TOSHIBA

FILE NO. 060-200214

SERVICE MANUAL

# COLOUR TELEVISION

S2E Chassis

# 14V2E, 14V2M
# 14VMJ

Oct., 2002

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# CHAPTER 1 GENERAL ADJUSTMENTS

## SAFETY INSTRUCTIONS

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

### X-RAY RADIATION PRECAUTION

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

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

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

### SAFETY PRECAUTION

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

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

### PRODUCT SAFETY NOTICE

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

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

# SET-UP ADJUSTMENT

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

1. Color Purity
2. Convergence
3. White Balance

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

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

COLOR PURITY ADJUSTMENT

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

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

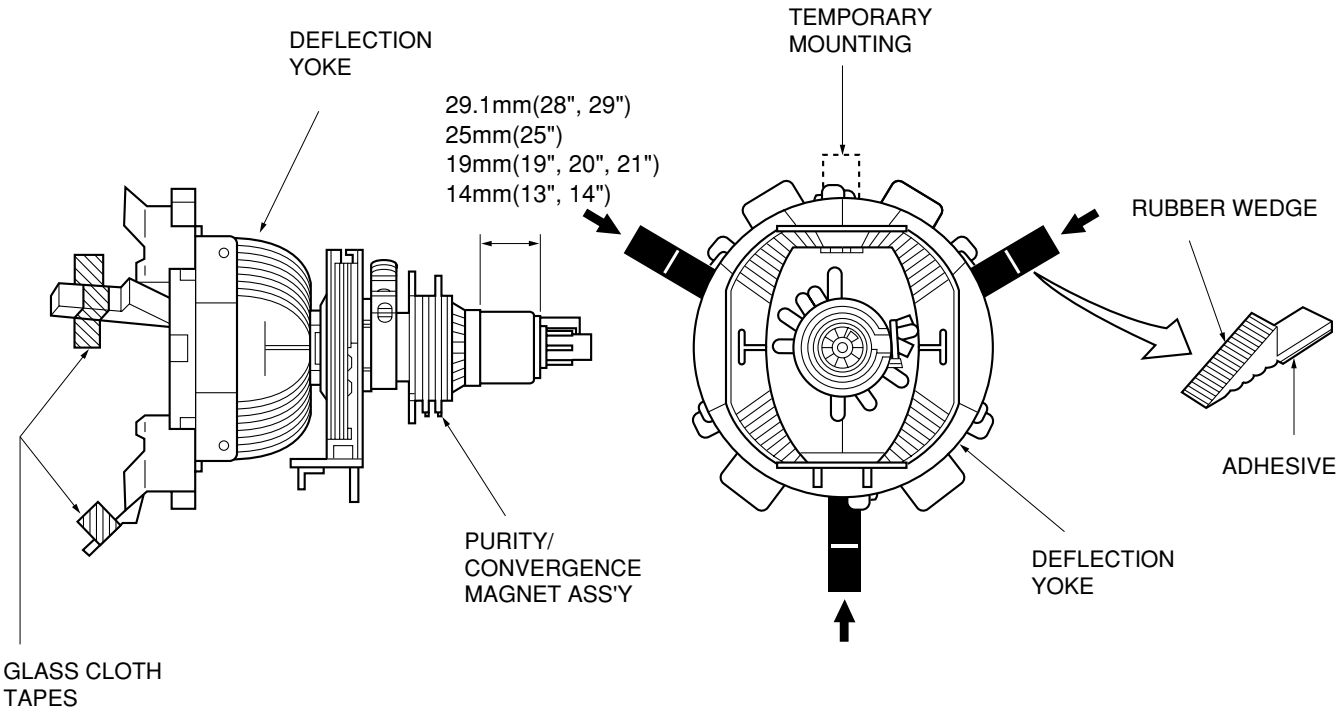



**Figure 1.**

## CONVERGENCE ADJUSTMENTS

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

### ■ CENTER CONVERGENCE ADJUSTMENT

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

### ■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

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

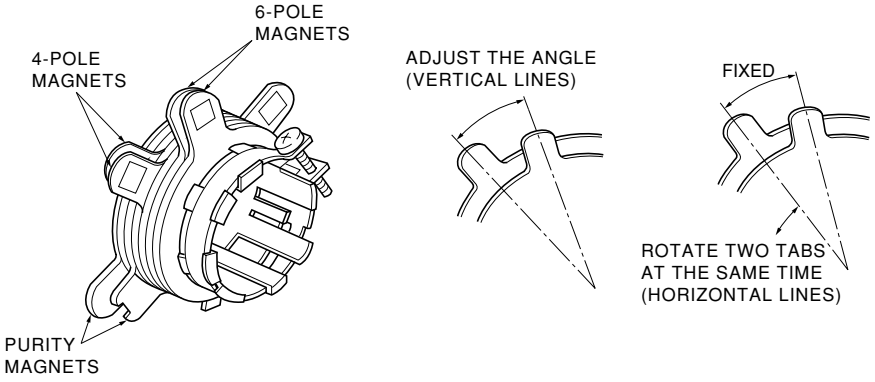
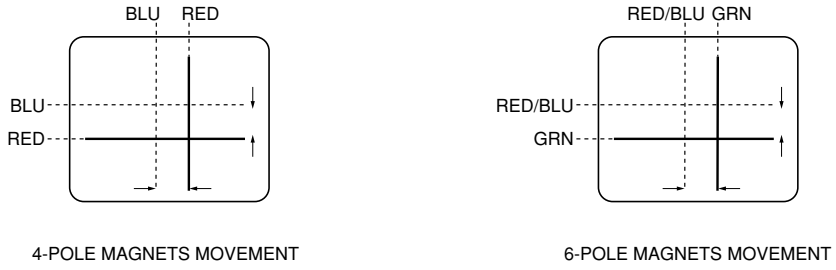



**Figure 2.**



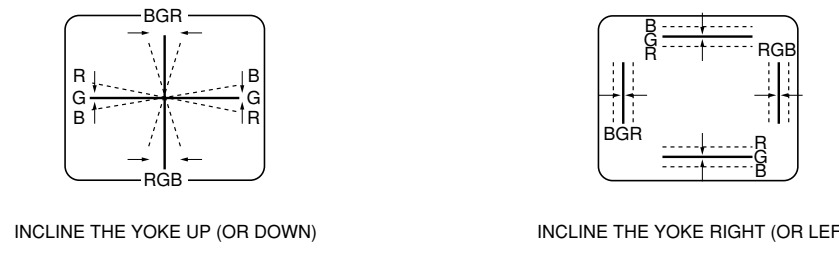




**Figure 3.** Dot Movement Pattern

# SERVICE MODE

## 1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

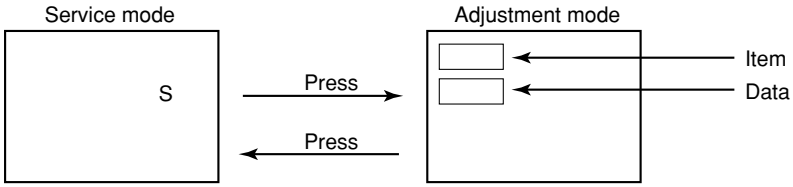
3) While pressing the 🔇 button, press MENU button on TV set.




(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 13)

**5. ADJUSTING THE DATA**

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

**6. EXIT FROM SERVICE MODE**

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

**■ INITIALIZATION OF MEMORY DATA OF QA02**

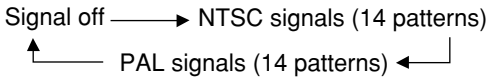
After replacing QA02, the following initialization is required.

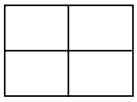
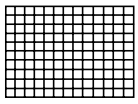
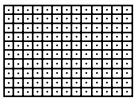
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above. Perform “Auto search Memory”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

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

**7. TEST SIGNAL SELECTION**

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

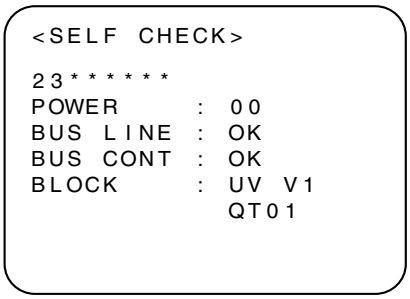



| Signals | Picture |
|---|---|
| • Red raster<br>• Green raster<br>• Blue raster<br>• All Black<br>• All White |  |
| • Black & White |  |
| • Black cross-bar<br>• White cross-bar<br>• Black cross-bar on green raster |  |
| • Black cross-hatch<br>• White cross-hatch |  |
| • Black cross-dot<br>• White cross-dot |  |
| • H signal (white)<br>• 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 microprocessor(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.
⑤ BLOCK
UV : TV reception mode
V1 : VIDEO input mode (→⊖1)

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

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

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

# DESIGN MODE

**1. ENTERING TO DESIGN MODE**

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




(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**

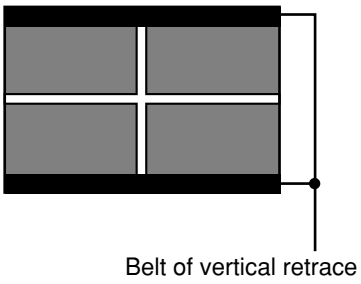
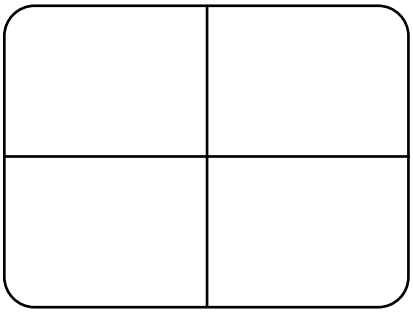
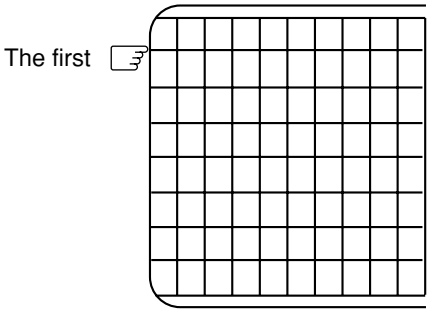
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.
(▲ button for reverse order)

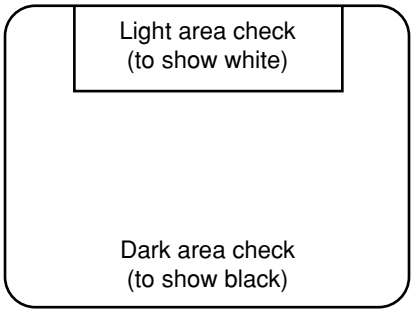
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 13)

**3. ADJUSTING THE DATA**

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

# ELECTRICAL ADJUSTMENTS

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| FOCUS VR ADJ | 1. Enter the service mode, then select any register item.<br>2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen.<br>3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen. |
| SUB-BRIGHTNESS (BRTC)<br><br>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.<br>2. Set the TV in service mode to get white cross-bar of inside pattern.<br>3. Select BRTC (brightness correction), and adjust the ◿ – /+ button to reduce the value so that white portion of inside pattern slightly light.<br>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.<br>  <br>Belt of vertical retrace |
| HORIZONTAL POSITION ADJUSTMENT (HPOS)<br><br>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.<br>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.<br>  |
| 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.<br>2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ◿ – /+ buttons so that vertical amplitude lacks a little.<br>3. Adjust vertical amplitude with VOLUME ◿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen.<br>  <br>The first ☞ |

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| WHITE BALANCE ADJUSTMENT<br><br>● CUTOFF ADJUSTMENT<br>(RCUT)<br>(GCUT)<br>(BCUT)<br><br>● DRIVE ADJUSTMENT<br>(GDRV)<br>(BDRV) | 1. Set Contrast to 40, and brightness to +20 by picture control.<br>2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button.<br>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.<br>4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen.<br>Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately.<br>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.<br><br>※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust.<br>※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT.<br><br>  |
| NOTE: It is released built-in test pattern by changing the adjustment item for some model.<br>In this case, select the adjustment item with channel ▲▼ buttons first and then select the built-in test pattern with -/- - button. | |

# CIRCUIT CHECK

**HIGH VOLTAGE CHECK**

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

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

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

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

# CHAPTER 2 SPECIFIC INFORMATIONS

## SETTING & ADJUSTING DATA

**【 SAFETY INSTRUCTIONS 】**

| | | 14" |
|---|---|---|
| HIGH VOLTAGE AT ZERO BEAM: | (A) | 23.6 kV |
| MAX HIGH VOLTAGE: | (B) | 25.1 kV |
| AC VOLTAGE | (C) | 110~240 V |

**Table-1**

**【 SERVICE MODE 】**

**ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:**

| Item | Adjustment | Reference data | Data |
|---|---|---|---|
| RCUT | R CUTOFF (B/W) | 20H | ← |
| GCUT | G CUTOFF (B/W) | 20H | ← |
| BCUT | B CUTOFF (B/W) | 20H | ← |
| GDRV | G DRIVE | 40H | ← |
| BDRV | B DRIVE | 40H | ← |
| BRTC | SUB BRIGHT CEN | 40H | ← |
| COLC | SUB COLOR CEN NTSC | 30H | ← |
| TNTC | SUB TINT CEN | 45H | ← |
| COLP | SUB COLOR CEN PAL | 00H | 09H |
| COLS | SUB COLOR CEN SECAM | 30H | ← |
| SCNT | SUB CONTRAST | 08H | ← |
| HPOS | 50Hz H-POSITION | 0DH | 13H |
| VPOS | V-POSITION | 04H | ← |
| HIT | HEIGHT | 1EH | 24H |
| VLIN | V-LINEARITY | 0AH | ← |
| WID | PICTURE WIDTH | 30H | 34H |
| PARA | E-W PARABOLA | 15H | 15H |
| CNR | E-W CORNER | 05H | ← |
| TRAP | TRAPEZIUM | 0DH | ← |
| SRY | SECAM R-Y | 08H | ← |
| SBY | SECAM-B-Y | 08H | ← |

**Table-2**

**【 DESIGN MODE 】**

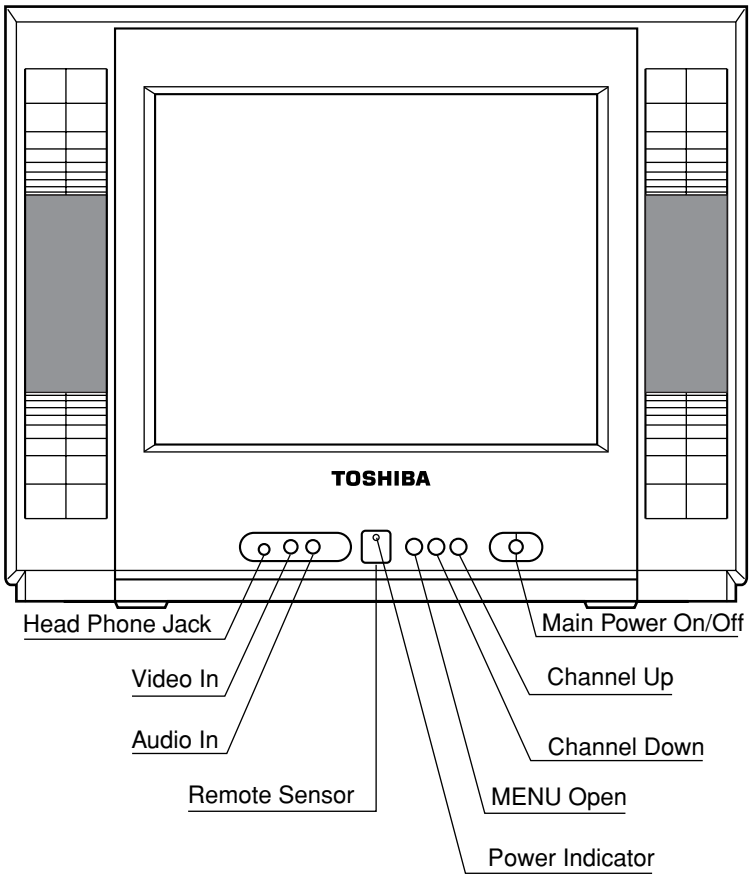
**ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:**

| Item | Name of adjustment | | Data | Remarks |
|---|---|---|---|---|
| | | Preset Data | 14" | |
| * There are no adjusting items in the design mode. | | | | |

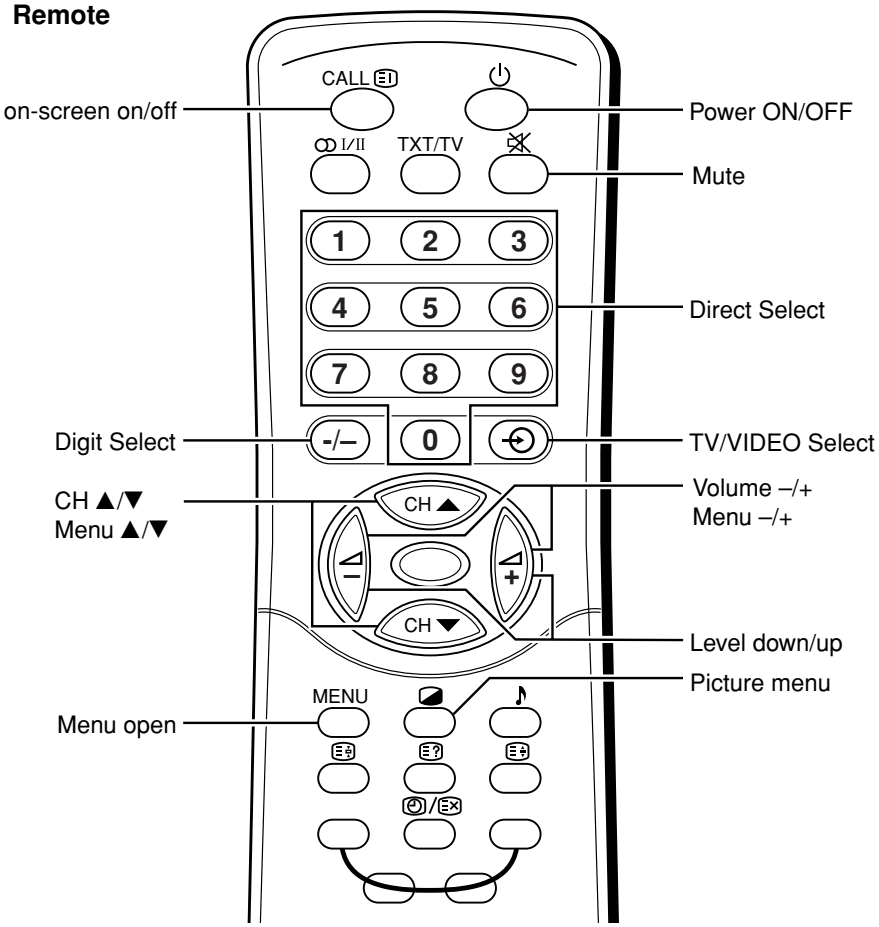
**Table-3**

# LOCATION OF CONTROLS (Representative: 14V2E)

**Front**




**Remote**



# PROGRAMMING CHANNEL MEMORY

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

## To preset channels (ASM)

### *ASM (Automatic Search Memory)*

**1** Select the head of the position number to start the ASM with the **CH ▲/▼** buttons or the digit/direct select buttons.

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

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

**4** Press the ▲/▼ buttons to move the cursor (►) to “ASM”.

**5** Press the "+" button to start the ASM. All active channels will be stored in the memory automatically.
When programming is complete, the initial position number will reappear.

**After presetting**

Check the preset channels by pressing the **CH ▲/▼** buttons.

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

## To preset channels (Manual search, AFT, MFT)

### *Manual search*

**1** Select a position number with the **CH ▲/▼** or digit/direct select buttons.

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

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

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

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

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

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

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

### *MFT (Manual Fine Tuning)*

**1** Select the position number you want to fine-tune with the **CH** ▲/▼ buttons or digit/direct select buttons.

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

**3** Press the ▲/▼ buttons to move the cursor (►) to “MFT”.

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

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

### *AFT (Auto Fine Tuning)*

**1** Select the position number you want to fine-tune with the **CH** ▲/▼ buttons or digit/direct select buttons.

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

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

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

## To skip unnecessary position numbers

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

### *To skip a position number*

**1** Select the position number to be skipped with the **CH** ▲/▼ buttons or digit/direct select buttons.

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

**3** Press the ▲/▼ buttons to move the cursor (►) to “SKIP”.

**4** Press the –/+ buttons to select “SKIP ON”.

**5** Press the **MENU** button to turn off the SET UP menu display.
Select the position number to be skipped with the direct select buttons. The * mark appears to the left of the position number.
The position number will then be skipped when you select channels with the **CH** ▲/▼ buttons.

### *To restore a skipped position number*

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

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

**3** Press the –/+ buttons to select “SKIP OFF”.

* Please refer to owner's manual in detail.

# CHASSIS AND CABINET REPLACEMENT PARTS LIST

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

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

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

**Model : 14V2E, 14V2M, 14V2MJ**

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

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

| Location No. | Parts No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C101 | 24794101 | ELECTROLYTIC, 16V 100UF M |
| C103 | 24212101 | CERAMIC DISC, 50V B 100PF K |
| C106 | 24796479 | ELECTROLYTIC, 35V 4.7UF M |
| C108 | 24539474 | PLASTIC FILM, 50V 0.47UF J |
| C109 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C110 | 24794221 | ELECTROIYTIC, 16V 220UF M |
| C111 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C112 | 24797100 | ELECTROLYTIC, 50V 10UF M |
| C116 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C118 | 24474102 | CERAMIC, 50V B 1000PF K |
| C120 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C121 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C123 | 24797010 | ELECTROLYTIC, 50V 1UF M |
| C129 | 24474102 | CERAMIC, 50V B 1000PF K |
| C130 | 24669479 | ELECTROLYTIC, 50V 4.7UF M 3A |
| C131 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C132 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C133 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C134 | 24212101 | CERAMIC DISC, 50V B 100PF K |
| C135 | 24212222 | CERAMIC DISC, 50V B 2200PF K |
| C136 | 24206228 | ELECTROLYTIC, 50V 0.22UF M 7L 3A |
| C137 | 24212103 | CERAMIC DISC, 50V B 10000PF K |
| C138 | 24794470 | ELECTORLYTIC, 16V 47UF M |
| C150 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C166 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C167 | 24763101 | ELECTROLYTIC, 16V 100UF M |
| C170 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C171 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C172 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C173 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C174 | 24436330 | CERAMIC DISC, 50V SL 33PF J |
| C175 | 24436330 | CERAMIC DISC, 50V SL 33PF J |
| C176 | 24436330 | CERAMIC DISC, 50V SL 33PF J |
| C189 | 24797478 | ELECTROLYTIC, 50V 0.47UF M |
| C192 | 24797478 | ELECTROLYTIC, 50V 0.47UF M |
| C216 | 24797010 | ELECTROLYTIC, 50V 1UF M |
| C224 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C226 | 24539104 | PLASTIC FILM, 50V 0.1UF J |
| C227 | 24539104 | PLASTIC FILM, 50V 0.1UF J |
| C231 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C232 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |

| Location No. | Parts No. | Description |
|---|---|---|
| C305 | 24617915 | ELECTROLYTIC, 50V 1UF K 3A LI |
| C306 | 24795102 | ELECTROLYTIC, 25V 1000UF M |
| C307 | 24693473 | PLASTIC FILM, 100V 0.047UF J |
| C308 | 24796101 | ELECTROLYTIC, 35V 100UF M |
| C312 | 24796102 | ELECTROLYTIC, 35V 1000UF M |
| C313 | 24082057 | PLASTIC FILM, 100V 220000PF J |
| C314 | 24212152 | CERAMIC DISC, 50V B 1500PF K |
| C315 | 24797478 | ELECTROLYTIC, 50V 0.47UF M |
| C317 | 24214471 | CERAMIC DISC, 500V B 470PF K |
| C320 | 24796101 | ELECTROLYTIC, 35V 100UF M |
| C370 | 24794101 | ELECTROLYTIC, 16V 100UF M |
| C371 | 24794220 | ELECTROLYTIC, 16V 22UF M |
| C410 | 24693472 | PLASTIC FILM, 100V 4700PF J |
| C417 | 24214102 | CERAMIC DISC, 500V B 1000PF K |
| C420 | 24794220 | ELECTROLYTIC, 16V 22UF M |
| C421 | 24666470 | ELECTORLYTIC, 16V 47UF M 3A |
| C431 | 24797479 | ELECTROLYTIC, 50V 4.7UF M |
| C432 | 24203100 | ELECTORLYTIC, 16V 10UF M 7L 3A |
| C433 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C434 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C435 | 24763102 | ELECTROLYTIC, 16V 1000UF M |
| C436 | 24797478 | ELECTROLYTIC, 50V 0.47UF M |
| C437 | 24212822 | CERAMIC DISC, 50V B 8200PF K |
| C440 | 24082422 | PLASTIC FILM, 1250VH 7200PF H |
| C442 | 24082972 | PLASTIC FILM CF92 T 250V R51UF J |
| C445 | 24828563 | PLASTIC FILM, 200V 56000PF J |
| C446 | 24679100 | ELECTROLYTIC, 250V 10UF M 3A |
| C448 | 24640908 | ELECTROLYTIC, 160V 33UF M 3A LI |
| C449 | 24794471 | ELECTROLYTIC, 16V 470UF M |
| C463 | 24212152 | CERAMIC DISC, 50V B 1500PF K |
| C470 | 24794220 | ELECTROLYTIC, 16V 22UF M |
| C481 | 24539474 | PLASTIC FILM, 50V 0.47UF J |
| C484 | 24591104 | PLASTIC FILM, 50V 0.1UF J |
| C485 | 24591104 | PLASTIC FILM, 50V 0.1UF J |
| C502 | 24591103 | PLASTIC FILM, 50V 0.01UF J |
| C516 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C517 | 24794101 | ELECTROLYTIC, 16V 100UF M |
| C523 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C524 | 24794101 | ELECTROLYTIC, 16V 100UF M |
| C526 | 24212102 | CERAMIC DISC, 50V B 1000PF K |
| C528 | 24206478 | ELECTROLYTIC, 50V 0.47UF M 7L 3A |
| C565 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |

| Location No. | Parts No. | Description |
|---|---|---|
| C566 | 24794471 | ELECTROLYTIC, 16V 470UF M |
| C567 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| C606 | 24797229 | ELECTROLYTIC, 50V 2.2UF M |
| C610 | 24795100 | ELECTROLYTIC, 25V 10UF M |
| C613 | 24539104 | PLASTIC FILM, 50V 0.1UF J |
| C615 | 24794101 | ELECTROLYTIC, 16V 100UF M |
| C660 | 24797478 | ELECTROLYTIC, 50V 0.47UF M |
| C661 | 24591104 | PLASTIC FILM, 50V 0.1UF J |
| C663 | 24591682 | PLASTIC FILM, 50V 6800PF J |
| C664 | 24797229 | ELECTROLYTIC, 50V 2.2UF M |
| C665 | 24073060 | ELECTROLYTIC, 25V 4700UF M 3A |
| C667 | 24591104 | PLASTIC FILM, 50V 0.1UF J |
| C668 | 24795471 | ELECTROLYTIC, 25V 470UF M |
| C669 | 24797100 | ELECTROLYTIC, 50V 10UF M |
| ⚠ C801 | 24503002 | PLASTIC FILM, AC275V 0.22UF M |
| C808 | 24796101 | ELECTROLYTIC, 35V 100UF M |
| C810 | 24086059 | ELECTROLYTIC, 400V 270UF M 3D |
| ⚠ C813 | 24092555 | CERAMIC DISC, AC250V E 1000PF M |
| ⚠ C814 | 24092555 | CERAMIC DISC, AC250V E 1000PF M |
| C817 | 24092338 | CERAMIC DISC, 2KV R 270PF K |
| C818 | 24092341 | CERAMIC DISC, 2KV R 470PF K |
| C819 | 24539474 | PLASTIC FILM, 50V 0.47UF J |
| C821 | 24214561 | CERAMIC DISC, 500V B 560PF K |
| C822 | 24214102 | CERAMIC DISC, 500V B 1000PF K |
| C823 | 24214471 | CERAMIC DISC, 500V B 470PF K |
| C829 | 24212102 | CERAMIC DISC, 50V B 1000PF K |
| C830 | 24667100 | ELECTROLYTIC, 16V 10UF M 3A |
| C831 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C832 | 24591224 | PLASTIC FILM, 50V 0.22MF J |
| C862 | 24092339 | CERAMIC DISC, 2KV 330PF K |
| C883 | 24214561 | CERAMIC DISC, 500V B 560PF K |
| C884 | 24640018 | ELECTROLYTIC, 160V 220UF |
| C885 | 24214471 | CERAMIC DISC, 500V B 470PF K |
| C889 | 24667102 | ELECTROLYTIC, 25V 1000UF M 3A |
| C893 | 24092338 | CERAMIC DISC, 2KV R 270PF K |
| ⚠ C896 | 24092563 | CERAMIC DISC, AC250V B 220PF K |
| C899 | 24539224 | PLASTIC FILM, 50V 0.22UF J |
| C902 | 24092345 | CERAMIC DISC, 2KV 1000PF K |
| C904 | 24436391 | CERAMIC DISC, 50V SL 390PF J |
| C905 | 24436331 | CERAMIC DISC, 50V SL 330PF J |
| C907 | 24436391 | CERAMIC DISC, 50V SL 390PF J |
| C910 | 24669478 | ELECTROLYTIC, 50V 0.47UF M 3A |
| C912 | 24763102 | ELECTROLYTIC, 16V 1000UF M |
| C913 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| C971 | 24794470 | ELECTORLYTIC, 16V 47UF M |
| CA03 | 24353220 | CERAMIC DISC, 50V CH 22PF J |
| CA04 | 24353220 | CERAMIC DISC, 50V CH 22PF J |
| CA30 | 24353270 | CERAMIC DISC, 50V CH 27PF J |
| CA42 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| CA45 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| CA51 | 24212272 | CERAMIC DISC, 50V B 2700PF K |
| CA52 | 24212152 | CERAMIC DISC, 50V B 1500PF K |
| CA53 | 24353181 | CERAMIC DISC, 50V CH 180PF J |
| CA54 | 24797330 | ELECTROLYTIC, 50V 33UF M |
| CA55 | 24797010 | ELECTROLYTIC, 50V 1UF M |
| CA58 | 24212101 | CERAMIC DISC, 50V B 100PF K |
| CA60 | 24797479 | ELECTROLYTIC, 50V 4.7UF M |
| CA68 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| CA69 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| CB01 | 24794470 | ELECTORLYTIC, 16V 47UF M |
| CC01 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| CC02 | 24232103 | CERAMIC DISC, 50V F 0.01UF Z |
| CS01 | 24794220 | ELECTROLYTIC, 16V 22UF M |
| CS02 | 24794100 | ELECTROLYTIC, 16V 10UF M |
| CV10 | 24794471 | ELECTROLYTIC, 16V 470UF M |
| CV11 | 24794220 | ELECTROLYTIC, 16V 22UF M |
| CV12 | 24212102 | CERAMIC DISC, 50V B 1000PF K |

| Location No. | Parts No. | Description |
|---|---|---|
| **RESISTORS** | | |
| R100 | 24366330 | CARBON FILM, 1/6W 33 OHM J |
| R101 | 24366563 | CARBON FILM, 1/6W 56K OHM J |
| R102 | 24366123 | CARBON FILM, 1/6W 12K OHM J |
| R103 | 24366122 | CARBON FILM, 1/6W 1.2K OHM J |
| R104 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R105 | 24366121 | CARBON FILM, 1/6W 120 OHM J |
| R106 | 24366332 | CARBON FILM, 1/6W 3.3K OHM J |
| R108 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R109 | 24366682 | CARBON FILM, 1/6W 6.8K OHM J |
| R110 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| R111 | 24366330 | CARBON FILM, 1/6W 33 OHM J |
| R112 | 24366221 | CARBON FILM, 1/6W 220 OHM J |
| R113 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| R114 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| R116 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R117 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R118 | 24366821 | CARBON FILM, 1/6W 820 OHM J |
| R120 | 24366684 | CARBON FILM, 1/6W 680K OHM J |
| R121 | 24366221 | CARBON FILM, 1/6W 220 OHM J |
| R122 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R123 | 24366222 | CARBON FILM, 1/6W 2.2K OHM J |
| R130 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R131 | 24366221 | CARBON FILM, 1/6W 220 OHM J |
| R132 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| R133 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| R134 | 24366561 | CARBON FILM, 1/6W 560 OHM J |
| R135 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R136 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R137 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R138 | 24366332 | CARBON FILM, 1/6W 3.3K OHM J |
| R140 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R141 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R142 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R143 | 24367333 | CARBON FILM, 1/6W 33K OHM G |
| R144 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R145 | 24366303 | CARBON FILM, 1/6W 30K OHM J |
| R146 | 24366224 | CARBON FILM, 1/6W 220K OHM J |
| R147 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R148 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R153 | 24366750 | CARBON FILM, 1/6W 75 OHM J |
| R154 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| R156 | 24553153 | OXIDE METAL FILM, 1W 15K OHM J |
| R157 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R158 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R166 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R167 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R168 | 24366473 | CARBON FILM, 1/6W 47K OHM J |
| R169 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R171 | 24366473 | CARBON FILM, 1/6W 47K OHM J |
| R172 | 24366162 | CARBON FILM, 1/6W 1.6K OHM J |
| R173 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R174 | 24366473 | CARBON FILM, 1/6W 47K OHM J |
| R175 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| R176 | 24366473 | CARBON FILM, 1/6W 47K OHM J |
| R177 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| R178 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R179 | 24366222 | CARBON FILM, 1/6W 2.2K OHM J |
| R180 | 24366473 | CARBON FILM, 1/6W 47K OHM J |
| R181 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| R182 | 24366162 | CARBON FILM, 1/6W 1.6K OHM J |
| R190 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R192 | 24366330 | CARBON FILM, 1/6W 33 OHM J |
| R194 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R196 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R217 | 24366104 | CARBON FILM, 1/6W 100K OHM J |
| R227 | 24366303 | CARBON FILM, 1/6W 30K OHM J |

| Location No. | Parts No. | Description |
|---|---|---|
| R228 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| R229 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| R230 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| R301 | 24366163 | CARBON FILM, 1/6W 16K OHM J |
| R305 | 24323159 | OXIDE METAL FILM, 2W 1.5 OHM J |
| R306 | 24366563 | CARBON FILM, 1/6W 56K OHM J |
| R307 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R312 | 24552272 | OXIDE METAL FILM, 1/2W 2.7K OHM J |
| R313 | 24366513 | CARBON FILM, 1/6W 51K OHM J |
| R316 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| R317 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| R333 | 24339689 | OXIDE METAL FILM, 2W 6.8 OHM J |
| R336 | 24383331 | OXIDE METAL FILM, 2W 330 OHM J |
| R370 | 24321189 | OXIDE METAL FILM, 1/2W 1.8 OHM J |
| R371 | 24366562 | CARBON FILM, 1/6W 5.6K OHM J |
| R372 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| R373 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R374 | 24366163 | CARBON FILM, 1/6W 16K OHM J |
| R410 | 24366181 | CARBON FILM, 1/6W 180 OHM J |
| R411 | 24366561 | CARBON FILM, 1/6W 560 OHM J |
| R416 | 24019323 | OXIDE METAL FILM, 5W 1.8K OHM J |
| R421 | 24366391 | CARBON FILM, 1/6W 390 OHM J |
| R430 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R431 | 24531120 | FUSIBLE, 1/2W 12 OHM J |
| R432 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| R433 | 24366182 | CARBON FILM, 1/6W 1.8K OHM J |
| R434 | 24552271 | OXIDE METAL FILM, 1/2W 270 OHM J |
| R435 | 24366822 | CARBON FILM, 1/6W 8.2K OHM J |
| R442 | 24383331 | OXIDE METAL FILM, 2W 330 OHM J |
| R447 | 24553472 | OXIDE METAL FILM, 1W 4.7K OHM J |
| R448 | 24321228 | OXIDE METAL FILM, 1/2W 0.22 OHM J |
| R470 | 24322758 | OXIDE METAL FILM, 1W 0.75 OHM J |
| R471 | 24552301 | OXIDE METAL FILM, 1/2W 300 OHM J |
| R473 | 24366153 | CARBON FILM, 1/6W 15K OHM J |
| R474 | 24376393 | CARBON FILM, 1/2W 39K OHM J |
| R479 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R483 | 24552820 | OXIDE METAL FILM, 1/2W 82 OHM J |
| R491 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R603 | 24366182 | CARBON FILM, 1/6W 1.8K OHM J |
| R606 | 24366393 | CARBON FILM, 1/6W 39K OHM J |
| R607 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R608 | 24366104 | CARBON FILM, 1/6W 100K OHM J |
| R612 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| R621 | 24366222 | CARBON FILM, 1/6W 2.2K OHM J |
| R622 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R662 | 24552221 | OXIDE METAL FILM, 1/2W 220 OHM J |
| R663 | 24552221 | OXIDE METAL FILM, 1/2W 220 OHM J |
| R664 | 24366339 | CARBON FILM, 1/6W 3.3 OHM J |
| R665 | 24366224 | CARBON FILM, 1/6W 220K OHM J |
| R668 | 24366822 | CARBON FILM, 1/6W 8.2K OHM J |
| ⚠ R801 | 24009954 | METAL FILN, 1/2W 2.2M OHM J |
| R802 | 24383104 | OXIDE METAL FILM, 2W 100K OHM J |
| R805 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| R807 | 24366684 | CARBON FILM, 1/6W 680K OHM J |
| ⚠ R808 | 24019476 | THERMISTOR, POSITIVE, AC290V 18 OHM M |
| R809 | 24366433 | CARBON FILM, 1/6W 43K OHM J |
| R810 | 24568229 | CERAMIC COVERED, 7W 2.2 OHM J |
| R815 | 24366562 | CARBON FILM, 1/6W 5.6K OHM J |
| R816 | 24366471 | CARBON FILM, 1/6W 470 OHM J |
| R817 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R818 | 24366561 | CARBON FILM, 1/6W 560 OHM J |
| R819 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R820 | 24988026 | METAL FILM, 1W 0.39 OHM J |
| R821 | 24310479 | OXIDE METAL FILM, 1/2W 4.7 OHM J |
| R822 | 24366562 | CARBON FILM, 1/6W 5.6K OHM J |
| R823 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| R829 | 24988026 | METAL FILM, 1W 0.39 OHM J |

| Location No. | Parts No. | Description |
|---|---|---|
| R831 | 24531120 | FUSIBLE, 1/2W 12 OHM J |
| R884 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R888 | 24546228 | FUSIBLE, 1/2W 0.22 OHM J |
| ⚠ R899 | 24005014 | METAL FILM, 1W 8.2M OHM J |
| R901 | 24552122 | OXIDE METAL FILM, 1/2W 1.2K OHM J |
| R902 | 24552122 | OXIDE METAL FILM, 1/2W 1.2K OHM J |
| R903 | 24552122 | OXIDE METAL FILM, 1/2W 1.2K OHM J |
| R904 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| R905 | 24366150 | CARBON FILM, 1/6W 15 OHM J |
| R914 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R915 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| R917 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R920 | 24000568 | FUSIBLE, 1W 4.7 OHM J |
| R921 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R922 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| R925 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R928 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| R929 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| R931 | 24366229 | CARBON FILM, 1/6W 2.2 OHM J |
| R936 | 24366272 | CARBON FILM, 1/6W 2.7K OHM J |
| R937 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R938 | 24552560 | OXIDE METAL FILM, 1/2W 56 OHM J |
| R960 | 24383183 | OXIDE METAL FILM, 2W 18K OHM J |
| R961 | 24554183 | OXIDE METAL FILM, 2W 18K OHM J |
| R963 | 24383183 | OXIDE METAL FILM, 2W 18K OHM J |
| R972 | 24366331 | CARBON FILM, 1/6W 330 OHM J |
| R974 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| R977 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| RA04 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| RA05 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| RA06 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA35 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| RA36 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA37 | 24366223 | CARBON FILM, 1/6W 22K OHM J |
| RA41 | 24366101 | CARBON FILM, 1/6W 100 OHM J |
| RA42 | 24366222 | CARBON FILM, 1/6W 2.2K OHM J |
| RA43 | 24366332 | CARBON FILM, 1/6W 3.3K OHM J |
| RA51 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| RA52 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| RA53 | 24366123 | CARBON FILM, 1/6W 12K OHM J |
| RA54 | 24366471 | CARBON FILM, 1/6W 470 OHM J |
| RA55 | 24366683 | CARBON FILM, 1/6W 68K OHM J |
| RA56 | 24366564 | CARBON FILM, 1/6W 560K OHM J |
| RA57 | 24366681 | CARBON FILM, 1/6W 680 OHM J |
| RA60 | 24366362 | CARBON FILM, 1/6W 3.6K OHM J |
| RA61 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA62 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA63 | 24366332 | CARBON FILM, 1/6W 3.3K OHM J |
| RA71 | 24367124 | CARBON FILM, 1/6W 120K OHM G |
| RA72 | 24367473 | CARBON FILM, 1/6W 47K OHM G |
| RA73 | 24367562 | CARBON FILM, 1/6W 5.6K OHM G |
| RA74 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA75 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RA76 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| RA77 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| RA89 | 24366470 | CARBON FILM, 1/6W 47 OHM J |
| RB01 | 24366271 | CARBON FILM, 1/6W 270 OHM J |
| RB09 | 24366470 | CARBON FILM, 1/6W 47 OHM J |
| RB30 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RS02 | 24366471 | CARBON FILM, 1/6W 470 OHM J |
| RS03 | 24366103 | CARBON FILM, 1/6W 10K OHM J |
| RT07 | 24366102 | CARBON FILM, 1/6W 1K OHM J |
| RV11 | 24366750 | CARBON FILM, 1/6W 75 OHM J |
| RV12 | 24366181 | CARBON FILM, 1/6W 180 OHM J |
| RV13 | 24366101 | CARBON FILM, 1/6W 100 OHM J |

| Location No. | Parts No. | Description |
|---|---|---|
| **COILS & TRANSFORMERS** | | |
| L101 | 23248229 | COIL, CHOKE, TLN3040AC |
| L102 | 23238506 | COIL, PEAKING, TRF4229AJ |
| L103 | 23238506 | COIL, PEAKING, TRF4229AJ |
| L105 | 23289100 | COIL, PEAKING, TRF4100AF |
| L106 | 23238713 | COIL, PEAKING, TRF4120AJ |
| L107 | 23238713 | COIL, PEAKING, TRF4120AJ |
| L108 | 23238709 | COIL, PEAKING, TRF4270AJ |
| L113 | 23238558 | COIL, PEAKING, TRF4R47AJ |
| L115 | 23289100 | COIL, PEAKING, TRF4100AF |
| L162 | 23289680 | COIL, PEAKING, TRF4680AF |
| L301 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| L432 | 23289470 | COIL, PEAKING, TRF4470AF |
| L462 | 23231263 | COIL, DEFLECTION YOKE, TDY-314PV |
| L462C | 23993623 | COMPENSATOR, TC-L |
| L514 | 23289120 | COIL, PEAKING, TRF4120AF |
| L805 | 23248234 | COIL, CHOKE, TLN3481AC |
| L806 | 23248234 | COIL, CHOKE, TLN3481AC |
| L811 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| L883 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| L884 | 23248230 | COIL, CHOKE, TLN3142AC |
| L886 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| L888 | 23103248 | COIL, FERRITR CHOKE, TEM2014AA |
| ⚠ L901 | 23200511 | COIL, DG 0.26CU 34T 11.6R, TSB-2360AK |
| LA01 | 23289100 | COIL, PEAKING, TRF4100AF |
| LA02 | 23289100 | COIL, PEAKING, TRF4100AF |
| LA03 | 23103248 | COIL, FERRITR CHOKE, TEM2014AA |
| LA04 | 23103248 | COIL, FERRITR CHOKE, TEM2014AA |
| T401 | 23224983 | TRANSFORMER, HORIZONTAL DRIVE, TLN1039 |
| ⚠ T461 | 23236534 | TRANSFORMER, HORIZ OUTPUT, TFB4122CY |
| T801 | 23211745 | COIL, LINE FILTER, TRF3148BC |
| ⚠ T862 | 23217591 | TRANSFORMER, TPW3513AM |
| **SEMICONDUCTORS** | | |
| Q100 | 23009344 | IC, P/N 2IN1 VCD MICRO, TMPA8801CPCNG4G31 (14V2E) |
| Q100 | 23009343 | IC, P/N 2IN1 VCD MICRO, TMPA8801CPCNG4FA6 (14V2M/14V2MJ) |
| Q101 | 23314378 | TRANSISTOR, 2SC3355 |
| Q103 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q104 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q108 | 23000174 | IC, NJM2234L |
| Q109 | 23314962 | TRANSISTOR, KTA1266 Y |
| Q112 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q115 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q116 | 23314962 | TRANSISTOR, KTA1266 Y |
| Q120 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q130 | 23114623 | TRANSISTOR, 2SC2878-A(TEM |
| Q196 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q301 | 23009352 | IC, VERTICAL, AN5522 MATSUSHITA |
| Q301B | 72471081 | SCREW, 3X8MM |
| Q370 | 23314962 | TRANSISTOR, KTA1266 Y |
| Q402 | 23114755 | TRANSISTOR, 2SC2482FA-1 |
| Q404 | 23314968 | TRANSISTOR, 2SD2599(FA) |
| Q404B | 72471082 | SCREW, 3X10MM |
| Q421 | 23314141 | TRANSISTOR, 2SC3852 |
| Q422 | 23904521 | IC, AN7805 |
| Q422B | 70391355 | SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN |
| Q430 | 23314980 | TRANSISTOR, 2SD2549 P |
| Q431 | 23114459 | TRANSISTOR, RN1205 |
| Q470 | 23114541 | TRANSISTOR, 2SA1320 |
| Q610 | 23904650 | IC, TDA1013B |
| Q610B | 70391355 | SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN |

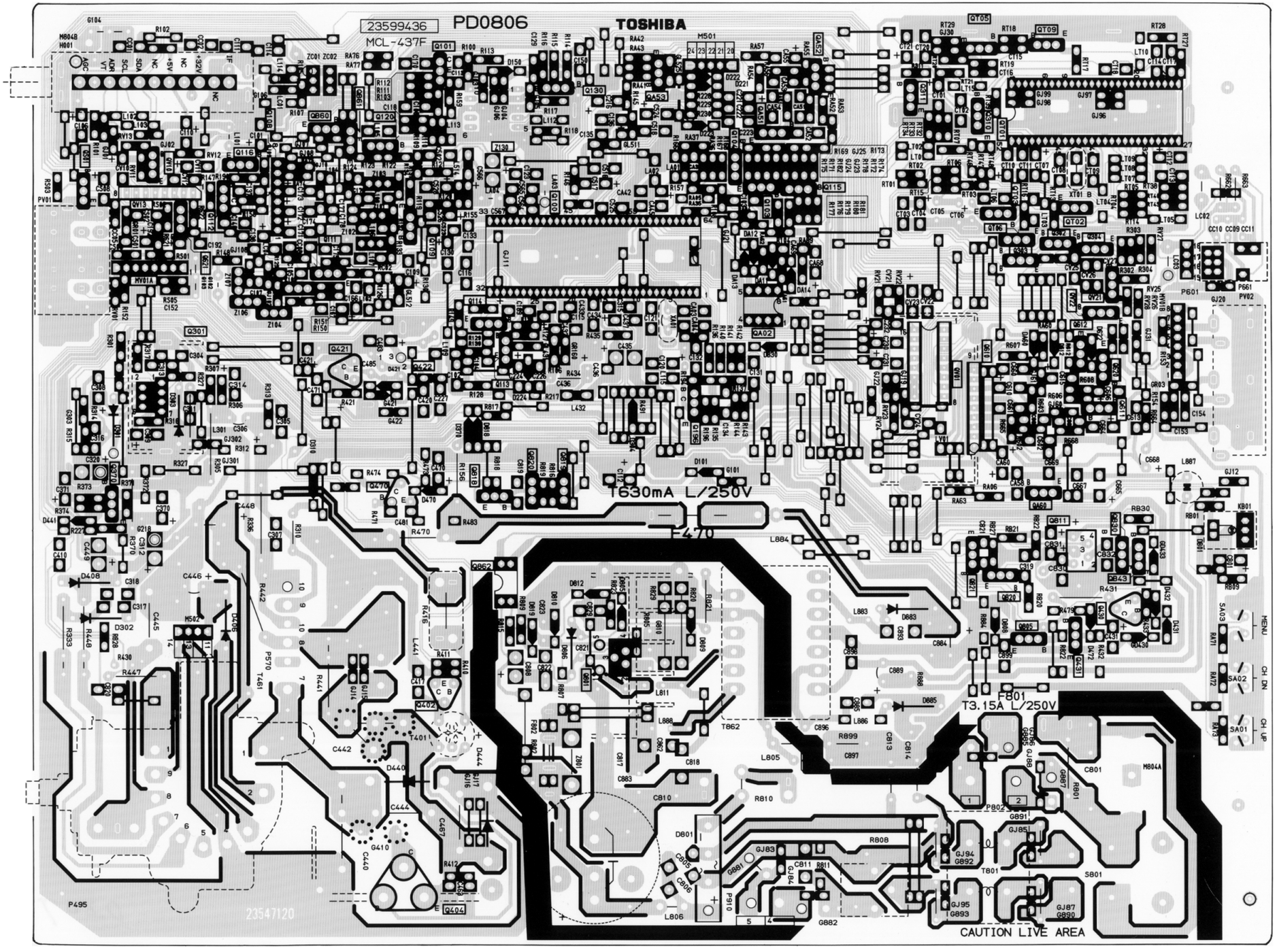
| Location No. | Parts No. | Description |
|---|---|---|
| Q611 | 23114623 | TRANSISTOR, 2SC2878-A(TEM |
| Q612 | 23314962 | TRANSISTOR, KTA1266 Y |
| Q620 | 23114478 | TRANSISTOR, RN2004 |
| Q621 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q801 | 23000907 | IC, POW SW.REG.IC VDS=650V, PO= 2033RBZ, STR-G5653 |
| Q801B | 70391355 | SCREW, BIND HEAD TAP-TITE B, BITTB 3X8 SZN |
| Q805 | 23114459 | TRANSISTOR, RN1205 |
| Q811 | 23318299 | IC, L78MR05-FA |
| Q818 | 23114469 | TRANSISTOR, RN2201 |
| Q819 | 23314965 | TRANSISTOR, KTC3198 Y |
| Q820 | 23314965 | TRANSISTOR, KTC3198 Y |
| ⚠ Q862 | 23906937 | IC, PHOTO COUPLER, ON3171-R |
| Q901 | 23114756 | TRANSISTOR, 2SC2482 |
| Q903 | 23114756 | TRANSISTOR, 2SC2482 |
| Q905 | 23114756 | TRANSISTOR, 2SC2482 |
| Q907 | 23314962 | TRANSISTOR, KTA1266 Y |
| Q908 | 23114429 | TRANSISTOR, 2SC2120-Y(TE |
| QA02 | 23906922 | IC, CAT24WC04P |
| QA51 | 23314965 | TRANSISTOR, KTC3198 Y |
| QA52 | 23314962 | TRANSISTOR, KTA1266 Y |
| QA53 | 23314962 | TRANSISTOR, KTA1266 Y |
| QA60 | 23314965 | TRANSISTOR, KTC3198 Y |
| QB30 | 23314965 | TRANSISTOR, KTC3198 Y |
| QB43 | 23114459 | TRANSISTOR, RN1205 |
| QB60 | 23314965 | TRANSISTOR, KTC3198 Y |
| QB61 | 23314965 | TRANSISTOR, KTC3198 Y |
| QS01 | 23114623 | TRANSISTOR, 2SC2878-A(TEM |
| QV10 | 23314962 | TRANSISTOR, KTA1266 Y |
| QV13 | 23904943 | IC, MM1111XS |
| D101 | 23316411 | DIODE, ZENER, HZT33-12 |
| D150 | 23115636 | DIODE, ISS110 |
| D221 | 23118517 | DIODE, ZENER, RD9.1ES |
| D222 | 23118517 | DIODE, ZENER, RD9.1ES |
| D223 | 23118517 | DIODE, ZENER, RD9.1ES |
| D224 | 23357341 | DIODE, 1SS133 |
| D301 | 23118094 | DIODE, EU2A |
| D302 | 23118479 | DIODE, BYD33J |
| D303 | 23316794 | DIODE, SC570A |
| D370 | 23118638 | DIODE, ZENER, RD2.4ESA B1 |
| D406 | 23118479 | DIODE, BYD33J |
| D408 | 23118479 | DIODE, BYD33J |
| D421 | 23118622 | DIODE, ZENER, RD10ES B2 |
| D431 | 23118622 | DIODE, ZENER, RD10ES B2 |
| D432 | 23357341 | DIODE, 1SS133 |
| D441 | 23118516 | DIODE, ZENER, RD9.1ES B3 |
| D470 | 23118511 | DIODE, ZENER, RD12ES B2 |
| D472 | 23357341 | DIODE, 1SS133 |
| D612 | 23357341 | DIODE, 1SS133 |
| D622 | 23357341 | DIODE, 1SS133 |
| D801 | 23357237 | DIODE, TS4B05G-A1 |
| D805 | 23357341 | DIODE, 1SS133 |
| D806 | 23118094 | DIODE, EU2A |
| D808 | 23118526 | DIODE, ZENER, RD6.8ES B2 |
| D809 | 23118529 | DIODE, ZENER, RD5.6ES B2 |
| D810 | 23118616 | DIODE, ZENER, RD27ESA B2 |
| D812 | 23357341 | DIODE, 1SS133 |
| D818 | 23118507 | DIODE, ZENER, RD13ESA B3 |
| D819 | 23118526 | DIODE, ZENER, RD6.8ES B2 |
| D883 | 23118094 | DIODE, EU2A |
| D885 | 23118094 | DIODE, EU2A |
| D901 | 23357341 | DIODE, 1SS133 |
| D904 | 23357341 | DIODE, 1SS133 |
| D905 | 23357341 | DIODE, 1SS133 |
| D906 | 23357341 | DIODE, 1SS133 |
| DA60 | 23357341 | DIODE, 1SS133 |

| Location No. | Parts No. | Description |
|---|---|---|
| DB01 | 23358566 | LED, LAMP RED, L-2523IT |
| DB30 | 23357341 | DIODE, 1SS133 |
| **MISCELLANEOUS** | | |
| B405 | 23451788 | HOLDER, POWER CORD, 1450TE |
| E501 | 23198605 | WIRE, CRT EARTH, 1477TM |
| E912 | 23848729 | WEDGE, YOKE HOLDING, 3 REQUIRED |
| ⚠ F470 | 23144644 | FUSE, CARTRIDGE 5X20, 250V 0.5A |
| F470A | 23165433 | FUSE HOLDER, 5.2 SOC |
| ⚠ F801 | 23144652 | FUSE, CARTRIDGE 5X20, 250V 3.15A |
| F801A | 23165433 | FUSE HOLDER, 5.2 SOC |
| G218 | 24366392 | CARBON FILM, 1/6W 3.9K OHM J |
| G303 | 24321109 | OXIDE METAL FILM, 1/2W 1 OHM J |
| G410 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| G810 | 23103249 | CORE, FERRITE BEAD 3.5X4.5, TEM2011AO |
| GJ01 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| GJ02 | 24366472 | CARBON FILM, 1/6W 4.7K OHM J |
| GL511 | 23289100 | COIL, PEAKING, TRF4100AF |
| GL512 | 23103248 | COIL, FERRITR CHOKE, TEM2014AA |
| GR160 | 24366470 | CARBON FILM, 1/6W 47 OHM J |
| KB01 | 23906805 | IC, REMOTE PHOTO RECIEVER, PIC-TB17 |
| N724 | 23965900 | TAPE, GLASS-CLOTH, W/ADHESIVE W=18 T=0.18 |
| P661 | 23363607 | JACK, HEAD PHONE, 3.5MM |
| ⚠ P801 | 23372159 | POWER CORD, CEE 250V 2.5A SILV 201 (14V2E) |
| ⚠ P801 | 23372160 | POWER CORD, SSA 127V15A 250V6A CMC-02 (14V2M/14V2MJ) |
| P802 | 23368249 | POWER CORD, 2P 11.88MM VH-JST |
| P910 | 23164725 | CONNECTOR, PLUG 2P |
| PV01 | 23023036 | JACK, PIN 0S4P, MSP-226V22-19 NI |
| PV02 | 23023047 | JACK, PIN JACK 2P KUN, KM04036C01-01 |
| ⚠ S801 | 23344481 | SWITCH, POWER, AAPY2211 |
| SA01 | 23344443 | SWITCH, TACTING SWITCH TSV TYP TSVB-1 |
| SA02 | 23344443 | SWITCH, TACTING SWITCH TSV TYP TSVB-1 |
| SA03 | 23344443 | SWITCH, TACTING SWITCH TSV TYP TSVB-1 |
| ⚠ V901A | 23903142 | SOCKET, CRT 22 SMK, CVT3325-0221R |
| V901M | 23102409 | MAGNET, PC, MAG-1070 |
| W661 | 23351174 | SPEAKER, 60X120 16-OHM 3W, SPK-1418AO |
| W662 | 23351174 | SPEAKER, 60X120 16-OHM 3W, SPK-1418AO |
| XA01 | 23153752 | CRYSTAL, 8.000 40PPM 50OHM |
| Z101 | 23303136 | CERAMIC TRAP, TCF1097 |
| Z102 | 23303085 | CERAMIC TRAP, TCF1092 |
| Z103 | 23303271 | FILTER, TRAP 4.5MHZ, TCF1138AM |
| Z130 | 23303199 | SAW FILTER 38MHZ PIF SIF, OFWK6269K |
| **PC BOARD ASSEMBLIES** | | |
| * U901 | 23786768 | CRT/D BOARD, PD0298 |
| * U902 | 23788043 | MAIN BOARD, PD0893 (14V2E) |
| * U902 | 23788097 | MAIN BOARD, PD0933 (14V2M/14V2MJ) |
| **PICTURE TUBE** | | |
| ⚠ V901 | 23312944 | PICTURE TUBE, 14 SQUARE N/C/S, A34LWG70X(VW) |
| **TUNER** | | |
| H001 | 23321428 | TUNER, ASIA MLT IICPLL SANYO, ECA33LX8 |
| **ACCESSORIES** | | |
| K902 | 23306459 | REMOCON HAND UNIT IR, CTVPAL, CT-90119 |
| AT03 | 23588765 | BATTERY COVER, REMOCON, CT-90119 |
| Y101A | 23565777 | OWNER'S MANUAL, ENGLISH/INDONESIAN, 14V2E |
| Y101A | 23565806 | OWNER'S MANUAL, ENGLISH/ARABIC/ PERSIAN, 14V2M/14V2MJ |

| Location No. | Parts No. | Description |
|---|---|---|
| Y108 | 23122780 | AC ADAPTER, CCT5902-0801 (14V2M/14V2MJ) |
| Y120 | 23943846 | BAG, POLY |
| Y126 | 23124084 | ANTENNA, ROD ANTENNA, Y-700P-36HT (14V2M/14V2MJ) |
| **CABINET PARTS** | | |
| A201 | 23530614 | COVER, FRONT COVER ASSY |
| A264 | 23445654 | KNOB, CONTROL KEY TSP2002032809 |
| A265 | 23445653 | KNOB, POWER BUTTON TSP2002032838 |
| A280 | 23035412 | SCREW, BTB4X12SZN |
| ⚠ A401 | 23530569 | COVER, BACK COVER PROPER 14V2E |
| A525 | 23037312 | SCREW, BTBW3X12SZN |
| A701 | 23064941 | CARTON, BOX (14V2E) |
| A701 | 23064999 | CARTON, CASE 14V2M TSP2002070337 (14V2M) |
| A701 | 23067027 | CARTON, CASE 14V2MJ TSP2002080108 (14V2MJ) |
| A702A | 23946416 | PACKING, TOP 14V2 |
| A702B | 23946415 | PACKING, BOTTOM 14V2 |
| A704 | 23945049 | LAMIFILM BAG, 1460TE |

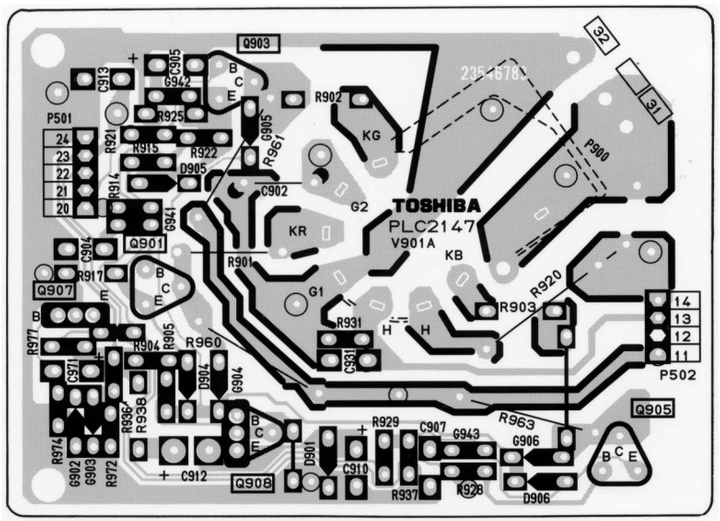
# MAIN BOARD PD0893

**BOTTOM (FOIL) SIDE**



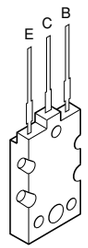
# CRT-D BOARD PD0298

**BOTTOM (FOIL) SIDE**

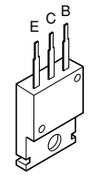



# TERMINAL VIEW OF TRANSISTORS

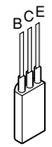
① 2SD2253 (old)
2SC5243



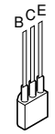

② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



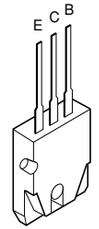

③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



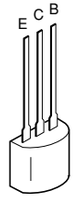

④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



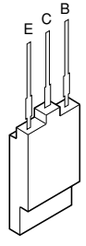

⑤ 2SA1788



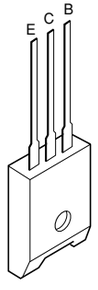

⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201




⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553




⑧ ON4409



# SCHEMATIC DIAGRAM

## MODEL : 14V2E / 14V2M / 14V2MJ

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

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

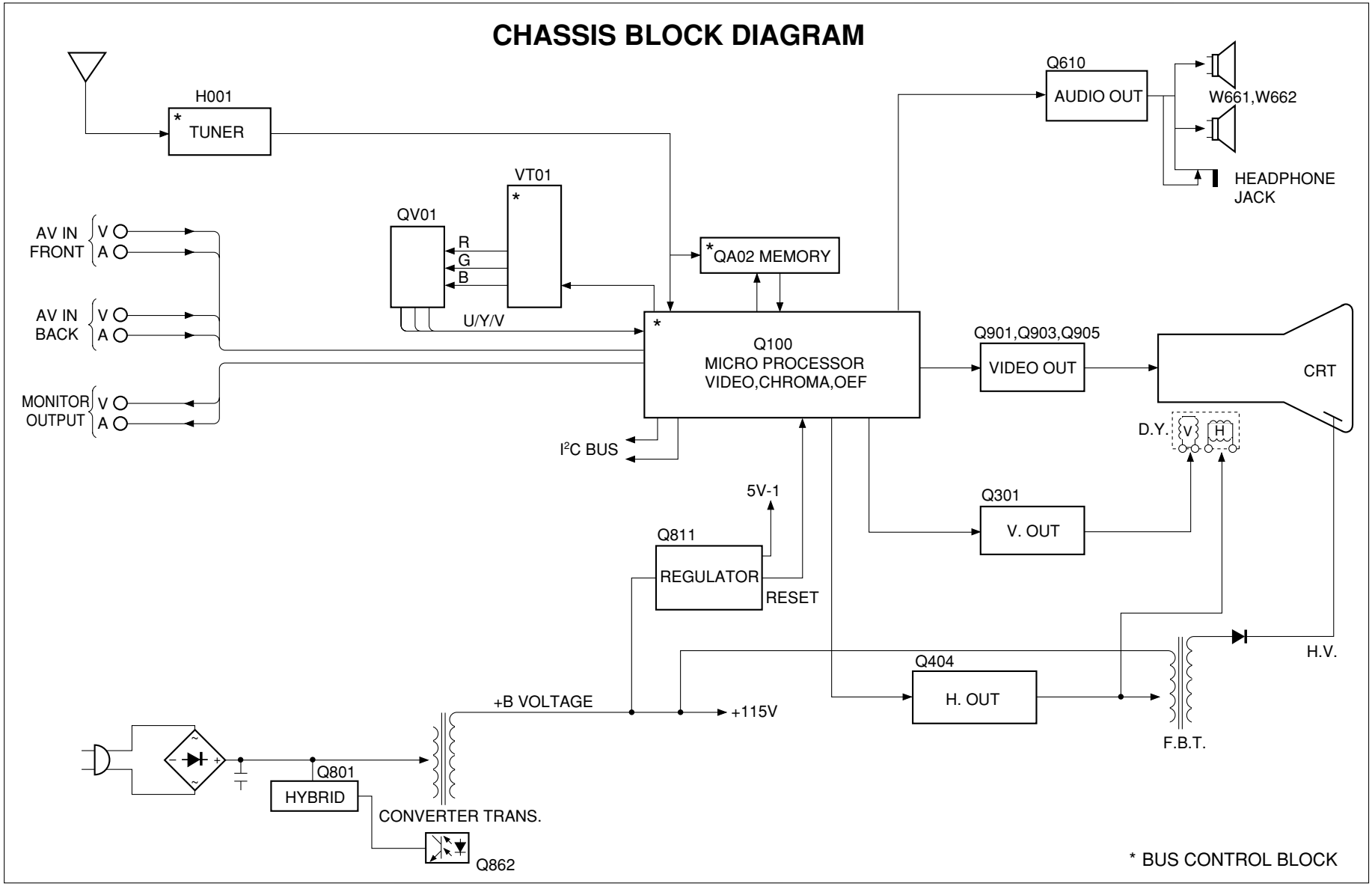
**NOTE:**

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

**■ SCHEMATIC DIAGRAM STRUCTURE:**


MAIN / CRT DRIVE Circuit ..... 1/2
DIFFERENCE TABLE ..... 2/2

# CHASSIS BLOCK DIAGRAM



U902 MAIN BOARD

U901 CRT DRIVE BOARD PD0157

TELETEXT

| | TEXT | V/D TEXT |
|---|---|---|
| R388 | 1/2W82K | KETSU |

*(H001)

| | | H001 | G.J01 | G.J02 | REMARKS |
|---|---|---|---|---|---|
| TUNER | (R) | ECA33LX8 (2330418D) | OPEN | OPEN | SANYO |
| | (P) | ECA33LX6 (2330419D) | 4.7K | 4.7K | LG |
| | (R) | ECA33LX7 (2330420D) | OPEN | OPEN | PANASONIC |
| | (R) | ECA33LX2 (2330739D) | OPEN | OPEN | ALPS |
| | — | ECA33L (2330213M) | OPEN | OPEN | TSL |

*(Z130)

| | | GJ03 | GJ04 | GJ05 | GJ06 |
|---|---|---|---|---|---|
| TUNER | (R1) FB56XPL (SP2N-MULTI) | O | X | O | X |
| | (R2) DFW426350(2PIN-MULTI) | O | X | O | X |
| | TSF1265P(4PIN-TAIWAN) | X | O | X | O |
| | DFW429645(3PIN-THAI) | O | X | O | X |

LOGIC OF Q108

| SW1 | SW2 | OUT |
|---|---|---|
| L | L | IN2 |
| H | L | IN3 |
| L/H | H | IN3 |

| | Q108 | GJ07 | Z103 | GJ08 | GJ09 | GJ10 | GJ11 |
|---|---|---|---|---|---|---|---|
| MULTI | NJM2034L | X | IRA: TCF1138AM<br>IRB: TPS4.5MC2<br>IRC: TCF1010 | O | O | O | O |
| THAI/AN | X | X | TPS4.5MC2 (4.5Ω) | O | X | X | O |
| THAI | NJM2034L | O | TCF1013 (5.5/5.7Ω) | O | X | O | X |

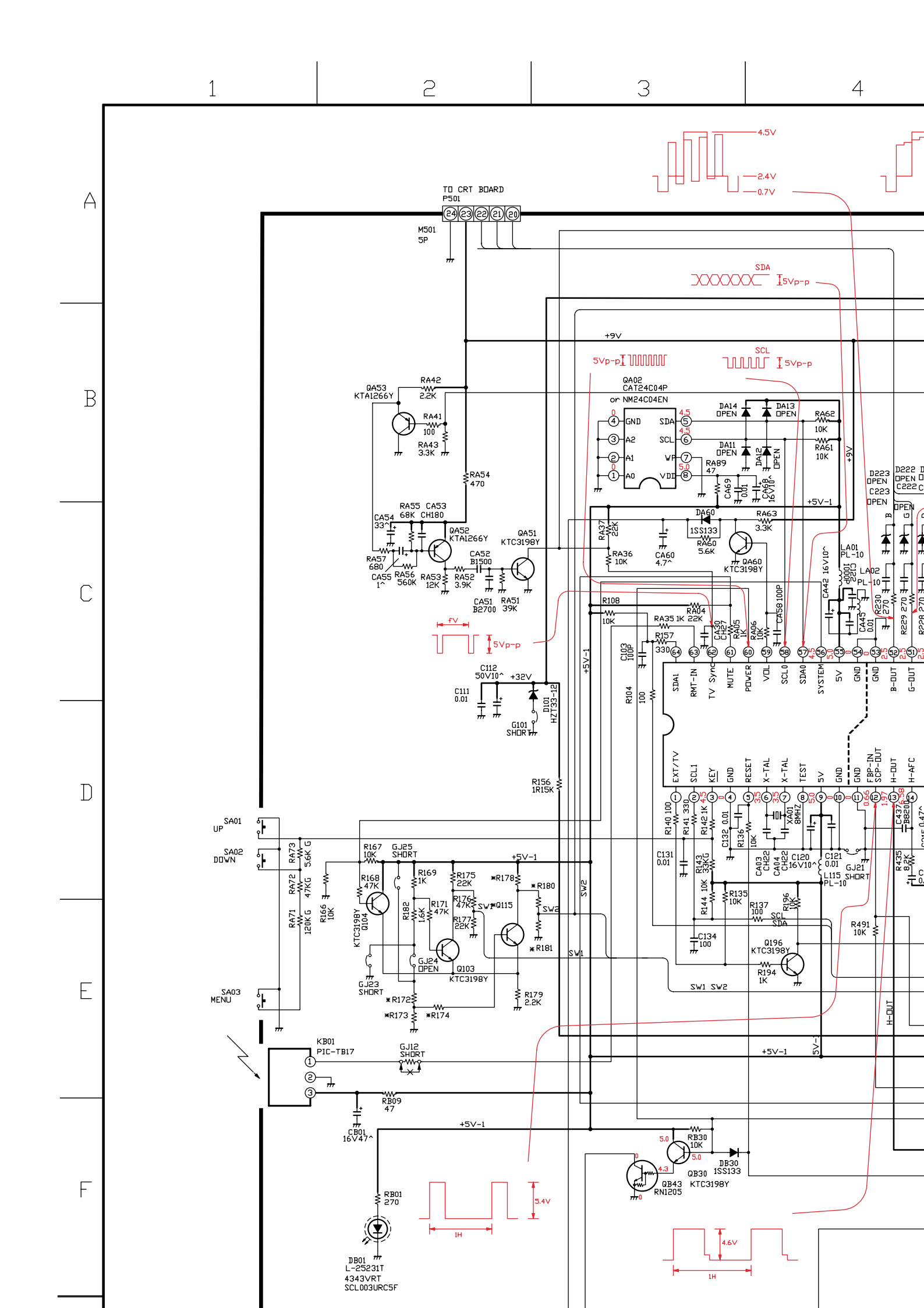
| LOCATION | RUSSIA MODELS ONLY | OTHER MODELS |
|---|---|---|
| L002 | CDLTRF1R040 | SHORT |
| L003 | CDLTRF1R240 | SHORT |
| CC09 | 50V0.01°F | KETSU |
| CC10 | 50V0.01°F | KETSU |
| CC11 | 50V821°F | KETSU |
| CC05 | 50V1000PF | KETSU |
| C15E | 50V1000PF | KETSU |
| C153 | 50V1000PF | KETSU |
| R15E | 1/6W 1K | SHORT |
| GR03 | 1/6W 1K | SHORT |
| GR11 | 1/6W 1K | SHORT |
| CC08 | 50V 33P | KETSU |
| L004 | CDLTRF4100AF | KETSU |
| RC02 | 1/6W100 ohm | SHORT |
| ZC01 | TRAP39.5MHZ | KETSU |
| R433 | KETSU | R2162C182J-M |

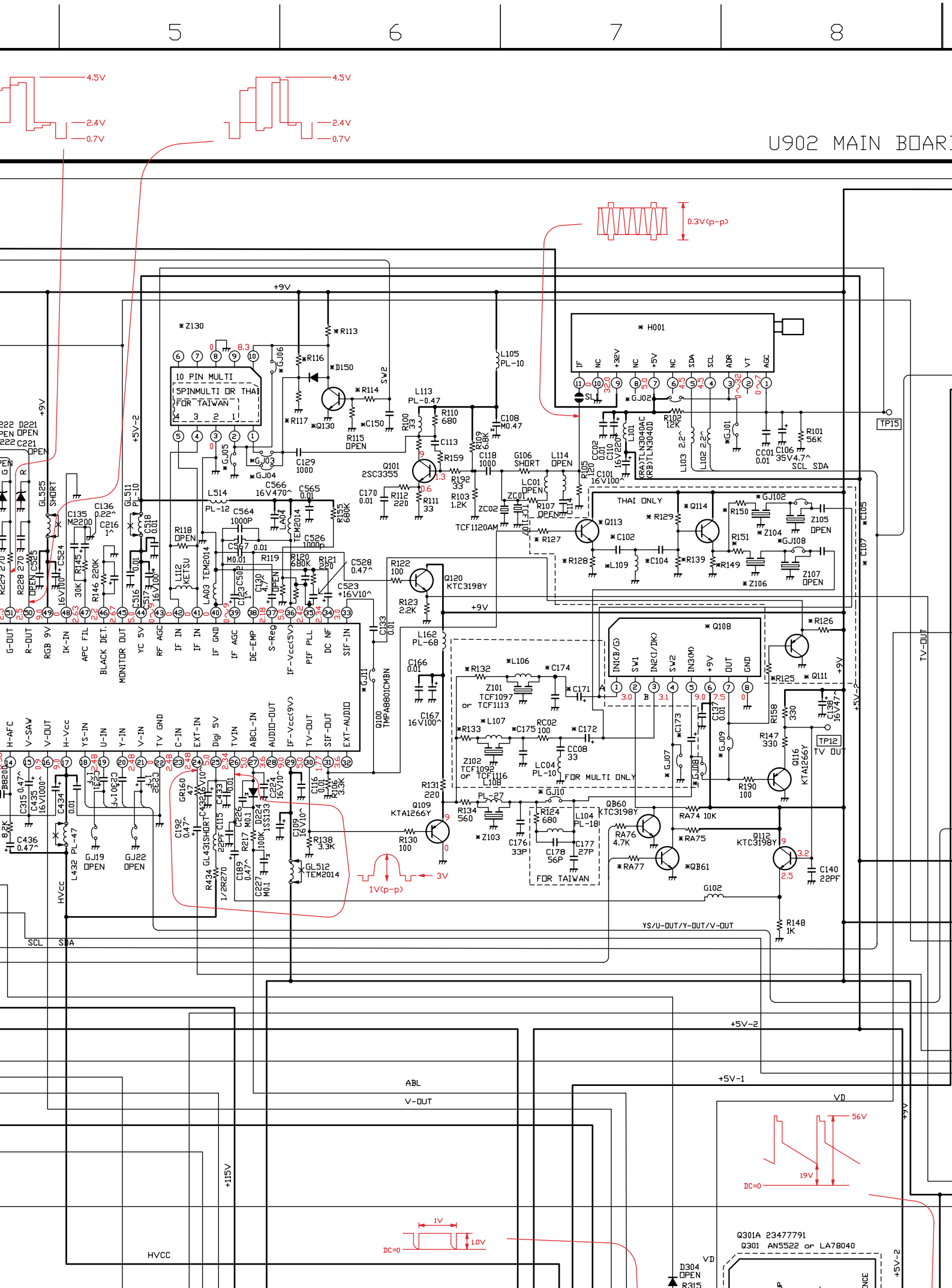
IF/VIDEO/ Q100 CHROMA TMPA8801

| POWER CORD | |
|---|---|
| ASIA/ EAST EUROPE | 250V 2.5A |
| HONG KONG | 250V 13A |
| MIDDLE EAST | 250V 6A/ 127V 10A |
| AUSTRALIA | 250V 7.5A |
| TAIWAN | 125V 7A |

*KETSU means open the circuit.

14V2/20V2
21V1/21V2
SERIES


TO CRT BOARD
P501
M501
5P
SDA
SCL
5Vp-p
+9V
+5V-1
+32V
QA02
CAT24C04P
or NM24C04EN
GND
SDA
SCL
A2
A1
WP
A0
VDD
QA53
KTA1266Y
QA52
KTA1266Y
QA51
KTC3198Y
QA60
KTC3198Y
QB30
KTC3198Y
QB43
RN1205
Q103
KTC3198Y
Q104
Q115
Q196
KTC3198Y
DA60
1SS133
DB30
1SS133
DB01
L-25231T
4343VRT
SCL003URC5F
IC01
SYSTEM
EXT/TV
SCL1
KEY
RESET
X-TAL
TEST
SDA1
RMT-IN
TV Sync
MUTE
POWER
VOL
SCL0
SDA0
B-OUT
G-OUT
FBP-IN
SCP-OUT
H-OUT
H-AFC
SA01
UP
SA02
DOWN
SA03
MENU
KB01
PIC-TB17
SW1
SW2
1H
4.6V
3.4V


U902 MAIN BOARD
4.5V
2.4V
0.7V
0.3V(p-p)
+9V
+5V-2
+5V-1
+115V
HVCC
ABL
V-OUT
VD
56V
19V
DC=0
1V
1.0V
3V
1V(p-p)
SCL
SDA
TV-OUT
YS/U-OUT/Y-OUT/V-OUT
10 PIN MULTI
5PINMULTI OR THAI
FOR TAIWAN
THAI ONLY
FOR MULTI ONLY
FOR TAIWAN
TP15
TP12
TV OUT
Q301A 23477791
Q301 AN5522 or LA78040

ARD

*(H001)

| | | H001 | GJ01 | GJ02 | REMARKS |
|---|---|---|---|---|---|
| MULTI/ THAI | R1 | ECA33LX8 (23321428) | OPEN | OPEN | SANYO |
| | R2 | ECA33LX6 (23321417) | 4.7K | 4.7K | LG |
| | R3 | ECA33LX1 (23321357) | OPEN | OPEN | PANASONIC |
| | R4 | ECA33LX2 (23321385) | OPEN | OPEN | ALPS |
| TAIWAN | — | ECA51L (23321368) | OPEN | OPEN | TDL |

*(Z130)

| | | GJ03 | GJ04 | GJ05 | GJ06 |
|---|---|---|---|---|---|
| MULTI | (R1) F816KPL (5PIN-MULTI) | O | X | X | O |
| | (R2) OFWK6269(10PIN-MULTI) | O | X | O | X |
| TAIWAN | TSF1248P(4PIN-TAIWAN) | X | O | X | X |
| THAI | OFWK2964(5PIN-THAI) | O | X | O | X |

LOGIC OF Q108

| SW1 | SW2 | OUT |
|---|---|---|
| L | L | IN1 |
| H | L | IN2 |
| L/H | H | IN3 |

| | Q108 | GJ07 | Z103 | GJ08 | GJ09 | GJ10 | GJ11 |
|---|---|---|---|---|---|---|---|
| MULTI | NLM2234L | X | (RA) TCF1138AM (RB) TPS4.5MC2 (RC) TCF1010 | X | O | O | O |
| TAIWAN | X | X | TPS4.5MC2 (4.5) | O | X | X | O |
| THAI | NJM2234L | O | TCF1113 (5.5/5.74) | O | X | O | X |

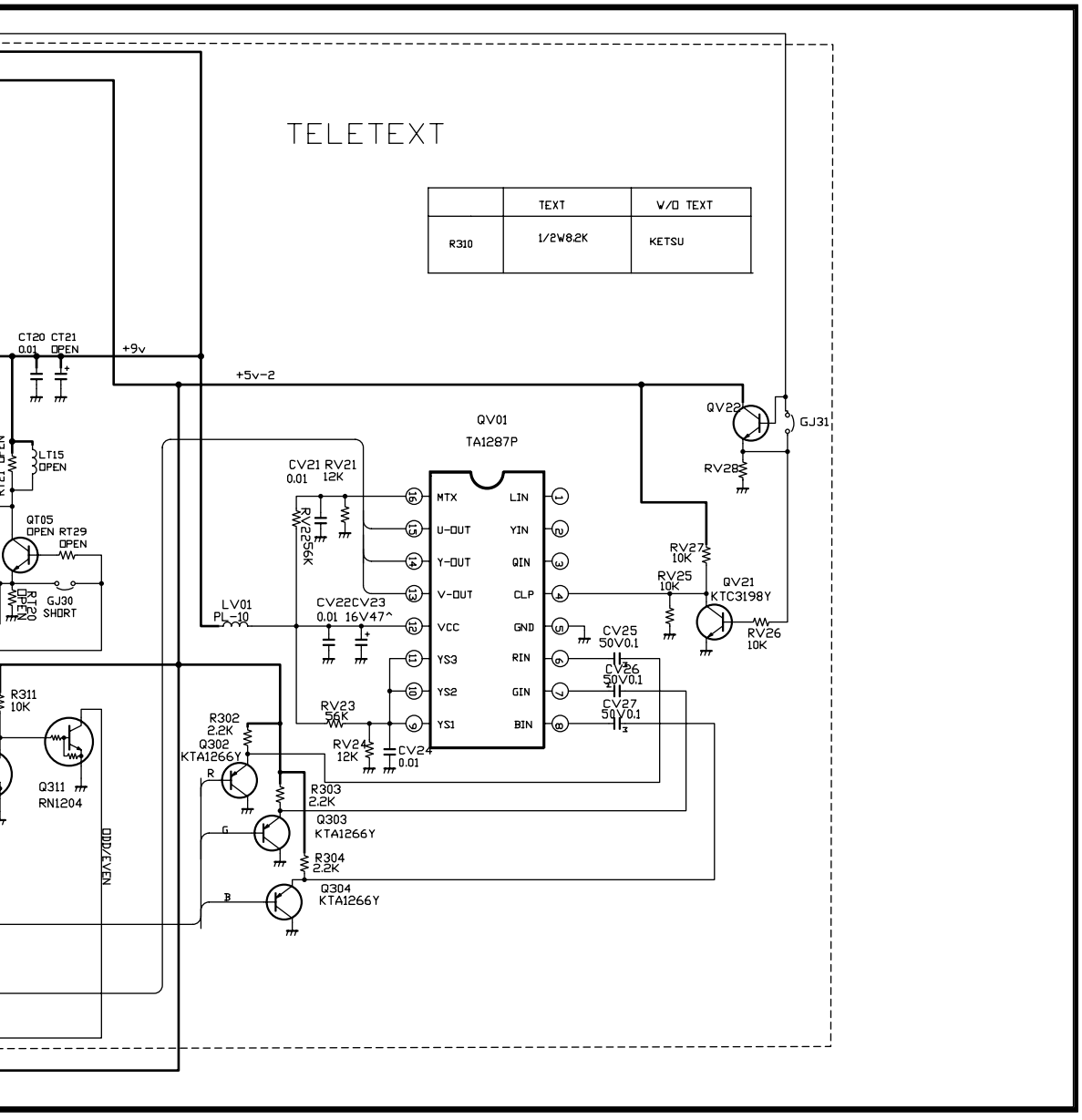
+9V
SDA/SCL
+5V-1
VD
HD
YS/U-OUT/Y-OUT/V-OUT
ODD/EVEN
R/G/B
TO Q620
MONITOR OUT
BACK AV E1
FRONT AV E1
PRIORITY INPUT
VIDEO
AUDIO
110V(p-p)
100V(p-p)

13 14 15 16

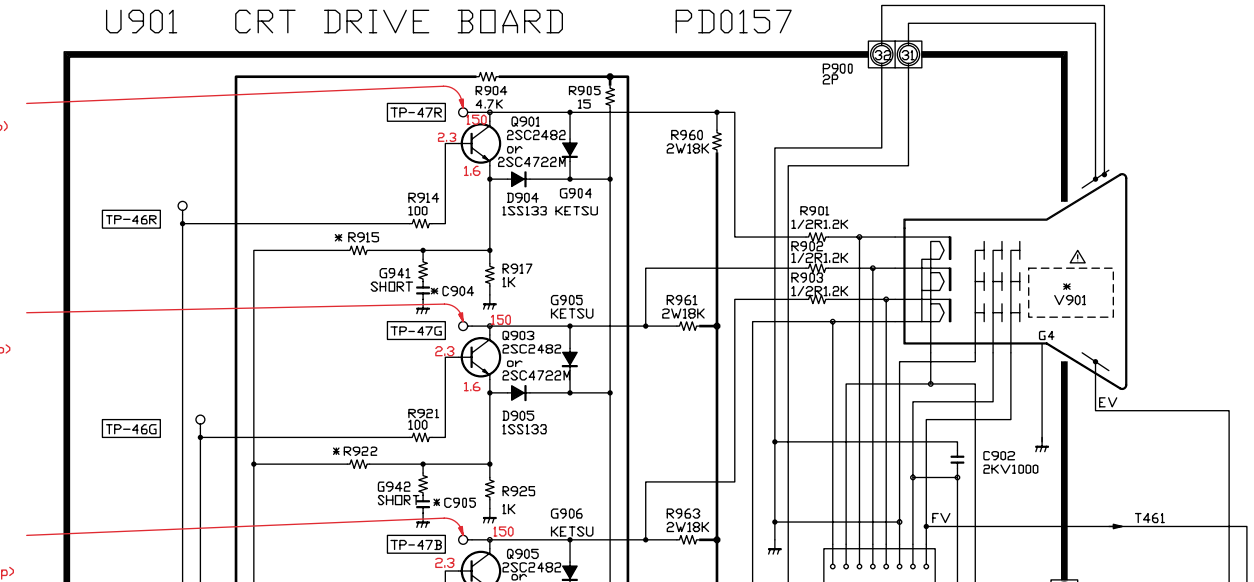
A B C D E F

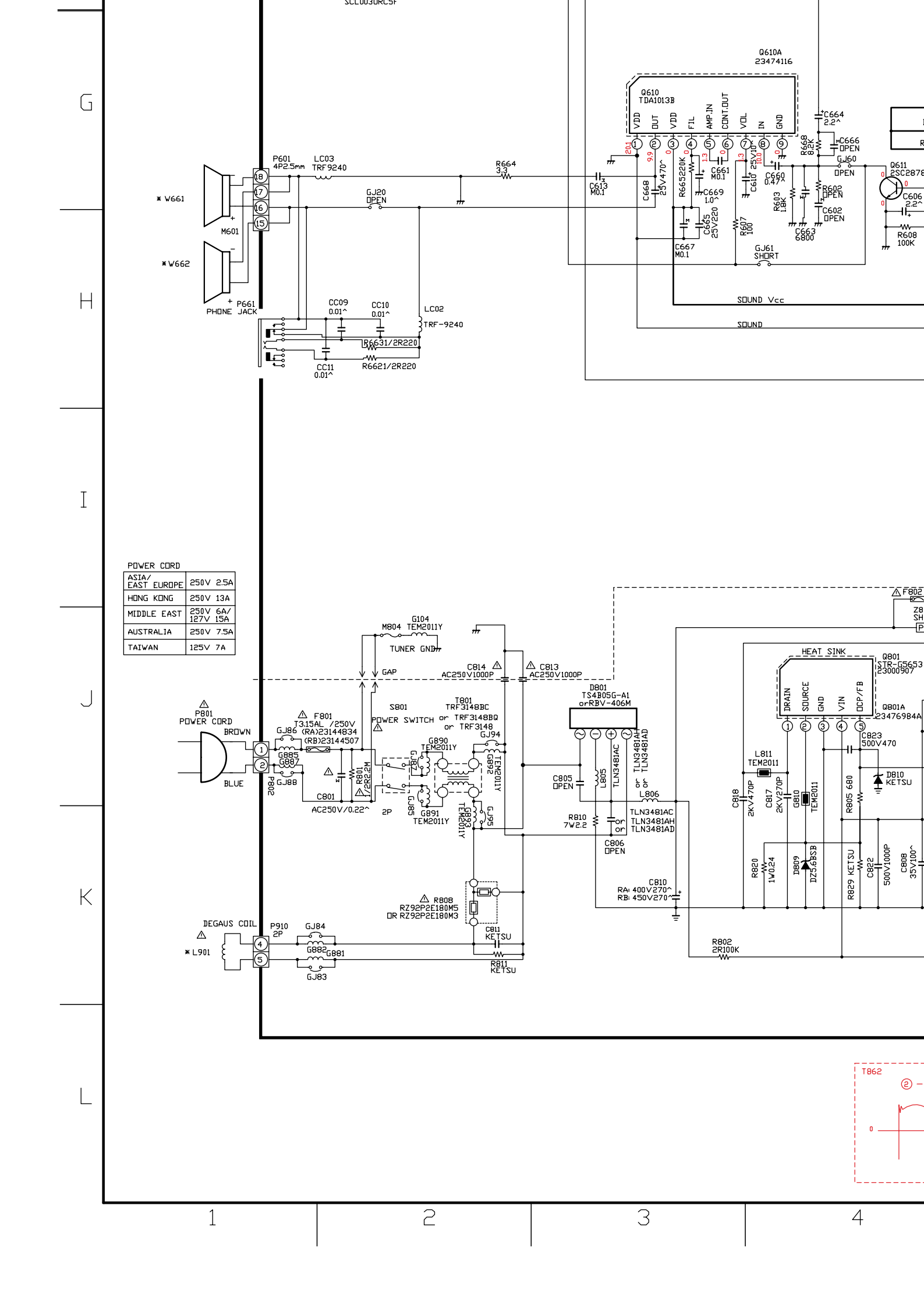
TELETEXT

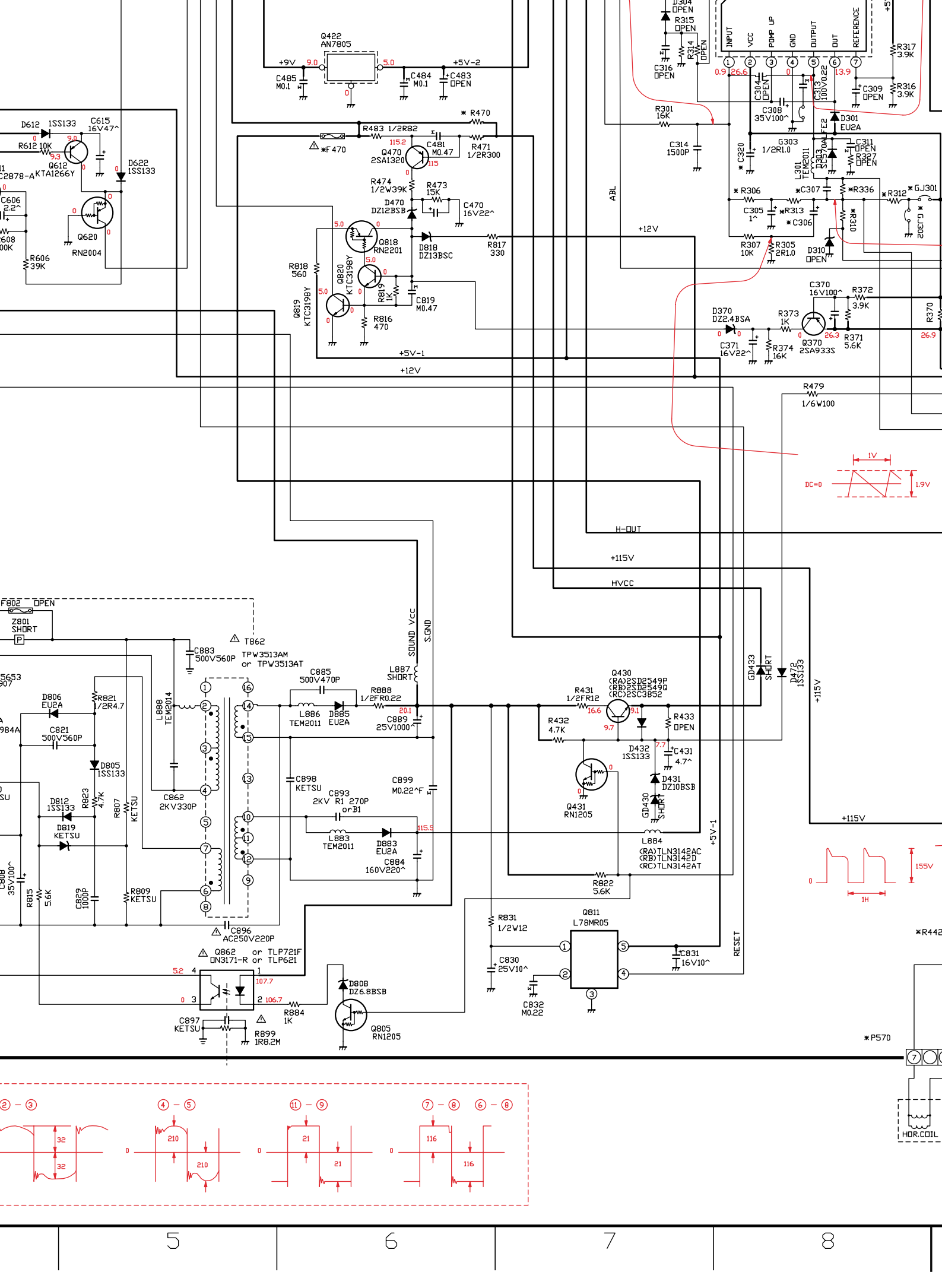
| | TEXT | W/O TEXT |
|---|---|---|
| R310 | 1/2W8.2K | KETSU |

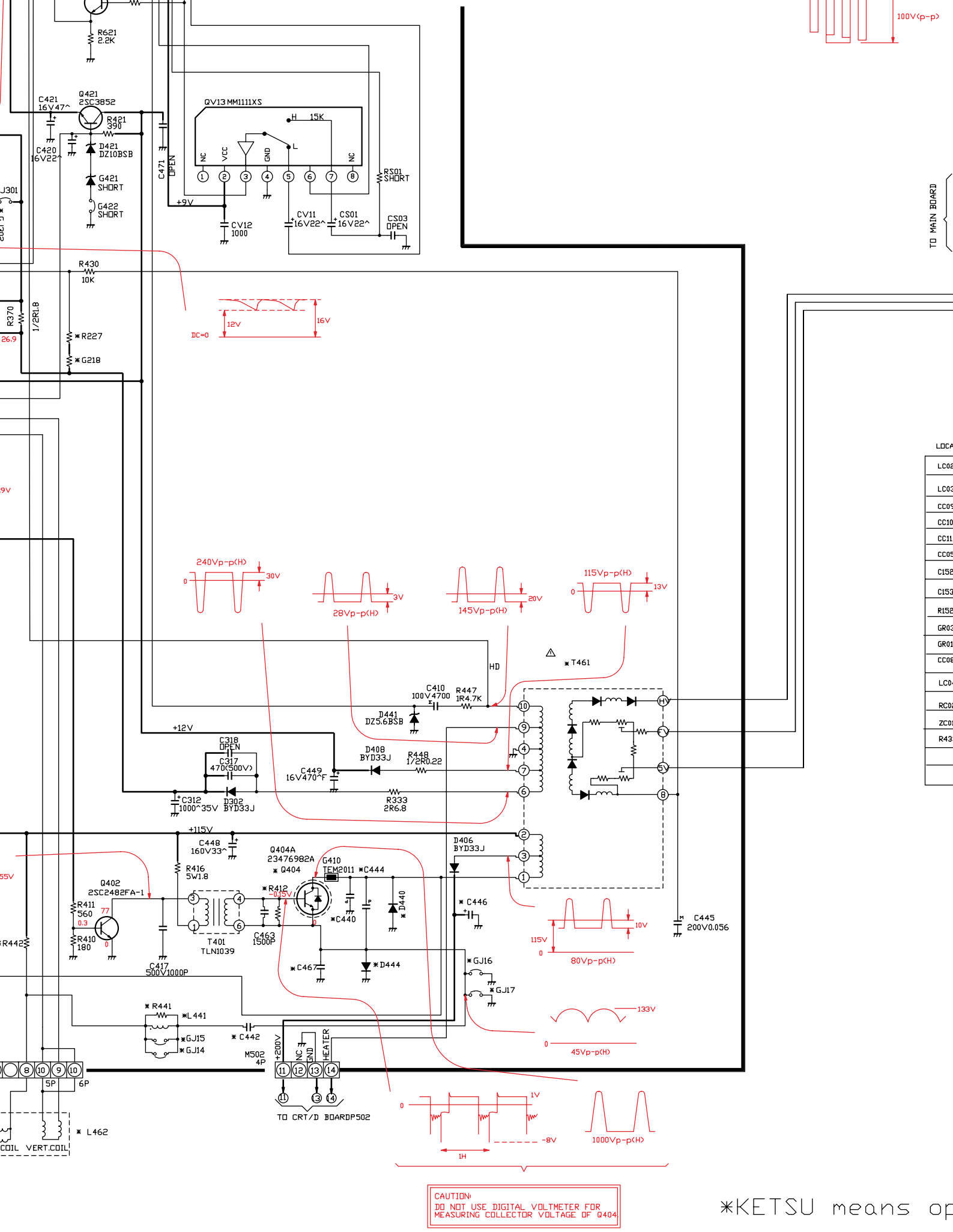


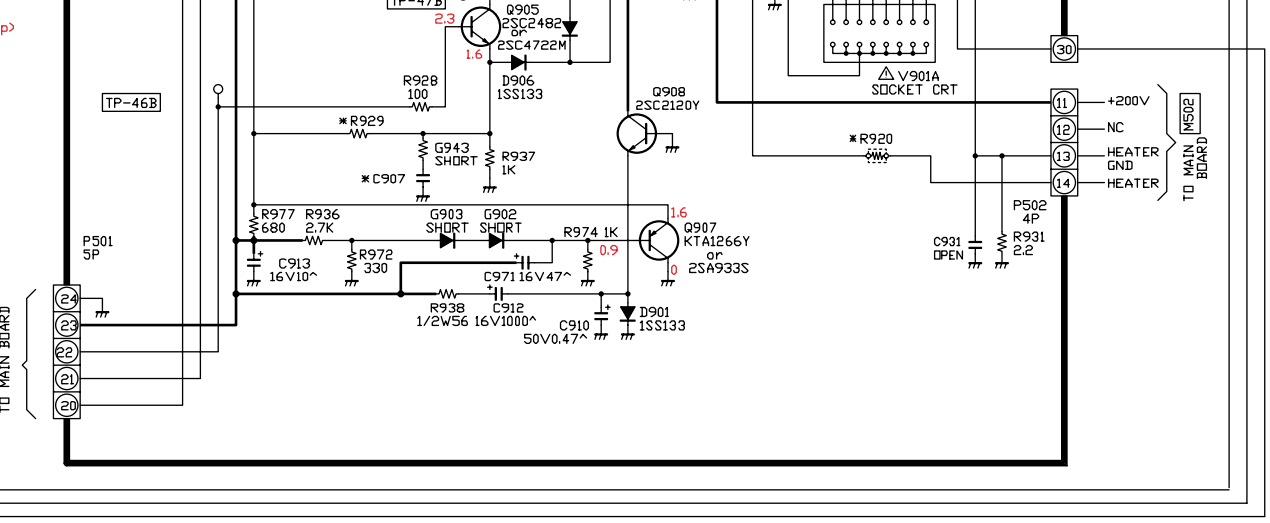

U901 CRT DRIVE BOARD PD0157




SCL0030RC5F
Q610A
2347411G
Q610
TDA1013B
VDD
OUT
VDD
FIL
AMP.IN
CONT.OUT
VOL
IN
GND
C664
2.2^
C666
OPEN
R668
8.2K
GJ60
OPEN
Q611
2SC2878
C606
2.2^
R608
100K
P601
4P2.5mm
LC03
TRF9240
R664
3.3
GJ20
OPEN
*W661
*W662
M601
P661
PHONE JACK
CC09
0.01^
CC10
0.01^
LC02
TRF-9240
R6631/2R220
CC11
0.01^
R6621/2R220
C613
M0.1
C668
25V470^
R665220K
C661
M0.1
C669
1.0^
C667
M0.1
C665
25V220
C610
25V10^
C660
0.47^
R607
100
R603
1.8K
R602
OPEN
C602
OPEN
C663
6800
GJ61
SHORT
SOUND Vcc
SOUND
POWER CORD
ASIA/ EAST EUROPE | 250V 2.5A
HONG KONG | 250V 13A
MIDDLE EAST | 250V 6A/ 127V 15A
AUSTRALIA | 250V 7.5A
TAIWAN | 125V 7A
G104
M804 TEM2011Y
TUNER GND
GAP
C814
AC250V1000P
C813
AC250V1000P
P801
POWER CORD
BROWN
BLUE
F801
T3.15AL /250V
GJ86 (RA)23144834
(RB)23144507
G885
G887
GJ88
P802
C801
AC250V/0.22^
R801
1/2R2.2M
S801
POWER SWITCH
T801
TRF3148BC
or TRF3148BQ
or TRF3148
GJ94
G890
TEM2011Y
GJ87
GJ89
GJ92
TEM2011Y
GJ85
G891
TEM2011Y
GJ95
G892
TEM2011Y
2P
D801
TS4B05G-A1
orRBV-406M
C805
OPEN
L805
TLN3481AC
or TLN3481AH
or TLN3481AD
L806
TLN3481AC
TLN3481AH
TLN3481AD
R810
7W2.2
C806
OPEN
C810
RA: 400V270^
RB: 450V270^
R808
RZ92P2E180M5
OR RZ92P2E180M3
C811
KETSU
R811
KETSU
DEGAUS COIL
*L901
P910
2P
GJ84
G882
G881
GJ83
R802
2R100K
HEAT SINK
Q801
STR-G5653
23000907
DRAIN
SOURCE
GND
VIN
OCP/FB
Q801A
23476984A
C823
500V470
L811
TEM2011
C818
2KV470P
C817
2KV270P
G810
TEM2011
R805 680
D810
KETSU
R820
1W0.24
D809
DZ5.6SB
R829 KETSU
C822
500V1000P
C808
35V100^
T862

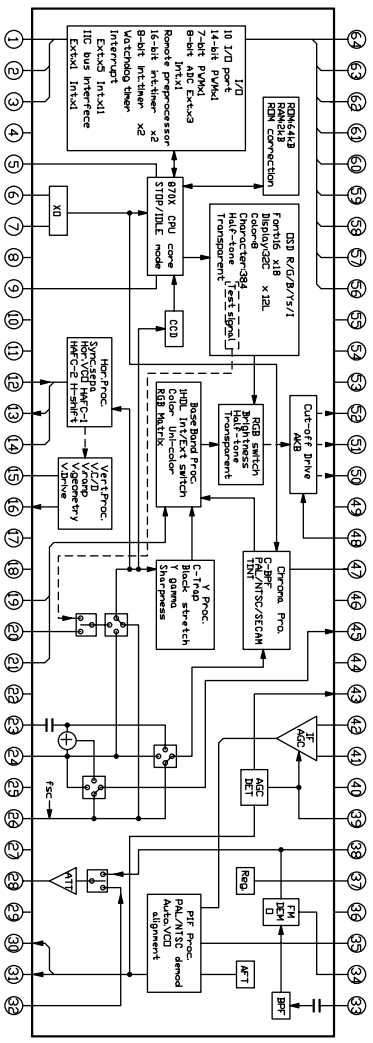

Q422
AN7805
+9V
+5V-2
C485
M0.1
C484
M0.1
C483
OPEN
R470
R483 1/2R82
F 470
C481
M0.47
R471
1/2R300
Q470
2SA1320
R474
1/2W39K
R473
15K
D470
DZ12BSB
C470
16V22^
Q818
RN2201
D818
DZ13BSC
R817
330
R818
560
Q820
KTC3198Y
Q819
KTC3198Y
R819
1K
C819
M0.47
R816
470
+5V-1
+12V
D612
1SS133
C615
16V47^
R612 10K
Q612
KTA1266Y
D622
1SS133
Q620
RN2004
R606
39K
C606
2.2^
C2878-A
INPUT
VCC
PUMP UP
GND
OUTPUT
OUT
REFERENCE
D304
OPEN
R315
OPEN
R314
OPEN
C316
OPEN
R317
3.9K
R316
3.9K
C309
OPEN
C304
OPEN
C313
100V0.22
C308
35V100^
D301
EU2A
R301
16K
C314
1500P
C320
G303
1/2R1.0
C311
OPEN
R327
OPEN
L301
TEM2011
D303
1SS70A
ABL
R306
C307
R336
R312
GJ301
C305
1^
R313
C306
R310
R307
10K
R305
2R1.0
D310
OPEN
C370
16V100^
R372
3.9K
D370
DZ2.4BSA
R373
1K
Q370
2SA933S
R371
5.6K
C371
16V22^
R374
16K
R370
R479
1/6W100
1V
DC=0
1.9V
H-OUT
+115V
HVCC
F802 OPEN
Z801
SHORT
T862
TPW3513AM
or TPW3513AT
C883
500V560P
C885
500V470P
L887
SHORT
SOUND Vcc
S.GND
D806
EU2A
R821
1/2R4.7
C821
500V560P
D805
1SS133
D812
1SS133
R823
4.7K
R807
KETSU
D819
KETSU
C808
35V100^
R815
5.6K
C829
1000P
R809
KETSU
L888
TEM2014
C862
2KV330P
L886
TEM2011
D885
EU2A
R888
1/2FR0.22
C889
25V1000^
C898
KETSU
C899
M0.22^F
C893
2KV R1 270P
or B1
L883
TEM2011
D883
EU2A
C884
160V220^
C896
AC250V220P
Q862 or TLP721F
DN3171-R or TLP621
R884
1K
C897
KETSU
R899
1R8.2M
D808
DZ6.8BSB
Q805
RN1205
Q430
(RA)2SD2549P
(RB)2SD2549Q
(RC)2SC3852
R431
1/2FR12
R432
4.7K
R433
OPEN
D432
1SS133
C431
4.7^
Q431
RN1205
D431
DZ10BSB
GD430
SHORT
L884
(RA)TLN3142AC
(RB)TLN3142D
(RC)TLN3142AT
R822
5.6K
GD433
SHORT
D472
1SS133
+115V
+5V-1
155V
1H
R831
1/2W12
C830
25V10^
C832
M0.22
Q811
L78MR05
C831
16V10^
RESET
R442
P570
HOR.COIL
② - ③
④ - ⑤
⑪ - ⑨
⑦ - ⑧
⑥ - ⑧
32
210
21
116


R621 2.2K
C421 16V47^
Q421 2SC3852
R421 390
C420 16V22^
D421 DZ10BSB
G421 SHORT
G422 SHORT
C471 OPEN
+9V
QV13 MM1111XS
H 15K
L
NC VCC GND NC
RS01 SHORT
CV12 1000
CV11 16V22^
CS01 16V22^
CS03 OPEN
R430 10K
R370 1/2RL8
26.9
*R227
*G218
DC=0
12V
16V
100Vp-p
TO MAIN BOARD
240Vp-p(H)
30V
28Vp-p(H)
3V
145Vp-p(H)
20V
115Vp-p(H)
13V
HD
*T461
C410 100V4700
R447 1R4.7K
D441 DZ5.6BSB
+12V
C318 OPEN
C317 470(500V)
C312 1000^35V
D302 BYD33J
D408 BYD33J
R448 1/2R0.22
C449 16V470^F
R333 2R6.8
+115V
C448 160V33^
R416 5W1.8
Q402 2SC2482FA-1
R411 560
R410 180
T401 TLN1039
C417 500V1000P
Q404A 23476982A
*Q404
G410 TEM2011
*C444
*R412
-0.15V
C463 1500P
*C440
D440
*C467
*D444
D406 BYD33J
*C446
C445 200V0.056
10V
115V
80Vp-p(H)
*GJ16
*GJ17
133V
45Vp-p(H)
*R441
*L441
*GJ15
*GJ14
*C442
M502 4P
+200V
NC GND HEATER
5P
6P
TO CRT/D BOARDP502
*L462
COIL VERT.COIL
1V
-8V
1H
1000Vp-p(H)
CAUTION:
DO NOT USE DIGITAL VOLTMETER FOR MEASURING COLLECTOR VOLTAGE OF Q404.
*KETSU means op




| LOCATION | RUSSIA MODELS ONLY | OTHER MODELS |
|---|---|---|
| LC02 | COLTRF9240 | SHORT |
| LC03 | COLTRF9240 | SHORT |
| CC09 | 50V0.01^F | KETSU |
| CC10 | 50V0.01^F | KETSU |
| CC11 | 50V0.01^F | KETSU |
| CC05 | 50V1000PF | KETSU |
| C152 | 50V1000PF | KETSU |
| C153 | 50V1000PF | KETSU |
| R152 | 1/6W 1K | SHORT |
| GR03 | 1/6W 1K | SHORT |
| GR01 | 1/6W 1K | SHORT |
| CC08 | 50V 33P | KETSU |
| LC04 | COLTRF4100AF | KETSU |
| RC02 | 1/6W100 ohm | SHORT |
| ZC01 | TRAP39.5MHZ | KETSU |
| R433 | KETSU | RD14G2C182JH |
| | | |
| | | |

IF/VIDEO/
Q100 CHROMA
TMPA8801




14V2/20V2
21V1/21V2
SERIES

open the circuit.

| MODEL(JOB)<br>MAIN UNIT | 21V2E | 14V2E | 14V2T | 14V2M | 14V2H | 14V2R | 14V2MJ |
|---|---|---|---|---|---|---|---|
| C904 | 50V470PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF |
| C905 | 50V470PF | 50V330PF | 50V330PF | 50V330PF | 50V330PF | 50V330PF | 50V330PF |
| C907 | 50V560PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF |
| R920 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 |
| R915 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| R922 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| R929 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| C306 | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F |
| C307 | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F |
| C320 | 35V100^F | 35V100^F | 35V100^F | 35V100^F | 35V100^F | 35V100^F | 35V100^F |
| C440 | 1.5KV6000PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF |
| C444 | 1.5KV1500PF | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| C446 | 250V10^F | 250V10^F | 250V10^F | 250V10^F | 250V10^F | 250V10^F | 250V10^F |
| C467 | 630V0.018^F | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| D440 | ERC06-15L | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| D444 | RU-4AM | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| GJ14 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ15 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ16 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ17 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ301 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| GJ302 | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| L441 | (RA)TLN2112AC<br>(RB)TLN2112G | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN |
| R306 | 1/6W62K | 1/6W56K | 1/6W56K | 1/6W56K | 1/6W56K | 1/6W56K | 1/6W56K |
| R312 | 1/2W1.2K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K |
| R313 | 1/6W47K | 1/6W51K | 1/6W51K | 1/6W51K | 1/6W51K | 1/6W51K | 1/6W51K |
| R336 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 |
| R441 | 1W1K | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| R442 | OPEN | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 |
| R470 | 1W0.68 | 1W0.75 | 1W0.75 | 1W0.75 | 1W0.75 | 1W0.75 | 1W0.75 |
| F470 | 250V0.63A | 250V0.5A | 250V0.5A | 250V0.5A | 250V0.5A | 250V0.5A | 250V0.5A |
| T461 | (RA)TFB4125CS<br>(RB)TFB4125DY<br>(RC)TFB4125CH | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED |
| T801 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 |
| Q404 | (R1)2SD2499(FA)<br>(R2)DN4409 | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE |
| R412 | OPEN<br>1/6W56 | OPEN<br>DELETE | OPEN<br>DELETE | OPEN<br>DELETE | OPEN<br>DELETE | OPEN<br>DELETE | OPEN<br>DELETE |
| C442 | (R1)250V0.33^F<br>(R2)250V0.33^F<br>(R3)250V0.43^F<br>(R4)250V0.43^F | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE |
| L462 | (R1)KETSU<br>(R2)TDY-621UA<br>(R3)TDY-621WS<br>(R4)TDY-621WS | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY |
| V901 | (R1)54SX503Y22DC<br>(R2)A51KST93X(VM)<br>(R3)A51JSW90X(PAK)<br>(R4)A51KST93X(VM) | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE |
| V901M | KETSU<br>MAG-1070<br>MAG-1070<br>MAG-1070 | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE |
| G218 | 1/6W3.3K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K |
| R227 | 1/6W22K | 1/6W30K | 1/6W30K | 1/6W30K | 1/6W30K | 1/6W30K | 1/6W30K |
| L901 | (RA)TSB-2301AR<br>(RB)TSB-2301AL<br>(RC)TSB-2301AG | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT |
| P570 | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN |
| W661 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 |
| W662 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 | (RA)SPK-1418AO<br>(RB)SPK1389 |
| TEXT | NOT USED | NOT USED | NOT USED | NOT USED | NOT USED | NOT USED | NOT USED |
| R310 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| Q108 | NJM2234L | NJM2234L | NJM2234L | NJM2234L | NJM2234L | NJM2234L | NJM2234L |
| Z103 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | TCF1113 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 |
| GJ07 | OPEN | OPEN | SHORT | OPEN | OPEN | OPEN | OPEN |
| GJ08 | OPEN | OPEN | SHORT | OPEN | OPEN | OPEN | OPEN |
| GJ09 | SHORT | SHORT | OPEN | SHORT | SHORT | SHORT | SHORT |
| GJ10 | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ11 | SHORT | SHORT | OPEN | SHORT | SHORT | SHORT | SHORT |
| Z130 | (R1)OFWK6269K<br>(R2)F816KPL | (R1)OFWK6269K<br>(R2)F816KPL | OFWK2964K | (R1)OFWK6269K<br>(R2)F816KPL | (R1)OFWK6269K<br>(R2)F816KPL | (R1)OFWK6269K<br>(R2)F816KPL | (R1)OFWK6269K<br>(R2)F816KPL |
| GJ03 | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT |
| GJ04 | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN | (R1)OPEN<br>(R2)OPEN |
| GJ05 | (R1)OPEN<br>(R2)SHORT | (R1)OPEN<br>(R2)SHORT | SHORT | (R1)OPEN<br>(R2)SHORT | (R1)OPEN<br>(R2)SHORT | (R1)OPEN<br>(R2)SHORT | (R1)OPEN<br>(R2)SHORT |
| GJ06 | (R1)SHORT<br>(R2)OPEN | (R1)SHORT<br>(R2)OPEN | OPEN | (R1)SHORT<br>(R2)OPEN | (R1)SHORT<br>(R2)OPEN | (R1)SHORT<br>(R2)OPEN | (R1)SHORT<br>(R2)OPEN |
| H001 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 |
| GJ01 | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN |
| GJ02 | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN | (R1)OPEN<br>(R2)1/6W4.7K<br>(R3)OPEN<br>(R4)OPEN |
| C102 | OPEN | OPEN | 50V47^ | OPEN | OPEN | OPEN | OPEN |
| C104 | OPEN | OPEN | 50V47^ | OPEN | OPEN | OPEN | OPEN |
| C105 | OPEN | OPEN | 50V0.01PF | OPEN | OPEN | OPEN | OPEN |
| C107 | OPEN | OPEN | 50V0.01PF | OPEN | OPEN | OPEN | OPEN |
| GJ102 | OPEN | OPEN | SHORT | OPEN | OPEN | OPEN | OPEN |
| GJ108 | OPEN | OPEN | SHORT | OPEN | OPEN | OPEN | OPEN |
| L109 | OPEN | OPEN | 15^H | OPEN | OPEN | OPEN | OPEN |
| Q111 | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | KTA1266Y<br>2SA1015Y | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN |
| Q113 | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | KTC3198Y<br>2SC1740S | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN |
| Q114 | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | KTC3198Y<br>2SC1740S | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN |
| R125 | OPEN | OPEN | 1/6W100 | OPEN | OPEN | OPEN | OPEN |
| R126 | OPEN | OPEN | 1/6W1K | OPEN | OPEN | OPEN | OPEN |
| R127 | OPEN | OPEN | 1/6W100 | OPEN | OPEN | OPEN | OPEN |
| R128 | OPEN | OPEN | 1/6W2.2K | OPEN | OPEN | OPEN | OPEN |
| R129 | OPEN | OPEN | 1/6W10K | OPEN | OPEN | OPEN | OPEN |
| R139 | OPEN | OPEN | 1/6W10K | OPEN | OPEN | OPEN | OPEN |
| R149 | OPEN | OPEN | 1/6W1K | OPEN | OPEN | OPEN | OPEN |
| R150 | OPEN | OPEN | 1/6W220 | OPEN | OPEN | OPEN | OPEN |
| R151 | OPEN | OPEN | 1/6W220 | OPEN | OPEN | OPEN | OPEN |
| Z104 | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)TCF1135AM5.5M<br>(RB)TCF10315.5M | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN | (RA)OPEN<br>(RB)OPEN |
| Z105 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| Z106 | OPEN | OPEN | TCF10305.74M | OPEN | OPEN | OPEN | OPEN |
| Z107 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| C177 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| C178 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| L104 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| R124 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| C172 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ | 16V10^ |
| C173 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ | 16V10^ |
| C174 | 50V33P | 50V33P | OPEN | 50V33P | 50V33P | 50V33P | 50V33P |
| C175 | 50V33P | 50V33P | OPEN | 50V33P | 50V33P | 50V33P | 50V33P |
| L106 | 12^H | 12^H | OPEN | 12^H | 12^H | 12^H | 12^H |
| L107 | 12^H | 12^H | OPEN | 12^H | 12^H | 12^H | 12^H |
| QB61(RA) | KTC3198Y | KTC3198Y | OPEN | KTC3198Y | KTC3198Y | KTC3198Y | KTC3198Y |
| QB61(RB) | 2SC1740S | 2SC1740S | OPEN | 2SC1740S | 2SC1740S | 2SC1740S | 2SC1740S |
| R132 | 1/6W270 | 1/6W270 | OPEN | 1/6W270 | 1/6W270 | 1/6W270 | 1/6W270 |
| R133 | 1/6W270 | 1/6W270 | OPEN | 1/6W270 | 1/6W270 | 1/6W270 | 1/6W270 |
| RA75 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K | 1/6W10K |
| RA77 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| C150 | 50V0.01^F | 50V0.01^F | OPEN | 50V0.01^F | 50V0.01^F | 50V0.01^F | 50V0.01^F |
| D150 | 1SS110 | 1SS110 | OPEN | 1SS110 | 1SS110 | 1SS110 | 1SS110 |
| Q115(RA) | KTC3198 | KTC3198 | OPEN | KTC3198 | KTC3198 | KTC3198 | KTC3198 |
| Q115(RB) | 2SC1740 | 2SC1740 | OPEN | 2SC1740 | 2SC1740 | 2SC1740 | 2SC1740 |
| Q130 | 2SC2878A | 2SC2878A | OPEN | 2SC2878A | 2SC2878A | 2SC2878A | 2SC2878A |
| R113 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| R114 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| R116 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K | 1/6W10K |
| R117 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K | 1/6W10K |
| R172 | 1/6W1.6K | 1/6W1.6K | OPEN | 1/6W1.6K | 1/6W1.6K | 1/6W1.6K | 1/6W1.6K |
| R173 | 1/6W1K | 1/6W1K | OPEN | 1/6W1K | 1/6W1K | 1/6W1K | 1/6W1K |
| R174 | 1/6W47K | 1/6W47K | OPEN | 1/6W47K | 1/6W47K | 1/6W47K | 1/6W47K |
| R178 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K | 1/6W10K |
| R180 | 1/6W47K | 1/6W47K | OPEN | 1/6W47K | 1/6W47K | 1/6W47K | 1/6W47K |
| R181 | 1/6W22K | 1/6W22K | OPEN | 1/6W22K | 1/6W22K | 1/6W22K | 1/6W22K |
| C171 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ | 16V10^ |
| C810 | 400V270^ | 400V270^ | 400V270^ | 400V270^ | 400V270^ | 400V270^ | 400V270^ |
| Q100 | TMPA8801CMBN | TMPA8801CMBN | TMPA8801CMBN | TMPA8801CPNG4FA6 | TMPA8801CPCNG4G31 | TMPA8801CMBN | TMPA8801CPNG4FA6 |
| L108 | PL-27^H | PL-27^H | PL-12^H | PL-27^H | PL-27^H | PL-27^H | PL-27^H |
| R134 | 1/6W560 | 1/6W560 | 1/6W270 | 1/6W560 | 1/6W560 | 1/6W560 | 1/6W560 |
| R305 | 2W1.0 | 2W1.5 | 2W1.5 | 2W1.5 | 2W1.5 | 2W1.5 | 2W1.5 |

* MARKS DIFFERENCE REFER TO : MAIN

14V2E/14V2T/14V2M/14V2H
14V2R/14V2MJ
DIFFERENCE TABLE

| | | | | | | |
|---|---|---|---|---|---|---|
| L104 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| R124 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| C172 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ |
| C173 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ |
| C174 | 50V33P | 50V33P | OPEN | 50V33P | 50V33P | 50V33P |
| C175 | 50V33P | 50V33P | OPEN | 50V33P | 50V33P | 50V33P |
| L106 | 12^H | 12^H | OPEN | 12^H | 12^H | 12^H |
| L107 | 12^H | 12^H | OPEN | 12^H | 12^H | 12^H |
| QB61(RA) | KTC3198Y | KTC3198Y | OPEN | KTC3198Y | KTC3198Y | KTC3198Y |
| QB61(RB) | 2SC1740S | 2SC1740S | OPEN | 2SC1740S | 2SC1740S | 2SC1740S |
| R132 | 1/6W270 | 1/6W270 | OPEN | 1/6W270 | 1/6W270 | 1/6W270 |
| R133 | 1/6W270 | 1/6W270 | OPEN | 1/6W270 | 1/6W270 | 1/6W270 |
| RA75 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K |
| RA77 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| C150 | 50V0.01^F | 50V0.01^F | OPEN | 50V0.01^F | 50V0.01^F | 50V0.01^F |
| D150 | 1SS110 | 1SS110 | OPEN | 1SS110 | 1SS110 | 1SS110 |
| Q115(RA) | KTC3198 | KTC3198 | OPEN | KTC3198 | KTC3198 | KTC3198 |
| Q115(RB) | 2SC1740 | 2SC1740 | OPEN | 2SC1740 | 2SC1740 | 2SC1740 |
| Q130 | 2SC2878A | 2SC2878A | OPEN | 2SC2878A | 2SC2878A | 2SC2878A |
| R113 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| R114 | 1/6W4.7K | 1/6W4.7K | OPEN | 1/6W4.7K | 1/6W4.7K | 1/6W4.7K |
| R116 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K |
| R117 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K |
| R172 | 1/6W1.6K | 1/6W1.6K | OPEN | 1/6W1.6K | 1/6W1.6K | 1/6W1.6K |
| R173 | 1/6W1K | 1/6W1K | OPEN | 1/6W1K | 1/6W1K | 1/6W1K |
| R174 | 1/6W47K | 1/6W47K | OPEN | 1/6W47K | 1/6W47K | 1/6W47K |
| R178 | 1/6W10K | 1/6W10K | OPEN | 1/6W10K | 1/6W10K | 1/6W10K |
| R180 | 1/6W47K | 1/6W47K | OPEN | 1/6W47K | 1/6W47K | 1/6W47K |
| R181 | 1/6W22K | 1/6W22K | OPEN | 1/6W22K | 1/6W22K | 1/6W22K |
| C171 | 16V10^ | 16V10^ | OPEN | 16V10^ | 16V10^ | 16V10^ |
| C810 | 400V270^ | 400V270^ | 400V270^ | 400V270^ | 400V270^ | 400V270^ |
| Q100 | TMPA8801CMBN | TMPA8801CMBN | TMPA8801CMBN | TMPA8801CPNG4FA6 | TMPA8801CPCNG4G31 | TMPA8801CMI |
| L108 | PL-27^H | PL-27^H | PL-12^H | PL-27^H | PL-27^H | PL-27^H |
| R134 | 1/6W560 | 1/6W560 | 1/6W270 | 1/6W560 | 1/6W560 | 1/6W560 |
| R305 | 2W1.0 | 2W1.5 | 2W1.5 | 2W1.5 | 2W1.5 | 2W1.5 |

4 3 2 1

A B C D E F

| | | | | | | |
|---|---|---|---|---|---|---|
| GJ04 | (R1)□PEN<br>(R2)□PEN | (R1)□PEN<br>(R2)□PEN | (R1)□PEN<br>(R2)□PEN | (R1)□PEN<br>(R2)□PEN | (R1)□PEN<br>(R2)□PEN | (R1)□PEN<br>(R2)□PEN |
| GJ05 | (R1)□PEN<br>(R2)SHORT | (R1)□PEN<br>(R2)SHORT | SHORT | (R1)□PEN<br>(R2)SHORT | (R1)□PEN<br>(R2)SHORT | (R1)□PEN<br>(R2)SHORT |
| GJ06 | (R1)SHORT<br>(R2)□PEN | (R1)SHORT<br>(R2)□PEN | □PEN | (R1)SHORT<br>(R2)□PEN | (R1)SHORT<br>(R2)□PEN | (R1)SHORT<br>(R2)□PEN |
| H001 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 | (R1)ECA33LX8<br>(R2)ECA33LX6<br>(R3)ECA33LX1<br>(R4)ECA33LX2 |
| GJ01 | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN |
| GJ02 | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN | (R1)□PEN<br>(R2)1/6W4.7K<br>(R3)□PEN<br>(R4)□PEN |
| C102 | □PEN | □PEN | 50V47^ | □PEN | □PEN | □PEN |
| C104 | □PEN | □PEN | 50V47^ | □PEN | □PEN | □PEN |
| C105 | □PEN | □PEN | 50V0.01PF | □PEN | □PEN | □PEN |
| C107 | □PEN | □PEN | 50V0.01PF | □PEN | □PEN | □PEN |
| GJ102 | □PEN | □PEN | SHORT | □PEN | □PEN | □PEN |
| GJ108 | □PEN | □PEN | SHORT | □PEN | □PEN | □PEN |
| L109 | □PEN | □PEN | 15^H | □PEN | □PEN | □PEN |
| Q111 | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | KTA1266Y<br>2SA1015Y | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN |
| Q113 | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | KTC3198Y<br>2SC1740S | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN |
| Q114 | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | KTC3198Y<br>2SC1740S | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN |
| R125 | □PEN | □PEN | 1/6W100 | □PEN | □PEN | □PEN |
| R126 | □PEN | □PEN | 1/6W1K | □PEN | □PEN | □PEN |
| R127 | □PEN | □PEN | 1/6W100 | □PEN | □PEN | □PEN |
| R128 | □PEN | □PEN | 1/6W2.2K | □PEN | □PEN | □PEN |
| R129 | □PEN | □PEN | 1/6W10K | □PEN | □PEN | □PEN |
| R139 | □PEN | □PEN | 1/6W10K | □PEN | □PEN | □PEN |
| R149 | □PEN | □PEN | 1/6W1K | □PEN | □PEN | □PEN |
| R150 | □PEN | □PEN | 1/6W220 | □PEN | □PEN | □PEN |
| R151 | □PEN | □PEN | 1/6W220 | □PEN | □PEN | □PEN |
| Z104 | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | (RA)TCF1135AM5.5M<br>(RB)TCF10315.5M | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN | (RA)□PEN<br>(RB)□PEN |
| Z105 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| Z106 | □PEN | □PEN | TCF10305.74M | □PEN | □PEN | □PEN |
| Z107 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| C177 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| C178 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| L104 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| R124 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |

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|---|---|---|---|---|---|---|
| | (RC)TRF3148 | (RC)TRF3148 | (RC)TRF3148 | (RC)TRF3148 | (RC)TRF3148 | (RC)TRF3148 |
| Q404 | (R1)2SD2499(FA)<br>(R2)□N4409 | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE | 2SD2599(FA)<br>DELETE |
| R412 | □PEN<br>1/6W56 | □PEN<br>DELETE | □PEN<br>DELETE | □PEN<br>DELETE | □PEN<br>DELETE | □PEN<br>DELETE |
| C442 | (R1)250V0.33^F<br>(R2)250V0.33^F<br>(R3)250V0.43^F<br>(R4)250V0.43^F | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE |
| L462 | (R1)KETSU<br>(R2)TDY-621UA<br>(R3)TDY-621WS<br>(R4)TDY-621WS | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY | TDY-314PV<br>TDY-314PY |
| V901 | (R1)54SX503Y22DC<br>(R2)A51KST93X(VM)<br>(R3)A51JSW90X(PAK)<br>(R4)A51KST93X(VM) | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE | A34LWG70X<br>DELETE<br>DELETE<br>DELETE |
| V901M | KETSU<br>MAG-1070<br>MAG-1070<br>MAG-1070 | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE | MAG-1070<br>DELETE<br>DELETE<br>DELETE |
| G218 | 1/6W3.3K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K | 1/6W3.9K |
| R227 | 1/6W22K | 1/6W30K | 1/6W30K | 1/6W30K | 1/6W30K | 1/6W30K |
| L901 | (RA)TSB-2301AR<br>(RB)TSB-2301AL<br>(RC)TSB-2301AG | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360A |
| P570 | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN | PLUG6PIN |
| W661 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 |
| W662 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 | (RA)SPK-1418A□<br>(RB)SPK1389 |
| TEXT | NOT USED | NOT USED | NOT USED | NOT USED | NOT USED | NOT USED |
| R310 | □PEN | □PEN | □PEN | □PEN | □PEN | □PEN |
| Q108 | NJM2234L | NJM2234L | NJM2234L | NJM2234L | NJM2234L | NJM2234L |
| Z103 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | TCF1113 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 |
| GJ07 | □PEN | □PEN | SHORT | □PEN | □PEN | □PEN |
| GJ08 | □PEN | □PEN | SHORT | □PEN | □PEN | □PEN |
| GJ09 | SHORT | SHORT | □PEN | SHORT | SHORT | SHORT |
| GJ10 | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ11 | SHORT | SHORT | □PEN | SHORT | SHORT | SHORT |
| Z130 | (R1)□FWK6269K<br>(R2)F816KPL | (R1)□FWK6269K<br>(R2)F816KPL | □FWK2964K | (R1)□FWK6269K<br>(R2)F816KPL | (R1)□FWK6269K<br>(R2)F816KPL | (R1)□FWK6269K<br>(R2)F816KPL |
| GJ03 | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT | (R1)SHORT<br>(R2)SHORT |

| 21V2E | | 14V2E | 14V2T | 14V2M | 14V2H | 14V2R |
|---|---|---|---|---|---|---|
| MODEL(JOB)<br>MAIN UNIT | | | | | | |
| C904 | 50V470PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF |
| C905 | 50V470PF | 50V330PF | 50V330PF | 50V330PF | 50V330PF | 50V330PF |
| C907 | 50V560PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF | 50V390PF |
| R920 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 | 1W4.7 |
| R915 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| R922 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| R929 | 1/6W470 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 | 1/6W680 |
| C306 | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F | 25V1000^F |
| C307 | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F | 100V0.047^F |
| C320 | 35V100^F | 35V100^F | 35V100^F | 35V100^F | 35V100^F | 35V100^F |
| C440 | 1.5KV6000PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF | 1.25KV7200PF |
| C444 | 1.5KV1500PF | OPEN | OPEN | OPEN | OPEN | OPEN |
| C446 | 250V10^F | 250V10^F | 250V10^F | 250V10^F | 250V10^F | 250V10^F |
| C467 | 630V0.018^F | OPEN | OPEN | OPEN | OPEN | OPEN |
| D440 | ERC06-15L | OPEN | OPEN | OPEN | OPEN | OPEN |
| D444 | RU-4AM | OPEN | OPEN | OPEN | OPEN | OPEN |
| GJ14 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ15 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ16 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ17 | OPEN | SHORT | SHORT | SHORT | SHORT | SHORT |
| GJ301 | OPEN | OPEN | OPEN | OPEN | OPEN | OPEN |
| GJ302 | SHORT | SHORT | SHORT | SHORT | SHORT | SHORT |
| L441 | (RA)TLN2112AC<br>(RB)TLN2112G | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN | OPEN<br>OPEN |
| R306 | 1/6W62K | 1/6W56K | 1/6W56K | 1/6W56K | 1/6W56K | 1/6W56K |
| R312 | 1/2W1.2K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K | 1/2W2.7K |
| R313 | 1/6W47K | 1/6W51K | 1/6W51K | 1/6W51K | 1/6W51K | 1/6W51K |
| R336 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 |
| R441 | 1W1K | OPEN | OPEN | OPEN | OPEN | OPEN |
| R442 | OPEN | 2W330 | 2W330 | 2W330 | 2W330 | 2W330 |
| R470 | 1W0.68 | 1W0.75 | 1W0.75 | 1W0.75 | 1W0.75 | 1W0.75 |
| F470 | 250V0.63A | 250V0.5A | 250V0.5A | 250V0.5A | 250V0.5A | 250V0.5A |
| T461 | (RA)TFB4125CS<br>(RB)TFB4125DY<br>(RC)TFB4125CH | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED | (RA)TFB4122CY<br>(RB)TFB4122ES<br>(RC)TFB4122ED |
| T801 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 | (RA)TRF3148BC<br>(RB)TRF3148BQ<br>(RC)TRF3148 |

| | |
|---|---|
| | OPEN |
| | OPEN |
| | 16V10^ |
| | 16V10^ |
| | 50V33P |
| | 50V33P |
| | 12^H |
| | 12^H |
| | KTC3198Y |
| | 2SC1740S |
| | 1/6W270 |
| | 1/6W270 |
| | 1/6W10K |
| | 1/6W4.7K |
| | 50V0.01^F |
| | 1SS110 |
| | KTC3198 |
| | 2SC1740 |
| | 2SC2878A |
| | 1/6W4.7K |
| | 1/6W4.7K |
| | 1/6W10K |
| | 1/6W10K |
| | 1/6W1.6K |
| | 1/6W1K |
| | 1/6W47K |
| | 1/6W10K |
| | 1/6W47K |
| | 1/6W22K |
| | 16V10^ |
| | 400V270^ |
| 1CMBN | TMPA8801CPNG4FA6 |
| | PL-27^H |
| | 1/6W560 |
| | 2W1.5 |

| | |
|---|---|
| | |
| | ⟨R1⟩□PEN<br>⟨R2⟩□PEN |
| | ⟨R1⟩□PEN<br>⟨R2⟩SH□RT |
| | ⟨R1⟩SH□RT<br>⟨R2⟩□PEN |
| 3 | ⟨R1⟩ECA33LX8 |
| 5 | ⟨R2⟩ECA33LX6 |
| 1 | ⟨R3⟩ECA33LX1 |
| 2 | ⟨R4⟩ECA33LX2 |
| | ⟨R1⟩□PEN<br>⟨R2⟩1/6W4.7K<br>⟨R3⟩□PEN<br>⟨R4⟩□PEN |
| | ⟨R1⟩□PEN<br>⟨R2⟩1/6W4.7K<br>⟨R3⟩□PEN<br>⟨R4⟩□PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | ⟨RA⟩□PEN<br>⟨RB⟩□PEN |
| | ⟨RA⟩□PEN<br>⟨RB⟩□PEN |
| | ⟨RA⟩□PEN<br>⟨RB⟩□PEN |
| | □PEN |
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| | □PEN |
| | □PEN |
| | ⟨RA⟩□PEN<br>⟨RB⟩□PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |
| | □PEN |

8 7 6 5

| | |
|---|---|
| | (RC)TRF3148 |
| ? | 2SD2599(FA)<br>DELETE |
| | OPEN<br>DELETE |
| ^F | (R1)250V0.51^F<br>DELETE<br>DELETE<br>DELETE |
| | TDY-314PV<br>TDY-314PY |
| | A34LWG70X<br>DELETE<br>DELETE<br>DELETE |
| | MAG-1070<br>DELETE<br>DELETE<br>DELETE |
| | 1/6W3.9K |
| | 1/6W30K |
| 0AK<br>0AR<br>360AL/AT | (RA)TSB-2360AK<br>(RB)TSB-2360AR<br>(RC)TSB-2360AL/AT |
| | PLUG6PIN |
| AO | (RA)SPK-1418AO<br>(RB)SPK1389 |
| AO | (RA)SPK-1418AO<br>(RB)SPK1389 |
| | NOT USED |
| | OPEN |
| | NJM2234L |
| M<br>2 | (RA)TCF1138AM<br>(RB)TPS4.5MC2<br>(RC)TCF1010 |
| | OPEN |
| | OPEN |
| | SHORT |
| | SHORT |
| | SHORT |
| 9K | (R1)OFWK6269K<br>(R2)F816KPL |
| | (R1)SHORT<br>(R2)SHORT |

* MARKS DIFFERENCE REFER TO : MAIN

9 10 11 12

| | | |
|---|---|---|
| | | 14V2MJ |
| | | 50V390PF |
| | | 50V330PF |
| | | 50V390PF |
| | | 1W4.7 |
| | | 1/6W680 |
| | | 1/6W680 |
| | | 1/6W680 |
| | | 25V1000^F |
| | | 100V0.047^F |
| | | 35V100^F |
| | | 1.25KV7200PF |
| | | OPEN |
| | | 250V10^F |
| | | OPEN |
| | | OPEN |
| | | OPEN |
| | | SHORT |
| | | SHORT |
| | | SHORT |
| | | SHORT |
| | | OPEN |
| | | SHORT |
| | | OPEN |
| | | OPEN |
| | | 1/6W56K |
| | | 1/2W2.7K |
| | | 1/6W51K |
| | | 2W330 |
| | | OPEN |
| | | 2W330 |
| | | 1W0.75 |
| | | 250V0.5A |
| | | (RA)TFB4122CY |
| | | (RB)TFB4122ES |
| | | (RC)TFB4122ED |
| | | (RA)TRF3148BC |
| | | (RB)TRF3148BQ |
| | | (RC)TRF3148 |

14V2E/14V2T/14V2M/14V2H
14V2R/14V2MJ
DIFFERENCE TABLE

| SPECIFICATIONS (Representative: 14V2E) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Rated voltage | | AC 110 V – 240 V, 50/60 Hz | | | | | |
| Power consumption (at AC 220 V, 50 Hz) | | 60 W | | | | | |
| Dimensions | | Width 478 mm × Height 362 mm × Depth 375 mm | | | | | |
| Mass | | 10.1 kg | | | | | |
| Picture tube | | TYPE 14 (372.5 mm) Overall picture tube measured diagonally<br>(335.4 mm) Viewable picture tube measured diagonally<br>90° deflection | | | | | |
| Television system (Aerial input) | Channel coverage | **System** | | **Channel** | **VHF** | **UHF** | **CATV** |
| | | PAL | B/G | CCIR | 2 – 12 | 21 – 69 | X ~ Z+2, S1 ~ S41 |
| | | PAL | I | UK | — | 21 – 69 | — |
| | | PAL | D/K | CHINA | 1 – 12 | 13 – 57 | Z–1 ~ Z–38 |
| | | SECAM | B/G | CCIR | 2 – 12 | 21 – 69 | X ~ Z+2, S1 ~ S41 |
| | | SECAM | D/K | OIRT | 1 – 12 | 21 – 69 | X1 ~ X19 |
| | | NTSC | M | US | 2 – 13 | 14 – 69 | A–6 ~ A–1, A ~ W, AA ~ ZZ, AAA, BBB |
| | | NTSC | M | JAPAN | 1 – 12 | 13 – 62 | M1 ~ M10, S1 ~ S41 |
| | Special RF signal | **Colour system** | | **Sound system** | | | |
| | | 4.43NTSC | | 5.5/6.0/6.5 MHz | | | |
| | | PAL 60Hz | | 5.5/6.0/6.5 MHz | | | |
| Colour system (Video input) | | PAL / SECAM / NTSC4.43 / NTSC3.58 | | | | | |
| Audio power | | 5 W (10% THD) | | | | | |
| Speaker | | 60 × 120 mm 2 pcs | | | | | |
| Accessories | | Remote Controller × 1<br>Battery (R03, AAA) × 2 | | | | | |

* Please refer to owner's manual in detail.

– END –

TOSHIBA

FILE NO. 063-200215

SERVICE MANUAL

# COLOUR TELEVISION

S2E Chassis

# *14V2T, 14V2R 14V2H*

## – SUMMARY –

14V2T, 14V2R, 14V2H are the same as 14V2E except for the parts tabled on back of this sheet. Use this service manual together with the original service manual of 14V2E, 14V2M, 14V2MJ (File No. 060-200214).

Oct., 2002

# REPLACEMENT PARTS LIST DIFFERENCES

| Location No. | Part No. | Description |
|---|---|---|
| A201 | 23530642 | Front Cover (14V2T) |
| A701 | 23067001 | Case (14V2T) |
| A701 | 23067024 | Case (14V2R) |
| A701 | 23064998 | Case (14V2H) |
| C102 | 24436470 | CD, 47pF (14V2T) |
| C104 | 24436470 | CD, 47pF (14V2T) |
| C105 | 24232103 | CD, 0.01μF, +80%, -20% (14V2T) |
| C107 | 24232103 | CD, 0.01μF, +80%, -20% (14V2T) |
| C113 | 24232103 | CD, 0.01μF, +80%, -20% (14V2R) |
| C114 | 24436470 | CD, 47pF (14V2R) |
| C115 | 24436220 | CD, 22pF (14V2R) |
| C122 | 24212102 | CD, 1000pF, ±10% (14V2R) |
| C140 | 24436220 | CD, 22pF (14V2R) |
| C152 | 24212102 | CD, 1000pF, ±10% (14V2R) |
| C153 | 24212102 | CD, 1000pF, ±10% (14V2R) |
| C154 | 24212102 | CD, 1000pF, ±10% (14V2R) |
| C518 | 24232103 | CD, 0.01μF, +80%, -20% (14V2R) |
| C564 | 24212102 | CD, 1000pF, ±10% (14V2R) |
| CC08 | 24436330 | CD, 33pF (14V2R) |
| CC10 | 24232103 | CD, 0.01μF, +80%, -20% (14V2R) |
| G102 | 23103248 | Coil (Ferrite Bead), TEM2014AA (14V2R) |
| G103 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| G104 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| G881 | 23248227 | Coil, Choke, TLN3481AD (14V2R) |
| G882 | 23248227 | Coil, Choke, TLN3481AD (14V2R) |
| G885 | 23248227 | Coil, Choke, TLN3481AD (14V2R) |
| G887 | 23248227 | Coil, Choke, TLN3481AD (14V2R) |
| G890 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| G891 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| G892 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| G893 | 23103249 | Coil (Ferrite Bead), TEM2011AO (14V2R) |
| GR01 | 24366102 | CF, 1k ohm (14V2R) |
| GR03 | 24366102 | CF, 1k ohm (14V2R) |
| L108 | 23238713 | Coil, Peaking, TRF4120AJ (14V2T) |
| L109 | 23289150 | Coil, Peaking, TRF4150A (14V2T) |

| Location No. | Part No. | Description |
|---|---|---|
| L113 | 23238503 | Coil, Peaking, TRF4129AJ (14V2R) |
| L114 | 23238562 | Coil, Peaking, TRF4109A (14V2R) |
| LC01 | 23238513 | Coil, Peaking, TRF4R22AJ (14V2R) |
| LC02 | 23261959 | Coil, Choke, TRF9240 (14V2R) |
| LC03 | 23261959 | Coil, Choke, TRF9240 (14V2R) |
| LC04 | 23289100 | Coil, Peaking, TRF4100A (14V2R) |
| P801 | 23372199 | Power Cord (14V2T) |
| P801 | 23372052 | Power Cord (14V2R) |
| P801 | 23372168 | Power Cord (14V2H) |
| Q100 | 23009389 | IC, TMPA8801CPCNG4JG9 (14V2R) |
| Q111 | 23314962 | Transistor, KTA1266 Y (14V2T) |
| Q113 | 23314965 | Transistor, KTC3198 Y (14V2T) |
| Q114 | 23314965 | Transistor, KTC3198 Y (14V2T) |
| R103 | 24366272 | CF, 2700 ohm (14V2R) |
| R105 | 24366331 | CF, 330 ohm (14V2R) |
| R107 | 24366330 | CF, 33 ohm (14V2R) |
| R110 | 24366102 | CF, 1k ohm (14V2R) |
| R111 | 24366360 | CF, 36 ohm (14V2R) |
| R125 | 24366101 | CF, 100 ohm (14V2T) |
| R126 | 24366102 | CF, 1k ohm (14V2T) |
| R127 | 24366101 | CF, 100 ohm (14V2T) |
| R128 | 24366222 | CF, 2200 ohm (14V2T) |
| R129 | 24366103 | CF, 10k ohm (14V2T) |
| R134 | 24366271 | CF, 270 ohm (14V2T) |
| R139 | 24366103 | CF, 10k ohm (14V2T) |
| R149 | 24366102 | CF, 1k ohm (14V2T) |
| R150 | 24366221 | CF, 220 ohm (14V2T) |
| R151 | 24366221 | CF, 220 ohm (14V2T) |
| R152 | 24366102 | CF, 1k ohm (14V2R) |
| R155 | 24366684 | CF, 680k ohm (14V2R) |
| R159 | 24366102 | CF, 1k ohm (14V2R) |
| ✻ U902 | 23788098 | MAIN Board, PD0934 (14V2T) |
| ✻ U902 | 23788273 | MAIN Board, PD0997 (14V2R) |
| Y101A | 23565808 | Owner's Manual, English/Thai, 14V2T |
| Y101A | 23565837 | Owner's Manual, English/Russian, 14V2R |
| Y101A | 23565805 | Owner's Manual, English/Cantonese, 14V2H |
| Z103 | 23303188 | Ceramic Trap, TCF1113 (14V2T) |
| Z104 | 23303268 | Filter, TCF1135AM (14V2T) |
| Z106 | 23107856 | Ceramic Filter, TCF1030(14V2T) |
| Z130 | 23303176 | Filter, SAW, OFWK2964M (14V2T) |
| Z130 | 23303230 | Filter, 38MHZ, F816KPL (14V2R) |
| ZC01 | 23303166 | Ceramic Trap, TCF1107 (14V2R) |
| ZC02 | 23303224 | Ceramic Trap, TCF1120AM (14V2R) |

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

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