

# SERVICE MANUAL

## AE-6X CHASSIS

| MODEL           | COMMANDER | DEST | CHASSIS NO. | MODEL            | COMMANDER | DEST | CHASSIS NO. |
|-----------------|-----------|------|-------------|------------------|-----------|------|-------------|
| <b>KP-44PX2</b> | RM-938    | AEP  | SCC-Q85C-A  | <b>KP-44PX2U</b> | RM-938    | UK   | SCC-Q84G-A  |



KP-44PX2



RM-938

PROJECTION TV  
**SONY**®

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### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

| ITEM MODEL | Television System | Stereo System       | Channel Coverage                                                                                                                                      | Color System                                   |
|------------|-------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| A          | B/G/H, D/K, I, L  | GERMAN/NICAM Stereo | VHF : E02-12, R01-12<br>L: F02-10, B-Q<br>D/K: R1-12<br>UHF : E21-69<br>L: 012-69<br>D/K: R21-69<br>I: B21-69<br>CABLE TV : S1-S20<br>HYPER : S21-S41 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| U          | I                 | NICAM Stereo        | B21-69                                                                                                                                                | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |

|                                                                 |                                                                                                                   |                                          |                                                                                                             |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Projected Picture Size                                          | Approx 110 cm (44 inches)<br>(Approx 110 cm picture measured diagonally)                                          | Sound output                             |                                                                                                             |
|                                                                 |                                                                                                                   | Right and Left speaker                   | 2x30W (Music Power)    2x15W (RMS)                                                                          |
| Input/Output Terminals [REAR]                                   |                                                                                                                   | General Specifications                   |                                                                                                             |
| 1: 21-pin Euro connector<br>(CENELEC standard)                  | Inputs for Audio and Video signals.<br>Inputs for RGB.<br>Outputs of TV Video and Audio signals.                  | Power Requirements                       | 220 - 240V                                                                                                  |
|                                                                 |                                                                                                                   | Power Consumption                        | 225 W                                                                                                       |
| 2: 21-pin Euro connector                                        | Inputs for Audio and Video signals.<br>Inputs for RGB.<br>Outputs of TV Video and Audio signals.<br>(Monitor Out) | Dimensions                               | Approx 1097x1161x546mm                                                                                      |
|                                                                 |                                                                                                                   | Weight                                   | Approx 64kg                                                                                                 |
| 3: 21-pin Euro connector                                        | Inputs for Audio and Video signals.<br>(Selectable)<br>Inputs for S Video.<br>AV Link                             | Supplied Accessories                     | RM-938 Remote Commander (1)<br>IEC designated R6 battery (2)                                                |
| Phono Jacks                                                     | Output Connectors variable for Audio Signals                                                                      | Other Features                           | 100 Hz Digital Plus, DCF, DNR, Auto Noise Reduction, PIP, Teletext, Picture Freeze, Virtual Dolby, BBE, DSP |
| Input/Output Terminals [SIDE]                                   |                                                                                                                   | Remote Control System : Infrared Control |                                                                                                             |
| Headphone jack                                                  | stereo mini jack                                                                                                  | Power requirements                       | 3V dc<br>2 batteries IEC designation<br>R6 (size AA)                                                        |
| Audio inputs                                                    | phono jacks                                                                                                       |                                          |                                                                                                             |
| Video inputs                                                    | phono jacks                                                                                                       |                                          |                                                                                                             |
| S Video input                                                   | 4 pin DIN                                                                                                         |                                          |                                                                                                             |
| Design and specifications are subject to change without notice. |                                                                                                                   |                                          |                                                                                                             |

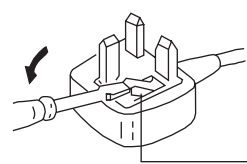
| Model Name<br>Item | KP-44PX2 | KP-44PX2U |
|--------------------|----------|-----------|
| Pal Comb           | OFF      | OFF       |
| PIP                | OFF      | OFF       |
| RGB Priority       | ON       | ON        |
| Woofers Box        | OFF      | OFF       |
| Scart 1            | ON       | ON        |
| Scart 2            | ON       | ON        |
| Scart 3            | ON       | ON        |
| Front in (4)       | ON       | ON        |
| Scart 4            | OFF      | OFF       |
| Projector          | ON       | ON        |
| Norm B/G           | ON       | OFF       |
| Norm I             | ON       | ON        |
| Norm D/K           | ON       | OFF       |
| Norm AUS           | OFF      | OFF       |
| Norm L             | ON       | OFF       |
| Norm SAT           | OFF      | OFF       |
| Norm M             | OFF      | OFF       |
| Teletext           | ON       | ON        |
| Nicam Stereo       | ON       | ON        |

## WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

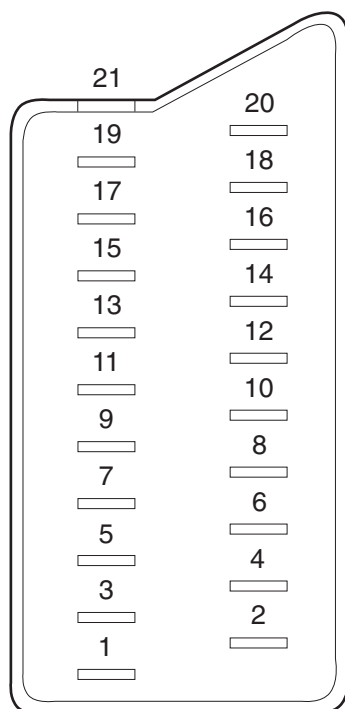
When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.  
Open the fuse compartment with a screwdriver blade and replace the fuse.

FUSE

## 21 pin connector



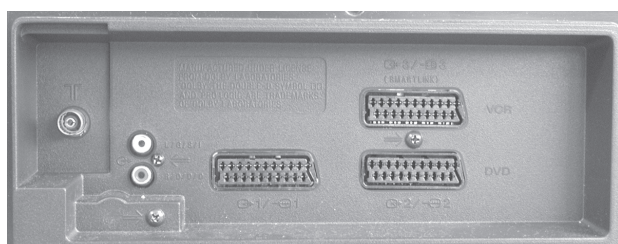
| Pin No | 1 | 2 | 3 | Signal                       | Signal level                                                                                                                                |
|--------|---|---|---|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | ○ | ○ | ○ | Audio output B (right)       | Standard level : 0.5V rms<br>Output impedance : Less than 1kohm*                                                                            |
| 2      | ○ | ○ | ○ | Audio input B (right)        | Standard level : 0.5V rms<br>Output impedance : More than 10kohm*                                                                           |
| 3      | ○ | ○ | ○ | Audio output A (left)        | Standard level : 0.5V rms<br>Output impedance : Less than 1kohm*                                                                            |
| 4      | ○ | ○ | ○ | Ground (audio)               |                                                                                                                                             |
| 5      | ○ | ○ | ○ | Ground (blue)                |                                                                                                                                             |
| 6      | ○ | ○ | ○ | Audio input A (left)         | Standard level : 0.5V rms<br>Output impedance : More than 10kohm*                                                                           |
| 7      | ○ | ● | ● | Blue input                   | 0.7 +/- 3dB, 75 ohms positive                                                                                                               |
| 8      | ○ | ○ | ○ | Function select (AV control) | High state (9.5-12V) : Part mode<br>Low state (0-2V) : TV mode<br>Input impedance : More than 10K ohms<br>Input capacitance : Less than 2nF |
| 9      | ○ | ○ | ○ | Ground (green)               |                                                                                                                                             |
| 10     | ○ | ○ | ○ | Open                         |                                                                                                                                             |
| 11     | ○ | ● | ● | Green                        | Green signal : 0.7 +/- 3dB, 75 ohms, positive                                                                                               |
| 12     | ○ | ○ | ○ | Open                         |                                                                                                                                             |
| 13     | ○ | ○ | ○ | Ground (red)                 |                                                                                                                                             |
| 14     | ○ | ○ | ○ | Ground (blanking)            |                                                                                                                                             |
| 15     | ○ | - | - | Red input                    | 0.7 +/- 3dB, 75 ohms, positive                                                                                                              |
|        | - | ○ | ○ | (S signal Chroma input)      | 0.3 +/- 3dB, 75 ohms, positive                                                                                                              |
| 16     | ○ | ● | ● | Blanking input (Ys signal)   | High state (1-3V) Low state (0-0.4V)<br>Input impedance : 75 ohms                                                                           |
| 17     | ○ | ○ | ○ | Ground (video output)        |                                                                                                                                             |
| 18     | ○ | ○ | ○ | Ground (video input)         |                                                                                                                                             |
| 19     | ○ | ○ | ○ | Video output                 | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)                                                                                            |
| 20     | ○ | - | - | Video input                  | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)                                                                                            |
|        | - | ○ | ○ | Video input Y (S signal)     | 1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)                                                                                            |
| 21     | ○ | ○ | ○ | Common ground (plug, shield) |                                                                                                                                             |

○ Connected



Not Connected (open) \* at 20Hz - 20kHz

## Rear Connection Panel



## Front Connection Panel

## S-Video socket



| S Video socket pin configuration |                    |                                                |
|----------------------------------|--------------------|------------------------------------------------|
| Pin No                           | Signal             | Signal Level                                   |
| 1                                | Ground             | -                                              |
| 2                                | Ground             | -                                              |
| 3                                | Y (S signal) input | 1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB |
| 4                                | C (S signal) input | 0.3V +/- 3dB 75ohm, positive Sync.             |



## SECTION 1 SELF DIAGNOSIS FUNCTION

### 1-1. AE-6X Self Diagnostic Software

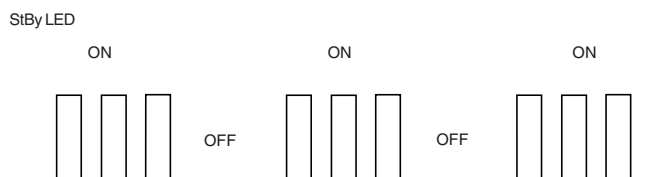
The identification of errors within the AE-6X chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1, non fatal errors are reported using this method.

Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

| Error Message                                   | LED Code |
|-------------------------------------------------|----------|
| No error                                        | 00       |
| Reserved                                        | 01       |
| OCP ( Over Current Protection )                 | 02       |
| Over Voltage Protection                         | 03       |
| No Vertical Sync                                | 04       |
| IKR Error at power on                           | 05       |
| IIC bus clock and/or data lines low at power on | 06       |
| NVM no IIC bus acknowledge at power on          | 07       |
| Horizontal Protection                           | 08       |
| Tuner no acknowledge at power on                | 09       |
| Sound Processor Error                           | 10       |
| Reserved                                        | 11       |
| Scanrate Error                                  | 12       |
| DAC Error                                       | 13       |
| Backend Error                                   | 14       |
| Dynamic Convergence Error                       | 15       |
| PIP Error                                       | 16       |

Flash Timing Example : e.g. error number 3



How to enter into Table 2

1. Turn on the main power switch of the TV set.
2. Program Remote Commander for Operation in Service Mode. [See Page 23].
3. Press 'VIDEO' 'VIDEO' > 'MENU' on the Remote Commander.
4. Using the Remote Commander, Scroll to the 'Error Menu' item using the down arrow key, then press the right arrow key.
5. The following table will be displayed indicating the error count.

Table 2

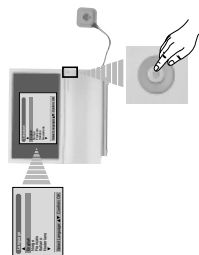
| ERROR MENU   |          |          |    |
|--------------|----------|----------|----|
| E02          | OCP      | (0, 255) | 0  |
| E03          | OVP      | (0, 255) | 0  |
| E04          | VSYNC    | (0, 255) | 0  |
| E05          | IKR      | (0, 255) | 0  |
| E06          | IIC      | (0, 255) | 0  |
| E07          | NVM      | (0, 255) | 0  |
| E08          | HPROT    | (0, 255) | 0  |
| E09          | TUNER    | (0, 255) | 0  |
| E10          | SOUNDP   | (0, 255) | 0  |
| E11          | -        | (0, 255) | 0  |
| E12          | SCANRATE | (0, 255) | 0  |
| E13          | DAC      | (0, 255) | 0  |
| E14          | BACKEND  | (0, 255) | 0  |
| E15          | -        | (0, 255) | 0  |
| E16          | PIP      | (0, 255) | 0  |
| WORKING TIME |          |          |    |
| HOURS        |          |          | 14 |
| MINUTES      |          |          | 7  |

**Note:** To clear the error count data press '80' on the Remote commander.

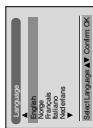
## Switching On the Projection TV and Automatically Tuning

**6** The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) choose the country in which you wish to operate the TV, 3) search and store all available channels (TV Broadcast) and 4) change the order in which the channels (TV Broadcast) appear on the screen. However, if you need to change any of these settings at a later date, you can do that by selecting the appropriate option in the **Set Up menu** or by pressing the **Auto Start Up Button**  /  on the TV set.

- 1 Connect the Projection TV plug to the mains socket (220-240V AC, 50Hz). The first time that the TV set is connected, it is usually turned on. If the TV is off, press the **On / off** button on the TV set to turn on the TV.  
The first time you switch on the TV, a **Language** menu displays automatically on the TV screen.



**2** Press the **▼** or **▲** button on the remote control to select the language, then press the **OK** button to confirm your selection. From now on all the menus will appear in the selected language.



**3** The **Country** menu appears automatically on the TV screen. Press the **♦** or **♠** button to select the country in which you will operate the TV set, then press the **OK** button to confirm your selection.

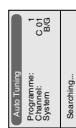


- If the country in which you want to use the TV se does not appear in the list, select “-” instead of a country.
- In order to avoid wrong teletext characters for Cyrillic languages we recommend to select Russia country in the case that your own country does not appear in the list.

**4** The Auto Tuning menu appears on the screen. Press the **OK** button to select **Yes**.

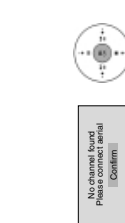


**5** The projection TV starts to automatically search and store all available broadcast channels for you.



 This procedure could take some minutes. Please be patient and do not press any buttons, otherwise automatic tuning will not be completed.

In some countries the TV Broadcaster installs the channels automatically (ACI system). In this case, the TV Broadcaster sends a menu in which you can select your city by pressing the **↓** or **↙** button and **OK** to store the channels.



 If no channels were found during the auto tuning process then a new menu appears automatically on the screen asking you to connect the aerial. Please connect the aerial (see page 7) and press **OK**. The auto tuning process will start again.

continued...

**6** After all available channels are captured and stored, the **Programme Sorting** menu automatically appears on the screen enabling you to change the order in which the channels appear on the screen.

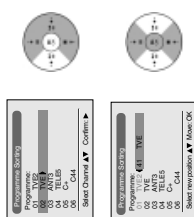
- a)** If you wish to keep the broadcast channels in the tuned order, go to step 7.

**b) If you wish to store the channels in a different order:**

- 1** Press the **◆** or **▲** button to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press the **▶** button.

- 2** Press the **▼** or **▲** button to select the new programme number position for your selected channel (TV Broadcast), then press **OK**.

- 3** Repeat steps b)1 and b)2 if you wish to change the order of the other channels.



## MENU

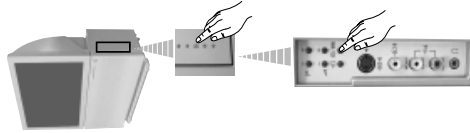


**7** Press the **MENU** button to remove the menu from the screen.

 Your projection TV is now ready for use.

## Adjusting Colour Registration (Convergence)

- 1** Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images.  
In that case, proceed as follows.



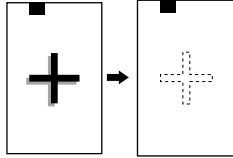
### Auto converge the Red, Green, and Blue Lines

- 1** Press on the mark on the right side of the projection TV.

- 2** Press / button.

The Auto Convergence function works for about 10 seconds. When the white cross disappears from the screen, your projection TV is ready for use.

- The Auto Convergence function does not work when:
- no signal is input.
  - the input signal is weak.
  - the screen is exposed to spotlights or direct sunlight.
  - you watch NexTV.



## Introducing and Using the Menu system

- 1** Your projection TV uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:

- 1** Press the **MENU** button to switch the first level menu on.



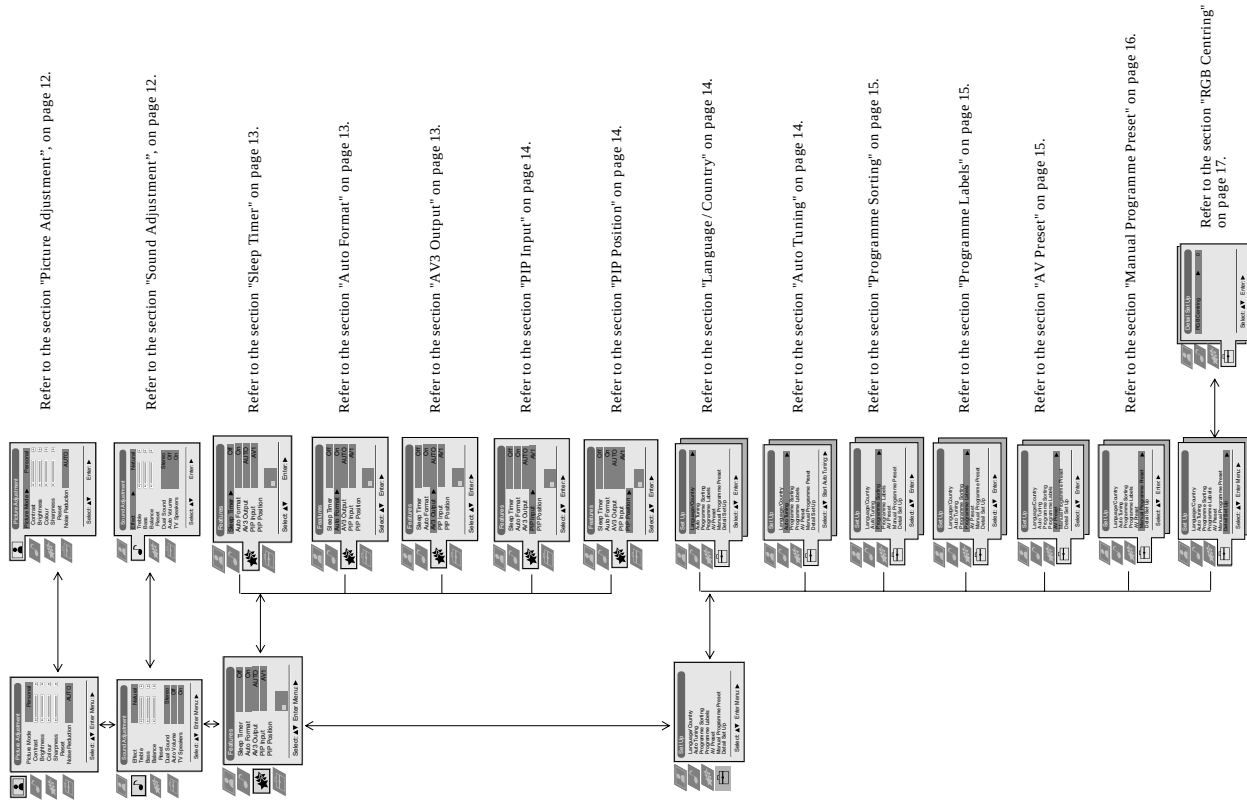
- 2**
- To highlight the desired menu or option, press or .
  - To enter the selected menu or option, press .
  - To return to the last menu or option, press .
  - To alter the settings of your selected option, press / or or .
  - To confirm and store your selection, press **OK**.



- 3** Press the **MENU** button to remove the menu from the screen.



## On Screen display Menus Guide



# Menu Guide

| Level 1 | Level 2 | Level 3 / Function                                                                                                                                                                                                                                                                                                       |
|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |         | <b>SLEEP TIMER</b><br>The "Sleep Timer" option in the "Features" menu allows you to select a time period for the TV to switch itself automatically into the standby mode.<br><br>To do this: after selecting the option press <b>↵</b> , then press <b>↵</b> or <b>↵</b> to set the time period delay (max. of 4 hours). |

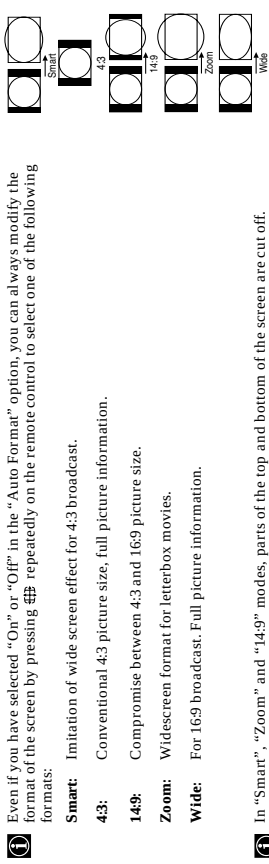
- While watching the TV, you can press the **⏻** button on the remote control to display the time remaining.
- One minute before the projection TV switches itself into standby mode, the time remaining is displayed on the TV screen automatically.

**AUTO FORMAT**  
 The "Auto Format" option in the "Features" menu allows you to automatically change the aspect ratio of the screen.

To do this: after selecting the option, press **↵**. Then press **↵** or **↵** to select **On** (if you wish the TV set to automatically switch the screen format according to the broadcast signal) or **Off** (if you wish to keep your preference). Finally press **OK** to store.

Even if you have selected "On" or "Off" in the "Auto Format" option, you can always modify the format of the screen by pressing **⏻** repeatedly on the remote control to select one of the following formats:

- Smart:** Imitation of wide screen effect for 4:3 broadcast.
- 4:3:** Conventional 4:3 picture size, full picture information.
- 14:9:** Compromise between 4:3 and 16:9 picture size.
- Zoom:** Widescreen format for letterbox movies.
- Wide:** For 16:9 broadcast. Full picture information.



In "Smart", "Zoom" and "14:9" modes, parts of the top and bottom of the screen are cut off. Press **↵** or **↵** to adjust the position of the image on the screen (e.g. to read subtitles).

**AV3 OUTPUT**  
 The "AV3 Output" option in the "Features" menu allows you to select the source to be output from the Scart connector **⏻** / **⏻** 3 so that you can record from this Scart any signal coming from the projection TV or from an external equipment connected to the Scart connectors **⏻** 1 / **⏻** 1 or **⏻** 2 / **⏻** 2 or side connectors **⏻** 4 or **⏻** 4 and **⏻** 4.  
 If your VCR supports Smartlink, this procedure is not necessary.  
 To do this: after selecting the option, press **↵**. Then press **↵** or **↵** to select the desired output signal: **TV**, **AV1**, **AV2**, **AV4**, **YC4** or **AUTO**.

If you select "AUTO", the output signal will always be the same one that is displayed on the screen.

If you have connected a decoder to the Scart **⏻** 3 / **⏻** 3 or to a VCR connected to this Scart, please remember to change back the "AV3 Output" to "AUTO" or "TV" for correct unscrambling.

continued...

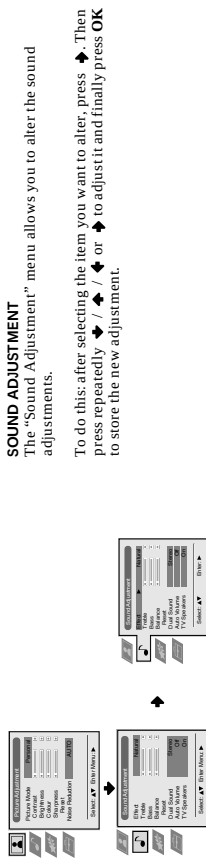
**PICTURE ADJUSTMENT**  
 The "Picture Adjustment" menu allows you to alter the picture adjustments.  
 To do this: after selecting the item you want to alter, press **↵**, then press repeatedly **↵** / **↵** or **↵** / **↵** to adjust it and finally press **OK** to store the new adjustment.

• This menu also allows you to customise the picture mode based on the programme you are watching:  
**Picture Mode** **↵**  
**↵** **Live** (for live broadcast programmes, DVD and Digital Set Top Box receivers).  
**↵** **Personal** (for individual settings).  
**↵** **Movie** (for films).

• **Brightness, Colour and Sharpness** can only be altered if "Personal" mode is selected.  
 • **Hue** is only available for NTSC colour signal (e.g. USA video tapes).  
 • Select **Reset** and press **OK** to reset the picture to the factory preset levels.  
 • The **Noise Reduction** option is set to **AUTO** to automatically reduce the picture noise visible in the broadcast signal. To cancel this function, select "Off" instead of "AUTO".

**SOUND ADJUSTMENT**  
 The "Sound Adjustment" menu allows you to alter the sound adjustments.

To do this: after selecting the item you want to alter, press **↵**. Then press repeatedly **↵** / **↵** or **↵** / **↵** to adjust it and finally press **OK** to store the new adjustment.



- Effect** **↵** **↵** **Natural:** Enhances clarity, detail and presence of sound by using "BBE High Definition Sound system".
- ↵** **Dynamic:** "BBE High Definition Sound system" intensifies clarity and presence of sound for better intelligibility and musical realism.
- ↵** **Dolby\*\*V:** Dolby Virtual, simulates the sound effect of "Dolby Surround Pro Logic".
- ↵** **Off:** Flat response.

- Treble** **↵** **↵** Less **↵** More
- Bass** **↵** **↵** Less **↵** More
- Balance** **↵** **↵** Left **↵** Right
- Reset** **↵** **↵** Resets the sound to the factory preset levels.

- Dual Sound** **↵** • For a stereo broadcast:  
**↵** **Stereo.**  
**↵** **Mono.**  
 • For a bilingual broadcast:  
**↵** **Mono** (for mono channel if available).  
**↵** **A** (for channel 1).  
**↵** **B** (for channel 2).

- Auto Volume** **↵** **↵** **Off:** volume level changes according to the broadcast signal.
- ↵** **On:** volume level of the channels will stay the same, independent of the broadcast signal (e.g. in the case of advertisements).

**TV Speakers** **↵** **↵** **On:** to listen to the TV from the set speakers.  
**↵** **Off:** to listen to the TV from an external amplifier connected to the audio outputs on the rear of the projection TV set.

If you are listening to the TV through headphones, the "Effect" option will automatically be switched to "Off".

If you select "Dolby Virtual" on the "Effect" option, the "Auto Volume" option will automatically be switched to "Off" and vice versa.

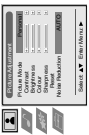
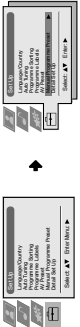
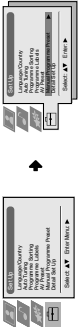
**Ⓢ** \* The "BBE High Definition Sound system" is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and BBE Symbol are trademarks of BBE Sound, Inc.

\*\* This TV has been designed to create the "Dolby Surround" sound effect by simulating the sound of four speakers with two speakers, when the broadcast audio signal is Dolby Surround encoded. The sound effect can also be improved by connecting a suitable external amplifier (for details refer to "Connecting to external audio Equipment" on page 21).

\*\*\* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol **Ⓢ** are trademarks of Dolby Laboratories.

continued...



| Level 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Level 2                                                                                                                                                                 | Level 3 / Function                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   | <p><b>MANUAL PROGRAMME PRESET</b></p> <p>The "Manual Programme Preset" option in the "Set Up" menu allows you to:</p> |
| <p>a) Preset channels or the VCR channel one by one to the programme order of your choice. To do this:</p> <ol style="list-style-type: none"> <li>1 After selecting the "Manual Programme Preset" option, press <b>↵</b> then with <b>Programme</b> option highlighted, press <b>↵</b> Press <b>↵</b> or <b>↵</b> to select which programme number you want to preset the channel on (for VCR, select programme number "0"). Then press <b>↵</b>.</li> <li>2  The following option is only available depending on the country you have selected in the "Language/Country" menu. After selecting the <b>System</b> option, press <b>↵</b>. Then press <b>↵</b> or <b>↵</b> to select the TV Broadcast system (<b>B/G</b> for western European countries, <b>D/K</b> for eastern European countries, <b>L</b> for France or <b>I</b> for United Kingdom). Then press <b>↵</b>.</li> <li>3 After selecting the <b>Channel</b> option, press <b>↵</b>. Then press the number buttons to enter directly the channel number of the TV Broadcast or the channel of the VCR signal. If you do not know the channel number, press <b>↵</b> or <b>↵</b> to search for it. When you tune the desired channel, press <b>OK</b> twice to store.</li> </ol> <p><i>Repeat all the above steps to tune and store more channels.</i></p> |                                                                                                                                                                         |                                                                                                                       |
| <p>b) Label a channel using up to five characters.</p> <p>To do this: highlighting the <b>Programme</b> option, press the <b>PROG +/-</b> button to select the programme number with the channel you wish to name. When the programme you want to name appears on the screen, select the <b>Label</b> option and press <b>↵</b>. Next press <b>↵</b> or <b>↵</b> to select a letter, number or "-." for a blank. Press <b>↵</b> to confirm this character. Select the other four characters in the same way. After selecting all the characters, press <b>OK</b> twice to store.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                         |                                                                                                                       |
| <p>c) Fine tune the broadcast reception. Normally the automatic fine tuning (AFT) will give the best possible picture, however you can manually fine tune the TV to obtain a better picture reception in case the picture is distorted.</p> <p>To do this: while watching the channel (TV Broadcast) you wish to fine tune, select the <b>AFT</b> option and press <b>↵</b>. Next press <b>↵</b> or <b>↵</b> to adjust the fine tuning between -15 and +15. Finally press <b>OK</b> twice to store.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                         |                                                                                                                       |
| <p>d) Skip any unwanted programme numbers when they are selected with the <b>PROG +/-</b> buttons.</p> <p>To do this: highlighting the <b>Programme</b> option, press the <b>PROG +/-</b> button to select the programme number you want to skip. When the programme you want to skip appears on the screen, select the <b>Skip</b> option and press <b>↵</b>. Next press <b>↵</b> or <b>↵</b> to select <b>Yes</b>. Finally press <b>OK</b> twice to confirm and store.</p> <p><i>To cancel this function afterwards, select "No" instead of "Yes" in the step above.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                         |                                                                                                                       |
| <p>e) View and record scrambled channels when using a decoder connected to Scart <b>↔ 3 / ↔ 3</b> directly or through a VCR.</p> <p> This option is only available depending on the country you have selected in the "Language/Country" menu.</p> <p>To do this: select the <b>Decoder</b> option and press <b>↵</b>. Next press <b>↵</b> or <b>↵</b> to select <b>On</b>. Finally press <b>OK</b> twice to confirm and store.</p> <p><i>To cancel this function afterwards, select "Off" instead of "On" in the step above.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                         | continued...                                                                                                          |

| Level 1                                                                                                                                                               | Level 2                                                                                                                                                              | Level 3 / Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |   | <p><b>RGB CENTRING</b></p> <p>When connecting an RGB source, such as a "PlayStation", you may need to readjust the horizontal position of the picture. If this is the case, you can adjust it through the "RGB Centring" option in the "Detail Set Up".</p> <p>To do this: while watching an RGB source select the "RGB Centring" option and press <b>↵</b>. Then press <b>↵</b> or <b>↵</b> to adjust the centre of the picture between -10 and +10. Finally press <b>OK</b> to confirm and store.</p> |



## Teletext

**i** Teletext is an information service transmitted by most TV stations. The index page of the teletext service (usually page 100) gives you information on how to use the service. To operate teletext, use the remote control buttons as indicated below.

- A** • Teletext errors may occur if you use a channel (TV Broadcast) with a weak signal.
- After 5 minutes viewing the same teletext page and without any button being pressed, the brightness level of the picture automatically decreases notoriously to avoid any damage to the picture tube. Press any button of the remote control to reset the brightness level.



### To switch on Teletext :

After selecting the TV channel which carries the teletext service you wish to view, press **⏏**.

### To select a Teletext page:

- Input 3 digits for the page number, using the numbered buttons.
- *If you make a mistake, retype the correct page number.*
- *If the counter on the screen continues searching, it is because the page is not available. If this is the case, input another page number*

### To access the next or preceding page:

Press **PROG + (⏏)** or **PROG - (⏏)**.

### To superimpose teletext on to the TV:

Whilst you are viewing teletext, press **⏏**. Press it again to cancel teletext mode.

### To freeze a teletext page:

Press **⏏** / **⏏**. Press it again to cancel the freeze.

### To reveal concealed information (e.g: answer to a quiz):

Press **⏏** / **⏏**. Press it again to conceal the information.

### To select a sub page:

A teletext page may consist of several sub pages. In this case the page number that appears on the upper left corner will change from white to green and one or more arrows will appear next to the page number. Repeatedly press the **⏏** or **⏏** buttons on the remote control to watch the desired sub page.

### To Switch Off Teletext:

Press **⏏**.

## Fastext

Fastext service lets you access Teletext pages with one button push.

**i** When you are in Teletext mode and Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the appropriate coloured button (red, green, yellow or blue) to access the page corresponding to your menu choice.

## NextView\*

\*(depending on availability of service).

**i** NextView is an on-screen electronic programme guide, providing you with programme information for different broadcasters.

When looking for information you can search by theme (sports, art, etc...) or date.

**A** If wrong characters appear when viewing NextView, use the menu system to enter the "Language/ Country" menu (see page 14) and select the same language as the NextView is broadcasted.

## Displaying NextView

**1** Select a broadcast channel providing a NextView service. In this case the indication "NextView" is displayed as soon as data is available.

**2** To see NextView service you have two different types of NextView interface. These depend on the % of available data:

a) "Programme List" interface:

Whilst you are watching TV, and after the indication "NextView" (coloured white) is displayed on the screen, press the **⏏** button on the remote control to watch the "Programme List" interface (see fig. 1).

b) "Overview" interface:

Whilst you are watching TV, and after more than 50% of NextView data is available (100% data may not be available depending on the area) the indication "NextView" (coloured black) is displayed on the screen. Press the **⏏** button on the remote control to watch the "Overview" interface (see fig. 2).

**i** As soon as you enter the NextView service the % of NextView data available will be shown in the bottom left corner of the screen. Once you have entered the service, the % of data will not increase.

**3** To navigate through NextView:

- moving to right or left press **⏏** or **⏏**.
- moving up or downwards, press **⏏** or **⏏**.
- confirming a selection, press **OK**.

**4** To switch NextView off, press the **⏏** button on the remote control.

### "Programme List" interface (fig. 1):

Icons for different themes (see the "Icons' key" section below)

Date

Programme list

Record\*:

**i** This function only works if you have connected a VCR which supports SmartLink and Timer Programming feature.

If you wish to record the selected programme, press the red button on the remote control.

Remind\*:

If you wish to be reminded when the selected programme is broadcast, press the green button on the remote control. At the time that the programme should be broadcast a reminder message is displayed on the TV.

### "Overview" interface (fig. 2):

Icons for different themes (see the "Icons' key" section below)

Date

Overview

Record\*:

**i** This function only works if you have connected a VCR which supports SmartLink and Timer Programming feature.

If you wish to record the selected programme, press the red button on the remote control.

Remind\*:

If you wish to be reminded when the selected programme is broadcast, press the green button on the remote control. At the time that the programme should be broadcast a reminder message is displayed on the TV.

**A** \* "Record" and "Remind" options will be shown on the screen as soon as a programme has been selected, but they will not be shown if you are watching a TV channel which is not a NextView provider.

\* "Record" and "Remind" will not be available if the programme that you have selected has already started.

### Icons' key:

**full selection list:**

All the programme information is listed by time and broadcast channels order.

**entertainment**

**children**

**arts**

**sports**

**news**

**movies**

**music**

**channel selection:**

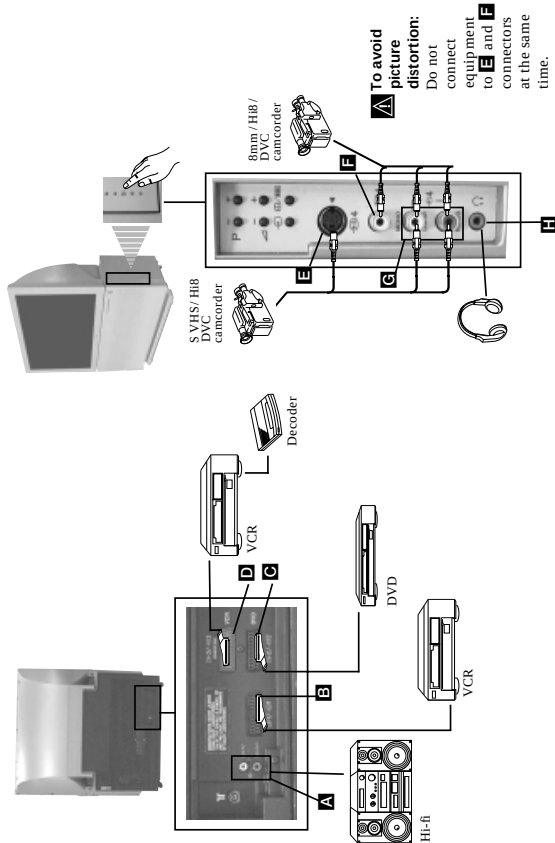
In case the NextView provider sends information of more than 8 broadcast channels, you can select 8 of them to create your personal list.

**remind list:**

shows you the list with all the programmes (maximum 5 programmes) that you have selected to be reminded about.

## Connecting Optional Equipment

**i** Using the following instructions, you can connect a wide range of optional equipment to your projection TV.



## Additional Information when connecting equipment

### Connecting a VCR

We recommend you connect your VCR to the **D** socket using a scart lead. If you do not have a scart lead, use the "Manual Programme Preset" section on page 16 to tune in the channel of the VCR test signal to TV programme number "0". Also refer to your VCR instruction manual to get the VCR test signal.

If your video supports SmartLink please refer to the "SmartLink" section of this instruction manual on page 22.

### If you have connected a decoder to the Scart **C** or **D** or through a VCR connected to this Scart:

Select the "Manual Programme Preset" option in the "Set Up" menu and after entering in the "Decoder" option, select "On" (by using **↔** or **↕**). Repeat this option for each scrambled signal.

\*\*This option is only available depending on the country you have selected in the "Language/Country" menu.

### Connecting to external Audio Equipment:

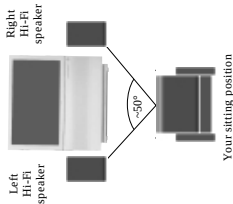
Plug in your Hi-Fi equipment to the audio output sockets **A** if you wish to amplify the audio output from projection TV. Next, using the menu system, select the "Sound Adjustment" menu and set the "TV Speakers" to "Off".

**i** Audio level of the external speakers can be modified by pressing the volume buttons on the remote control. Also treble and bass settings can be modified through the "Sound Adjustment" menu.

### To enjoy "Dolby Virtual" sound effect through your Hi-Fi equipment:

Place the speakers of your equipment in front of your listening position and beside the projection TV set but keeping a distance of 50 cm between each speaker and the projection TV set.

Then by using the menu system, select the menu "Sound Adjustment". Next select "Dolby V" on the "Effect" option.



## Using Optional Equipment

**i** In order to get the input signal of a connected equipment onto the TV screen, you need to select the symbol of the connector to which you have connected the device.

e.g.: Your VCR is connected to the connector with the symbol **C** → **1** / **C** → **1**. Press the button **C** on the remote control repeatedly until you see the symbol **C** on the screen.

- 1 Connect your equipment to the designated projection TV socket, as it is indicated on the previous page.
- 2 Switch on the connected equipment.
- 3 To watch the picture of the connected equipment, press the **C** button repeatedly until the correct input symbol appears on the screen.



### Symbol Input Signals

- C**1 • Audio / video input signal through the Scart connector **B**
- C**1 • RGB input signal through the Scart connector **B**. This symbol appears only if an RGB source has been connected.
- C**2 • Audio / video input signal through the Scart connector **C**.
- C**2 • RGB input signal through the Scart connector **C**. This symbol appears only if an RGB source has been connected.
- C**3 • Audio / video input signal through the Scart connector **D**.
- C**3 • S Video Input signal through the Scart connector **D**. This symbol appears only if an S Video source has been connected.
- C**4 • Video input signal through the phono socket **E** and Audio input signal through **G**.
- C**4 • S Video Input signal through the front S Video input jack **E** and Audio signal through **G**. This symbol appears only if an S Video source has been connected.

- 4 Press **C** button on the remote control to return to the normal TV picture.

### For mono equipment

Connect the phono plug to the L / G / I socket on the side of the TV and select **C**4 or **C**4 input signal using the instructions above. Finally, refer to the "Sound Adjustment" section of this manual and select "Dual Sound" "A" on the sound menu screen.

| Acceptable input signal                   | Available output signal                             |
|-------------------------------------------|-----------------------------------------------------|
| <b>A</b> No inputs                        | Audio signal.                                       |
| <b>B</b> Audio / video and RGB signal     | Video / audio from TV tuner.                        |
| <b>C</b> Audio / video and RGB signal     | Video / audio displayed on TV screen (monitor out). |
| <b>D</b> Audio / video and S video signal | Video / audio from selected source.                 |
| <b>E</b> S Video signal                   | No output.                                          |
| <b>F</b> Video signal                     | No output.                                          |
| <b>G</b> Audio signal                     | No output.                                          |
| <b>H</b> No input                         | Audio signal to headphones.                         |

continued...

## Remote Control Configuration for VCR/DVD

In it's default condition this remote control will operate the basic functions of this Sony TV, Sony DVDs and most Sony VCRs. To control VCRs and DVDs of other manufacturers (and some Sony VCR models), please complete the following steps:

- ❶ Before you start, look up the 3 digit code for your brand of DVD or VCR from the list below. On those brands that have more than one code, enter the first code number.
- Sony will endeavour to update the software according to market changes. Therefore, please refer to code table included with the remote control for latest code set.

- 1 Press the Media Selector button on the remote control repeatedly until the required green light (VCR or DVD) is lit.
  - ⚠ If Media Selector is on TV position, code numbers will not be stored.
- 2 Before the green light goes out, press and hold the yellow button for approximately 6 seconds until the green light starts flashing.
- 3 Whilst the green light is flashing, enter all three digits of the code for your brand of VCR or DVD using the number buttons on the remote control.
  - ❶ If your selected code is entered correctly, all three green lights will be lit momentarily.
- 4 Turn on your VCR or DVD and check that the main functions work.
  - ⚠ If your device is not working or some of the functions do not work, please check that you entered the correct code set or try the next code listed against the brand.
  - Your brand codes may be lost if weak batteries are not replaced within a few minutes. To reset your brand of DVD or VCR please repeat the above steps. A small label is added inside the battery door to allow you to record your brand codes.
  - Not all brands are covered and not all models of every brand may be covered.

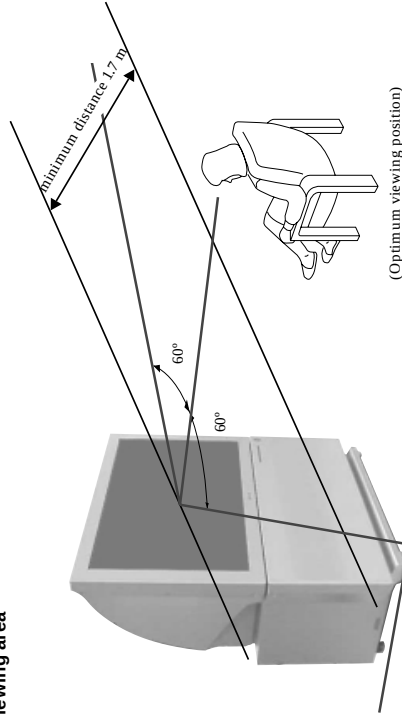
GB

| VCR Brand List |                                             | DVD Brand List |                              |
|----------------|---------------------------------------------|----------------|------------------------------|
| Brand          | Code                                        | Brand          | Code                         |
| SONY (VHS)     | 301, 302, 303, 308, 309                     | SONY           | 001                          |
| SONY (BETA)    | 303, 307, 310                               | AIWA           | 021                          |
| SONY (DV)      | 304, 305, 306                               | DENON          | 018, 027, 020, 002           |
| AIWA           | 325, 331, 351                               | GRUNDIG        | 009, 028, 023, 024, 016, 003 |
| AKAI           | 326, 329, 330                               | HITACHI        | 025, 026, 015, 004           |
| DAEWOO         | 342, 343                                    | JVC            | 006, 017                     |
| GRUNDIG        | 358, 355, 360, 361, 320, 351                | KENWOOD        | 008                          |
| HITACHI        | 327, 333, 334                               | LG             | 015, 014                     |
| JVC            | 314, 315, 322, 344, 352, 353, 354, 348, 349 | LOEWE          | 009, 028, 023, 024, 016, 003 |
| LG             | 332, 338                                    | MATSUI         | 013, 016                     |
| LOEWE          | 358, 355, 360, 361, 320, 351                | ONKYO          | 022                          |
| MATSUI         | 356, 357                                    | PANASONIC      | 018, 027, 020, 002           |
| ORION          | 328                                         | PHILIPS        | 009, 028, 023, 024, 016, 003 |
| PANASONIC      | 321, 323                                    | PIONEER        | 004                          |
| PHILIPS        | 311, 312, 313, 316, 317, 318, 358, 359      | SAMSUNG        | 011, 014                     |
| SAMSUNG        | 339, 340, 341, 345                          | SANYO          | 007                          |
| SANYO          | 335, 336                                    | SHARP          | 019, 027                     |
| SHARP          | 324                                         | THOMSON        | 012                          |
| THOMSON        | 319, 350                                    | TOSHIBA        | 003                          |
| TOSHIBA        | 337                                         | YAMAHA         | 018, 027, 020, 002           |

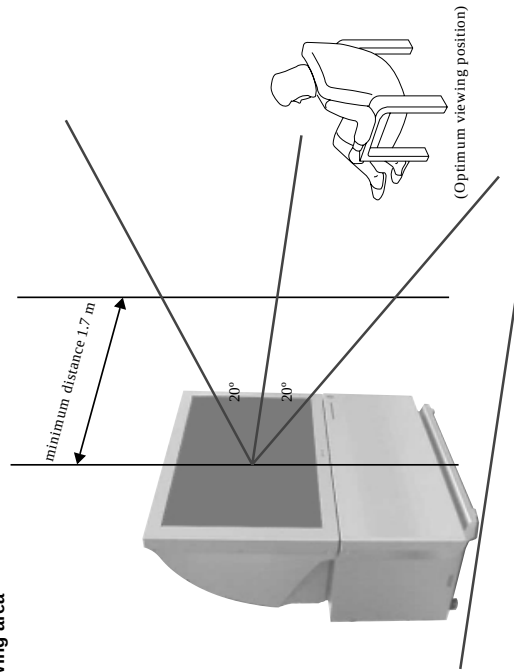
## Optimum Viewing Area

- ❶ For the best picture quality, try to position the projection TV so that you can view the screen from within the areas shown below.

### Horizontal viewing area



### Vertical viewing area



## Specifications

**TV system:**  
Depending on your country selection:  
B/G/H, D/K, L, I

**Colour system:**  
PAL

SECAM, NTSC 3.58, 4.43 (only Video In)

**Channel Coverage:**

VHF: E2-E12  
UHF: E21-E69  
CATV: S1-S20  
HYPER: S21-S41  
D/K: R1-R12, R21-R69  
L: F-2F-10, B-Q, F21-F69  
I: UHF B21-B69

**Projected picture size:**  
44" (approx. 112 cm, measured diagonally)

**Rear Terminals**

**Ⓒ-1 / Ⓒ-1** 21-pin scart connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.

**Ⓒ-2 / Ⓒ-2** 21-pin Scart connector (CENELEC standard) including audio / video input, RGB input, monitor audio / video output.

**Ⓒ-3 / Ⓒ-3** 21-pin Scart connector (CENELEC standard) including audio / video input, S video input, selectable audio / video output and Smartlink interface.

Ⓒ audio outputs (Left/Right) - phono jacks

**Side Terminals**

Ⓒ-4 S Video input – 4 pin DIN

Ⓒ-4 video input – phono jack

Ⓒ-4 audio input – phono jacks

Ⓒ headphones jack

## Troubleshooting

Ⓒ Here are some simple solutions to problems which may affect the picture and sound.

| Problem                                                                                                                                | Solution                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No picture (screen is dark) and no sound.                                                                                              | <ul style="list-style-type: none"> <li>Check the aerial connection.</li> <li>Plug the TV in and press the Ⓒ button on the front of the projection TV.</li> <li>If the standby indicator Ⓒ is on, press <b>TV</b> / Ⓒ button on the remote control.</li> </ul>                                                                                                                                                                    |
| Poor or no picture (screen is dark), but good sound.                                                                                   | <ul style="list-style-type: none"> <li>Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to the factory settings.</li> </ul>                                                                                                                                                                                                                                                              |
| No picture or no menu information from equipment connected to the Scart connector.                                                     | <ul style="list-style-type: none"> <li>Check that the optional equipment is on and press the Ⓒ button repeatedly on the remote control until the correct input symbol is displayed on the screen.</li> </ul>                                                                                                                                                                                                                     |
| Good picture, no sound.                                                                                                                | <ul style="list-style-type: none"> <li>Press the Ⓒ + button on the remote control.</li> <li>Check that "TV Speakers" is "On" in the "Sound Adjustment" menu.</li> <li>Check that headphones are not connected.</li> </ul>                                                                                                                                                                                                        |
| No colour on colour programmes.                                                                                                        | <ul style="list-style-type: none"> <li>Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to factory settings.</li> </ul>                                                                                                                                                                                                                                                                  |
| When you switch on the TV the last channel you were watching before switching the TV off does not appear.                              | <ul style="list-style-type: none"> <li>This is not a malfunction. Press the number buttons on the remote control to select the desired channel.</li> </ul>                                                                                                                                                                                                                                                                       |
| Undefined picture with different colour on the outlines of the images.                                                                 | <ul style="list-style-type: none"> <li>Adjust the colour registration. For more details, please refer to "Adjusting Colour Registration (Convergence)" section on page 10.</li> </ul>                                                                                                                                                                                                                                            |
| Noisy picture when viewing a TV channel.                                                                                               | <ul style="list-style-type: none"> <li>Using the menu system, select the "Manual Programme Preset" menu and adjust Fine Tuning (AFT) to obtain better picture reception.</li> <li>Using the menu system, select the "Noise Reduction" option in the "Picture Adjustment" menu and select "Auto" to reduce the noise in the picture.</li> </ul>                                                                                   |
| No unscrambling or unstable picture whilst viewing a scrambled channel with a decoder connected through the Scart connector Ⓒ-3 / Ⓒ-3. | <ul style="list-style-type: none"> <li>Using the menu system, select the "Features" menu. Then enter to "Detail Set Up" option and set "AV3 Output" to "TV".</li> <li>Check that the Decoder is not connected on the scart Ⓒ-2 / Ⓒ-2.</li> </ul>                                                                                                                                                                                 |
| Distorted picture when changing programmes or selecting teletext.                                                                      | <ul style="list-style-type: none"> <li>Turn off any equipment connected to the Scart connector on the rear of the projection TV.</li> </ul>                                                                                                                                                                                                                                                                                      |
| Wrong characters appear when viewing teletext.                                                                                         | <ul style="list-style-type: none"> <li>Using the menu system, enter to the "Language / Country" menu and select the country in which you operate the projection TV set. For Cyrillic languages, we recommend to select Russia country in the case that your own country does not appear in the list.</li> </ul>                                                                                                                  |
| Wrong characters appear when viewing NextView.                                                                                         | <ul style="list-style-type: none"> <li>Use the menu system to enter the "Language / Country" menu (see page 14) and select the same language that NextView is broadcast in.</li> </ul>                                                                                                                                                                                                                                           |
| Brightness level of the picture is notoriously decreased when viewing a teletext page.                                                 | <ul style="list-style-type: none"> <li>This is not a malfunction. After 5 minutes viewing the same teletext page and without any button being pressed, the projection TV automatically decreases the brightness level to avoid any damage to the picture tube. To reset the brightness level, press any button of the remote control.</li> </ul>                                                                                 |
| Remote control does not function.                                                                                                      | <ul style="list-style-type: none"> <li>Check that the Media Selector on the remote control is set to the device you are using (VCR, TV or DVD).</li> <li>If the remote control does not operate the VCR or DVD even when the Media Selector has been set correctly. Enter the necessary code set as explained in the "Remote Control Configuration for VCR / DVD" chapter on page 23.</li> <li>Replace the batteries.</li> </ul> |
| The standby indicator Ⓒ on the projection TV flashes.                                                                                  | <ul style="list-style-type: none"> <li>Contact your nearest Sony service centre.</li> </ul>                                                                                                                                                                                                                                                                                                                                      |

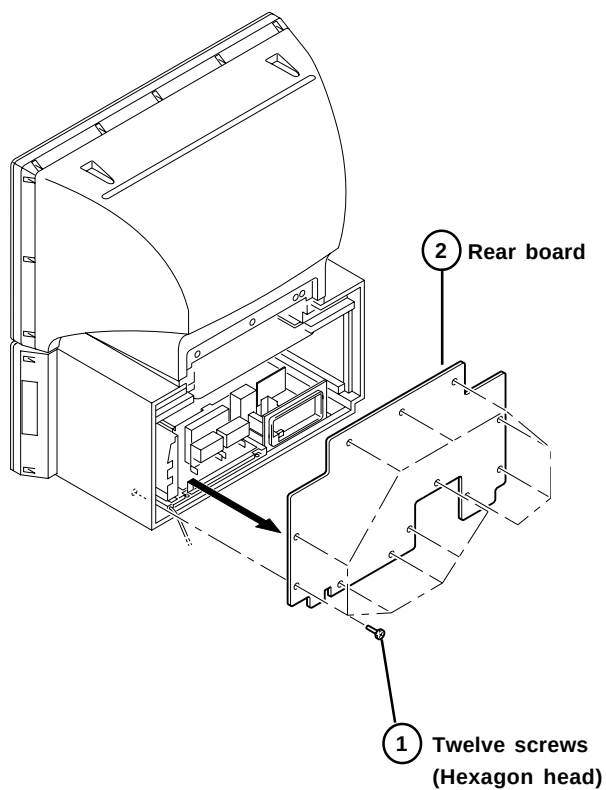
Ⓒ If you continue to experience problems, have your projection TV serviced by qualified personnel. Never open the casing yourself.

Design and specifications are subject to change without notice.

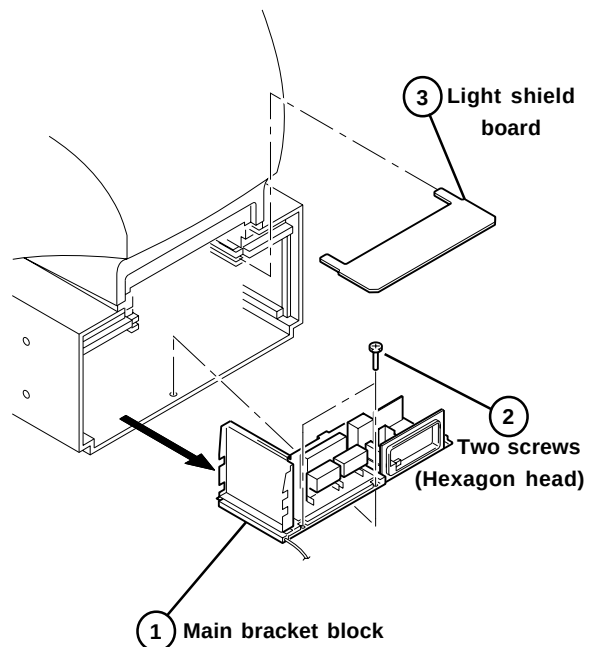
Ecological Paper - Totally Chlorine Free

## SECTION 3 DISASSEMBLY

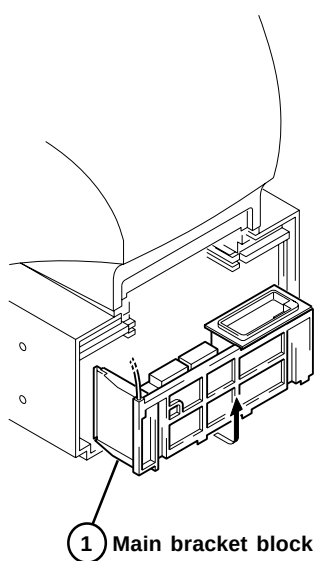
### 3-1. REAR BOARD REMOVAL



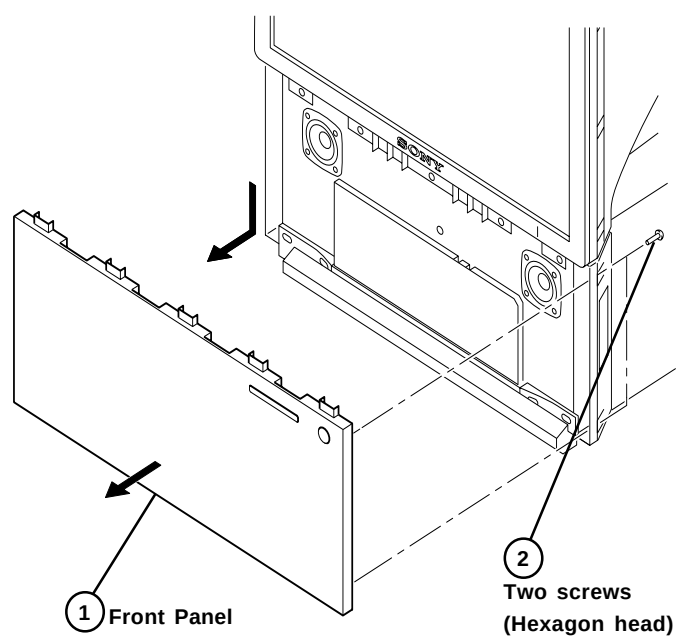
### 3-2. MAIN BRACKET BLOCK REMOVAL



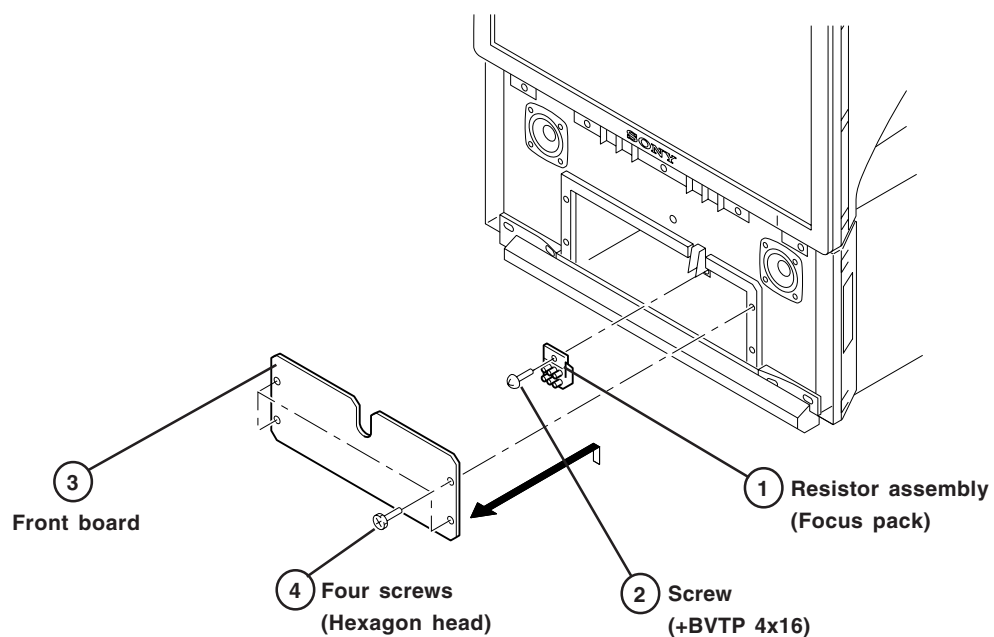
### 3-3. SERVICE POSITION



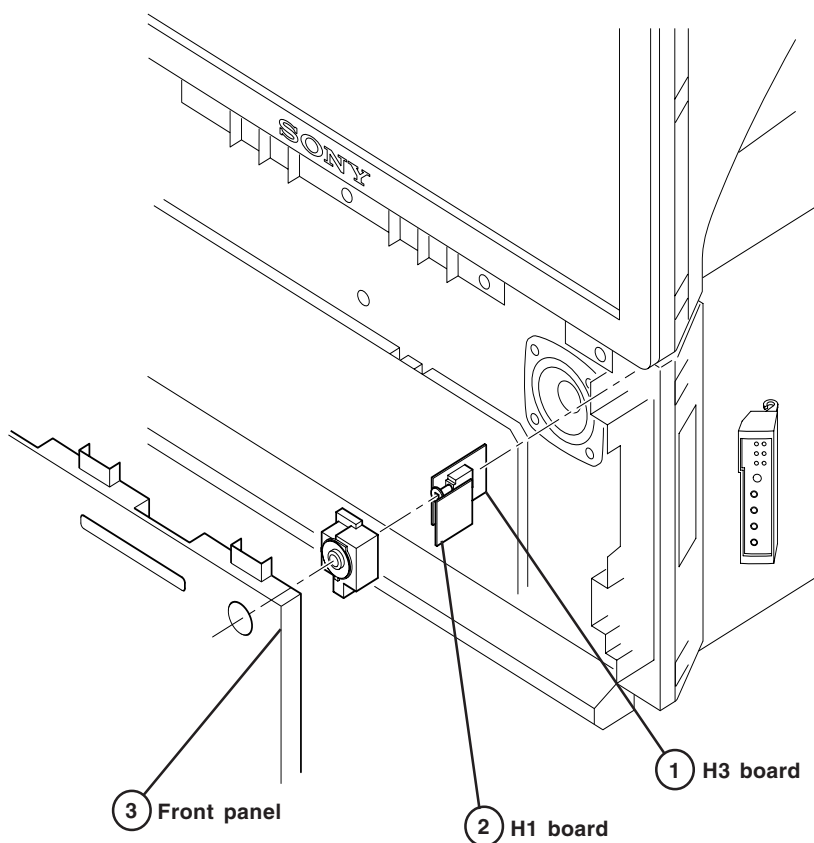
### 3-4. FRONT PANEL REMOVAL



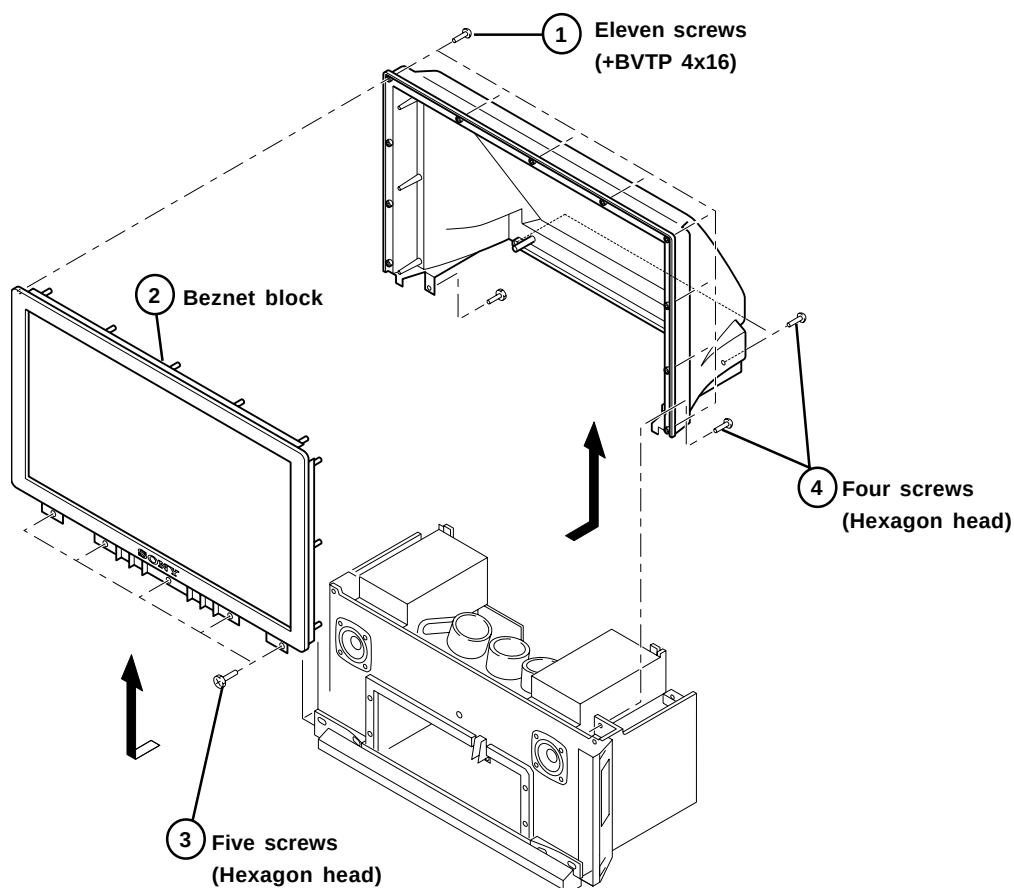
### 3-5. RESISTOR ASSEMBLY (FOCUS PACK) REMOVAL



### 3-6. H1 AND H3 BOARD REMOVAL

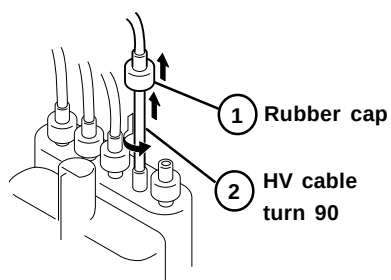


### 3-7. BEZNET BLOCK REMOVAL

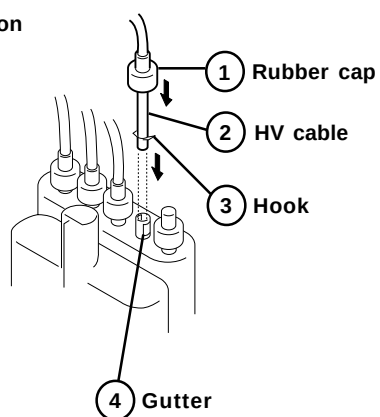


### 3-8. HIGH-VOLTAGE CABLE REMOVAL AND INSTALLATION

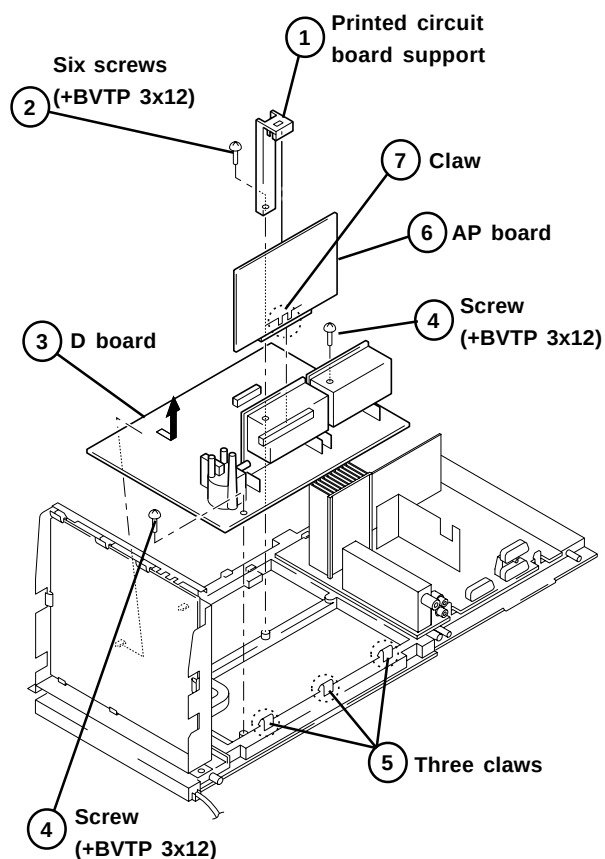
#### (1) Removal



#### (2) Installation

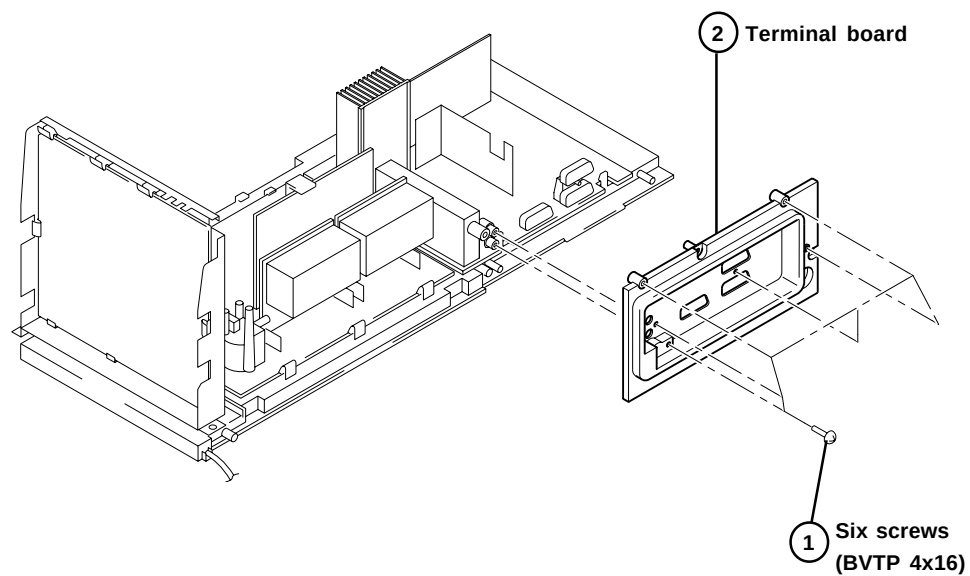


### 3-9. AP AND D BOARD REMOVAL

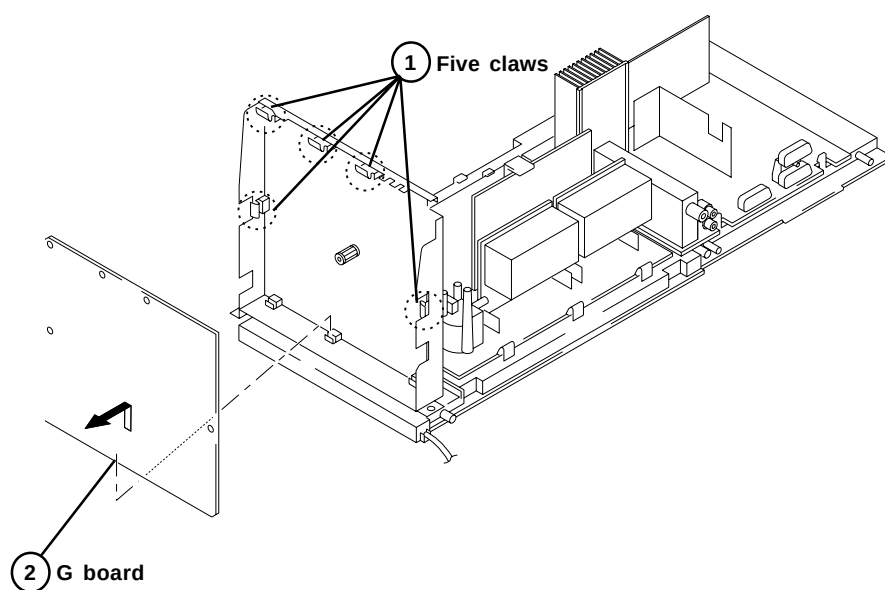




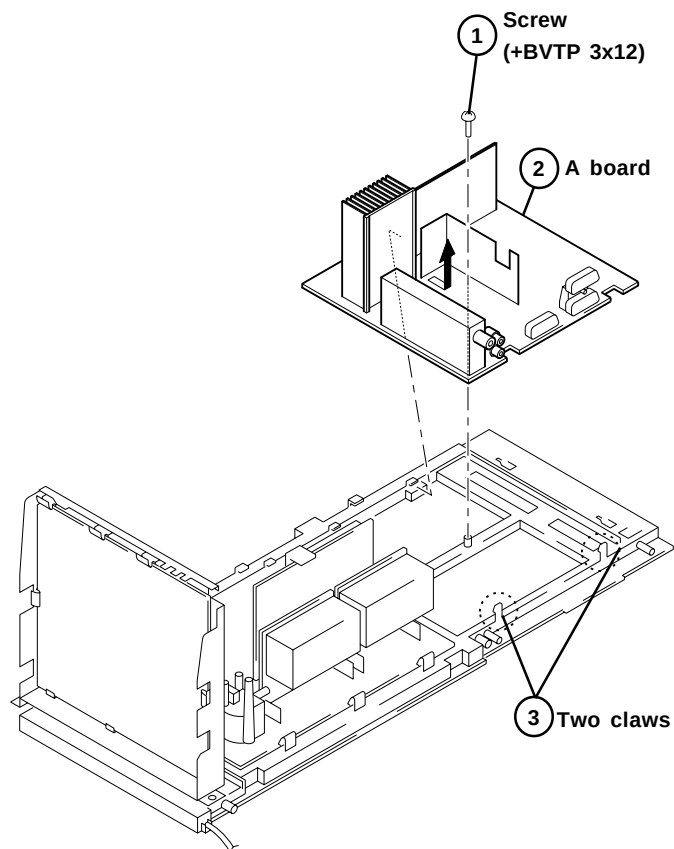
### 3-10. TERMINAL BOARD REMOVAL



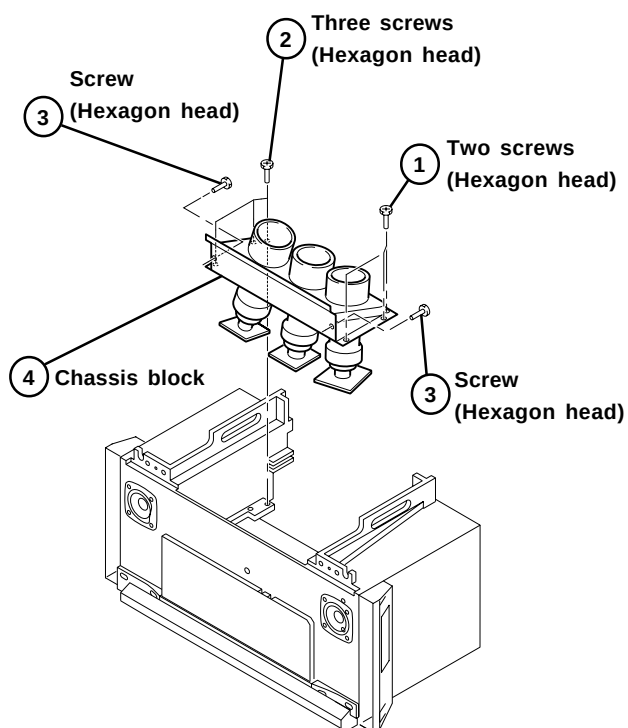
### 3-11. G BOARD REMOVAL



### 3-12. A BOARD REMOVAL

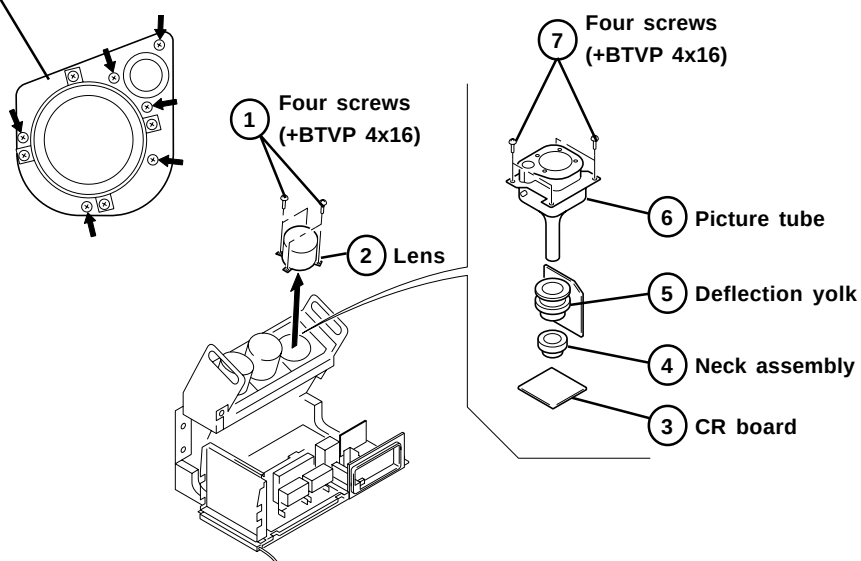


### 3-13. CHASSIS BLOCK REMOVAL



### 3-14. PICTURE TUBE REMOVAL

Removing the arrow-marked screw is strictly inhibited. If removed, it may cause liquid spill.



## SECTION 4 SET-UP ADJUSTMENTS

### 4-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

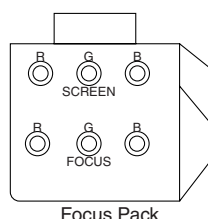


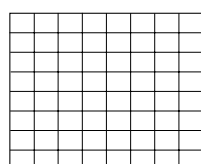
Fig. 4-1

### 4-2. SCREEN (G2) ADJUSTMENT

1. Turn on the power of the set.
2. Select VIDEO1 mode without signals.
3. Supply DC 175  $\pm$ 0.5 V from external power supply to TP7103 (KR), TP7203 (KG) or TP7303 (KB) of CR board, CG board and CB board.
4. Adjust red, green and blue screen voltage, with SCREEN VR on the focus pack until retrace line disappears.

### 4-3. FOCUS ROUGH ADJUSTMENT

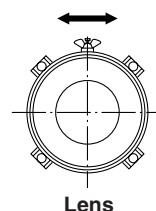
1. Loosen the lens screw.
2. Program Remote Commander for operation in Service mode (See Page 23).
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press "VIDEO" "VIDEO" "5" "6" on the remote commander to enter 'Projector Engine'. Press "6" twice on the Commander to display the test signal (crosshatch) on the screen.



Test signal

Fig. 4-2

5. Rotate the green lens and align to obtain the best lens focus at the center area.
6. Rotate the green focus VR on the focus pack and align to obtain the best electrical focus in the top right corner.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.



Lens

Fig. 4-3

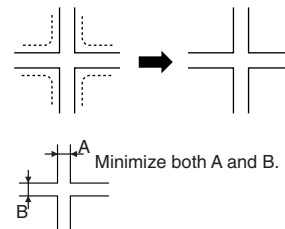
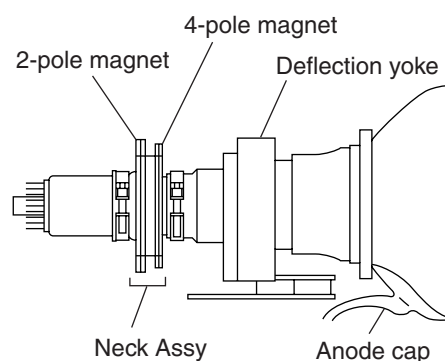


Fig. 4-4

### 4-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 4-5

#### 4-5. 2-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the just focus spot.  
(center of the dot doesn't move)
5. Align the green focus VR and set for just (precise) focus.
6. Perform the same alignment for red and blue.

Use the center dot

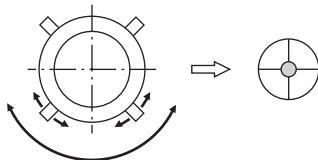


Fig. 4-6

#### 4-6. 4-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
5. Perform the same alignment for red and blue.

Use the center dot

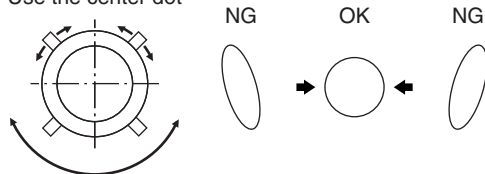


Fig. 4-7

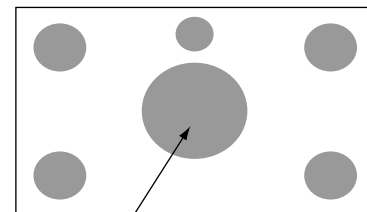
#### 4-7. GREEN, RED AND BLUE FOCUS ADJUSTMENT

##### 4-7-1. Green, Red and Blue Lens Focus Adjustment

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green lens and adjust to obtain the best lens focus at the center area.
4. Fix lens screw.
5. Repeat above process for red and blue.

##### 4-7-2. Green, Red and Blue Electrical Focus Adjustment

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus VR on the focus pack and adjust to obtain the best electrical focus at the center area.
4. Repeat above process for red and blue.



Adjust Point

Fig. 4-8

## SECTION 5 SAFETY RELATED ADJUSTMENT

When replacing the following components marked with  on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

| Part Replaced (  ) |
|-----------------------------------------------------------------------------------------------------|
| R9901                                                                                               |

| Part Replaced (  )            |
|----------------------------------------------------------------------------------------------------------------|
| D Board C5123, C5127, C5130, C5143, D5115, D5204, Q5104, R5136, R5138, R5140, R9901, T5102, T5104, T5103 (FBT) |

D BOARD – CONDUCTOR SIDE –

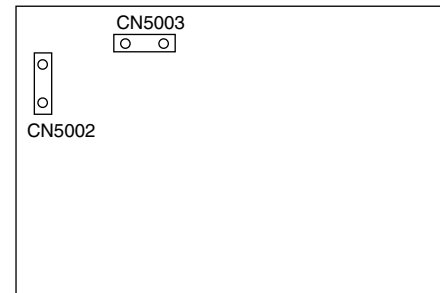


Fig. 5-3

### 5-1. HV Hold-Down Adjustment

1. Connect HV static voltmeter to HV Block.
2. Mount a resistor (R9901 : 43 k , 1/4 W, METAL FILM) at CN5003.
3. Remove CN5002 and connect External Power Supply to CN5002 1 pin (+135 V) and 2 pin (GND).
4. Turn on the set.

CN5003

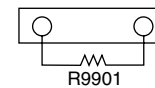


Fig. 5-4

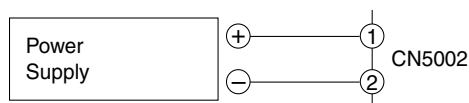


Fig. 5-1

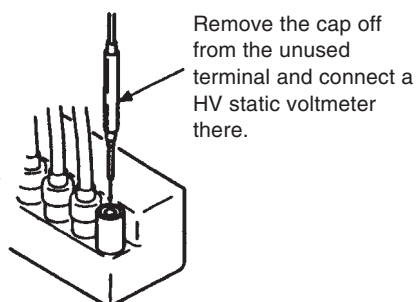


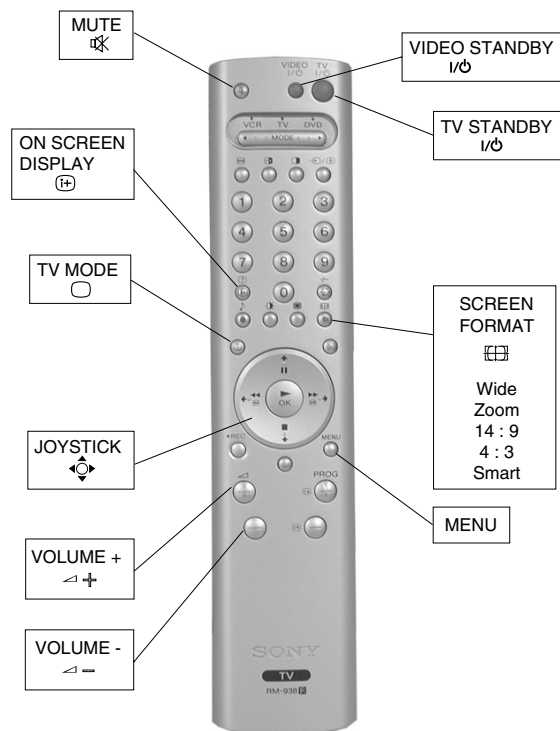
Fig. 5-2

5. Receive the Dot signal and set PICTURE/ BRIGHTNESS to minimum.
6. Slowly up the supply voltage from 0 V to 135 V until hold-down circuit works (picture disappear).
7. Read the HV static voltmeter of peak HV voltage. Spec : 33.7 ~ 35.3 kV
8. If Hold-down voltage is less than 33.7 kV then replace R9901 of 43 k with that of 39 k , and check if the voltage is within the spec.
9. If hold-down voltage is over than 35.3 kV then replace R9901 of 43 k with that of 47 k , and check if the voltage is within the spec.

## SECTION 6 ELECTRICAL ADJUSTMENTS

### 6-1. Adjustments with Commander

Service adjustments to this model can be performed using the supplied remote Commander RM-938.



#### 6-1-2. Programming the Remote Commander for Operation in Service Mode

1. Press the VCR/TV/DVD button until the TV LED lights.
2. Press and hold the yellow button for approx. 5 seconds until the TV LED flashes quickly.
3. Press 99999. All three LED's should light. The remote commander is now set to Service Mode.
4. To return the remote commander to normal operation mode repeat steps 1. and 2. then press 00000. All three LED's should light. The remote commander is now set to normal mode.



#### 6-1-3. Setting the TV into Service Mode

1. Program the remote commander for operation in Service Mode as described above.
2. Turn on the TV main power switch.
3. Press the video standby button  on the remote commander twice. 'TT \_\_' will appear in the upper right corner of the screen. Other status information will also be displayed.
4. Press 'MENU' on the remote commander to obtain the following menu on the screen.

#### 6-1-1. How to Select Each Mode

Adjustment is required in the following modes:

|      | Wide | Zoom | 14:9 | 4:3 | Smart |
|------|------|------|------|-----|-------|
| PAL  | O    | X    | X    | X   | X     |
| NTSC | O    | X    | X    | X   | X     |

#### 1. Selection of Mode Between PAL and NTSC

PAL mode : Enter PAL signal.  
NTSC mode : Enter NTSC signal. (VIDEO input only)

#### 2. Selection of Screen Format

- 1) Press '  (BLUE)' button on the commander. to select 'Wide', 'Zoom', '14 : 9', '4 : 3' or 'Smart'.

Geometry  
Panorama  
Service  
Scanrate  
PiP  
Sound  
IF adjust  
Error Menu  
  
AE6X v0.09 (Mar ' 02 ')  
Factory data FFh FFh  
MSP Device : MSP3411G

5. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
6. Press the right arrow button to enter into the required menu item.
7. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

#### Note :

- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

**6-1-4. Screen Display for Service Menu**

If each item of service menu is selected, the following screen is displayed.

| <b>PANORAMA</b> |            |      |  |
|-----------------|------------|------|--|
| RDPOSXM         | (0, 511)   | 3    |  |
| RDPOSYM         | (0, 255)   | 10   |  |
| BLANDEL         | (0, 255)   | 0    |  |
| BLANPOL         | (0, 1)     | 0    |  |
| BLANLEN         | (0, 511)   | 0    |  |
| YFRAMEM         | (0, 15)    | 0    |  |
| YBAGR           | (0, 15)    | 0    |  |
| HPANONM         | (0, 1)     | 1    |  |
| HSCPOSCM        | (0, 4095)  | 2032 |  |
| HSEG1HM         | (0, 63)    | 3    |  |
| HINCOM          | (0, 511)   | 40   |  |
| HSEG1LM         | (0, 31)    | 0    |  |
| HINC1M          | (0, 511)   | 20   |  |
| HSEG2HM         | (0, 63)    | 6    |  |
| HINC2M          | (0, 511)   | 0    |  |
| HSEG2LM         | (0, 31)    | 0    |  |
| HINC3M          | (0, 511)   | 492  |  |
| HSEG3HM         | (0, 63)    | 9    |  |
| HINC4M          | (0, 511)   | 472  |  |
| HSEG3LM         | (0, 31)    | 0    |  |
| HSEG4M          | (0, 2047)  | 384  |  |
| VPANONM         | (0, 1)     | 1    |  |
| VDOUBLEM        | (0, 1)     | 0    |  |
| VSCPOSCM        | (0, 16383) | 7619 |  |
| VSEG1HM         | (0, 31)    | 0    |  |
| VINCOM          | (0, 511)   | 0    |  |
| VSEG1LM         | (0, 31)    | 0    |  |
| VINC1M          | (0, 511)   | 0    |  |
| VSEG2HM         | (0, 31)    | 0    |  |
| VINC2M          | (0, 511)   | 0    |  |
| VSEG2LM         | (0, 31)    | 0    |  |
| VINC3M          | (0, 511)   | 0    |  |
| VINC4M          | (0, 511)   | 0    |  |
| VSEG3M          | (0, 1023)  | 0    |  |
| VSEG4M          | (0, 1023)  | 0    |  |
| HORPOSM         | (0, 2047)  | 0    |  |
| HORWIDTHM       | (0, 2047)  | 960  |  |
| HORPOSG         | (0, 2047)  | 29   |  |
| HORWIDTHG       | (0, 2047)  | 0    |  |
| HORFRAMEG       | (0, 15)    | 3    |  |
| PRIOP           | (0, 7)     | 3    |  |
| PRIOC           | (0, 7)     | 5    |  |
| PRIOS           | (0, 7)     | 6    |  |
| PRIOF           | (0, 7)     | 7    |  |
| PRIOM           | (0, 7)     | 4    |  |
| PRIOG           | (0, 7)     | 1    |  |

| <b>ERROR MENU</b>   |          |          |    |
|---------------------|----------|----------|----|
| E02                 | OCP      | (0, 255) | 0  |
| E03                 | OVP      | (0, 255) | 0  |
| E04                 | VSUNC    | (0, 255) | 0  |
| E05                 | IKR      | (0, 255) | 0  |
| E06                 | IIC      | (0, 255) | 0  |
| E07                 | NVM      | (0, 255) | 0  |
| E08                 | HPROT    | (0, 255) | 0  |
| E09                 | TUNER    | (0, 255) | 0  |
| E10                 | SOUNDP   | (0, 255) | 0  |
| E11                 | -        | (0, 255) | 0  |
| E12                 | SCANRATE | (0, 255) | 0  |
| E13                 | DAC      | (0, 255) | 0  |
| E14                 | BACKEND  | (0, 255) | 0  |
| E15                 | -        | (0, 255) | 0  |
| E16                 | PIP      | (0, 255) | 0  |
| <b>WORKING TIME</b> |          |          |    |
| HOURS               |          |          | 14 |
| MINUTES             |          |          | 7  |

**SOUND**

|             |              |       |
|-------------|--------------|-------|
| M-N         | (0, 511)     | 200   |
| M-D         | (-128, -1)   | -20   |
| M-S         | (+0, +127)   | +20   |
| S-M         | (+0, +127)   | +10   |
| D-M         | (-128, -1)   | -10   |
| N-M         | (0, 1023)    | 496   |
| BBE         | (+0, +68)    | +28   |
| B1          | (-96, +96)   | +0    |
| B2          | (-96, +96)   | +0    |
| B3          | (-96, +96)   | +0    |
| B4          | (-96, +96)   | +0    |
| B5          | (-96, +96)   | +0    |
| SW L        | (-128, +0)   | +0    |
| SW F        | (+5, +40)    | +30   |
| NICAM C AD  |              | 10001 |
| NICAM Error | (0, 2047)    | 0     |
| Stereo      | (-128, +127) | +0    |

Status 0000000110

**SERVICE**

|            |         |     |
|------------|---------|-----|
| SUB COL    | (0, 63) | Adj |
| SUB HUE    | (0, 63) | 31  |
| SUB SHARP  | (0, 63) | 30  |
| SUB BRIGHT | (0, 63) | 13  |
| SUB CONT   | (0, 15) | 12  |
| R-DRIVE    | (0, 63) | 50  |
| G-DRIVE    | (0, 63) | Adj |
| B-DRIVE    | (0, 63) | Adj |
| R CUTOFF   | (0, 63) | 28  |
| G CUTOFF   | (0, 63) | 24  |
| B CUTOFF   | (0, 63) | 46  |
| Br TXT     | (0, 15) | 7   |
| Br OSD     | (0, 15) | 10  |

**IF ADJUST**

|            |   |
|------------|---|
| Automute   | 1 |
| Audio Gain | 0 |
| L Gating   | 0 |

**GEOMETRY**

|              |         |    |
|--------------|---------|----|
| ABL TH       | (0, 3)  | 0  |
| ABL MODE     | (0, 3)  | 0  |
| P ABL        | (0, 15) | 15 |
| V SIZE       | (0, 63) | 35 |
| V POSITION   | (0, 63) | 33 |
| V COMP       | (0, 3)  | 1  |
| V LIN        | (0, 15) | 7  |
| S CORRECTION | (0, 15) | 7  |
| H SIZE       | (0, 63) | 44 |
| PIN AMP      | (0, 63) | 32 |
| HCOMP        | (0, 3)  | 0  |
| UP CORNERPIN | (0, 63) | 29 |
| M PIN        | (0, 3)  | 2  |
| LO CORNERPIN | (0, 63) | 29 |
| TRAPEZIUM    | (0, 15) | 2  |
| H POSITION   | (0, 63) | 40 |
| AFC BOW      | (0, 15) | 8  |
| AFC ANGLE    | (0, 15) | 9  |
| LEFT BLK     | (0, 63) | 34 |
| RIGHT BLK    | (0, 63) | 17 |
| V ASPECT     | (0, 63) | 47 |
| AKBTIM1      | (0, 3)  | 2  |
| AKBTIM2      | (0, 1)  | 0  |
| IKR          |         | 1  |
| HNG          |         | 0  |
| VNG          |         | 0  |



6-1-5. Service List (Projector Engine)

: Fixed data. xxxx : Cannot change.

| Item |      | Data Range | Standard Data |      |        |       |      |      |        |       | Name/Description                                    |
|------|------|------------|---------------|------|--------|-------|------|------|--------|-------|-----------------------------------------------------|
| No.  | Name |            | PAL           |      |        |       | NTSC |      |        |       |                                                     |
|      |      |            | Wide          | Zoom | 14 : 9 | Smart | Wide | Zoom | 14 : 9 | Smart |                                                     |
| 00   | FDIS | 00, 01     | 00            |      |        |       | 00   |      |        |       | Switch of display for fine adjustment data          |
| 01   | COPY | 00, 01     | 00            |      |        |       | 00   |      |        |       | Service copy adjustment                             |
| 02   | ALCP | 00, 01     | 00            |      |        |       | 00   |      |        |       | Service all copy adjustment                         |
| 03   | OSDH | 01 ~ 255   | 26            |      |        |       | 26   |      |        |       | OSD horizontal position of PJED service menu        |
| 04   | OSDV | 01 ~ 255   | 32            | 52   |        |       | 24   | 42   |        |       | OSD vertical position of PJED service menu          |
| 05   | FVSL | 00 ~ 15    | 00            | 14   | 15     |       | 00   | 14   | 15     |       | Start position of fine adjustment                   |
| 06   | FVSP | 00 ~ 255   | 05            | 17   | 09     |       | 05   | 16   | 17     |       | Start line of fine adjustment                       |
| 07   | V1DL | 00 ~ 255   | 01            | 77   | 48     |       | 01   | 52   | 23     |       | Value of V1 delay                                   |
| 08   | V1CU | 00 ~ 4095  | 750           | 985  | 880    |       | 897  | 1183 | 1001   |       | Value of V1 count up                                |
| 09   | V1OH | 00 ~ 255   | 40            |      |        |       | 30   | 03   | 20     |       | Value of V1 offset higher data                      |
| 10   | V1OL | 00 ~ 255   | 00            |      |        |       | 01   |      |        |       | Value of V1 offset lower data                       |
| 11   | OEVP | 00 ~ 4095  | 1056          |      |        |       | 1056 |      |        |       | Odd/Even select position                            |
| 12   | COHP | 00 ~ 4095  | 4095          |      |        |       | 4095 |      |        |       | Horizontal phase for rough adjustment               |
| 13   | 34CS | 00 ~ 31    | 14            |      |        |       | 14   |      |        |       | Start center clamp position of H3 and H4 pulse      |
| 14   | 34CW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width center clamp position of H3 and H4 pulse      |
| 15   | FIHP | 00 ~ 4095  | 1110          |      |        |       | 1110 |      |        |       | Horizontal phase for fine adjustment                |
| 16   | TPHP | 00 ~ 4095  | 67            |      |        |       | 67   |      |        |       | Horizontal phase for test pattern                   |
| 17   | TPVP | 00 ~ 255   | 26            | 58   | 46     |       | 20   | 49   | 33     |       | Vertical phase for test pattern                     |
| 18   | DFHP | 00 ~ 4095  | 100           |      |        |       | 100  |      |        |       | Horizontal phase for dynamic focus                  |
| 19   | DFHG | Δ128 ~ 127 | -90           |      |        |       | -90  |      |        |       | Value of horizontal parabola wave for dynamic focus |
| 20   | DFVG | Δ128 ~ 127 | -40           |      |        |       | -40  |      |        |       | Value of vertical parabola wave for dynamic focus   |
| 21   | DFDC | Δ128 ~ 127 | 127           |      |        |       | 127  |      |        |       | Value of center for dynamic focus                   |
| 22   | DFV1 | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | Value of V1 saw wave for dynamic focus              |
| 23   | SDHP | 00 ~ 4095  | 00            |      |        |       | 00   |      |        |       | Compensation of horizontal phase for shading        |
| 24   | SDH1 | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | Value of horizontal saw wave for dynamic focus      |
| 25   | RVCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of RED vertical clamp                |
| 26   | RVCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of RED vertical clamp                         |
| 27   | GVCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of GREEN vertical clamp              |
| 28   | GVCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of GREEN vertical clamp                       |
| 29   | BVCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of BLUE vertical clamp               |
| 30   | BVCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of BLUE vertical clamp                        |
| 31   | RHCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of RED horizontal clamp              |
| 32   | RHCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of RED horizontal clamp                       |
| 33   | GHCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of GREEN horizontal clamp            |
| 34   | GHCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of GREEN horizontal clamp                     |
| 35   | BHCS | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Start position of BLUE horizontal clamp             |
| 36   | BHCW | 00 ~ 31    | 00            |      |        |       | 00   |      |        |       | Width of BLUE horizontal clamp                      |
| 37   | BDVU | 00 ~ 2047  | 23            | 18   | 27     | 21    | 23   | 18   | 27     | 21    | Vertical position for border line 1                 |
| 38   | BDVL | 00 ~ 2047  | 905           | 686  | 1061   | 811   | 905  | 686  | 1061   | 811   | Vertical position for border line 2                 |
| 39   | BDHL | 00 ~ 2047  | 159           |      |        |       | 159  |      |        |       | Horizontal position for border line 1               |
| 40   | BDHR | 00 ~ 2047  | 1253          |      |        |       | 1253 |      |        |       | Horizontal position for border line 2               |
| 41   | HBLD | 00 ~ 4095  | 00            |      |        |       | 00   |      |        |       | Horizontal phase for output of H.Blank out          |
| 42   | HBLW | 00 ~ 4095  | 00            |      |        |       | 00   |      |        |       | Width for output of H.Blank out                     |
| 43   | PWM2 | 00 ~ 4095  | 00            |      |        |       | 00   |      |        |       | PWM2 output width setting of Regi. IC               |
| 44   | COGV | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | GREEN vertical center offset data for Auto Regi.    |
| 45   | CORV | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | RED vertical center offset data for Auto Regi.      |
| 46   | COBV | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | BLUE vertical center offset data for Auto Regi.     |
| 47   | COGH | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | GREEN horizontal center offset data for Auto Regi.  |
| 48   | CORH | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | RED horizontal center offset data for Auto Regi.    |
| 49   | COBH | Δ128 ~ 127 | 00            |      |        |       | 00   |      |        |       | BLUE horizontal center offset data for Auto Regi.   |

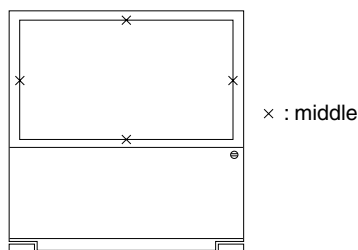
| Item |      | Data Range | Standard Data |          |        |       |      |          |        |       | Name/Description                                      |
|------|------|------------|---------------|----------|--------|-------|------|----------|--------|-------|-------------------------------------------------------|
| No.  | Name |            | PAL           |          |        |       | NTSC |          |        |       |                                                       |
|      |      |            | Wide          | Zoom     | 14 : 9 | Smart | Wide | Zoom     | 14 : 9 | Smart |                                                       |
| 50   | SOGV | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | GREEN vertical skew offset data for Auto Regi.        |
| 51   | SORV | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | RED vertical skew offset data for Auto Regi.          |
| 52   | SOBV | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | BLUE vertical skew offset data for Auto Regi.         |
| 53   | SOGH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | GREEN horizontal skew offset data for Auto Regi.      |
| 54   | SORH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | RED horizontal skew offset data for Auto Regi.        |
| 55   | SOBH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | BLUE horizontal skew offset data for Auto Regi.       |
| 56   | ZOGH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | GREEN horizontal size offset data for Auto Regi.      |
| 57   | ZORH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | RED horizontal size offset data for Auto Regi.        |
| 58   | ZOBH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | BLUE horizontal size offset data for Auto Regi.       |
| 59   | LOGH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | GREEN horizontal linearity offset data for Auto Regi. |
| 60   | LORH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | RED horizontal linearity offset data for Auto Regi.   |
| 61   | LOBH | -128 ~ 127 |               | 00       |        |       |      | 00       |        |       | BLUE horizontal linearity offset data for Auto Regi.  |
| 62   | ERR  | 00 ~ 255   |               | 00       |        |       |      | 00       |        |       | Auto Regi. Error code                                 |
| 63   | ADTM | 00 ~ 127   |               | 80       |        |       |      | 120      |        |       | A/D data input timing of Auto Regi.                   |
| 64   | VUP  | 00 ~ 2047  |               | 31       |        |       |      | 45       |        |       | Auto Regi. Pattern upper vertical position            |
| 65   | VUPM | 00 ~ 2047  |               | 00       |        |       |      | 00       |        |       | Auto Regi. Pattern upper middle vertical position     |
| 66   | VMID | 00 ~ 2047  |               | 290      |        |       |      | 475      |        |       | Auto Regi. Pattern middle vertical position           |
| 67   | VLOM | 00 ~ 2047  |               | 00       |        |       |      | 00       |        |       | Auto Regi. Pattern lower middle vertical position     |
| 68   | VLOW | 00 ~ 2047  |               | 560      |        |       |      | 930      |        |       | Auto Regi. Pattern lower vertical position            |
| 69   | HLE  | 00 ~ 4095  |               | 135      |        |       |      | 135      |        |       | Auto Regi. Pattern left horizontal position           |
| 70   | HLEM | 00 ~ 4095  |               | 00       |        |       |      | 00       |        |       | Auto Regi. Pattern left middle horizontal position    |
| 71   | HMID | 00 ~ 4095  |               | 640      |        |       |      | 645      |        |       | Auto Regi. Pattern middle horizontal position         |
| 72   | HRIM | 00 ~ 4095  |               | 00       |        |       |      | 00       |        |       | Auto Regi. Pattern right middle horizontal position   |
| 73   | HRIV | 00 ~ 4095  |               | 1170     |        |       |      | 1170     |        |       | Auto Regi. Pattern right horizontal position          |
| 74   | SFTF | 00, 01     |               | 00       |        |       |      | 00       |        |       | Switch of shift fast      00 : Normal   01 : Quick    |
| 75   | ACTL | 00 ~ 255   |               | 00       |        |       |      | 00       |        |       | Account time counter lower byte                       |
| 76   | ACTH | 00 ~ 255   |               | 00       |        |       |      | 00       |        |       | Account time counter higher byte                      |
| 77   | SLSW | 00 ~ 03    |               | 00       |        |       |      | 00       |        |       | Auto Regi. Adjustment item select                     |
| GRN  | CENT | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | GREEN Horizontal/Vertical center                      |
|      | SKEW | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | GREEN Horizontal/Vertical skew                        |
|      | SIZE | -512 ~ 511 |               | 000/-200 |        |       |      | 000/-200 |        |       | GREEN Horizontal/Vertical size                        |
|      | LIN  | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | GREEN Horizontal/Vertical linearity                   |
|      | KEY  | -512 ~ 511 |               | xxxx/000 |        |       |      | xxxx/000 |        |       | GREEN Vertical keystone                               |
|      | PIN  | -512 ~ 511 |               | 000/250  |        |       |      | 000/250  |        |       | GREEN Horizontal/Vertical pincushion                  |
|      | MLIN | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | GREEN Horizontal mid linearity                        |
| BLU  | MSIZ | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | GREEN Horizontal mid size                             |
|      | CENT | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | BLUE Horizontal/Vertical center                       |
|      | SKEW | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | BLUE Horizontal/Vertical skew                         |
|      | SIZE | -512 ~ 511 |               | 000/-200 |        |       |      | 000/-200 |        |       | BLUE Horizontal/Vertical size                         |
|      | LIN  | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | BLUE Horizontal/Vertical linearity                    |
|      | KEY  | -512 ~ 511 |               | xxxx/000 |        |       |      | xxxx/000 |        |       | BLUE Vertical keystone                                |
|      | PIN  | -512 ~ 511 |               | 000/250  |        |       |      | 000/250  |        |       | BLUE Horizontal/Vertical pincushion                   |
| RED  | MLIN | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | BLUE Horizontal mid linearity                         |
|      | MSIZ | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | BLUE Horizontal mid size                              |
|      | CENT | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | RED Horizontal/Vertical center                        |
|      | SKEW | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | RED Horizontal/Vertical skew                          |
|      | SIZE | -512 ~ 511 |               | 000/-200 |        |       |      | 000/-200 |        |       | RED Horizontal/Vertical size                          |
|      | LIN  | -512 ~ 511 |               | 000/000  |        |       |      | 000/000  |        |       | RED Horizontal/Vertical linearity                     |
|      | KEY  | -512 ~ 511 |               | xxxx/000 |        |       |      | xxxx/000 |        |       | RED Vertical keystone                                 |
| RED  | PIN  | -512 ~ 511 |               | 000/250  |        |       |      | 000/250  |        |       | RED Horizontal/Vertical pincushion                    |
|      | MLIN | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | RED Horizontal mid linearity                          |
|      | MSIZ | -512 ~ 511 |               | 000/xxxx |        |       |      | 000/xxxx |        |       | RED Horizontal mid size                               |
|      |      |            |               |          |        |       |      |          |        |       |                                                       |

## 6-2. Registration Adjustments

### 6-2-1. Setup for Adjustment

#### 1. Marking

- At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.



#### 2. Data Setting

- Set PAL-Wide mode.
- Program the remote commander for operation in Service Mode (See Page 23).
- Press 'VIDEO', 'VIDEO', '5', '6' on the commander to enter Projector Engine.
- Press '7' + '0' (READ) buttons on the commander to read the data from NVM. Then all the default data are restored.

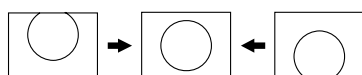
Note : When replacement of printed circuit boards, devices or CRTs, and major correction is necessary, press '5' + '0' (PJE INITIAL) buttons to initialize the data in the Projector Engine mode.  
Press 'MUTE' + '0' buttons on the commander to write the data.

### 6-2-2. Main Deflection Adjustment

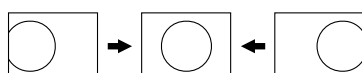
The data values are same in all modes, and therefore the adjustment for the PAL-Wide mode only is performed here.

- Place the caps on the red and blue lenses so that only the green color is displayed.
- Enter the PAL SPCB signal and set the TV to PAL mode.
- Set the screen format to "Wide".
- Program the remote commander for operation in Service Mode and enter Service Menu(See Page 23).
- Select 'Geometry' from the service menu.
- Adjust "V-Position" and "H-Position" so that the picture is displayed in the center of screen.

#### V-Position



#### H-Position



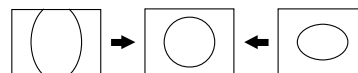
- Adjust "V-Size" and "H-Size" so that the picture size is within the specification.

#### SPEC

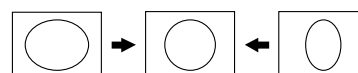
Overscan Spec. = 7.5%

| Input Signal | H SIZE         | V SIZE         |
|--------------|----------------|----------------|
| PAL SPCB     | 16.7 ± 0.1 sq. | 12.5 ± 0.1 sq. |

#### V-Size



#### H-Size



- Adjust the following items so as to attain the optimum picture.

#### V-Linear



#### S-Corr



#### Pin Amp



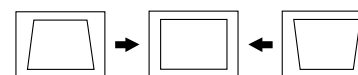
#### Up-CPin



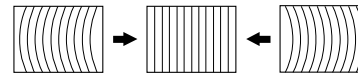
#### Lo-CPin



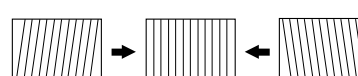
#### Trapezium



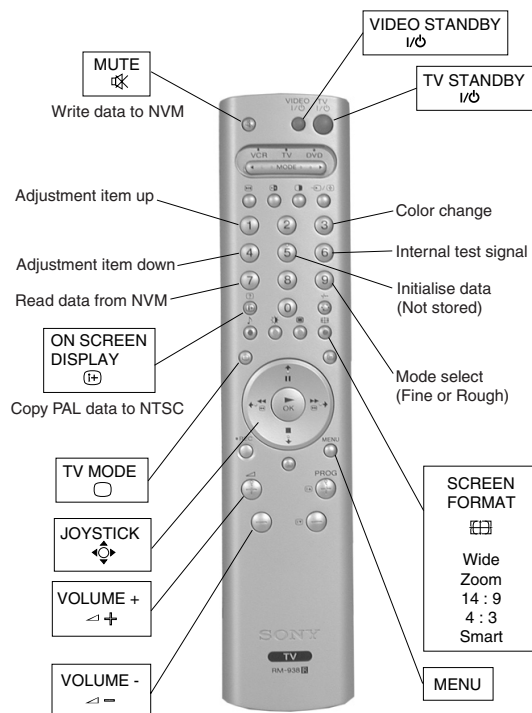
#### AFC-Bow



#### AFC-Angle



## 6-2-3. Operation Method for Projector Engine Mode



### 1. Functions of Keys on Commander

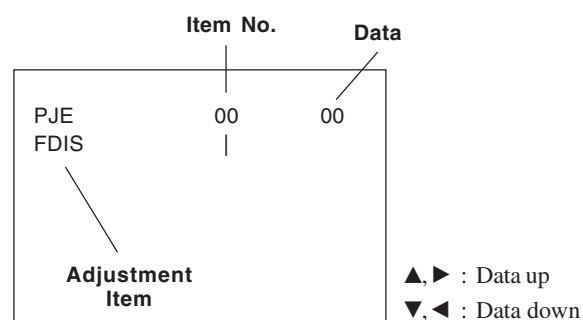
- **1** : Changes adjustment item. (item No. moves up)  
: Marker moves clockwise from center to outside. (in fine adjustment mode)
- **4** : Changes adjustment item. (item No. moves down)  
: Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- **▲▼◀▶**: Changes data value. (up or down)  
: Marker moves up, down, or to the left or right. (in fine adjustment mode)
- **3** : Changes adjustment color. (except item No. 00~77) GRN ▶ BLU ▶ RED
- **6** : Displays or changes internal test signals.  
: crosshatch + external signal ▶ crosshatch only ▶ crosshatch only ▶ dot only ▶ off
- **9** : Switches adjustment mode.  
rough adjustment mode c fine adjustment mode
- **(OK)** : Switches marker moving method. (in fine adjustment mode)  
joystick (▲, ▼, ◀, ▶) keys → **1** and **4** buttons

### Commander Function

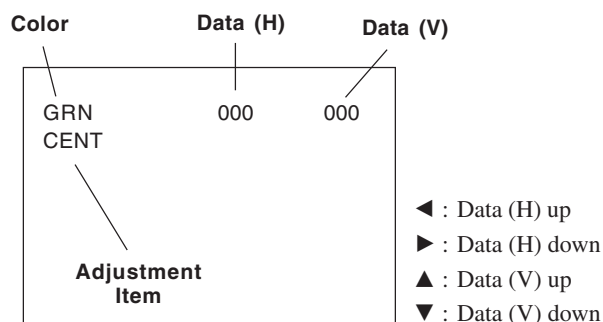
| Buttons                | Mode        | Description                                                           |
|------------------------|-------------|-----------------------------------------------------------------------|
| <b>MUTE</b> + <b>0</b> | WRITE       | Writes data to NVM.                                                   |
| <b>7</b> + <b>0</b>    | READ        | Reads data from NVM.                                                  |
| <b>5</b> + <b>0</b>    | PJE INITIAL | Service data initialization. Not stored. (Be sure not to use usually) |
| <b>11</b> + <b>0</b>   | PJE         | Copies data of PAL mode to NTSC mode                                  |

### 2. Operation Method for Rough Adjustment

- 1) Press 'VIDEO', 'VIDEO', '5', '6' on the commander to enter Projector Engine.
- 2) Press '1' or '4' button on the commander to select the item, and press ▲, ▼, ◀, ▶ key on the joystick to change the data.



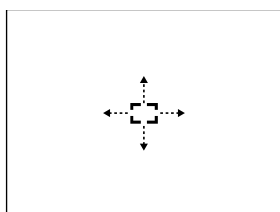
- 3) Select "GRN CENT". When BLU or RED is displayed, press "3" button on the commander to change the adjustment color in the order of GRN → BLU → RED.
- 4) In the GRN, BLU, or RED mode, ▲, ▼ keys on the joystick can change the data in vertical direction, or ◀, ▶ keys in horizontal direction.



- 5) Before returning to the Service menu, press "MUTE" + "0" buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)
- 6) Press "MENU" button on the commander to return to the Service menu.

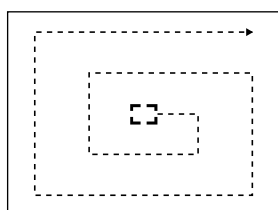
### 3. Operation Method for Fine Adjustment (in GRN, BLU, or RED Mode)

- 1) Select the Projector Engine mode.
  - 2) Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
  - 3) Press "9" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
  - 4) Press "OK" button, and the marker color will be switched between green (GRN mode) and white alternately.
  - 5) Use "1" or "4" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.
- When marker color is white.  
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

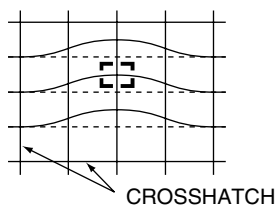
- When marker color is green. (GRN mode)



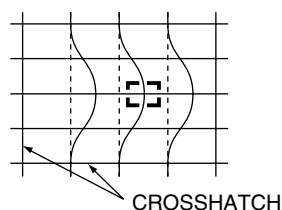
- 1 : moves the marker clockwise from center to outside.
- 4 : moves the marker counterclockwise from outside to center.

- Fine adjustment can be made on the basis of marker position using ▲, ▼, ◀, ▶ keys on the joystick.

Movement when ▲ key on joystick is pressed.



Movement when ▶ key on joystick is pressed.



- 6) Press "9" button on the commander to return to the rough adjustment mode.

### 6-2-4. Projector Engine Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes – : No

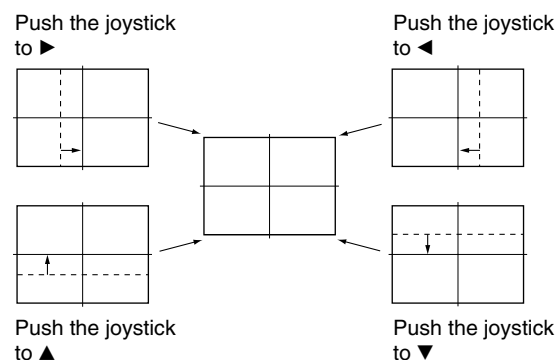
| Adjustment Item | Adjustment Type |     |     |
|-----------------|-----------------|-----|-----|
|                 | GRN             | RED | BLU |
|                 | H/V             | H/V | H/V |
| CENT            | ○/○             | ○/○ | ○/○ |
| SKEW            | ○/○             | ○/○ | ○/○ |
| SIZE            | ○/○             | ○/○ | ○/○ |
| LIN             | ○/○             | ○/○ | ○/○ |
| KEY             | –/○             | –/○ | –/○ |
| PIN             | ○/○             | ○/○ | ○/○ |
| MLIN            | ○/–             | ○/– | ○/– |
| MSIZ            | ○/–             | ○/– | ○/– |

#### <Adjustment for PAL-Wide Mode>

##### 1. Green Adjustment

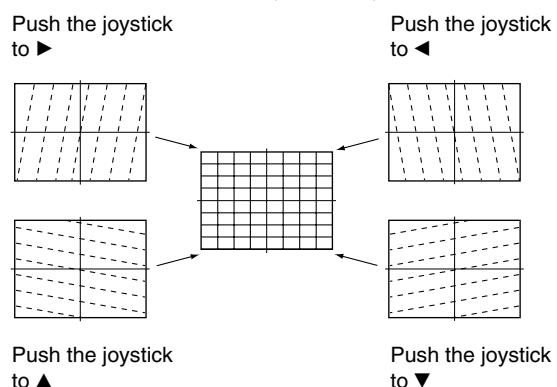
- 1) Place the caps on the red and blue lenses so that only the green color is displayed.
- 2) Enter the PAL SPCB signal to set the PAL mode.
- 3) Set the screen format to "Wide".
- 4) Select the Projector Engine mode.
- 5) Press "6" button on the commander to display internal test signal (crosshatch).
- 6) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

• GRN CENT (horizontally/vertically)



- 7) Select "GRN SKEW", and correct the tilt of horizontal lines and vertical lines.

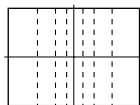
• GRN SKEW (horizontally/vertically)



- 8) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)

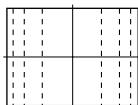
Push the joystick to ►



Push the joystick to ▲



Push the joystick to ◀



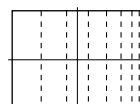
Push the joystick to ▼



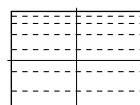
- 9) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)

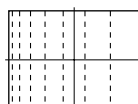
Push the joystick to ►



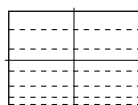
Push the joystick to ▲



Push the joystick to ◀

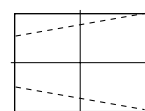


Push the joystick to ▼

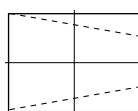


- 10) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



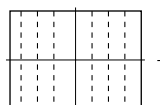
Push the joystick to ▲



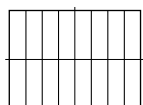
Push the joystick to ▼

- 11) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

• GRN MLIN (horizontally)



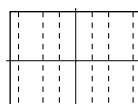
Push the joystick to ►



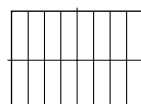
Push the joystick to ◀

- 12) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



Push the joystick to ►

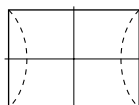


Push the joystick to ◀

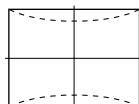
- 13) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)

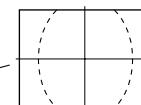
Push the joystick to ►



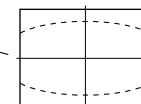
Push the joystick to ▲



Push the joystick to ◀



Push the joystick to ▼



- 14) Press “9” button on the commander to enter the fine adjustment mode.  
15) Make fine adjustment so that horizontal lines and vertical lines become straight.  
16) Press “9” button on the commander to return to the rough adjustment mode.

## 2. Blue Adjustment

- 1) Place a cap on the red lens so that green and blue colors are displayed.  
2) Press “3” button on the commander to select BLU mode.  
3) Adjust the following items so that blue lines overlap with green lines.

- BLU CENT (horizontally/vertically)
- BLU SKEW (horizontally/vertically)
- BLU SIZE (horizontally/vertically)
- BLU LIN (horizontally/vertically)
- BLU KEY (vertically)
- BLU PIN (horizontally/vertically)
- BLU MLIN (horizontally)
- BLU MSIZ (horizontally)

- 4) Press “9” button on the commander to enter the fine adjustment mode.  
5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.  
6) Press “9” button on the commander to return to the rough adjustment mode.

### 3. Red Adjustment

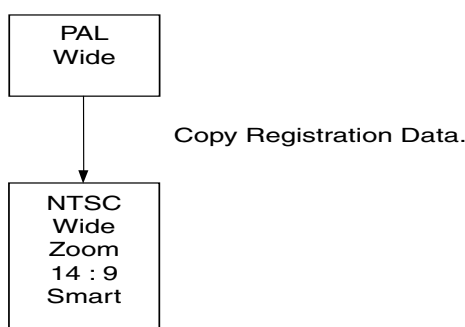
- 1) Place a cap on the blue lens so that green and red colors are displayed.
- 2) Press “3” button on the commander to select RED mode.
- 3) Hereinafter, use same manner as that of blue adjustment to adjust so that the red lines overlap with green lines.

### 4. Registration Data Writing

- 1) After each adjustment of green, blue, and red for the PAL-Wide mode finished, press “MUTE”+ “0” buttons on the commander to write registration data to the NVM.

#### <Copy of All Registration Data>

1. Make sure that the adjustment for PAL-Wide mode is finished and the data has been written.
2. Select the Projector Engine mode.
3. Select ALCP and set the data to “01”, and press “MUTE”+“-” buttons on the commander.
4. The data of PAL-Wide mode is copied to NTSC-Wide mode.



### 6-3. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the PAL SPCB signal to set the PAL mode.
3. Set the screen format to “Wide”.
4. Select the Projector Engine mode.
5. Press “C+3” (AUTO CONVERGENCE) button on the front panel of the set.  
(The offset value is now automatically stored)
6. Select “62 ERR” of Projector Engine mode.  
Confirm ERR is “00”. If ERR is not “00”, recheck. (Refer to 6-7.)
7. Exit the TT mode.
8. Enter the NTSC monoscope signal, and perform the same steps in the NTSC-Wide mode respectively.

### 6-4. WHITE BALANCE ADJUSTMENT

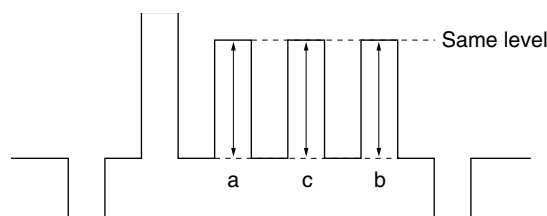
1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set the Picture Mode to “Personal”, and the screen format to “Wide”.
4. Enter the Service menu (See Page 23), and select “Service”.
5. Adjust “Sub Bright” so that 10 IRE section barely glows.
6. Enter all-white pattern signal.
7. Fix “G-Cutoff” to “31”, and adjust “R-Cutoff” and “B-Cutoff” so as to attain the optimum white balance.  
Condition: All-White Pattern 20 IRE
8. Adjust “Sub Bright” so that 100 IRE section barely glows.
9. Adjust “R-Drive” and “B-Drive” so as to attain the optimum white balance.
10. Repeatedly adjust the white balance for the minimum and maximum picture setting.

### 6-5. SUB BRIGHT ADJUSTMENT

1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set respective items as follows:
  - Picture Mode ► Personal
  - Contrast ► Minimum
  - Brightness ► 50%
4. Enter the Service menu (See Page 23), and select “Service”.
5. Adjust “Sub Bright” so that the border between 0 IRE and 10 IRE becomes distinct.
6. Add +6 step offset.

### 6-6. SUB COLOR ADJUSTMENT

1. Enter the color bar signal.
2. Connect the oscilloscope probe to the CN7001 pin 5 on the A board.
3. Enter the Service menu (See Page 23).
4. Select "Service".
5. Adjust "Sub Col" until Cyan, Magenta and Blue colour bars are of equal height as indicated below.





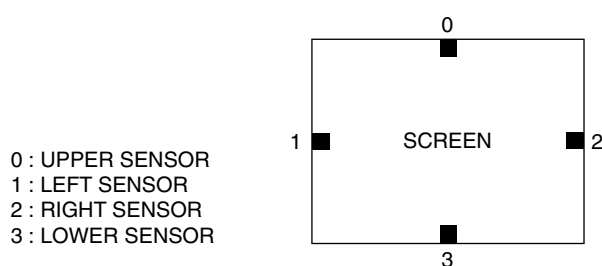
## 6-7. AUTO CONVERGENCE ERROR CODE LIST

If an error code is displayed after the set has been fully adjusted, correctly, please check the following items : position, tilt and sizing. If either of these adjustments are off, even slightly, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

## ERROR CODE LIST

| ERROR CODE | DESCRIPTION                             | REMEDY                                                                                                                     |
|------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 00         | No Error                                |                                                                                                                            |
| 10         | Sensor 0 low output                     | Check sensor 0, connection/wiring, circuit, and pattern position (is pattern over sensor ?) Adjust "64 VUP" if necessary.  |
| 11         | Sensor 1 low output                     | Check sensor 1, connection/wiring, circuit, and pattern position (is pattern over sensor ?) Adjust "69 HLE" if necessary.  |
| 12         | Sensor 2 low output                     | Check sensor 2, connection/wiring, circuit, and pattern position (is pattern over sensor ?) Adjust "73 HRIV" if necessary. |
| 13         | Sensor 3 low output                     | Check sensor 3, connection/wiring, circuit, and pattern position (is pattern over sensor ?) Adjust "68 VLOW" if necessary. |
| 20         | Sensor 0 high output                    | Check sensor 0 and circuit.                                                                                                |
| 21         | Sensor 1 high output                    | Check sensor 1 and circuit.                                                                                                |
| 22         | Sensor 2 high output                    | Check sensor 2 and circuit.                                                                                                |
| 23         | Sensor 3 high output                    | Check sensor 3 and circuit.                                                                                                |
| 30         | V CENT or SKEW adjustment loop overflow | Check "66 VMID" data and check registration condition.                                                                     |
| 31         | H CENT or SKEW adjustment loop overflow | Check "71 HMID" data and check registration condition.                                                                     |
| 32         | H LIN or SIZE adjustment loop overflow  | Check "71 HMID" data and check registration condition.                                                                     |
| 40         | V CENT regi data overflow               | Check "66 VMID" data and confirm V CENT data (all mode) is not near 511.                                                   |
| 41         | H CENT regi data overflow               | Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.                                                   |
| 42         | V SKEW regi data overflow               | Check "66 VMID" data and confirm V SKEW data (all mode) is not near 511.                                                   |
| 43         | H SKEW regi data overflow               | Check "71 HMID" data and confirm H SKEW data (all mode) is not near 511.                                                   |
| 44         | H LIN regi data overflow                | Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.                                                   |
| 45         | H SIZE regi data overflow               | Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.                                                   |
| 50         | V CENT regi data overflow               | Check "66 VMID" data and confirm V CENT data (all mode) is not near -512.                                                  |
| 51         | H CENT regi data overflow               | Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.                                                  |
| 52         | V SKEW regi data overflow               | Check "66 VMID" data and confirm V SKEW data (all mode) is not near -512.                                                  |
| 53         | H SKEW regi data overflow               | Check "71 HMID" data and confirm H SKEW data (all mode) is not near -512.                                                  |
| 54         | H LIN regi data overflow                | Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.                                                  |
| 55         | H SIZE regi data overflow               | Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.                                                  |
| 60         | H or V CENT offset overflow             | Check "71 HMID" data and check "66 VMID" data.                                                                             |
| 61         | H or V SKEW offset overflow             | Check SKEW adjustment.                                                                                                     |
| 62         | H SIZE or LIN offset overflow           | Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.                                              |
| 70         | H or V CENT offset overflow             | Check "71 HMID" data and check "66 VMID" data.                                                                             |
| 71         | H or V SKEW offset overflow             | Check SKEW adjustment.                                                                                                     |
| 72         | H SIZE or LIN offset overflow           | Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.                                              |

## [SENSOR POSITION]





## 6-8. TEST-TEST MODE

Is available by pressing “OSD”, “5”, “Volume minus”, “TV” button in the standby mode, OSD “TT--” appears. The functions described below are available by pressing the two numbers. To release the Test-Test mode, Press “-” twice or switch the TV set into standby mode. Pressing the two PROGR (+ and -) buttons during Power ON will also switch into “TT” mode.

In “TT” mode, it is possible to remove the Menu from the screen by pressing the Speaker OFF button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed !!.

|    |                                            |
|----|--------------------------------------------|
| 00 | Switch back to normal mode - “TT” mode off |
| 01 | Set picture maximum                        |
| 02 | Set picture minimum                        |
| 03 | Set speaker/headphone Volume to 30%        |
| 04 | Set speaker/headphone Volume to 50%        |
| 05 | Set speaker/headphone Volume to 65%        |
| 06 | Set speaker/headphone Volume to 80%        |
| 07 | Ageing Mode                                |
| 08 | Shipping Condition                         |
| 09 | No function                                |
| 10 | No function                                |
| 11 | Sub picture adjustment                     |
| 12 | Sub colour adjustment                      |
| 13 | Sub brightness adjustment                  |
| 14 | Text H position adjustment                 |
| 15 | Rotation coil test                         |
| 16 | Picture level 50%                          |
| 17 | No function                                |
| 18 | No function                                |
| 19 | Factory Mode Enable/Disable                |
| 20 | No function                                |
| 21 | Destination ADEKR                          |
| 22 | Destination BL                             |
| 23 | Destination ADEKR                          |
| 24 | Destination U                              |
| 25 | Destination ADEKR                          |
| 26 | Destination BL                             |
| 27 | Destination ADEKR                          |
| 28 | Destination ADEKR                          |
| 30 | No function                                |
| 31 | Auto Shutoff Disable/Enable                |
| 32 | No function                                |
| 33 | No function                                |
| 34 | No function                                |
| 35 | CRT 4:3 <=> 16:9 ; Display TV status       |
| 36 | Line 23 detection switch                   |
| 37 | Velocity Modulation (VM) test              |
| 38 | No function                                |
| 39 | No function                                |
| 40 | No function                                |

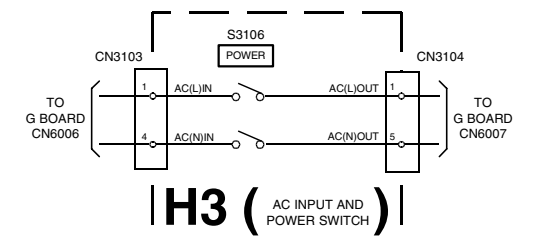
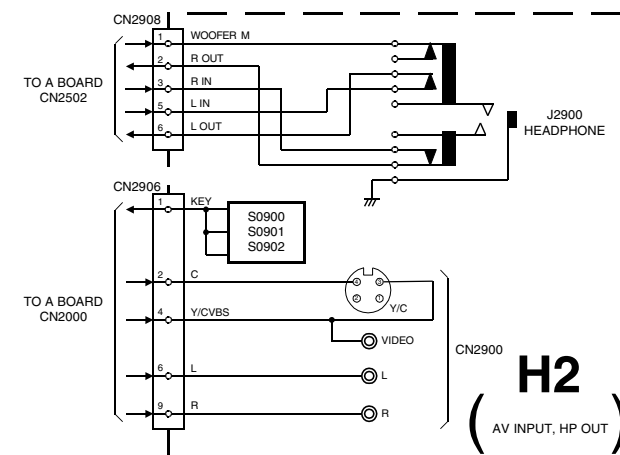
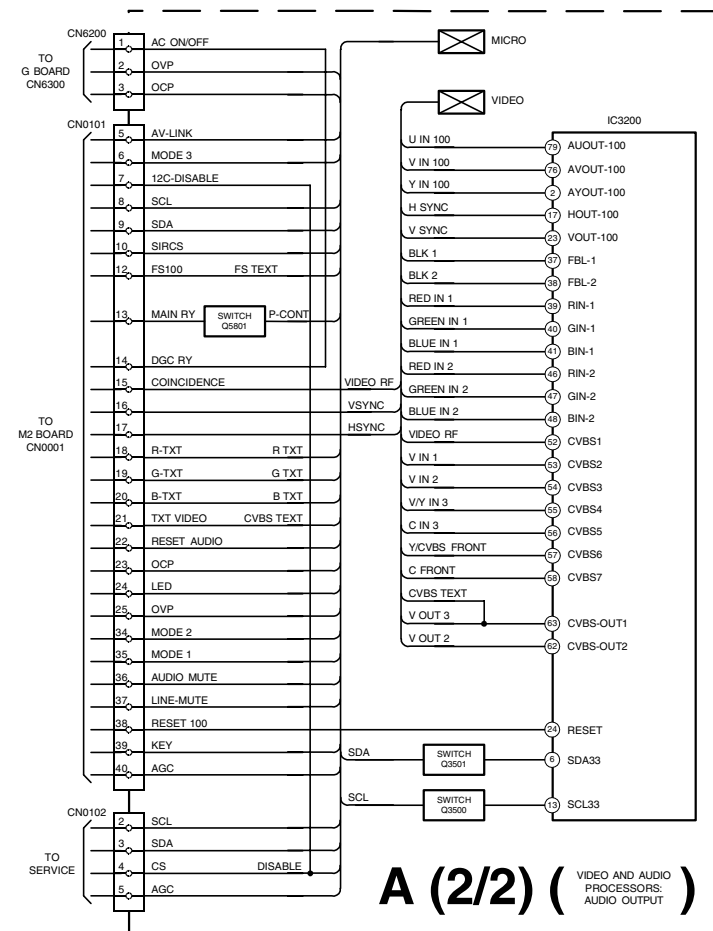
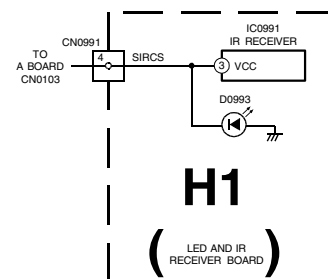
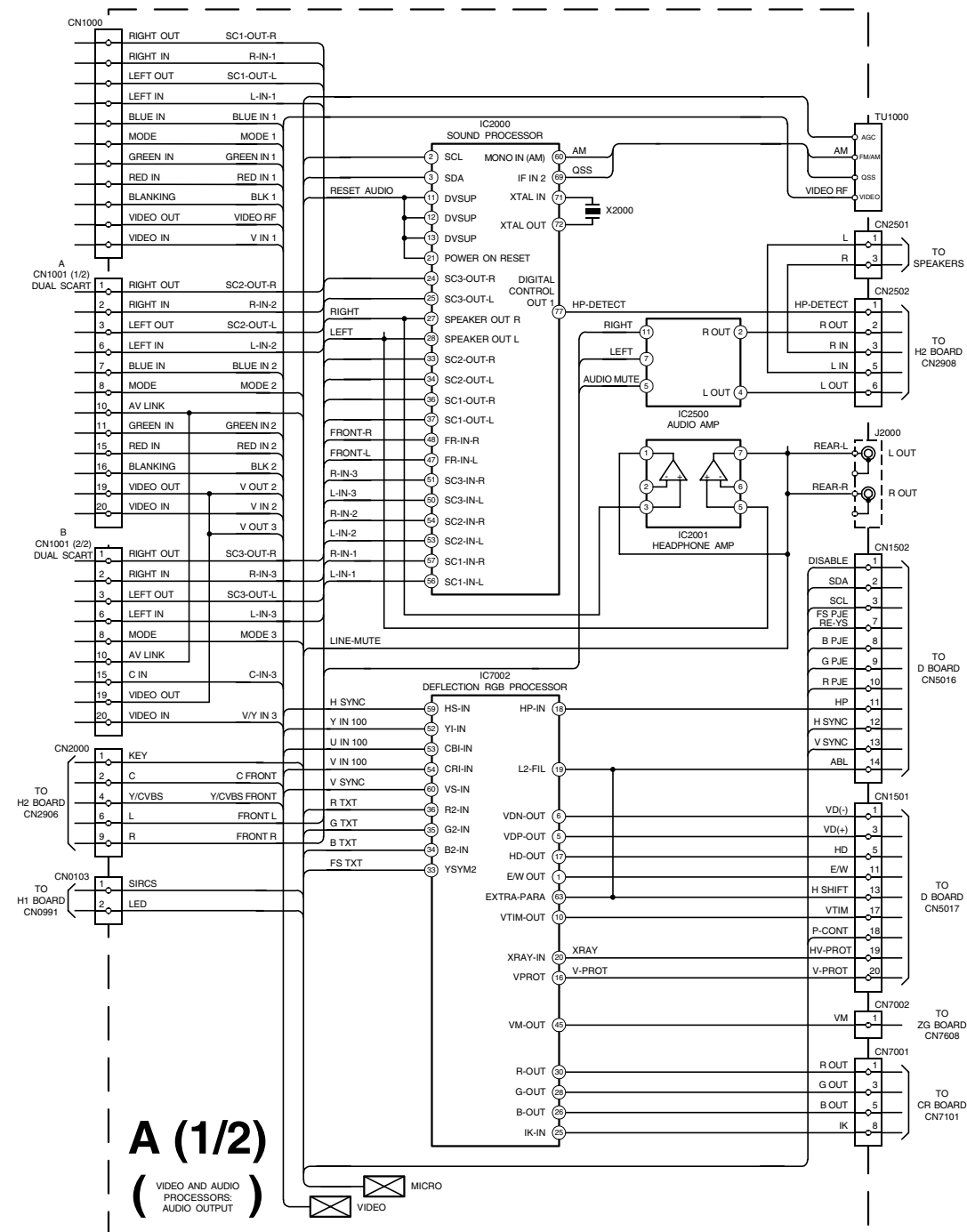
|    |                                       |
|----|---------------------------------------|
| 41 | Reinitialize NVM                      |
| 42 | No function                           |
| 43 | Select Dual A sound                   |
| 44 | Select Dual B sound                   |
| 45 | Select Mono sound                     |
| 46 | Select Stereo sound                   |
| 47 | No function                           |
| 48 | Set NVM as non virgin                 |
| 49 | Set NVM as virgin                     |
| 50 | No function                           |
| 51 | No function                           |
| 53 | FM Overmodulation enable/disable      |
| 56 | PJE Adjustment Menu                   |
| 58 | Select 3 scarts model                 |
| 59 | Select PIP                            |
| 60 | • No function                         |
| 67 |                                       |
| 68 | Enable/Disable X26 countermeasure     |
| 73 | Enable Zweiton D/K2 system (6.5/6.74) |
| 74 | Enable Zweiton D/K3 system (6.5/5.74) |
| 78 | Balance full left                     |
| 79 | Balance full right                    |
| 87 | Local keys test                       |
| 89 | No function                           |
| 90 | No function                           |
| 91 | Set 14:9 zoommode                     |
| 92 | Set SMART zoommode                    |
| 93 | Set 16:9 mode                         |
| 94 | Set ZOOM mode                         |
| 96 | No function                           |
| 97 | No function                           |
| 98 | No function                           |
| 99 | Display Error and Working Time menu   |

MEMO

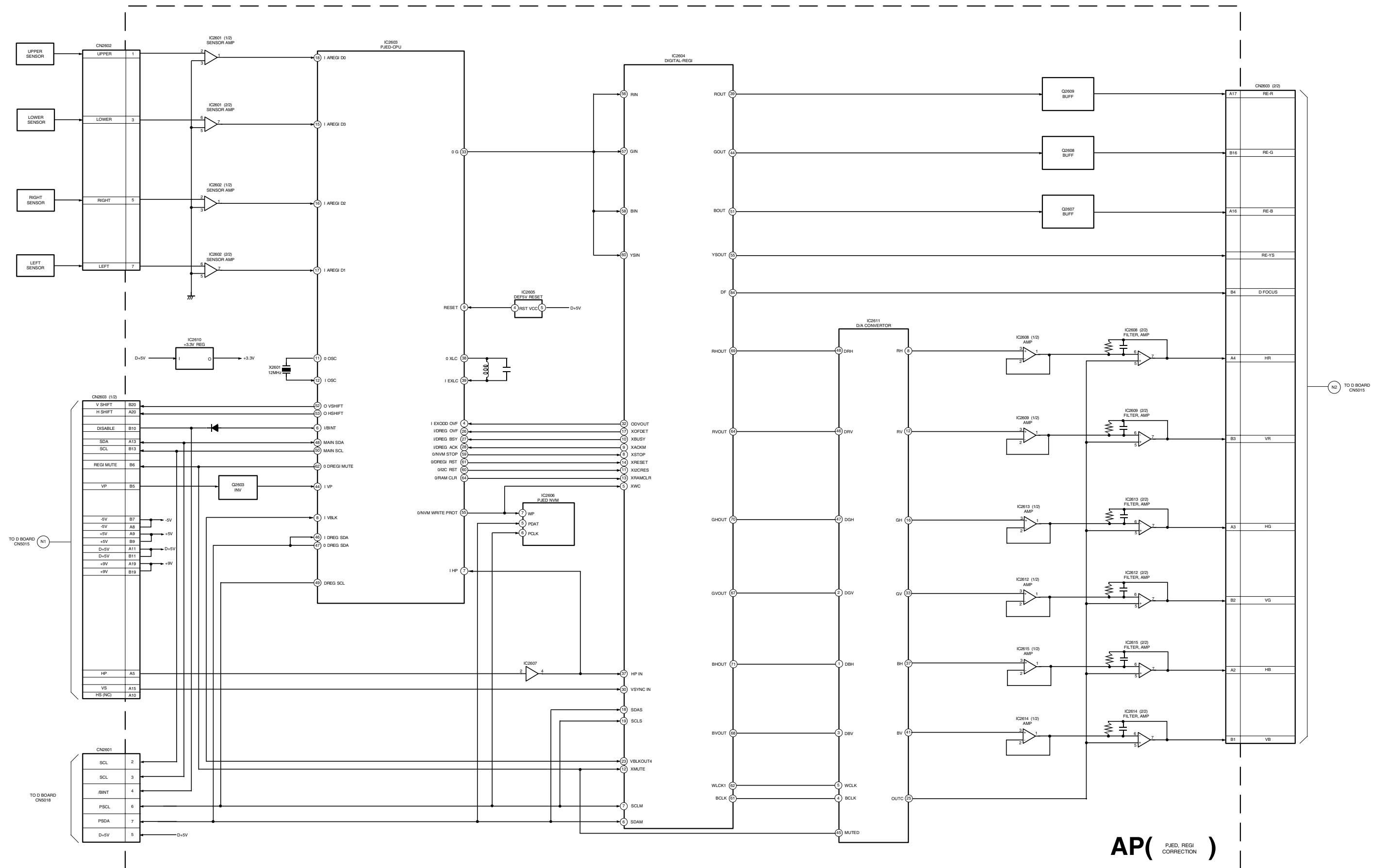
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A series of horizontal dotted lines for writing.

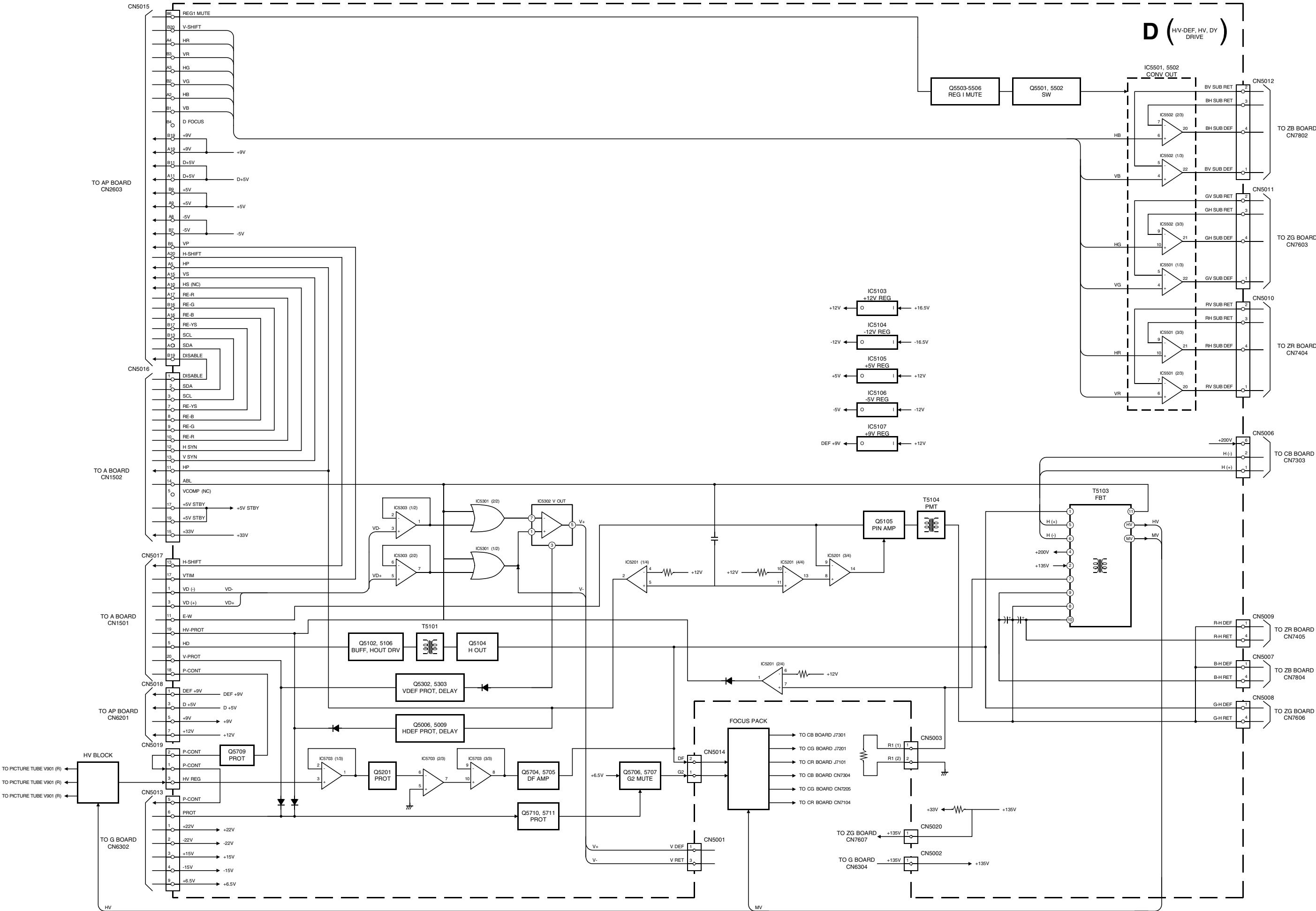
## 7-1. BLOCK DIAGRAMS (1)



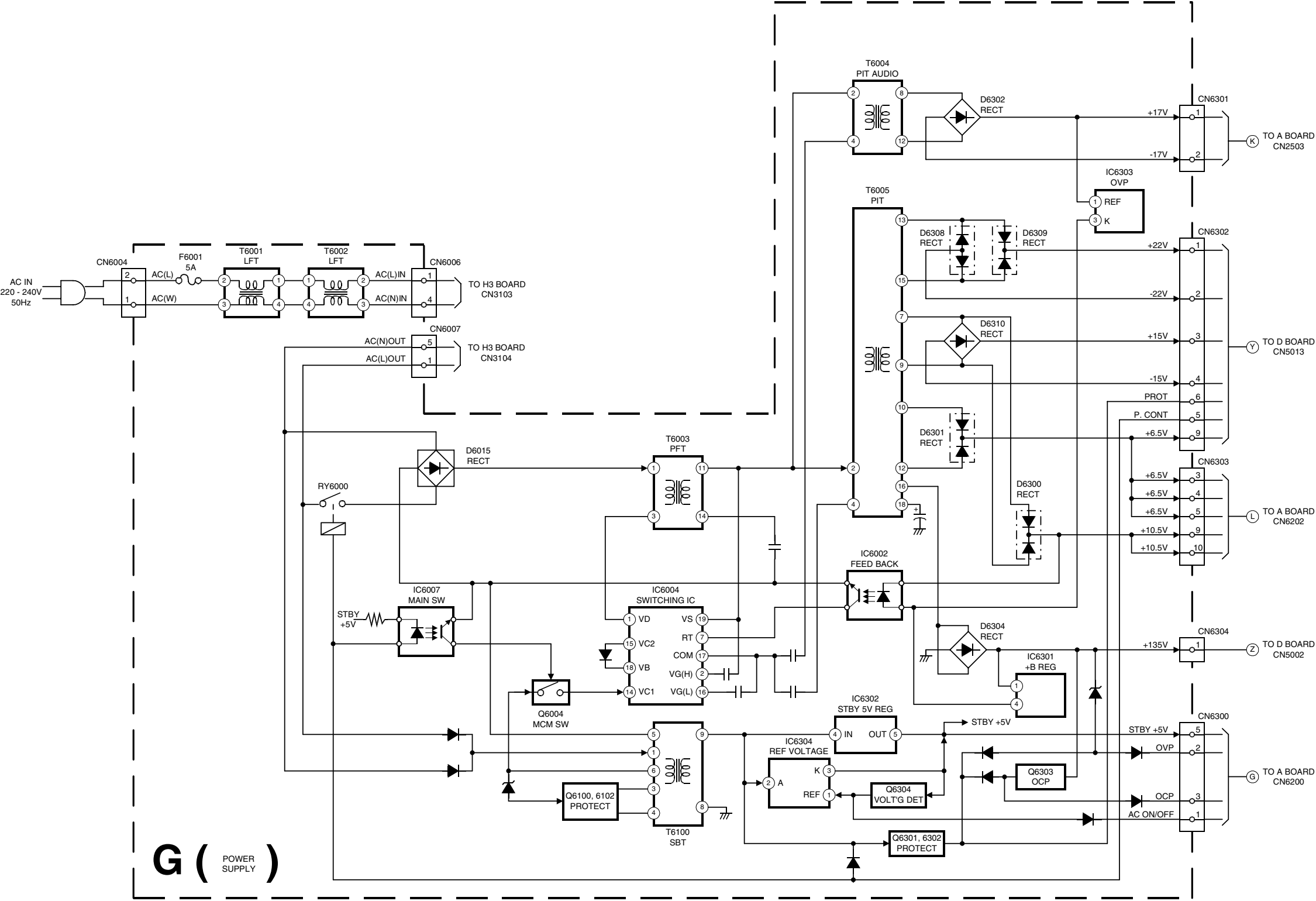
## 7-1. BLOCK DIAGRAMS (2)



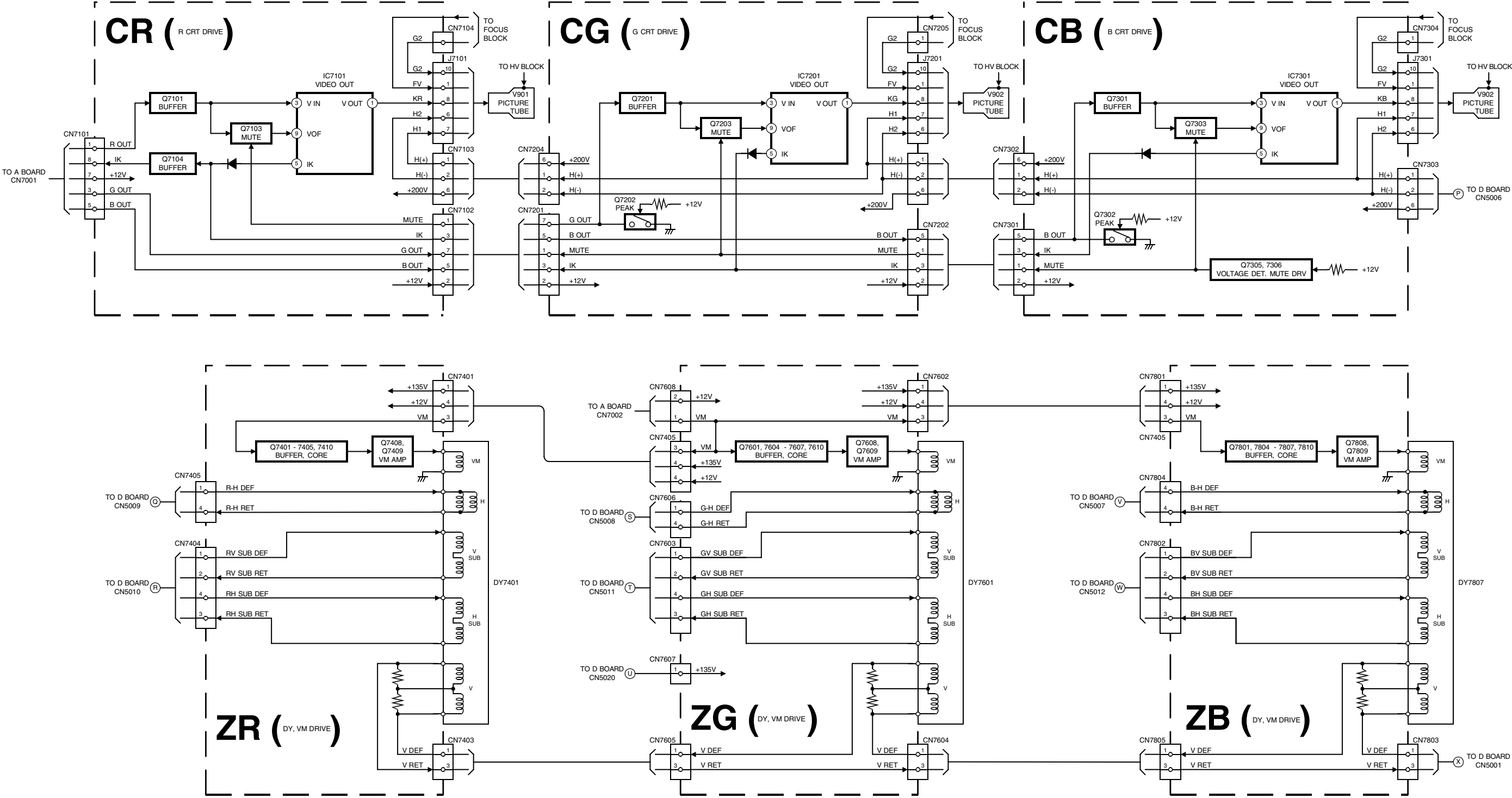
7-1. BLOCK DIAGRAMS (3)



7-1. BLOCK DIAGRAMS (4)

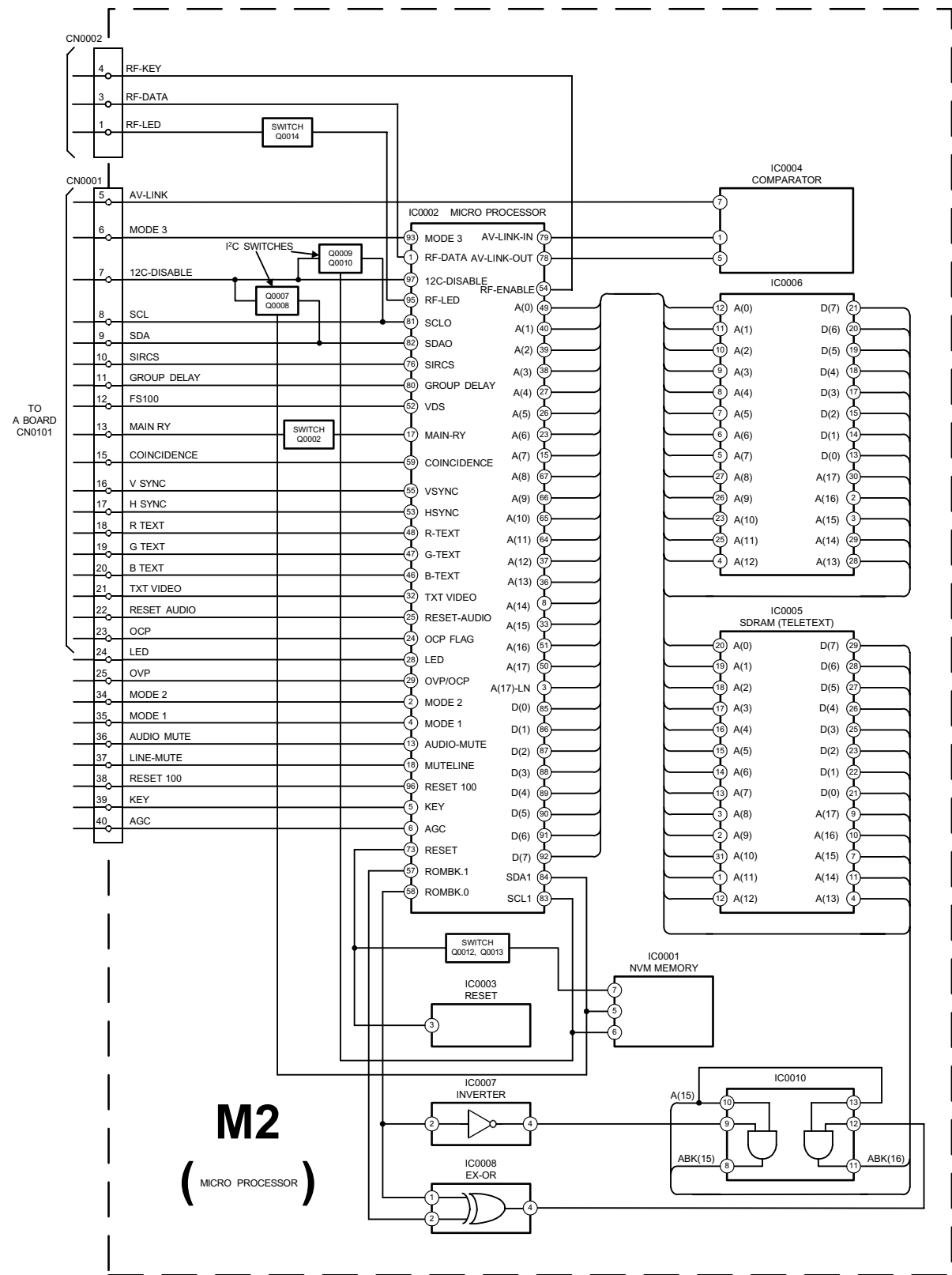


7-1. BLOCK DIAGRAMS (5)

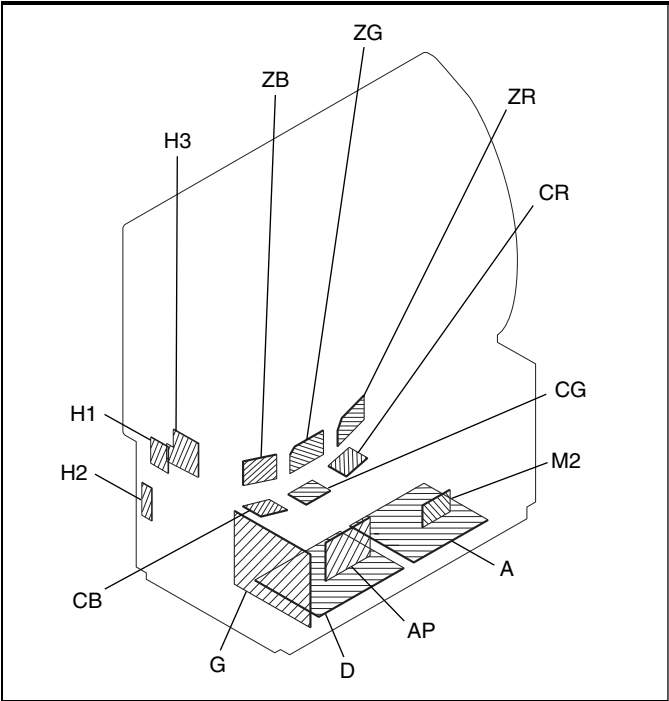




7-1. BLOCK DIAGRAMS (6)



7-2. CIRCUIT BOARD LOCATION



7-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note :**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
  - $\text{pF}$  :  $\mu\text{F}$  50WV or less are not indicated except for electrolytic types.
  - Indication of resistance, which does not have one for rating electrical power, is as follows.
- Pitch : 5mm  
Electrical power rating : 1/4W
- Chip resistors are 1/10W
  - All resistors are in ohms.  
 $k = 1000 \text{ ohms}$ ,  $M = 1000,000 \text{ ohms}$
-  : nonflammable resistor.
  -  : fusible resistor.
  -  : internal component.
  -  : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - All voltages are in Volts.
  - Readings are taken with a 10Mohm digital mutimeter.
  - Readings are taken with a color bar input signal.
  - Voltage variations may be noted due to normal production tolerences.
-  : B + bus.
  -  : B - bus.
  -  : RF signal path.
  -  : earth - ground.
  -  : earth - chassis.

Reference Information

|           |                                                                                     |                             |
|-----------|-------------------------------------------------------------------------------------|-----------------------------|
| RESISTOR  | RN                                                                                  | : METAL FILM                |
|           | RC                                                                                  | : SOLID                     |
|           | FPRD                                                                                | : NON FLAMMABLE CARBON      |
|           | FUSE                                                                                | : NON FLAMMABLE FUSIBLE     |
|           | RS                                                                                  | : NON FLAMMABLE METAL OXIDE |
|           | RB                                                                                  | : NON FLAMMABLE CEMENT      |
|           | RW                                                                                  | : NON FLAMMABLE WIREWOUND   |
|           |  | : ADJUSTMENT RESISTOR       |
| COIL      | LF-8L                                                                               | : MICRO INDUCTOR            |
| CAPACITOR | TA                                                                                  | : TANTALUM                  |
|           | PS                                                                                  | : STYROL                    |
|           | PP                                                                                  | : POLYPROPYLENE             |
|           | PT                                                                                  | : MYLAR                     |
|           | MPS                                                                                 | : METALIZED POLYESTER       |
|           | MPP                                                                                 | : METALIZED POLYPROPYLENE   |
|           | ALB                                                                                 | : BIPOLAR                   |
|           | ALT                                                                                 | : HIGH TEMPERATURE          |
|           | ALR                                                                                 | : HIGH RIPPLE               |

**Note :** The components identified by shading and marked  are critical for safety. Replace only with the part numbers specified in the parts list.

**Note :** Les composants identifiés par une trame et par une marque  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.







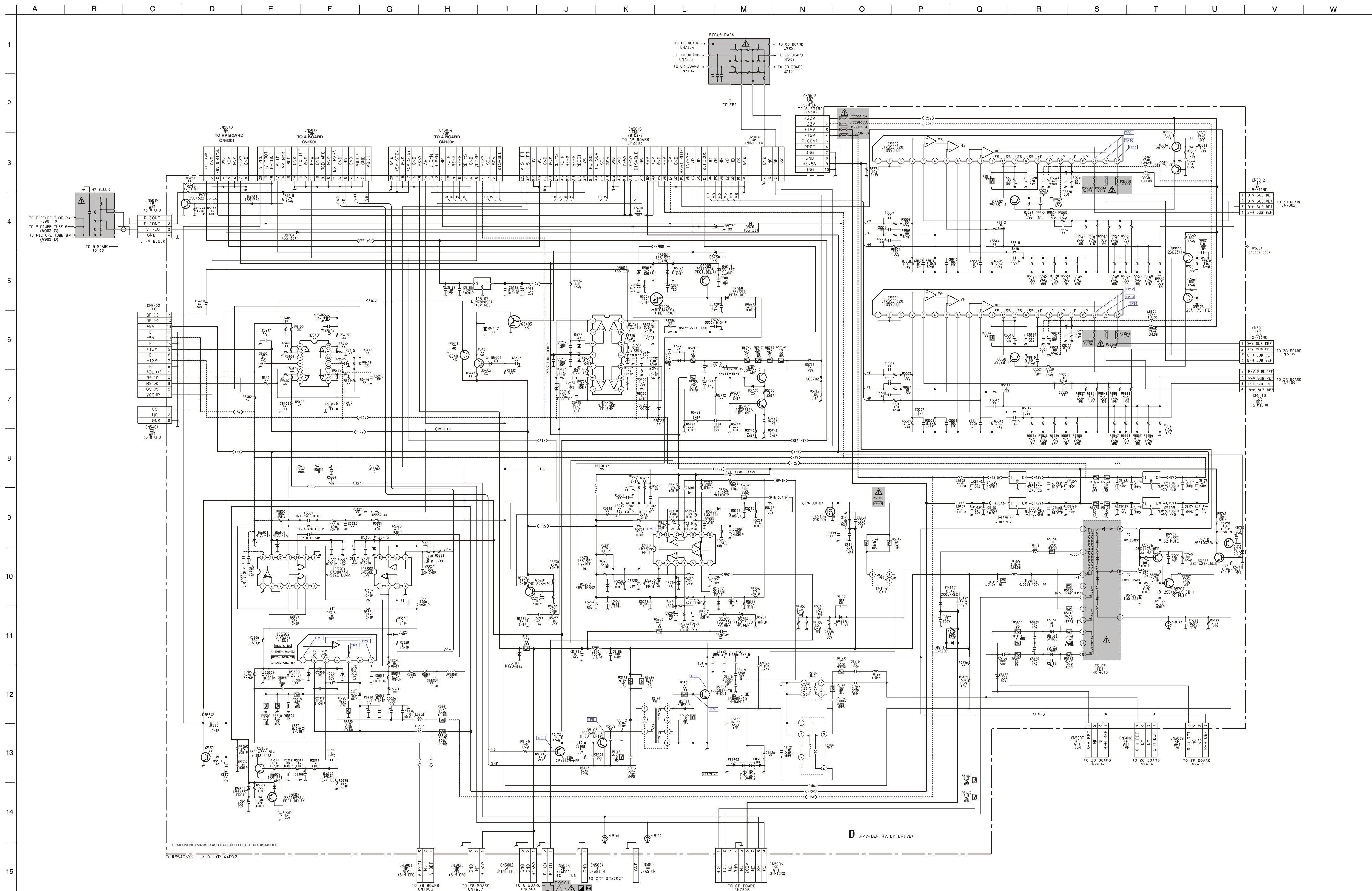




| DIODE |        | D2016 | E - 8 | D5809      | I - 4  | Q1005 | B - 2 | Q3501 | F - 2  |
|-------|--------|-------|-------|------------|--------|-------|-------|-------|--------|
| D0101 | B - 7  | D2018 | B - 2 | D5812      | I - 4  | Q1006 | B - 2 | Q5801 | I - 3  |
| D0104 | C - 4  | D2019 | B - 2 | D5813      | I - 3  | Q2000 | C - 9 | Q5803 | J - 4  |
| D0110 | G - 4  | D2021 | B - 4 | D7004      | J - 6  | Q2001 | B - 9 | Q5804 | J - 4  |
| D0111 | G - 2  | D2022 | B - 4 | D7006      | H - 6  | Q2002 | D - 9 | Q5814 | J - 7  |
| D0112 | C - 5  | D2500 | F - 7 | IC         |        | Q2003 | C - 9 | Q5815 | I - 3  |
| D0113 | C - 5  | D3001 | B - 7 | IC2000     | D - 8  | Q2004 | D - 7 | Q5816 | I - 4  |
| D1006 | B - 10 | D3003 | B - 7 | IC2001     | E - 9  | Q2005 | D - 8 | Q7011 | J - 6  |
| D2001 | B - 8  | D3005 | B - 7 | IC2500     | F - 9  | Q2009 | F - 6 | Q7012 | J - 5  |
| D2002 | B - 8  | D3007 | B - 6 | IC3200     | E - 3  | Q2010 | D - 7 | Q7014 | J - 6  |
| D2003 | B - 8  | D3008 | B - 6 | IC6200     | H - 9  | Q2011 | E - 7 | Q7015 | I - 6  |
| D2004 | B - 7  | D3009 | B - 6 | IC6201     | H - 10 | Q2500 | F - 7 | Q7017 | I - 6  |
| D2005 | B - 5  | D3011 | B - 4 | IC6202     | F - 5  | Q2501 | E - 7 | Q7018 | I - 5  |
| D2006 | B - 6  | D3013 | C - 4 | IC6203     | E - 5  | Q2504 | F - 6 | Q7021 | I - 6  |
| D2007 | B - 6  | D3015 | C - 4 | IC6207     | G - 4  | Q3200 | C - 2 | Q7100 | H - 6  |
| D2008 | C - 6  | D3017 | B - 4 | IC7002     | H - 7  | Q3201 | C - 2 | Q7101 | H - 5  |
| D2009 | C - 5  | D3018 | B - 3 | TRANSISTOR |        | Q3202 | C - 3 | Q7102 | H - 5  |
| D2010 | C - 5  | D3019 | B - 3 | Q1000      | B - 6  | Q3204 | C - 3 | Q7103 | J - 9  |
| D2011 | C - 5  | D3021 | C - 4 | Q1001      | C - 6  | Q3300 | F - 3 | Q7104 | J - 9  |
| D2012 | B - 4  | D3028 | C - 2 | Q1002      | D - 10 | Q3301 | F - 3 | Q7105 | J - 10 |
| D2014 | D - 9  | D3201 | F - 2 | Q1003      | D - 10 | Q3302 | F - 3 |       |        |
| D2015 | D - 9  | D5804 | I - 4 | Q1004      | E - 11 | Q3500 | F - 2 |       |        |







~ D Schematic [ H/V-Def, HV, DY Drive ] ~

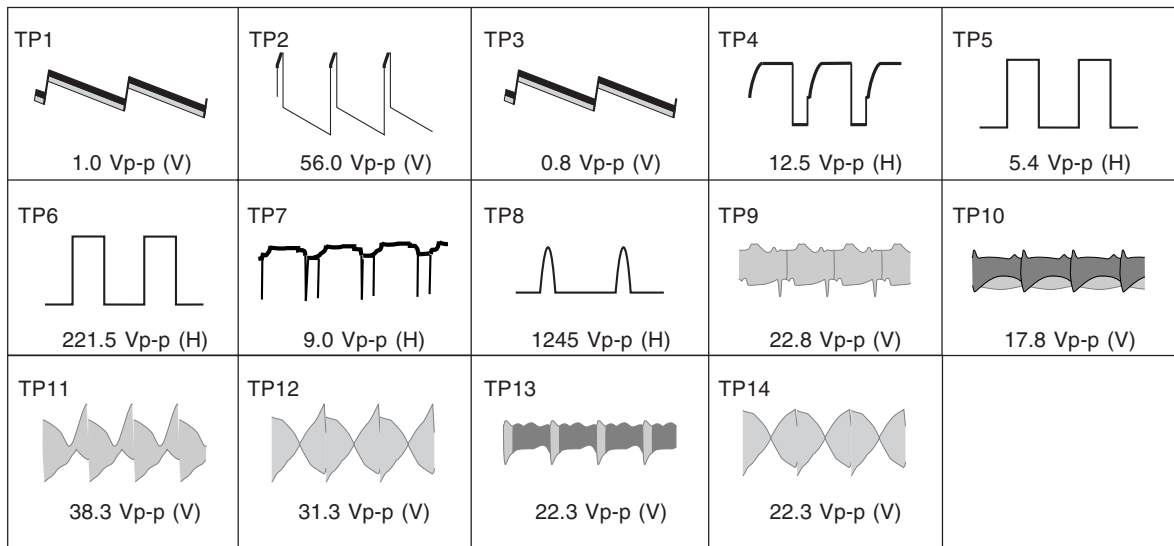
~ AP Board IC Voltage Table ~

| IC Voltage Table |        |             | IC Voltage Table |        |             | IC Voltage Table |        |             | IC Voltage Table |        |             | IC Voltage Table |        |             |
|------------------|--------|-------------|------------------|--------|-------------|------------------|--------|-------------|------------------|--------|-------------|------------------|--------|-------------|
| Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) |
| IC2601           | 1      | 0           |                  | 49     | 4.4         |                  | 47     | 1.2         | IC2608           | 6      | 2.0         | IC2611           | 47     | 2.4         |
|                  | 2      | 0           |                  | 50     | 4.8         |                  | 48     | 1.2         |                  | 7      | -0.2        |                  | 48     | 3.0         |
|                  | 6      | 0           |                  | 52     | 4.9         |                  | 51     | 0           | IC2609           | 1      | 2.6         | IC2612           | 1      | 2.6         |
|                  | 7      | 0           |                  | 53     | 4.9         |                  | 55     | 0           |                  | 2      | 2.6         |                  | 2      | 2.6         |
| IC2602           | 1      | 0           | IC2603           | 55     | 4.9         |                  | 61     | 3.9         |                  | 3      | 2.6         |                  | 3      | 2.6         |
|                  | 2      | 0           |                  | 59     | 4.9         |                  | 62     | 3.2         |                  | 5      | 2.0         |                  | 5      | 2.0         |
|                  | 6      | 0           |                  | 60     | 4.9         |                  | 64     | 3.5         |                  | 6      | 2.0         |                  | 6      | 2.0         |
|                  | 7      | 0           |                  | 61     | 4.9         |                  | 67     | 3.3         |                  | 7      | 0           |                  | 7      | 0           |
| IC2603           | 4      | 2.5         |                  | 62     | 4.7         |                  | 68     | 3.8         | IC2611           | 1      | 3.9         | IC2613           | 1      | 2.6         |
|                  | 6      | 4.3         |                  | 64     | 4.9         |                  | 69     | 3.0         |                  | 2      | 3.2         |                  | 2      | 2.6         |
|                  | 7      | 0.8         | IC2604           | 5      | 4.9         | IC2604           | 70     | 2.4         |                  | 3      | 3.7         |                  | 3      | 2.6         |
|                  | 8      | 0.1         |                  | 6      | 4.3         |                  | 71     | 4.0         |                  | 4      | 3.6         |                  | 5      | 2.0         |
|                  | 9      | 4.9         |                  | 7      | 4.4         |                  | 82     | 1.4         |                  | 5      | 3.3         |                  | 6      | 2.0         |
|                  | 11     | 2.6         |                  | 8      | 4.9         |                  | 83     | 2.0         |                  | 6      | 0           |                  | 7      | 0           |
|                  | 12     | 2.5         |                  | 9      | 5.0         |                  | 84     | 1.2         |                  | 8      | 2.7         | IC2614           | 1      | 2.6         |
|                  | 15     | 0           |                  | 10     | 4.7         |                  | 85     | 1.7         |                  | 9      | 3.5         |                  | 2      | 2.6         |
|                  | 16     | 0           |                  | 11     | 4.9         |                  | 89     | 1.4         |                  | 12     | 2.6         |                  | 3      | 2.6         |
|                  | 17     | 0           |                  | 12     | 4.6         |                  | 90     | 2.0         |                  | 13     | 3.5         |                  | 5      | 2.0         |
|                  | 18     | 0           |                  | 13     | 4.9         |                  | 92     | 1.7         |                  | 16     | 2.6         |                  | 6      | 2.0         |
|                  | 26     | 5.0         |                  | 14     | 4.9         | IC2605           | 4      | 4.9         |                  | 17     | 3.5         |                  | 7      | 0.2         |
|                  | 27     | 4.7         |                  | 17     | 5.0         | IC2606           | 5      | 4.3         |                  | 25     | 2.0         | IC2615           | 1      | 2.4         |
|                  | 28     | 5.0         |                  | 18     | 4.3         |                  | 6      | 4.4         |                  | 32     | 3.5         |                  | 2      | 2.4         |
|                  | 33     | 0           |                  | 19     | 4.4         |                  | 7      | 4.9         |                  | 33     | 2.6         |                  | 3      | 2.4         |
|                  | 38     | 3.4         |                  | 23     | 0.1         | IC2607           | 2      | 0.8         |                  | 36     | 3.5         |                  | 5      | 2.0         |
|                  | 39     | 2.8         |                  | 30     | 0.1         |                  | 4      | 0.8         |                  | 37     | 2.4         |                  | 6      | 2.0         |
|                  | 44     | 4.7         |                  | 32     | 2.5         | IC2608           | 1      | 2.7         |                  | 40     | 3.5         |                  | 7      | 0.6         |
|                  | 46     | 4.3         |                  | 37     | 0.8         |                  | 2      | 2.7         |                  | 41     | 2.6         |                  |        |             |
|                  | 47     | 4.3         |                  | 39     | 0           |                  | 3      | 2.7         |                  | 45     | 4.6         |                  |        |             |
|                  | 48     | 4.8         |                  | 44     | 0           |                  | 5      | 2.0         |                  | 46     | 3.4         |                  |        |             |

~ AP Board Semiconductor Voltage Table ~

| Ref   | (e) | (b) | (c) |
|-------|-----|-----|-----|
| Q2603 | 0   | 0.2 | 4.7 |
| Q2607 | 0.7 | 0   | 0   |
| Q2608 | 0.7 | 0   | 0   |
| Q2609 | 0.7 | 0   | 0   |

~ D Board Waveforms ~



~ D Board Semiconductor Voltage Table ~

| Ref   | (e)  | (b)  | (c)   | Ref   | (e)  | (b)  | (c)  | Ref   | (e)  | (b)  | (c)   |
|-------|------|------|-------|-------|------|------|------|-------|------|------|-------|
| Q5006 | 0    | 4.4  | 0     | Q5201 | 2.7  | 3.4  | 10.1 | Q5705 | 11.5 | 12.0 | 660.0 |
| Q5009 | 12.1 | 12.1 | 4.4   | Q5302 | 15.0 | 13.8 | 6.6  | Q5706 | 5.9  | 6.5  | 0     |
| Q5102 | 0    | -1.7 | 133.9 | Q5303 | 0    | 0.6  | 0    | Q5707 | 0    | 0    | 672.0 |
| Q5104 | 0    | -0.2 | 219.0 | Q5505 | 0.7  | 0    | 0.6  | Q5709 | 0    | 0    | 4.6   |
| Q5105 | 0    | 26.6 | 9.6   | Q5506 | 0.7  | 1.3  | 0.7  | Q5710 | 12.0 | 12.1 | 0     |
| Q5106 | 3.7  | 3.3  | 0     | Q5704 | 2.2  | 2.8  | 11.0 | Q5711 | 0    | 0    | 12.1  |

~ D Board IC Voltage Table ~

| IC Voltage Table |        |             | IC Voltage Table |        |             | IC Voltage Table |        |             | IC Voltage Table |        |             |
|------------------|--------|-------------|------------------|--------|-------------|------------------|--------|-------------|------------------|--------|-------------|
| Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) | Ref No           | Pin No | Voltage (V) |
| IC5201           | 1      | 0.1         | IC5301           | 6      | 0           | IC5501           | 4      | 0           | IC5502           | 9      | 0.1         |
|                  | 2      | 0.8         |                  | 9      | 0           |                  | 5      | 0           |                  | 10     | 0.1         |
|                  | 4      | 3.2         |                  | 10     | 0           |                  | 6      | -0.1        |                  | 20     | 0.5         |
|                  | 5      | 1.8         |                  | 11     | -0.3        |                  | 7      | -0.1        |                  | 21     | 0.2         |
|                  | 6      | 8.2         | IC5302           | 1      | 1.1         |                  | 9      | -0.2        |                  | 22     | 0.1         |
|                  | 7      | 7.8         |                  | 3      | -12.8       |                  | 10     | -0.2        | IC5707           | 1      | 7.1         |
|                  | 8      | 1.8         |                  | 5      | 0.2         |                  | 20     | -0.2        |                  | 3      | 7.0         |
|                  | 9      | 2.9         |                  | 6      | 13.7        |                  | 21     | -0.2        |                  | 6      | 0           |
|                  | 11     | 1.9         |                  | 7      | 1.1         |                  | 22     | 0.1         |                  | 7      | 0           |
|                  | 13     | 1.9         | IC5303           | 1      | 3.5         | IC5502           | 2      | -18.5       |                  | 8      | 7.4         |
| IC5301           | 14     | 9.6         |                  | 3      | 3.5         |                  | 4      | 0           |                  | 9      | 0           |
|                  | 2      | 0           |                  | 5      | 3.4         |                  | 5      | 0           |                  | 10     | 0           |
|                  | 4      | -0.3        |                  | 6      | 3.4         |                  | 6      | 0.2         |                  | 13     | 0           |
|                  | 5      | 0           | IC5501           | 2      | -18.4       |                  | 7      | 0.2         |                  | 14     | 0           |

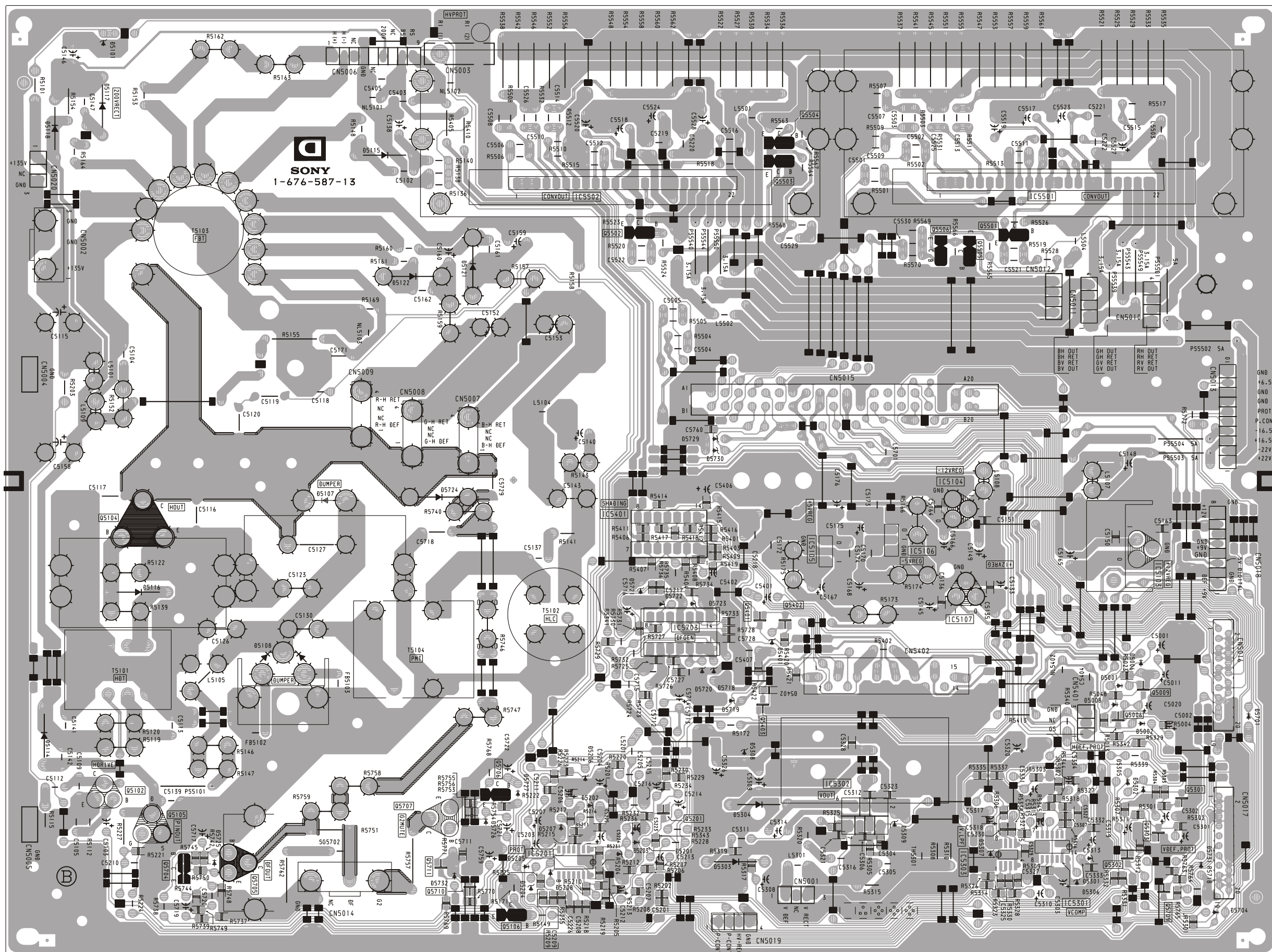




A B C D E F G H I J K L M N O

~ D Printed Wiring Board Conductor side ~

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11

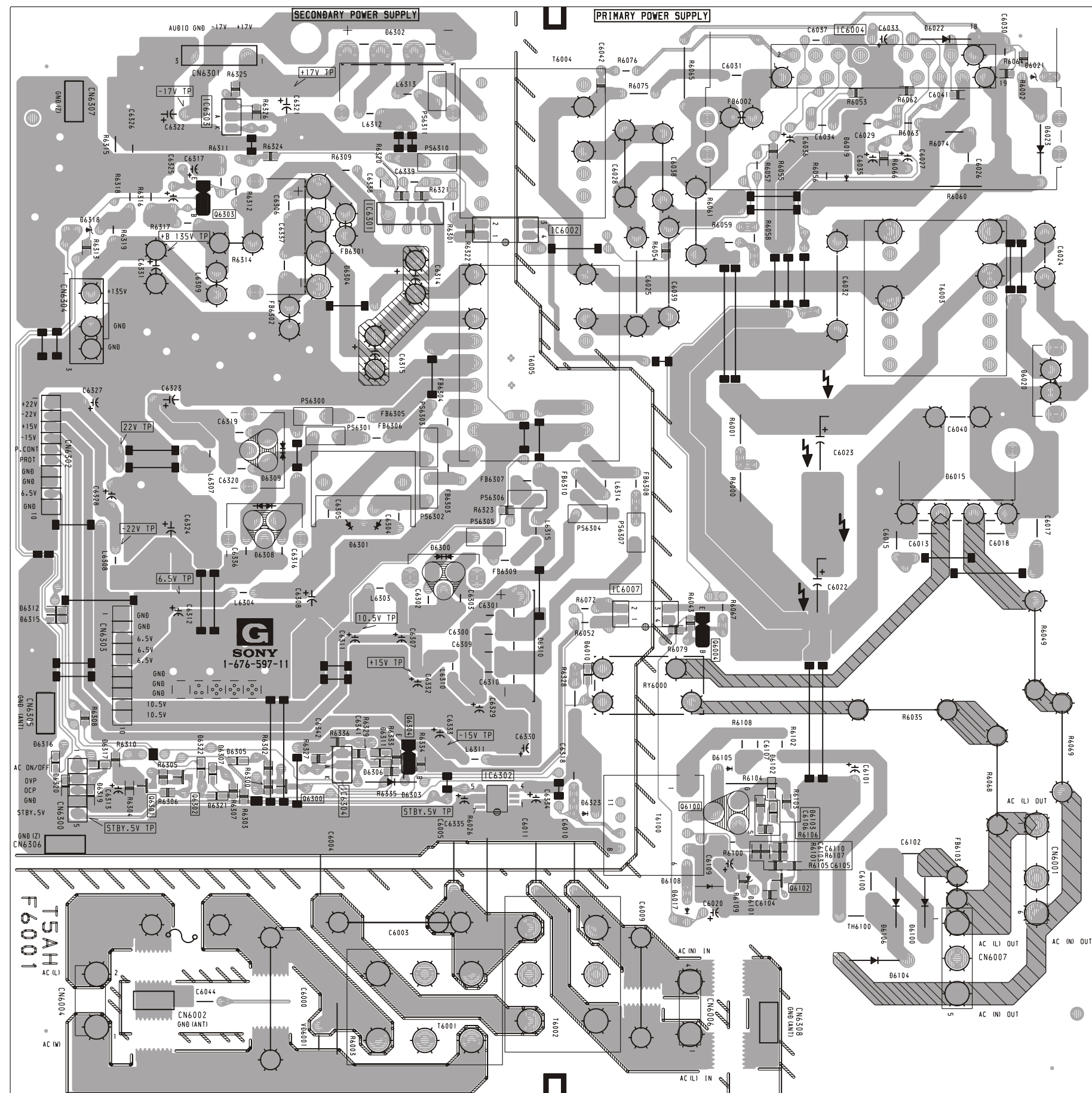


~ D Board Location Table ~

| DIODE |        | D5731      | M - 10 |
|-------|--------|------------|--------|
| D5001 | L - 8  | D5732      | E - 10 |
| IC    |        |            |        |
| D5002 | M - 9  | IC5103     | M - 8  |
| D5006 | L - 8  | IC5104     | K - 7  |
| D5008 | L - 8  | IC5105     | I - 7  |
| D5101 | B - 1  | IC5106     | J - 7  |
| D5107 | D - 6  | IC5107     | K - 8  |
| D5108 | D - 8  | IC5201     | G - 10 |
| D5114 | B - 8  | IC5301     | L - 10 |
| D5115 | E - 3  | IC5302     | J - 9  |
| D5116 | B - 7  | IC5303     | K - 10 |
| D5117 | B - 2  | IC5501     | K - 3  |
| D5118 | B - 2  | IC5502     | G - 3  |
| D5121 | F - 4  | IC5703     | H - 8  |
| D5122 | E - 4  | TRANSISTOR |        |
| D5201 | H - 9  | Q5006      | M - 9  |
| D5202 | G - 9  | Q5009      | M - 8  |
| D5203 | H - 10 | Q5102      | B - 9  |
| D5204 | F - 10 | Q5104      | B - 6  |
| D5205 | F - 10 | Q5105      | C - 9  |
| D5207 | G - 10 | Q5106      | F - 11 |
| D5208 | G - 10 | Q5201      | H - 9  |
| D5301 | L - 10 | Q5302      | L - 10 |
| D5302 | L - 9  | Q5303      | M - 10 |
| D5303 | H - 10 | Q5501      | K - 4  |
| D5304 | I - 9  | Q5502      | G - 4  |
| D5305 | L - 9  | Q5503      | I - 3  |
| D5306 | L - 10 | Q5504      | I - 3  |
| D5307 | K - 10 | Q5505      | K - 4  |
| D5308 | I - 9  | Q5506      | K - 4  |
| D5309 | J - 10 | Q5704      | C - 10 |
| D5701 | N - 9  | Q5705      | D - 10 |
| D5704 | N - 10 | Q5706      | F - 9  |
| D5719 | H - 9  | Q5707      | E - 9  |
| D5721 | H - 7  | Q5709      | M - 10 |
| D5724 | F - 6  | Q5710      | E - 10 |
| D5726 | F - 9  | Q5711      | E - 10 |
| D5727 | F - 9  |            |        |



~ G Printed Wiring Board Conductor side ~



~ G Board Location Table ~

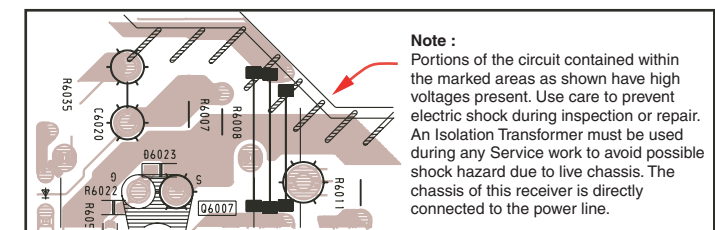
| DIODE |        | D6310      | F - 7 |
|-------|--------|------------|-------|
| D6010 | F - 7  | D6311      | D - 8 |
| D6015 | I - 6  | D6312      | A - 7 |
| D6017 | G - 9  | D6315      | A - 7 |
| D6019 | H - 3  | D6316      | A - 8 |
| D6020 | J - 5  | D6317      | B - 8 |
| D6021 | J - 2  | D6318      | B - 3 |
| D6022 | I - 1  | D6319      | B - 8 |
| D6023 | J - 3  | D6320      | B - 8 |
| D6100 | I - 10 | D6323      | F - 8 |
| IC    |        |            |       |
| D6101 | H - 9  | IC6002     | F - 3 |
| D6102 | H - 8  | IC6004     | H - 2 |
| D6103 | H - 8  | IC6007     | F - 7 |
| D6104 | I - 10 | IC6301     | D - 3 |
| D6105 | G - 8  | IC6302     | E - 8 |
| D6106 | I - 9  | IC6303     | C - 2 |
| D6108 | G - 9  | IC6304     | D - 8 |
| D6300 | E - 6  | TRANSISTOR |       |
| D6301 | D - 6  | Q6004      | G - 7 |
| D6302 | D - 2  | Q6100      | G - 8 |
| D6303 | E - 8  | Q6102      | H - 9 |
| D6304 | D - 3  | Q6300      | D - 8 |
| D6305 | C - 8  | Q6301      | B - 8 |
| D6306 | D - 8  | Q6302      | C - 8 |
| D6307 | C - 8  | Q6303      | C - 3 |
| D6308 | C - 6  | Q6304      | G - 7 |
| D6309 | C - 5  |            |       |

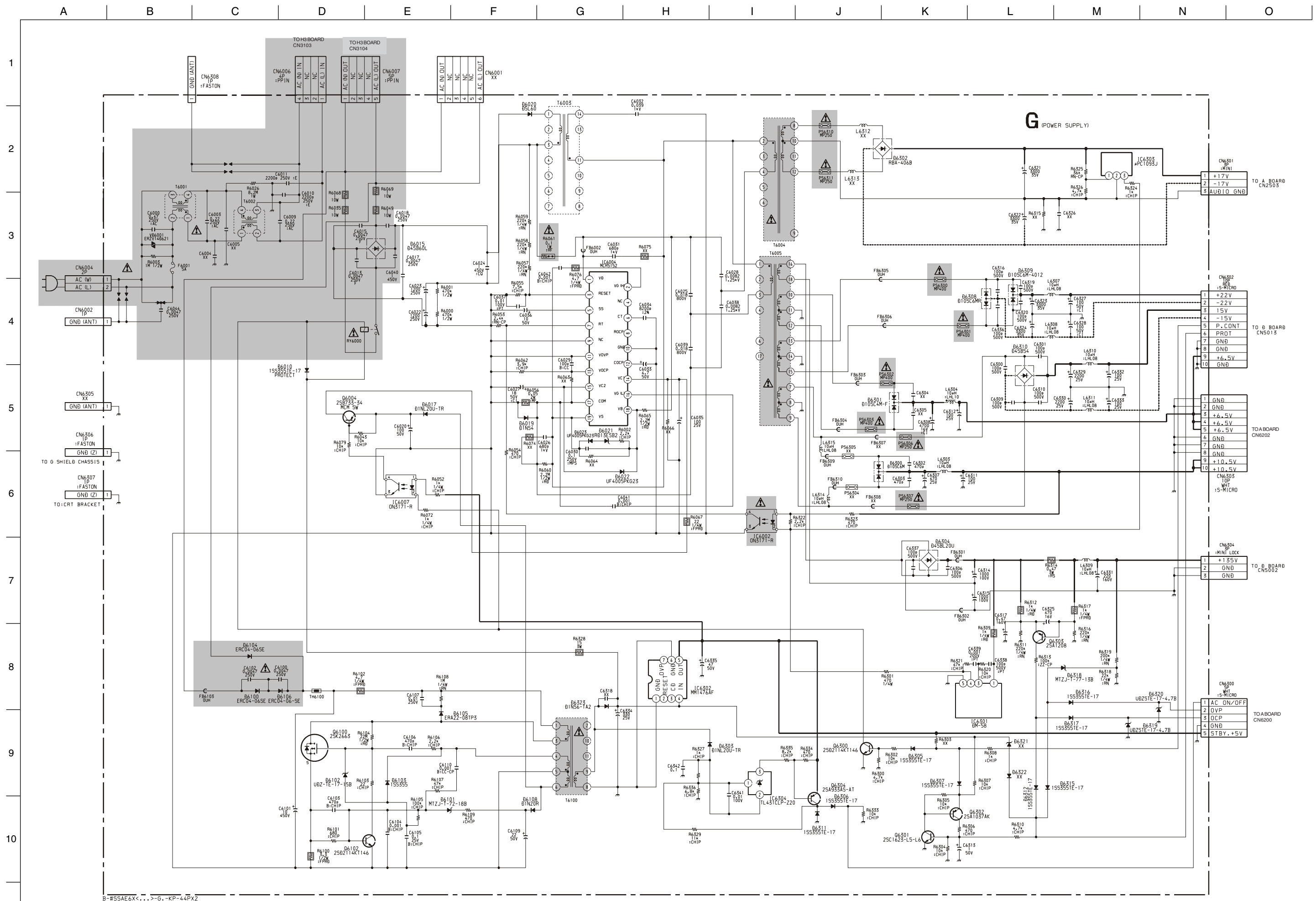
~ G Board IC Voltage Table ~

| Ref No | Pin No | Voltage (V) |
|--------|--------|-------------|
| IC6002 | 1      | 11.2        |
|        | 2      | 10.1        |
|        | 3      | 3.4         |
| IC6004 | 1      | 318.0       |
|        | 2      | 342.0       |
|        | 3      | 3.4         |
|        | 5      | 4.7         |
|        | 6      | 2.2         |
|        | 7      | 3.7         |
|        | 12     | 0           |
|        | 14     | 16.7        |
|        | 15     | 10.8        |
|        | 16     | 5.0         |
| IC6007 | 17     | 0           |
|        | 18     | 342.0       |
|        | 19     | 331.0       |
| IC6301 | 1      | 3.1         |
|        | 2      | 2.0         |
|        | 4      | 4.2         |
| IC6302 | 1      | 134.6       |
|        | 3      | 2.4         |
|        | 4      | 9.3         |
| IC6302 | 4      | 7.0         |
|        | 5      | 5.0         |
| IC6303 | 1      | 1.9         |
|        | 3      | 9.9         |
| IC6304 | 1      | -22.4       |
|        | 2      | -25.1       |
|        | 3      | -23.2       |

~ G Board Semiconductor Voltage Table ~

| Ref   | (e)   | (b)   | (c)  |
|-------|-------|-------|------|
| Q6004 | 17.8  | 17.1  | 17.8 |
| Q6102 | 0     | 0.4   | 1.1  |
| Q6300 | 0     | 0.6   | 0.2  |
| Q6301 | 0     | 0.1   | 7.0  |
| Q6302 | 7.0   | 7.0   | 0.1  |
| Q6303 | 135.2 | 134.9 | -0.7 |
| Q6304 | 5.0   | 4.2   | 4.9  |





~ G Board Schematic Diagram [ Power Supply ] ~

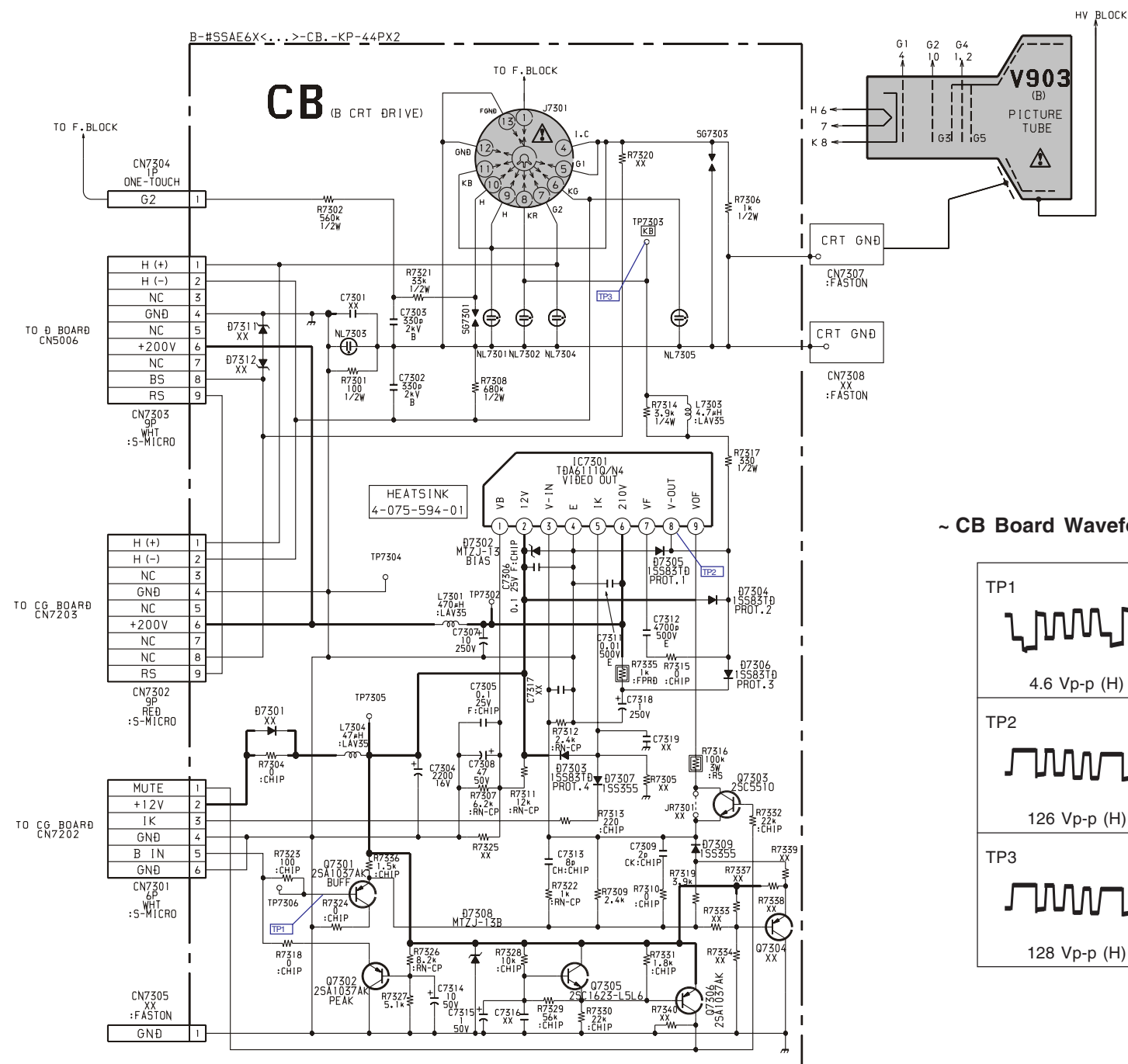




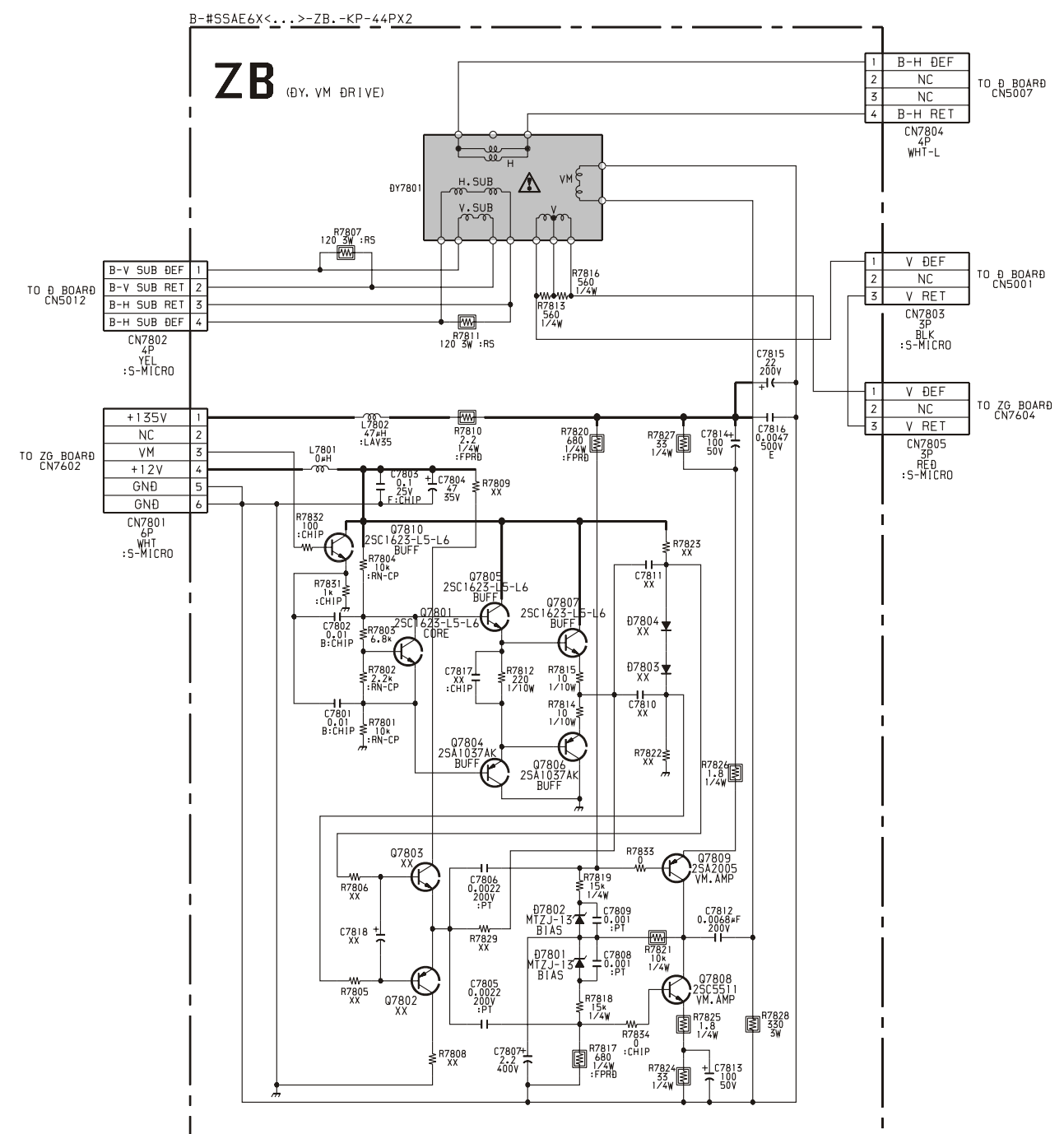




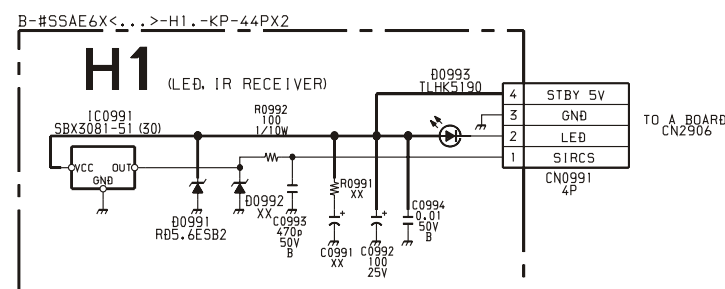
~ CB Board Schematic Diagram [ B CRT Drive ] ~



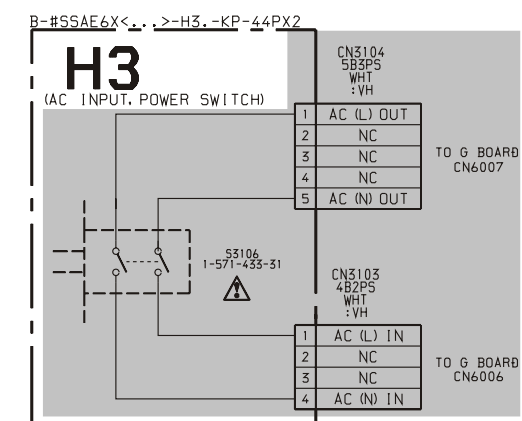
~ ZB Board Schematic Diagram [ DY, VM Drive ] ~



~ H1 Board Schematic Diagram [ LED, IR Receiver ] ~



~ H3 Board Schematic Diagram [ AC Input, Power Switch ] ~



|     |                                                                                     |
|-----|-------------------------------------------------------------------------------------|
| TP1 |  |
| TP2 |  |
| TP3 |  |

**ZG (BY, VM, DRIVE)**  
 UPDATED 12-09-01 RE3W-087

**TO D BOARD CN5020**

|   |       |
|---|-------|
| 1 | +135V |
| 2 | NC    |
| 3 | GND   |

CN7607  
 3P  
 YEL  
 :S-MICRO

**TO D BOARD CN5011**

|   |             |
|---|-------------|
| 1 | G-V SUB DEF |
| 2 | G-V SUB RET |
| 3 | G-H SUB RET |
| 4 | G-H SUB DEF |

CN7603  
 4P  
 BLK  
 :S-MICRO

**TO ZR BOARD CN7401**

|   |       |
|---|-------|
| 1 | +135V |
| 2 | NC    |
| 3 | VM    |
| 4 | +12V  |
| 5 | GND   |
| 6 | GND   |

CN7601  
 6P  
 WHT  
 :S-MICRO

**TO A BOARD CN7002**

|   |      |
|---|------|
| 1 | VM   |
| 2 | +12V |
| 3 | GND  |
| 4 | GND  |

CN7608  
 4P  
 WHT  
 :S-MICRO

**TO ZB BOARD CN7801**

|   |       |
|---|-------|
| 1 | +135V |
| 2 | NC    |
| 3 | VM    |
| 4 | +12V  |
| 5 | GND   |
| 6 | GND   |

CN7602  
 6P  
 WHT  
 :S-MICRO

**TO G BOARD CN5008**

|   |         |
|---|---------|
| 1 | G-H DEF |
| 2 | NC      |
| 3 | NC      |
| 4 | G-H RET |

CN7606  
 4P  
 WHT  
 :VH

**TO ZR BOARD CN7405**

|   |       |
|---|-------|
| 1 | V DEF |
| 2 | NC    |
| 3 | V RET |

CN7605  
 3P  
 BLK  
 :S-MICRO

**TO ZB BOARD CN7805**

|   |       |
|---|-------|
| 1 | V DEF |
| 2 | NC    |
| 3 | V RET |

CN7604  
 3P  
 RED  
 :S-MICRO

**Component List:**

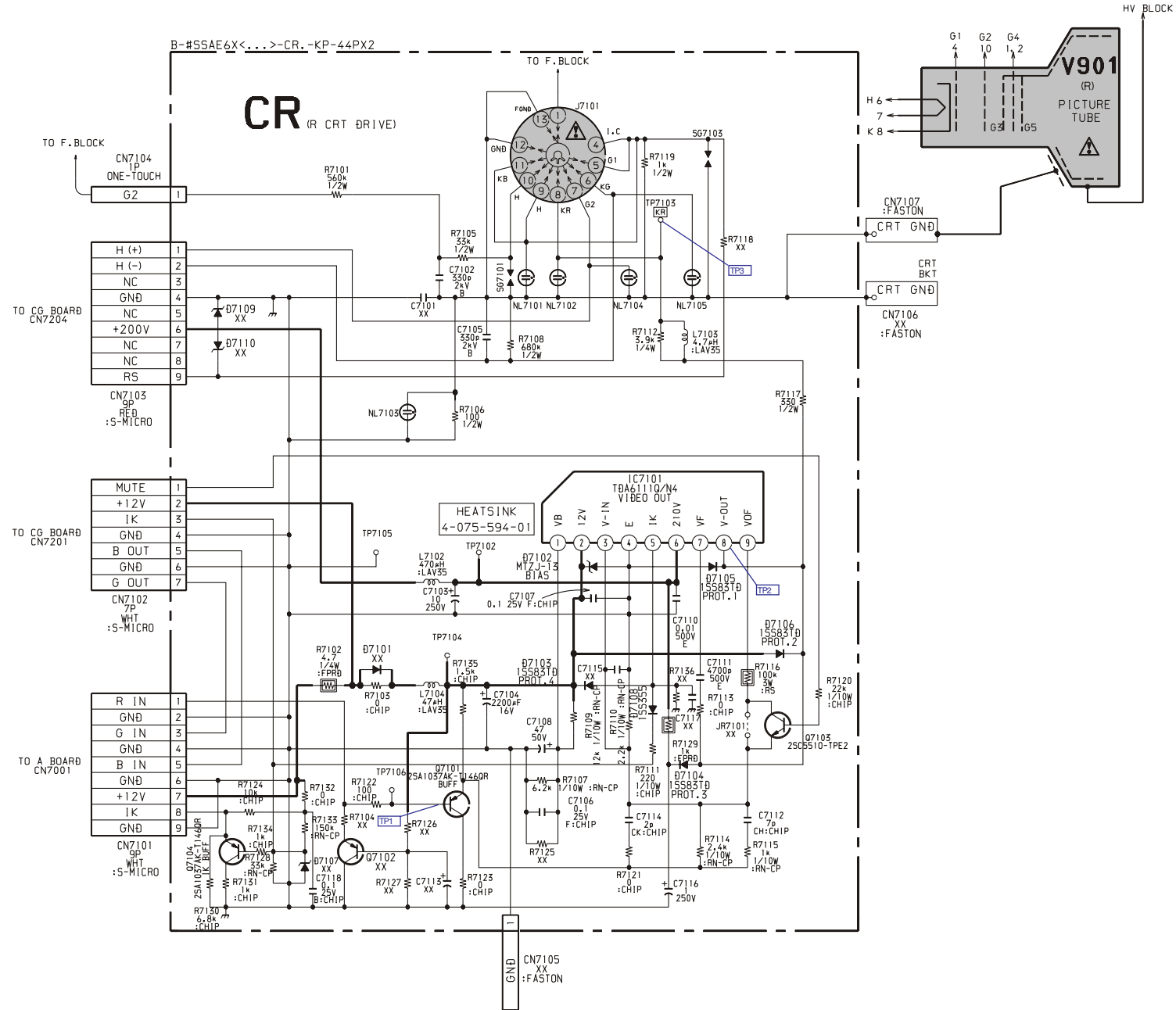
- R7605 120 5W :RS
- R7611 120 5W :RS
- R7614 560 1/4W
- R7612 560 1/4W
- R7618 680 1/4W :FPRD
- R7627 55 1/4W
- R7626 1.8 1/4W
- R7625 XX
- R7624 35 1/4W
- R7615 680 1/4W :FPRD
- R7607 75 1/4W
- R7606 200V
- R7608 35 1/4W
- R7609 100 1/4W
- R7610 100 1/4W
- R7613 220
- R7619 10
- R7622 XX
- R7623 XX
- R7632 100 1/4W
- R7631 1k :CHIP
- R7603 6.8k 25C1625-L5-L6
- R7601 10k :RN-CP
- R7602 0.01 B:CHIP
- R7604 10k :RN-CP
- R7605 25C1625-L5-L6
- R7606 25A1037AK
- R7607 25A1037AK
- R7608 25C1625-L5-L6
- R7609 25C1625-L5-L6
- R7610 25C1625-L5-L6
- R7611 25C1625-L5-L6
- R7612 25C1625-L5-L6
- R7613 25C1625-L5-L6
- R7614 25C1625-L5-L6
- R7615 25C1625-L5-L6
- R7616 25C1625-L5-L6
- R7617 25C1625-L5-L6
- R7618 25C1625-L5-L6
- R7619 25C1625-L5-L6
- R7620 25C1625-L5-L6
- R7621 25C1625-L5-L6
- R7622 25C1625-L5-L6
- R7623 25C1625-L5-L6
- R7624 25C1625-L5-L6
- R7625 25C1625-L5-L6
- R7626 25C1625-L5-L6
- R7627 25C1625-L5-L6
- R7628 25C1625-L5-L6
- R7629 25C1625-L5-L6
- R7630 25C1625-L5-L6
- R7631 25C1625-L5-L6
- R7632 25C1625-L5-L6
- R7633 25C1625-L5-L6
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- R7637 25C1625-L5-L6
- R7638 25C1625-L5-L6
- R7639 25C1625-L5-L6
- R7640 25C1625-L5-L6
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- R7650 25C1625-L5-L6
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- R7699 25C1625-L5-L6
- R7700 25C1625-L5-L6

**Capacitors:**

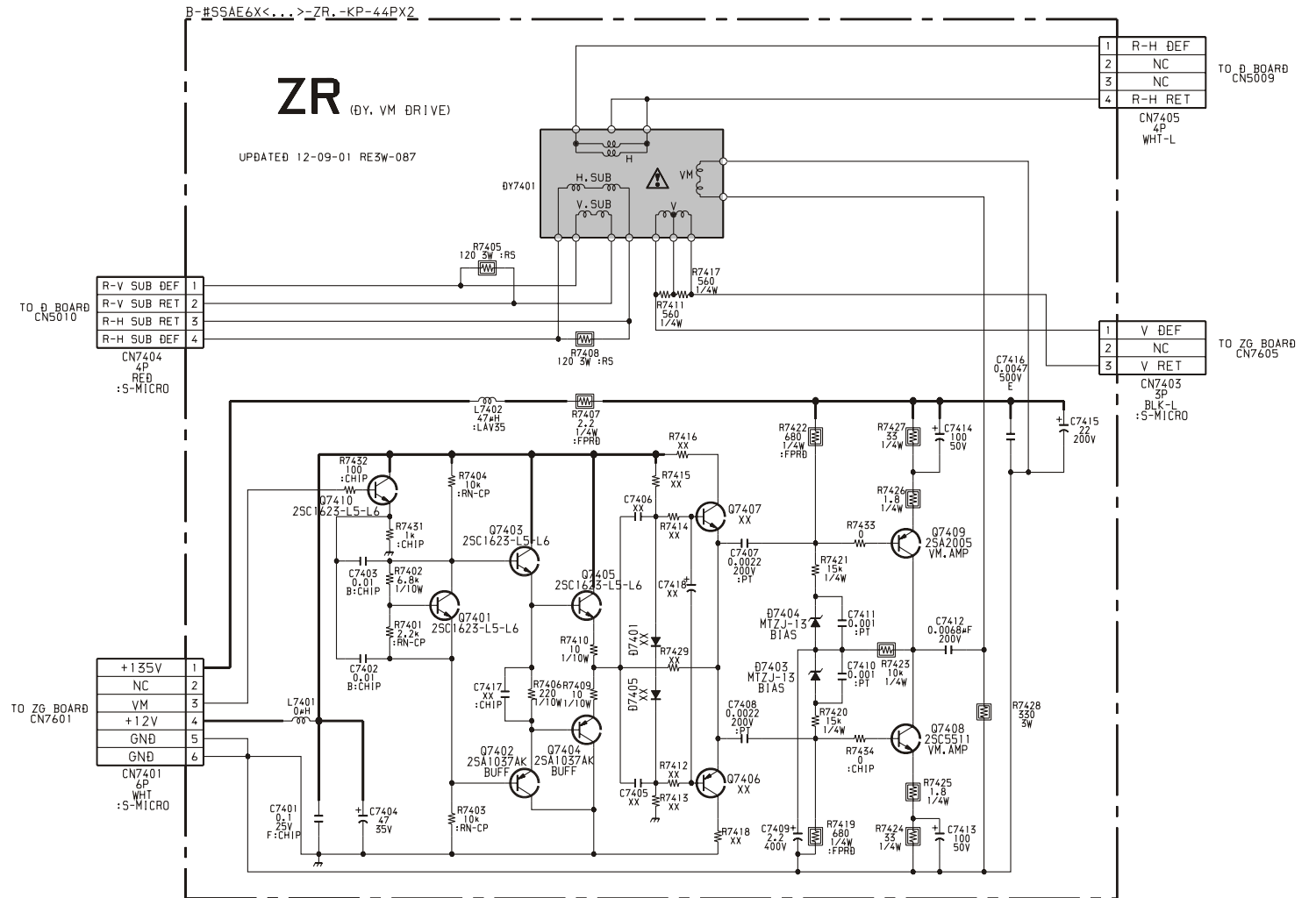
- C7601 0.01 B:CHIP
- C7602 0.01 B:CHIP
- C7603 0.01 B:CHIP
- C7604 0.01 B:CHIP
- C7605 0.01 B:CHIP
- C7606 0.01 B:CHIP
- C7607 0.01 B:CHIP
- C7608 0.01 B:CHIP
- C7609 0.01 B:CHIP
- C7610 0.01 B:CHIP
- C7611 0.01 B:CHIP
- C7612 0.01 B:CHIP
- C7613 0.01 B:CHIP
- C7614 0.01 B:CHIP
- C7615 0.01 B:CHIP
- C7616 0.01 B:CHIP
- C7617 0.01 B:CHIP
- C7618 0.01 B:CHIP
- C7619 0.01 B:CHIP
- C7620 0.01 B:CHIP
- C7621 0.01



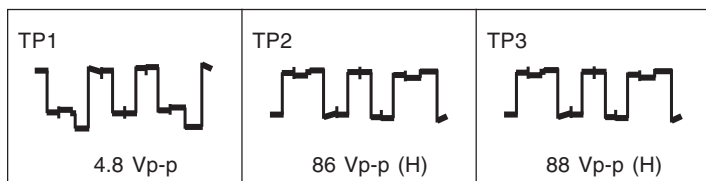
### ~ CR Board Schematic Diagram [ R CRT Drive ] ~



~ ZR Board Schematic Diagram [ DY, VM Drive ] ~

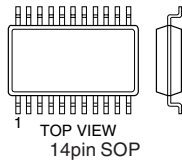


## ~ CR Board Waveforms ~

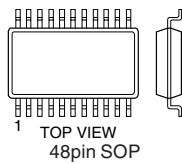


## 7-5. SEMICONDUCTORS

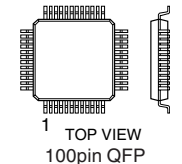
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LM339NS  
NJM3403AM  
NJM3403AM(TE2)  
TC74AC32F  
TC74AC32F(EL)  
TLC2932IPWR  
TLC2933IPWR-12  
U2861B-MFP-G3  
μPC339G2-E2



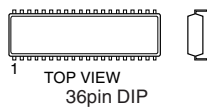
CD0031AM



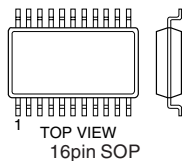
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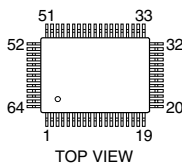
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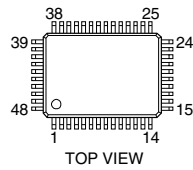
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TC74HC4053AFT(EL)



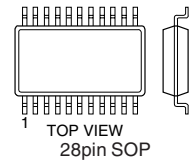
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CXA2149AQ-TL  
CXP86448-634Q



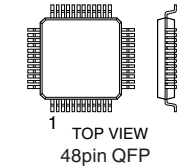
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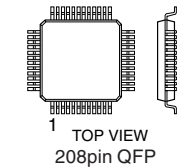
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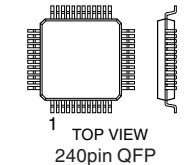
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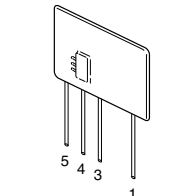
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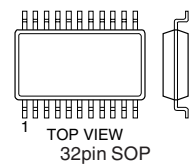
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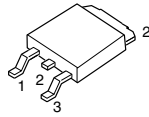
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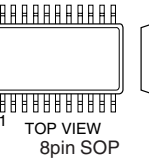
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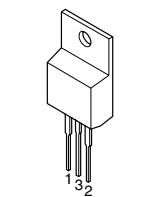
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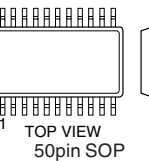
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LM393PS  
LM393PS-E20  
M24128-BWMN6T  
M24C32-MN6T  
MB3793-42PNF  
MB3793-42PNF-ER  
NJM2068V-TE2  
NJM4558M-TE2  
TC7W00F(TE12R)  
TC7W08F  
TC7W08F(TE12R)  
TC7W66FU(TE12R)  
TC7WU04F  
TC7WU04F(TE12R)  
TDA2822D013TR  
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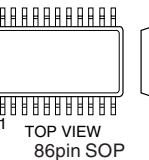
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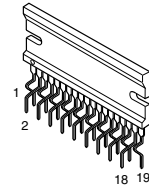
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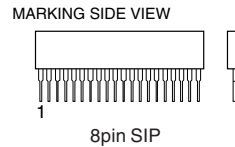
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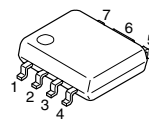
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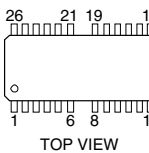
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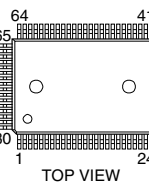
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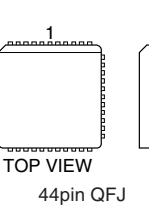
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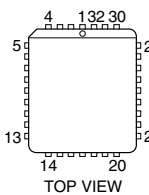
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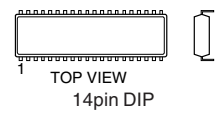
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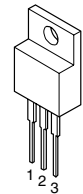
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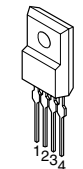
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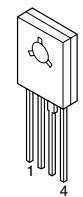
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NJM78M05FA  
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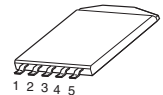
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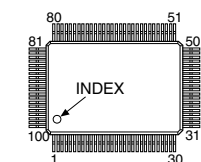
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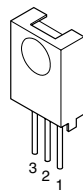
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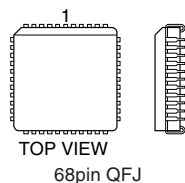


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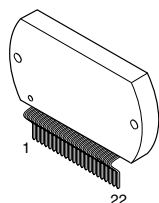




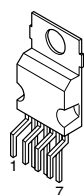
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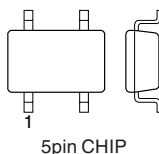
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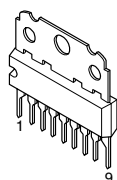
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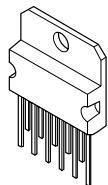
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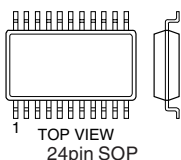
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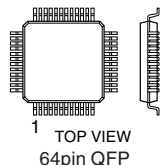
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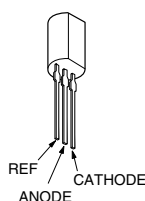
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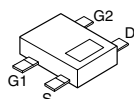
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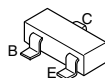
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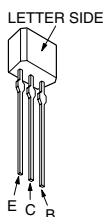
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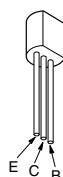
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2SC1623-L5L6  
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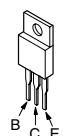
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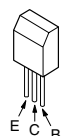
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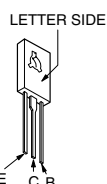
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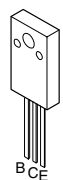
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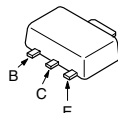
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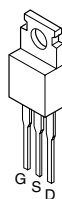
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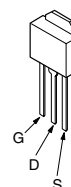
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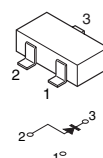
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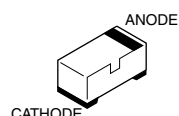
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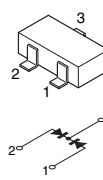
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RD5.6M-B2



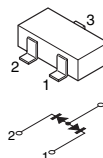
BAS216



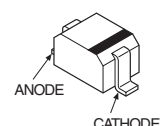
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DAN202K-T-146



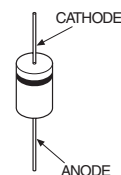
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DAP202K-T-146



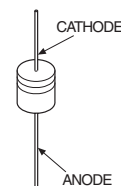
DTZ-TT11-6.8B  
MA111-TX  
MA113-(TX)  
UDZ-TE-17-3.9B  
UDZ-TE-17-8.2B  
UDZS-TE17-12B  
UDZS-TE17-15B  
UDZSTE-173.9B  
UDZSTE-174.7B  
UDZSTE-175.1B  
UDZSTE-176.2B  
UDZSTE-176.8B  
UDZSTE-178.2B  
UDZSTE-179.1B  
1SS355TE-17



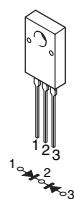
D1NL20U-TR  
D1NS6  
D1NS6-TA2  
EGP20G  
EL1Z  
EL1Z-V1  
ERA22-08  
ERA22-08TP3  
GP08D  
GP08DPKG23  
RGP02-20EL-6394  
RGP10GPKG23  
RGP15GPKG23  
UF4005PKG23  
1SS83  
1SS83TD



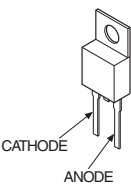
D1N20R  
D1N20R-TA2  
D1NS4  
MTZJ-13  
MTZJ-13B  
MTZJ-7.5B  
MTZJ-T-72-13B  
MTZJ-T-72-18B  
MTZJ-T-77-13  
MTZJ-T-77-13B  
MTZJ-T-77-15  
MTZJ-T-77-24  
MTZJ-T-77-36B  
MTZJ-T-77-5.1B  
MTZJ-T-77-7.5B  
RD13ES-B2  
RD5.1ESB2  
1SS133T-77



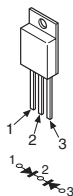
D10SC4M  
D10SC4M-F  
D10SC6M-4012



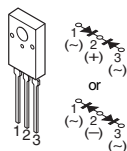
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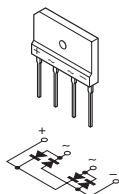
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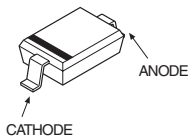
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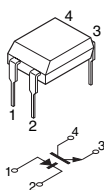
D4SB60L  
D4SBL20U  
D4SBS4  
D4SBS4-F  
RBA-406B  
RBV-406B



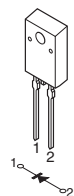
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MA73-TX



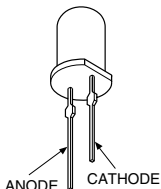
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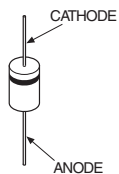
D5L60



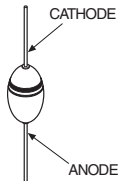
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ERC04-06SE

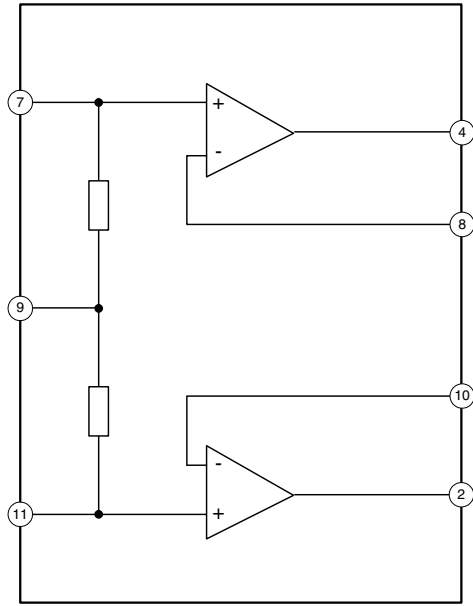


ERC38-06

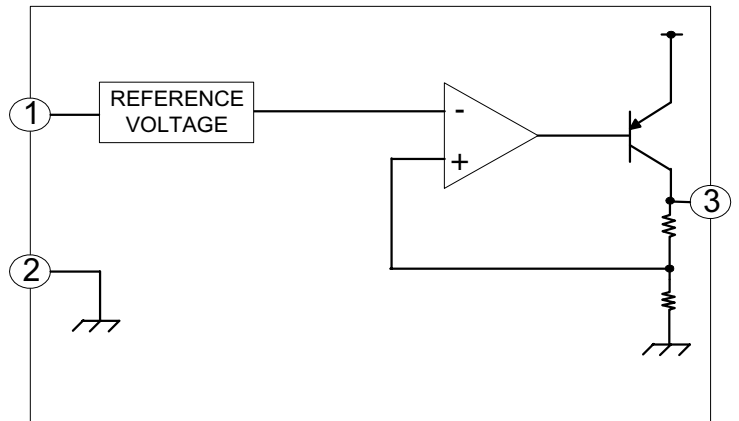


## 7-6 IC BLOCK DIAGRAMS

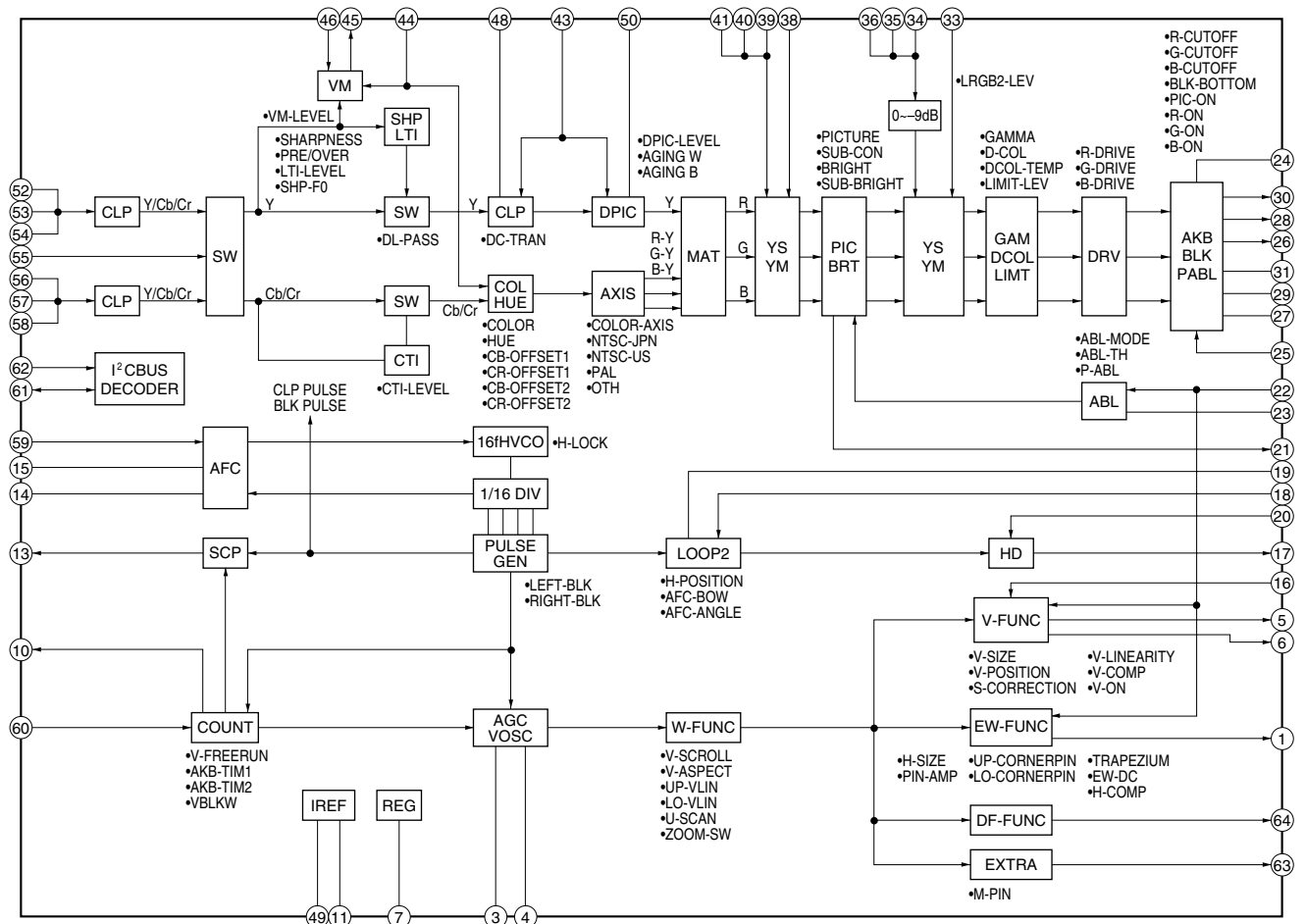
A BOARD IC2500 TDA7265



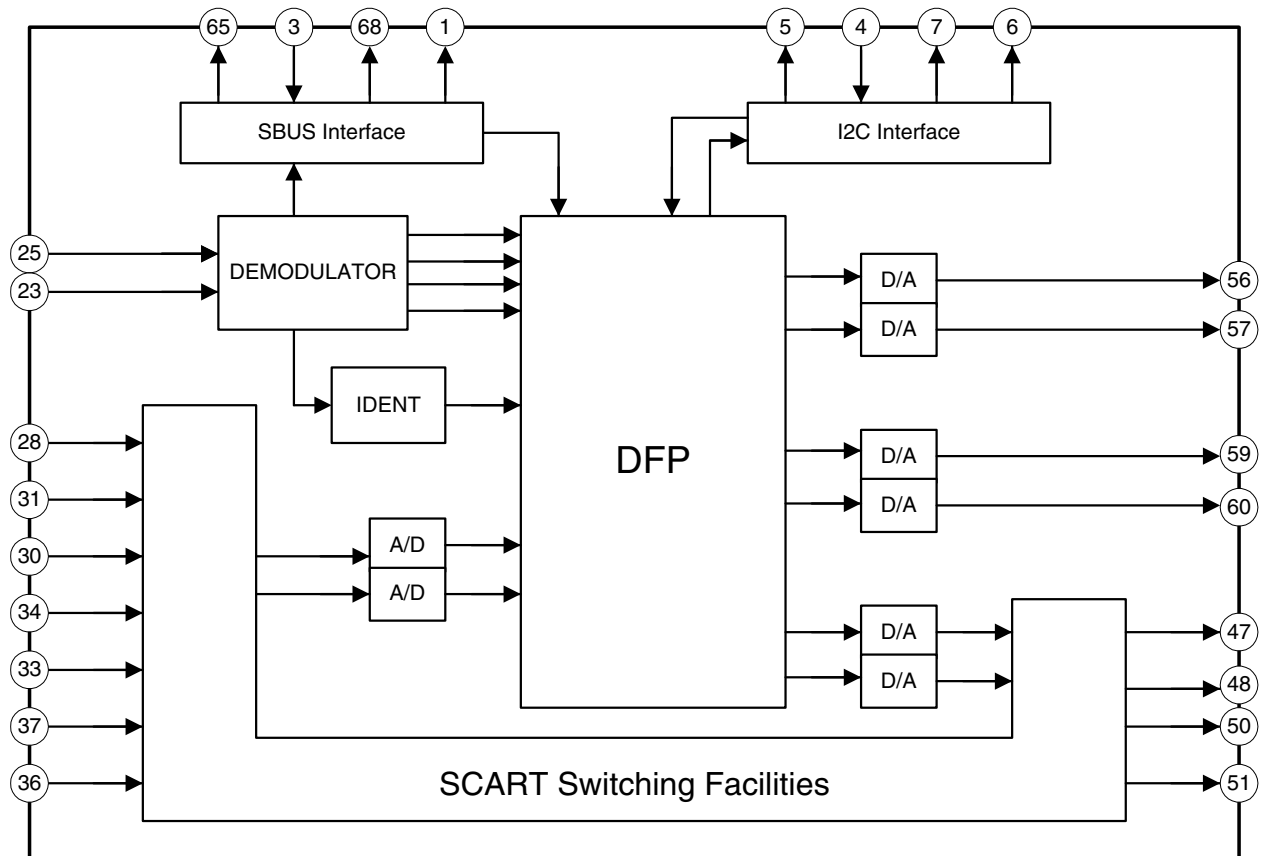
A BOARD IC6202/IC6207 BA033T



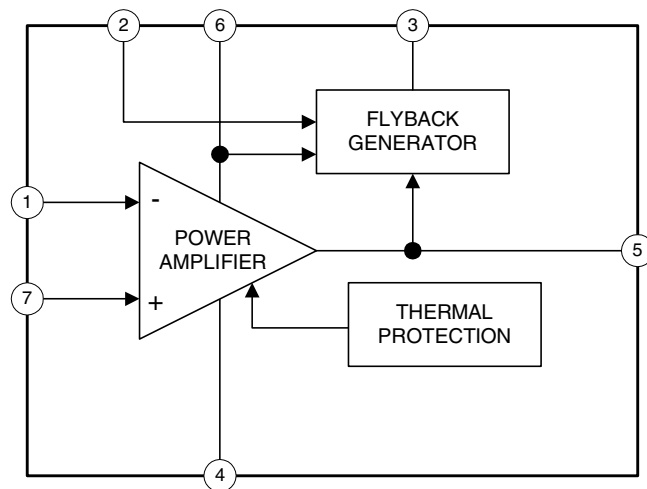
A BOARD IC7002 CXA2100AQ



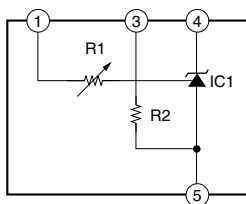
**A BOARD IC2000 MSP3411G**



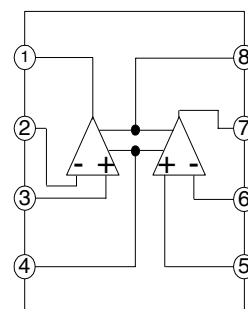
**D BOARD IC5302 STV9379**



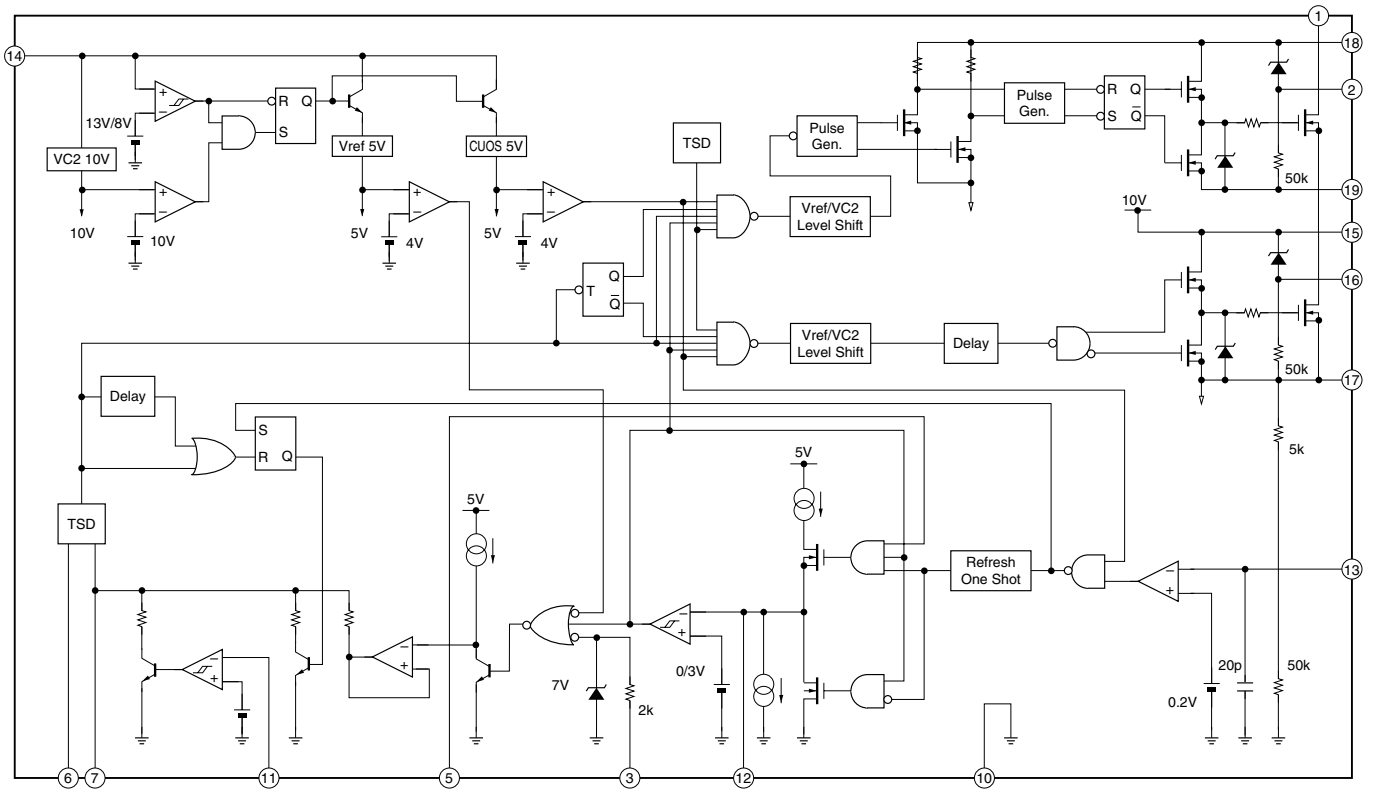
**G BOARD IC6301 DM-58**



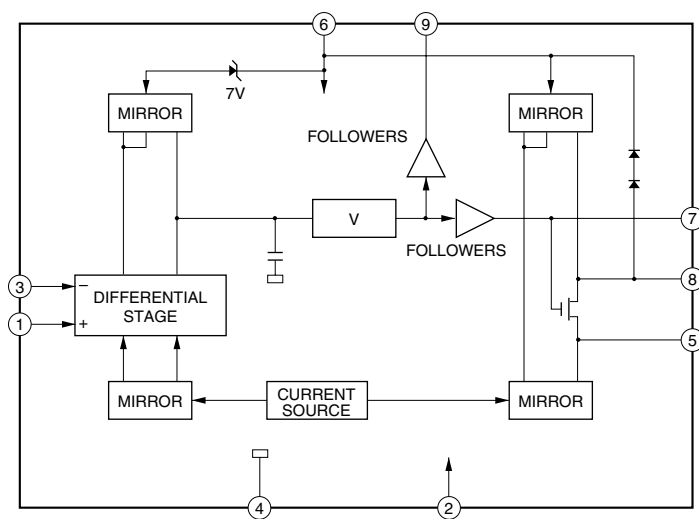
**D BOARD IC5303 LM358N**



# G BOARD IC6004 MCR5152



## CR BOARD IC7101 CG BOARD IC7201 CB BOARD IC7301 TDA6111Q





## SECTION 8 EXPLODED VIEWS

**KP-44PX2/44PX2U**  
RM-938

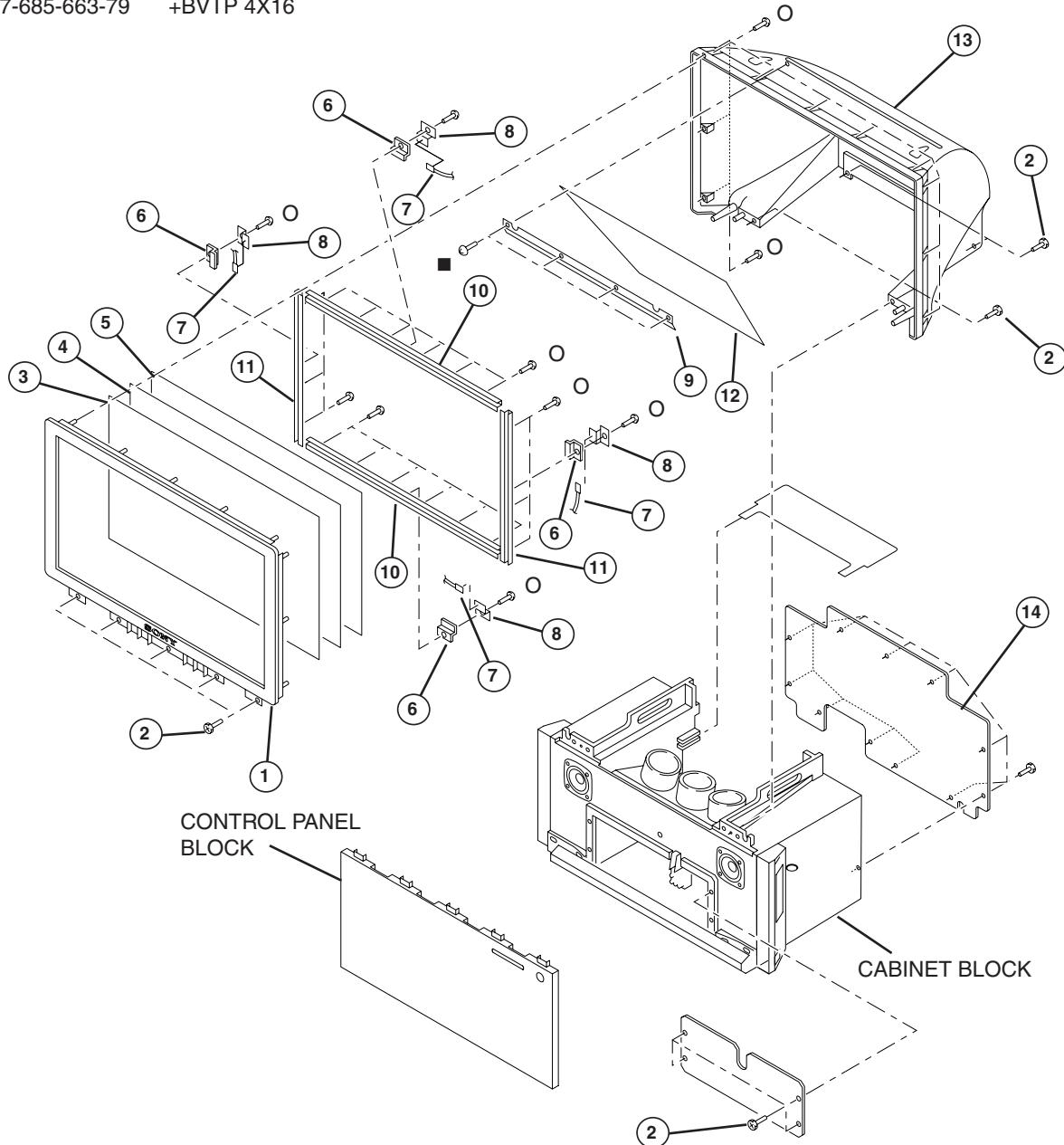
### NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.

### 8-1. SCREEN AND COVER BLOCK

- : 7-685-661-79 +BVTP 4X12  
○ : 7-685-663-79 +BVTP 4X16

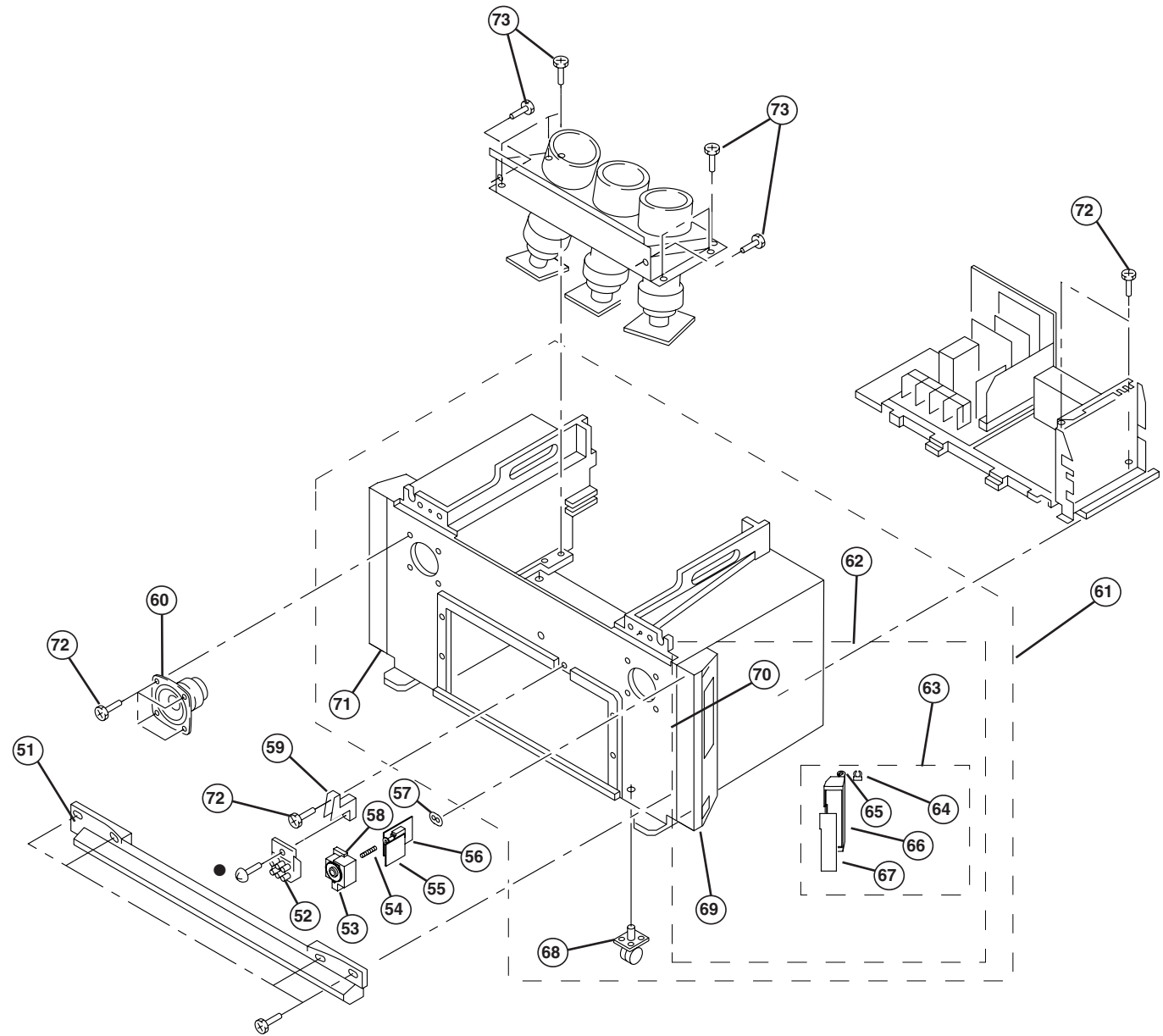


| REF.NO. | PART.NO       | DESCRIPTION                  | REMARK | REF.NO. | PART.NO       | DESCRIPTION                  | REMARK |
|---------|---------------|------------------------------|--------|---------|---------------|------------------------------|--------|
| 1       | X-4040-211-1  | BEZEL (44PX2), ASSY          |        | 10      | *4-076-698-01 | HOLDER, SCREEN               |        |
| 2       | 4-378-522-31  | SCREW, TAPPING, HEXAGON HEAD |        | 11      | *4-076-698-41 | HOLDER, SCREEN               |        |
| 3       | 4-084-654-01  | SCREEN (44W), HEAD CONTRAST  |        | 12      | 4-082-042-01  | MIRROR (44)                  |        |
| 4       | 4-081-955-11  | PLATE (44WL), DIFFUSION      |        | 13      | *4-082-319-11 | COVER (44), MIRROR (PAINTED) |        |
| 5       | 4-081-956-11  | PLATE (44WF), DIFFUSION      |        | 14      | *4-088-433-01 | BOARD, (44) REAR             |        |
| 6       | *4-205-155-01 | COVER, SENSOR                |        |         |               |                              |        |
| 7       | 1-528-864-11  | BATTERY, SOLAR               |        |         |               |                              |        |
| 8       | *4-063-173-01 | HOLDER, SENSOR               |        |         |               |                              |        |
| 9       | *4-082-036-01 | HOLDER (44), MIRROR          |        |         |               |                              |        |

8-2. CONTROL PANEL AND CABINET BLOCK

● : 7-685-663-71 +BVTP 4X16

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

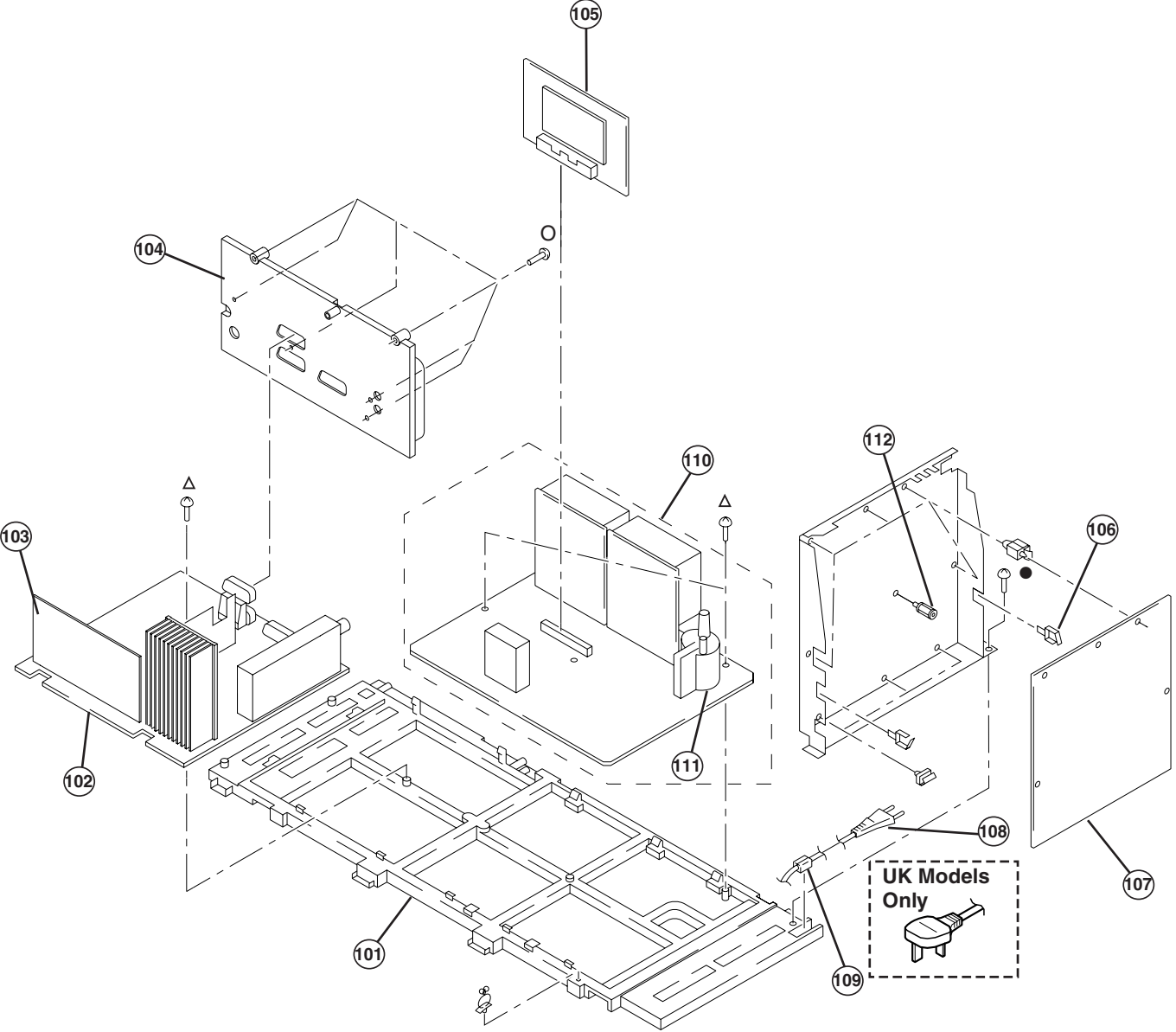


| REF.NO. | PART.NO               | DESCRIPTION                  | REMARK    | REF.NO. | PART.NO       | DESCRIPTION                  | REMARK |
|---------|-----------------------|------------------------------|-----------|---------|---------------|------------------------------|--------|
| 51      | 4-088-418-01          | SKIRT, (PAINTED FRONT)       |           | 64      | 4-047-464-01  | CATCHER, PUSH                |        |
| 52      | $\Delta$ 1-223-925-71 | RESISTOR ASSY (HIGH-VOLTAGE) |           | 65      | 4-205-725-01  | DOOR SPRING                  |        |
| 53      | 4-088-413-01          | BUTTON, (PAINTED) POWER      |           | 66      | 4-008-414-01  | DOOR, (PAINTED) SIDE         |        |
| 54      | 4-202-964-01          | SPRING                       |           | 67      | *A-1400-605-A | H2 BOARD, COMPLETE           |        |
| 55      | *A-1400-604-A         | H1 BOARD, COMPLETE           |           | 68      | 4-075-244-01  | CASTOR (30 DIA.)             |        |
| 56      | *A-1400-606-A         | H3 BOARD, COMPLETE           |           | 69      | 4-088-415-01  | COVER, (PAINTED) R SIDE      |        |
| 57      | 4-088-427-01          | GUIDE, LIGHT                 |           | 70      | 4-089-570-01  | WINDOW (PAINTED) ORNAMENTAL  |        |
| 58      | *4-088-429-01         | BRACKET, H                   |           | 71      | 4-088-419-01  | COVER (PAINTED) L SIDE       |        |
| 59      | *4-054-825-01         | BRACKET, FOCUS PACK          |           | 72      | 4-378-522-31  | SCREW, TAPPING, HEXAGON HEAD |        |
| 60      | 1-544-880-11          | SPEAKER (13 CM)              |           | 73      | 4-052-894-01  | SCREW (4X20), HEAD TAPPING   |        |
| 61      | *X-4040-210-1         | CABINET (44PX2) ASSY         | 62-71     |         |               |                              |        |
| 62      | A-1603-162-A          | COVER (R) SIDE BLOCK ASSY    | 63-67, 69 |         |               |                              |        |
| 63      | A-1603-163-A          | DOOR BLOCK ASSY, SIDE        | 64-67     |         |               |                              |        |

8-3. MAIN BRACKET BLOCK

- △ : 7-685-648-79 +BVTP 3X12  
○ : 7-685-663-79 +BVTP 4X16  
● : 7-685-663-71 +BVTP 4X16

The components identified by shading and mark △ are critical for safety.  
Replace only with part number specified.

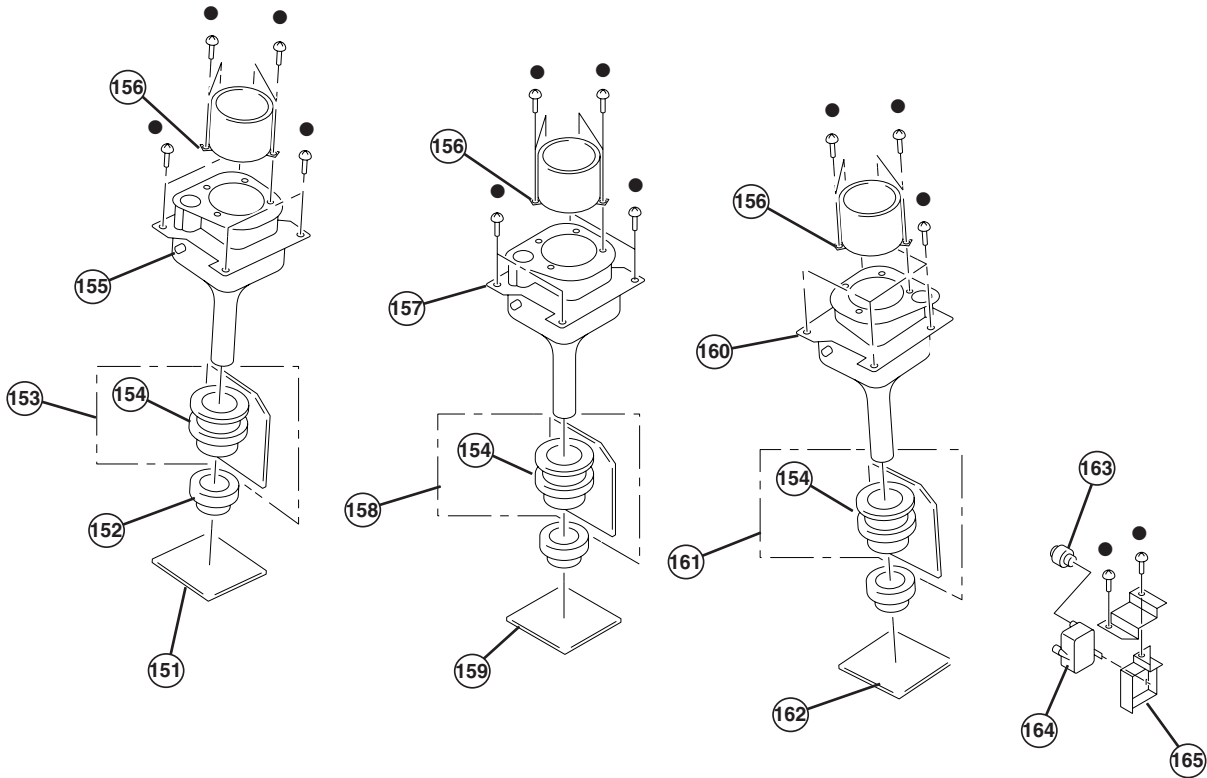


| REF.NO. | PART.NO        | DESCRIPTION                         | REMARK | REF.NO. | PART.NO        | DESCRIPTION                                  | REMARK |
|---------|----------------|-------------------------------------|--------|---------|----------------|----------------------------------------------|--------|
| 101     | *4-062-537-01  | BRACKET, MAIN                       |        | 111     | △ 1-453-335-11 | TRANSFORMER ASSY, FLYBACK<br>(NX-4010//M3P4) |        |
| 102     | *A-1300-467-A  | A BOARD, COMPLETE                   |        | 112     | *4-046-677-11  | HOLDER (B), PWB                              |        |
| 103     | *A-1400-874-A  | M2 BOARD, COMPLETE                  |        |         |                |                                              |        |
| 104     | 4-088-431-01   | BOARD, TERMINAL (AE6X)              |        |         |                |                                              |        |
| 105     | *A-1300-600-A  | AP BOARD, COMPLETE                  |        |         |                |                                              |        |
| 106     | *4-316-015-00  | HOLDER, WIRE                        |        |         |                |                                              |        |
| 107     | *A-1316-512-A  | G BOARD, COMPLETE                   |        |         |                |                                              |        |
| 108     | △ 1-765-286-11 | CORD, POWER (KP-44PXAEP)            |        |         |                |                                              |        |
|         | △ 1-776-860-11 | POWER CORD, FILTER (UK) (KP-44PX2U) |        |         |                |                                              |        |
| 109     | 4-389-201-11   | HOLDER, AC CORD                     |        |         |                |                                              |        |
| 110     | *A-1348-062-A  | D BOARD, COMPLETE                   |        |         |                |                                              |        |

8-4. PICTURE TUBE BLOCK

● : 7-685-663-71 +BVTP 4X16

The components identified by shading and mark  $\triangle$  are critical for safety.  
Replace only with part number specified.



| REF.NO. | PART.NO                  | DESCRIPTION              | REMARK | REF.NO. | PART.NO                  | DESCRIPTION             | REMARK |
|---------|--------------------------|--------------------------|--------|---------|--------------------------|-------------------------|--------|
| 151     | *A-1332-181-A            | CR BOARD, COMPLETE       |        | 163     | 4-373-137-01             | CAP (Z), RUBBER         |        |
| 152     | $\triangle$ 1-452-790-41 | NECK ASSY (NA-295)       |        | 164     | $\triangle$ 8-598-955-13 | BLOCK ASSY, HV HVB-1030 |        |
| 153     | *A-1391-132-A            | ZR BOARD, COMPLETE       | 154    | 165     | *4-069-676-01            | HOLDER, HVR             |        |
| 154     | $\triangle$ 1-451-476-21 | DEFLECTION YOKE          |        |         |                          |                         |        |
| 155     | $\triangle$ 8-733-633-05 | PJ TUBE 07MXC2(R) (MIZ)  |        |         |                          |                         |        |
| 156     | 4-056-258-11             | LENS (DELTA 78)          |        |         |                          |                         |        |
| 157     | $\triangle$ A-1501-273-A | SEAL (G) ASSY MECHANICAL |        |         |                          |                         |        |
| 158     | *A-1391-133-A            | ZG BOARD, COMPLETE       | 154    |         |                          |                         |        |
| 159     | *A-1332-182-A            | CG BOARD, COMPLETE       |        |         |                          |                         |        |
| 160     | $\triangle$ 8-733-629-05 | PJ TUBE 07MAC2(B) (MIZ)  |        |         |                          |                         |        |
| 161     | *A-1391-134-A            | ZB BOARD, COMPLETE       | 154    |         |                          |                         |        |
| 162     | *A-1332-183-A            | CB BOARD, COMPLETE       |        |         |                          |                         |        |

## SECTION 9 ELECTRICAL PARTS LIST

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**Note :** Refer to the designated variant parts list when seeking a part indicated by an asterisk (\*)  
Parts indicated (XX) on the Schematic Diagram are not used in this model and  
therefore do not appear in the Parts List.

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO.                                  | PART.NO             | DESCRIPTION                 | REMARK      | REF.NO.                                  | PART.NO       | DESCRIPTION              | REMARK      |
|------------------------------------------|---------------------|-----------------------------|-------------|------------------------------------------|---------------|--------------------------|-------------|
| <b>* A-1391-132-A ZR Board, Complete</b> |                     |                             |             |                                          |               |                          |             |
|                                          | 4-382-854-11        | SCREW (M3X10), P, SW (+)    |             | R7402                                    | 1-208-802-11  | METAL CHIP 6.8K 0.5%     | 1/10W       |
|                                          | < CAPACITOR >       |                             |             | R7403                                    | 1-208-806-11  | METAL CHIP 10K 0.5%      | 1/10W       |
| C7401                                    | 1-163-038-91        | CERAMIC CHIP 0.1UF          | 25V         | R7404                                    | 1-208-806-11  | METAL CHIP 10K 0.5%      | 1/10W       |
| C7402                                    | 1-163-021-91        | CERAMIC CHIP 0.01UF         | 10.00% 50V  | R7405                                    | 1-216-475-11  | METAL OXIDE 120 5%       | 3W          |
| C7403                                    | 1-163-021-91        | CERAMIC CHIP 0.01UF         | 10.00% 50V  | R7406                                    | 1-216-033-00  | RES-CHIP 220 5%          | 1/10W       |
| C7404                                    | 1-126-947-11        | ELECT 47UF                  | 20.00% 35V  |                                          |               |                          |             |
| C7407                                    | 1-104-989-91        | MYLAR 0.0022UF              | 5.00% 200V  | R7407                                    | 1-249-385-11  | CARBON 2.2 5%            | 1/4W        |
|                                          |                     |                             |             | R7408                                    | 1-216-475-11  | METAL OXIDE 120 5%       | 3W          |
| C7408                                    | 1-104-989-91        | MYLAR 0.0022UF              | 5.00% 200V  | R7409                                    | 1-216-001-00  | RES-CHIP 10 5%           | 1/10W       |
| C7409                                    | 1-107-667-11        | ELECT 2.2UF                 | 20.00% 400V | R7410                                    | 1-216-001-00  | RES-CHIP 10 5%           | 1/10W       |
| C7410                                    | 1-130-471-00        | MYLAR 0.001UF               | 5.00% 50V   | R7411                                    | 1-249-414-11  | CARBON 560 5%            | 1/4W        |
| C7411                                    | 1-130-471-00        | MYLAR 0.001UF               | 5.00% 50V   |                                          |               |                          |             |
| C7412                                    | 1-106-363-00        | MYLAR 0.0068UF              | 99% 200V    | R7417                                    | 1-249-414-11  | CARBON 560 5%            | 1/4W        |
|                                          |                     |                             |             | R7419                                    | 1-249-415-11  | CARBON 680 5%            | 1/4W        |
| C7413                                    | 1-126-968-11        | ELECT 100UF                 | 20.00% 50V  | R7420                                    | 1-249-431-11  | CARBON 15K 5%            | 1/4W        |
| C7414                                    | 1-126-968-11        | ELECT 100UF                 | 20.00% 50V  | R7421                                    | 1-249-431-11  | CARBON 15K 5%            | 1/4W        |
| C7415                                    | 1-107-645-11        | ELECT 22UF                  | 20.00% 200V | R7422                                    | 1-249-415-11  | CARBON 680 5%            | 1/4W        |
| C7416                                    | 1-161-830-00        | CERAMIC 0.0047UF            | 500V        |                                          |               |                          |             |
|                                          | < CONNECTOR >       |                             |             | R7423                                    | 1-249-429-11  | CARBON 10K 5%            | 1/4W        |
| CN7401                                   | *1-564-509-11       | PLUG, CONNECTOR 6P          |             | R7424                                    | 1-249-399-11  | CARBON 33 5%             | 1/4W        |
| CN7403                                   | *1-564-518-11       | PLUG, CONNECTOR 3P          |             | R7425                                    | 1-249-384-11  | CARBON 1.8 5%            | 1/4W        |
| CN7404                                   | *1-564-507-11       | PLUG, CONNECTOR 4P          |             | R7426                                    | 1-249-384-11  | CARBON 1.8 5%            | 1/4W        |
| CN7405                                   | *1-580-844-11       | PIN, CONNECTOR (POWER)      |             | R7427                                    | 1-249-399-11  | CARBON 33 5%             | 1/4W        |
|                                          | < DIODE >           |                             |             |                                          |               |                          |             |
| D7403                                    | 8-719-921-86        | DIODE MTZJ-13               |             | R7428                                    | 1-215-914-11  | METAL OXIDE 330 5%       | 3W          |
| D7404                                    | 8-719-921-86        | DIODE MTZJ-13               |             | R7429                                    | 1-535-143-11  | LEAD, JUMPER (10MM)      |             |
|                                          | < DEFLECTION YOKE > |                             |             | R7431                                    | 1-216-049-11  | RES-CHIP 1K 5%           | 1/10W       |
| DY7401 $\Delta$                          | 1-451-476-21        | DEFLECTION YOKE             |             | R7432                                    | 1-216-025-11  | RES-CHIP 100 5%          | 1/10W       |
|                                          | < COIL >            |                             |             | R7433                                    | 1-216-295-91  | SHORT CHIP 0             |             |
| L7401                                    | 1-412-911-11        | FERRITE 0UH                 |             |                                          |               |                          |             |
| L7402                                    | 1-414-187-11        | INDUCTOR 47UH               |             | R7434                                    | 1-216-295-91  | SHORT CHIP 0             |             |
|                                          | < TRANSISTOR >      |                             |             | <b>* A-1391-134-A ZB Board, Complete</b> |               |                          |             |
| Q7401                                    | 8-729-120-28        | TRANSISTOR 2SC1623-L5L6     |             |                                          | 4-382-854-11  | SCREW (M3X10), P, SW (+) |             |
| Q7402                                    | 8-729-026-49        | TRANSISTOR 2SA1037AK-T146-R |             |                                          | < CAPACITOR > |                          |             |
| Q7403                                    | 8-729-120-28        | TRANSISTOR 2SC1623-L5L6     |             | C7801                                    | 1-163-021-91  | CERAMIC CHIP 0.01UF      | 10.00% 50V  |
| Q7404                                    | 8-729-026-49        | TRANSISTOR 2SA1037AK-T146-R |             | C7802                                    | 1-163-021-91  | CERAMIC CHIP 0.01UF      | 10.00% 50V  |
| Q7405                                    | 8-729-120-28        | TRANSISTOR 2SC1623-L5L6     |             | C7803                                    | 1-163-038-91  | CERAMIC CHIP 0.1UF       | 25V         |
|                                          |                     |                             |             | C7804                                    | 1-126-947-11  | ELECT 47UF               | 20.00% 35V  |
| Q7408                                    | 8-729-045-04        | TRANSISTOR 2SC5511          |             | C7805                                    | 1-104-989-91  | MYLAR 0.0022UF           | 5.00% 200V  |
| Q7409                                    | 8-729-045-05        | TRANSISTOR 2SA2005          |             |                                          |               |                          |             |
| Q7410                                    | 8-729-120-28        | TRANSISTOR 2SC1623-L5L6     |             | C7806                                    | 1-104-989-91  | MYLAR 0.0022UF           | 5.00% 200V  |
|                                          | < RESISTOR >        |                             |             | C7807                                    | 1-107-667-11  | ELECT 2.2UF              | 20.00% 400V |
| R7401                                    | 1-208-790-11        | METAL CHIP 2.2K 0.5%        | 1/10W       | C7808                                    | 1-130-471-00  | MYLAR 0.001UF            | 5.00% 50V   |
|                                          |                     |                             |             | C7809                                    | 1-130-471-00  | MYLAR 0.001UF            | 5.00% 50V   |
|                                          |                     |                             |             | C7812                                    | 1-106-363-00  | MYLAR 0.0068UF           | 99% 200V    |
|                                          |                     |                             |             |                                          |               |                          |             |
|                                          |                     |                             |             | C7813                                    | 1-126-968-11  | ELECT 100UF              | 20.00% 50V  |
|                                          |                     |                             |             | C7814                                    | 1-126-968-11  | ELECT 100UF              | 20.00% 50V  |
|                                          |                     |                             |             | C7815                                    | 1-107-645-11  | ELECT 22UF               | 20.00% 200V |
|                                          |                     |                             |             | C7816                                    | 1-161-830-00  | CERAMIC 0.0047UF         | 500V        |
|                                          |                     |                             |             |                                          | < CONNECTOR > |                          |             |
|                                          |                     |                             |             | CN7801                                   | *1-564-509-11 | PLUG, CONNECTOR 6P       |             |
|                                          |                     |                             |             | CN7802                                   | *1-564-507-11 | PLUG, CONNECTOR 4P       |             |



**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO.             | PART.NO       | DESCRIPTION                 | REMARK | REF.NO.                                | PART.NO                  | DESCRIPTION                    | REMARK |
|---------------------|---------------|-----------------------------|--------|----------------------------------------|--------------------------|--------------------------------|--------|
| CN7803              | *1-564-506-11 | PLUG, CONNECTOR 3P          |        | R7831                                  | 1-216-049-11             | RES-CHIP 1K 5% 1/10W           |        |
| CN7804              | *1-580-844-11 | PIN, CONNECTOR (POWER)      |        | R7832                                  | 1-216-025-11             | RES-CHIP 100 5% 1/10W          |        |
| CN7805              | *1-564-506-11 | PLUG, CONNECTOR 3P          |        | R7833                                  | 1-216-295-91             | SHORT CHIP 0                   |        |
| < DIODE >           |               |                             |        | <b>A-1391-133-A ZG Board, Complete</b> |                          |                                |        |
| D7801               | 8-719-921-86  | DIODE MTZJ-13               |        | 4-382-854-11                           | SCREW (M3X10), P, SW (+) |                                |        |
| D7802               | 8-719-921-86  | DIODE MTZJ-13               |        | < CAPACITOR >                          |                          |                                |        |
| < DEFLECTION YOKE > |               |                             |        | C7601                                  | 1-163-021-91             | CERAMIC CHIP 0.01UF 10.00% 50V |        |
| DY7801 $\Delta$     | 1-451-476-21  | DEFLECTION YOKE             |        | C7602                                  | 1-163-021-91             | CERAMIC CHIP 0.01UF 10.00% 50V |        |
| < COIL >            |               |                             |        | C7603                                  | 1-163-038-91             | CERAMIC CHIP 0.1UF 25V         |        |
| L7801               | 1-412-911-11  | FERRITE 0UH                 |        | C7604                                  | 1-126-947-11             | ELECT 47UF 20.00% 35V          |        |
| L7802               | 1-414-187-11  | INDUCTOR 47UH               |        | C7605                                  | 1-104-989-91             | MYLAR 0.0022UF 5.00% 200V      |        |
| < TRANSISTOR >      |               |                             |        | C7606                                  | 1-104-989-91             | MYLAR 0.0022UF 5.00% 200V      |        |
| Q7801               | 8-729-120-28  | TRANSISTOR 2SC1623-L5L6     |        | C7607                                  | 1-107-667-11             | ELECT 2.2UF 20.00% 400V        |        |
| Q7804               | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |        | C7608                                  | 1-130-471-00             | MYLAR 0.001UF 5.00% 50V        |        |
| Q7805               | 8-729-120-28  | TRANSISTOR 2SC1623-L5L6     |        | C7609                                  | 1-130-471-00             | MYLAR 0.001UF 5.00% 50V        |        |
| Q7806               | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |        | C7612                                  | 1-106-363-00             | MYLAR 0.0068UF 99% 200V        |        |
| Q7807               | 8-729-120-28  | TRANSISTOR 2SC1623-L5L6     |        | C7613                                  | 1-126-968-11             | ELECT 100UF 20.00% 50V         |        |
| Q7808               | 8-729-045-04  | TRANSISTOR 2SC5511          |        | C7614                                  | 1-126-968-11             | ELECT 100UF 20.00% 50V         |        |
| Q7809               | 8-729-045-05  | TRANSISTOR 2SA2005          |        | C7615                                  | 1-107-645-11             | ELECT 22UF 20.00% 200V         |        |
| Q7810               | 8-729-120-28  | TRANSISTOR 2SC1623-L5L6     |        | C7616                                  | 1-161-830-00             | CERAMIC 0.0047UF 500V          |        |
| < RESISTOR >        |               |                             |        | C7617                                  | 1-106-220-00             | MYLAR 0.1UF 10.00% 100V        |        |
| R7801               | 1-208-806-11  | METAL CHIP 10K 0.5% 1/10W   |        | < CONNECTOR >                          |                          |                                |        |
| R7802               | 1-208-790-11  | METAL CHIP 2.2K 0.5% 1/10W  |        | CN7601                                 | *1-564-509-11            | PLUG, CONNECTOR 6P             |        |
| R7803               | 1-208-802-11  | METAL CHIP 6.8K 0.5% 1/10W  |        | CN7602                                 | *1-564-509-11            | PLUG, CONNECTOR 6P             |        |
| R7804               | 1-208-806-11  | METAL CHIP 10K 0.5% 1/10W   |        | CN7603                                 | *1-564-507-11            | PLUG, CONNECTOR 4P             |        |
| R7807               | 1-216-475-11  | METAL OXIDE 120 5% 3W       |        | CN7604                                 | *1-564-506-11            | PLUG, CONNECTOR 3P             |        |
| R7810               | 1-249-385-11  | CARBON 2.2 5% 1/4W          |        | CN7605                                 | *1-564-506-11            | PLUG, CONNECTOR 3P             |        |
| R7811               | 1-216-475-11  | METAL OXIDE 120 5% 3W       |        | CN7606                                 | *1-580-689-11            | PIN, CONNECTOR (PC BOARD) 4P   |        |
| R7812               | 1-216-033-00  | RES-CHIP 220 5% 1/10W       |        | CN7607                                 | *1-564-506-11            | PLUG, CONNECTOR 3P             |        |
| R7813               | 1-249-414-11  | CARBON 560 5% 1/4W          |        | CN7608                                 | *1-564-507-11            | PLUG, CONNECTOR 4P             |        |
| R7814               | 1-216-001-00  | RES-CHIP 10 5% 1/10W        |        | < DIODE >                              |                          |                                |        |
| R7815               | 1-216-001-00  | RES-CHIP 10 5% 1/10W        |        | D7601                                  | 8-719-921-86             | DIODE MTZJ-13                  |        |
| R7816               | 1-249-414-11  | CARBON 560 5% 1/4W          |        | D7602                                  | 8-719-921-86             | DIODE MTZJ-13                  |        |
| R7817               | 1-249-415-11  | CARBON 680 5% 1/4W          |        | < DEFLECTION YOKE >                    |                          |                                |        |
| R7818               | 1-249-431-11  | CARBON 15K 5% 1/4W          |        | DY7601 $\Delta$                        | 1-451-476-21             | DEFLECTION YOKE                |        |
| R7819               | 1-249-431-11  | CARBON 15K 5% 1/4W          |        | < COIL >                               |                          |                                |        |
| R7820               | 1-249-415-11  | CARBON 680 5% 1/4W          |        | L7601                                  | 1-412-911-11             | FERRITE 0UH                    |        |
| R7821               | 1-249-429-11  | CARBON 10K 5% 1/4W          |        | L7602                                  | 1-414-187-11             | INDUCTOR 47UH                  |        |
| R7824               | 1-249-399-11  | CARBON 33 5% 1/4W           |        | < TRANSISTOR >                         |                          |                                |        |
| R7825               | 1-249-384-11  | CARBON 1.8 5% 1/4W          |        | Q7601                                  | 8-729-120-28             | TRANSISTOR 2SC1623-L5L6        |        |
| R7826               | 1-249-384-11  | CARBON 1.8 5% 1/4W          |        |                                        |                          |                                |        |
| R7827               | 1-249-399-11  | CARBON 33 5% 1/4W           |        |                                        |                          |                                |        |
| R7828               | 1-215-914-11  | METAL OXIDE 330 5% 3W       |        |                                        |                          |                                |        |
| R7829               | 1-535-143-11  | LEAD, JUMPER (10MM)         |        |                                        |                          |                                |        |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO.                                  | PART.NO                 | DESCRIPTION                 | REMARK | REF.NO.        | PART.NO       | DESCRIPTION                 | REMARK      |
|------------------------------------------|-------------------------|-----------------------------|--------|----------------|---------------|-----------------------------|-------------|
| Q7604                                    | 8-729-026-49            | TRANSISTOR 2SA1037AK-T146-R |        | C7111          | 1-161-830-00  | CERAMIC 0.0047UF            | 500V        |
| Q7605                                    | 8-729-120-28            | TRANSISTOR 2SC1623-L5L6     |        | C7112          | 1-163-224-11  | CERAMIC CHIP 7PF            | 0.25PF 50V  |
| Q7606                                    | 8-729-026-49            | TRANSISTOR 2SA1037AK-T146-R |        | C7114          | 1-163-085-00  | CERAMIC CHIP 2PF            | 0.25PF 50V  |
| Q7607                                    | 8-729-120-28            | TRANSISTOR 2SC1623-L5L6     |        | C7116          | 1-107-957-11  | ELECT 1UF                   | 20.00% 250V |
| Q7608                                    | 8-729-045-04            | TRANSISTOR 2SC5511          |        | C7118          | 1-164-004-11  | CERAMIC CHIP 0.1UF          | 10.00% 25V  |
| Q7609                                    | 8-729-045-05            | TRANSISTOR 2SA2005          |        | < CONNECTOR >  |               |                             |             |
| Q7610                                    | 8-729-120-28            | TRANSISTOR 2SC1623-L5L6     |        | CN7101         | *1-564-512-11 | PLUG, CONNECTOR 9P          |             |
| < RESISTOR >                             |                         |                             |        | CN7102         | *1-564-510-11 | PLUG, CONNECTOR 7P          |             |
| R7601                                    | 1-208-806-11            | METAL CHIP 10K 0.5% 1/10W   |        | CN7103         | *1-564-512-11 | PLUG, CONNECTOR 9P          |             |
| R7602                                    | 1-208-790-11            | METAL CHIP 2.2K 0.5% 1/10W  |        | CN7104         | 1-785-879-11  | CONNECTOR, ONE TOUCH        |             |
| R7603                                    | 1-208-802-11            | METAL CHIP 6.8K 0.5% 1/10W  |        | CN7107         | 1-695-915-11  | TAB (CONTACT)               |             |
| R7604                                    | 1-208-806-11            | METAL CHIP 10K 0.5% 1/10W   |        | < DIODE >      |               |                             |             |
| R7605                                    | 1-216-475-11            | METAL OXIDE 120 5% 3W       |        | D7102          | 8-719-921-86  | DIODE MTZJ-13               |             |
| R7610                                    | 1-249-385-11            | CARBON 2.2 5% 1/4W          |        | D7103          | 8-719-901-83  | DIODE 1SS83                 |             |
| R7611                                    | 1-216-475-11            | METAL OXIDE 120 5% 3W       |        | D7104          | 8-719-901-83  | DIODE 1SS83                 |             |
| R7612                                    | 1-249-414-11            | CARBON 560 5% 1/4W          |        | D7105          | 8-719-901-83  | DIODE 1SS83                 |             |
| R7613                                    | 1-216-033-00            | RES-CHIP 220 5% 1/10W       |        | D7106          | 8-719-901-83  | DIODE 1SS83                 |             |
| R7614                                    | 1-249-414-11            | CARBON 560 5% 1/4W          |        | D7108          | 8-719-988-61  | DIODE 1SS355TE-17           |             |
| R7615                                    | 1-249-415-11            | CARBON 680 5% 1/4W          |        | < IC >         |               |                             |             |
| R7616                                    | 1-249-431-11            | CARBON 15K 5% 1/4W          |        | IC7101         | 8-759-360-83  | IC TDA6111Q/N4              |             |
| R7617                                    | 1-249-431-11            | CARBON 15K 5% 1/4W          |        | < SOCKET >     |               |                             |             |
| R7618                                    | 1-249-415-11            | CARBON 680 5% 1/4W          |        | J7101 $\Delta$ | 1-251-182-41  | SOCKET, CRT                 |             |
| R7619                                    | 1-216-001-00            | RES-CHIP 10 5% 1/10W        |        | < COIL >       |               |                             |             |
| R7620                                    | 1-216-001-00            | RES-CHIP 10 5% 1/10W        |        | L7102          | 1-414-223-11  | INDUCTOR 470UH              |             |
| R7621                                    | 1-249-429-11            | CARBON 10K 5% 1/4W          |        | L7103          | 1-414-181-11  | INDUCTOR 4.7UH              |             |
| R7624                                    | 1-249-399-11            | CARBON 33 5% 1/4W           |        | L7104          | 1-414-187-11  | INDUCTOR 47UH               |             |
| R7625                                    | 1-249-384-11            | CARBON 1.8 5% 1/4W          |        | NL7101         | 1-576-354-21  | GAP, SPARK                  |             |
| R7626                                    | 1-249-384-11            | CARBON 1.8 5% 1/4W          |        | NL7102         | 1-517-729-31  | GAP, SPARK                  |             |
| R7627                                    | 1-249-399-11            | CARBON 33 5% 1/4W           |        | NL7103         | 1-576-354-21  | GAP, SPARK                  |             |
| R7628                                    | 1-215-914-11            | METAL OXIDE 330 5% 3W       |        | NL7104         | 1-576-354-21  | GAP, SPARK                  |             |
| R7629                                    | 1-535-143-11            | LEAD, JUMPER (10MM)         |        | NL7105         | 1-576-354-21  | GAP, SPARK                  |             |
| R7631                                    | 1-216-049-11            | RES-CHIP 1K 5% 1/10W        |        | < TRANSISTOR > |               |                             |             |
| R7632                                    | 1-216-025-11            | RES-CHIP 100 5% 1/10W       |        | Q7101          | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |             |
| R7633                                    | 1-216-295-91            | SHORT CHIP 0                |        | Q7103          | 8-729-255-12  | TRANSISTOR 2SC2551-0        |             |
| R7634                                    | 1-216-295-91            | SHORT CHIP 0                |        | Q7104          | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |             |
| <b>* A-1332-181-A CR Board, Complete</b> |                         |                             |        | < RESISTOR >   |               |                             |             |
| 4-382-854-01                             | SCREW (M3X8), P, SW (+) |                             |        | R7101          | 1-260-132-11  | CARBON 560K 5% 1/2W         |             |
| < CAPACITOR >                            |                         |                             |        | R7102          | 1-249-389-11  | CARBON 4.7 5% 1/4W          |             |
| C7102                                    | 1-162-115-00            | CERAMIC 330PF 10.00% 2KV    |        | R7103          | 1-216-295-91  | SHORT CHIP 0                |             |
| C7103                                    | 1-107-652-11            | ELECT 10UF 20.00% 250V      |        | R7105          | 1-260-117-11  | CARBON 33K 5% 1/2W          |             |
| C7104                                    | 1-126-768-11            | ELECT 2200UF 20.00% 16V     |        | R7106          | 1-219-743-11  | CARBON 100 5% 1/2W          |             |
| C7105                                    | 1-162-115-00            | CERAMIC 330PF 10.00% 2KV    |        | R7107          | 1-208-801-11  | METAL CHIP 6.2K 0.5% 1/10W  |             |
| C7106                                    | 1-163-038-91            | CERAMIC CHIP 0.1UF 25V      |        |                |               |                             |             |
| C7107                                    | 1-163-038-91            | CERAMIC CHIP 0.1UF 25V      |        |                |               |                             |             |
| C7108                                    | 1-126-967-11            | ELECT 47UF 20.00% 50V       |        |                |               |                             |             |
| C7110                                    | 1-102-050-00            | CERAMIC 0.01UF 99% 500V     |        |                |               |                             |             |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO.                                  | PART.NO                 | DESCRIPTION                   | REMARK            | REF.NO.        | PART.NO       | DESCRIPTION                 | REMARK |
|------------------------------------------|-------------------------|-------------------------------|-------------------|----------------|---------------|-----------------------------|--------|
| R7108                                    | 1-260-133-11            | CARBON                        | 680K 5% 1/2W      | < CONNECTOR >  |               |                             |        |
| R7109                                    | 1-208-808-11            | METAL CHIP                    | 12K 0.5% 1/10W    | CN7201         | *1-564-510-11 | PLUG, CONNECTOR 7P          |        |
| R7110                                    | 1-208-790-11            | METAL CHIP                    | 2.2K 0.5% 1/10W   | CN7202         | *1-564-509-11 | PLUG, CONNECTOR 6P          |        |
| R7111                                    | 1-216-033-00            | RES-CHIP                      | 220 5% 1/10W      | CN7203         | *1-564-512-11 | PLUG, CONNECTOR 9P          |        |
| R7112                                    | 1-249-424-11            | CARBON                        | 3.9K 5% 1/4W      | CN7204         | *1-564-512-11 | PLUG, CONNECTOR 9P          |        |
| R7113                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | CN7205         | 1-785-879-11  | CONNECTOR, ONE TOUCH        |        |
| R7114                                    | 1-216-660-11            | METAL CHIP                    | 2.4K 0.5% 1/10W   | CN7208         | 1-695-915-11  | TAB (CONTACT)               |        |
| R7115                                    | 1-208-782-11            | METAL CHIP                    | 1K 0.5% 1/10W     | < DIODE >      |               |                             |        |
| R7116                                    | 1-215-929-11            | METAL OXIDE                   | 100K 5% 3W        | D7202          | 8-719-921-86  | DIODE MTZJ-13               |        |
| R7117                                    | 1-260-093-11            | CARBON                        | 330 5% 1/2W       | D7203          | 8-719-901-83  | DIODE 1SS83                 |        |
| R7119                                    | 1-260-328-11            | CARBON                        | 1K 5% 1/2W        | D7204          | 8-719-901-83  | DIODE 1SS83                 |        |
| R7120                                    | 1-216-081-00            | RES-CHIP                      | 22K 5% 1/10W      | D7205          | 8-719-901-83  | DIODE 1SS83                 |        |
| R7121                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | D7206          | 8-719-901-83  | DIODE 1SS83                 |        |
| R7122                                    | 1-216-025-11            | RES-CHIP                      | 100 5% 1/10W      | D7208          | 8-719-988-61  | DIODE 1SS355TE-17           |        |
| R7123                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | < IC >         |               |                             |        |
| R7124                                    | 1-216-073-91            | RES-CHIP                      | 10K 5% 1/10W      | IC7201         | 8-759-360-83  | IC TDA6111Q/N4              |        |
| R7128                                    | 1-208-818-11            | METAL CHIP                    | 33K 0.5% 1/10W    | < SOCKET >     |               |                             |        |
| R7129                                    | 1-249-417-11            | CARBON                        | 1K 5% 1/4W        | J7201 $\Delta$ | 1-251-182-41  | SOCKET, CRT                 |        |
| R7130                                    | 1-216-069-00            | RES-CHIP                      | 6.8K 5% 1/10W     | < COIL >       |               |                             |        |
| R7131                                    | 1-216-049-11            | RES-CHIP                      | 1K 5% 1/10W       | L7201          | 1-414-223-11  | INDUCTOR 470UH              |        |
| R7132                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | L7203          | 1-414-181-11  | INDUCTOR 4.7UH              |        |
| R7133                                    | 1-208-834-11            | METAL CHIP                    | 150K 0.5% 1/10W   | L7204          | 1-414-187-11  | INDUCTOR 47UH               |        |
| R7134                                    | 1-216-049-11            | RES-CHIP                      | 1K 5% 1/10W       | NL7201         | 1-576-354-21  | GAP, SPARK                  |        |
| R7135                                    | 1-216-053-00            | RES-CHIP                      | 1.5K 5% 1/10W     | NL7202         | 1-576-354-21  | GAP, SPARK                  |        |
| < SPARK GAP >                            |                         |                               |                   | NL7203         | 1-517-729-31  | GAP, SPARK                  |        |
| SG7101                                   | 1-519-422-11            | GAP, SPARK                    |                   | NL7204         | 1-576-354-21  | GAP, SPARK                  |        |
| SG7103                                   | 1-519-422-11            | GAP, SPARK                    |                   | NL7205         | 1-576-354-21  | GAP, SPARK                  |        |
| TP7102                                   | *1-535-881-21           | TERMINAL, TP (AUTO INSERTION) |                   | < TRANSISTOR > |               |                             |        |
| TP7105                                   | *1-535-881-21           | TERMINAL, TP (AUTO INSERTION) |                   | Q7201          | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |        |
| <b>* A-1332-182-A CG Board, Complete</b> |                         |                               |                   | Q7202          | 8-729-026-49  | TRANSISTOR 2SA1037AK-T146-R |        |
| 4-382-854-01                             | SCREW (M3X8), P, SW (+) |                               |                   | Q7203          | 8-729-255-12  | TRANSISTOR 2SC2551-0        |        |
| < CAPACITOR >                            |                         |                               |                   | < RESISTOR >   |               |                             |        |
| C7202                                    | 1-162-115-00            | CERAMIC                       | 330PF 10.00% 2KV  | R7201          | 1-260-132-11  | CARBON 560K 5% 1/2W         |        |
| C7203                                    | 1-126-768-11            | ELECT                         | 2200UF 20.00% 16V | R7202          | 1-216-295-91  | SHORT CHIP 0                |        |
| C7204                                    | 1-107-652-11            | ELECT                         | 10UF 20.00% 250V  | R7203          | 1-208-846-11  | METAL CHIP 470K 0.5% 1/10W  |        |
| C7205                                    | 1-163-038-91            | CERAMIC CHIP                  | 0.1UF 25V         | R7204          | 1-219-743-11  | CARBON 100 5% 1/2W          |        |
| C7206                                    | 1-163-038-91            | CERAMIC CHIP                  | 0.1UF 25V         | R7205          | 1-260-117-11  | CARBON 33K 5% 1/2W          |        |
| C7207                                    | 1-162-115-00            | CERAMIC                       | 330PF 10.00% 2KV  | R7206          | 1-208-801-11  | METAL CHIP 6.2K 0.5% 1/10W  |        |
| C7208                                    | 1-126-967-11            | ELECT                         | 47UF 20.00% 50V   | R7207          | 1-208-808-11  | METAL CHIP 12K 0.5% 1/10W   |        |
| C7209                                    | 1-102-050-00            | CERAMIC                       | 0.01UF 99% 500V   | R7208          | 1-216-033-00  | RES-CHIP 220 5% 1/10W       |        |
| C7211                                    | 1-161-830-00            | CERAMIC                       | 0.0047UF 500V     | R7209          | 1-260-133-11  | CARBON 680K 5% 1/2W         |        |
| C7212                                    | 1-163-224-11            | CERAMIC CHIP                  | 7PF 0.25PF 50V    | R7210          | 1-208-790-11  | METAL CHIP 2.2K 0.5% 1/10W  |        |
| C7213                                    | 1-163-085-00            | CERAMIC CHIP                  | 2PF 0.25PF 50V    |                |               |                             |        |
| C7214                                    | 1-126-964-11            | ELECT                         | 10UF 20.00% 50V   |                |               |                             |        |
| C7216                                    | 1-107-957-11            | ELECT                         | 1UF 20.00% 250V   |                |               |                             |        |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.



| REF.NO.                                  | PART.NO                 | DESCRIPTION                   | REMARK            | REF.NO.        | PART.NO      | DESCRIPTION                 | REMARK |
|------------------------------------------|-------------------------|-------------------------------|-------------------|----------------|--------------|-----------------------------|--------|
| R7211                                    | 1-249-424-11            | CARBON                        | 3.9K 5% 1/4W      | < DIODE >      |              |                             |        |
| R7212                                    | 1-208-789-11            | METAL CHIP                    | 2K 0.5% 1/10W     | D7302          | 8-719-921-86 | DIODE MTZJ-13               |        |
| R7213                                    | 1-215-929-11            | METAL OXIDE                   | 100K 5% 3W        | D7303          | 8-719-901-83 | DIODE 1SS83                 |        |
| R7214                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | D7304          | 8-719-901-83 | DIODE 1SS83                 |        |
| R7215                                    | 1-208-782-11            | METAL CHIP                    | 1K 0.5% 1/10W     | D7305          | 8-719-901-83 | DIODE 1SS83                 |        |
| R7216                                    | 1-260-093-11            | CARBON                        | 330 5% 1/2W       | D7306          | 8-719-901-83 | DIODE 1SS83                 |        |
| R7217                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | D7307          | 8-719-988-61 | DIODE 1SS355TE-17           |        |
| R7218                                    | 1-260-328-11            | CARBON                        | 1K 5% 1/2W        | D7308          | 8-719-921-88 | DIODE MTZJ-13B              |        |
| R7219                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | D7309          | 8-719-988-61 | DIODE 1SS355TE-17           |        |
| R7220                                    | 1-216-025-11            | RES-CHIP                      | 100 5% 1/10W      | < IC >         |              |                             |        |
| R7222                                    | 1-216-295-91            | SHORT CHIP                    | 0                 | IC7301         | 8-759-360-83 | IC TDA6111Q/N4              |        |
| R7223                                    | 1-208-802-11            | METAL CHIP                    | 6.8K 0.5% 1/10W   | < SOCKET >     |              |                             |        |
| R7224                                    | 1-208-798-11            | METAL CHIP                    | 4.7K 0.5% 1/10W   | J7301 $\Delta$ | 1-251-182-41 | SOCKET, CRT                 |        |
| R7225                                    | 1-216-081-00            | RES-CHIP                      | 22K 5% 1/10W      | < COIL >       |              |                             |        |
| R7229                                    | 1-249-417-11            | CARBON                        | 1K 5% 1/4W        | L7301          | 1-414-223-11 | INDUCTOR 470UH              |        |
| R7235                                    | 1-216-053-00            | RES-CHIP                      | 1.5K 5% 1/10W     | L7303          | 1-414-181-11 | INDUCTOR 4.7UH              |        |
| < SPARK GAP >                            |                         |                               |                   | L7304          | 1-414-187-11 | INDUCTOR 47UH               |        |
| SG7201                                   | 1-519-422-11            | GAP, SPARK                    |                   | NL7301         | 1-576-354-21 | GAP, SPARK                  |        |
| SG7203                                   | 1-519-422-11            | GAP, SPARK                    |                   | NL7302         | 1-517-729-31 | GAP, SPARK                  |        |
| TP7202                                   | *1-535-881-21           | TERMINAL, TP (AUTO INSERTION) |                   | NL7303         | 1-576-354-21 | GAP, SPARK                  |        |
| TP7205                                   | *1-535-881-21           | TERMINAL, TP (AUTO INSERTION) |                   | NL7304         | 1-576-354-21 | GAP, SPARK                  |        |
| <b>* A-1332-183-A CB Board, Complete</b> |                         |                               |                   | NL7305         | 1-576-354-21 | GAP, SPARK                  |        |
| 4-382-854-01                             | SCREW (M3X8), P, SW (+) |                               |                   | < TRANSISTOR > |              |                             |        |
| < CAPACITOR >                            |                         |                               |                   | Q7301          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
| C7302                                    | 1-162-115-00            | CERAMIC                       | 330PF 10.00% 2KV  | Q7302          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
| C7303                                    | 1-162-115-00            | CERAMIC                       | 330PF 10.00% 2KV  | Q7303          | 8-729-255-12 | TRANSISTOR 2SC2551-0        |        |
| C7304                                    | 1-126-768-11            | ELECT                         | 2200UF 20.00% 16V | Q7305          | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |        |
| C7305                                    | 1-163-038-91            | CERAMIC CHIP                  | 0.1UF 25V         | Q7306          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
| C7306                                    | 1-163-038-91            | CERAMIC CHIP                  | 0.1UF 25V         | < RESISTOR >   |              |                             |        |
| C7307                                    | 1-107-652-11            | ELECT                         | 10UF 20.00% 250V  | R7301          | 1-219-743-11 | CARBON 100 5% 1/2W          |        |
| C7308                                    | 1-126-967-11            | ELECT                         | 47UF 20.00% 50V   | R7302          | 1-260-132-11 | CARBON 560K 5% 1/2W         |        |
| C7309                                    | 1-163-085-00            | CERAMIC CHIP                  | 2PF 0.25PF 50V    | R7304          | 1-216-295-91 | SHORT CHIP 0                |        |
| C7311                                    | 1-102-050-00            | CERAMIC                       | 0.01UF 99% 500V   | R7306          | 1-260-328-11 | CARBON 1K 5% 1/2W           |        |
| C7312                                    | 1-161-830-00            | CERAMIC                       | 0.0047UF 500V     | R7307          | 1-208-801-11 | METAL CHIP 6.2K 0.5% 1/10W  |        |
| C7313                                    | 1-163-091-00            | CERAMIC CHIP                  | 8PF 0.25PF 50V    | R7308          | 1-260-133-11 | CARBON 680K 5% 1/2W         |        |
| C7314                                    | 1-126-964-11            | ELECT                         | 10UF 20.00% 50V   | R7309          | 1-216-660-11 | METAL CHIP 2.4K 0.5% 1/10W  |        |
| C7315                                    | 1-126-960-11            | ELECT                         | 1UF 20.00% 50V    | R7310          | 1-216-295-91 | SHORT CHIP 0                |        |
| C7318                                    | 1-107-957-11            | ELECT                         | 1UF 20.00% 250V   | R7311          | 1-208-808-11 | METAL CHIP 12K 0.5% 1/10W   |        |
| < CONNECTOR >                            |                         |                               |                   | R7312          | 1-216-660-11 | METAL CHIP 2.4K 0.5% 1/10W  |        |
| CN7301                                   | *1-564-509-11           | PLUG, CONNECTOR 6P            |                   | R7313          | 1-216-033-00 | RES-CHIP 220 5% 1/10W       |        |
| CN7302                                   | *1-564-512-11           | PLUG, CONNECTOR 9P            |                   | R7314          | 1-249-424-11 | CARBON 3.9K 5% 1/4W         |        |
| CN7303                                   | *1-564-512-11           | PLUG, CONNECTOR 9P            |                   | R7315          | 1-216-295-91 | SHORT CHIP 0                |        |
| CN7304                                   | 1-785-879-11            | CONNECTOR, ONE TOUCH          |                   | R7316          | 1-215-929-11 | METAL OXIDE 100K 5% 3W      |        |
| CN7307                                   | 1-695-915-11            | TAB (CONTACT)                 |                   | R7317          | 1-260-093-11 | CARBON 330 5% 1/2W          |        |

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**CB** **H1** **H3** **H2**

| REF.NO.       | PART.NO       | DESCRIPTION                   | REMARK |
|---------------|---------------|-------------------------------|--------|
| R7318         | 1-216-295-91  | SHORT CHIP 0                  |        |
| R7319         | 1-216-665-11  | METAL CHIP 3.9K 0.5% 1/10W    |        |
| R7321         | 1-260-117-11  | CARBON 33K 5% 1/2W            |        |
| R7322         | 1-208-782-11  | METAL CHIP 1K 0.5% 1/10W      |        |
| R7323         | 1-216-025-11  | RES-CHIP 100 5% 1/10W         |        |
| R7324         | 1-216-295-91  | SHORT CHIP 0                  |        |
| R7326         | 1-208-804-11  | METAL CHIP 8.2K 0.5% 1/10W    |        |
| R7327         | 1-208-799-11  | METAL CHIP 5.1K 0.5% 1/10W    |        |
| R7328         | 1-216-073-91  | RES-CHIP 10K 5% 1/10W         |        |
| R7329         | 1-216-091-00  | RES-CHIP 56K 5% 1/10W         |        |
| R7330         | 1-216-081-00  | RES-CHIP 22K 5% 1/10W         |        |
| R7331         | 1-216-055-00  | RES-CHIP 1.8K 5% 1/10W        |        |
| R7332         | 1-216-081-00  | RES-CHIP 22K 5% 1/10W         |        |
| R7335         | 1-249-417-11  | CARBON 1K 5% 1/4W             |        |
| R7336         | 1-216-053-00  | RES-CHIP 1.5K 5% 1/10W        |        |
| < SPARK GAP > |               |                               |        |
| SG7301        | 1-519-422-11  | GAP, SPARK                    |        |
| SG7303        | 1-519-422-11  | GAP, SPARK                    |        |
| TP7302        | *1-535-881-21 | TERMINAL, TP (AUTO INSERTION) |        |
| TP7304        | *1-535-881-21 | TERMINAL, TP (AUTO INSERTION) |        |

**\* A-1400-604-A H1 Board, Complete**

|               |               |                       |            |
|---------------|---------------|-----------------------|------------|
| 4-206-220-01  | HOLDER, LED   |                       |            |
| < CAPACITOR > |               |                       |            |
| C0992         | 1-104-665-11  | ELECT 100UF           | 20.00% 25V |
| C0993         | 1-162-962-11  | CERAMIC CHIP 470PF    | 10.00% 50V |
| C0994         | 1-162-970-11  | CERAMIC CHIP 0.01UF   | 10.00% 25V |
| < CONNECTOR > |               |                       |            |
| CN0991        | *1-564-519-11 | PLUG, CONNECTOR 4P    |            |
| < DIODE >     |               |                       |            |
| D0991         | 8-719-109-89  | DIODE RD5.6ESB2       |            |
| D0993         | 8-719-082-12  | DIODE TLHK5190        |            |
| < IC >        |               |                       |            |
| IC0991        | 8-742-180-30  | HYB IC SBX3081-51(30) |            |
| < RESISTOR >  |               |                       |            |
| R0992         | 1-216-809-11  | RES-CHIP 100 5% 1/10W |            |

**\* A-1400-606-A H3 Board, Complete**

|                 |               |                        |  |
|-----------------|---------------|------------------------|--|
| < CONNECTOR >   |               |                        |  |
| CN3103 $\Delta$ | *1-580-844-11 | PIN, CONNECTOR (POWER) |  |
| CN3104 $\Delta$ | *1-695-292-11 | PIN, CONNECTOR (POWER) |  |

|                                          |               |                            |            |
|------------------------------------------|---------------|----------------------------|------------|
| < SWITCH >                               |               |                            |            |
| S3106 $\Delta$                           | 1-571-433-21  | SWITCH, PUSH (AC POWER)    |            |
| <b>* A-1400-605-A H2 Board, Complete</b> |               |                            |            |
| < CAPACITOR >                            |               |                            |            |
| C2906                                    | 1-126-960-11  | ELECT 1UF                  | 20.00% 50V |
| C2907                                    | 1-126-960-11  | ELECT 1UF                  | 20.00% 50V |
| C2913                                    | 1-162-964-11  | CERAMIC CHIP 0.001UF       | 10.00% 50V |
| C2914                                    | 1-162-964-11  | CERAMIC CHIP 0.001UF       | 10.00% 50V |
| < CONNECTOR >                            |               |                            |            |
| CN2900                                   | 1-779-947-11  | TERMINAL BLOCK, S          |            |
| CN2906                                   | *1-564-524-11 | PLUG, CONNECTOR 9P         |            |
| CN2908                                   | 1-564-521-11  | PLUG, CONNECTOR 6P         |            |
| < DIODE >                                |               |                            |            |
| D0908                                    | 8-719-929-15  | DIODE HZS9.1NB2            |            |
| < SOCKET >                               |               |                            |            |
| J2900                                    | 1-750-264-11  | JACK                       |            |
| < COIL >                                 |               |                            |            |
| L904                                     | 1-535-143-61  | LEAD, JUMPER (5.0MM)       |            |
| L2900                                    | 1-535-143-61  | LEAD, JUMPER (5.0MM)       |            |
| L2901                                    | 1-535-143-61  | LEAD, JUMPER (5.0MM)       |            |
| L2902                                    | 1-535-143-61  | LEAD, JUMPER (5.0MM)       |            |
| L2903                                    | 1-535-143-61  | LEAD, JUMPER (5.0MM)       |            |
| < RESISTOR >                             |               |                            |            |
| R0901                                    | 1-218-867-11  | METAL CHIP 6.8K 0.5% 1/10W |            |
| R0902                                    | 1-216-833-11  | RES-CHIP 10K 5% 1/10W      |            |
| R0911                                    | 1-216-823-11  | RES-CHIP 1.5K 5% 1/10W     |            |
| R0912                                    | 1-216-864-11  | SHORT CHIP 0               |            |
| R0913                                    | 1-216-827-11  | RES-CHIP 3.3K 5% 1/10W     |            |
| R0914                                    | 1-216-835-11  | RES-CHIP 15K 5% 1/10W      |            |
| R2903                                    | 1-216-810-11  | RES-CHIP 120 5% 1/10W      |            |
| R2904                                    | 1-249-406-11  | CARBON 120 5% 1/4W         |            |
| R2909                                    | 1-216-853-11  | RES-CHIP 470K 5% 1/10W     |            |
| R2910                                    | 1-216-853-11  | RES-CHIP 470K 5% 1/10W     |            |
| R2915                                    | 1-216-810-11  | RES-CHIP 120 5% 1/10W      |            |
| R2916                                    | 1-249-406-11  | CARBON 120 5% 1/4W         |            |
| R2917                                    | 1-216-816-11  | RES-CHIP 390 5% 1/10W      |            |
| R2918                                    | 1-216-816-11  | RES-CHIP 390 5% 1/10W      |            |
| < SWITCH >                               |               |                            |            |
| S0900                                    | 1-692-979-11  | SWITCH, TACTILE            |            |
| S0901                                    | 1-692-979-11  | SWITCH, TACTILE            |            |
| S0902                                    | 1-692-979-11  | SWITCH, TACTILE            |            |



# G

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**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

**G**

| REF.NO.         | PART.NO               | DESCRIPTION                   | REMARK | REF.NO.         | PART.NO              | DESCRIPTION             | REMARK |
|-----------------|-----------------------|-------------------------------|--------|-----------------|----------------------|-------------------------|--------|
| CN6308          | 1-695-915-11          | TAB (CONTACT)                 |        | FB6303          | 1-412-911-11         | FERRITE 0UH             |        |
|                 | < DIODE >             |                               |        | FB6304          | 1-412-911-11         | FERRITE 0UH             |        |
| D6010           | 8-719-988-61          | DIODE 1SS355TE-17             |        | FB6305          | 1-412-911-11         | FERRITE 0UH             |        |
| D6015 $\Delta$  | 8-719-510-53          | DIODE D4SB60L                 |        | FB6306          | 1-412-911-11         | FERRITE 0UH             |        |
| D6017           | 8-719-063-73          | DIODE D1NL20U-TR              |        | FB6307          | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6019           | 8-719-510-02          | DIODE D1NS4                   |        | FB6308          | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6020           | 8-719-029-04          | DIODE D5L60                   |        | FB6309          | 1-412-911-11         | FERRITE 0UH             |        |
|                 |                       |                               |        | FB6310          | 1-412-911-11         | FERRITE 0UH             |        |
| D6021           | 8-719-110-36          | DIODE RD13ESB2                |        |                 | < IC >               |                         |        |
| D6022           | 8-719-979-64          | DIODE UF4005PKG23             |        | IC6002 $\Delta$ | 8-749-924-35         | PHOTO COUPLER ON3171-R  |        |
| D6023           | 8-719-979-64          | DIODE UF4005PKG23             |        | IC6004          | 8-749-016-66         | IC MCR5152              |        |
| D6100 $\Delta$  | 8-719-068-00          | DIODE ERC04-06SE              |        | IC6007          | 8-749-924-35         | PHOTO COUPLER ON3171-R  |        |
| D6101           | 8-719-947-69          | DIODE MTZJ-T-72-18B           |        | IC6301          | 8-749-012-13         | IC DM-58                |        |
| D6102           | 8-719-083-83          | DIODE UDS-TE17-15B            |        | IC6302          | 8-759-663-29         | IC MMI476AF(TP)         |        |
| D6103           | 8-719-988-61          | DIODE 1SS355TE-17             |        | IC6303          | 8-759-198-31         | IC UPC1093J-1-T         |        |
| D6104 $\Delta$  | 8-719-068-00          | DIODE ERC04-06SE              |        | IC6304          | 8-759-908-15         | IC TL431CLP             |        |
| D6105           | 8-719-948-45          | DIODE ERA22-08                |        |                 | < COIL >             |                         |        |
| D6106 $\Delta$  | 8-719-068-00          | DIODE ERC04-06SE              |        | L6303           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6108           | 8-719-510-48          | DIODE D1N20R                  |        | L6304           | 1-406-659-11         | INDUCTOR 10UH           |        |
| D6300           | 8-719-057-96          | DIODE D10SC6M-4012            |        | L6307           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6301           | 8-719-510-12          | DIODE D10SC4M                 |        | L6308           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6302           | 8-719-312-47          | DIODE RBA-406B                |        | L6309           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6303           | 8-719-063-73          | DIODE D1NL20U-TR              |        | L6310           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6304           | 8-719-050-18          | DIODE D4SBL20U                |        | L6311           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6305           | 8-719-988-61          | DIODE 1SS355TE-17             |        | L6312           | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6306           | 8-719-988-61          | DIODE 1SS355TE-17             |        | L6313           | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6307           | 8-719-988-61          | DIODE 1SS355TE-17             |        | L6314           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6308           | 8-719-988-31          | DIODE D10SC6MR                |        | L6315           | 1-412-525-31         | INDUCTOR 10UH           |        |
| D6309           | 8-719-057-96          | DIODE D10SC6M-4012            |        |                 | < PROTECTOR MODULE > |                         |        |
| D6310           | 8-719-052-91          | DIODE D4SB4-F                 |        | PS6300 $\Delta$ | 1-801-549-21         | PROTECTOR, MODULE MP400 |        |
| D6311           | 8-719-988-61          | DIODE 1SS355TE-17             |        | PS6301 $\Delta$ | 1-801-549-21         | PROTECTOR, MODULE MP400 |        |
| D6312           | 8-719-988-61          | DIODE 1SS355TE-17             |        | PS6302 $\Delta$ | 1-801-549-21         | PROTECTOR, MODULE MP400 |        |
| D6315           | 8-719-988-61          | DIODE 1SS355TE-17             |        | PS6303 $\Delta$ | 1-801-549-21         | PROTECTOR, MODULE MP400 |        |
| D6316           | 8-719-988-61          | DIODE 1SS355TE-17             |        | PS6304          | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6317           | 8-719-988-61          | DIODE 1SS355TE-17             |        | PS6305          | 1-535-143-61         | LEAD, JUMPER (5.0MM)    |        |
| D6318           | 8-719-921-88          | DIODE MTZJ-13B                |        | PS6306 $\Delta$ | 1-801-550-21         | PROTECTOR, MODULE MP250 |        |
| D6319           | 8-719-083-60          | DIODE UDS-TE-174.7B           |        | PS6307 $\Delta$ | 1-801-550-21         | PROTECTOR, MODULE MP250 |        |
| D6320           | 8-719-083-60          | DIODE UDS-TE-174.7B           |        | PS6310 $\Delta$ | 1-801-550-21         | PROTECTOR, MODULE MP250 |        |
| D6323           | 8-719-032-12          | DIODE D1NS6                   |        | PS6311 $\Delta$ | 1-801-550-21         | PROTECTOR, MODULE MP250 |        |
|                 | < FUSE >              |                               |        |                 | < TRANSISTOR >       |                         |        |
| F6001 $\Delta$  | 1-576-232-11          | FUSE (H.B.C.) 5A/250V (F6001) |        | Q6004           | 8-729-140-93         | TRANSISTOR 2SB733-34    |        |
|                 | $\Delta$ 1-533-725-11 | HOLDER, FUSE                  |        | Q6100           | 8-729-046-40         | TRANSISTOR 2SK2663      |        |
|                 | < FERRITE BEAD >      |                               |        | Q6102           | 8-729-023-22         | TRANSISTOR 2SD2114K     |        |
| FB6002          | 1-412-911-11          | FERRITE 0UH                   |        | Q6300           | 8-729-023-22         | TRANSISTOR 2SD2114K     |        |
| FB6103 $\Delta$ | 1-412-911-11          | FERRITE 0UH                   |        | Q6301           | 8-729-120-28         | TRANSISTOR 2SC1623-L5L6 |        |
| FB6301          | 1-412-911-11          | FERRITE 0UH                   |        |                 |                      |                         |        |
| FB6302          | 1-412-911-11          | FERRITE 0UH                   |        |                 |                      |                         |        |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

**G**

**A**

| REF.NO.        | PART.NO      | DESCRIPTION                 | REMARK |
|----------------|--------------|-----------------------------|--------|
| Q6302          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
| Q6303          | 8-729-820-82 | TRANSISTOR 2SA1208-S        |        |
| Q6304          | 8-729-026-39 | TRANSISTOR 2SA933AS-QT      |        |
| < RESISTOR >   |              |                             |        |
| R6000          | 1-260-131-11 | CARBON 470K 5%              | 1/2W   |
| R6001          | 1-260-131-11 | CARBON 470K 5%              | 1/2W   |
| R6002          | 1-216-057-00 | RES-CHIP 2.2K 5%            | 1/10W  |
| R6003 $\Delta$ | 1-219-759-11 | CARBON 1M 5%                | 1/2W   |
| R6026 $\Delta$ | 1-218-265-11 | METAL 8.2M 5%               | 1W     |
| R6035 $\Delta$ | 1-205-998-11 | CEMENTED 1 5%               | 10W    |
| R6043          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |
| R6049 $\Delta$ | 1-205-998-11 | CEMENTED 1 5%               | 10W    |
| R6052          | 1-249-417-11 | CARBON 1K 5%                | 1/4W   |
| R6053          | 1-216-660-11 | METAL CHIP 2.4K 0.5%        | 1/10W  |
| R6054          | 1-208-774-11 | METAL CHIP 470 0.5%         | 1/10W  |
| R6055          | 1-208-803-11 | METAL CHIP 7.5K 0.5%        | 1/10W  |
| R6056          | 1-217-625-00 | METAL 0.05 10%              | 2W     |
| R6057          | 1-215-477-00 | METAL 220K 1%               | 1/4W   |
| R6058          | 1-215-477-00 | METAL 220K 1%               | 1/4W   |
| R6059          | 1-215-477-00 | METAL 220K 1%               | 1/4W   |
| R6060          | 1-219-512-11 | CARBON 2.2M 5%              | 1/2W   |
| R6061 $\Delta$ | 1-220-886-11 | FUSIBLE 0.1 10%             | 1W     |
| R6062          | 1-216-665-11 | METAL CHIP 3.9K 0.5%        | 1/10W  |
| R6065          | 1-219-512-11 | CARBON 2.2M 5%              | 1/2W   |
| R6067          | 1-249-397-11 | CARBON 22 5%                | 1/4W   |
| R6068 $\Delta$ | 1-205-998-11 | CEMENTED 1 5%               | 10W    |
| R6069 $\Delta$ | 1-205-998-11 | CEMENTED 1 5%               | 10W    |
| R6072          | 1-249-417-11 | CARBON 1K 5%                | 1/4W   |
| R6074          | 1-535-143-71 | LEAD, JUMPER (7.5MM)        |        |
| R6075          | 1-535-143-71 | LEAD, JUMPER (7.5MM)        |        |
| R6076          | 1-249-389-11 | CARBON 4.7 5%               | 1/4W   |
| R6079          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |
| R6100          | 1-260-298-51 | CARBON 3.3 5%               | 1/2W   |
| R6101          | 1-216-045-00 | RES-CHIP 680 5%             | 1/10W  |
| R6102          | 1-249-389-11 | CARBON 4.7 5%               | 1/4W   |
| R6103          | 1-216-009-91 | RES-CHIP 22 5%              | 1/10W  |
| R6104          | 1-240-205-11 | CARBON 22M 5%               | 1/2W   |
| R6105          | 1-216-097-11 | RES-CHIP 100K 5%            | 1/10W  |
| R6106          | 1-216-057-00 | RES-CHIP 2.2K 5%            | 1/10W  |
| R6107          | 1-216-089-91 | RES-CHIP 47K 5%             | 1/10W  |
| R6108          | 1-215-493-00 | METAL 1M 1%                 | 1/4W   |
| R6109          | 1-216-041-00 | RES-CHIP 470 5%             | 1/10W  |
| R6300          | 1-216-065-91 | RES-CHIP 4.7K 5%            | 1/10W  |
| R6301          | 1-249-413-11 | CARBON 470 5%               | 1/4W   |
| R6302          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |
| R6304          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |
| R6305          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |
| R6306          | 1-216-041-00 | RES-CHIP 470 5%             | 1/10W  |
| R6307          | 1-216-073-91 | RES-CHIP 10K 5%             | 1/10W  |

| REF.NO. | PART.NO      | DESCRIPTION          | REMARK |
|---------|--------------|----------------------|--------|
| R6308   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |
| R6309   | 1-249-417-11 | CARBON 1K 5%         | 1/4W   |
| R6310   | 1-216-065-91 | RES-CHIP 4.7K 5%     | 1/10W  |
| R6311   | 1-215-477-00 | METAL 220K 1%        | 1/4W   |
| R6312   | 1-249-417-11 | CARBON 1K 5%         | 1/4W   |
| R6313   | 1-216-097-11 | RES-CHIP 100K 5%     | 1/10W  |
| R6314   | 1-216-385-11 | METAL OXIDE 0.47 5%  | 3W     |
| R6316   | 1-215-477-00 | METAL 220K 1%        | 1/4W   |
| R6317   | 1-249-417-11 | CARBON 1K 5%         | 1/4W   |
| R6318   | 1-215-453-00 | METAL 22K 1%         | 1/4W   |
| R6319   | 1-215-476-00 | METAL 200K 1%        | 1/4W   |
| R6320   | 1-208-806-11 | METAL CHIP 10K 0.5%  | 1/10W  |
| R6321   | 1-208-822-11 | METAL CHIP 47K 0.5%  | 1/10W  |
| R6322   | 1-216-057-00 | RES-CHIP 2.2K 5%     | 1/10W  |
| R6323   | 1-216-041-00 | RES-CHIP 470 5%      | 1/10W  |
| R6324   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |
| R6325   | 1-208-819-11 | METAL CHIP 36K 0.5%  | 1/10W  |
| R6326   | 1-208-798-11 | METAL CHIP 4.7K 0.5% | 1/10W  |
| R6327   | 1-208-782-11 | METAL CHIP 1K 0.5%   | 1/10W  |
| R6328   | 1-215-906-11 | METAL OXIDE 15 5%    | 3W     |
| R6329   | 1-208-807-11 | METAL CHIP 11K 0.5%  | 1/10W  |
| R6333   | 1-208-806-11 | METAL CHIP 10K 0.5%  | 1/10W  |
| R6334   | 1-216-041-00 | RES-CHIP 470 5%      | 1/10W  |
| R6335   | 1-216-071-00 | RES-CHIP 8.2K 5%     | 1/10W  |
| R6336   | 1-208-802-11 | METAL CHIP 6.8K 0.5% | 1/10W  |

< RELAY >

RY6000  $\Delta$  1-755-352-11 RELAY, AC POWER

< TRANSFORMER >

T6001  $\Delta$  1-424-436-11 TRANSFORMER, LINE FILTER  
T6002  $\Delta$  1-424-436-11 TRANSFORMER, LINE FILTER  
T6003 1-431-445-11 TRANSFORMER, CONVERTER (PFT)  
T6004  $\Delta$  1-435-443-11 TRANSFORMER, CONVERTER (PIT)  
T6005  $\Delta$  1-435-445-11 TRANSFORMER, CONVERTER (PIT)

T6100  $\Delta$  1-433-844-11 TRANSFORMER, CONVERTER

< THERMISTOR >

TH6100 1-803-586-41 THERMISTOR

< VARISTOR >

VD6001  $\Delta$  1-803-830-11 VARISTOR (ERZV14D621)

**\* A-1300-467-A A Board, Complete**

4-382-854-01 SCREW (M3X8), P, SW (+)

< CAPACITOR >

C1001 1-126-935-11 ELECT 470UF 20.0% 16V

| REF.NO. | PART.NO      | DESCRIPTION           | REMARK     | REF.NO. | PART.NO      | DESCRIPTION           | REMARK     |
|---------|--------------|-----------------------|------------|---------|--------------|-----------------------|------------|
| C1002   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V | C2042   | 1-163-249-11 | CERAMIC CHIP 82PF     | 5.00% 50V  |
| C1004   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2043   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V |
| C1006   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2044   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V |
| C1008   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2046   | 1-162-923-11 | CERAMIC CHIP 47PF     | 5.00% 50V  |
| C1009   | 1-162-925-11 | CERAMIC CHIP 68PF     | 5.00% 50V  | C2047   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V  |
| C1010   | 1-162-925-11 | CERAMIC CHIP 68PF     | 5.00% 50V  | C2048   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C1011   | 1-163-253-11 | CERAMIC CHIP 120PF    | 5.00% 50V  | C2049   | 1-162-925-11 | CERAMIC CHIP 68PF     | 5.00% 50V  |
| C1012   | 1-163-245-11 | CERAMIC CHIP 56PF     | 5.00% 50V  | C2050   | 1-107-823-11 | CERAMIC CHIP 0.47UF   | 10.00% 16V |
| C1014   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2051   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V |
| C1015   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2052   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C1016   | 1-162-915-11 | CERAMIC CHIP 10PF     | 0.50PF 50V | C2053   | 1-164-227-11 | CERAMIC CHIP 0.022UF  | 10.00% 25V |
| C1017   | 1-163-247-91 | CERAMIC CHIP 68PF     | 5.00% 50V  | C2054   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C1018   | 1-115-340-11 | CERAMIC CHIP 0.22UF   | 10.00% 25V | C2055   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V |
| C1020   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V | C2057   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V |
| C1021   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V | C2058   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C1022   | 1-216-295-91 | SHORT CHIP 0          |            | C2059   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V |
| C1025   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2060   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C1026   | 1-107-826-11 | CERAMIC CHIP 0.1UF    | 10.00% 16V | C2061   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V |
| C2000   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V | C2062   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        |
| C2001   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V | C2063   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        |
| C2006   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2064   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V |
| C2007   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2065   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C2008   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V | C2066   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C2009   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2073   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V |
| C2010   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V | C2074   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V |
| C2011   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2075   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V |
| C2012   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2077   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V |
| C2013   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2078   | 1-126-963-11 | ELECT 4.7UF           | 20.00% 50V |
| C2014   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2079   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C2015   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | C2080   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V  |
| C2016   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2081   | 1-163-139-00 | CERAMIC CHIP 820PF    | 5.00% 50V  |
| C2017   | 1-163-009-91 | CERAMIC CHIP 0.001UF  | 10.00% 50V | C2082   | 1-163-249-11 | CERAMIC CHIP 82PF     | 5.00% 50V  |
| C2018   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2083   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V |
| C2019   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2084   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V |
| C2020   | 1-163-009-91 | CERAMIC CHIP 0.001UF  | 10.00% 50V | C2085   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V |
| C2021   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2086   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V |
| C2022   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V | C2087   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V |
| C2023   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V | C2088   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V |
| C2024   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2089   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V |
| C2026   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2090   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2027   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V | C2091   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2028   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V | C2092   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2029   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2093   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2031   | 1-162-962-11 | CERAMIC CHIP 470PF    | 10.00% 50V | C2094   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2034   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2095   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C2035   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        | C2096   | 1-162-970-11 | CERAMIC CHIP 0.01UF   | 10.00% 25V |
| C2038   | 1-162-970-11 | CERAMIC CHIP 0.01UF   | 10.00% 25V | C2500   | 1-126-952-11 | ELECT 1000UF          | 20.00% 35V |
| C2039   | 1-162-906-11 | CERAMIC CHIP 1.5PF    | 0.25PF 50V | C2501   | 1-126-952-11 | ELECT 1000UF          | 20.00% 35V |
| C2040   | 1-162-964-11 | CERAMIC CHIP 0.001UF  | 10.00% 50V | C2502   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C2041   | 1-162-906-11 | CERAMIC CHIP 1.5PF    | 0.25PF 50V | C2503   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |

| REF.NO. | PART.NO      | DESCRIPTION          | REMARK     | REF.NO. | PART.NO      | DESCRIPTION           | REMARK     |
|---------|--------------|----------------------|------------|---------|--------------|-----------------------|------------|
| C2504   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C3245   | 1-163-251-11 | CERAMIC CHIP 100PF    | 5.00% 50V  |
| C2505   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V | C3250   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V |
| C2506   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V | C3300   | 1-163-251-11 | CERAMIC CHIP 100PF    | 5.00% 50V  |
| C2507   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C3309   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V |
| C2508   | 1-126-959-11 | ELECT 0.47UF         | 20.00% 50V | C3310   | 1-164-222-91 | CERAMIC CHIP 0.22UF   | 25V        |
| C2509   | 1-107-826-11 | CERAMIC CHIP 0.1UF   | 10.00% 16V | C5801   | 1-126-963-11 | ELECT 4.7UF           | 20.00% 50V |
| C2510   | 1-164-004-11 | CERAMIC CHIP 0.1UF   | 10.00% 25V | C5802   | 1-164-161-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C2511   | 1-164-004-11 | CERAMIC CHIP 0.1UF   | 10.00% 25V | C5850   | 1-126-963-11 | ELECT 4.7UF           | 20.00% 50V |
| C2512   | 1-163-021-91 | CERAMIC CHIP 0.01UF  | 10.00% 50V | C5851   | 1-107-826-11 | CERAMIC CHIP 0.1UF    | 10.00% 16V |
| C2513   | 1-163-021-91 | CERAMIC CHIP 0.01UF  | 10.00% 50V | C5854   | 1-107-826-11 | CERAMIC CHIP 0.1UF    | 10.00% 16V |
| C2516   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5859   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V |
| C3200   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C5868   | 1-115-412-11 | CERAMIC CHIP 680PF    | 5.00% 25V  |
| C3202   | 1-104-666-11 | ELECT 220UF          | 20.00% 25V | C5873   | 1-163-251-11 | CERAMIC CHIP 100PF    | 5.00% 50V  |
| C3203   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C5888   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        |
| C3206   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C5890   | 1-164-227-11 | CERAMIC CHIP 0.022UF  | 10.00% 25V |
| C3208   | 1-163-235-11 | CERAMIC CHIP 22PF    | 5.00% 50V  | C5891   | 1-137-581-11 | FILM 0.1UF            | 5.00% 100V |
| C3209   | 1-163-235-11 | CERAMIC CHIP 22PF    | 5.00% 50V  | C5892   | 1-107-826-11 | CERAMIC CHIP 0.1UF    | 10.00% 16V |
| C3210   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C5893   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C3211   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C5894   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C3213   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5895   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        |
| C3214   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5896   | 1-164-346-11 | CERAMIC CHIP 1UF      | 16V        |
| C3215   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5897   | 1-162-970-11 | CERAMIC CHIP 0.01UF   | 10.00% 25V |
| C3216   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5898   | 1-164-161-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |
| C3217   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C5899   | 1-107-823-11 | CERAMIC CHIP 0.47UF   | 10.00% 16V |
| C3218   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6200   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3219   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6201   | 1-126-935-11 | ELECT 470UF           | 20.00% 16V |
| C3220   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6202   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3221   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6203   | 1-126-935-11 | ELECT 470UF           | 20.00% 16V |
| C3222   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6204   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3223   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6205   | 1-126-935-11 | ELECT 470UF           | 20.00% 16V |
| C3224   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6206   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3225   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6207   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3226   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6208   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3227   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C6209   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3228   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C6210   | 1-126-935-11 | ELECT 470UF           | 20.00% 16V |
| C3229   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C6213   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| C3230   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C7001   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V |
| C3231   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C7002   | 1-164-222-91 | CERAMIC CHIP 0.22UF   | 25V        |
| C3232   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C7016   | 1-107-823-11 | CERAMIC CHIP 0.47UF   | 10.00% 16V |
| C3233   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C7018   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3234   | 1-164-489-11 | CERAMIC CHIP 0.22UF  | 10.00% 16V | C7019   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3235   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7020   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3236   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7021   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3237   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7022   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3238   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7023   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3239   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7030   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3240   | 1-165-176-11 | CERAMIC CHIP 0.047UF | 10.00% 16V | C7031   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3241   | 1-126-933-11 | ELECT 100UF          | 20.00% 16V | C7032   | 1-164-004-11 | CERAMIC CHIP 0.1UF    | 10.00% 25V |
| C3242   | 1-162-970-11 | CERAMIC CHIP 0.01UF  | 10.00% 25V | C7038   | 1-107-823-11 | CERAMIC CHIP 0.47UF   | 10.00% 16V |
| C3243   | 1-164-222-91 | CERAMIC CHIP 0.22UF  | 25V        | C7039   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V |

| REF.NO.       | PART.NO       | DESCRIPTION                     | REMARK     | REF.NO. | PART.NO      | DESCRIPTION         | REMARK |
|---------------|---------------|---------------------------------|------------|---------|--------------|---------------------|--------|
| C7050         | 1-162-927-11  | CERAMIC CHIP 100PF              | 5.00% 50V  | D0111   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7051         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D0112   | 8-719-921-88 | DIODE MTZJ-13B      |        |
| C7052         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D0113   | 8-719-921-88 | DIODE MTZJ-13B      |        |
| C7053         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D1006   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| C7054         | 1-126-963-11  | ELECT 4.7UF                     | 20.00% 50V | D2001   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7055         | 1-164-222-91  | CERAMIC CHIP 0.22UF             | 25V        | D2002   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7056         | 1-126-933-11  | ELECT 100UF                     | 20.00% 16V | D2003   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7057         | 1-164-222-91  | CERAMIC CHIP 0.22UF             | 25V        | D2004   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7058         | 1-126-933-11  | ELECT 100UF                     | 20.00% 16V | D2005   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7059         | 1-126-933-11  | ELECT 100UF                     | 20.00% 16V | D2006   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7060         | 1-164-222-91  | CERAMIC CHIP 0.22UF             | 25V        | D2007   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7061         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2008   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7062         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2009   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7063         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2010   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7064         | 1-126-947-11  | ELECT 47UF                      | 20.00% 35V | D2011   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7065         | 1-164-222-91  | CERAMIC CHIP 0.22UF             | 25V        | D2012   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7067         | 1-126-947-11  | ELECT 47UF                      | 20.00% 35V | D2014   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7068         | 1-164-222-91  | CERAMIC CHIP 0.22UF             | 25V        | D2015   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7100         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2016   | 8-719-050-38 | DIODE M1MA152WK-T1  |        |
| C7101         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2017   | 8-719-069-60 | DIODE UDZSTE-179.1B |        |
| C7102         | 1-126-933-11  | ELECT 100UF                     | 20.00% 16V | D2018   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7103         | 1-164-004-11  | CERAMIC CHIP 0.1UF              | 10.00% 25V | D2019   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| C7104         | 1-126-964-11  | ELECT 10UF                      | 20.00% 50V | D2021   | 8-719-069-60 | DIODE UDZSTE-179.1B |        |
| C7105         | 1-126-933-11  | ELECT 100UF                     | 20.00% 16V | D2022   | 8-719-069-60 | DIODE UDZSTE-179.1B |        |
| < CONNECTOR > |               |                                 |            | D2500   | 8-719-050-38 | DIODE M1MA152WK-T1  |        |
| CN0101        | 1-823-330-11  | CONNECTOR, BOARD TO BOARD 40P   |            | D3001   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN0102        | *1-564-520-11 | PLUG, CONNECTOR 5P              |            | D3003   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN0103        | *1-564-507-11 | PLUG, CONNECTOR 4P              |            | D3005   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN1000        | 1-785-095-11  | CONNECTOR (SQUARE TYPE) 21P     |            | D3007   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN1001        | 1-766-296-21  | CONNECTOR, DUAL SCART           |            | D3008   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN1501        | 1-785-802-11  | PIN, CONNECTOR(WITH PWB)20P     |            | D3009   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN1502        | 1-785-802-11  | PIN, CONNECTOR(WITH PWB)20P     |            | D3011   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN2000        | *1-564-512-11 | PLUG, CONNECTOR 9P              |            | D3013   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN2501        | *1-564-507-11 | PLUG, CONNECTOR 4P              |            | D3015   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN2502        | *1-564-509-11 | PLUG, CONNECTOR 6P              |            | D3017   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN2503        | 1-508-765-00  | PIN, CONNECTOR (5MM PITCH) 3P   |            | D3018   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN5801        | *1-564-508-11 | PLUG, CONNECTOR 5P              |            | D3019   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN6200        | *1-564-508-11 | PLUG, CONNECTOR 5P              |            | D3021   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN6201        | *1-564-511-11 | PLUG, CONNECTOR 8P              |            | D3023   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN6202        | 1-764-333-11  | PIN, CONNECTOR(PCB) (V TYPE)10P |            | D3024   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN6203        | 1-695-915-11  | TAB (CONTACT)                   |            | D3026   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN6204        | 1-695-915-11  | TAB (CONTACT)                   |            | D3028   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| CN7001        | *1-564-512-11 | PLUG, CONNECTOR 9P              |            | D3201   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| CN7002        | *1-564-507-11 | PLUG, CONNECTOR 4P              |            | D5804   | 8-719-109-89 | DIODE RD5.6ESB2     |        |
| < DIODE >     |               |                                 |            | D5807   | 8-719-929-15 | DIODE HZS9.1NB2     |        |
| D0101         | 8-719-921-88  | DIODE MTZJ-13B                  |            | D5809   | 8-719-050-38 | DIODE M1MA152WK-T1  |        |
| D0104         | 8-719-109-89  | DIODE RD5.6ESB2                 |            | D5811   | 8-719-081-97 | DIODE MMDL914T1     |        |
| D0110         | 8-719-109-89  | DIODE RD5.6ESB2                 |            | D5812   | 8-719-081-97 | DIODE MMDL914T1     |        |
|               |               |                                 |            | D5813   | 8-719-081-97 | DIODE MMDL914T1     |        |
|               |               |                                 |            | D6200   | 8-719-063-73 | DIODE D1NL20U-TR    |        |



| REF.NO. | PART.NO          | DESCRIPTION         | REMARK         | REF.NO. | PART.NO        | DESCRIPTION | REMARK      |
|---------|------------------|---------------------|----------------|---------|----------------|-------------|-------------|
| D7004   | 8-719-929-15     | DIODE HZS9.1NB2     |                | L3009   | 1-216-295-91   | SHORT CHIP  | 0           |
| D7006   | 1-208-758-11     | METAL CHIP          | 100 0.5% 1/10W | L3010   | 1-216-295-91   | SHORT CHIP  | 0           |
|         | < FERRITE BEAD > |                     |                | L3011   | 1-216-295-91   | SHORT CHIP  | 0           |
| FB3001  | 1-414-760-21     | FERRITE             | 0UH            | L3012   | 1-216-295-91   | SHORT CHIP  | 0           |
| FB7001  | 1-216-295-91     | SHORT CHIP          | 0              | L3200   | 1-412-006-31   | INDUCTOR    | 10UH        |
| FB7002  | 1-216-295-91     | SHORT CHIP          | 0              | L3202   | 1-412-006-31   | INDUCTOR    | 10UH        |
| FB7003  | 1-216-295-91     | SHORT CHIP          | 0              | L3203   | 1-412-006-31   | INDUCTOR    | 10UH        |
|         | < FILTER >       |                     |                | L3206   | 1-412-006-31   | INDUCTOR    | 10UH        |
| FL2000  | 1-239-803-11     | FILTER, EMI         |                | L3208   | 1-412-006-31   | INDUCTOR    | 10UH        |
|         | < IC >           |                     |                | L3300   | 1-412-006-31   | INDUCTOR    | 10UH        |
| IC2000  | 6-701-031-01     | IC MSP3411G-QA-B10  |                | L5896   | 1-216-864-11   | SHORT CHIP  | 0           |
| IC2001  | 8-759-100-96     | IC UPC4558G2        |                | L5897   | 1-216-864-11   | SHORT CHIP  | 0           |
| IC2500  | 8-759-190-89     | IC TDA7265          |                | L5898   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC3200  | 6-702-458-01     | IC VSP9407B-B11-GEG |                | L5899   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC6200  | 8-759-648-19     | IC L7809CV/LSY      |                | L7001   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC6201  | 8-759-648-20     | IC L7805CV/LSY      |                | L7009   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC6202  | 8-759-445-59     | IC BA033T           |                | L7010   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC6203  | 8-759-098-24     | IC PQ30RV11         |                | L7011   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC6207  | 8-759-445-59     | IC BA033T           |                | L7012   | 1-414-934-21   | INDUCTOR    | 10UH        |
| IC7002  | 8-752-090-88     | IC CXA2100AQ-TL     |                | L7101   | 1-414-934-21   | INDUCTOR    | 10UH        |
|         | < SOCKET >       |                     |                | L7102   | 1-414-934-21   | INDUCTOR    | 10UH        |
| J2000   | 1-784-632-11     | JACK, PIN 2P        |                |         | < TRANSISTOR > |             |             |
|         | < COIL >         |                     |                | Q1000   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L1000   | 1-412-987-31     | INDUCTOR            | 4.7UH          | Q1001   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L1001   | 1-412-987-31     | INDUCTOR            | 4.7UH          | Q1002   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L1002   | 1-414-934-21     | INDUCTOR            | 10UH           | Q1003   | 8-729-900-53   | TRANSISTOR  | DTC114EK    |
| L1003   | 1-414-934-21     | INDUCTOR            | 10UH           | Q1004   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L1004   | 1-412-751-11     | INDUCTOR            | 18UH           | Q1005   | 8-729-421-19   | TRANSISTOR  | UN2213      |
| L1005   | 1-414-934-21     | INDUCTOR            | 10UH           | Q1006   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L2000   | 1-414-934-21     | INDUCTOR            | 10UH           | Q2000   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2001   | 1-414-934-21     | INDUCTOR            | 10UH           | Q2001   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2007   | 1-408-602-31     | INDUCTOR            | 8.2UH          | Q2002   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2008   | 1-216-295-91     | SHORT CHIP          | 0              | Q2003   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2009   | 1-216-295-91     | SHORT CHIP          | 0              | Q2004   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2010   | 1-414-928-21     | INDUCTOR            | 1UH            | Q2005   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2012   | 1-414-934-21     | INDUCTOR            | 10UH           | Q2009   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L2013   | 1-414-928-21     | INDUCTOR            | 1UH            | Q2010   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L2014   | 1-408-602-31     | INDUCTOR            | 8.2UH          | Q2011   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L3000   | 1-216-295-91     | SHORT CHIP          | 0              | Q2500   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L3004   | 1-216-295-91     | SHORT CHIP          | 0              | Q2501   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L3005   | 1-216-295-91     | SHORT CHIP          | 0              | Q2504   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
| L3006   | 1-216-295-91     | SHORT CHIP          | 0              | Q3200   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L3007   | 1-216-295-91     | SHORT CHIP          | 0              | Q3201   | 8-729-010-29   | TRANSISTOR  | MSD601-RST1 |
| L3008   | 1-216-295-91     | SHORT CHIP          | 0              | Q3202   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
|         |                  |                     |                | Q3204   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
|         |                  |                     |                | Q3300   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
|         |                  |                     |                | Q3301   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |
|         |                  |                     |                | Q3302   | 8-729-010-05   | TRANSISTOR  | MSB709-RT1  |



| REF.NO.      | PART.NO      | DESCRIPTION               | REMARK        | REF.NO. | PART.NO      | DESCRIPTION | REMARK        |
|--------------|--------------|---------------------------|---------------|---------|--------------|-------------|---------------|
| Q3500        | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) |               | R1019   | 1-216-295-91 | SHORT CHIP  | 0             |
| Q3501        | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) |               | R1020   | 1-216-295-91 | SHORT CHIP  | 0             |
| Q5801        | 8-729-421-19 | TRANSISTOR UN2213         |               | R1021   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W  |
| Q5803        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R1022   | 1-216-839-11 | RES-CHIP    | 33K 5% 1/10W  |
| Q5804        | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               | R1023   | 1-216-849-11 | RES-CHIP    | 220K 5% 1/10W |
| Q5814        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R1024   | 1-216-839-11 | RES-CHIP    | 33K 5% 1/10W  |
| Q5815        | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               | R1025   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  |
| Q5816        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R1026   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W  |
| Q7011        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2009   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W  |
| Q7012        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2010   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W  |
| Q7014        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2011   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   |
| Q7015        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2013   | 1-216-832-11 | RES-CHIP    | 8.2K 5% 1/10W |
| Q7017        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2014   | 1-216-826-11 | RES-CHIP    | 2.7K 5% 1/10W |
| Q7018        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2015   | 1-216-295-91 | SHORT CHIP  | 0             |
| Q7021        | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               | R2016   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  |
| Q7100        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2017   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| Q7101        | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               | R2018   | 1-216-295-91 | SHORT CHIP  | 0             |
| Q7102        | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               | R2019   | 1-216-864-11 | SHORT CHIP  | 0             |
| Q7103        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2020   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| Q7104        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2021   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   |
| Q7105        | 8-729-010-05 | TRANSISTOR MSB709-RT1     |               | R2022   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   |
| < RESISTOR > |              |                           |               | R2023   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| JR121        | 1-216-864-11 | SHORT CHIP                | 0             | R2024   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W  |
| JR123        | 1-216-864-11 | SHORT CHIP                | 0             | R2025   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   |
| JR2000       | 1-216-295-91 | SHORT CHIP                | 0             | R2026   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R0101        | 1-216-833-11 | RES-CHIP                  | 10K 5% 1/10W  | R2027   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   |
| R0102        | 1-216-827-11 | RES-CHIP                  | 3.3K 5% 1/10W | R2028   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W  |
| R0103        | 1-216-073-91 | RES-CHIP                  | 10K 5% 1/10W  | R2029   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R0104        | 1-216-827-11 | RES-CHIP                  | 3.3K 5% 1/10W | R2032   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R0105        | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  | R2035   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R0107        | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  | R2038   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R1000        | 1-216-049-11 | RES-CHIP                  | 1K 5% 1/10W   | R2041   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R1001        | 1-216-001-00 | RES-CHIP                  | 10 5% 1/10W   | R2042   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |
| R1002        | 1-216-821-11 | RES-CHIP                  | 1K 5% 1/10W   | R2043   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |
| R1003        | 1-216-809-11 | RES-CHIP                  | 100 5% 1/10W  | R2044   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R1004        | 1-216-809-11 | RES-CHIP                  | 100 5% 1/10W  | R2047   | 1-216-853-11 | RES-CHIP    | 470K 5% 1/10W |
| R1005        | 1-216-049-11 | RES-CHIP                  | 1K 5% 1/10W   | R2048   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  |
| R1006        | 1-216-051-00 | RES-CHIP                  | 1.2K 5% 1/10W | R2050   | 1-216-845-11 | RES-CHIP    | 100K 5% 1/10W |
| R1007        | 1-414-813-11 | FERRITE                   | 0UH           | R2051   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   |
| R1008        | 1-216-295-91 | SHORT CHIP                | 0             | R2052   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  |
| R1009        | 1-216-295-91 | SHORT CHIP                | 0             | R2053   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W  |
| R1010        | 1-216-295-91 | SHORT CHIP                | 0             | R2054   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   |
| R1011        | 1-216-815-11 | RES-CHIP                  | 330 5% 1/10W  | R2055   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   |
| R1012        | 1-216-815-11 | RES-CHIP                  | 330 5% 1/10W  | R2056   | 1-216-037-00 | RES-CHIP    | 330 5% 1/10W  |
| R1015        | 1-216-817-11 | RES-CHIP                  | 470 5% 1/10W  | R2057   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R1016        | 1-216-809-11 | RES-CHIP                  | 100 5% 1/10W  | R2058   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R1017        | 1-216-822-11 | RES-CHIP                  | 1.2K 5% 1/10W | R2059   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |
| R1018        | 1-216-825-11 | RES-CHIP                  | 2.2K 5% 1/10W | R2060   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |
|              |              |                           |               | R2061   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |
|              |              |                           |               | R2062   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       | REF.NO. | PART.NO      | DESCRIPTION | REMARK |    |       |
|---------|--------------|-------------|--------|------|-------|---------|--------------|-------------|--------|----|-------|
| R2063   | 1-216-829-11 | RES-CHIP    | 4.7K   | 5%   | 1/10W | R2518   | 1-216-864-11 | SHORT CHIP  | 0      |    |       |
| R2064   | 1-249-425-11 | CARBON      | 4.7K   | 5%   | 1/4W  | R2519   | 1-216-073-91 | RES-CHIP    | 10K    | 5% | 1/10W |
| R2065   | 1-216-837-11 | RES-CHIP    | 22K    | 5%   | 1/10W | R2520   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2066   | 1-216-829-11 | RES-CHIP    | 4.7K   | 5%   | 1/10W | R2521   | 1-216-826-11 | RES-CHIP    | 2.7K   | 5% | 1/10W |
| R2067   | 1-216-829-11 | RES-CHIP    | 4.7K   | 5%   | 1/10W | R2522   | 1-216-841-11 | RES-CHIP    | 47K    | 5% | 1/10W |
| R2068   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R2523   | 1-216-843-11 | RES-CHIP    | 68K    | 5% | 1/10W |
| R2069   | 1-216-837-11 | RES-CHIP    | 22K    | 5%   | 1/10W | R2912   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2070   | 1-216-833-11 | RES-CHIP    | 10K    | 5%   | 1/10W | R2914   | 1-216-853-11 | RES-CHIP    | 470K   | 5% | 1/10W |
| R2071   | 1-216-839-11 | RES-CHIP    | 33K    | 5%   | 1/10W | R2921   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2072   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R2924   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2073   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R2927   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2074   | 1-216-837-11 | RES-CHIP    | 22K    | 5%   | 1/10W | R2930   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2075   | 1-216-833-11 | RES-CHIP    | 10K    | 5%   | 1/10W | R2933   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2076   | 1-216-839-11 | RES-CHIP    | 33K    | 5%   | 1/10W | R2936   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2077   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R2939   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2078   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R2942   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2079   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R2945   | 1-216-295-91 | SHORT CHIP  | 0      |    |       |
| R2080   | 1-218-867-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W | R3000   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2081   | 1-216-833-11 | RES-CHIP    | 10K    | 5%   | 1/10W | R3001   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2082   | 1-216-031-00 | RES-CHIP    | 180    | 5%   | 1/10W | R3009   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2083   | 1-216-817-11 | RES-CHIP    | 470    | 5%   | 1/10W | R3010   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2084   | 1-216-842-11 | RES-CHIP    | 56K    | 5%   | 1/10W | R3011   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2085   | 1-216-838-11 | RES-CHIP    | 27K    | 5%   | 1/10W | R3012   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2086   | 1-216-842-11 | RES-CHIP    | 56K    | 5%   | 1/10W | R3013   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2087   | 1-216-838-11 | RES-CHIP    | 27K    | 5%   | 1/10W | R3014   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2088   | 1-216-819-11 | RES-CHIP    | 680    | 5%   | 1/10W | R3015   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2089   | 1-216-819-11 | RES-CHIP    | 680    | 5%   | 1/10W | R3016   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2092   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3017   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2093   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3018   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2094   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3019   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2095   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3020   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2096   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3021   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2097   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3022   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2098   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3023   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2099   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3024   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2502   | 1-216-809-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3025   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2503   | 1-216-089-91 | RES-CHIP    | 47K    | 5%   | 1/10W | R3026   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2504   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3027   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2505   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W | R3028   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2506   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W | R3029   | 1-216-045-00 | RES-CHIP    | 680    | 5% | 1/10W |
| R2507   | 1-216-089-91 | RES-CHIP    | 47K    | 5%   | 1/10W | R3030   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2508   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3031   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2509   | 1-216-079-00 | RES-CHIP    | 18K    | 5%   | 1/10W | R3032   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2510   | 1-216-079-00 | RES-CHIP    | 18K    | 5%   | 1/10W | R3033   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2511   | 1-216-837-11 | RES-CHIP    | 22K    | 5%   | 1/10W | R3034   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2513   | 1-216-826-11 | RES-CHIP    | 2.7K   | 5%   | 1/10W | R3035   | 1-216-025-11 | RES-CHIP    | 100    | 5% | 1/10W |
| R2514   | 1-216-081-00 | RES-CHIP    | 22K    | 5%   | 1/10W | R3036   | 1-216-022-00 | RES-CHIP    | 75     | 5% | 1/10W |
| R2515   | 1-216-841-11 | RES-CHIP    | 47K    | 5%   | 1/10W | R3037   | 1-216-045-00 | RES-CHIP    | 680    | 5% | 1/10W |
| R2516   | 1-216-357-00 | METAL OXIDE | 4.7    | 5%   | 1W    | R3218   | 1-216-821-11 | RES-CHIP    | 1K     | 5% | 1/10W |
| R2517   | 1-216-357-00 | METAL OXIDE | 4.7    | 5%   | 1W    | R3219   | 1-216-821-11 | RES-CHIP    | 1K     | 5% | 1/10W |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK        | REF.NO. | PART.NO      | DESCRIPTION | REMARK         |
|---------|--------------|-------------|---------------|---------|--------------|-------------|----------------|
| R3220   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  | R5873   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W   |
| R3221   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  | R5875   | 1-216-827-11 | RES-CHIP    | 3.3K 5% 1/10W  |
| R3222   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  | R5879   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R3223   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  | R5881   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R3225   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5885   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R3226   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5887   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R3229   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5888   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R3233   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   | R5889   | 1-208-806-11 | METAL CHIP  | 10K 0.5% 1/10W |
| R3234   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   | R5890   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W   |
| R3235   | 1-216-822-11 | RES-CHIP    | 1.2K 5% 1/10W | R5891   | 1-216-840-11 | RES-CHIP    | 39K 5% 1/10W   |
| R3236   | 1-216-822-11 | RES-CHIP    | 1.2K 5% 1/10W | R5892   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W   |
| R3237   | 1-216-797-11 | RES-CHIP    | 10 5% 1/10W   | R5893   | 1-216-849-11 | RES-CHIP    | 220K 5% 1/10W  |
| R3238   | 1-216-797-11 | RES-CHIP    | 10 5% 1/10W   | R5894   | 1-216-845-11 | RES-CHIP    | 100K 5% 1/10W  |
| R3305   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5895   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W   |
| R3306   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5896   | 1-216-842-11 | RES-CHIP    | 56K 5% 1/10W   |
| R3312   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W | R5897   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W   |
| R3313   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W | R5898   | 1-216-832-11 | RES-CHIP    | 8.2K 5% 1/10W  |
| R3318   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R5899   | 1-216-863-11 | RES-CHIP    | 3.3M 5% 1/10W  |
| R3319   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R6200   | 1-216-635-11 | METAL CHIP  | 220 0.5% 1/10W |
| R3320   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R6201   | 1-216-643-11 | METAL CHIP  | 470 0.5% 1/10W |
| R3321   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W | R7001   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R3403   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W   | R7002   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R3500   | 1-216-834-11 | RES-CHIP    | 12K 5% 1/10W  | R7003   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R3501   | 1-216-834-11 | RES-CHIP    | 12K 5% 1/10W  | R7004   | 1-216-864-11 | SHORT CHIP  | 0              |
| R3504   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W | R7034   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W   |
| R3505   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W | R7035   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W   |
| R3603   | 1-216-295-91 | SHORT CHIP  | 0             | R7048   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W   |
| R5801   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W  | R7051   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W   |
| R5802   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W  | R7052   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W   |
| R5804   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   | R7065   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W    |
| R5805   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   | R7066   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R5806   | 1-216-089-91 | RES-CHIP    | 47K 5% 1/10W  | R7068   | 1-216-681-11 | METAL CHIP  | 18K 0.5% 1/10W |
| R5807   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   | R7070   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R5808   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   | R7071   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R5809   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  | R7072   | 1-216-805-11 | RES-CHIP    | 47 5% 1/10W    |
| R5810   | 1-218-179-11 | RES-CHIP    | 10M 5% 1/10W  | R7082   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W  |
| R5811   | 1-216-125-00 | RES-CHIP    | 1.5M 5% 1/10W | R7087   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W   |
| R5813   | 1-216-864-11 | SHORT CHIP  | 0             | R7088   | 1-216-833-11 | METAL CHIP  | 10K 5% 1/10W   |
| R5814   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W  | R7092   | 1-216-295-91 | SHORT CHIP  | 0              |
| R5816   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R7093   | 1-216-295-91 | SHORT CHIP  | 0              |
| R5817   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  | R7094   | 1-216-295-91 | SHORT CHIP  | 0              |
| R5818   | 1-216-295-91 | SHORT       | 0             | R7095   | 1-216-295-91 | SHORT CHIP  | 0              |
| R5819   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W  | R7096   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W   |
| R5823   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W  | R7097   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W   |
| R5824   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W  | R7098   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W   |
| R5825   | 1-216-835-11 | RES-CHIP    | 15K 5% 1/10W  | R7100   | 1-216-834-11 | RES-CHIP    | 12K 5% 1/10W   |
| R5826   | 1-216-847-11 | RES-CHIP    | 150K 5% 1/10W | R7101   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R5865   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W  | R7103   | 1-216-039-00 | RES-CHIP    | 390 5% 1/10W   |
| R5869   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W  | R7104   | 1-249-409-11 | CARBON      | 220 5% 1/4W    |
| R5872   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  | R7105   | 1-216-037-00 | RES-CHIP    | 330 5% 1/10W   |

| REF.NO.                                  | PART.NO      | DESCRIPTION            | REMARK     | REF.NO.          | PART.NO       | DESCRIPTION                   | REMARK     |
|------------------------------------------|--------------|------------------------|------------|------------------|---------------|-------------------------------|------------|
| R7106                                    | 1-216-821-11 | RES-CHIP 1K 5%         | 1/10W      | C0026            | 1-162-962-11  | CERAMIC CHIP 470PF            | 10.00% 50V |
| R7107                                    | 1-216-047-91 | RES-CHIP 820 5%        | 1/10W      | C0027            | 1-162-962-11  | CERAMIC CHIP 470PF            | 10.00% 50V |
| R7108                                    | 1-216-063-91 | RES-CHIP 3.9K 5%       | 1/10W      | C0028            | 1-126-947-11  | ELECT 47UF                    | 20.00% 35V |
| R7109                                    | 1-249-411-11 | CARBON 330 5%          | 1/4W       | C0029            | 1-165-128-11  | CERAMIC CHIP 0.22UF           | 16V        |
| R7110                                    | 1-216-809-11 | RES-CHIP 100 5%        | 1/10W      | C0030            | 1-165-128-11  | CERAMIC CHIP 0.22UF           | 16V        |
| R7111                                    | 1-216-037-00 | RES-CHIP 330 5%        | 1/10W      | C0031            | 1-165-128-11  | CERAMIC CHIP 0.22UF           | 16V        |
| R7112                                    | 1-216-813-11 | RES-CHIP 220 5%        | 1/10W      | C0032            | 1-165-128-11  | CERAMIC CHIP 0.22UF           | 16V        |
| R7113                                    | 1-216-295-91 | SHORT CHIP 0           |            | C0033            | 1-162-916-11  | CERAMIC CHIP 12PF             | 5.00% 50V  |
| R7114                                    | 1-216-821-11 | RES-CHIP 1K 5%         | 1/10W      | < CONNECTOR >    |               |                               |            |
| R7115                                    | 1-216-813-11 | RES-CHIP 220 5%        | 1/10W      | CN0001           | 1-793-497-11  | CONNECTOR, BOARD TO BOARD 40P |            |
| R7116                                    | 1-216-295-91 | SHORT CHIP 0           |            | CN0002           | *1-564-520-11 | PLUG, CONNECTOR 5P            |            |
| R7117                                    | 1-216-821-11 | RES-CHIP 1K 5%         | 1/10W      | < DIODE >        |               |                               |            |
| R7118                                    | 1-216-813-11 | RES-CHIP 220 5%        | 1/10W      | D0001            | 6-500-079-01  | DIODE BAS40-05E6327           |            |
| R7119                                    | 1-216-295-91 | SHORT CHIP 0           |            | D0301            | 8-719-069-56  | DIODE UDZSTE-176.2B           |            |
| R7120                                    | 1-216-821-11 | RES-CHIP 1K 5%         | 1/10W      | < FERRITE BEAD > |               |                               |            |
| < TUNER >                                |              |                        |            | FB0003           | 1-216-295-91  | SHORT CHIP 0                  |            |
| TU1000                                   | 8-598-535-12 | FRONTEND BTF-EF411     |            | FB0004           | 1-412-006-31  | INDUCTOR 10UH                 |            |
| < CRYSTAL >                              |              |                        |            | FB0005           | 1-216-864-11  | SHORT CHIP 0                  |            |
| X2000                                    | 1-760-628-11 | VIBRATOR, CRYSTAL      |            | FB0006           | 1-216-864-11  | SHORT CHIP 0                  |            |
| X3200                                    | 1-781-946-21 | VIBRATOR, CRYSTAL      |            | FB0007           | 1-216-295-91  | SHORT CHIP 0                  |            |
| X5800                                    | 1-767-127-11 | VIBRATOR, CERAMIC      |            | FB0008           | 1-216-295-91  | SHORT CHIP 0                  |            |
| <b>* A-1400-874-A M2 Board, Complete</b> |              |                        |            |                  |               |                               |            |
|                                          | 1-540-151-21 | SOCKET, IC             |            | FB0009           | 1-412-006-31  | INDUCTOR 10UH                 |            |
| < CAPACITOR >                            |              |                        |            | FB0010           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0001                                    | 1-107-826-11 | CERAMIC CHIP 0.1UF     | 10.00% 16V | FB0011           | 1-412-006-31  | INDUCTOR 10UH                 |            |
| C0002                                    | 1-109-982-11 | CERAMIC CHIP 1UF       | 10.00% 10V | FB0012           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0004                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | FB0015           | 1-216-864-11  | SHORT CHIP 0                  |            |
| C0006                                    | 1-126-947-11 | ELECT 47UF             | 20.00% 35V | FB0016           | 1-216-864-11  | SHORT CHIP 0                  |            |
| C0007                                    | 1-107-826-11 | CERAMIC CHIP 0.1UF     | 10.00% 16V | FB0017           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0008                                    | 1-107-826-11 | CERAMIC CHIP 0.1UF     | 10.00% 16V | FB0018           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0009                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | FB0019           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0010                                    | 1-162-927-11 | CERAMIC CHIP 100PF     | 5.00% 50V  | FB0020           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0011                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | FB0021           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0012                                    | 1-162-924-11 | CERAMIC CHIP 56PF      | 5.00% 50V  | FB0022           | 1-216-295-91  | SHORT CHIP 0                  |            |
| C0013                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | < IC >           |               |                               |            |
| C0015                                    | 1-135-834-91 | CERAMIC CHIP 2.2E+06PF | 6.3V       | IC0001           | 8-759-699-33  | IC M24C16-MN6T (A)            |            |
| C0016                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | IC0002           | 6-702-515-01  | IC SAA5665HL/M1D/0724         |            |
| C0017                                    | 1-162-924-11 | CERAMIC CHIP 56PF      | 5.00% 50V  | IC0003           | 8-759-672-39  | IC PST573IMT                  |            |
| C0019                                    | 1-165-128-11 | CERAMIC CHIP 0.22UF    | 16V        | IC0004           | 8-759-665-11  | IC LM393DT                    |            |
| C0020                                    | 1-162-923-11 | CERAMIC CHIP 47PF      | 5.00% 50V  | IC0005           | 6-702-395-01  | IC K6F2008V2E-YF70T           |            |
| C0021                                    | 1-126-947-11 | ELECT 47UF             | 20.00% 35V | IC0006           | 6-702-497-01  | IC M27W201-80K6TR-6X100       |            |
| C0022                                    | 1-126-947-11 | ELECT 47UF             | 20.00% 35V | IC0007           | 8-759-271-86  | IC TC7SH04FU                  |            |
| C0023                                    | 1-126-947-11 | ELECT 47UF             | 20.00% 35V | IC0008           | 8-759-392-01  | IC TC7SH86FU-TE85R            |            |
| C0024                                    | 1-126-947-11 | ELECT 47UF             | 20.00% 35V | IC0010           | 8-759-523-81  | IC TC74VHC08FT (EL)           |            |
| C0025                                    | 1-162-962-11 | CERAMIC CHIP 470PF     | 10.00% 50V |                  |               |                               |            |

| REF.NO.        | PART.NO      | DESCRIPTION               | REMARK | REF.NO.                           | PART.NO      | DESCRIPTION           | REMARK     |
|----------------|--------------|---------------------------|--------|-----------------------------------|--------------|-----------------------|------------|
| < TRANSISTOR > |              |                           |        | R0053                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| Q0002          | 8-729-424-08 | TRANSISTOR UN2111         |        | R0054                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| Q0006          | 8-729-010-29 | TRANSISTOR MSD601-RST1    |        | R0055                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| Q0007          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |        | R0056                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| Q0008          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |        | R0057                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| Q0009          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |        | R0058                             | 1-216-823-11 | RES-CHIP 1.5K 5%      | 1/10W      |
| Q0010          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |        | R0059                             | 1-216-841-11 | RES-CHIP 47K 5%       | 1/10W      |
| Q0011          | 8-729-010-29 | TRANSISTOR MSD601-RST1    |        | R0060                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| Q0012          | 8-729-424-08 | TRANSISTOR UN2111         |        | R0061                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| Q0013          | 8-729-421-22 | TRANSISTOR UN2211         |        | R0062                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| Q0014          | 8-729-421-19 | TRANSISTOR UN2213         |        | R0063                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| < RESISTOR >   |              |                           |        | R0064                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| JR0002         | 1-216-864-11 | SHORT CHIP 0              |        | R0065                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0001          | 1-216-819-11 | RES-CHIP 680 5%           | 1/10W  | R0066                             | 1-218-871-11 | METAL CHIP 10K 0.5%   | 1/10W      |
| R0002          | 1-216-824-11 | RES-CHIP 1.8K 5%          | 1/10W  | R0067                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0003          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0068                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0011          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0069                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0014          | 1-216-837-11 | RES-CHIP 22K 5%           | 1/10W  | R0070                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0016          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0071                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0017          | 1-216-843-11 | RES-CHIP 68K 5%           | 1/10W  | R0072                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0018          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0073                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0019          | 1-216-073-91 | RES-CHIP 10K 5%           | 1/10W  | R0074                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0020          | 1-216-821-11 | RES-CHIP 1K 5%            | 1/10W  | R0075                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0022          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0076                             | 1-216-821-11 | RES-CHIP 1K 5%        | 1/10W      |
| R0023          | 1-216-845-11 | RES-CHIP 100K 5%          | 1/10W  | R0078                             | 1-216-817-11 | RES-CHIP 470 5%       | 1/10W      |
| R0027          | 1-216-821-11 | RES-CHIP 1K 5%            | 1/10W  | R0079                             | 1-216-829-11 | RES-CHIP 4.7K 5%      | 1/10W      |
| R0028          | 1-216-833-11 | RES-CHIP 10K 5%           | 1/10W  | R0081                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0029          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0082                             | 1-216-864-11 | SHORT CHIP 0          |            |
| R0030          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0083                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0032          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0084                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0033          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0085                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0034          | 1-218-725-11 | METAL CHIP 24K 0.5%       | 1/16W  | R0086                             | 1-216-841-11 | RES-CHIP 47K 5%       | 1/10W      |
| R0035          | 1-218-867-11 | METAL CHIP 6.8K 0.5%      | 1/10W  | R0088                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0037          | 1-216-827-11 | RES-CHIP 3.3K 5%          | 1/10W  | R0089                             | 1-216-809-11 | RES-CHIP 100 5%       | 1/10W      |
| R0039          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0301                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0040          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | R0302                             | 1-216-833-11 | RES-CHIP 10K 5%       | 1/10W      |
| R0041          | 1-216-825-11 | RES-CHIP 2.2K 5%          | 1/10W  | R0303                             | 1-216-836-11 | RES-CHIP 18K 5%       | 1/10W      |
| R0042          | 1-218-867-11 | METAL CHIP 6.8K 0.5%      | 1/10W  | R0304                             | 1-218-867-11 | METAL CHIP 6.8K 0.5%  | 1/10W      |
| R0043          | 1-216-803-11 | RES-CHIP 33 5%            | 1/10W  | < CRYSTAL >                       |              |                       |            |
| R0044          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | X0001                             | 1-578-774-71 | VIBRATOR, CRYSTAL     |            |
| R0045          | 1-216-803-11 | RES-CHIP 33 5%            | 1/10W  | * A-1300-600-A AP Board, Complete |              |                       |            |
| R0046          | 1-216-803-11 | RES-CHIP 33 5%            | 1/10W  | < CAPACITOR >                     |              |                       |            |
| R0047          | 1-216-810-11 | RES-CHIP 120 5%           | 1/10W  | C2601                             | 1-162-969-11 | CERAMIC CHIP 0.0068UF | 10.00% 25V |
| R0048          | 1-216-809-11 | RES-CHIP 100 5%           | 1/10W  | C2602                             | 1-164-173-11 | CERAMIC CHIP 0.0039UF | 10.00% 50V |
| R0049          | 1-216-833-11 | RES-CHIP 10K 5%           | 1/10W  | C2603                             | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        |
| R0050          | 1-216-810-11 | RES-CHIP 120 5%           | 1/10W  | C2604                             | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        |
| R0051          | 1-216-835-11 | RES-CHIP 15K 5%           | 1/10W  | C2605                             | 1-126-933-11 | ELECT 100UF           | 20.00% 16V |
| R0052          | 1-216-810-11 | RES-CHIP 120 5%           | 1/10W  |                                   |              |                       |            |



| REF.NO. | PART.NO      | DESCRIPTION           | REMARK     | REF.NO. | PART.NO      | DESCRIPTION           | REMARK      |
|---------|--------------|-----------------------|------------|---------|--------------|-----------------------|-------------|
| C2606   | 1-104-660-91 | ELECT 47UF            | 20.00% 16V | C2659   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2607   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2660   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2608   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2661   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2609   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2662   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2610   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2663   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2611   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2664   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2612   | 1-162-969-11 | CERAMIC CHIP 0.0068UF | 10.00% 25V | C2665   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2613   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2666   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2614   | 1-164-173-11 | CERAMIC CHIP 0.0039UF | 10.00% 50V | C2667   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2615   | 1-104-660-91 | ELECT 47UF            | 20.00% 16V | C2668   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2616   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2669   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V   |
| C2617   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V | C2670   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2618   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2671   | 1-126-916-11 | ELECT 1000UF          | 20.00% 6.3V |
| C2619   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2672   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2620   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2673   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V   |
| C2621   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2674   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2622   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2675   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2623   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2676   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2624   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2677   | 1-162-910-11 | CERAMIC CHIP 5PF      | 0.25PF 50V  |
| C2625   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2678   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2626   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2679   | 1-162-910-11 | CERAMIC CHIP 5PF      | 0.25PF 50V  |
| C2627   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2680   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2628   | 1-162-920-11 | CERAMIC CHIP 27PF     | 5.00% 50V  | C2682   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2629   | 1-162-917-11 | CERAMIC CHIP 15PF     | 5.00% 50V  | C2683   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2630   | 1-162-915-11 | CERAMIC CHIP 10PF     | 0.50PF 50V | C2684   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2631   | 1-162-915-11 | CERAMIC CHIP 10PF     | 0.50PF 50V | C2685   | 1-115-416-11 | CERAMIC CHIP 0.001UF  | 5.00% 25V   |
| C2632   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2686   | 1-115-416-11 | CERAMIC CHIP 0.001UF  | 5.00% 25V   |
| C2633   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2687   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V  |
| C2634   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2688   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2635   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2689   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V  |
| C2636   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2690   | 1-162-919-11 | CERAMIC CHIP 22PF     | 5.00% 50V   |
| C2637   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2691   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2638   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2692   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2639   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2693   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2642   | 1-110-563-11 | CERAMIC CHIP 0.068UF  | 10.00% 16V | C2694   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2643   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2695   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2644   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2696   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2645   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2697   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2647   | 1-115-416-11 | CERAMIC CHIP 0.001UF  | 5.00% 25V  | C2698   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2648   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2699   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2649   | 1-115-416-11 | CERAMIC CHIP 0.001UF  | 5.00% 25V  | C2700   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2650   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V | C2701   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2651   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2702   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2652   | 1-162-966-11 | CERAMIC CHIP 0.0022UF | 10.00% 50V | C2703   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V  |
| C2653   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2704   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V   |
| C2654   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2705   | 1-162-927-11 | CERAMIC CHIP 100PF    | 5.00% 50V   |
| C2655   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V        | C2706   | 1-162-968-11 | CERAMIC CHIP 0.0047UF | 10.00% 50V  |
| C2656   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2707   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2657   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2708   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |
| C2658   | 1-126-933-11 | ELECT 100UF           | 20.00% 16V | C2709   | 1-164-156-11 | CERAMIC CHIP 0.1UF    | 25V         |



| REF.NO.          | PART.NO       | DESCRIPTION                   | REMARK     | REF.NO.        | PART.NO      | DESCRIPTION                 | REMARK        |
|------------------|---------------|-------------------------------|------------|----------------|--------------|-----------------------------|---------------|
| C2710            | 1-164-156-11  | CERAMIC CHIP 0.1UF            | 25V        | FB2615         | 1-414-229-11 | FERRITE                     | 0UH           |
| C2711            | 1-162-910-11  | CERAMIC CHIP 5PF              | 0.25PF 50V | FB2616         | 1-414-229-11 | FERRITE                     | 0UH           |
| C2712            | 1-162-910-11  | CERAMIC CHIP 5PF              | 0.25PF 50V | FB2617         | 1-414-229-11 | FERRITE                     | 0UH           |
| C2713            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | FB2618         | 1-414-229-11 | FERRITE                     | 0UH           |
| C2714            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | < FILTER >     |              |                             |               |
| C2715            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | FL2601         | 1-233-736-21 | FILTER, EMI                 |               |
| C2716            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | FL2602         | 1-233-736-21 | FILTER, EMI                 |               |
| C2717            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | < IC >         |              |                             |               |
| C2718            | 1-115-416-11  | CERAMIC CHIP 0.001UF          | 5.00% 25V  | IC2601         | 8-759-100-96 | IC UPC4558G2                |               |
| C2719            | 1-162-966-11  | CERAMIC CHIP 0.0022UF         | 10.00% 50V | IC2602         | 8-759-100-96 | IC UPC4558G2                |               |
| C2720            | 1-115-416-11  | CERAMIC CHIP 0.001UF          | 5.00% 25V  | IC2603         | 8-752-931-18 | IC CXP86448-639Q            |               |
| C2721            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | IC2604         | 8-759-683-55 | IC CM0017AF                 |               |
| C2722            | 1-162-966-11  | CERAMIC CHIP 0.0022UF         | 10.00% 50V | IC2605         | 8-759-352-91 | IC PST9143NL                |               |
| C2723            | 1-164-156-11  | CERAMIC CHIP 0.1UF            | 25V        | IC2606         | 6-700-319-01 | IC M24128-BWMN6T            |               |
| C2724            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | IC2607         | 8-759-485-79 | IC TC7SET08FU(TE85L)        |               |
| C2725            | 1-164-156-11  | CERAMIC CHIP 0.1UF            | 25V        | IC2608         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2726            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | IC2609         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2727            | 1-164-156-11  | CERAMIC CHIP 0.1UF            | 25V        | IC2610         | 8-759-559-82 | IC UPC29M33T-E1             |               |
| C2728            | 1-162-927-11  | CERAMIC CHIP 100PF            | 5.00% 50V  | IC2611         | 8-759-829-87 | IC CD0031AM                 |               |
| C2729            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | IC2612         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2730            | 1-164-156-11  | CERAMIC CHIP 0.1UF            | 25V        | IC2613         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2731            | 1-162-910-11  | CERAMIC CHIP 5PF              | 0.25PF 50V | IC2614         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2732            | 1-162-927-11  | CERAMIC CHIP 100PF            | 5.00% 50V  | IC2615         | 8-759-830-08 | IC NJM2068V-TE2             |               |
| C2733            | 1-162-910-11  | CERAMIC CHIP 5PF              | 0.25PF 50V | < COIL >       |              |                             |               |
| C2734            | 1-126-933-11  | ELECT 100UF                   | 20.00% 16V | L2601          | 1-469-555-21 | INDUCTOR                    | 10UH          |
| < CONNECTOR >    |               |                               |            | L2602          | 1-469-555-21 | INDUCTOR                    | 10UH          |
| CN2601           | *1-564-522-11 | PLUG, CONNECTOR 7P            |            | < TRANSISTOR > |              |                             |               |
| CN2602           | *1-564-511-11 | PLUG, CONNECTOR 8P            |            | Q2603          | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |               |
| CN2603           | 1-695-301-11  | CONNECTOR, BOARD TO BOARD 40P |            | Q2607          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |               |
| < DIODE >        |               |                               |            | Q2608          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |               |
| D2601            | 8-719-069-54  | DIODE UDZSTE-175.1B           |            | Q2609          | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |               |
| D2602            | 8-719-069-54  | DIODE UDZSTE-175.1B           |            | < RESISTOR >   |              |                             |               |
| D2603            | 8-719-069-54  | DIODE UDZSTE-175.1B           |            | R2601          | 1-216-821-11 | RES-CHIP                    | 1K 5% 1/10W   |
| D2604            | 8-719-069-54  | DIODE UDZSTE-175.1B           |            | R2602          | 1-216-853-11 | RES-CHIP                    | 470K 5% 1/10W |
| D2605            | 8-719-404-50  | DIODE MA111-TX                |            | R2603          | 1-216-855-11 | RES-CHIP                    | 680K 5% 1/10W |
| < FERRITE BEAD > |               |                               |            | R2604          | 1-216-821-11 | RES-CHIP                    | 1K 5% 1/10W   |
| FB2601           | 1-414-229-11  | FERRITE                       | 0UH        | R2605          | 1-216-841-11 | RES-CHIP                    | 47K 5% 1/10W  |
| FB2602           | 1-414-229-11  | FERRITE                       | 0UH        | R2606          | 1-216-821-11 | RES-CHIP                    | 1K 5% 1/10W   |
| FB2603           | 1-414-229-11  | FERRITE                       | 0UH        | R2607          | 1-216-833-11 | RES-CHIP                    | 10K 5% 1/10W  |
| FB2604           | 1-414-229-11  | FERRITE                       | 0UH        | R2608          | 1-216-821-11 | RES-CHIP                    | 1K 5% 1/10W   |
| FB2605           | 1-216-864-11  | SHORT CHIP                    | 0          | R2609          | 1-216-833-11 | RES-CHIP                    | 10K 5% 1/10W  |
| FB2607           | 1-414-229-11  | FERRITE                       | 0UH        | R2610          | 1-216-853-11 | RES-CHIP                    | 470K 5% 1/10W |
| FB2608           | 1-414-229-11  | FERRITE                       | 0UH        | R2611          | 1-216-809-11 | RES-CHIP                    | 100 5% 1/10W  |
| FB2609           | 1-414-229-11  | FERRITE                       | 0UH        | R2612          | 1-216-855-11 | RES-CHIP                    | 680K 5% 1/10W |
| FB2612           | 1-414-229-11  | FERRITE                       | 0UH        | R2613          | 1-216-821-11 | RES-CHIP                    | 1K 5% 1/10W   |
| FB2613           | 1-414-229-11  | FERRITE                       | 0UH        |                |              |                             |               |
| FB2614           | 1-414-229-11  | FERRITE                       | 0UH        |                |              |                             |               |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK          | REF.NO. | PART.NO      | DESCRIPTION | REMARK         |
|---------|--------------|-------------|-----------------|---------|--------------|-------------|----------------|
| R2614   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2675   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2615   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2676   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2616   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2677   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2617   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2678   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2618   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2679   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W  |
| R2619   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2680   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W   |
| R2620   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2681   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2621   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2682   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2622   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2683   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2623   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2684   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2624   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2685   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2625   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2686   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2626   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2688   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2627   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2689   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2628   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2690   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2629   | 1-216-817-11 | RES-CHIP    | 470 5% 1/10W    | R2691   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2630   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2692   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2631   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2694   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2632   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2695   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2633   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W    | R2699   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W   |
| R2634   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2700   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W    |
| R2635   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2702   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2636   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W    | R2703   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2637   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W    | R2704   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2638   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2705   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2639   | 1-216-813-11 | RES-CHIP    | 220 5% 1/10W    | R2707   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2640   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2708   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2641   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2709   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2642   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2710   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W   |
| R2643   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2711   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2644   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2712   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2645   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W    | R2713   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2646   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2714   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2649   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2715   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2650   | 1-216-815-11 | RES-CHIP    | 330 5% 1/10W    | R2717   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2651   | 1-216-821-11 | RES-CHIP    | 1K 5% 1/10W     | R2719   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2652   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2720   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2653   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2723   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2654   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2724   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2655   | 1-216-809-11 | RES-CHIP    | 100 5% 1/10W    | R2725   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2656   | 1-216-815-11 | RES-CHIP    | 330 5% 1/10W    | R2726   | 1-218-692-11 | METAL CHIP  | 1K 0.5% 1/16W  |
| R2657   | 1-216-816-11 | RES-CHIP    | 390 5% 1/10W    | R2727   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2658   | 1-216-833-11 | RES-CHIP    | 10K 5% 1/10W    | R2728   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2659   | 1-216-829-11 | RES-CHIP    | 4.7K 5% 1/10W   | R2729   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2660   | 1-218-701-11 | METAL CHIP  | 2.4K 0.5% 1/16W | R2730   | 1-218-728-11 | METAL CHIP  | 33K 0.5% 1/16W |
| R2661   | 1-218-689-11 | METAL CHIP  | 750 0.5% 1/16W  | R2731   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2662   | 1-216-864-11 | SHORT CHIP  | 0               | R2733   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2663   | 1-216-837-11 | RES-CHIP    | 22K 5% 1/10W    | R2734   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2671   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   | R2736   | 1-218-716-11 | METAL CHIP  | 10K 0.5% 1/16W |
| R2673   | 1-216-825-11 | RES-CHIP    | 2.2K 5% 1/10W   |         |              |             |                |

| REF.NO.                                 | PART.NO       | DESCRIPTION              | REMARK               | REF.NO. | PART.NO      | DESCRIPTION  | REMARK              |
|-----------------------------------------|---------------|--------------------------|----------------------|---------|--------------|--------------|---------------------|
| < CRYSTAL >                             |               |                          |                      | C5158   | 1-124-347-51 | ELECT        | 100UF 20.00% 160V   |
| X2601                                   | 1-767-925-21  | VIBRATOR, CRYSTAL        |                      | C5159   | 1-126-935-11 | ELECT        | 470UF 20.00% 16V    |
| <b>* A-1348-062-A D Board, Complete</b> |               |                          |                      | C5160   | 1-126-935-11 | ELECT        | 470UF 20.00% 16V    |
|                                         | 1-500-048-11  | FERRITE                  | 0UH                  | C5163   | 1-164-161-11 | CERAMIC CHIP | 0.0022UF 10.00% 50V |
|                                         | 1-779-095-23  | LEAD ASSY, HIGH-VOLTAGE  |                      | C5164   | 1-164-161-11 | CERAMIC CHIP | 0.0022UF 10.00% 50V |
|                                         | 4-363-414-00  | SPACER, MICA             |                      | C5165   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
|                                         | 4-382-854-11  | SCREW (M3X10), P, SW (+) |                      | C5166   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
|                                         | *4-393-506-01 | RETAINER, TR             |                      | C5167   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
|                                         | 7-682-952-09  | SCREW +PSW 3X16          |                      | C5168   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
|                                         |               |                          |                      | C5170   | 1-136-165-00 | FILM         | 0.1UF 5.00% 50V     |
| < CAPACITOR >                           |               |                          |                      | C5171   | 1-106-387-00 | MYLAR        | 0.068UF 10.00% 200V |
| C5001                                   | 1-126-947-11  | ELECT                    | 47UF 20.00% 35V      | C5172   | 1-136-165-00 | FILM         | 0.1UF 5.00% 50V     |
| C5002                                   | 1-126-963-11  | ELECT                    | 4.7UF 20.00% 50V     | C5173   | 1-136-165-00 | FILM         | 0.1UF 5.00% 50V     |
| C5011                                   | 1-126-934-11  | ELECT                    | 220UF 20.00% 16V     | C5174   | 1-136-165-00 | FILM         | 0.1UF 5.00% 50V     |
| C5020                                   | 1-126-961-11  | ELECT                    | 2.2UF 20.00% 50V     | C5175   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
| C5102                                   | 1-102-973-00  | CERAMIC                  | 100PF 5.00% 50V      | C5176   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
| C5103                                   | 1-126-960-11  | ELECT                    | 1UF 20.00% 50V       | C5204   | 1-126-933-11 | ELECT        | 100UF 20.00% 16V    |
| C5104                                   | 1-137-415-11  | MYLAR                    | 0.0068UF 10.00% 100V | C5205   | 1-130-495-00 | MYLAR        | 0.1UF 5.00% 50V     |
| C5105                                   | 1-102-973-00  | CERAMIC                  | 100PF 5.00% 50V      | C5206   | 1-126-960-11 | ELECT        | 1UF 20.00% 50V      |
| C5112                                   | 1-162-117-00  | CERAMIC                  | 100PF 10.00% 500V    | C5207   | 1-126-965-91 | ELECT        | 22UF 20.00% 50V     |
| C5113                                   | 1-136-207-11  | MYLAR                    | 0.047UF 5.00% 630V   | C5208   | 1-163-037-11 | CERAMIC CHIP | 0.022UF 10.00% 50V  |
| C5115                                   | 1-124-347-51  | ELECT                    | 100UF 20.00% 160V    | C5209   | 1-163-275-11 | CERAMIC CHIP | 0.001UF 5.00% 50V   |
| C5117                                   | 1-162-116-00  | CERAMIC                  | 680PF 10.00% 2KV     | C5211   | 1-130-495-00 | MYLAR        | 0.1UF 5.00% 50V     |
| C5118                                   | 1-137-391-11  | MYLAR                    | 0.0047UF 5.00% 100V  | C5214   | 1-126-935-11 | ELECT        | 470UF 20.00% 16V    |
| C5119                                   | 1-162-116-00  | CERAMIC                  | 680PF 10.00% 2KV     | C5215   | 1-126-964-11 | ELECT        | 10UF 20.00% 50V     |
| C5120                                   | 1-162-116-00  | CERAMIC                  | 680PF 10.00% 2KV     | C5216   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5123                                   | 1-129-718-00  | FILM                     | 0.022UF 5.00% 630V   | C5217   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5127                                   | 1-117-643-11  | FILM                     | 9100PF 3.00% 1.2KV   | C5219   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5130                                   | 1-115-521-11  | FILM                     | 0.82UF 5.00% 250V    | C5220   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5133                                   | 1-104-665-11  | ELECT                    | 100UF 20.00% 25V     | C5221   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5135                                   | 1-164-161-11  | CERAMIC CHIP             | 0.0022UF 10.00% 50V  | C5222   | 1-164-096-11 | CERAMIC      | 0.01UF 50V          |
| C5136                                   | 1-164-161-11  | CERAMIC CHIP             | 0.0022UF 10.00% 50V  | C5223   | 1-126-960-11 | ELECT        | 1UF 20.00% 50V      |
| C5137                                   | 1-136-559-11  | FILM                     | 0.0047UF 5.00% 630V  | C5224   | 1-126-967-11 | ELECT        | 47UF 20.00% 50V     |
| C5138                                   | 1-126-965-91  | ELECT                    | 22UF 20.00% 50V      | C5225   | 1-163-021-91 | CERAMIC CHIP | 0.01UF 10.00% 50V   |
| C5140                                   | 1-107-652-11  | ELECT                    | 10UF 20.00% 250V     | C5226   | 1-164-161-11 | CERAMIC CHIP | 0.0022UF 10.00% 50V |
| C5141                                   | 1-136-189-00  | MYLAR                    | 0.1UF 10.00% 250V    | C5301   | 1-126-947-11 | ELECT        | 47UF 20.00% 35V     |
| C5142                                   | 1-162-117-00  | CERAMIC                  | 100PF 10.00% 500V    | C5302   | 1-104-665-11 | ELECT        | 100UF 20.00% 25V    |
| C5143                                   | 1-115-521-11  | FILM                     | 0.82UF 5.00% 250V    | C5303   | 1-126-933-11 | ELECT        | 100UF 20.00% 16V    |
| C5145                                   | 1-104-665-11  | ELECT                    | 100UF 20.00% 25V     | C5304   | 1-163-005-91 | CERAMIC CHIP | 470PF 10.00% 50V    |
| C5146                                   | 1-107-655-11  | ELECT                    | 47UF 20.00% 250V     | C5305   | 1-130-777-00 | MYLAR        | 0.1UF 5.00% 100V    |
| C5147                                   | 1-102-228-00  | CERAMIC                  | 470PF 10.00% 500V    | C5307   | 1-164-004-11 | CERAMIC CHIP | 0.1UF 10.00% 25V    |
| C5148                                   | 1-126-941-11  | ELECT                    | 470UF 20.00% 25V     | C5308   | 1-126-960-11 | ELECT        | 1UF 20.00% 50V      |
| C5149                                   | 1-126-941-11  | ELECT                    | 470UF 20.00% 25V     | C5310   | 1-126-964-11 | ELECT        | 10UF 20.00% 50V     |
| C5150                                   | 1-164-161-11  | CERAMIC CHIP             | 0.0022UF 10.00% 50V  | C5311   | 1-136-177-00 | FILM         | 1UF 5.00% 50V       |
| C5151                                   | 1-164-161-11  | CERAMIC CHIP             | 0.0022UF 10.00% 50V  | C5312   | 1-163-021-91 | CERAMIC CHIP | 0.01UF 10.00% 50V   |
| C5152                                   | 1-126-972-11  | ELECT                    | 1000UF 20.00% 50V    | C5313   | 1-126-933-11 | ELECT        | 100UF 20.00% 16V    |
| C5153                                   | 1-126-972-11  | ELECT                    | 1000UF 20.00% 50V    | C5314   | 1-126-969-11 | ELECT        | 220UF 20.00% 50V    |
|                                         |               |                          |                      | C5315   | 1-126-964-11 | ELECT        | 10UF 20.00% 50V     |
|                                         |               |                          |                      | C5316   | 1-137-401-11 | MYLAR        | 0.22UF 5.00% 100V   |
|                                         |               |                          |                      | C5317   | 1-126-947-11 | ELECT        | 47UF 20.00% 35V     |

| REF.NO. | PART.NO      | DESCRIPTION           | REMARK     | REF.NO.       | PART.NO       | DESCRIPTION                       | REMARK |
|---------|--------------|-----------------------|------------|---------------|---------------|-----------------------------------|--------|
| C5318   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | < CONNECTOR > |               |                                   |        |
| C5319   | 1-126-941-11 | ELECT 470UF           | 20.00% 25V | CN5001        | *1-564-506-11 | PLUG, CONNECTOR 3P                |        |
| C5320   | 1-126-972-11 | ELECT 1000UF          | 20.00% 50V | CN5002        | *1-573-963-11 | PIN, CONNECTOR (PC BOARD) 3P      |        |
| C5321   | 1-163-243-11 | CERAMIC CHIP 47PF     | 5.00% 50V  | CN5003        | *1-506-371-00 | PIN, CONNECTOR 2P                 |        |
| C5323   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | CN5004        | 1-695-915-11  | TAB (CONTACT)                     |        |
| C5326   | 1-126-972-11 | ELECT 1000UF          | 20.00% 50V | CN5006        | *1-564-512-11 | PLUG, CONNECTOR 9P                |        |
| C5327   | 1-163-251-11 | CERAMIC CHIP 100PF    | 5.00% 50V  | CN5007        | *1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P      |        |
| C5328   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | CN5008        | *1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P      |        |
| C5329   | 1-163-251-11 | CERAMIC CHIP 100PF    | 5.00% 50V  | CN5009        | *1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P      |        |
| C5332   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | CN5010        | *1-564-507-11 | PLUG, CONNECTOR 4P                |        |
| C5333   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | CN5011        | *1-564-507-11 | PLUG, CONNECTOR 4P                |        |
| C5334   | 1-126-960-11 | ELECT 1UF             | 20.00% 50V | CN5012        | *1-564-507-11 | PLUG, CONNECTOR 4P                |        |
| C5401   | 1-126-967-11 | ELECT 47UF            | 20.00% 50V | CN5013        | 1-764-333-11  | PIN, CONNECTOR (PCB) (V TYPE) 10P |        |
| C5402   | 1-126-947-11 | ELECT 47UF            | 20.00% 35V | CN5014        | *1-691-135-11 | PIN, CONNECTOR (PC BOARD) 4P      |        |
| C5507   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5015        | 1-695-298-11  | CONNECTOR, BOARD TO BOARD 40P     |        |
| C5508   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5016        | 1-900-903-64  | CONNECTOR ASSY 20P                |        |
| C5509   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5017        | 1-900-903-64  | CONNECTOR ASSY 20P                |        |
| C5510   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5018        | *1-564-511-11 | PLUG, CONNECTOR 8P                |        |
| C5511   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5019        | *1-564-507-11 | PLUG, CONNECTOR 4P                |        |
| C5512   | 1-102-973-00 | CERAMIC 100PF         | 5.00% 50V  | CN5020        | *1-564-506-11 | PLUG, CONNECTOR 3P                |        |
| C5517   | 1-126-965-91 | ELECT 22UF            | 20.00% 50V | < DIODE >     |               |                                   |        |
| C5518   | 1-126-965-91 | ELECT 22UF            | 20.00% 50V | D5001         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5519   | 1-126-969-11 | ELECT 220UF           | 20.00% 50V | D5002         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5520   | 1-126-969-11 | ELECT 220UF           | 20.00% 50V | D5006         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5521   | 1-130-495-00 | MYLAR 0.1UF           | 5.00% 50V  | D5008         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5522   | 1-130-495-00 | MYLAR 0.1UF           | 5.00% 50V  | D5101         | 8-719-983-38  | DIODE MT2J-T-77-36B               |        |
| C5523   | 1-126-971-11 | ELECT 470UF           | 20.00% 50V | D5107         | 8-719-979-99  | DIODE ERD08M-15                   |        |
| C5524   | 1-126-971-11 | ELECT 470UF           | 20.00% 50V | D5108         | 8-719-052-09  | DIODE FMG-36S-LF024-104           |        |
| C5527   | 1-126-969-11 | ELECT 220UF           | 20.00% 50V | D5114         | 8-719-971-20  | DIODE ERC38-06                    |        |
| C5528   | 1-126-969-11 | ELECT 220UF           | 20.00% 50V | D5115         | 8-719-302-43  | DIODE EL1Z                        |        |
| C5529   | 1-137-150-11 | FILM 0.01UF           | 5.00% 100V | D5116         | 8-719-979-85  | DIODE EGP20G                      |        |
| C5530   | 1-137-150-11 | FILM 0.01UF           | 5.00% 100V | D5117         | 8-719-302-43  | DIODE EL1Z                        |        |
| C5711   | 1-136-165-00 | FILM 0.1UF            | 5.00% 50V  | D5118         | 8-719-979-85  | DIODE EGP20G                      |        |
| C5712   | 1-136-177-00 | FILM 1UF              | 5.00% 50V  | D5121         | 8-719-908-03  | DIODE GP08D                       |        |
| C5713   | 1-104-665-11 | ELECT 100UF           | 20.00% 25V | D5122         | 8-719-908-03  | DIODE GP08D                       |        |
| C5714   | 1-130-471-00 | MYLAR 0.001UF         | 5.00% 50V  | D5201         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5715   | 1-137-150-11 | FILM 0.01UF           | 5.00% 100V | D5202         | 8-719-109-85  | DIODE RD5.1ESE2                   |        |
| C5716   | 1-104-665-11 | ELECT 100UF           | 20.00% 25V | D5203         | 8-719-923-86  | DIODE MT2J-T-77-15                |        |
| C5717   | 1-126-968-11 | ELECT 100UF           | 20.00% 50V | D5204         | 8-719-921-63  | DIODE MT2J-T-7.5B                 |        |
| C5718   | 1-115-350-51 | CERAMIC 0.0047UF      | 2KV        | D5205         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5719   | 1-126-968-11 | ELECT 100UF           | 20.00% 50V | D5207         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5720   | 1-137-372-11 | MYLAR 0.022UF         | 5.00% 50V  | D5208         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5721   | 1-104-661-91 | ELECT 330UF           | 20.00% 16V | D5301         | 8-719-923-86  | DIODE MT2J-T-77-15                |        |
| C5722   | 1-126-934-11 | ELECT 220UF           | 20.00% 16V | D5302         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5727   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | D5303         | 8-719-908-03  | DIODE GP08D                       |        |
| C5728   | 1-163-021-91 | CERAMIC CHIP 0.01UF   | 10.00% 50V | D5304         | 8-719-908-03  | DIODE GP08D                       |        |
| C5759   | 1-126-964-11 | ELECT 10UF            | 20.00% 50V | D5305         | 8-719-991-33  | DIODE 1SS133T-77                  |        |
| C5760   | 1-164-182-11 | CERAMIC CHIP 0.0033UF | 10.00% 50V | D5306         | 8-719-923-86  | DIODE MT2J-T-77-15                |        |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

**D**

| REF.NO. | PART.NO      | DESCRIPTION           | REMARK | REF.NO.              | PART.NO      | DESCRIPTION                 | REMARK |
|---------|--------------|-----------------------|--------|----------------------|--------------|-----------------------------|--------|
| D5307   | 8-719-923-86 | DIODE MTZJ-T-77-15    |        | < PROTECTOR MODULE > |              |                             |        |
| D5308   | 8-719-924-16 | DIODE MTZJ-T-77-24    |        | PS5101 $\Delta$      | 1-533-590-51 | LINK, IC 1A 90V             |        |
| D5309   | 8-719-924-16 | DIODE MTZJ-T-77-24    |        | PS5501 $\Delta$      | 1-533-597-31 | LINK, IC 5A 90V             |        |
| D5701   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5502 $\Delta$      | 1-533-597-31 | LINK, IC 5A 90V             |        |
| D5704   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5503 $\Delta$      | 1-533-597-31 | LINK, IC 5A 90V             |        |
|         |              |                       |        | PS5504 $\Delta$      | 1-533-597-31 | LINK, IC 5A 90V             |        |
| D5719   | 8-719-923-86 | DIODE MTZJ-T-77-15    |        |                      |              |                             |        |
| D5721   | 8-719-923-86 | DIODE MTZJ-T-77-15    |        | PS5539 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
| D5724   | 8-719-018-82 | DIODE RGP02-20EL-6394 |        | PS5540 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
| D5726   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5543 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
| D5727   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5544 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
|         |              |                       |        |                      |              |                             |        |
| D5731   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5549 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
| D5732   | 8-719-991-33 | DIODE 1SS133T-77      |        | PS5550 $\Delta$      | 1-533-595-21 | LINK, IC 3.15A 90V          |        |
|         |              |                       |        |                      |              |                             |        |
|         |              | < FERRITE BEAD >      |        | < TRANSISTOR >       |              |                             |        |
| FB5102  | 1-412-911-11 | FERRITE               | 0UH    | Q5006                | 1-801-806-11 | TR DTC144EKA                |        |
| FB5103  | 1-412-911-11 | FERRITE               | 0UH    | Q5009                | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
|         |              |                       |        | Q5102                | 8-729-119-80 | TRANSISTOR 2SC2688-LK       |        |
|         |              | < IC >                |        | Q5104                | 8-729-051-81 | TRANSISTOR 2SC5047-YB       |        |
| IC5103  | 8-759-701-79 | IC NJM7812FA          |        | Q5105                | 8-729-038-83 | TRANSISTOR 2SK2251-01-F19   |        |
| IC5104  | 8-759-929-65 | IC LM7912CT           |        |                      |              |                             |        |
| IC5105  | 8-759-701-56 | IC NJM78M05FA         |        | Q5106                | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        |
| IC5106  | 8-759-701-65 | IC NJM79M05FA         |        | Q5201                | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |        |
| IC5107  | 8-759-701-59 | IC NJM78M09FA         |        | Q5302                | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
|         |              |                       |        | Q5303                | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |        |
| IC5201  | 8-759-085-67 | IC LM339NS            |        | Q5501                | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA   |        |
| IC5301  | 8-759-251-31 | IC CA0007AM           |        |                      |              |                             |        |
| IC5302  | 8-759-696-71 | IC STV9379A           |        | Q5502                | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA   |        |
| IC5303  | 8-759-998-98 | IC LM358D             |        | Q5503                | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        |
| IC5501  | 8-749-014-67 | IC STK392-020         |        | Q5504                | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA   |        |
|         |              |                       |        | Q5505                | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        |
| IC5502  | 8-749-014-67 | IC STK392-020         |        | Q5506                | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA   |        |
| IC5703  | 8-759-711-28 | IC NJM2058D           |        |                      |              |                             |        |
|         |              |                       |        | Q5704                | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA   |        |
|         |              | < COIL >              |        | Q5705                | 8-729-032-61 | TRANSISTOR 2SC5022-02       |        |
| L5101   | 1-406-665-11 | INDUCTOR 100UH        |        | Q5706                | 8-729-119-76 | TRANSISTOR 2SA1175-HFE      |        |
| L5104   | 1-412-551-31 | INDUCTOR 1.5MH        |        | Q5707                | 8-729-046-80 | TRANSISTOR 2SC4634LS-CB11   |        |
| L5105   | 1-459-111-00 | INDUCTOR 10MH         |        | Q5709                | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |        |
| L5107   | 1-412-533-21 | INDUCTOR 47UH         |        |                      |              |                             |        |
| L5108   | 1-412-533-21 | INDUCTOR 47UH         |        | Q5710                | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R |        |
|         |              |                       |        | Q5711                | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6     |        |
| L5109   | 1-412-519-11 | INDUCTOR 3.3UH        |        |                      |              |                             |        |
| L5201   | 1-414-187-11 | INDUCTOR 47UH         |        | < RESISTOR >         |              |                             |        |
| L5301   | 1-412-524-11 | INDUCTOR 8.2UH        |        | JR5301               | 1-216-295-91 | SHORT CHIP 0                |        |
| L5302   | 1-535-143-61 | LEAD, JUMPER (5.0MM)  |        | JR5302               | 1-216-295-91 | SHORT CHIP 0                |        |
| L5303   | 1-535-143-61 | LEAD, JUMPER (5.0MM)  |        |                      |              |                             |        |
|         |              |                       |        | R5004                | 1-216-089-91 | RES-CHIP 47K 5% 1/10W       |        |
| L5501   | 1-412-533-21 | INDUCTOR 47UH         |        | R5013                | 1-216-089-91 | RES-CHIP 47K 5% 1/10W       |        |
| L5502   | 1-412-533-21 | INDUCTOR 47UH         |        | R5023                | 1-216-065-91 | RES-CHIP 4.7K 5% 1/10W      |        |
| L5503   | 1-412-533-21 | INDUCTOR 47UH         |        | R5048                | 1-216-041-00 | RES-CHIP 470 5% 1/10W       |        |
| L5504   | 1-412-533-21 | INDUCTOR 47UH         |        | R5101                | 1-215-926-00 | METAL OXIDE 33K 5% 3W       |        |
|         |              |                       |        |                      |              |                             |        |
| NL5101  | 1-517-778-21 | LAMP, NEON            |        | R5112                | 1-247-843-11 | CARBON 3.3K 5% 1/4W         |        |
| NL5102  | 1-517-778-21 | LAMP, NEON            |        | R5115                | 1-216-435-11 | METAL OXIDE 2.7K 5% 1W      |        |
| NL5103  | 1-517-778-21 | LAMP, NEON            |        | R5119                | 1-215-922-11 | METAL OXIDE 6.8K 5% 3W      |        |



| REF.NO. | PART.NO      | DESCRIPTION          | REMARK         | REF.NO. | PART.NO      | DESCRIPTION          | REMARK          |
|---------|--------------|----------------------|----------------|---------|--------------|----------------------|-----------------|
| R5120   | 1-216-486-00 | METAL OXIDE          | 8.2K 5% 3W     | R5221   | 1-216-061-91 | RES-CHIP             | 3.3K 5% 1/10W   |
| R5122   | 1-215-905-11 | METAL OXIDE          | 10 5% 3W       | R5222   | 1-216-105-91 | RES-CHIP             | 220K 5% 1/10W   |
| R5136   | 1-215-443-00 | METAL                | 8.2K 1% 1/4W   | R5223   | 1-216-081-00 | RES-CHIP             | 22K 5% 1/10W    |
| R5138   | 1-215-457-00 | METAL                | 33K 1% 1/4W    | R5224   | 1-249-405-11 | CARBON               | 100 5% 1/4W     |
| R5139   | 1-216-391-11 | METAL OXIDE          | 1.5 5% 3W      | R5225   | 1-208-806-11 | METAL CHIP           | 10K 0.5% 1/10W  |
| R5140   | 1-215-449-00 | METAL                | 15K 1% 1/4W    | R5226   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5141   | 1-215-911-11 | METAL OXIDE          | 100 5% 3W      | R5227   | 1-260-135-11 | CARBON               | 1M 5% 1/2W      |
| R5143   | 1-247-735-11 | CARBON               | 47 5% 1/2W     | R5228   | 1-535-143-61 | LEAD, JUMPER (5.0MM) |                 |
| R5146   | 1-215-910-00 | METAL OXIDE          | 68 5% 3W       | R5229   | 1-216-045-00 | RES-CHIP             | 680 5% 1/10W    |
| R5147   | 1-215-910-00 | METAL OXIDE          | 68 5% 3W       | R5230   | 1-216-097-11 | RES-CHIP             | 100K 5% 1/10W   |
| R5148   | 1-249-377-11 | CARBON               | 0.47 5% 1/4W   | R5231   | 1-216-065-91 | RES-CHIP             | 4.7K 5% 1/10W   |
| R5149   | 1-247-807-31 | CARBON               | 100 5% 1/4W    | R5232   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5152   | 1-216-377-11 | METAL OXIDE          | 4.7 5% 2W      | R5233   | 1-247-807-31 | CARBON               | 100 5% 1/4W     |
| R5153   | 1-249-379-11 | CARBON               | 0.68 5% 1/4W   | R5234   | 1-216-049-11 | RES-CHIP             | 1K 5% 1/10W     |
| R5154   | 1-260-127-11 | CARBON               | 220K 5% 1/2W   | R5235   | 1-208-810-11 | METAL CHIP           | 15K 0.5% 1/10W  |
| R5155   | 1-214-909-00 | METAL                | 68K 1% 1/2W    | R5236   | 1-216-065-91 | RES-CHIP             | 4.7K 5% 1/10W   |
| R5156   | 1-535-143-61 | LEAD, JUMPER (5.0MM) |                | R5302   | 1-216-073-91 | RES-CHIP             | 10K 5% 1/10W    |
| R5157   | 1-216-474-11 | METAL OXIDE          | 82 5% 3W       | R5303   | 1-216-083-00 | RES-CHIP             | 27K 5% 1/10W    |
| R5158   | 1-216-349-00 | METAL OXIDE          | 1 5% 1W        | R5304   | 1-216-081-00 | RES-CHIP             | 22K 5% 1/10W    |
| R5159   | 1-216-474-11 | METAL OXIDE          | 82 5% 3W       | R5305   | 1-208-801-11 | METAL CHIP           | 6.2K 0.5% 1/10W |
| R5160   | 1-249-377-11 | CARBON               | 0.47 5% 1/4W   | R5306   | 1-208-806-11 | METAL CHIP           | 10K 0.5% 1/10W  |
| R5161   | 1-249-377-11 | CARBON               | 0.47 5% 1/4W   | R5307   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5162   | 1-216-393-00 | METAL OXIDE          | 2.2 5% 3W      | R5308   | 1-216-353-00 | METAL OXIDE          | 2.2 5% 1W       |
| R5163   | 1-216-392-11 | METAL OXIDE          | 1.8 5% 3W      | R5309   | 1-216-097-11 | RES-CHIP             | 100K 5% 1/10W   |
| R5164   | 1-249-393-11 | CARBON               | 10 5% 1/4W     | R5310   | 1-216-353-00 | METAL OXIDE          | 2.2 5% 1W       |
| R5166   | 1-215-905-11 | METAL OXIDE          | 10 5% 3W       | R5311   | 1-216-073-91 | RES-CHIP             | 10K 5% 1/10W    |
| R5169   | 1-249-424-11 | CARBON               | 3.9K 5% 1/4W   | R5312   | 1-216-073-91 | RES-CHIP             | 10K 5% 1/10W    |
| R5171   | 1-249-429-11 | CARBON               | 10K 5% 1/4W    | R5313   | 1-216-083-00 | RES-CHIP             | 27K 5% 1/10W    |
| R5172   | 1-249-417-11 | CARBON               | 1K 5% 1/4W     | R5314   | 1-216-073-91 | RES-CHIP             | 10K 5% 1/10W    |
| R5173   | 1-215-905-11 | METAL OXIDE          | 10 5% 3W       | R5315   | 1-215-913-11 | METAL OXIDE          | 220 5% 3W       |
| R5174   | 1-215-905-11 | METAL OXIDE          | 10 5% 3W       | R5316   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5175   | 1-215-905-11 | METAL OXIDE          | 10 5% 3W       | R5317   | 1-216-049-11 | RES-CHIP             | 1K 5% 1/10W     |
| R5201   | 1-216-059-00 | RES-CHIP             | 2.7K 5% 1/10W  | R5318   | 1-216-097-11 | RES-CHIP             | 100K 5% 1/10W   |
| R5202   | 1-216-049-11 | RES-CHIP             | 1K 5% 1/10W    | R5319   | 1-216-085-91 | RES-CHIP             | 33K 5% 1/10W    |
| R5203   | 1-215-879-11 | METAL OXIDE          | 47K 5% 1W      | R5320   | 1-249-383-11 | CARBON               | 1.5 5% 1/4W     |
| R5204   | 1-216-059-00 | RES-CHIP             | 2.7K 5% 1/10W  | R5321   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5205   | 1-216-059-00 | RES-CHIP             | 2.7K 5% 1/10W  | R5323   | 1-216-083-00 | RES-CHIP             | 27K 5% 1/10W    |
| R5206   | 1-216-099-00 | RES-CHIP             | 120K 5% 1/10W  | R5324   | 1-535-143-61 | LEAD, JUMPER (5.0MM) |                 |
| R5209   | 1-208-760-11 | METAL CHIP           | 120 0.5% 1/10W | R5325   | 1-208-801-11 | METAL CHIP           | 6.2K 0.5% 1/10W |
| R5210   | 1-216-113-00 | RES-CHIP             | 470K 5% 1/10W  | R5326   | 1-208-806-11 | METAL CHIP           | 10K 0.5% 1/10W  |
| R5211   | 1-216-081-00 | RES-CHIP             | 22K 5% 1/10W   | R5328   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W    |
| R5212   | 1-216-071-00 | RES-CHIP             | 8.2K 5% 1/10W  | R5329   | 1-216-025-11 | RES-CHIP             | 100 5% 1/10W    |
| R5213   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W   | R5330   | 1-216-295-91 | SHORT CHIP           | 0               |
| R5214   | 1-216-071-00 | RES-CHIP             | 8.2K 5% 1/10W  | R5331   | 1-216-073-91 | RES-CHIP             | 10K 5% 1/10W    |
| R5215   | 1-216-089-91 | RES-CHIP             | 47K 5% 1/10W   | R5338   | 1-216-295-91 | SHORT CHIP           | 0               |
| R5216   | 1-247-895-91 | CARBON               | 470K 5% 1/4W   | R5339   | 1-247-807-31 | CARBON               | 100 5% 1/4W     |
| R5217   | 1-216-071-00 | RES-CHIP             | 8.2K 5% 1/10W  | R5340   | 1-249-377-11 | CARBON               | 0.47 5% 1/4W    |
| R5218   | 1-216-049-11 | RES-CHIP             | 1K 5% 1/10W    | R5341   | 1-249-377-11 | CARBON               | 0.47 5% 1/4W    |
| R5219   | 1-216-075-00 | RES-CHIP             | 12K 5% 1/10W   | R5344   | 1-216-295-91 | SHORT CHIP           | 0               |
| R5220   | 1-216-105-91 | RES-CHIP             | 220K 5% 1/10W  | R5345   | 1-216-101-00 | RES-CHIP             | 150K 5% 1/10W   |



| REF.NO. | PART.NO      | DESCRIPTION          | REMARK       | REF.NO. | PART.NO      | DESCRIPTION | REMARK        |
|---------|--------------|----------------------|--------------|---------|--------------|-------------|---------------|
| R5501   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5557   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5502   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5558   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5503   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5559   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5504   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5560   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5505   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5561   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5506   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5562   | 1-214-808-11 | METAL       | 4.7 1% 1/2W   |
| R5507   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5563   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5508   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5564   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5509   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5565   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5510   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5566   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5511   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5567   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5512   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5568   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5513   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5569   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5514   | 1-535-143-61 | LEAD, JUMPER (5.0MM) |              | R5570   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5515   | 1-247-843-11 | CARBON               | 3.3K 5% 1/4W | R5718   | 1-249-425-11 | CARBON      | 4.7K 5% 1/4W  |
| R5516   | 1-535-143-61 | LEAD, JUMPER (5.0MM) |              | R5723   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5517   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5724   | 1-247-807-31 | CARBON      | 100 5% 1/4W   |
| R5518   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5725   | 1-216-093-91 | RES-CHIP    | 68K 5% 1/10W  |
| R5519   | 1-249-429-11 | CARBON               | 10K 5% 1/4W  | R5726   | 1-216-071-00 | RES-CHIP    | 8.2K 5% 1/10W |
| R5520   | 1-249-429-11 | CARBON               | 10K 5% 1/4W  | R5727   | 1-216-085-91 | RES-CHIP    | 33K 5% 1/10W  |
| R5521   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5728   | 1-216-051-00 | RES-CHIP    | 1.2K 5% 1/10W |
| R5522   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5729   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R5523   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5730   | 1-249-431-11 | CARBON      | 15K 5% 1/4W   |
| R5524   | 1-249-429-11 | CARBON               | 10K 5% 1/4W  | R5731   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5525   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5732   | 1-249-441-11 | CARBON      | 100K 5% 1/4W  |
| R5526   | 1-247-807-31 | CARBON               | 100 5% 1/4W  | R5734   | 1-216-061-91 | RES-CHIP    | 3.3K 5% 1/10W |
| R5527   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5735   | 1-216-057-00 | RES-CHIP    | 2.2K 5% 1/10W |
| R5528   | 1-249-429-11 | CARBON               | 10K 5% 1/4W  | R5737   | 1-216-089-91 | RES-CHIP    | 47K 5% 1/10W  |
| R5529   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5738   | 1-249-405-11 | CARBON      | 100 5% 1/4W   |
| R5530   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5739   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R5531   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5740   | 1-215-892-11 | METAL OXIDE | 1K 5% 2W      |
| R5532   | 1-249-417-11 | CARBON               | 1K 5% 1/4W   | R5744   | 1-216-089-91 | RES-CHIP    | 47K 5% 1/10W  |
| R5533   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5745   | 1-216-099-00 | RES-CHIP    | 120K 5% 1/10W |
| R5534   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5746   | 1-215-925-11 | METAL OXIDE | 22K 5% 3W     |
| R5535   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5747   | 1-215-925-11 | METAL OXIDE | 22K 5% 3W     |
| R5536   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5748   | 1-216-041-00 | RES-CHIP    | 470 5% 1/10W  |
| R5537   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5749   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R5538   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5750   | 1-216-025-11 | RES-CHIP    | 100 5% 1/10W  |
| R5541   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5751   | 1-260-328-11 | CARBON      | 1K 5% 1/2W    |
| R5542   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5753   | 1-216-065-91 | RES-CHIP    | 4.7K 5% 1/10W |
| R5545   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5754   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5546   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5755   | 1-216-065-91 | RES-CHIP    | 4.7K 5% 1/10W |
| R5547   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5756   | 1-216-065-91 | RES-CHIP    | 4.7K 5% 1/10W |
| R5548   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5757   | 1-219-752-11 | CARBON      | 100K 5% 1/2W  |
| R5551   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5758   | 1-215-925-11 | METAL OXIDE | 22K 5% 3W     |
| R5552   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5759   | 1-215-925-11 | METAL OXIDE | 22K 5% 3W     |
| R5553   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5762   | 1-219-743-11 | CARBON      | 100 5% 1/2W   |
| R5554   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5763   | 1-216-065-91 | RES-CHIP    | 4.7K 5% 1/10W |
| R5555   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5764   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5556   | 1-214-808-11 | METAL                | 4.7 1% 1/2W  | R5765   | 1-216-049-11 | RES-CHIP    | 1K 5% 1/10W   |

**Note :** The components identified by shading and marked  $\Delta$  are critical for safety. Replace only with the part numbers specified in the parts list.

**D**

| REF.NO. | PART.NO      | DESCRIPTION | REMARK        |
|---------|--------------|-------------|---------------|
| R5768   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |
| R5769   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5770   | 1-216-073-91 | RES-CHIP    | 10K 5% 1/10W  |
| R5771   | 1-216-097-11 | RES-CHIP    | 100K 5% 1/10W |
| R5772   | 1-249-429-11 | CARBON      | 10K 5% 1/4W   |

< SPARK GAP >

SG5702 1-519-466-11 GAP, SPARK

< TRANSFORMER >

|                |              |                                           |
|----------------|--------------|-------------------------------------------|
| T5101          | 1-437-209-11 | TRANSFORMER, HORIZONTAL DRIVE             |
| T5102          | 1-419-553-11 | COIL, HORIZONTAL LINEARITY (HLC)          |
| T5103 $\Delta$ | 1-453-335-11 | TRANSFORMER ASSY, FLYBACK (NX-4010//M3P4) |
| T5104          | 1-435-439-11 | TRANSFORMER, FERRITE (PMT)                |

| REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---------|---------|-------------|--------|
|---------|---------|-------------|--------|

#### MISCELLANEOUS

|          |              |                                              |
|----------|--------------|----------------------------------------------|
|          | 1-528-864-11 | BATTERY, SOLAR                               |
| $\Delta$ | 1-223-925-71 | RESISTOR ASSY (HIGH-VOLTAGE)                 |
|          | 1-544-880-11 | SPEAKER (13 CM)                              |
| $\Delta$ | 1-765-286-11 | CORD, POWER (KP-44PXAEP)                     |
| $\Delta$ | 1-776-860-11 | POWER CORD, FILTER (UK) (KP-44PX2U)          |
| $\Delta$ | 1-453-335-11 | TRANSFORMER ASSY, FLYBACK<br>(NX-4010//M3P4) |
| $\Delta$ | 1-452-790-41 | NECK ASSY (NA-295)                           |
| $\Delta$ | 1-451-476-21 | DEFLECTION YOKE                              |
| $\Delta$ | 8-733-633-05 | PJ TUBE 07MXC2 (R) (MIZ)                     |
| $\Delta$ | 8-733-629-05 | PJ TUBE 07MAC2 (B) (MIZ)                     |
| $\Delta$ | A-1501-273-A | SEAL (G) ASSY MECHANICAL                     |
| $\Delta$ | 8-598-955-13 | BLOCK ASSY, HV HVB-1030                      |

#### ACCESSORIES AND PACKAGING MATERIALS

|               |                                                                                            |
|---------------|--------------------------------------------------------------------------------------------|
| *4-055-672-01 | BAG, PROTECTION                                                                            |
| *4-088-412-01 | CUSHION, UPPER ASSY                                                                        |
| *4-088-420-01 | CUSHION, LOWER ASSY                                                                        |
| *4-080-525-11 | INDIVIDUAL CARTON                                                                          |
| 4-088-416-11  | INSTRUCTION MANUAL (KP-44PX2AEP)<br>(ENGLISH/BULGARIAN/CZECH/HUNGARIAN/<br>POLISH/RUSSIAN) |
| 4-088-416-21  | INSTRUCTION MANUAL (KP-44PX2AEP)<br>(GERMAN/DANISH/SPANISH/FINNISH/<br>FRENCH/GREEK)       |
| 4-088-416-31  | INSTRUCTION MANUAL (KP-44PX2AEP)<br>(GERMAN)                                               |
| 4-088-416-41  | INSTRUCTION MANUAL (KP-44PX2U)<br>(ENGLISH)                                                |

#### REMOTE COMMANDER

|              |                           |
|--------------|---------------------------|
| 1-477-259-11 | REMOTE COMMANDER (RM-938) |
|--------------|---------------------------|



# TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.



The TRACE interface connects to the PC's serial port. It provides connection to the TV's I<sup>2</sup>C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

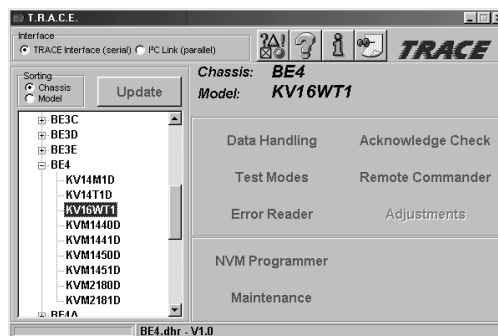
The TRACE software that is supplied with the interface allows you to:

- Read, restore and compare NVM contents via the I<sup>2</sup>C bus
- Acknowledge check of all I<sup>2</sup>C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:

- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.



*Note: For workshops already using the existing I<sup>2</sup>C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.*

Partnumbers: TRACE Starter Kit (TRACE interface + software): 9-948-320-70  
 TRACE Software (for users of the I<sup>2</sup>C Link interface): 9-948-340-80  
 TRACE IR Add-on (IR interface + Remote Commander software): 9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT\*.

\* WindowsNT only supported with TRACE interface

**Sony Corporation**  
**Sony UK**  
**Service Promotions Dept.**

**English**  
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