN
CX368 CH180
CX366 CH180
CX370 16V47μ
CX369 0.1μ
CX365 0.1μ
RX368 680
RX363 10K
RX369 10
CX364 0.1μ
CX363 0.1μ
RX361 15K
CX361 16V10μ
RX367 470
RX365 CHIP-JP
CX362 0.1μ
RX366 330
RX364 10K
RX362 10K
LX363 CHIP-JP
ZX361 TEM2027D
SCL/SDA
HD/VD
5D
RX278 OPEN
RX277 OPEN
RX276 OPEN
RX275 OPEN
RX274 OPEN
LX271 TEM2117T
BM
RVD
ACL
BLK
RHD
RX273 10K
RX272 10K
RX271 10K
CX271 0.1μ
QX50 TC74HCT541F
LX272 CHIP-JP
QX49 TC7W04F
VD
HD
RX261 100
RX263 100
RX262 OPEN
CX262 CH47
RX264 OPEN
VCC
VEE
CX310 0.1μ
RX307 2.2K
CX311 16V10μ
RX308 2.4K
LX305 CHIP-JP
QX39 2SC2712

3 | 4 | 5 | 6

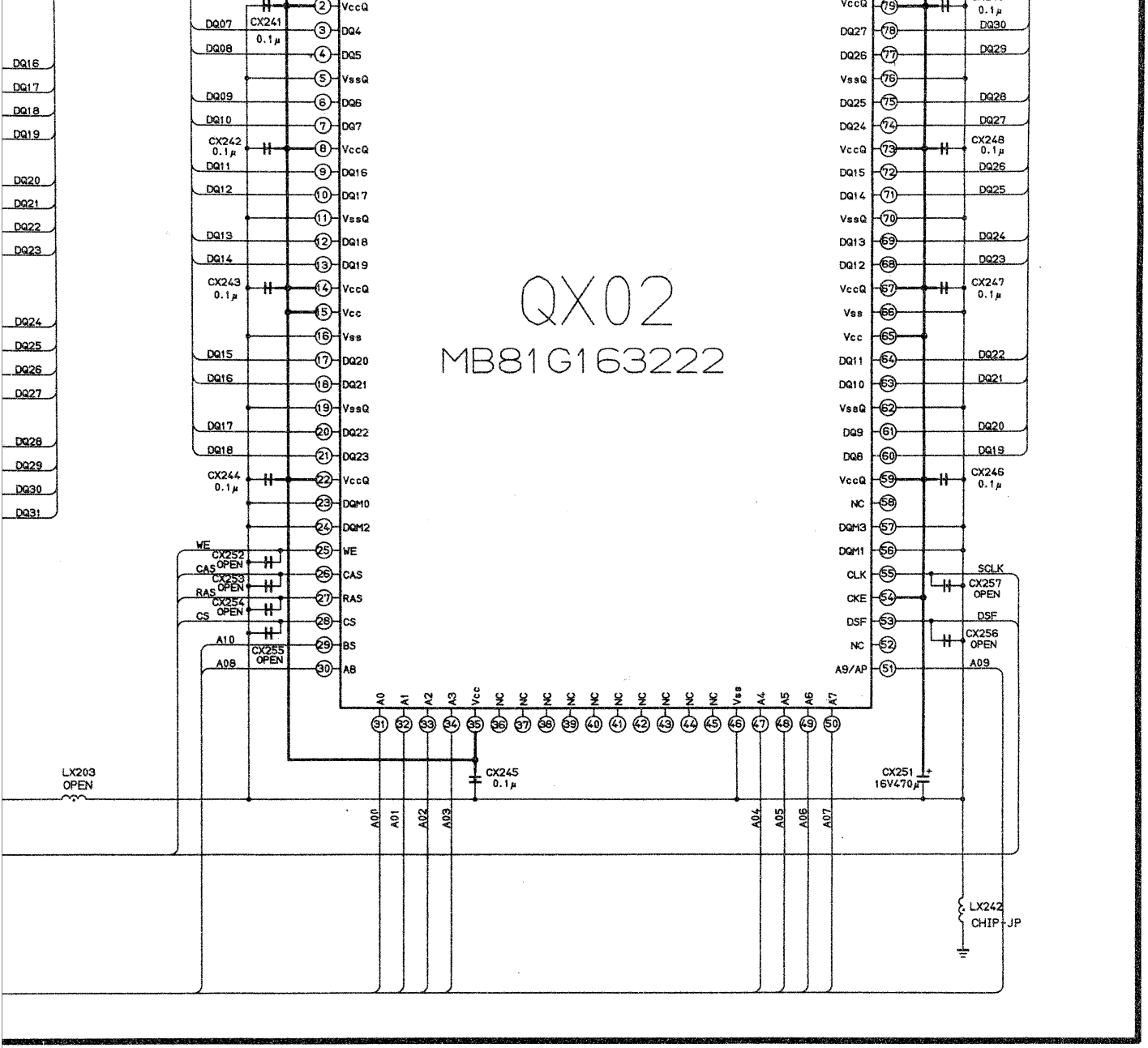

TC90A6
3A
LX304 TEM2117T
LX301 TEM2117T
LX302 TEM2117T
LX303 TEM2117T
RX301 150
CX301 16V10μ
CX302 0.1μ
RX302 2.7K
CX303 0.1μ
RX303 150
CX304 10μ
CX305 0.1μ
RX304 2.7K
CX306 0.1μ
RX305 150
CX307 16V10μ
CX308 0.1μ
RX306 2.7K
CX309 0.1μ
25 ATEST1
26 VSS
27 VDD
28 NC4
29 YAVD
30 YAOUT
31 YVRO
32 YAVS
33 YVREF
34 NC5
35 UAVD
36 UAOUT
37 UVRO
38 UAVS
39 UVREF
40 NC6
41 VAVD
42 VAOUT
43 VVRO
44 VAVS
45 VVREF
46 NC7
47 NC8
48 NC9
49 NC10
50 VSS
51 ATEST2
52 DOUT2
CX202 0.1μ
QX37 2SC2712Y
CX310 0.1μ
RX307 2.2K
CX311 16V10μ
RX308 2.4K
LX305 CHIP-JP
QX38 2SC2712Y
QX39 2SC2712Y
RX309 1.2K
RX310 1.2K
RX311 1.2K
53 NC11
54 NC12
55 BM
56 JCP
57 ACL
58 OBLK
59 RHD
60 VSS
61 VDD
62 RVD
63 HVMO
64 VSS1
65 RFPC
66 RHPO
67 RHREF
68 VDD1
69 R4CK
70 VSS2
71 DTOUT1
72 VSS
73 SCL
74 SDA
75 TEST0
76 TEST1
77 TEST2
78 TEST3
79 VDD
QX54 RN1401
RX284 3.3K
CX203 0.1μ
CX204 0.1μ
CX259 OPEN
RX202 10K
RX203 10K
RVD
BM
ACL
BLK
RHD
5D
QX08 TC7S04F
LX236 TEM2117T
CX237 0.1μ
LX234 TEM2117T
RX236 4.7K
ZX202 TEM2027D
QX09 SN74AHCT1G32
CX238 0.1μ
QX10 SN74AHCT1G32
CX239 0.1μ
RX234 OPEN
RX238 10
RX232 10
RX231 CHIP-JP
RX235 1K
CX231 0.1μ
LX231 TEM2117T
LX235 OPEN
LX233 TEM2117T
QX07 TLC2933
CX233 OPEN
CX232 0.1μ
LX232 TEM2117T
CX234 0.1μ
RX240 2.7K
CX235 16V10μ
RX237 680
RX239 OPEN
RX238 OPEN
CX236 16V100μ
QX49 TC7W04F
LX261 TEM2117T
CX262 CH47
CX261 0.1μ
LX263 OPEN
RX264 OPEN
LX273 OPEN
LX262 CHIP-JP

QX01
TC90A61F



UNIT SN.	
D-SCAN	SN. 23783241
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.



E PARTS

32WD98B
PK2922

13 14 15 16

SCHEMATIC DIAGRAM MODEL : 32WD98B (6/6)

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 page 3. Do not degrade the safety of the receiver through improper servicing.

030-9914

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

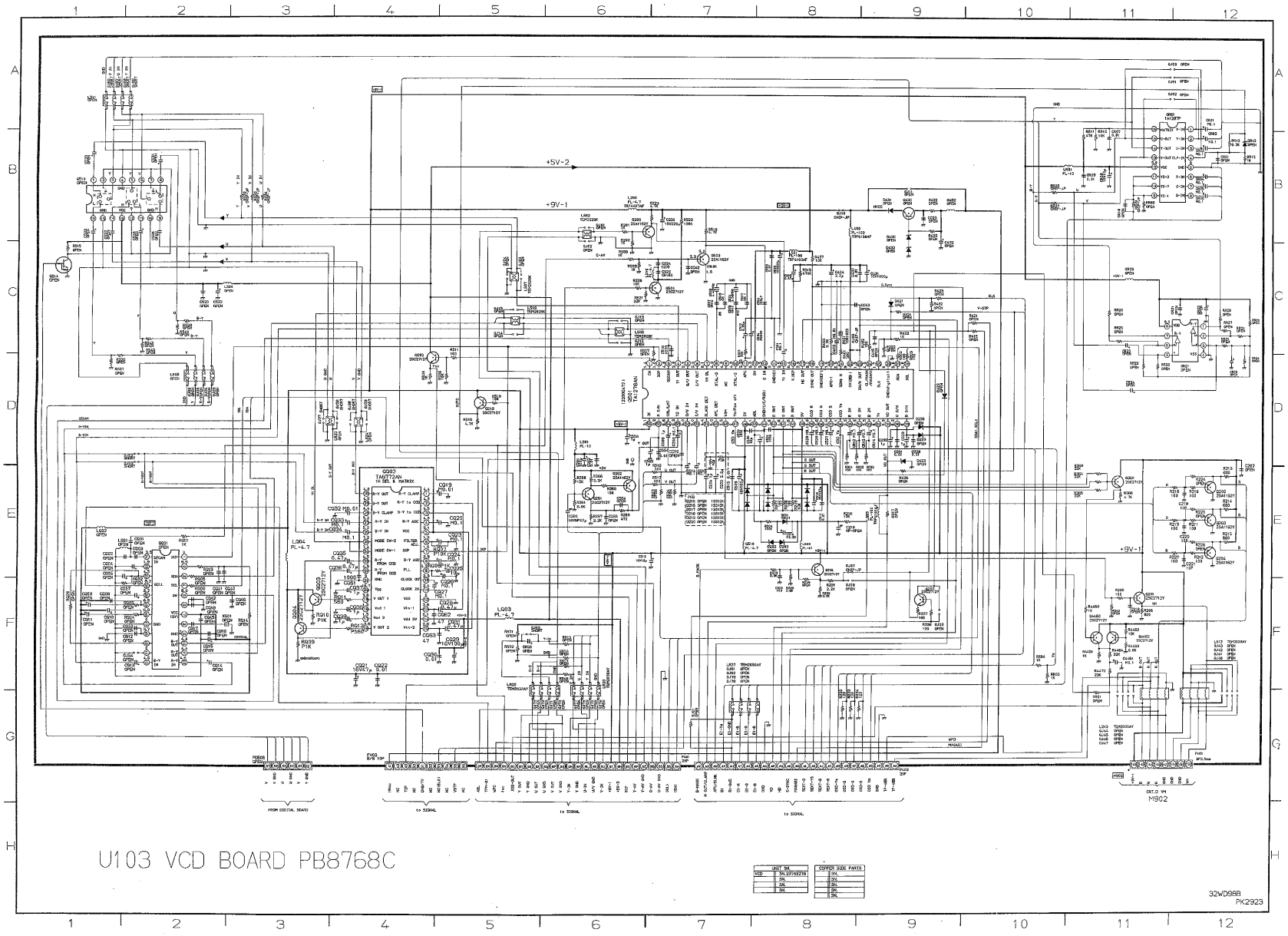
NOTES:

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬬ : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

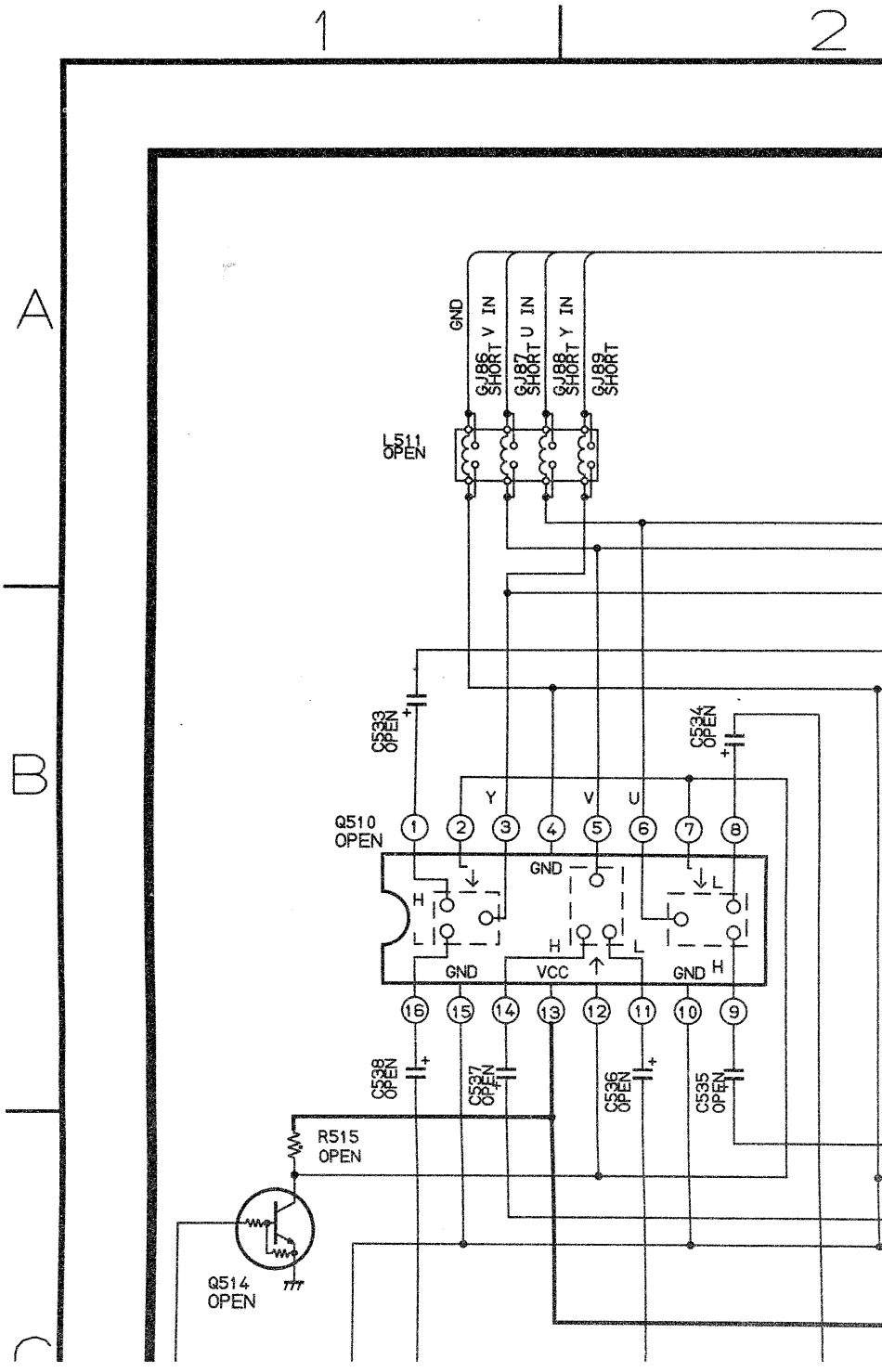
1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.



SCHEMATIC DIAGRAM MODEL : 32WD98B (6/6)

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list design
ponents which have special characteristics important for safety and should be replaced only with typ
those in the original circuit or specified in the parts list. The mounting position of replacements is to b
with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NO
3. Do not degrade the safety of the receiver through improper servicing.

030-9914

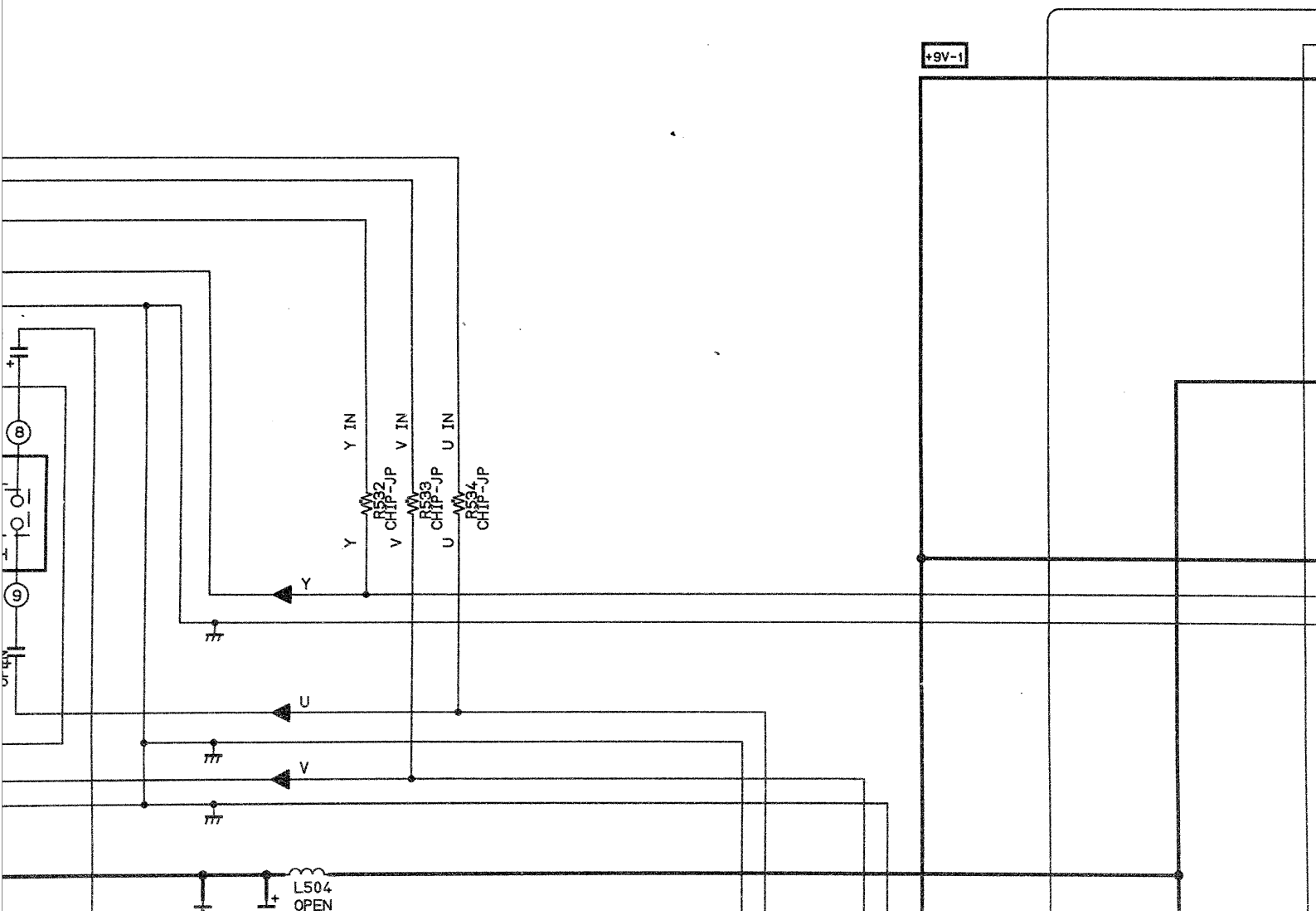


OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a lo
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in n BRIGHTNESS control is almost in maximum position. Set other picture.

s list designate com-
nly with types identical to
nents is to be identical
SAFETY NOTICE on page

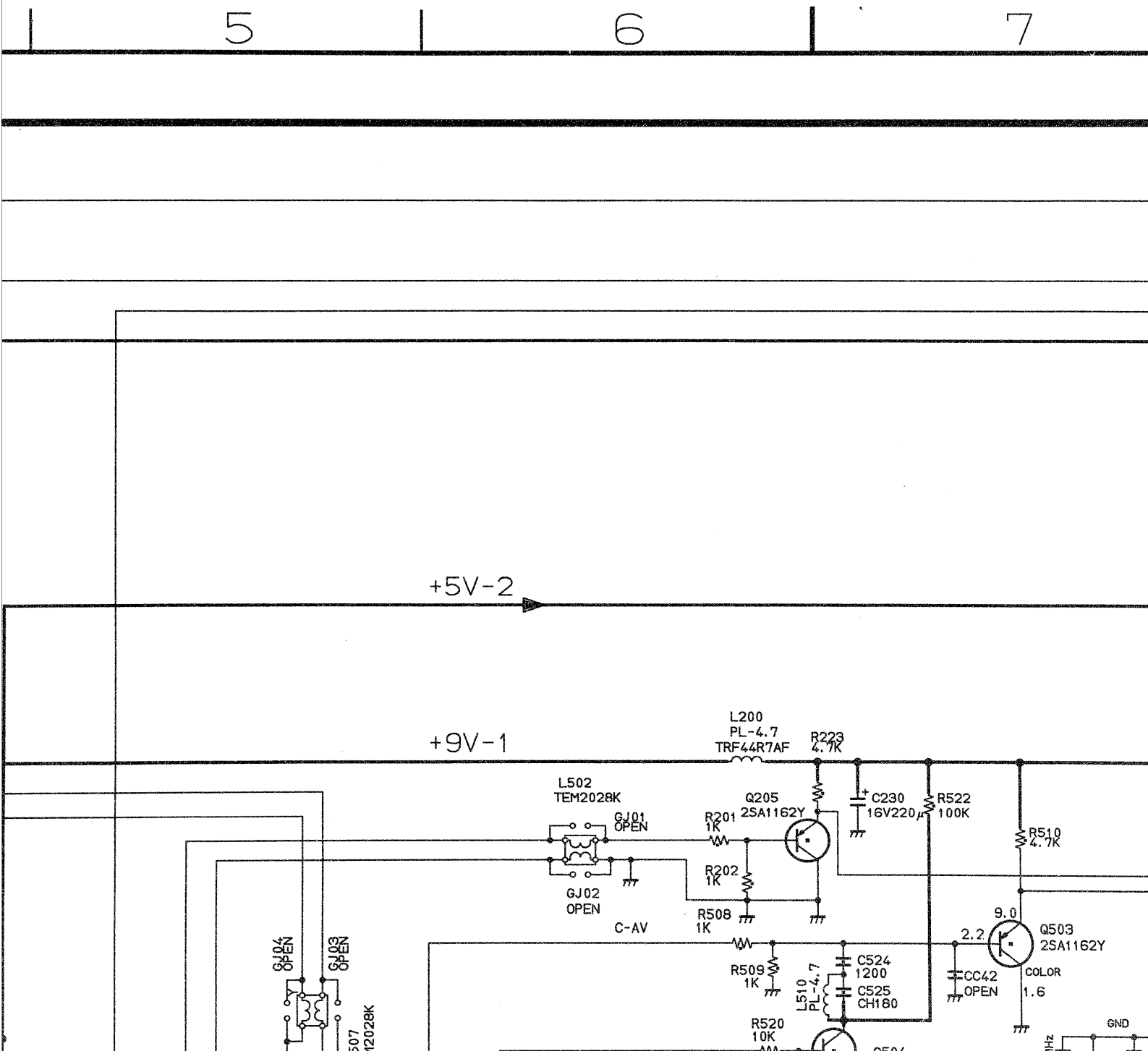
2 3 4



sis ground, line voltage 220
±20%.
pe and a low capacity probe.
gnal.
ls are in mid position and
n. Set other controls for best

NOTES:

1. D.C. resistance value of a principal transformer i
   gram. These are measured for separated from the
2. The circuits are subject to change without notice.
3. ● : Solder links.



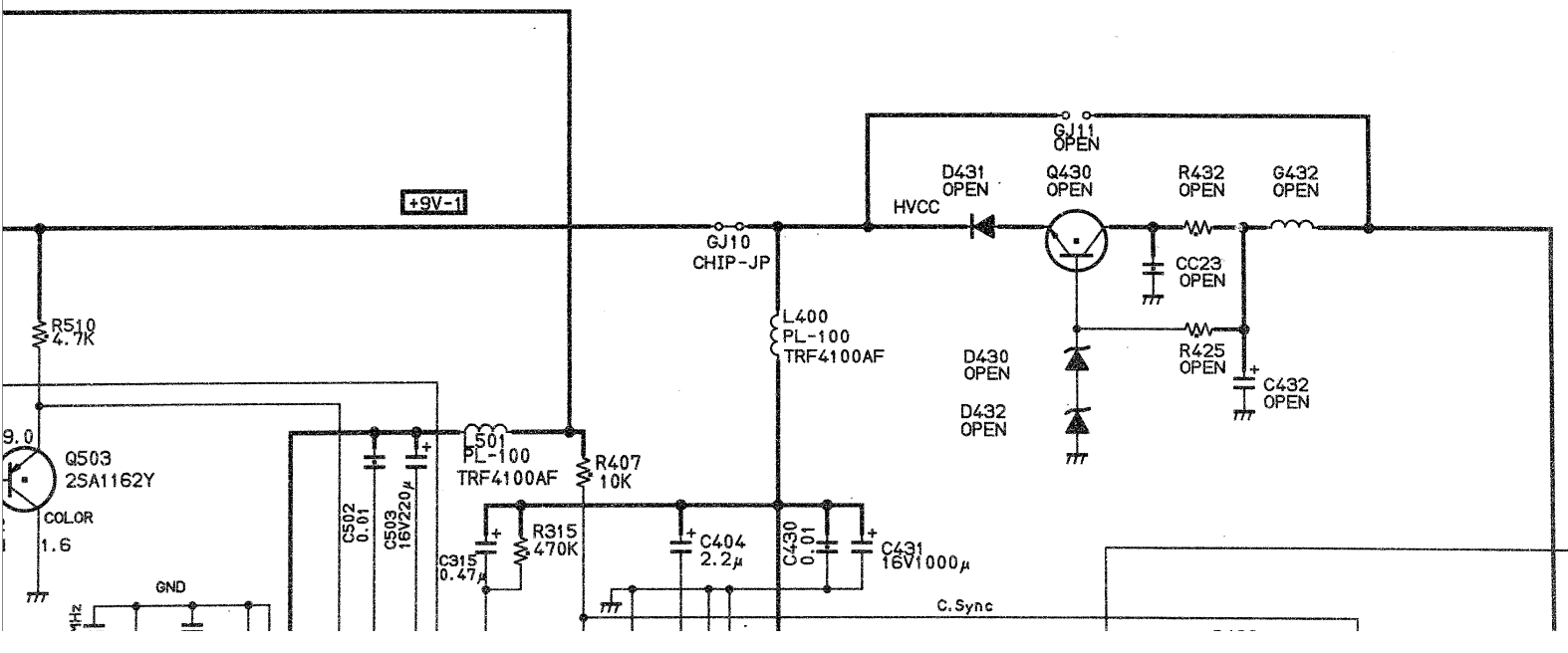
EXPRESSION

transformer is shown in this schematic dia-
ated from the circuit.
thout notice.

VALUE OF RESISTOR, CAPACITO

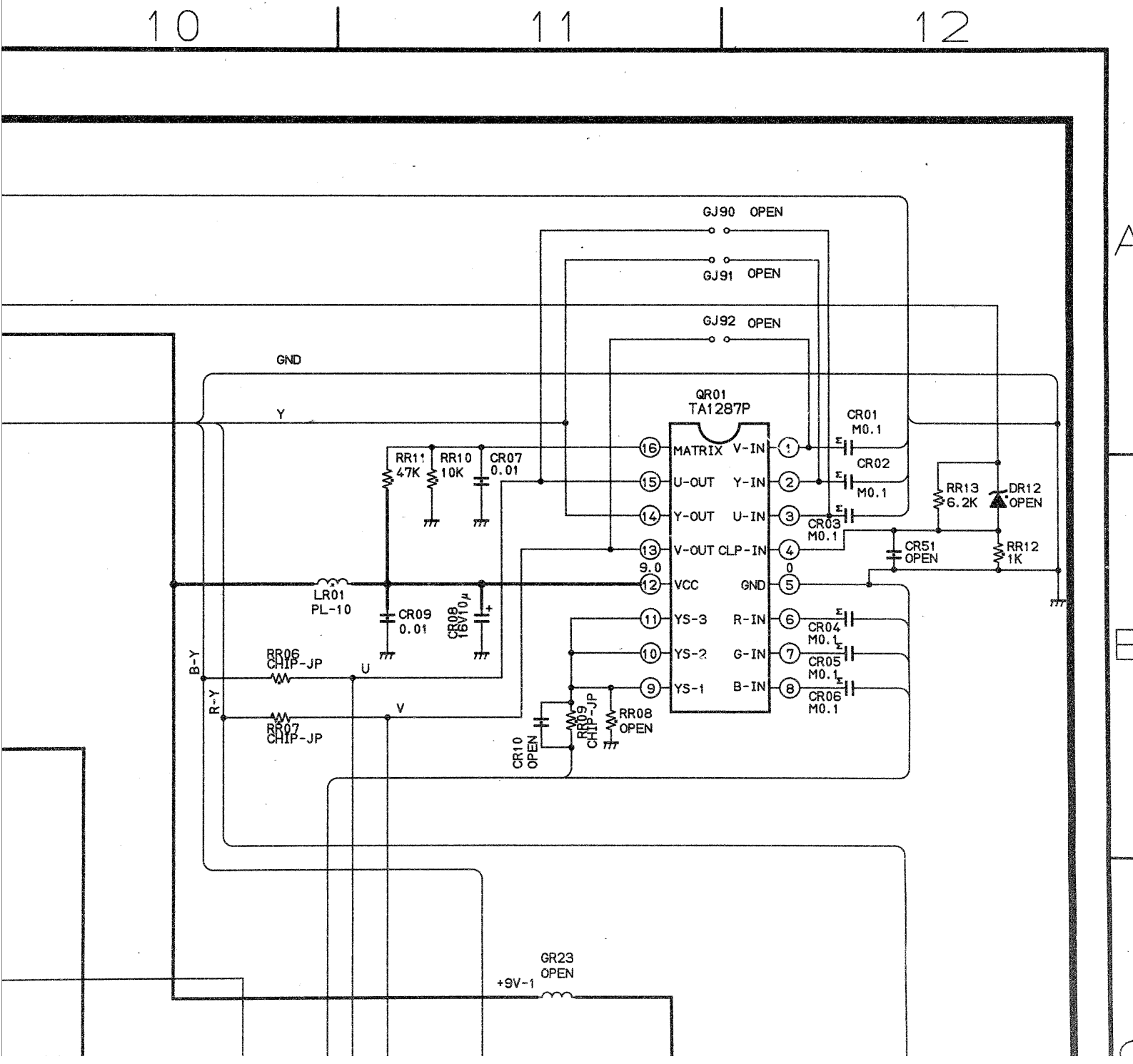
1. Resistance is shown in ohm, k=1,00
2. Unless other wise noted in schemat
   sed in μF and the values more than
3. Unless otherwise noted in schemati
   sed in μH, and the values less than 1

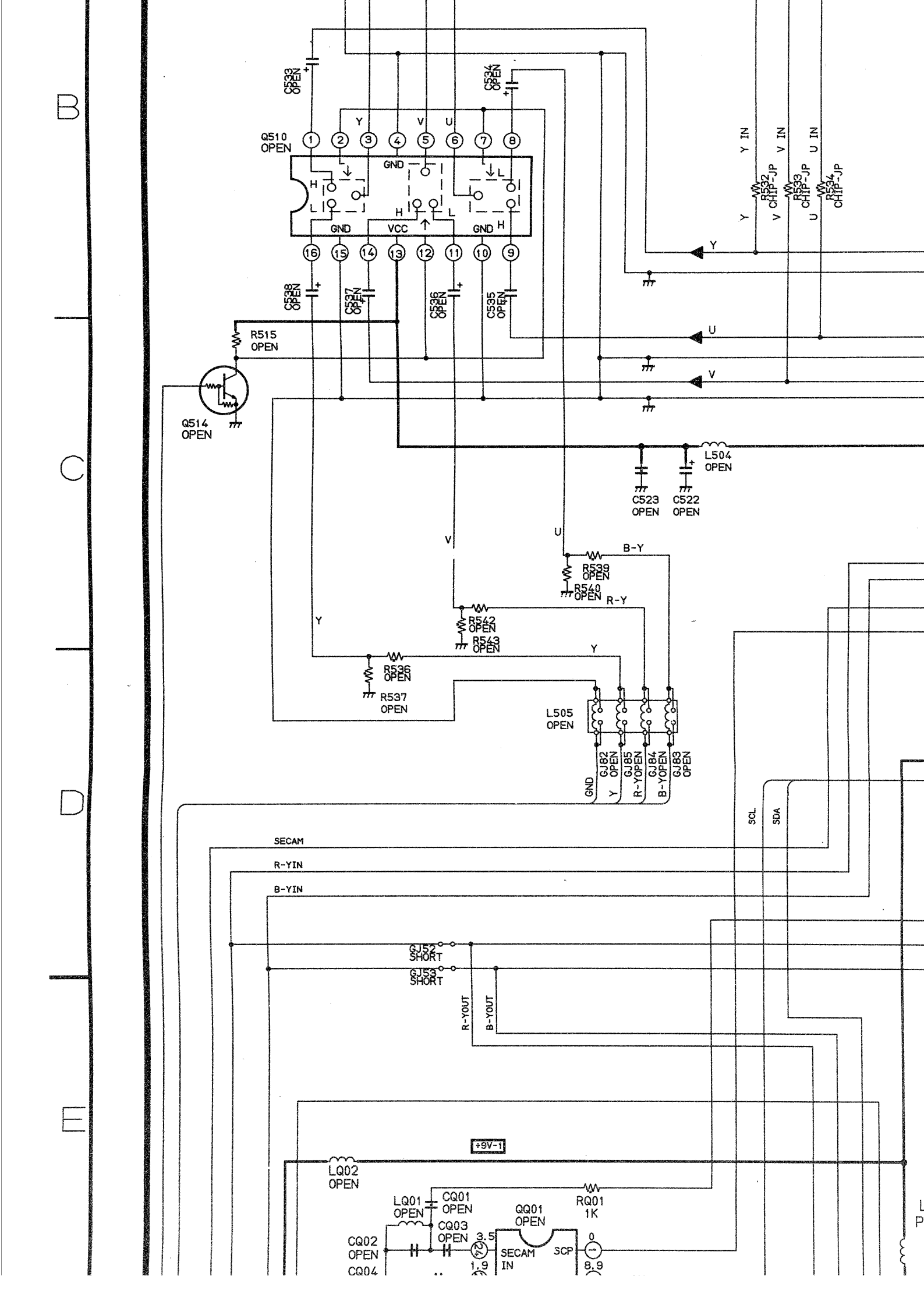
7 8 9

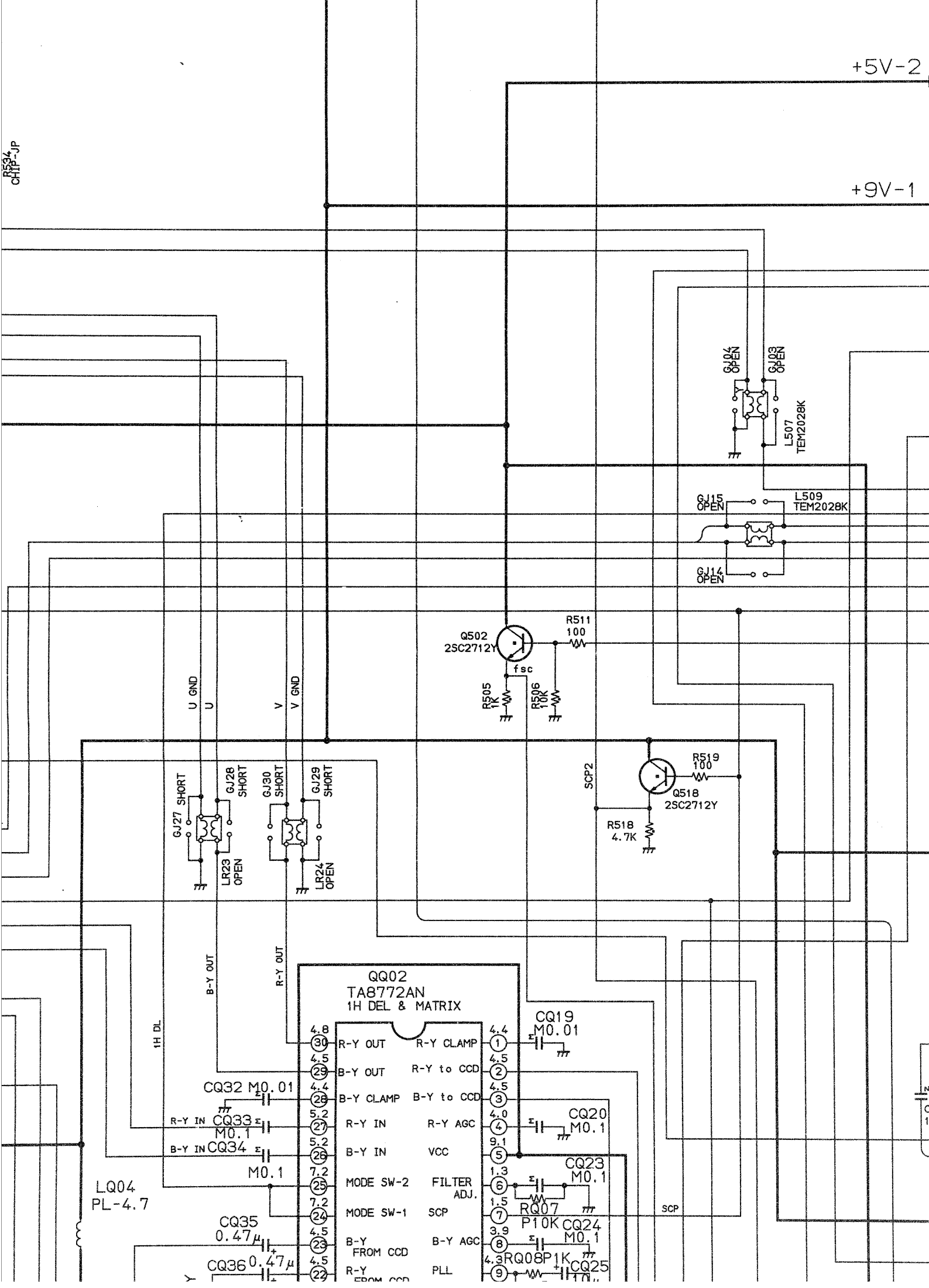


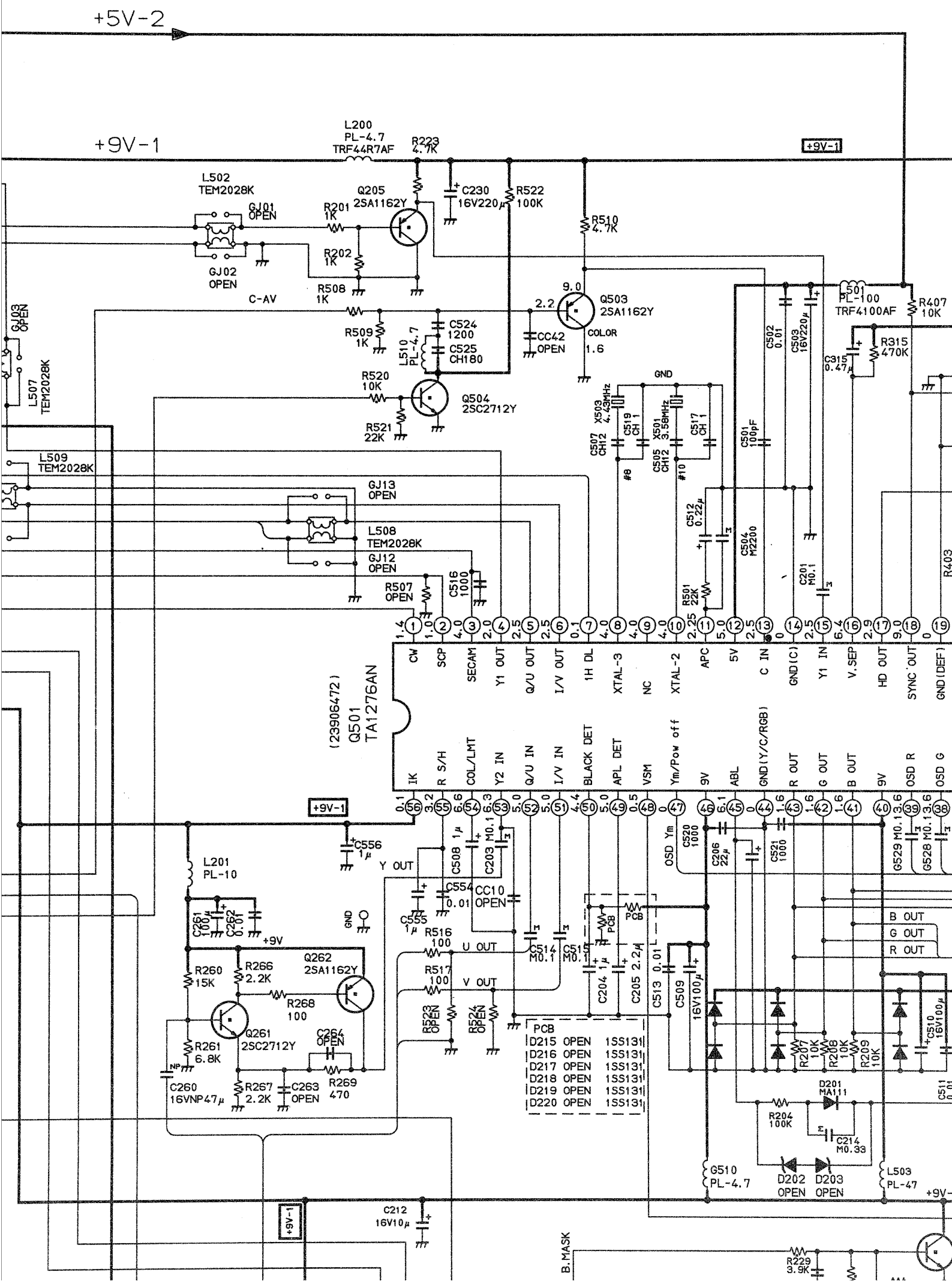
APACITOR and INDUCTOR

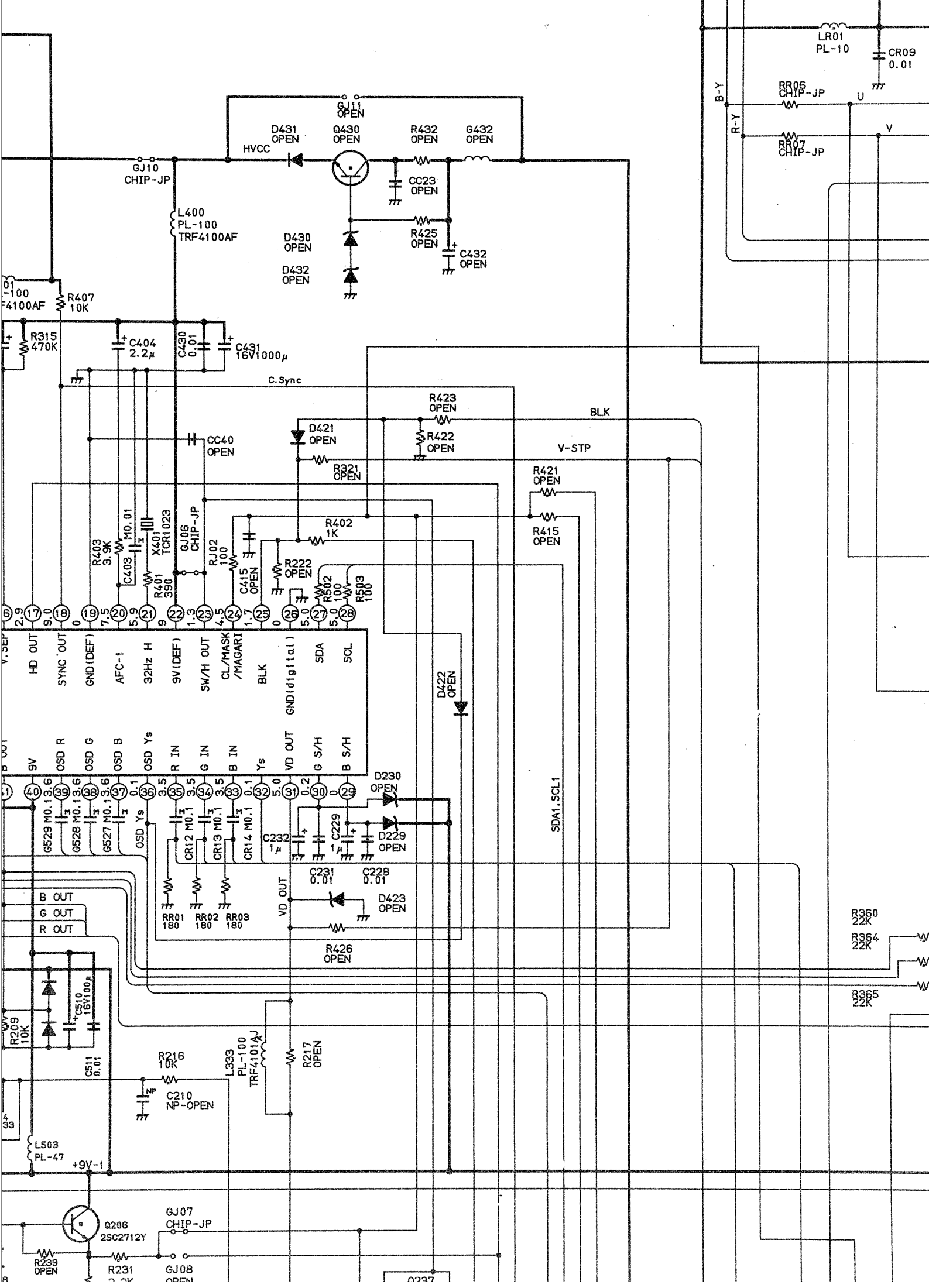
n, k=1,000, M=1,000,000
n schematic, all capacitor values less than 1 are expres-
ore than 1 in pF.
schematic, all inductor values more than 1 are expres-
ess than 1 in H.

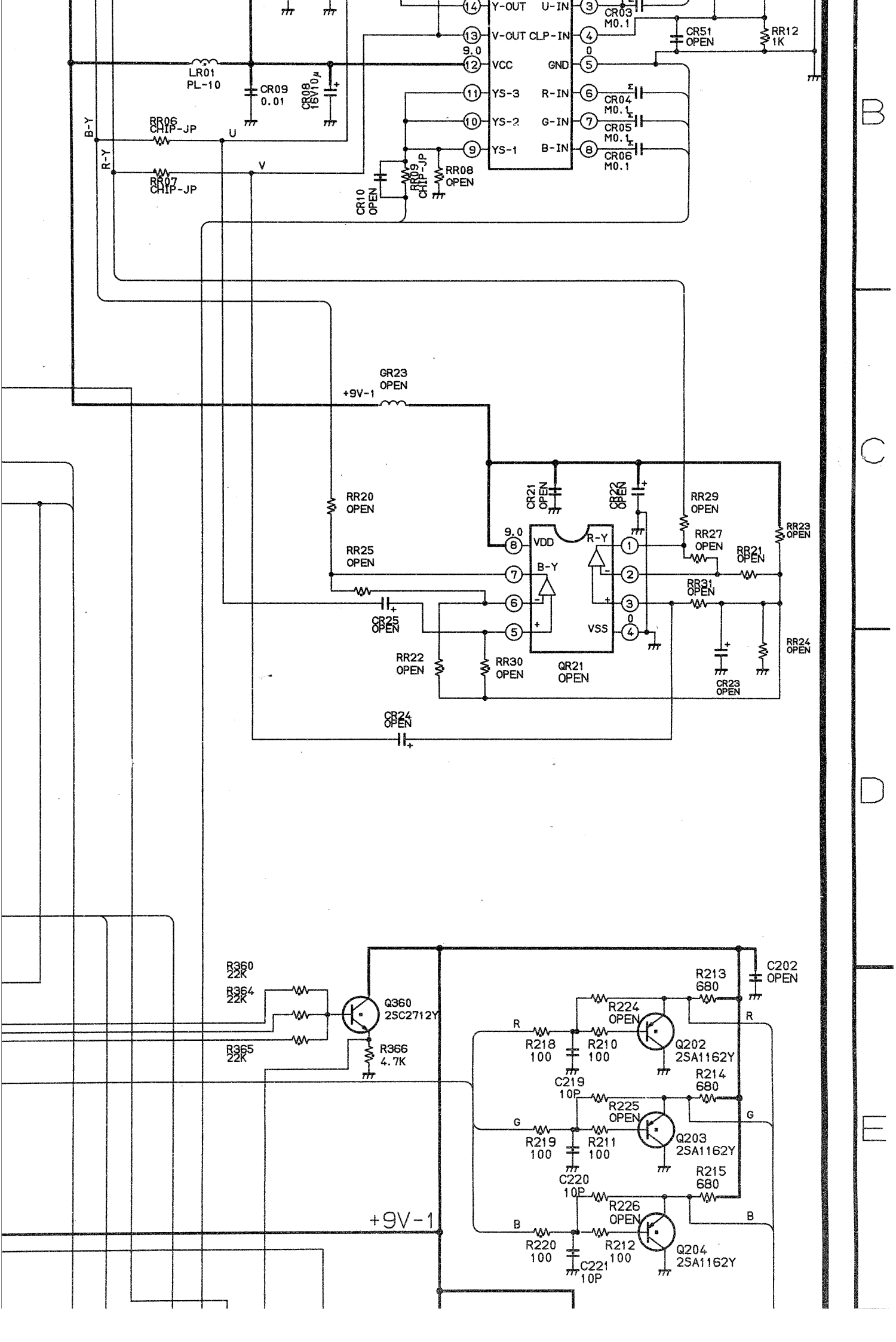


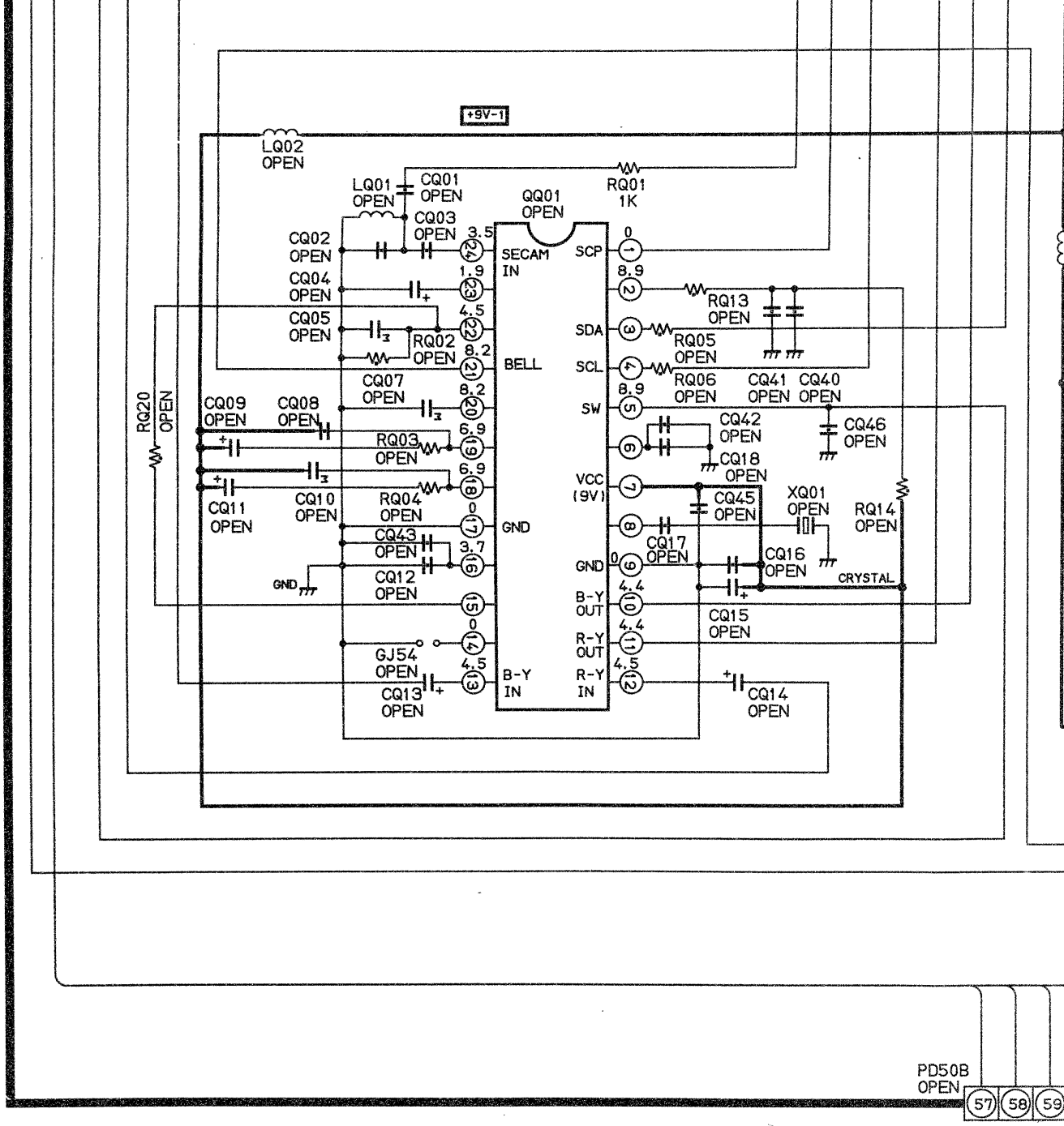

C533 OPEN
C534 OPEN
Q510 OPEN
Y
V
U
GND
VCC
H
L
R532 CHIP-JP
R533 CHIP-JP
R534 CHIP-JP
Y IN
V IN
U IN
C538 OPEN
C537 OPEN
C536 OPEN
C535 OPEN
R515 OPEN
Q514 OPEN
L504 OPEN
C523 OPEN
C522 OPEN
B-Y
R539 OPEN
R540 OPEN
R-Y
R542 OPEN
R543 OPEN
R536 OPEN
R537 OPEN
L505 OPEN
GJ82 OPEN
GJ85 R-Y OPEN
GJ84 B-Y OPEN
GJ83 OPEN
GND
SCL
SDA
SECAM
R-YIN
B-YIN
GJ52 SHORT
GJ53 SHORT
R-YOUT
B-YOUT
+9V-1
LQ02 OPEN
LQ01 OPEN
CQ01 OPEN
CQ03 OPEN
CQ02 OPEN
CQ04
RQ01 1K
QQ01 OPEN
SECAM IN
SCP
3.5
1.9
0
8.9


+5V-2
+9V-1
R534
CHIP-JP
GJ04
OPEN
GJ03
OPEN
L507
TEM2028K
GJ15
OPEN
L509
TEM2028K
GJ14
OPEN
Q502
2SC2712Y
R511
100
fsc
R505
1K
R506
10K
U GND
U
V
V GND
GJ27 SHORT
GJ28 SHORT
GJ30 SHORT
GJ29 SHORT
LR23
OPEN
LR24
OPEN
SCP2
R519
100
Q518
2SC2712Y
R518
4.7K
B-Y OUT
R-Y OUT
1H DL
QQ02
TA8772AN
1H DEL & MATRIX
CQ19
M0.01
R-Y OUT
R-Y CLAMP
B-Y OUT
R-Y to CCD
CQ32 M0.01
B-Y CLAMP
B-Y to CCD
R-Y IN
CQ33
M0.1
R-Y IN
R-Y AGC
CQ20
M0.1
B-Y IN
CQ34
M0.1
B-Y IN
VCC
CQ23
M0.1
LQ04
PL-4.7
MODE SW-2
FILTER
ADJ.
MODE SW-1
SCP
RQ07
P10K
SCP
CQ35
0.47μ
B-Y
FROM CCD
B-Y AGC
CQ24
M0.1
CQ36
0.47μ
R-Y
PLL
RQ08
P1K
CQ25

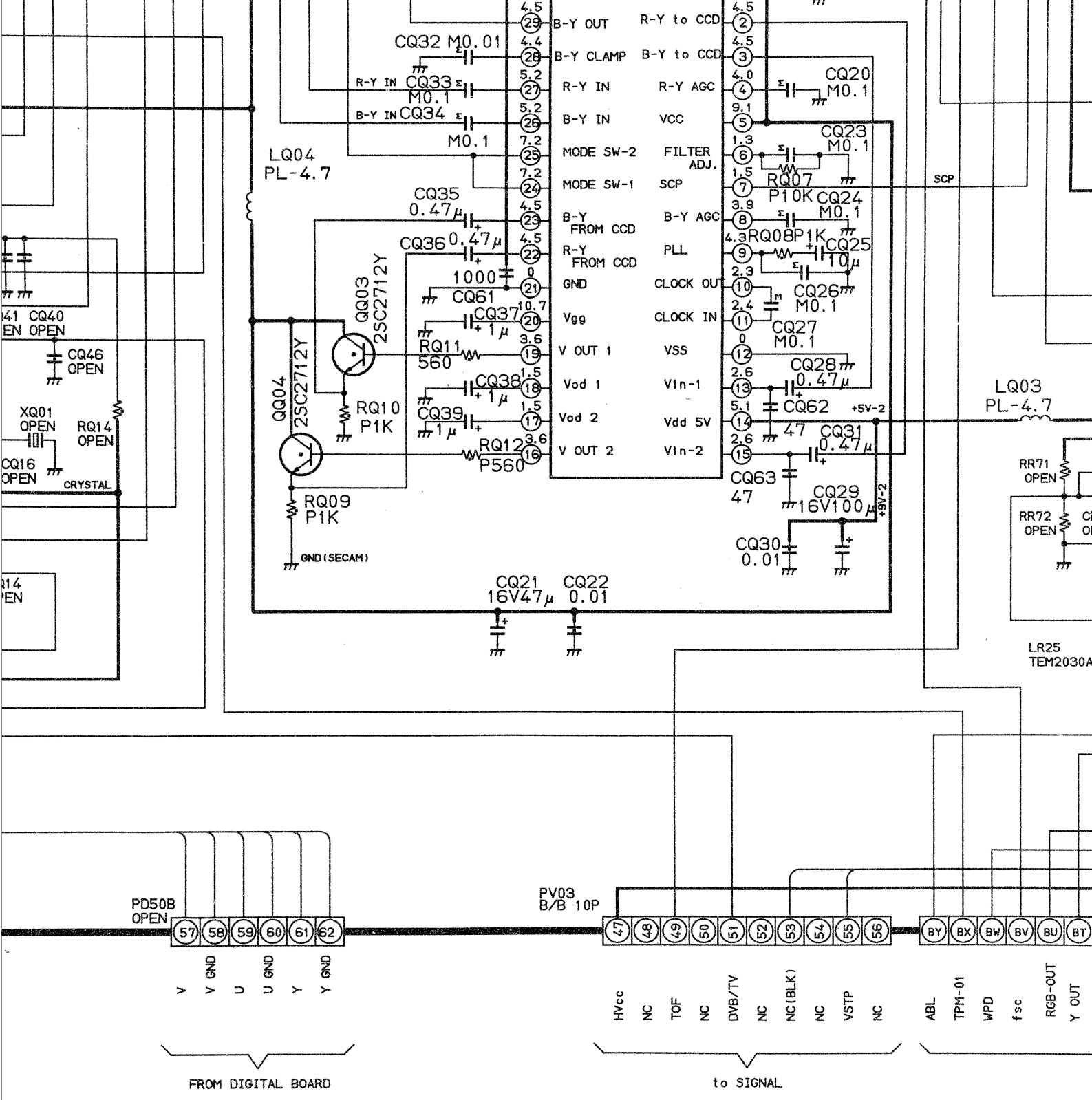

+5V-2
+9V-1
L200
PL-4.7
TRF44R7AF
R223
4.7K
L502
TEM2028K
GJ01
OPEN
GJ02
OPEN
C-AV
Q205
2SA1162Y
R201
1K
R202
1K
R508
1K
C230
16V220μ
R522
100K
R510
4.7K
9.0
2.2
Q503
2SA1162Y
COLOR
1.6
CC42
OPEN
R509
1K
C524
1200
C525
CH180
L510
PL-4.7
R520
10K
Q504
2SC2712Y
R521
22K
GJ03
OPEN
L507
TEM2028K
L509
TEM2028K
GJ13
OPEN
L508
TEM2028K
GJ12
OPEN
R507
OPEN
C516
1000
GND
X503
4.43MHz
X501
3.58MHz
C507
CH12
C519
CH 1
C505
CH12
C517
CH 1
#8
#10
C501
100pF
C502
0.01
C503
16V220μ
L501
PL-100
TRF4100AF
R407
10K
R315
470K
C315
0.47μ
C512
0.22μ
R501
22K
C504
M2200
C201
M0.1
R403
(23906472)
Q501
TA1276AN
1 CW
2 SCP
3 SECAM
4 Y1 OUT
5 Q/U OUT
6 I/V OUT
7 1H DL
8 XTAL-3
9 NC
10 XTAL-2
11 APC
12 5V
13 C IN
14 GND(C)
15 Y1 IN
16 V.SEP
17 HD OUT
18 SYNC OUT
19 GND(DEF)
56 IK
55 R S/H
54 COL/LMT
53 Y2 IN
52 Q/U IN
51 I/V IN
50 BLACK DET
49 APL DET
48 VSM
47 Ym/Pow off
46 9V
45 ABL
44 GND(Y/C/RGB)
43 R OUT
42 G OUT
41 B OUT
40 9V
39 OSD R
38 OSD G
+9V-1
C556
1μ
L201
PL-10
C261
100μ
C262
0.01
+9V
GND
Y OUT
C508
1μ
C203
M0.1
C554
0.01
CC10
OPEN
C555
1μ
R516
100
U OUT
R517
100
V OUT
R523
OPEN
R524
OPEN
C514
M0.1
C515
M0.1
C204
1μ
C205
2.2μ
C513
0.01
C509
16V100μ
PCB
PCB
OSD Ym
C520
1000
C206
22μ
C521
1000
G529
M0.13.6
G528
M0.13.6
B OUT
G OUT
R OUT
R260
15K
R266
2.2K
Q262
2SA1162Y
R268
100
Q261
2SC2712Y
R261
6.8K
C264
OPEN
C260
16VNP47μ
R267
2.2K
C263
OPEN
R269
470
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
R207
10K
R208
10K
R209
10K
C510
16V100μ
C511
D201
MA111
R204
100K
C214
M0.33
G510
PL-4.7
D202
OPEN
D203
OPEN
L503
PL-47
+9V-1
C212
16V10μ
B.MASK
R229
3.9K


LR01
PL-10
CR09
0.01
RR06
CHIP-JP
RR07
CHIP-JP
B-Y
R-Y
U
V
GJ11
OPEN
D431
OPEN
Q430
OPEN
R432
OPEN
G432
OPEN
HVCC
GJ10
CHIP-JP
CC23
OPEN
L400
PL-100
TRF4100AF
D430
OPEN
D432
OPEN
R425
OPEN
C432
OPEN
R407
10K
R315
470K
C404
2.2μ
C430
0.01
C431
16V1000μ
C.Sync
R423
OPEN
BLK
D421
OPEN
R422
OPEN
CC40
OPEN
V-STP
R321
OPEN
R421
OPEN
R415
OPEN
R402
1K
R403
3.9K
C403
M0.01
X401
TCR1023
R401
390
GJ06
CHIP-JP
RJ02
100
C415
OPEN
R222
OPEN
R502
100
R503
100
HD OUT
SYNC OUT
GND(DEF)
AFC-1
32Hz H
9V(DEF)
SW/H OUT
CL/MASK
/MAGARI
BLK
GND(digital)
SDA
SCL
D422
OPEN
9V
OSD R
OSD G
OSD B
OSD Ys
R IN
G IN
B IN
Ys
VD OUT
G S/H
B S/H
D230
OPEN
G529 M0.1
G528 M0.1
G527 M0.1
OSD Ys
CR12 M0.1
CR13 M0.1
CR14 M0.1
C232
1μ
C229
1μ
D229
OPEN
SDA1,SCL1
C231
0.01
C228
0.01
D423
OPEN
VD OUT
RR01
180
RR02
180
RR03
180
B OUT
G OUT
R OUT
R426
OPEN
R360
22K
R364
22K
R365
22K
C510
16V100μ
R209
10K
C511
0.01
R216
10K
C210
NP-OPEN
L333
PL-100
TRF4101AJ
R217
OPEN
L503
PL-47
+9V-1
Q206
2SC2712Y
GJ07
CHIP-JP
R239
OPEN
R231
GJ08


Y-OUT
U-IN
V-OUT
CLP-IN
VCC
GND
YS-3
R-IN
YS-2
G-IN
YS-1
B-IN
9.0
0
CR03 M0.1
CR04 M0.1
CR05 M0.1
CR06 M0.1
CR51 OPEN
RR12 1K
LR01 PL-10
CR09 0.01
CR08 16V10μ
RR06 CHIP-JP
RR07 CHIP-JP
RR09 CHIP-JP
RR08 OPEN
CR10 OPEN
B-Y
R-Y
U
V
GR23 OPEN
+9V-1
RR20 OPEN
RR25 OPEN
CR25 OPEN
CR21 OPEN
CR22 OPEN
RR29 OPEN
RR27 OPEN
RR23 OPEN
RR21 OPEN
RR31 OPEN
RR24 OPEN
CR23 OPEN
RR22 OPEN
RR30 OPEN
QR21 OPEN
CR24 OPEN
VDD
VSS
R360 22K
R364 22K
R365 22K
Q360 2SC2712Y
R366 4.7K
+9V-1
C202 OPEN
R213 680
R224 OPEN
R218 100
R210 100
C219 10P
Q202 2SA1162Y
R214 680
R225 OPEN
R219 100
R211 100
C220 10P
Q203 2SA1162Y
R215 680
R226 OPEN
R220 100
R212 100
C221 10P
Q204 2SA1162Y
R
G
B

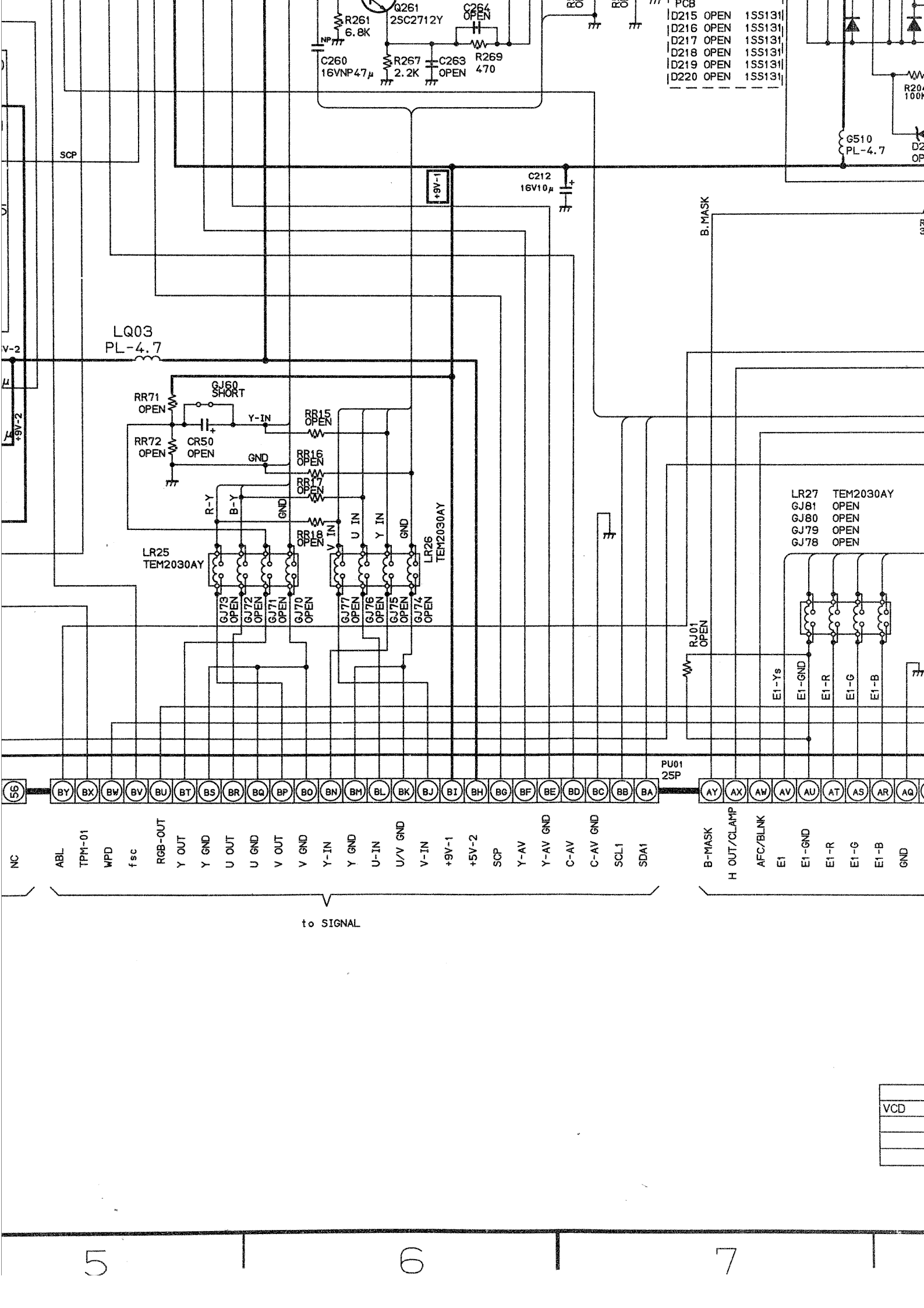


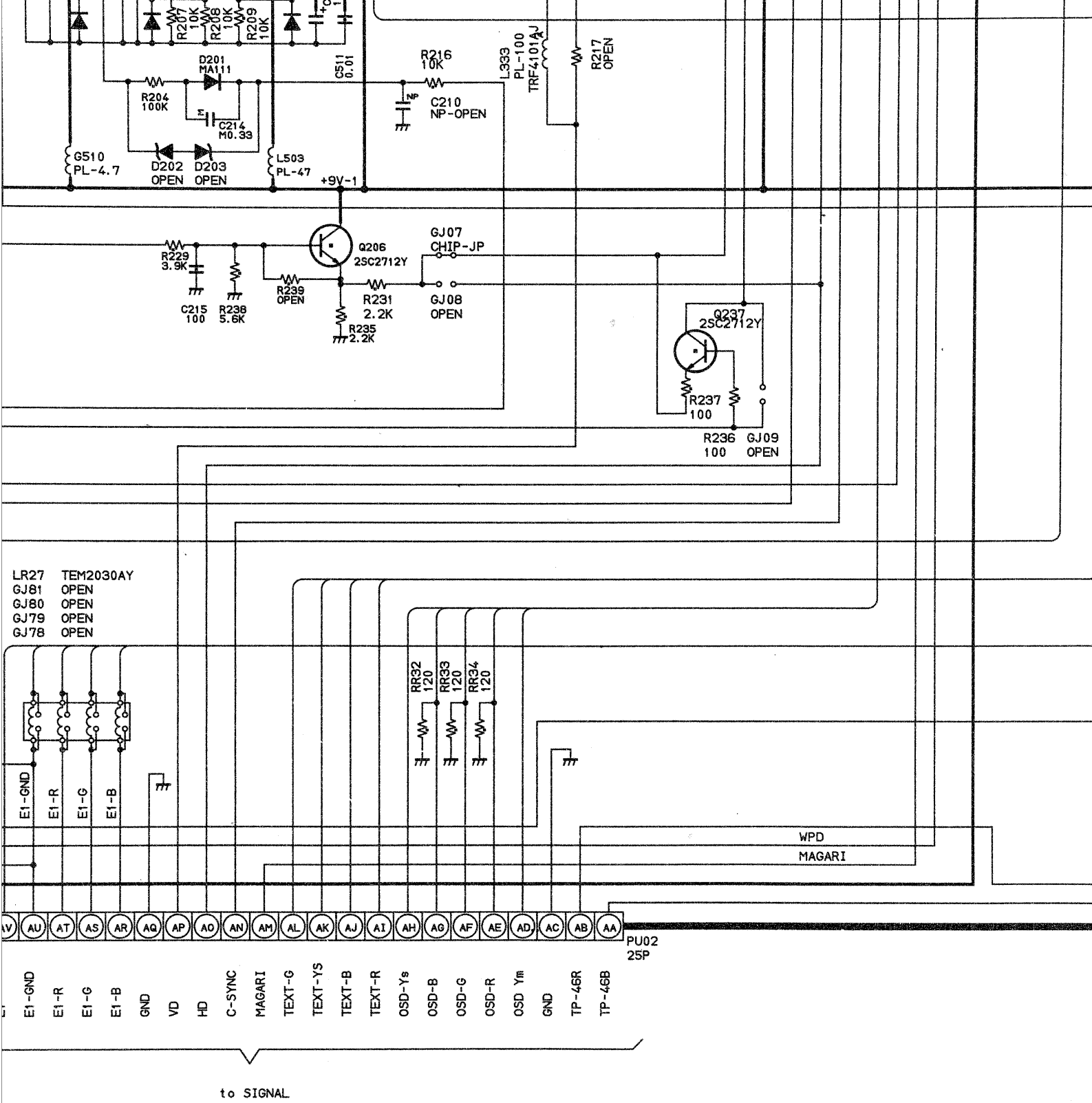
U103 VCD BOARD



BOARD PB8768C

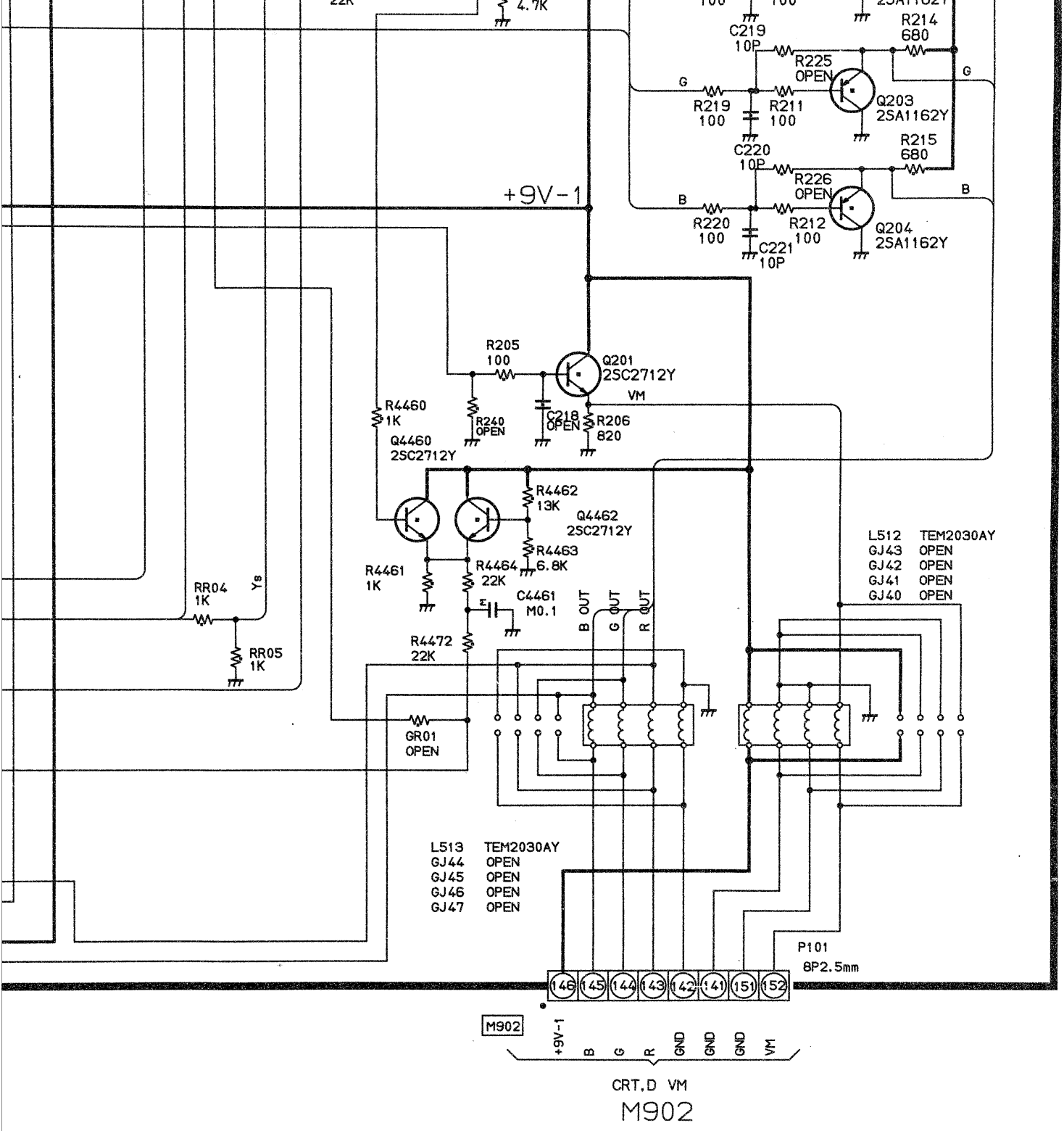
3 4 5


Q261
2SC2712Y
R261
6.8K
C260
16VNP47μ
R267
2.2K
C263
OPEN
R269
470
C264
OPEN
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
G510
PL-4.7
SCP
+9V-1
C212
16V10μ
B.MASK
LQ03
PL-4.7
GJ60
SHORT
RR71
OPEN
RR72
OPEN
CR50
OPEN
Y-IN
GND
RR15
OPEN
RR16
OPEN
RR17
OPEN
RR18
OPEN
R-Y
B-Y
GND
V IN
U IN
Y IN
GND
LR25
TEM2030AY
LR26
TEM2030AY
GJ73 OPEN
GJ72 OPEN
GJ71 OPEN
GJ70 OPEN
GJ77 OPEN
GJ76 OPEN
GJ75 OPEN
GJ74 OPEN
LR27 TEM2030AY
GJ81 OPEN
GJ80 OPEN
GJ79 OPEN
GJ78 OPEN
RJ01
OPEN
E1-Ys
E1-GND
E1-R
E1-G
E1-B
PU01
25P
BY BX BW BV BU BT BS BR BQ BP BO BN BM BL BK BJ BI BH BG BF BE BD BC BB BA
AY AX AW AV AU AT AS AR AQ
NC
ABL
TPM-01
WPD
fsc
RGB-OUT
Y OUT
Y GND
U OUT
U GND
V OUT
V GND
Y-IN
Y GND
U-IN
U/V GND
V-IN
+9V-1
+5V-2
SCP
Y-AV
Y-AV GND
C-AV
C-AV GND
SCL1
SDA1
B-MASK
H OUT/CLAMP
AFC/BLNK
E1
E1-GND
E1-R
E1-G
E1-B
GND
to SIGNAL
VCD



UNIT SN.	
VCD	SN. 23783278
	SN.
	SN.
	SN.

COPPER SIDE PARTS	
	SN.
	SN.
	SN.
	SN.
	SN.



32WD98B
PK2923

E F G H

10 11 12

SPECIFICATIONS

Input Power Rating:	AC 220 ~ 240 Volts, 50 Hz, 175W (Approx)
Aerial Input Impedance:	75 ohm unbalanced type for VHF, UHF and CATV
Receiving Channels:	**System** **Channel** **VHF** **UHF** **CATV** PAL I UK 21 ~ 69 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:	32 inches, 760 mm (measured on diagonal of viewable picture area) 110° deflection
Sound Output:	10 W + 10W (at 10% Distortion, Main), 10W (at 10% Distortion, Center) 13W (at 10% Distortion, Woofer), 10 W + 10W (at 10% Distortion, Surround)
Speakers:	60 mm x 120 mm oval, 2 pcs (Main) 100 mm, round, 1 pc (Woofer) 60 mm x 120 mm oval, 2 pcs (Center)
Aux. Terminals:	21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).
Cabinet:	Table type
Dimensions:	Height ..... 574 mm Width ..... 918 mm Depth ..... 560 mm
Mass:	49.5 kg

* Please refer to owner's manual in detail.

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