

# SERVICE MANUAL

## AE-6B CHASSIS

| MODEL             | COMMANDER | DEST | CHASSIS NO. | MODEL             | COMMANDER | DEST | CHASSIS NO. |
|-------------------|-----------|------|-------------|-------------------|-----------|------|-------------|
| <b>KV-32FX68B</b> | RM-932    | FR   | SCC-Q83M-A  | <b>KV-32FX68K</b> | RM-932    | OIRT | SCC-Q82H-A  |
| <b>KV-32FX68E</b> | RM-932    | ESP  | SCC-Q81P-A  | <b>KV-32FX68U</b> | RM-932    | UK   | SCC-Q84M-A  |

## FD Trinitron



KV-32FX68



RM-932

TRINITRON<sup>®</sup> COLOR TV  
**SONY<sup>®</sup>**

# TABLE OF CONTENTS

| Section                       | Title                                    | Page | Section                         | Title                        | Page |
|-------------------------------|--|------|---------------------------------|------------------------------|------|
|                               | Caution .....                            | 3    | <b>5. DIAGRAMS</b>              |                              |      |
|                               | Specifications .....                     | 4    | 5-1.                            | Block Diagrams (1) .....     | 25   |
|                               | Connectors .....                         | 6    |                                 | Block Diagrams (2) .....     | 26   |
|                               | Self Diagnostic Software .....           | 7    |                                 | Block Diagrams (3) .....     | 27   |
| <b>1. GENERAL</b>             |  |      |                                 | Block Diagrams (4) .....     | 28   |
|                               | Switching On the TV and                  |      | 5-2.                            | Circuit Board Location ..... | 28   |
|                               | Automatically Tuning .....               | 8    | 5-3.                            | Schematic Diagrams and       |      |
|                               | Introducing and Using the Menu           |      |                                 | Printed Wiring Boards .....  | 28   |
|                               | System .....                             | 9    |                                 | * A Board Schematic .....    | 29   |
|                               | Menu Guide .....                         | 9    |                                 | * A Board PWB .....          | 35   |
|                               | Teletext .....                           | 10   |                                 | * VM Board Schematic.....    | 39   |
|                               | Fastext .....                            | 10   |                                 | * VM Board PWB .....         | 40   |
|                               | Remote Control Configuration             |      |                                 | * H2 Board Schematic .....   | 39   |
|                               | for VCR/DVD .....                        | 11   |                                 | * H2 Board PWB .....         | 40   |
|                               | Lifting the TV Set .....                 | 11   |                                 | * F4 Board Schematic .....   | 39   |
|                               | Specifications .....                     | 12   |                                 | * F4 Board PWB .....         | 40   |
|                               | Troubleshooting .....                    | 12   |                                 | * H1 Board Schematic .....   | 39   |
|                               |  |      |                                 | * H1 Board PWB .....         | 40   |
| <b>2. DISASSEMBLY</b>         |  |      |                                 | * G Board Schematic .....    | 41   |
|                               | 2-1. Rear Cover Removal .....            | 13   |                                 | * G Board PWB .....          | 40   |
|                               | 2-2. Speaker Disconnection .....         | 13   |                                 | * C Board Schematic .....    | 42   |
|                               | 2-3. Chassis Removal and Refitting ..... | 13   |                                 | * C Board PWB .....          | 43   |
|                               | 2-4. Service Position .....              | 14   |                                 | * M Board Schematic .....    | 44   |
|                               | 2-5. G Board Removal .....               | 14   |                                 | * M Board PWB .....          | 43   |
|                               | 2-6. Side Control Module Removal .....   | 14   |                                 | * D Board Schematic .....    | 46   |
|                               | 2-7. H2 Board Removal .....              | 14   |                                 | * D Board PWB .....          | 45   |
|                               | 2-8. M Board Removal .....               | 15   | 5-4.                            | Semiconductors .....         | 47   |
|                               | 2-9. Service Connector for M Board.....  | 15   | 5-5.                            | IC Blocks .....              | 50   |
|                               | 2-10. Picture Tube Removal .....         | 16   |                                 |                              |      |
|                               | Bottom Plates .....                      | 17   | <b>6. EXPLODED VIEWS</b>        |                              |      |
| <b>3. SET-UP ADJUSTMENTS</b>  |  |      |                                 |                              |      |
|                               | 3-1. Beam Landing .....                  | 18   | 6-1.                            | Chassis .....                | 52   |
|                               | 3-2. Convergence .....                   | 19   | 6-2.                            | Picture Tube .....           | 53   |
|                               | 3-3. Focus Adjustment .....              | 21   | <b>7. ELECTRICAL PARTS LIST</b> |                              | 54   |
|                               | 3-4. Screen (G2), White Balance .....    | 21   |                                 |                              |      |
| <b>4. CIRCUIT ADJUSTMENTS</b> |  |      |                                 |                              |      |
|                               | 4-1. Electrical Adjustments .....        | 22   |                                 |                              |      |
|                               | 4-2. Test Mode 2 .....                   | 24   |                                 |                              |      |

## 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.

## ATTENTION

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

## ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

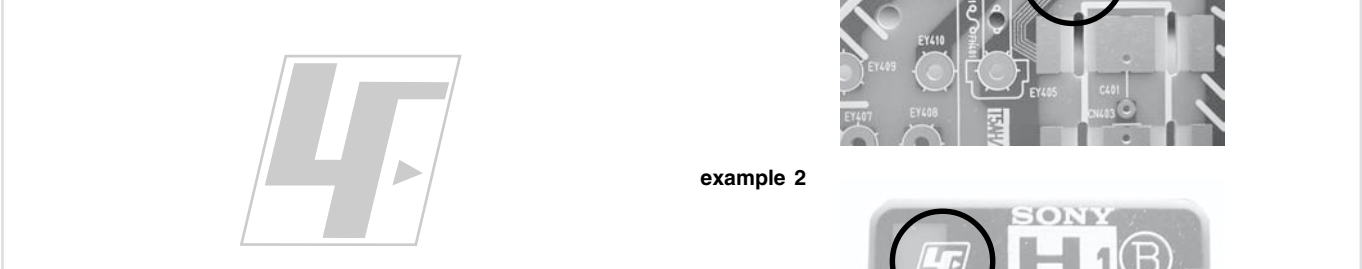
## ATTENTION AUX COMPOSANTS RELATIFS À LA SECURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  $\Delta$  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDiqué DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

## CAUTION

## Lead Free Soldered Boards

The circuit boards listed below [Table 1] used in these models may have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation e.g. F1, H1 etc [ see examples ]. The servicing of these boards requires special precautions to be taken as outlined below.



**Table 1**

| Board | Function               |
|-------|------------------------|
| C     | R,G,B Out              |
| F4    | Power Switch & Fuse    |
| H1    | LED & IR Receiver      |
| H2    | Front AV and Headphone |

It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints. Lead Free Solder is available under the following part numbers :

| Partnumber   | Diameter | Remarks |
|--------------|----------|---------|
| 7-640-005-19 | 0.3mm    | 0.25Kg  |
| 7-640-005-20 | 0.4mm    | 0.50Kg  |
| 7-640-005-21 | 0.5mm    | 0.50Kg  |
| 7-640-005-22 | 0.6mm    | 0.25Kg  |
| 7-640-005-23 | 0.8mm    | 1.00Kg  |
| 7-640-005-24 | 1.0mm    | 1.00Kg  |
| 7-640-005-25 | 1.2mm    | 1.00Kg  |
| 7-640-005-26 | 1.6mm    | 1.00Kg  |

Due to the higher melting point of Lead Free Solder the soldering iron tip temperature needs to be set to 370 degrees centigrade. This requires soldering equipment capable of accurate temperature control coupled with a good heat recovery characteristics.

For more information on the use of Lead Free Solder, please refer to <http://www.sony-training.com>


| ITEM MODEL | Television System | Stereo System       | Channel Coverage   | Color System                                   |
|------------|-------------------|---------------------|--|--|
| B          | B/G/H, D/K, I, L  | GERMAN/NICAM Stereo | VHF : E2-E12, R1-R12, S01-S03, F02-F10, B-Q<br>UHF : E21-E69, F21-F69, B21-B69, R21-R69<br>CABLE TV : S01-S20<br>HYPER : S21-S41 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| E          | B/G/H, D/K        | GERMAN/NICAM Stereo | VHF : E2-E12, R1-R12, S01-S03<br>UHF : E21-E69, R21-R69<br>CABLE TV : S01-S20<br>HYPER : S21-S41                                 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| K          | B/G/H, D/K        | GERMAN/NICAM Stereo | VHF : E2-E12, R1-R12, S01-S03<br>UHF : E21-E69, R21-R69<br>CABLE TV : S01-S20<br>HYPER : S21-S41                                 | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |
| U          | I                 | NICAM Stereo        | UHF : B21-B69  | PAL, SECAM<br>NTSC4.43, NTSC3.58<br>(VIDEO IN) |

|   |   |  |  |
|---|---|--|--|
| Picture Tube  | Flat Display FD Trinitron<br>Approx 82 cm (32 inches)<br>(Approx 76 cm picture measured diagonally)                   | Sound output                             |  |
|   |   | Right and Left speaker                   | 2x20W (Music Power)    2x10W (RMS)   |
|   |   | Sub Woofer                               | 1x30W (Music Power)    1x15W (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                        | 130W   |
| 2: 21-pin Euro connector  | Inputs for Audio and Video signals.<br>Inputs for S Video.<br>Outputs of TV Video and Audio signals.<br>(selectable)  | Dimensions                               | Approx 883x567x562mm   |
|   |   | Weight                                   | Approx 64kg  |
| 3: 21-pin Euro connector  | Inputs for Audio and Video signals.<br>Inputs for S Video.<br>Outputs of TV Video and Audio signals.<br>(Monitor Out) | Supplied Accessories                     | RM-932 Remote Commander (1)<br>IEC designated R6 battery (2)                       |
| Phono Jacks   | Output Connectors variable for Audio Signals  | Other Features                           | 100 Hz picture, DNR, Auto Noise Reduction, Teletext, Smartlink, BBE, Virtual Dolby |
| 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. |   |  |  |



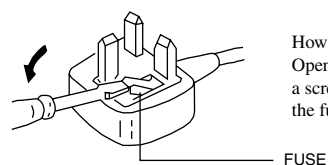
| Model Name<br>Item | KV-32FX68B | KV-32FX68E | KV-32FX68K | KV-32FX68U |
|--------------------|------------|------------|------------|------------|
| Pal Comb           | OFF        | OFF        | OFF        | OFF        |
| PIP                | OFF        | OFF        | OFF        | OFF        |
| RGB Priority       | ON         | ON         | ON         | ON         |
| Woofer Box         | ON         | ON         | ON         | ON         |
| Scart 1            | ON         | ON         | ON         | ON         |
| Scart 2            | ON         | ON         | ON         | ON         |
| Scart 3            | ON         | ON         | ON         | ON         |
| Side in (4)        | ON         | ON         | ON         | ON         |
| Projector          | OFF        | OFF        | OFF        | OFF        |
| Norm B/G           | ON         | ON         | ON         | OFF        |
| Norm I             | ON         | OFF        | OFF        | ON         |
| Norm D/K           | ON         | ON         | ON         | OFF        |
| Norm AUS           | OFF        | OFF        | OFF        | OFF        |
| Norm L             | ON         | OFF        | OFF        | OFF        |
| Norm SAT           | OFF        | OFF        | OFF        | OFF        |
| Norm M             | OFF        | OFF        | OFF        | OFF        |
| Teletext           | ON         | ON         | ON         | ON         |
| Nicam Stereo       | ON         | ON         | 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.

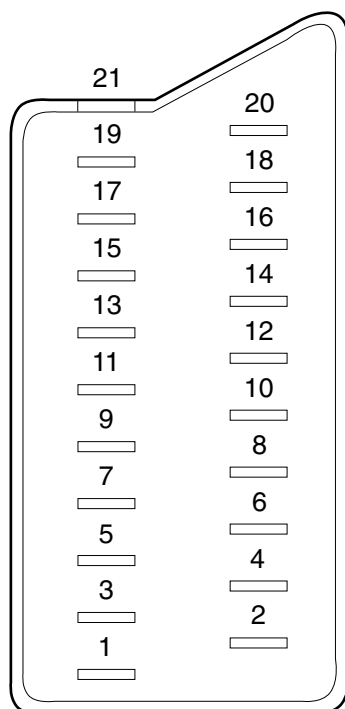
When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



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.             |

## AE-6B SELF DIAGNOSTIC SOFTWARE

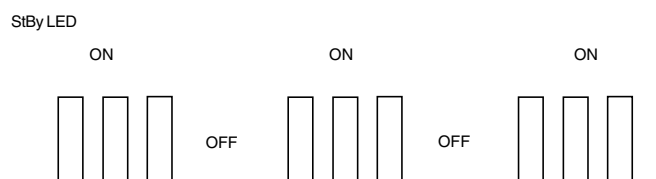
The identification of errors within the AE-6B chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) 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 22].
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**

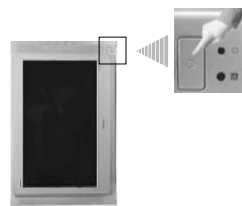
| ERROR MENU   |          |          |    |
|--------------|----------|----------|----|
| E02          | OCP      | (0, 255) | 0  |
| E03          | OVP      | (0, 255) | 0  |
| E04          | VSYNC    | (0, 255) | 0  |
| E05          | IKR      | (0, 255) | 0  |
| E06          | IIC      | (0, 255) | 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          | DYN CON  | (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.

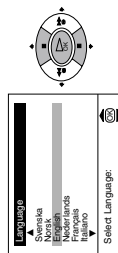
The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

## Switching On the TV and Automatically Tuning

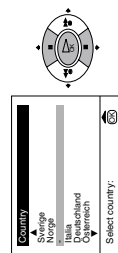
The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) adjust the picture slant, 3) search and store all available channels (TV Broadcast) and 4) change the order in which the channels (TV Broadcast) appear on the 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 **Menu** (Set Up menu) or by pressing the Auto Start Up Button **ASU** on the TV set.



- 1 Connect the 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.



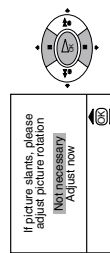
- 2 Press the **Up** or **Down** button on the remote control to select the language, then press the **OK** button to confirm your selection. From now on all the menus will appear in the selected language.



- 3 The **Country** menu appears automatically on the TV screen. Press the **Up** or **Down** 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 set does not appear in the list, select **Other** 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.

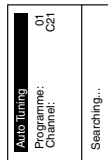
- 4 Because of the earth's magnetism, the picture might slant. The **Picture Rotation** menu allows you to correct the picture slant if it is necessary.



- a) If it is not necessary, press **Up** or **Down** to select **Not necessary** and press **OK**.
- b) If it is necessary, press **Up** or **Down** to select **Adjust now**, then press **OK** and correct any slant of the picture between -5 and +5 by pressing **Left** or **Right**. Finally press **OK** to store.



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



- 6 The TV starts to automatically search and store all available broadcast channels for you.



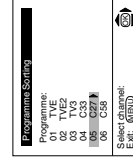
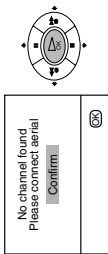
This procedure could take some minutes. Please be patient and do not press any buttons, otherwise the automatic tuning will not be completed.



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 **Up** or **Down** button and **OK** to store the channels.



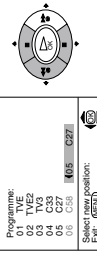
If no channels were found during the auto tuning process then a new menu appears automatically on the screen asking you to connect the aerial. Please connect the aerial (see page 6) and press **OK**. The auto tuning process will start again.



- 7 After all available channels are captured and stored, the **Programme Sorting** menu appears automatically 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 8.

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




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



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

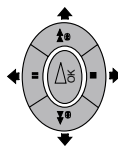
Your TV is now ready for use

# Introducing and Using the Menu System

 Your 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.



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



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

## Menu Guide

**Level 1**      **Level 2**      **Level 3 / Function**

**PICTURE ADJUSTMENT**

The "Picture Adjustment" menu allows you to alter the picture settings.

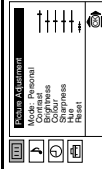
To do this: after selecting the item you want to alter press **↔**, then press repeatedly **↔** / **↔** or **↔** to adjust it and finally press **OK** to store the new adjustment.

This menu also allows you to customise the picture mode based on the programme you are watching:

- ↔ **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.

|      | Level 1 | Level 2 | Level 3 / Function |
|------|---------|---------|--------------------|
| 1.1  | 1.1.1   | 1.1.2   | 1.1.3              |
| 1.2  | 1.2.1   | 1.2.2   | 1.2.3              |
| 1.3  | 1.3.1   | 1.3.2   | 1.3.3              |
| 1.4  | 1.4.1   | 1.4.2   | 1.4.3              |
| 1.5  | 1.5.1   | 1.5.2   | 1.5.3              |
| 1.6  | 1.6.1   | 1.6.2   | 1.6.3              |
| 1.7  | 1.7.1   | 1.7.2   | 1.7.3              |
| 1.8  | 1.8.1   | 1.8.2   | 1.8.3              |
| 1.9  | 1.9.1   | 1.9.2   | 1.9.3              |
| 1.10 | 1.10.1  | 1.10.2  | 1.10.3             |
| 1.11 | 1.11.1  | 1.11.2  | 1.11.3             |
| 1.12 | 1.12.1  | 1.12.2  | 1.12.3             |
| 1.13 | 1.13.1  | 1.13.2  | 1.13.3             |
| 1.14 | 1.14.1  | 1.14.2  | 1.14.3             |
| 1.15 | 1.15.1  | 1.15.2  | 1.15.3             |
| 1.16 | 1.16.1  | 1.16.2  | 1.16.3             |
| 1.17 | 1.17.1  | 1.17.2  | 1.17.3             |
| 1.18 | 1.18.1  | 1.18.2  | 1.18.3             |
| 1.19 | 1.19.1  | 1.19.2  | 1.19.3             |
| 1.20 | 1.20.1  | 1.20.2  | 1.20.3             |
| 1.21 | 1.21.1  | 1.21.2  | 1.21.3             |
| 1.22 | 1.22.1  | 1.22.2  | 1.22.3             |
| 1.23 | 1.23.1  | 1.23.2  | 1.23.3             |
| 1.24 | 1.24.1  | 1.24.2  | 1.24.3             |
| 1.25 | 1.25.1  | 1.25.2  | 1.25.3             |
| 1.26 | 1.26.1  | 1.26.2  | 1.26.3             |
| 1.27 | 1.27.1  | 1.27.2  | 1.27.3             |
| 1.28 | 1.28.1  | 1.28.2  | 1.28.3             |
| 1.29 | 1.29.1  | 1.29.2  | 1.29.3             |
| 1.30 | 1.30.1  | 1.30.2  | 1.30.3             |
| 1.31 | 1.31.1  | 1.31.2  | 1.31.3             |
| 1.32 | 1.32.1  | 1.32.2  | 1.32.3             |
| 1.33 | 1.33.1  | 1.33.2  | 1.33.3             |
| 1.34 | 1.34.1  | 1.34.2  | 1.34.3             |
| 1.35 | 1.35.1  | 1.35.2  | 1.35.3             |
| 1.36 | 1.36.1  | 1.36.2  | 1.36.3             |
| 1.37 | 1.37.1  | 1.37.2  | 1.37.3             |
| 1.38 | 1.38.1  | 1.38.2  | 1.38.3             |
| 1.39 | 1.39.1  | 1.39.2  | 1.39.3             |
| 1.40 | 1.40.1  | 1.40.2  | 1.40.3             |
| 1.41 | 1.41.1  | 1.41.2  | 1.41.3             |
| 1.42 | 1.42.1  | 1.42.2  | 1.42.3             |
| 1.43 | 1.43.1  | 1.43.2  | 1.43.3             |
| 1.44 | 1.44.1  | 1.44.2  | 1.44.3             |
| 1.45 | 1.45.1  | 1.45.2  | 1.45.3             |
| 1.46 | 1.46.1  | 1.46.2  | 1.46.3             |
| 1.47 | 1.47.1  | 1.47.2  | 1.47.3             |
| 1.48 | 1.48.1  | 1.48.2  | 1.48.3             |
| 1.49 | 1.49.1  | 1.49.2  | 1.49.3             |
| 1.50 | 1.50.1  | 1.50.2  | 1.50.3             |
| 1.51 | 1.51.1  | 1.51.2  | 1.51.3             |
| 1.52 | 1.52.1  | 1.52.2  | 1.52.3             |
| 1.53 | 1.53.1  | 1.53.2  | 1.53.3             |
| 1.54 | 1.54.1  | 1.54.2  | 1.54.3             |
| 1.55 | 1.55.1  | 1.55.2  | 1.55.3             |
| 1.56 | 1.56.1  | 1.56.2  | 1.56.3             |
| 1.57 | 1.57.1  | 1.57.2  | 1.57.3             |
| 1.58 | 1.58.1  | 1.58.2  | 1.58.3             |
| 1.59 | 1.59.1  | 1.59.2  | 1.59.3             |
| 1.60 | 1.60.1  | 1.60.2  | 1.60.3             |
| 1.61 | 1.61.1  | 1.61.2  | 1.61.3             |
| 1.62 | 1.62.1  | 1.62.2  | 1.62.3             |
| 1.63 | 1.63.1  | 1.63.2  | 1.63.3             |
| 1.64 | 1.64.1  | 1.64.2  | 1.64.3             |
| 1.65 | 1.65.1  | 1.65.2  | 1.65.3             |
| 1.66 | 1.66.1  | 1.66.2  | 1.66.3             |
| 1.67 | 1.67.1  | 1.67.2  | 1.67.3             |
| 1.68 | 1.68.1  | 1.68.2  | 1.68.3             |
| 1.69 | 1.69.1  | 1.69.2  | 1.69.3             |
| 1.70 | 1.70.1  | 1.70.2  | 1.70.3             |
| 1.71 | 1.71.1  | 1.71.2  | 1.71.3             |
| 1.72 | 1.72.1  | 1.72.2  | 1.72.3             |
| 1.73 | 1.73.1  | 1.73.2  | 1.73.3             |
| 1.74 | 1.74.1  | 1.74.2  | 1.74.3             |
| 1.75 | 1.75.1  | 1.75.2  | 1.75.3             |
| 1.76 | 1.76.1  | 1.76.2  | 1.76.3             |
| 1.77 | 1.77.1  | 1.77.2  | 1.77.3             |



## Level 2



## SOUND ADJUSTMENT

The "Sound Adjustment" menu allows you to alter the sound settings.

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:**

➔ **Dynamic:**

using BBE High Definition sound system. **"BBE High Definition Sound system"**\*\* intensifies clarity and presence of sound for better intelligibility and musical realism.

and musical realism.  
Simulates the sound effect of "Dolby Surround Pro Logic".

**➔ Off:** Flat response.

Flat response.

Treble  
Bass  
Balance

⬅ Less      ➡ More  
 ⬅ Less      ➡ More  
 ⬅ Left      ➡ Right  
 Resets the sound to the

Dual Sound 

- *For a stereo broadcast:*

➔ **Mono.**

• **↓ Stereo.**  
• *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).

- 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.

① \*\* 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 18).

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

| Level 1 | Level 2 | Level 3 / Function   |
|---------|---------|--|
|         |         | <b>MANUAL PROGRAMME PRESET</b><br>The "Manual Programme Preset" option in the "Set Up" menu allows you to:   |
|         |         | <b>a)</b> Preset channels or the VCR channel one by one to the programme order of your choice. To do this:   |
|         |         | <b>i</b> 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 on which programme number you want to preset the channel (for VCR, select programme number "0"). Then press <b>↵</b> .   |
|         |         | <b>ii</b> 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/G for western European countries, L for France or I for United Kingdom). Then press <b>↵</b> .   |
|         |         | <b>iii</b> After selecting the <b>Channel</b> option, press <b>↵</b> . Then press <b>↵</b> or <b>↵</b> to select the channel tuning ("C" for terrestrial channel or "S" for cable channels). Next press <b>↵</b> . After that, 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.<br><i>Repeat all the above steps to tune and store more channels.</i>  |
|         |         | <b>b)</b> Label a channel using up to five characters.<br>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. |
|         |         | <b>c)</b> 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.<br>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.   |
|         |         | <b>d)</b> Skip any unwanted programme numbers when they are selected with the <b>PROG +/-</b> buttons.<br>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.   |
|         |         | <i>To cancel this function afterwards, select "No" instead of "Yes" in the step above.</i>   |
|         |         | <b>e)</b> View and record scrambled channels when using a decoder connected to Scart <b>Ⓒ-3/Ⓔ3</b> directly or through a VCR.  |
|         |         | This option is only available depending on the country you have selected in the "Language/Country" menu.   |
|         |         | 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.<br><i>To cancel this function afterwards, select "Off" instead of "On" in the step above.</i>  |

## Teletext

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.

Teletext errors may occur if you use a channel (TV Broadcast) with a weak signal.

**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.

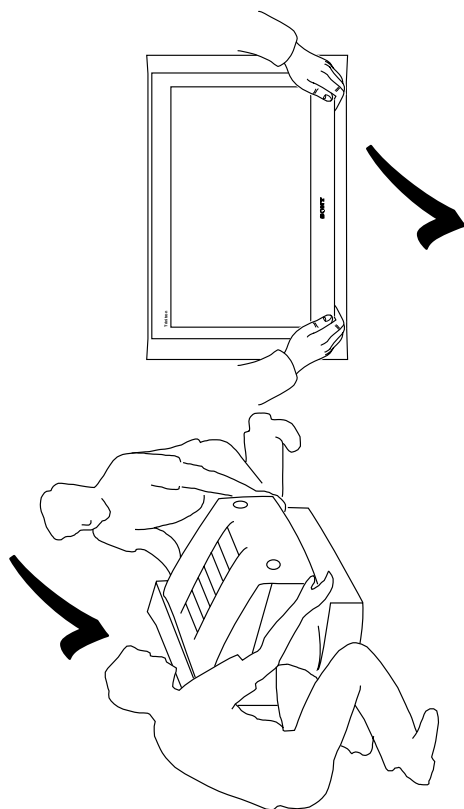
**To Switch Off Teletext:**  
 Press **⏏**.

## Fastext

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

## Lifting the TV Set

4-094-189-11

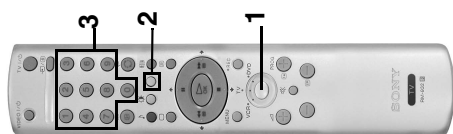


## Remote Control Configuration for VCR/DVD

In its 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:

- 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 the code table included with the remote control for the 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.
  - ⓘ 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.



| 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             | 352, 358                                    | 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           |

<http://www.sony.net/>

Sony Corporation Printed in UK



Recyclable

## Specifications

### TV system:

**Colour system:**  
PAL  
SECAM, NTSC 3.58, 4.43 (only Video In)

### Channel Coverage:

I: UHF B21-B69

### Picture Tube:

Flat Display FD Trinitron WIDE:  
•KV-32FX68U: 32" (approx. 82 cm, measured diagonally)  
•KV-28FX68U: 28" (approx. 71 cm, measured diagonally)

### Rear Terminals

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

### 2

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

### 3

21-pin Scart connector (SMARTLINK) (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  
**4** headphones jack

### Sound Output:

2 x 20 W (music power)  
2 x 10 W (RMS)

### Woofer:

30 W (music power)  
15 W (RMS)

### Power Consumption:

KV-32FX68U: 130 W  
KV-28FX68U: 125 W

### Standby Power Consumption:

0.3 W

### Dimensions (w x h x d):

KV-32FX68U: approx. 882 x 567 x 562 mm.  
KV-28FX68U: approx. 797 x 519 x 523 mm.

### Weight:

KV-32FX68U: approx. 65 Kg.  
KV-28FX68U: approx. 45 Kg.

### Accessories supplied:

1 Remote Control (RM-932)  
2 Batteries (IEC designated)

### Other features:

- 100 Hz picture memory
- Teletext, Fastext, TOPtext (250 page TEXT)
- Sleep Timer
- Smartlink (direct link between your TV set and a compatible VCR. For more information on Smartlink, please refer to the Instruction Manual of your VCR).
- Dolby Virtual.
- BBE Digital
- Auto Format.
- ACI (Auto Channel Installation).

**Design and specifications are subject to change without notice.**

## 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 <b>⓪</b> button on the front of the TV.</li> <li>• If the standby indicator <b>⓪</b> is on, press <b>TV I/O</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 <b>⓪</b> 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 <b>↵</b> button on the remote control.</li> <li>• Check that "TV Speakers" is "On" in the "Detail Set Up" 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>  |
| 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 TV.</li> </ul>   |
| Picture slanted  | <ul style="list-style-type: none"> <li>• Using the menu system, select the "Picture Rotation" option in the "Detail Set Up" menu to correct the picture slant.</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 "Detail Set Up" 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 <b>⓪-3-⓪33</b> . | <ul style="list-style-type: none"> <li>• Using the menu system, select the "Set Up" 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 <b>⓪-2/⓪2</b>.</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 on "Remote Control Configuration for VCR/DVD" chapter of this instruction manual.</li> <li>• Replace the batteries.</li> </ul> |
| The standby indicator <b>⓪</b> on the TV flashes.  | <ul style="list-style-type: none"> <li>• Contact your nearest Sony service centre.</li> </ul>  |

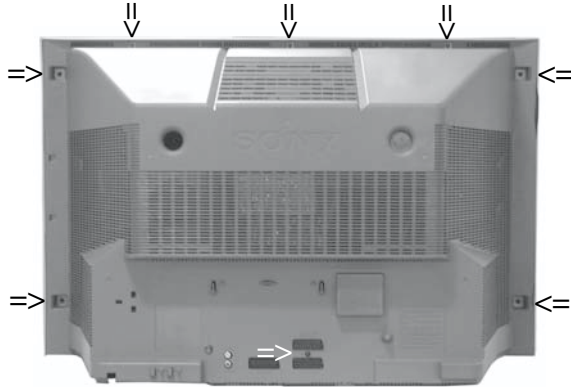


If you continue to experience problems, have your TV serviced by qualified personnel. Never open the casing yourself.



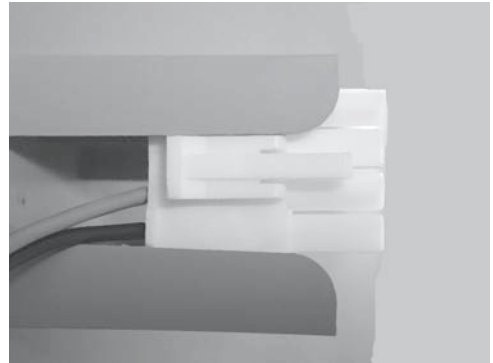
## SECTION 2 DISASSEMBLY

### 2-1. Rear Cover Removal



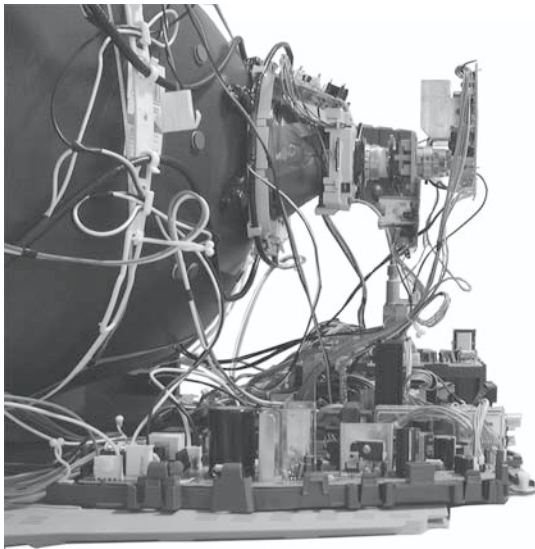
Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

### 2-2. Speaker Connector Disconnection

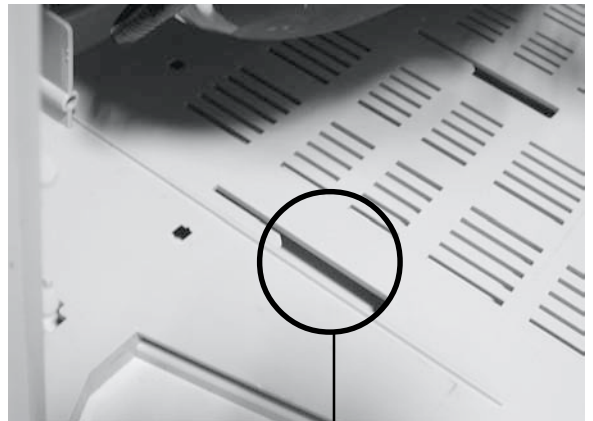


Before completely removing the rear cover disconnect the speaker connector which is located on the inside.

### 2-3. Chassis Removal and Refitting

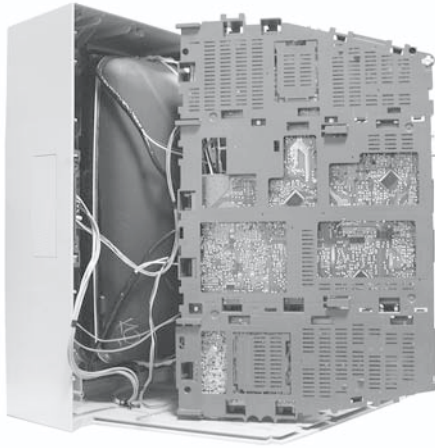


To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.



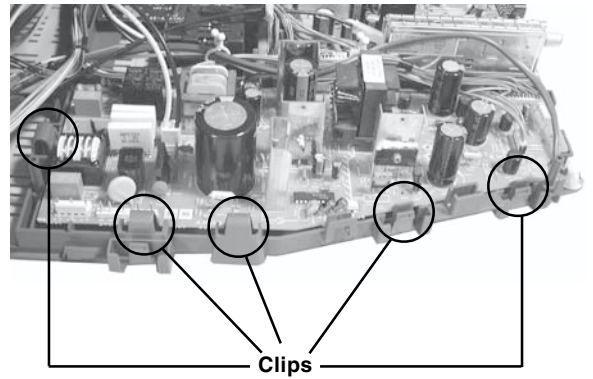
When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

#### 2-4. Service Position



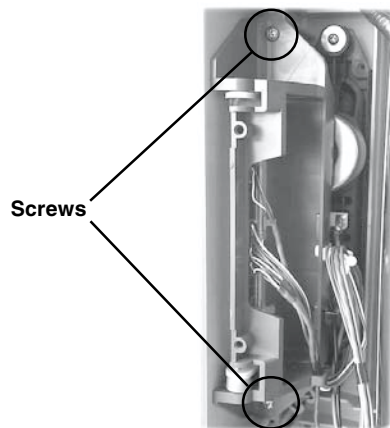
Position the chassis as indicated to access the solder side. To gain access to the underside of the boards follow the instructions on page 17. [Removal and Replacement of the main bracket bottom plates ].

#### 2-5. G Board Removal



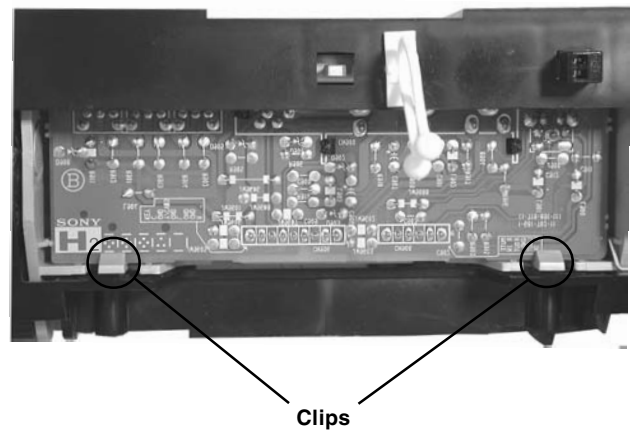
To remove the G Board release the clips circled and ease the board gently away from the support bracket. Removal of the D board follows the same procedure.

#### 2-6. Side Control Module Removal



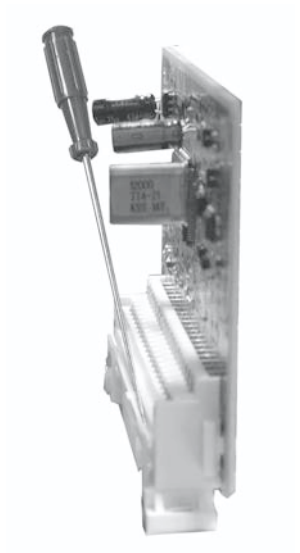
Remove the two screws fixing the user control module to the side of the set. The control module can then be removed by sliding it towards the rear of the set allowing access to the H2 Board.

#### 2-7. H2 Board Removal



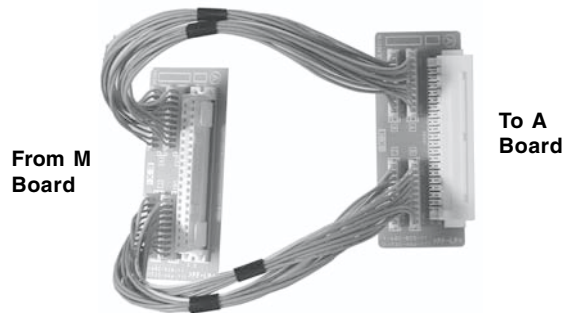
To remove the H2 Board release the two clips circled and ease the board gently away from the support bracket.

## 2-8. M Board Removal



To remove the M Board gently release the two clips with a screwdriver and remove the board from its socket vertically.

## 2-9. Service Connector for M Board



Extender Board Assembly A-1642-293-A

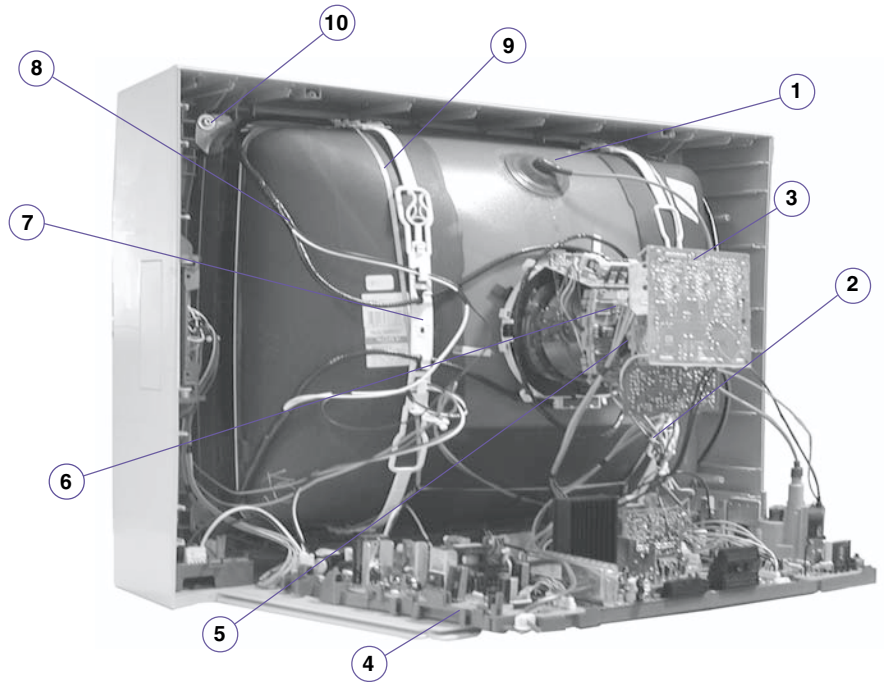
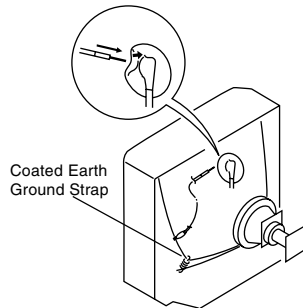
If the M Board needs to be removed for testing when the chassis is placed in its service position, it would be necessary to use an extender board and extension cable as indicated above.

The Extender board and extension cable are available as a service part by ordering the part number as indicated.

## 2-10. Picture Tube Removal

### WARNING: BEFORE REMOVING THE ANODE CAP

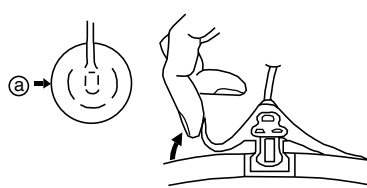
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



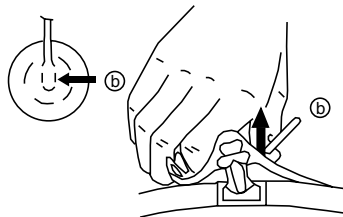
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tensioners.
10. Unscrew the four CRT fixing screws [ located on each CRT corner ] and remove the CRT.  
[Take care not to handle the CRT by the neck.]

### Removal of the Anode-Cap

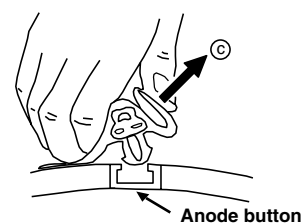
#### \* REMOVING PROCEDURES.



- 1 Turn up one side of the rubber cap in the direction indicated by the arrow (a)



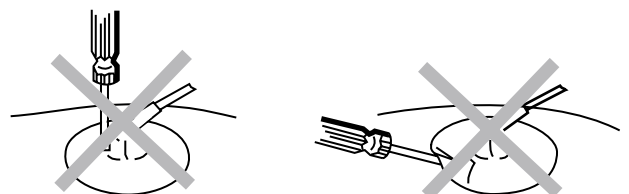
- 2 Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)



- 3 When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

#### How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.



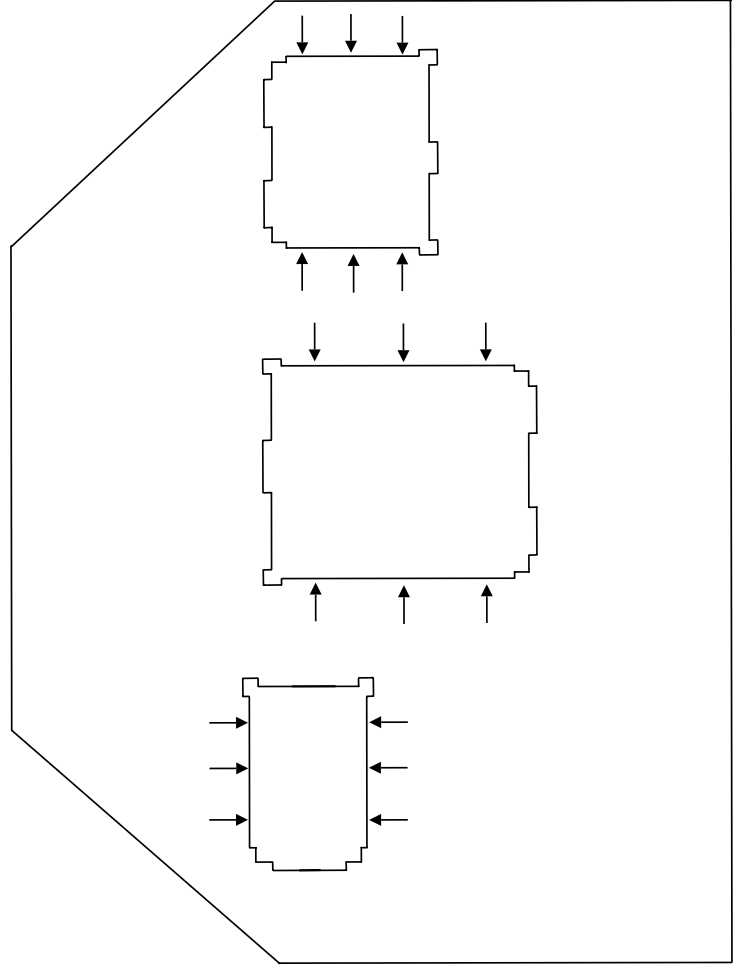
## REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

### (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the printed wiring boards, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

**Note :** There are 3 plates fitted to the main bracket.

Only remove the necessary plate to gain access to the printed wiring board.

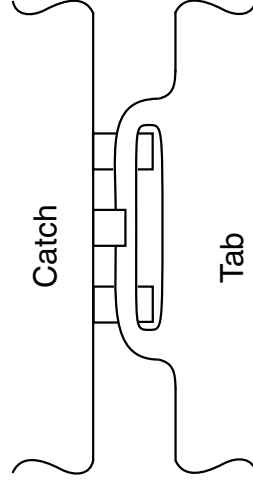


For safety reasons, on no account should the plates be removed and not refitted after servicing.

### (2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.



## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast ..... normal

Brightness ..... normal

**Carry out the adjustments in the following order :**

- 3-1. Beam Landing.
- 3-2. Convergence.
- 3-3. Focus.
- 3-4. White Balance.

**Note :** Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

### 3-1. Beam Landing

**Preparation :**

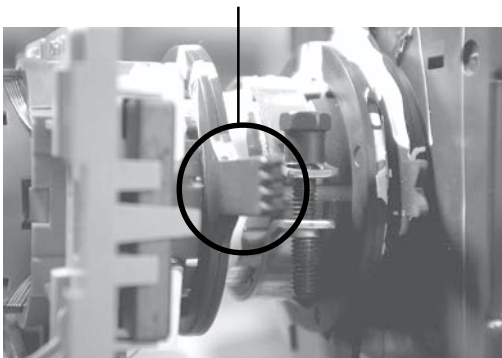
1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

#### (1) Adjustment of Correction Magnet for Y-Splitting Axis.

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly. [See Fig 3-3]
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

**Fig.3-1**

**Y-splitting axis correction magnet**



**Caution :**

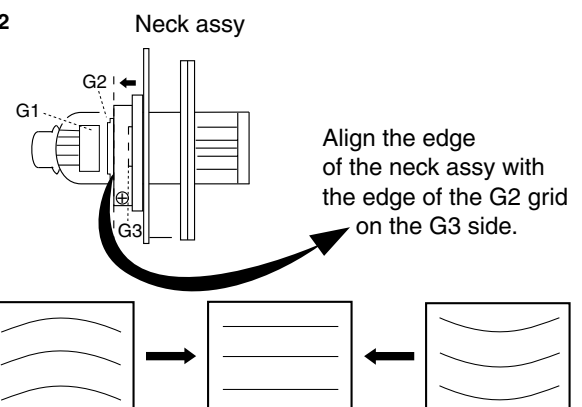
High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

#### (2) Landing

**Note :** Before carrying out the following adjustments adjust the magnets as indicated [See Fig.3-4].

1. Input a crosshatch signal from the signal generator.
2. Rough-adjust the focus and horizontal convergence.
3. Switch from the crosshatch pattern to an all-red pattern.
4. Move the deflection yoke backwards and adjust with the purity magnet so that the red is at the centre and it aligns symmetrically [See Fig.3-5].
5. Move the deflection yoke forward to the point where the entire screen just becomes red [Mark its position].
6. Move the deflection yoke further forward until the screen just changes colour at the edges. [Mark its position]
7. Position the deflection yoke between the two marks indicated above.
8. Input a crosshatch pattern from the pattern generator and rotate the deflection yoke so that the horizontal lines are parallel with the top and bottom of the screen.
9. When the position of the deflection yoke has been determined, fasten it with its fixing screw.
10. Switch the pattern generator to green then blue and confirm the purity.
11. If the beam does not land correctly in all the corners of the screen, use disk magnets to correct it. [Confirm the corner landing for green and blue]

**Fig.3-2**



**Fig.3-3**



Fig.3-4

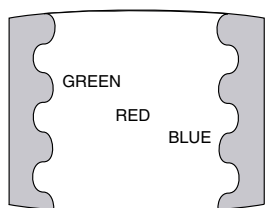
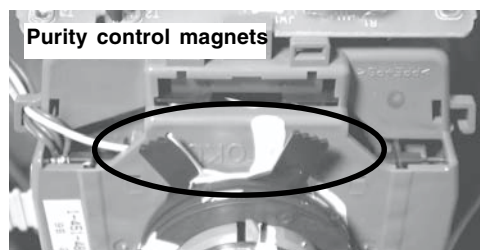
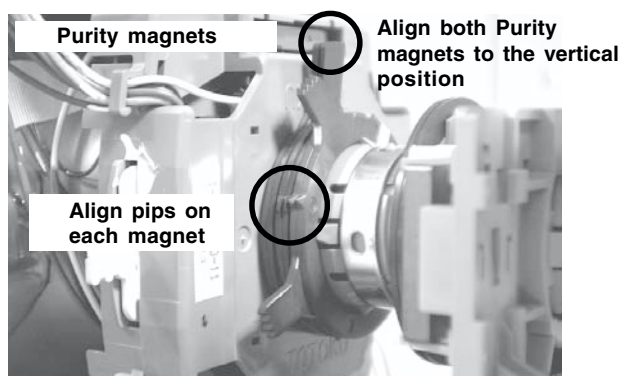
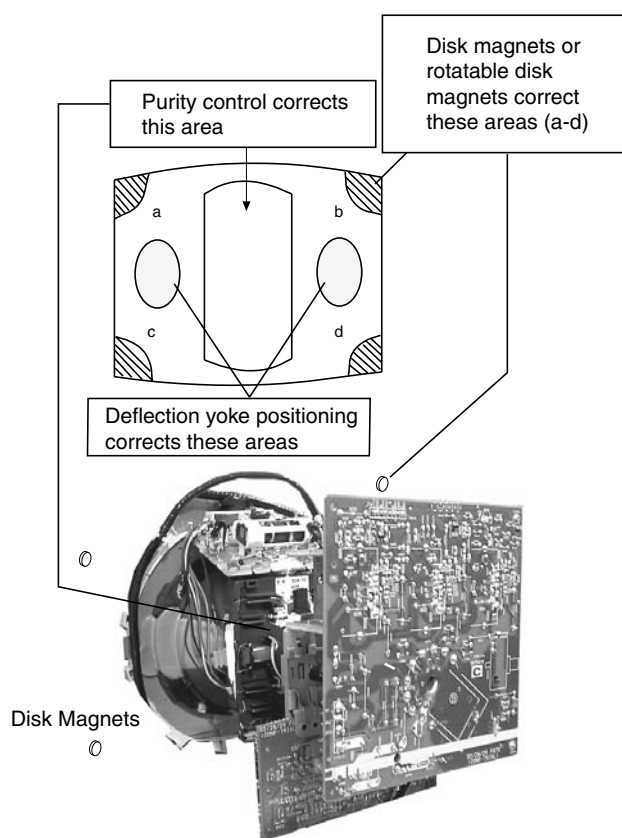


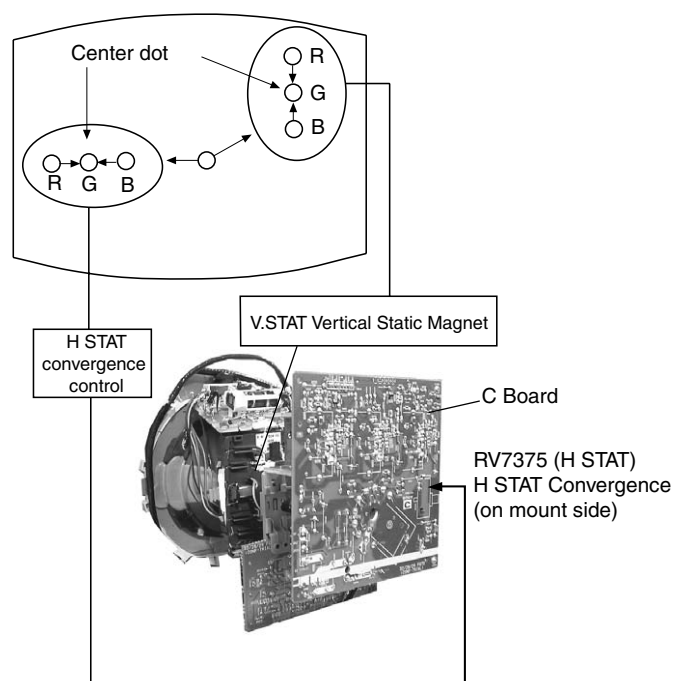
Fig.3-5



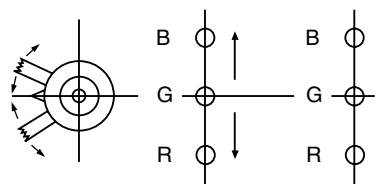
### 3-2. Convergence

#### (1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.



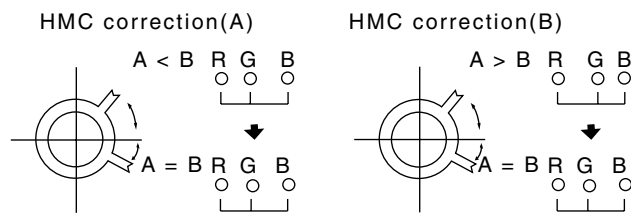
By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



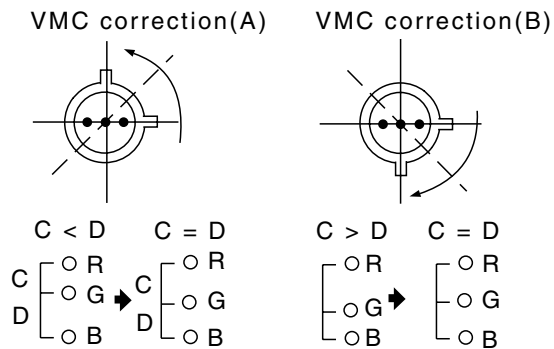
**Note:** Do not adjust the H.STAT by rotating the V.STAT magnets as this can affect the focus setting.

4. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

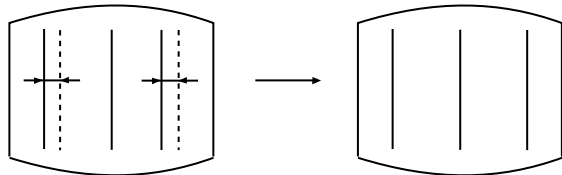
- a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.



- b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

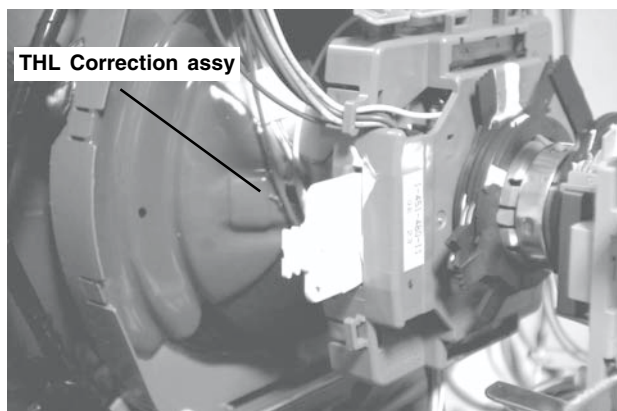


#### HAMP Adjustment

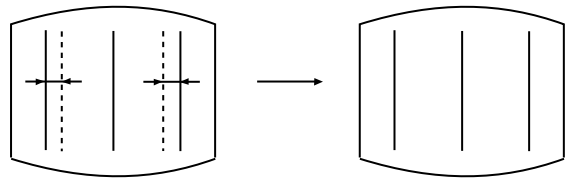


Adjust the HAMP using HAMPL and HAMPR registers in the Dynamic Convergence section of the service menu.

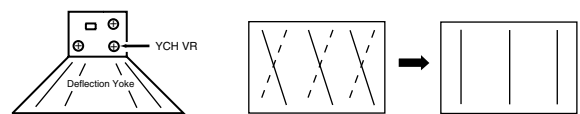
#### HTIL Adjustment



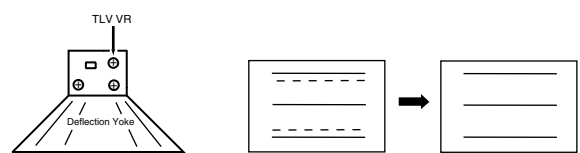
HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.



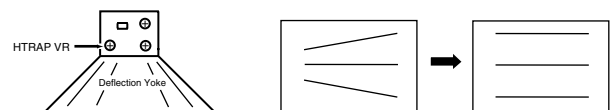
#### YCH Adjustment



#### TLV Adjustment



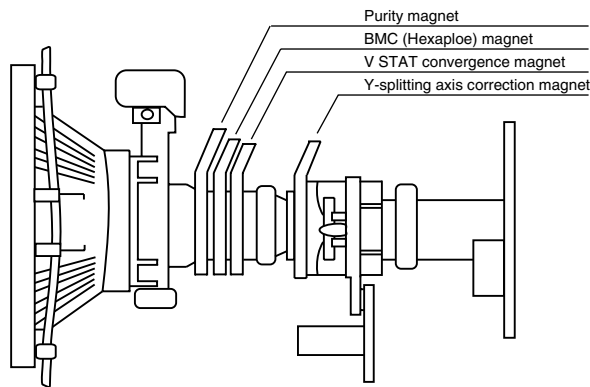
#### H-TRAP Adjustment



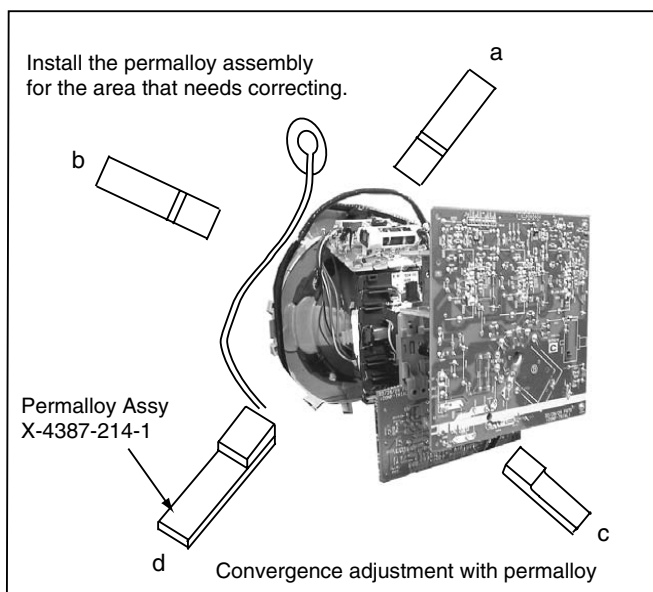
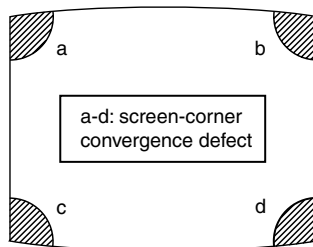
The H-TRAP should not be adjusted unless absolutely necessary as it affects the TLV settings.



## Layout of each control

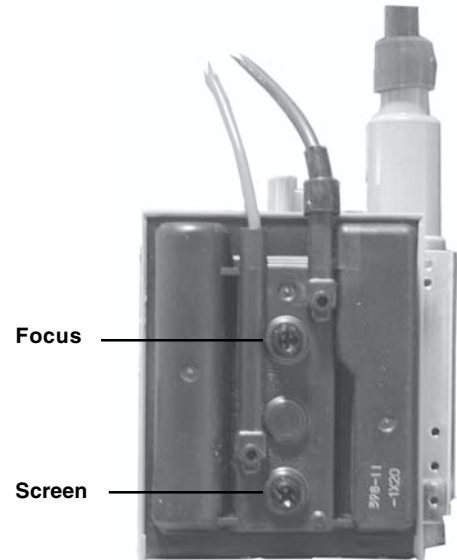


**Note :** If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.



## 3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen. Bring only the centre area of the screen into focus, the magenta-ringing appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



## 3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

### G2 adjustment

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 165V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [SCREEN] located on the flyback transformer to the point just before the flyback return lines disappear.

### White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Program the Remote Commander for operation in Service Mode. [ See Page 22 ].
3. Enter into the 'Service Mode' by pressing 'VIDEO' button twice and 'MENU' on the Service Commander.
4. Select 'Service' from the on screen menu display and press 'Right Arrow'.
5. The 'Service' menu will appear on the screen.[See Page 23]
6. Set the 'Contrast' to MAX.
7. Set the 'R-Drive' to 50.
8. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
9. Press the 'OK' button to write the data for each item.
10. Set the 'Contrast' to MIN.
11. Set the 'R-Cutoff' to 29.
12. Adjust the 'G-Cutoff', and the 'B-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
13. Press the 'OK' button to write the data for each item.

## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. Electrical Adjustments


Service adjustments to this model can be performed using the supplied remote Commander RM-932.

#### 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.



#### 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.

```

Geometry
Panorama
Service
Scanrate
DAC
PiP
Sound
IF adjust
Error Menu

AE6B Wide v2.21 (Jan 2002)
Factory data 02h 16h
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.

#### 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 |
| 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  |

#### PANORAMA

|            |          |     |
|------------|----------|-----|
| HORWIDTH H | (0, 7)   | 1   |
| HORWIDTH L | (0, 255) | 170 |
| HORPOS H   | (0, 7)   | 0   |
| HORPOS L   | (0, 255) | 15  |
| NAPPLIP H  | (0, 7)   | 1   |
| NAPPLIP L  | (0, 127) | 62  |
| HSCPOSC H  | (0, 15)  | 8   |
| HSCPOSC L  | (0, 255) | 151 |
| BLANDEL    | (0, 255) | 13  |
| BLANLEN    | (0, 255) | 207 |
| BLANPOL    | (0, 1)   | 0   |
| HSEG1 H    | (0, 7)   | 0   |
| HSEG1 L    | (0, 255) | 96  |
| HSEG2 H    | (0, 7)   | 0   |
| HSEG2 L    | (0, 255) | 192 |
| HSEG3 H    | (0, 7)   | 0   |
| HSEG3 L    | (0, 255) | 224 |
| HSEG4 H    | (0, 7)   | 1   |
| HSEG4 L    | (0, 255) | 64  |
| HINCO H    | (0, 1)   | 0   |
| HINCO L    | (0, 255) | 40  |
| HINC1 H    | (0, 1)   | 0   |
| HINC1 L    | (0, 255) | 20  |
| HINC2 H    | (0, 1)   | 0   |
| HINC2 L    | (0, 255) | 0   |
| HINC3 H    | (0, 1)   | 1   |
| HINC3 L    | (0, 255) | 236 |
| HINC4 H    | (0, 1)   | 1   |
| HINC4 L    | (0, 255) | 216 |

**IF ADJUST**

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

**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  |

**DAC**

|               |          |                 |
|---------------|----------|-----------------|
| <i>CONFIG</i> |          | <i>00000000</i> |
| MPIN CONT     | (0, 255) | 96              |
| HLIN          | (0, 255) | 83              |
| HTRAP         | (0, 255) | 127             |
| ROT. COIL     | (0, 255) | 130             |
| PHOCUS PH     | (0, 255) | 90              |

**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

**ERROR MENU**

|     |          |          |   |
|-----|----------|----------|---|
| E02 | OCP      | (0, 255) | 0 |
| E03 | OVP      | (0, 255) | 0 |
| E04 | VSYN     | (0, 255) | 0 |
| E05 | IKR      | (0, 255) | 0 |
| E06 | IIC      | (0, 255) | 0 |
| E07 | NVM      | (0, 255) | 0 |
| E08 | HPR      | (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 | DYN CON  | (0, 255) | 0 |
| E16 | PIP      | (0, 255) | 0 |

**WORKING TIME**

|         |    |
|---------|----|
| HOURS   | 14 |
| MINUTES | 7  |

**Sub Brightness Adjustment**

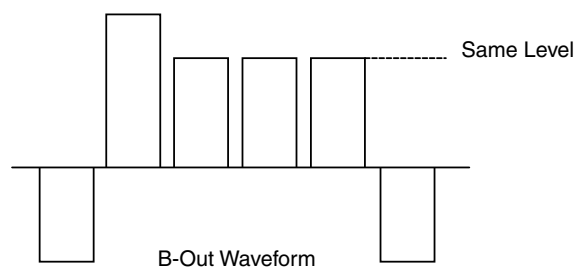
1. Input a Monoscope pattern.
2. Program the Remote Commander for operation in Service Mode. [ See Page 22 ].
3. Press 'VIDEO' 'VIDEO' 13 on the Remote Commander.
4. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

**Sub Contrast Adjustment**

1. Input a video signal that contains a small 100% white area on a black background.
2. Connect an digital voltmeter to Pin 10 of J7378 [C Board].
3. Program the Remote Commander for operation in Service Mode. [ See Page 22 ].
4. Adjust the Sub-Contrast [ Using 'VIDEO' 'VIDEO' '11' ] to obtain a voltage of 105 +/- 5V.

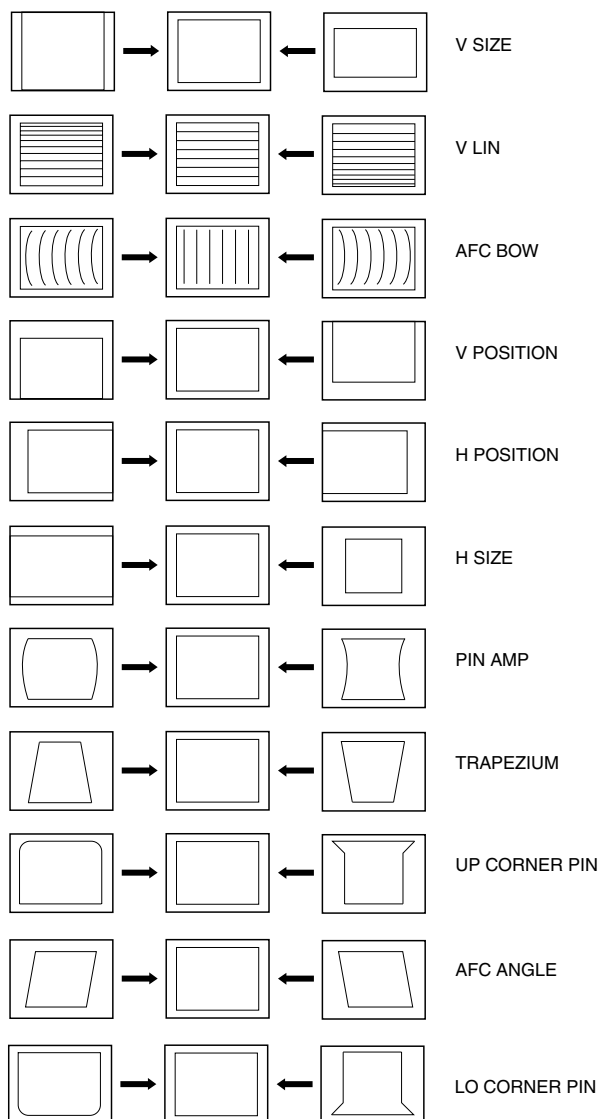
**Sub Colour Adjustment**

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 6 of CN7001 [A Board].
3. Program the Remote Commander for operation in Service Mode. [ See Page 22 ].
4. Adjust the 'Sub Colour' [ Using 'VIDEO' 'VIDEO' '12' ] so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.



## Deflection System Adjustment

1. Program the Remote Commander for operation in Service Mode. [ See Page 22 ] and enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.



### GEOMETRY

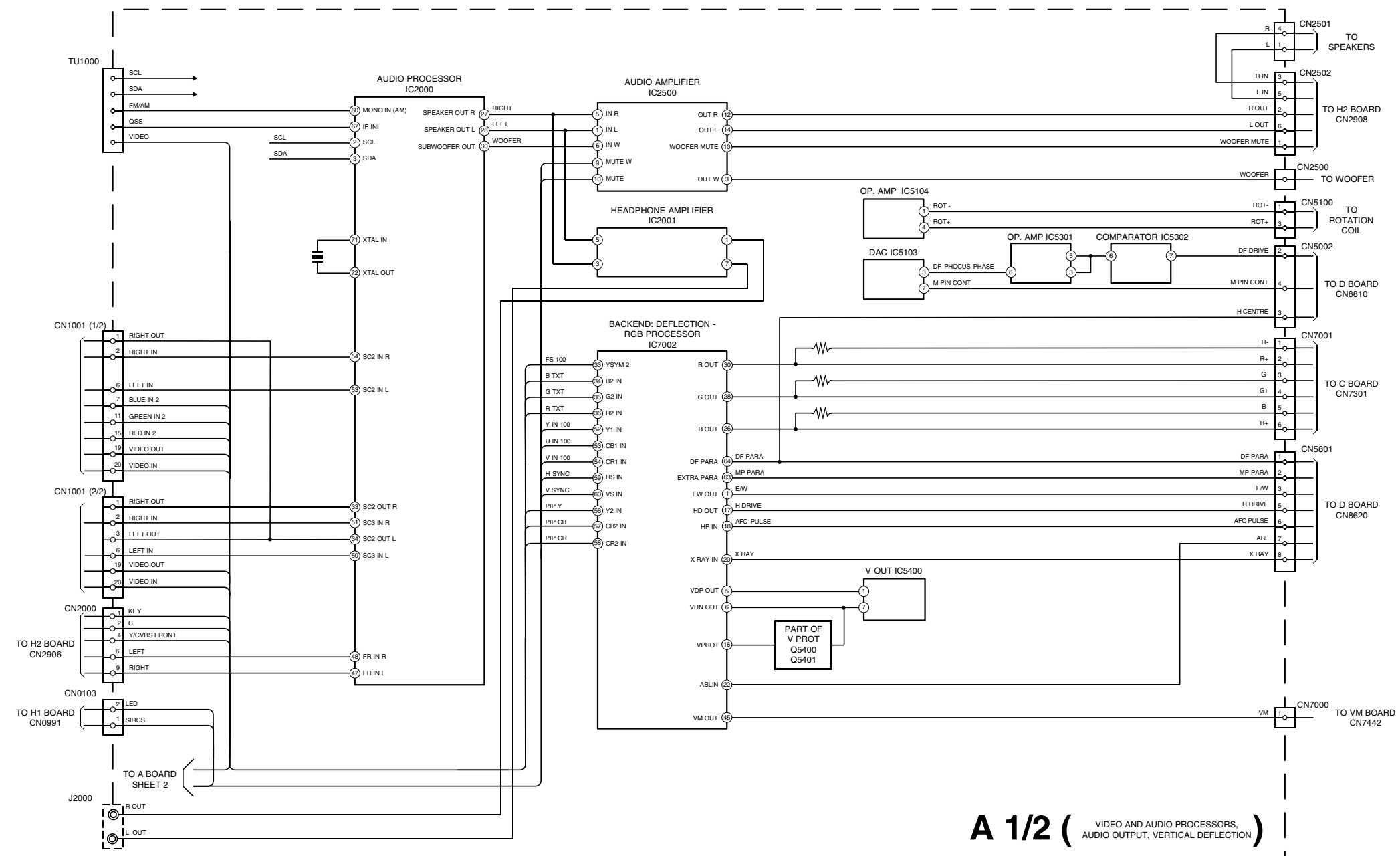
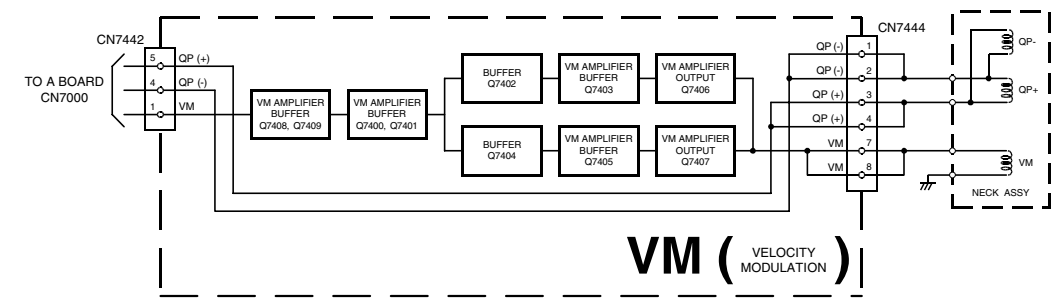
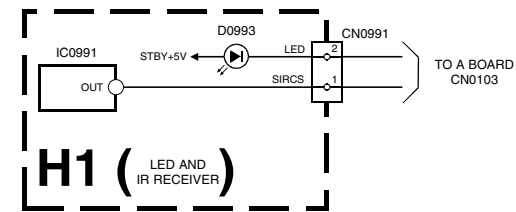
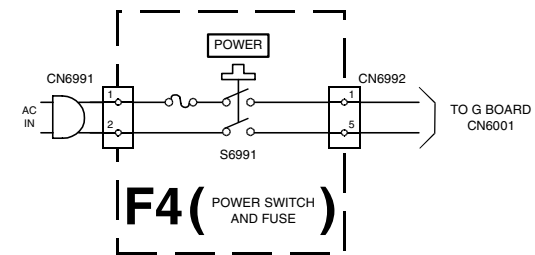
|              |         |    |
|--------------|---------|----|
| ABL TH       | (0, 3)  | 0  |
| ABL MODE     | (0, 3)  | 0  |
| P ABL        | (0, 15) | 15 |
| V SIZE       | (0, 63) | 35 |
| V POSITION   | (0, 63) | 33 |
| V COMP       | (0, 3)  | 1  |
| V LIN        | (0, 15) | 7  |
| S CORRECTION | (0, 15) | 7  |
| H SIZE       | (0, 63) | 44 |
| PIN AMP      | (0, 63) | 32 |
| 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  |

## 4-2. TEST MODE 2:

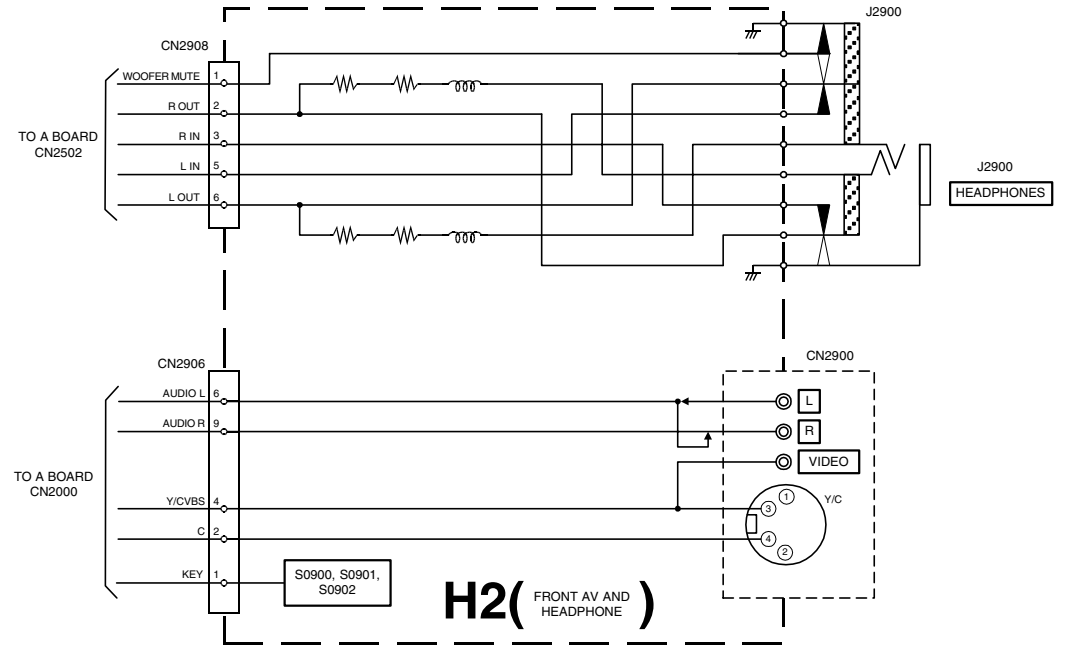
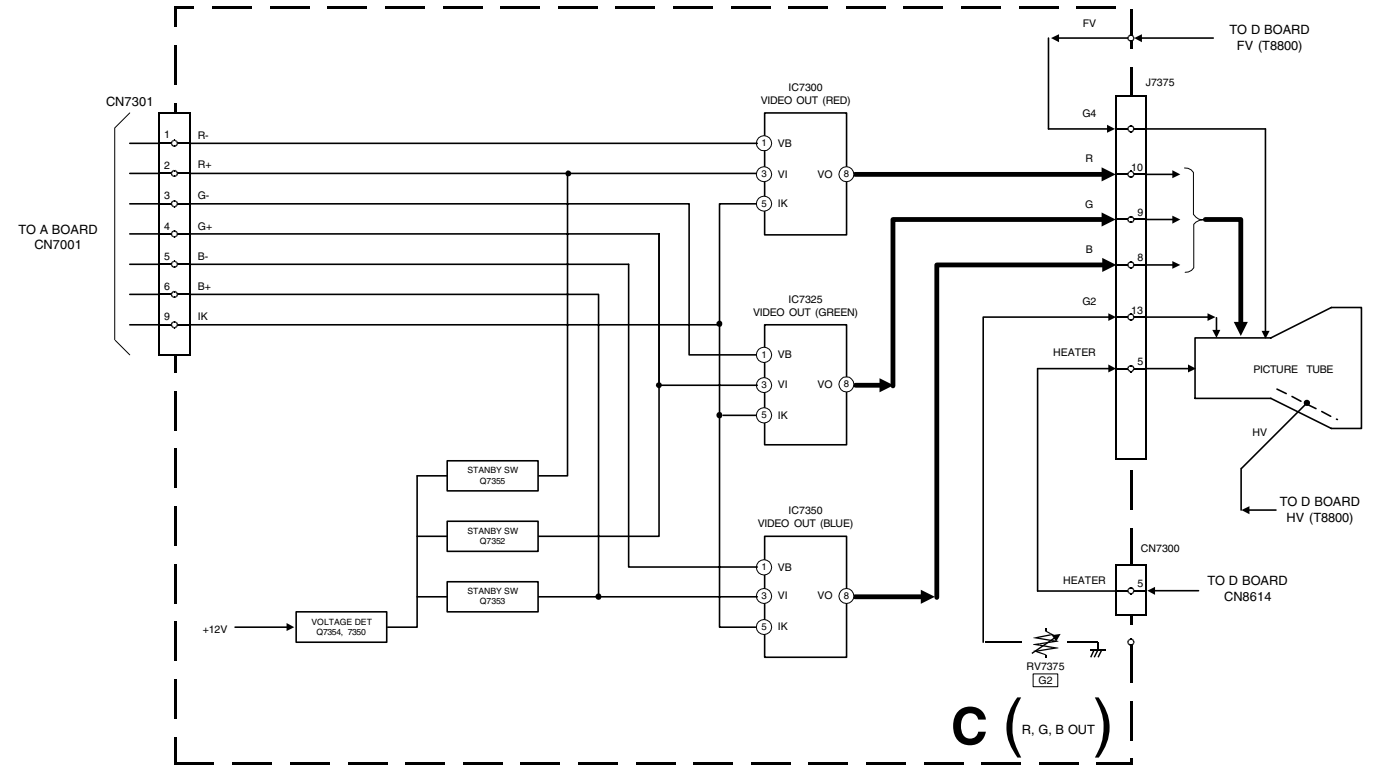
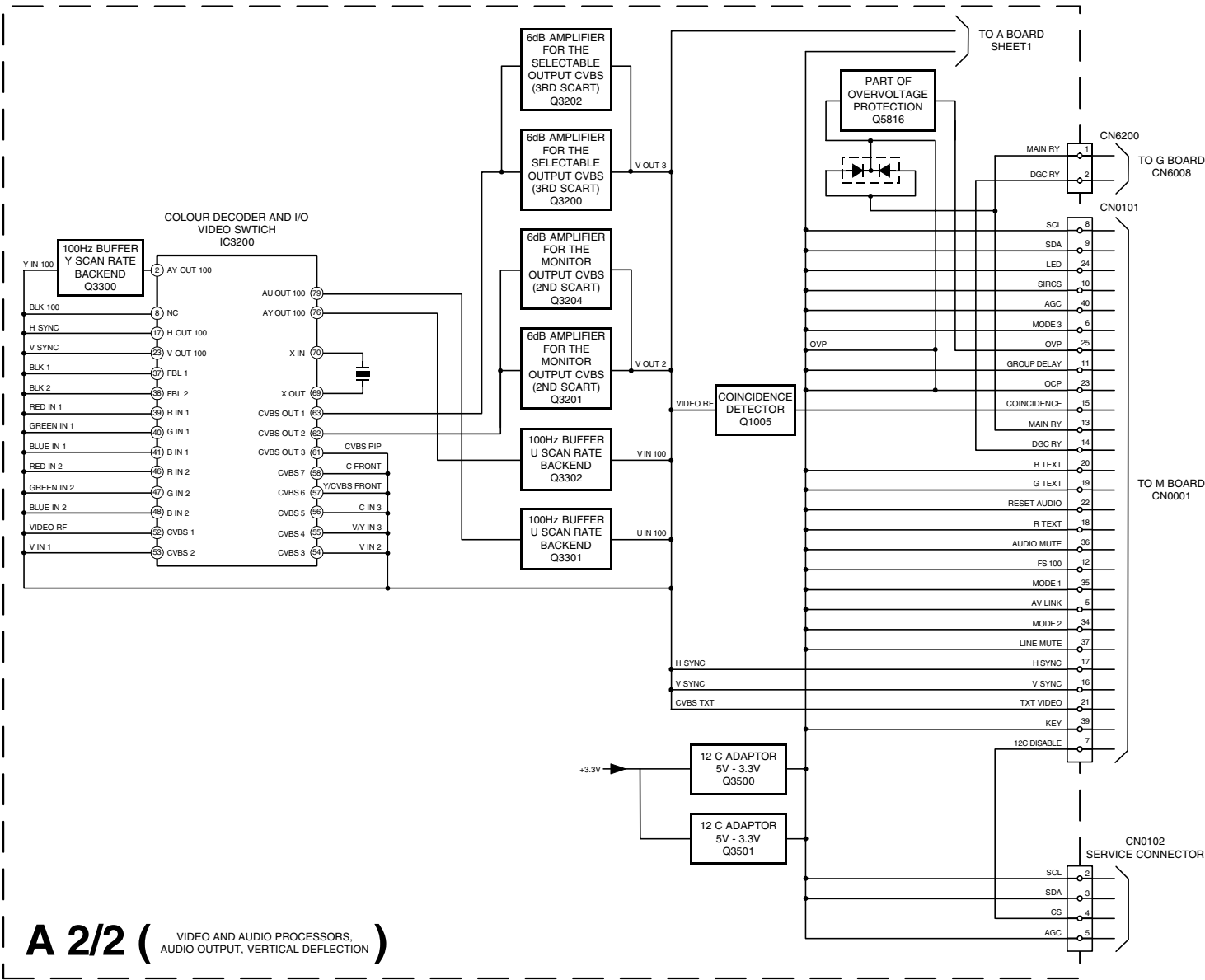
Test Mode 2 is available by rogramming the Remote Commander for operation in Service Mode [ As shown on Page 22 ] then pressing the 'VIDEO' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 00, 10, 20 ... twice or switch the TV set into Stand-by mode. In 'TT Menu' 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 on screen !!.

|    |   |
|----|---|
| 00 | 'TT' mode off                                 |
| 01 | Picture maximum                               |
| 02 | Picture minimum                               |
| 03 | Set speaker/headphone Volume to 35%           |
| 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                            |
| 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%                             |
| 19 | Factory Mode Enable/Disable                   |
| 21 | Destination ADEKR                             |
| 22 | Destination BL                                |
| 23 | Destination ADEKR                             |
| 24 | Destination U                                 |
| 25 | Destination ADEKR                             |
| 26 | Destination BL                                |
| 27 | Destination ADEKR                             |
| 28 | Destination ADEKR                             |
| 31 | Auto Shutoff Enable/Disable                   |
| 36 | Velocity Modulation (VM) OFF/ON test          |
| 41 | Re-initialise NVM                             |
| 43 | Select Dual A sound                           |
| 44 | Select Dual B sound                           |
| 45 | Select Mono sound                             |
| 46 | Select Stereo sound                           |
| 48 | Set NVM as non virgin                         |
| 49 | Set NVM as virgin                             |
| 53 | FM Overmodulation Enable/Disable              |
| 55 | Tuner selection (SONY/ALPS)                   |
| 59 | Select Model 3 Scarts + PIP or 2 Scarts       |
| 68 | Enable/Disable X26 countermeasure (N problem) |
| 73 | Enable Zweiton D/K2 system (6.5/6.74)         |
| 74 | Enable Zweiton D/K3 system (6.5/5.74)         |
| 78 | Balance full right                            |
| 79 | Balance full left                             |
| 87 | Local keys test                               |
| 99 | Display Error and Working Time menu           |

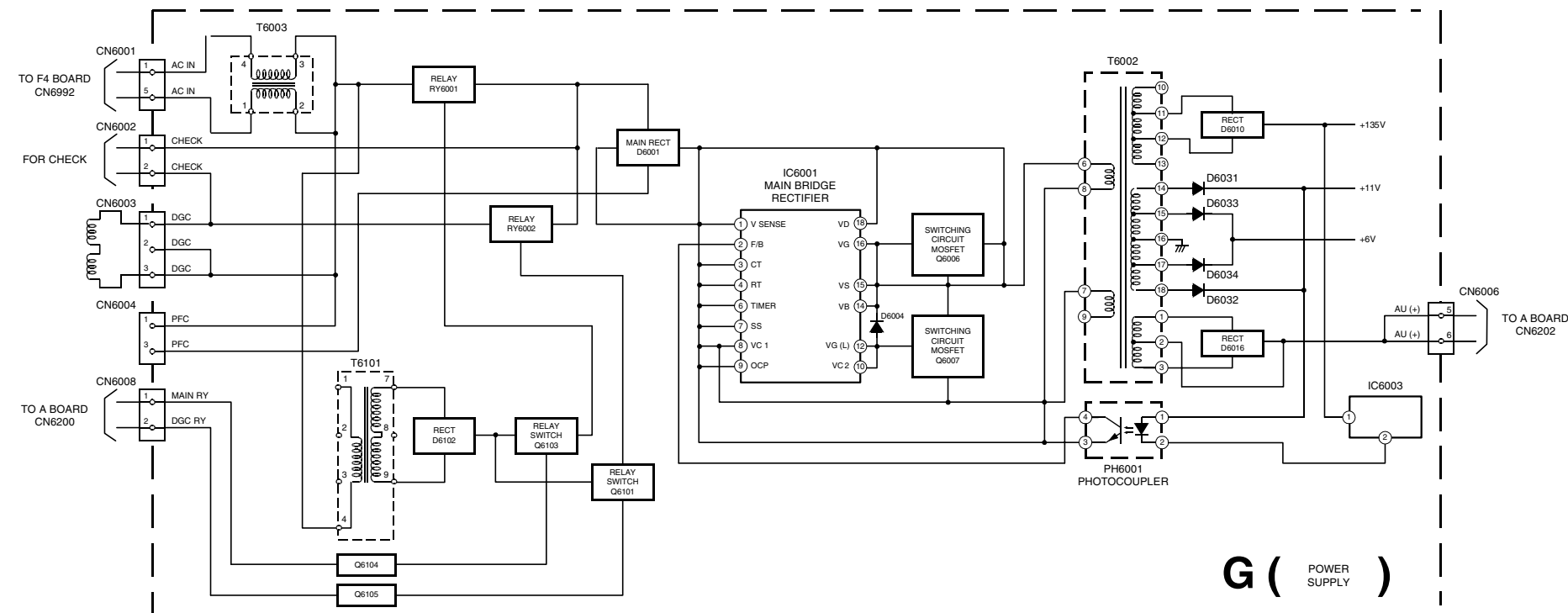
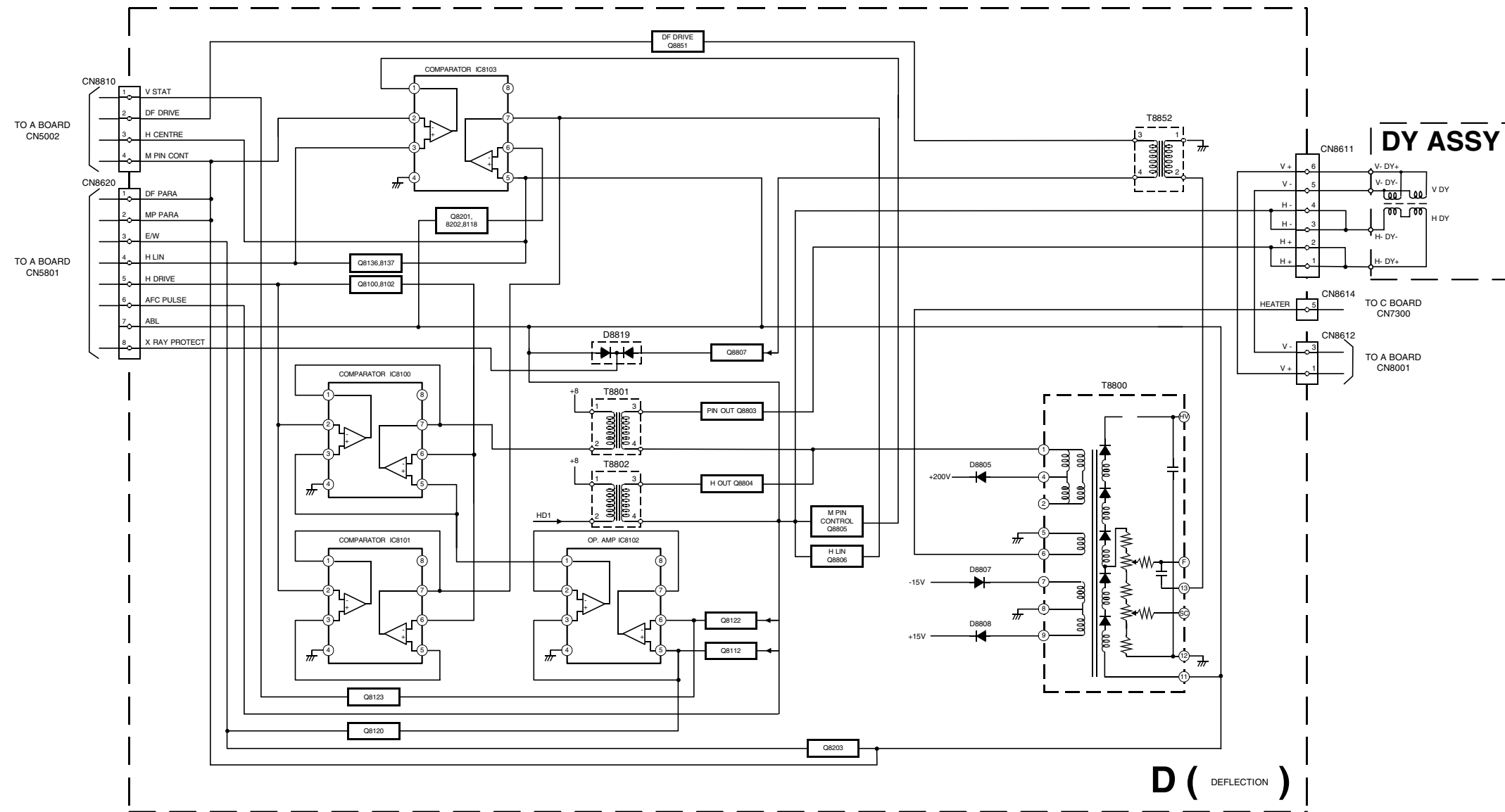
5-1. BLOCK DIAGRAMS (1)



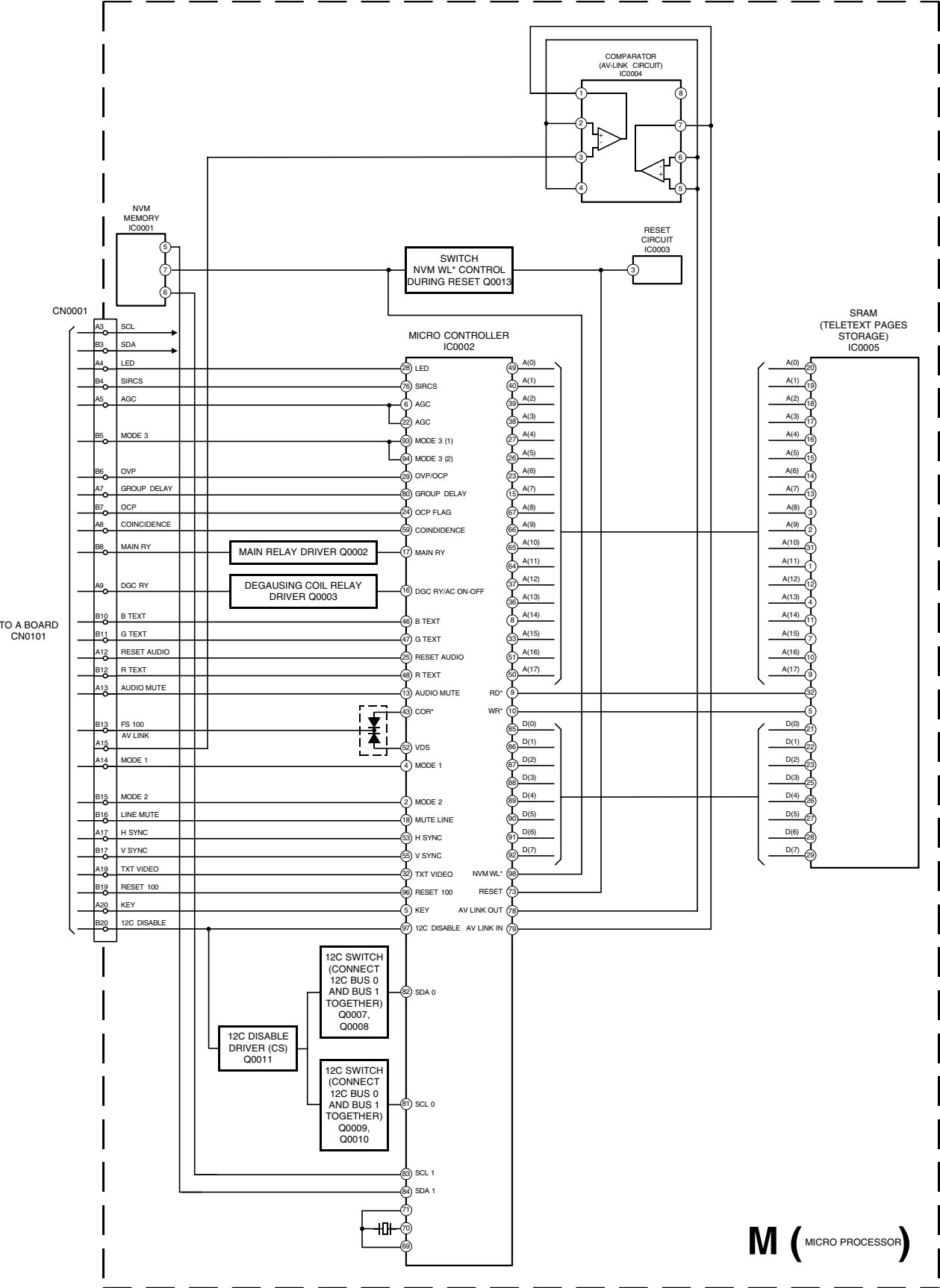
5-1. BLOCK DIAGRAMS (2)



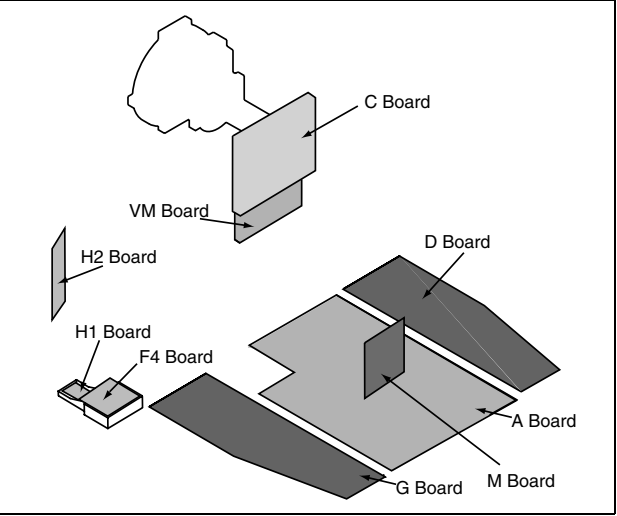
5-1. BLOCK DIAGRAMS (3)












5-1. BLOCK DIAGRAMS (4)




5-2. CIRCUIT BOARD LOCATION





5-3. 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.

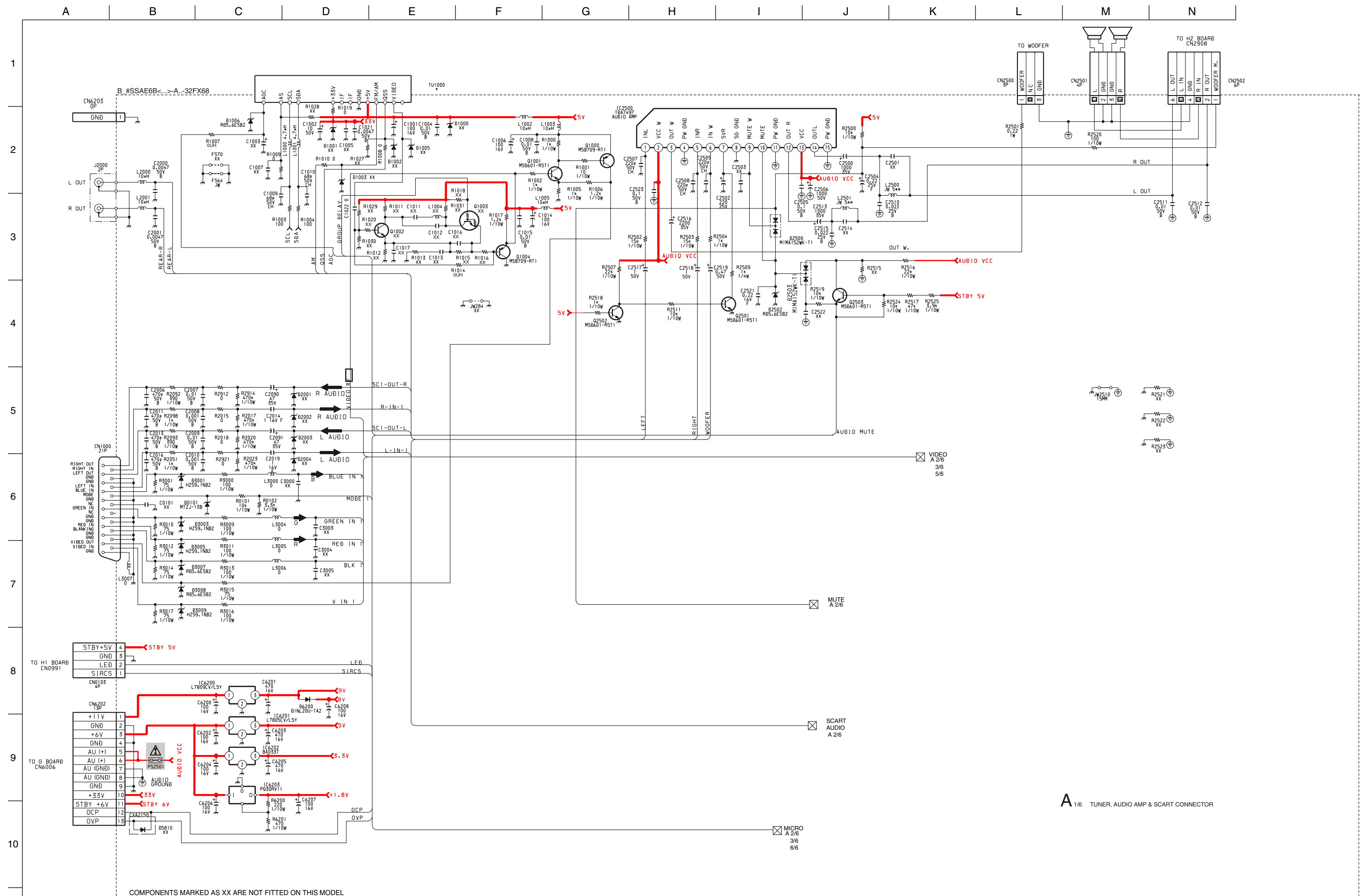
Reference Information

| 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.

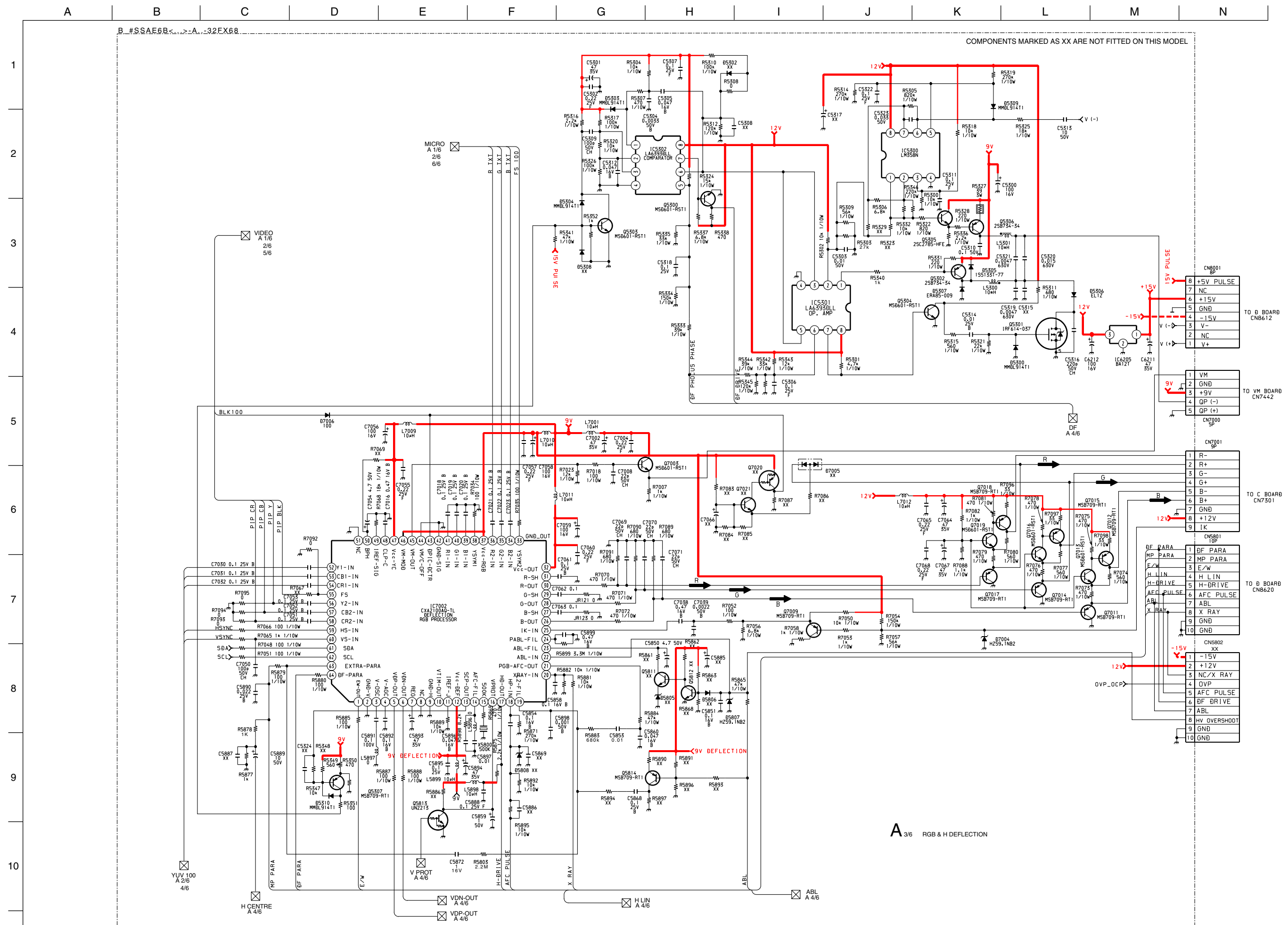
**Note :** Les composants identifiés par une trame et par une marque  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.





A 1/6 TUNER, AUDIO AMP & SCART CONNECTOR



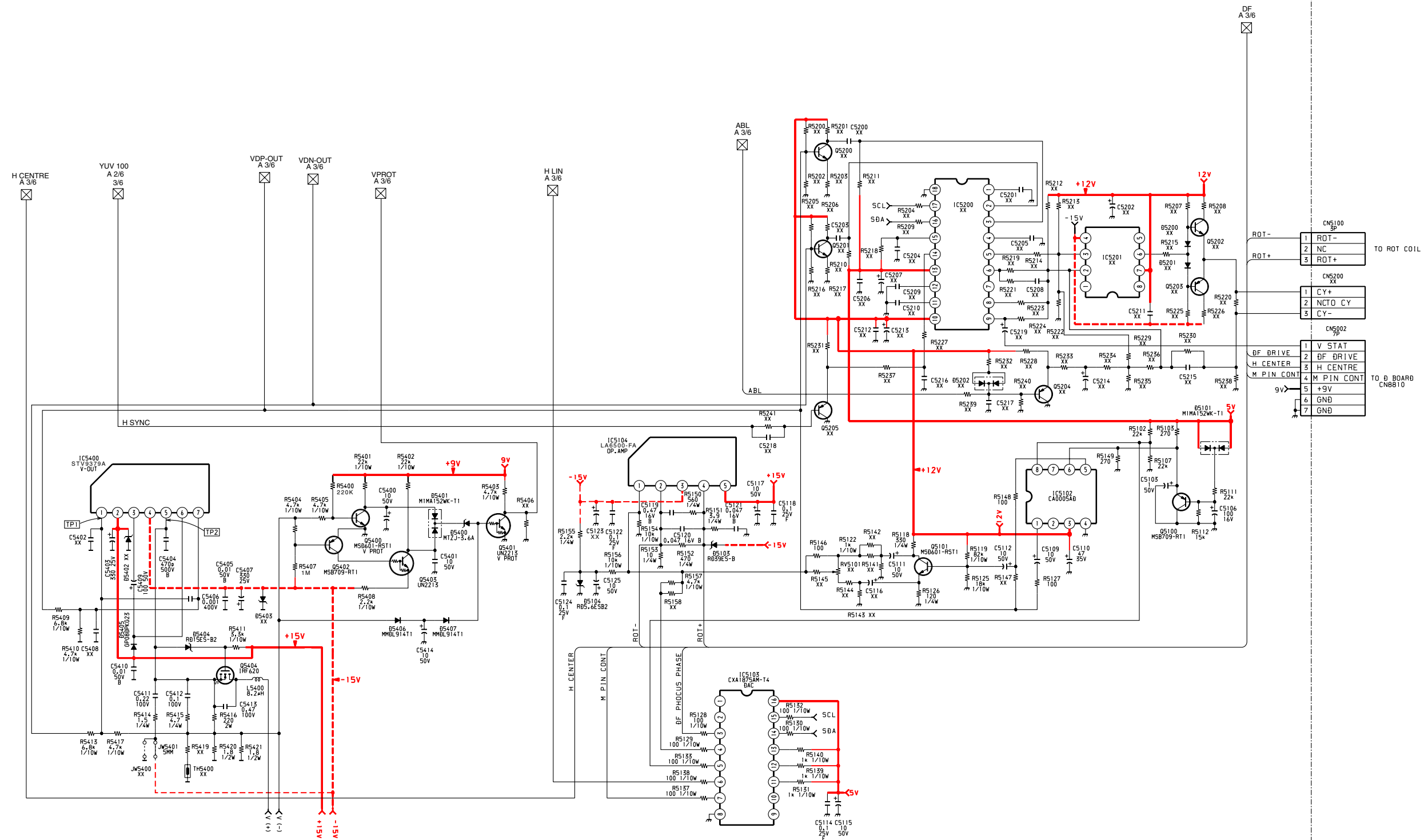


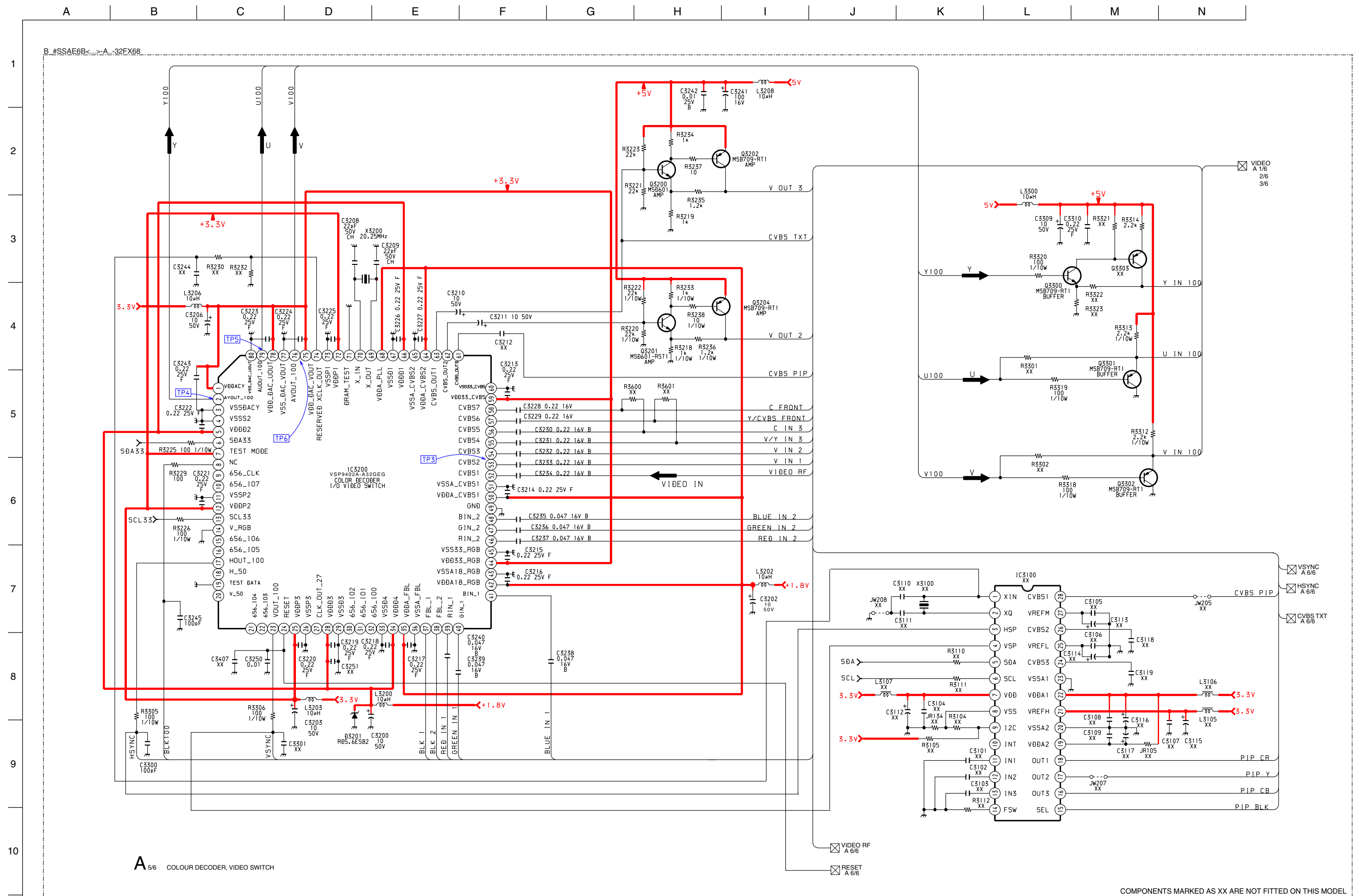
A B C D E F G H I J K L M N

B\_#SSAF6B<...>-A...32EX68

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

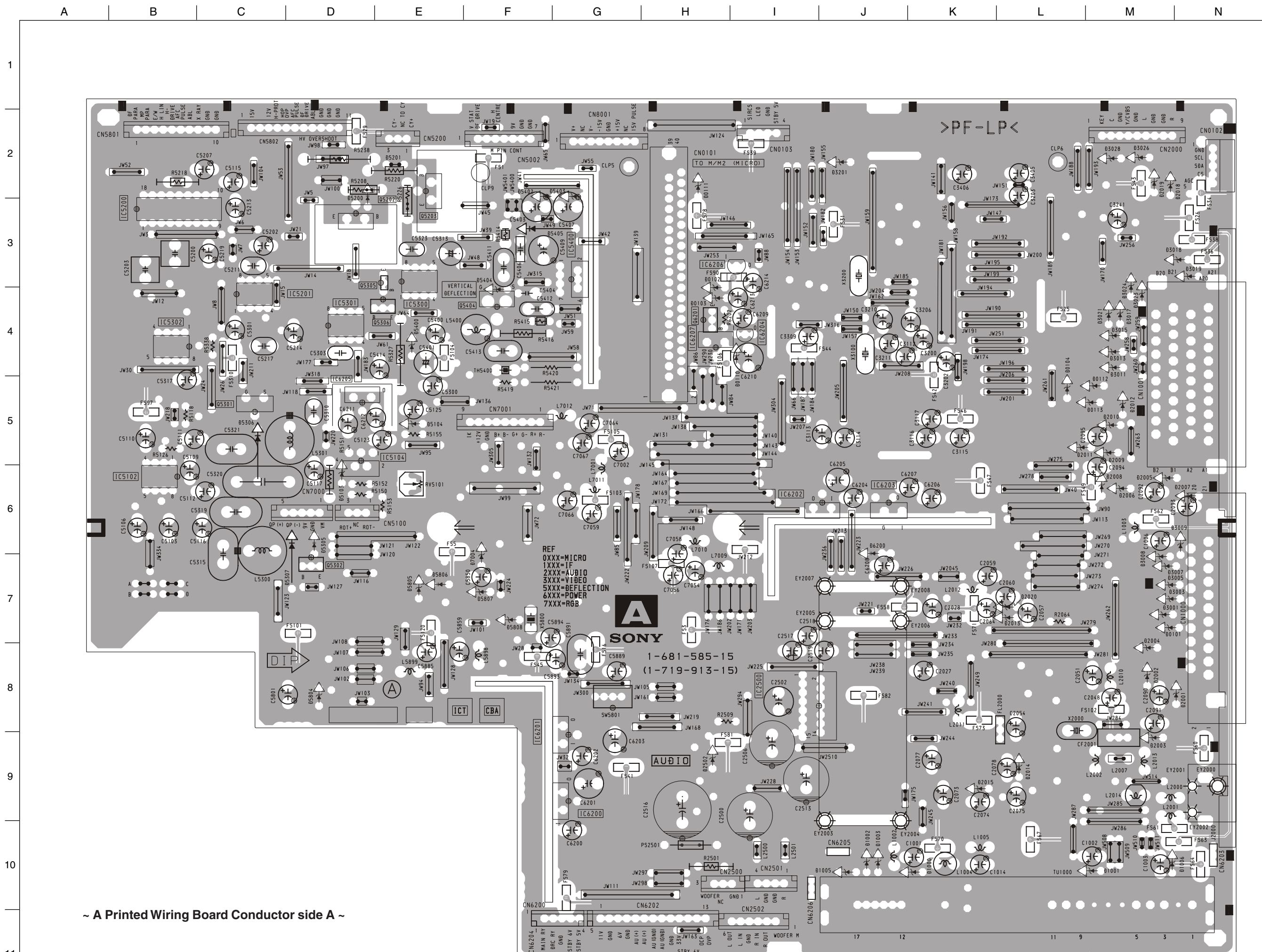
A<sub>4/6</sub> VERTICAL DEFLECTION & ROTATION COIL



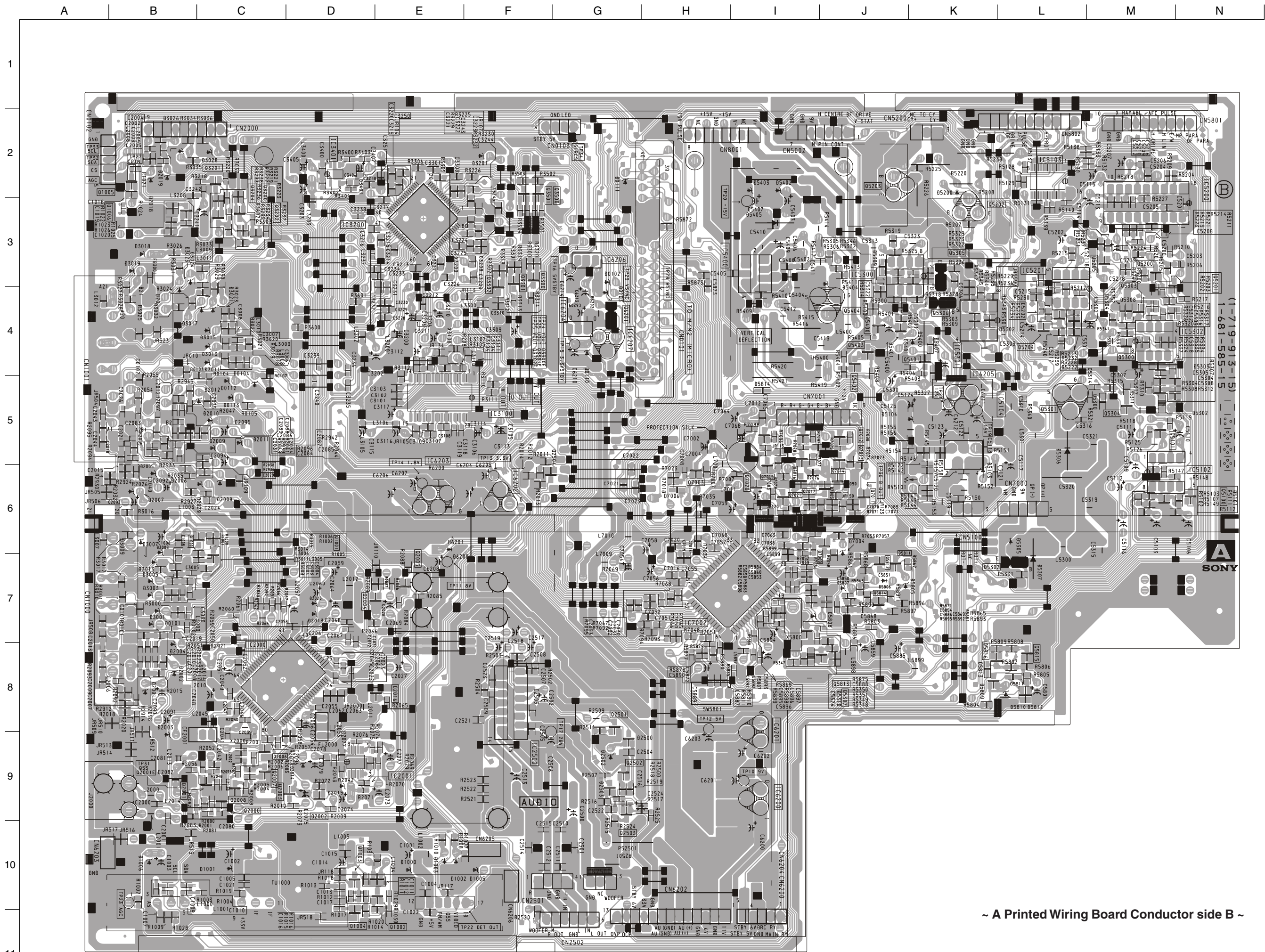






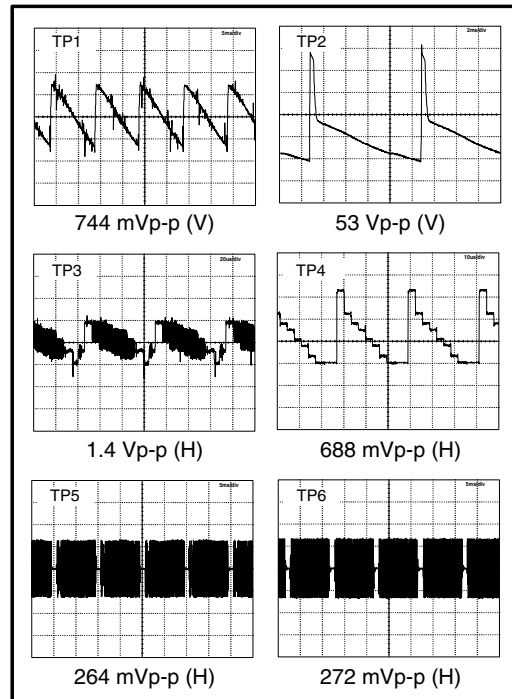








~ A Board Waveforms ~



~ A Board Location Table (A Side) ~

| DIODE |       | D1006 | M - 10 | D3003 | M - 7 | D3015 | M - 4 | D3026 | M - 2 | D5305 | D - 6 | D6200  | J - 6 | IC5301 | D - 4 | IC6206     | H - 3 |
|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|------------|-------|
| D0101 | M - 7 | D2014 | L - 9  | D3005 | M - 7 | D3017 | M - 4 | D3028 | M - 2 | D5306 | C - 5 | D7004  | F - 7 | IC5302 | B - 4 | IC6207     | H - 4 |
| D0104 | L - 5 | D2015 | K - 9  | D3007 | M - 7 | D3018 | N - 3 | D3201 | J - 2 | D5307 | D - 7 | IC     |       | IC5400 | G - 4 | TRANSISTOR |       |
| D0110 | I - 4 | D2018 | M - 2  | D3008 | M - 7 | D3019 | N - 3 | D5103 | D - 6 | D5400 | E - 4 | IC5104 | D - 6 | IC6201 | G - 9 | Q5202      | E - 2 |
| D0111 | H - 2 | D2019 | M - 2  | D3009 | N - 7 | D3021 | M - 4 | D5104 | E - 5 | D5404 | F - 4 | IC5200 | B - 3 | IC6202 | I - 6 | Q5301      | C - 5 |
| D0112 | M - 4 | D2502 | H - 9  | D3011 | M - 4 | D3023 | M - 4 | D5200 | D - 2 | D5405 | F - 3 | IC5201 | C - 4 | IC6203 | J - 6 | Q5306      | E - 4 |
| D0113 | M - 5 | D3001 | M - 7  | D3013 | M - 4 | D3024 | M - 4 | D5201 | E - 2 | D5807 | F - 7 | IC5300 | E - 4 | IC6205 | D - 5 | Q5404      | F - 4 |

~ A Board Location Table (B Side) ~

| DIODE | D2503  | G - 9 | D3024 | B - 3 | D5309 | J - 3     | IC5103 | L - 3  | TRANSISTOR | Q3201 | C - 2  | Q5300 | M - 4 | Q7003 | H - 6 |
|-------|--------|-------|-------|-------|-------|-----------|--------|--------|------------|-------|--------|-------|-------|-------|-------|
| D0101 | B - 7  | D3001 | B - 7 | D3026 | B - 2 | D5400     | K - 4  | IC5104 | K - 5      | Q1000 | C - 6  | Q3202 | C - 3 | Q5301 | L - 5 |
| D0104 | C - 5  | D3003 | B - 7 | D3028 | C - 2 | D5401     | J - 4  | IC5200 | M - 3      | Q1001 | D - 6  | Q3204 | C - 3 | Q5302 | K - 7 |
| D0110 | G - 4  | D3005 | B - 7 | D3201 | F - 2 | D5404     | J - 3  | IC5201 | L - 4      | Q1004 | D - 11 | Q3300 | F - 3 | Q5303 | M - 4 |
| D0111 | G - 2  | D3007 | B - 6 | D5103 | L - 6 | D5405     | I - 3  | IC5300 | J - 3      | Q1005 | B - 2  | Q3301 | F - 3 | Q5304 | M - 5 |
| D0112 | C - 5  | D3008 | B - 6 | D5104 | J - 5 | D5809     | K - 8  | IC5301 | K - 4      | Q1006 | B - 3  | Q3302 | F - 3 | Q5305 | K - 3 |
| D0113 | C - 5  | D3009 | B - 6 | D5200 | K - 2 | D5811     | L - 8  | IC5302 | M - 4      | Q2000 | C - 9  | Q3500 | F - 3 | Q5306 | K - 4 |
| D1006 | B - 10 | D3011 | C - 4 | D5202 | L - 4 | D5812     | L - 8  | IC5400 | I - 3      | Q2002 | D - 9  | Q3501 | F - 3 | Q5400 | J - 4 |
| D2014 | C - 9  | D3013 | C - 4 | D5300 | L - 5 | D6200     | E - 7  | IC6200 | I - 9      | Q2003 | D - 9  | Q5101 | M - 5 | Q5401 | J - 4 |
| D2015 | D - 9  | D3015 | C - 4 | D5303 | N - 4 | <b>IC</b> |        | IC6201 | I - 8      | Q2004 | E - 7  | Q5200 | M - 4 | Q5402 | J - 5 |
| D2016 | E - 8  | D3017 | B - 4 | D5304 | M - 4 | IC2000    | C - 8  | IC6202 | F - 6      | Q2005 | E - 7  | Q5201 | N - 4 | Q5403 | J - 4 |
| D2018 | B - 2  | D3018 | B - 3 | D5305 | L - 6 | IC2001    | D - 9  | IC6203 | E - 6      | Q2501 | G - 8  | Q5202 | K - 3 | Q5404 | J - 4 |
| D2019 | B - 2  | D3019 | B - 3 | D5306 | L - 5 | IC2500    | F - 8  | IC6205 | K - 5      | Q2502 | G - 9  | Q5203 | J - 2 | Q5813 | J - 8 |
| D2500 | G - 9  | D3021 | C - 4 | D5307 | L - 7 | IC3100    | E - 5  | IC6206 | G - 3      | Q2503 | G - 9  | Q5204 | L - 4 | Q5815 | L - 8 |
| D2502 | G - 9  | D3023 | B - 3 | D5308 | M - 4 | IC3200    | E - 3  | IC6207 | G - 4      | Q3200 | C - 3  | Q5205 | M - 3 | Q5816 | L - 8 |

~ A Board Semiconductor Voltage Table ~

| Ref   | (s) | (g) | (d)  | Ref   | (e) | (b) | (c)  | Ref   | (e) | (b) | (c)  | Ref   | (e)   | (b)   | (c)   | Ref   | (e)  | (b)  | (c)  |
|-------|-----|-----|------|-------|-----|-----|------|-------|-----|-----|------|-------|-------|-------|-------|-------|------|------|------|
| Q3500 | 2.7 | 3.3 | 3.9  | Q2002 | 0   | 0   | 4    | Q3204 | 5   | 4.4 | 3.4  | Q5205 | 1.9   | 1.2   | 0     | Q5813 | 0    | 7.9  | 0    |
| Q3501 | 2.7 | 3.3 | 4    | Q2003 | 0   | 0   | 4    | Q3300 | 0.7 | 1.3 | 5    | Q5300 | 0     | 0.4   | 2.2   | Q5814 | 0    | 0    | 0    |
| Q5301 | 0   | 5.1 | 51.2 | Q2004 | 3.3 | 3.9 | 8.3  | Q3301 | 1.9 | 1.2 | 0    | Q5301 | 5.1   | 0     | 51.2  | Q5815 | 0    | 0    | 5    |
| Q5404 | 0   | 0   | 0.5  | Q2005 | 3.3 | 3.9 | 8.3  | Q3302 | 1.9 | 1.2 | 0    | Q5302 | 8.9   | 5.7   | 0     | Q5816 | 5    | 5    | 0    |
| Ref   | (e) | (b) | (c)  | Q2501 | 0   | 0   | 15.2 | Q3500 | 3.3 | 2.7 | 3.9  | Q5304 | 0     | 0.4   | 5.6   | Q7003 | 5.6  | 6.2  | 8.8  |
| Q1001 | 3.2 | 3.9 | 8.3  | Q2502 | 0   | 0.7 | 0    | Q3501 | 3.3 | 2.7 | 4    | Q3400 | 0     | 0     | 0.1   | Q7009 | 3.2  | 7    | 0.1  |
| Q1004 | 1.9 | 1.3 | 0    | Q2503 | 0.6 | 0.6 | 0.5  | Q5101 | 0   | 0.4 | 6.4  | Q5401 | 0     | 0     | 7.9   | Q7011 | 2.5  | 1.9  | 0    |
| Q1005 | 0   | 0.5 | 5    | Q3200 | 1.9 | 2.5 | 4.4  | Q5201 | 2.8 | 3.4 | 7.9  | Q5402 | 0     | 0     | -11.3 | Q7012 | 11.6 | 10.9 | 8.7  |
| Q1006 | 5   | 4.7 | 1    | Q3201 | 1.9 | 2.5 | 4.4  | Q5202 | 0.2 | 0.8 | 11.7 | Q5403 | -13.5 | -11.2 | -8.3  | Q7013 | 6    | 6.6  | 10.9 |
| Q2000 | 4.2 | 4.8 | 8.3  | Q3202 | 5   | 4.4 | 3.4  | Q5203 | 0.2 | 0.8 | 11.7 | Q5404 | 0     | 0     | 0.5   | Q7014 | 2.5  | 1.8  | 0    |

~ A Board IC Voltage Table ~

| Ref No | Pin No | Volts (V) | Ref No | Pin No | Volts (V) | Ref No | Pin No | Volts (V) | Ref No | Pin No | Volts (V) |
|--------|--------|-----------|--------|--------|-----------|--------|--------|-----------|--------|--------|-----------|
| IC5103 | 1      | 3.3       | IC5301 | 5      | 6.5       | IC7002 | 10     | 0.4       | IC7002 | 38     | 0         |
|        | 2      | 3.3       |        | 6      | 7.1       |        | 11     | 1.9       |        | 39     | 4.8       |
|        | 3      | 1.9       |        | 7      | 0.4       |        | 12     | 0.4       |        | 40     | 4.8       |
|        | 4      | 2.6       |        | 8      | 12        |        | 13     | 0.9       |        | 41     | 4.8       |
|        | 5      | 2.5       | IC5302 | 1      | 0         |        | 14     | 5         |        | 42     | 0         |
|        | 6      | 1.8       |        | 2      | 5.8       |        | 15     | 2.5       |        | 43     | 0         |
|        | 7      | 2         |        | 3      | 6.3       |        | 16     | 0         |        | 44     | 0         |
|        | 8      | 0         |        | 4      | 0         |        | 17     | 3         |        | 45     | 6.3       |
|        | 9      | 3.1       |        | 5      | 6.6       |        | 18     | 2.7       |        | 46     | 8.9       |
|        | 10     | 3         |        | 6      | 6.5       |        | 19     | 3.9       |        | 47     | 8.9       |
|        | 11     | 5         |        | 7      | 0.4       |        | 20     | 0         |        | 48     | 6         |
|        | 12     | 5         |        | 8      | 12        |        | 21     | 6.1       |        | 49     | 2.5       |
|        | 13     | 5         | IC5400 | 1      | 1.4       |        | 22     | 2.7       |        | 50     | 4.1       |
|        | 14     | 0         |        | 2      | 13.2      |        | 23     | 8.8       |        | 51     | 0         |
|        | 15     | 0         |        | 3      | -12.5     |        | 24     | 0         |        | 52     | 6         |
|        | 16     | 5         |        | 4      | -15.4     |        | 25     | 4.3       |        | 53     | 5.8       |
| IC5300 | 1      | 6         |        | 5      | -0.4      |        | 26     | 3.2       |        | 54     | 5.8       |
|        | 2      | 6         |        | 6      | 13.7      |        | 27     | 5.2       |        | 55     | 0.4       |
|        | 3      | 6         |        | 7      | 1.4       |        | 28     | 0.3       |        | 56     | 5.8       |
|        | 4      | 0         | IC7002 | 1      | 3.6       |        | 29     | 4.9       |        | 57     | 5.8       |
|        | 5      | 6         |        | 2      | 0         |        | 30     | 3.4       |        | 58     | 5.8       |
|        | 6      | 6         |        | 3      | 4.4       |        | 31     | 5.6       |        | 59     | 0.3       |
|        | 7      | 6         |        | 4      | 4.8       |        | 32     | 8.9       |        | 60     | 0         |
|        | 8      | 12        |        | 5      | 3.5       |        | 33     | 0         |        | 61     | 0         |
|        |        |           |        | 6      | 3.4       |        | 34     | 4.7       |        | 62     | 2.9       |
| IC5301 | 1      | 1.7       |        | 7      | 7.6       |        | 35     | 4.7       |        | 63     | 3.7       |
|        | 2      | 8.5       |        | 8      | 0         |        | 36     | 4.7       |        |        |           |
|        | 3      | 6.5       |        | 9      | 0         |        |        |           |        |        |           |
|        | 4      | 0         |        |        |           |        |        |           |        |        |           |

~ A Board Difference Table ~

| Ref    | KV-32FX68B             | KV-32FX68E             | KV-32FX68K             | KV-32FX68U             |
|--------|------------------------|------------------------|------------------------|------------------------|
| TU1000 | FRONT END<br>BTF-EF411 | FRONT END<br>BTF-EC411 | FRONT END<br>BTF-EC411 | FRONT END<br>BTF-EU611 |

|    |    |
|----|----|
| 1  | 2  |
| 3  | 4  |
| 5  | 6  |
| 7  | 8  |
| 9  | 10 |
| 11 |    |



## F4 POWER SWITCH & FUSE

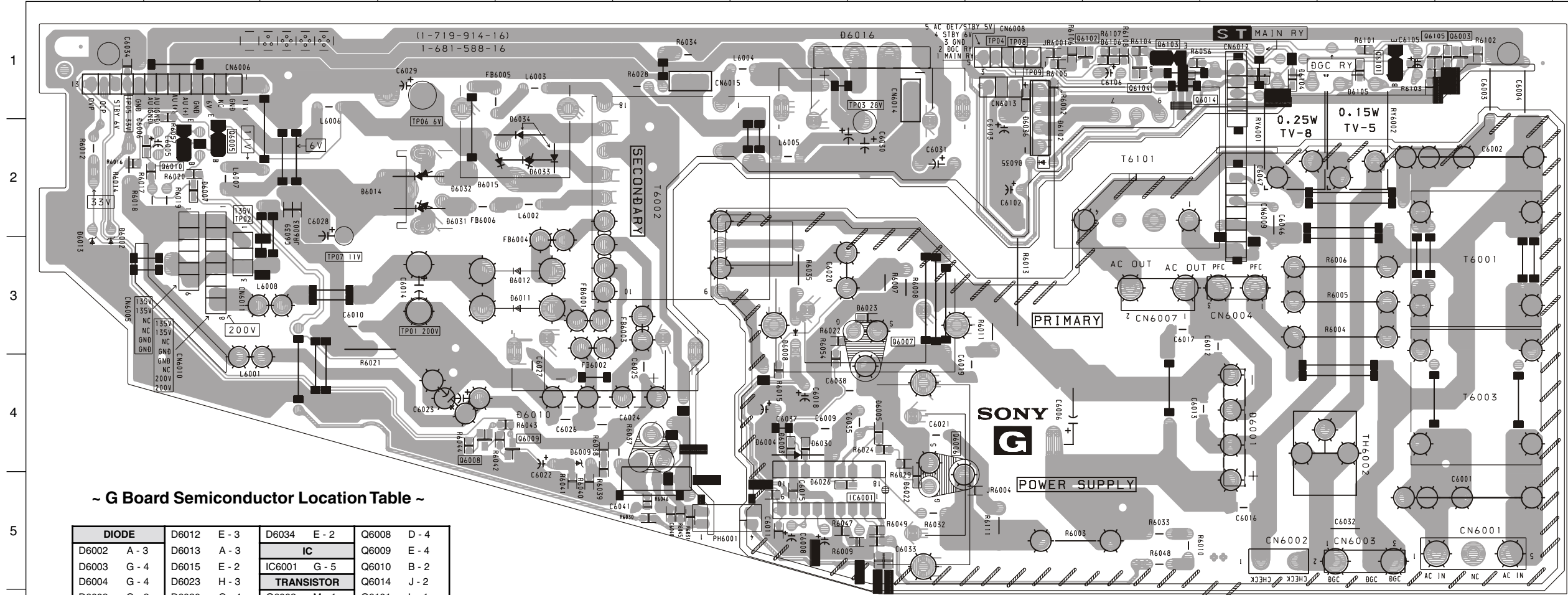
# H1 LED & IR RECEIVER

**VM** VELOCITY MODULATION

| Ref   | (e)(s) | (b)(g) | (c)(d) |
|-------|--------|--------|--------|
| Q7400 | 5.0    | 5.7    | 8.7    |
| Q7401 | 0.9    | 1.5    | 4.1    |
| Q7402 | 5.5    | 6.1    | 8.9    |
| Q7403 | 5.1    | 5.5    | 8.9    |
| Q7404 | 4.7    | 4.1    | 0      |
| Q7405 | 5.1    | 4.7    | 0      |
| Q7406 | 134    | 133.8  | 68     |
| Q7407 | 1.1    | 1.4    | 68     |
| Q7408 | 6.3    | 5.6    | 2.5    |
| Q7409 | 5.7    | 6.3    | 0.9    |

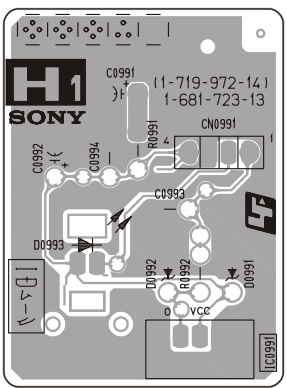
1.54 Vp-p (H)                      1.4 Vp-p (H)                      20 Vp-p (H)

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



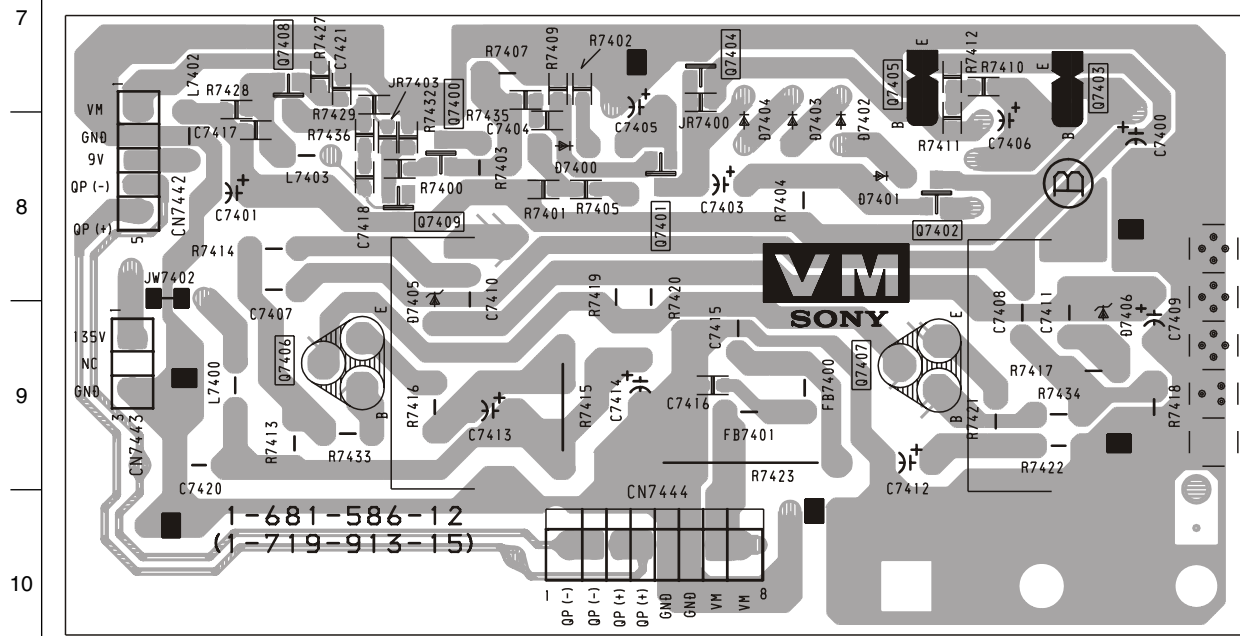
~ G Board Semiconductor Location Table ~

| DIODE |       | D6012 | E - 3 | D6034      | E - 2 | Q6008 | D - 4 |
|-------|-------|-------|-------|------------|-------|-------|-------|
| D6002 | A - 3 | D6013 | A - 3 | IC         |       | Q6009 | E - 4 |
| D6003 | G - 4 | D6015 | E - 2 | IC6001     | G - 5 | Q6010 | B - 2 |
| D6004 | G - 4 | D6023 | H - 3 | TRANSISTOR |       | Q6014 | J - 2 |
| D6008 | G - 3 | D6030 | G - 4 | Q6003      | M - 1 | Q6101 | L - 1 |
| D6009 | E - 4 | D6031 | D - 2 | Q6005      | B - 2 | Q6102 | J - 1 |
| D6010 | E - 4 | D6032 | D - 2 | Q6006      | H - 4 | Q6103 | J - 1 |
| D6011 | E - 3 | D6033 | E - 2 | Q6007      | H - 3 | Q6105 | L - 1 |

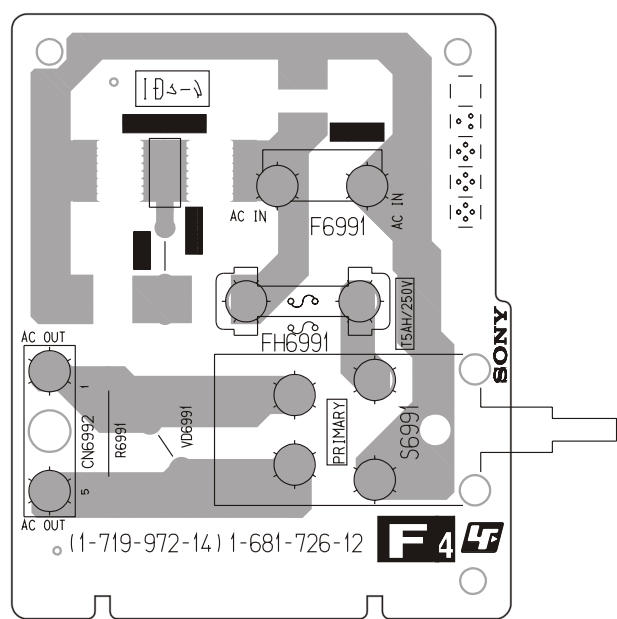


~ G Printed Wiring Board Conductor side ~

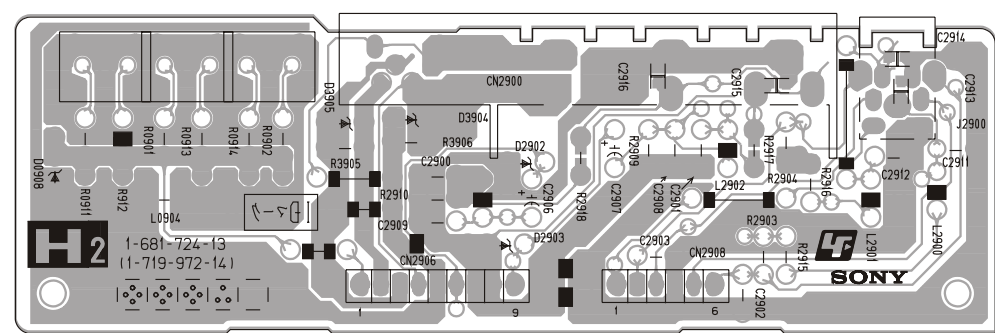
~ H1 Printed Wiring Board Conductor side ~



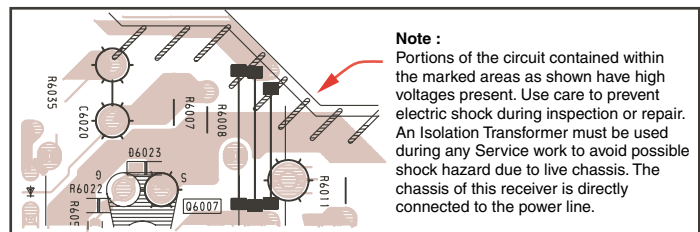
~ VM Printed Wiring Board Conductor side ~



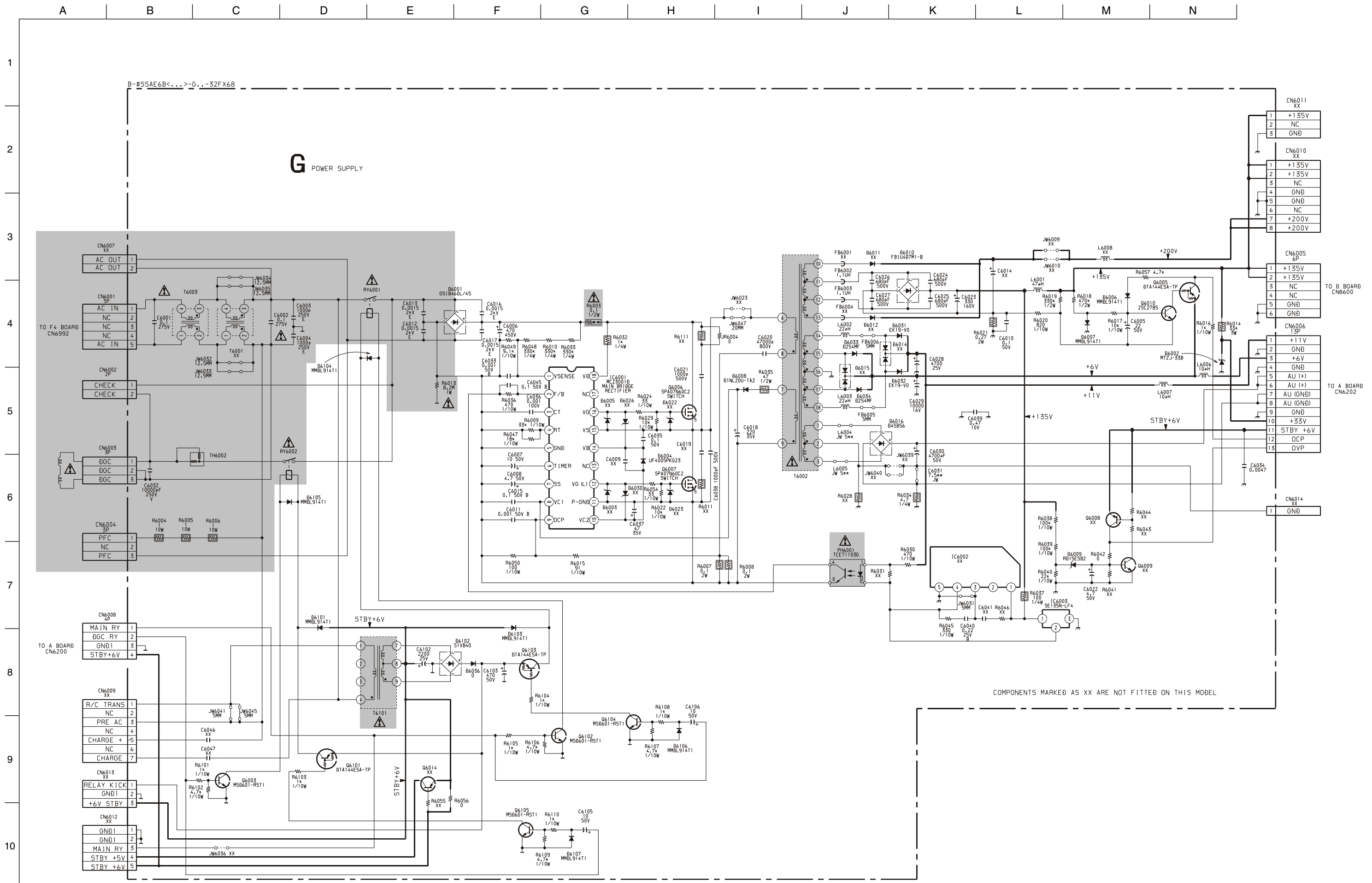
~ F4 Printed Wiring Board Conductor side ~



~ H2 Printed Wiring Board Conductor side ~

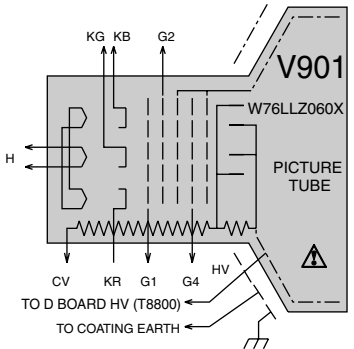


**Note :**  
Portions of the circuit contained within the marked areas as shown have high voltages present. Use care to prevent electric shock during inspection or repair. An Isolation Transformer must be used during any Service work to avoid possible shock hazard due to live chassis. The chassis of this receiver is directly connected to the power line.



~ G Board Schematic Diagram [ Power Supply ] ~

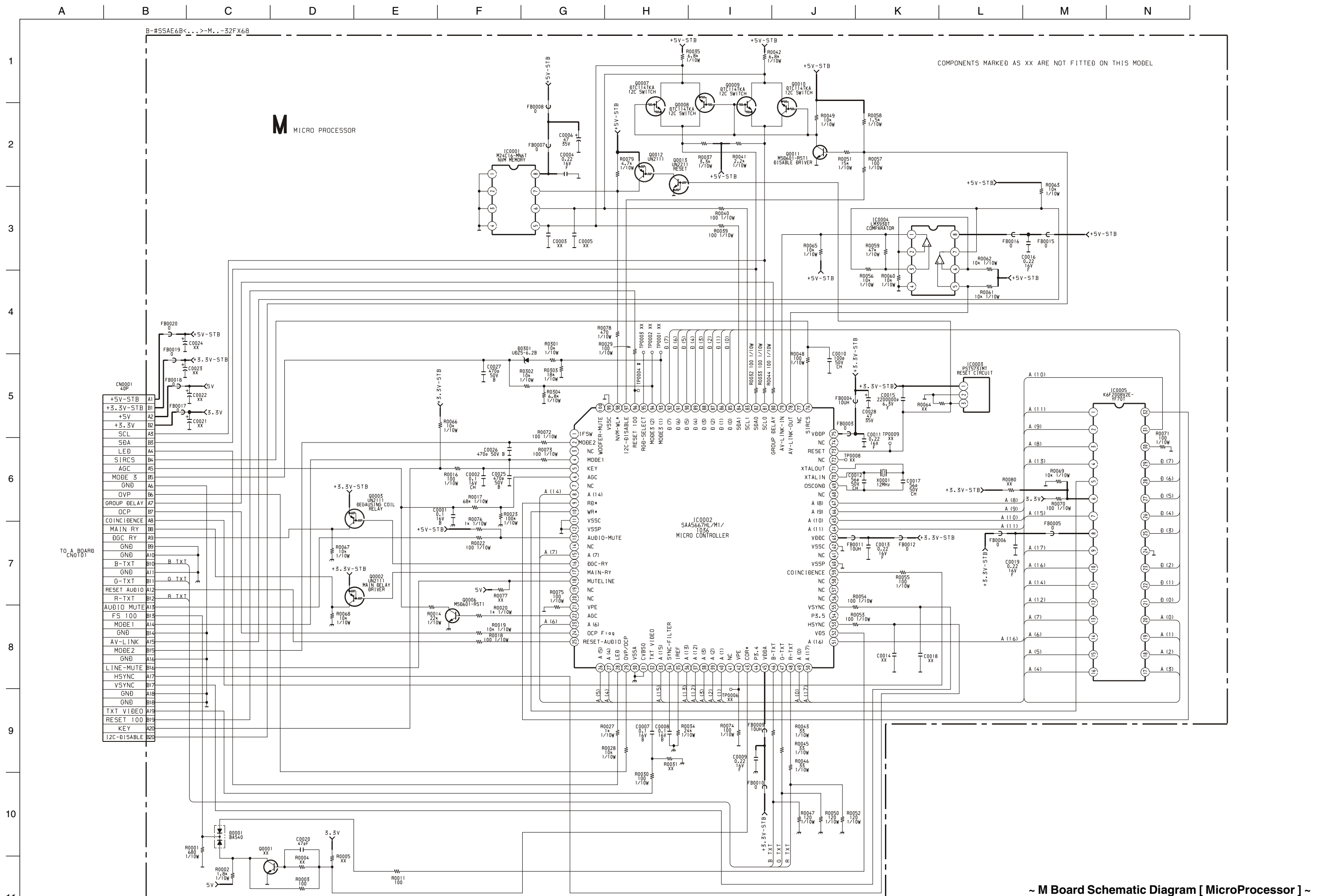




- 42 -

| Ref   | (e)   | (b)   | (c) |
|-------|-------|-------|-----|
| Q7350 | 12    | 11.98 | 0   |
| Q7352 | 0     | 0     | 3.8 |
| Q7353 | 0     | 0     | 3.8 |
| Q7354 | 11.98 | 12    | 0   |
| Q7355 | 0     | 0     | 3.8 |

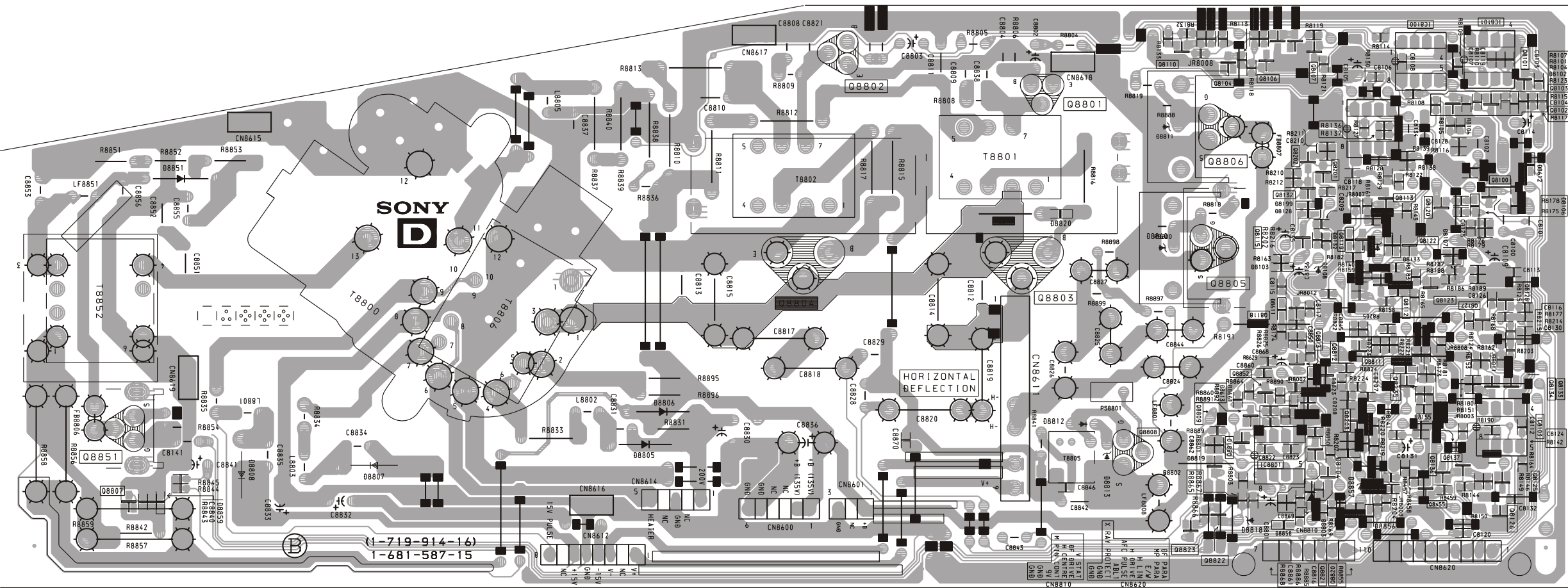
| IC Voltage Table |        |             |
|------------------|--------|-------------|
| Ref No           | Pin No | Voltage (V) |
| IC7300           | 1      | 3.9         |
|                  | 3      | 3.8         |
|                  | 5      | 7.5         |
|                  | 6      | 200         |
|                  | 7      | 140         |
|                  | 8      | 153         |
| IC7325           | 9      | 140         |
|                  | 1      | 3.9         |
|                  | 3      | 3.8         |
|                  | 5      | 7.7         |
|                  | 6      | 200         |
|                  | 7      | 140         |
| IC7350           | 8      | 153         |
|                  | 9      | 140         |
|                  | 1      | 3.9         |
|                  | 3      | 3.8         |
|                  | 5      | 7.5         |
|                  | 6      | 200         |
|                  | 7      | 139         |
|                  | 8      | 148         |
|                  | 9      | 138         |



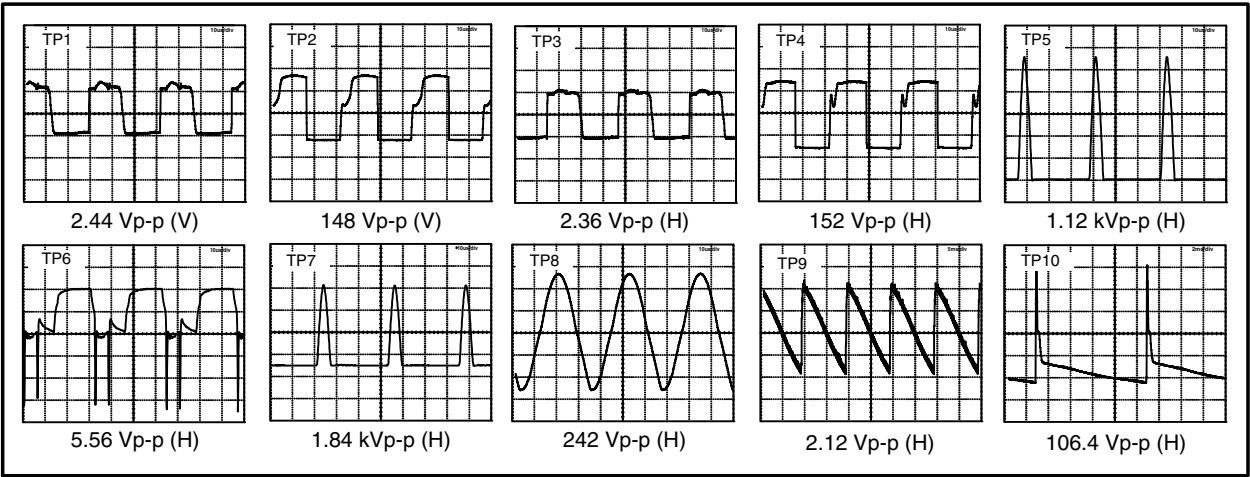


A B C D E F G H I J K L M N

~ D Printed Wiring Board Conductor side ~



~ D Board Waveforms ~

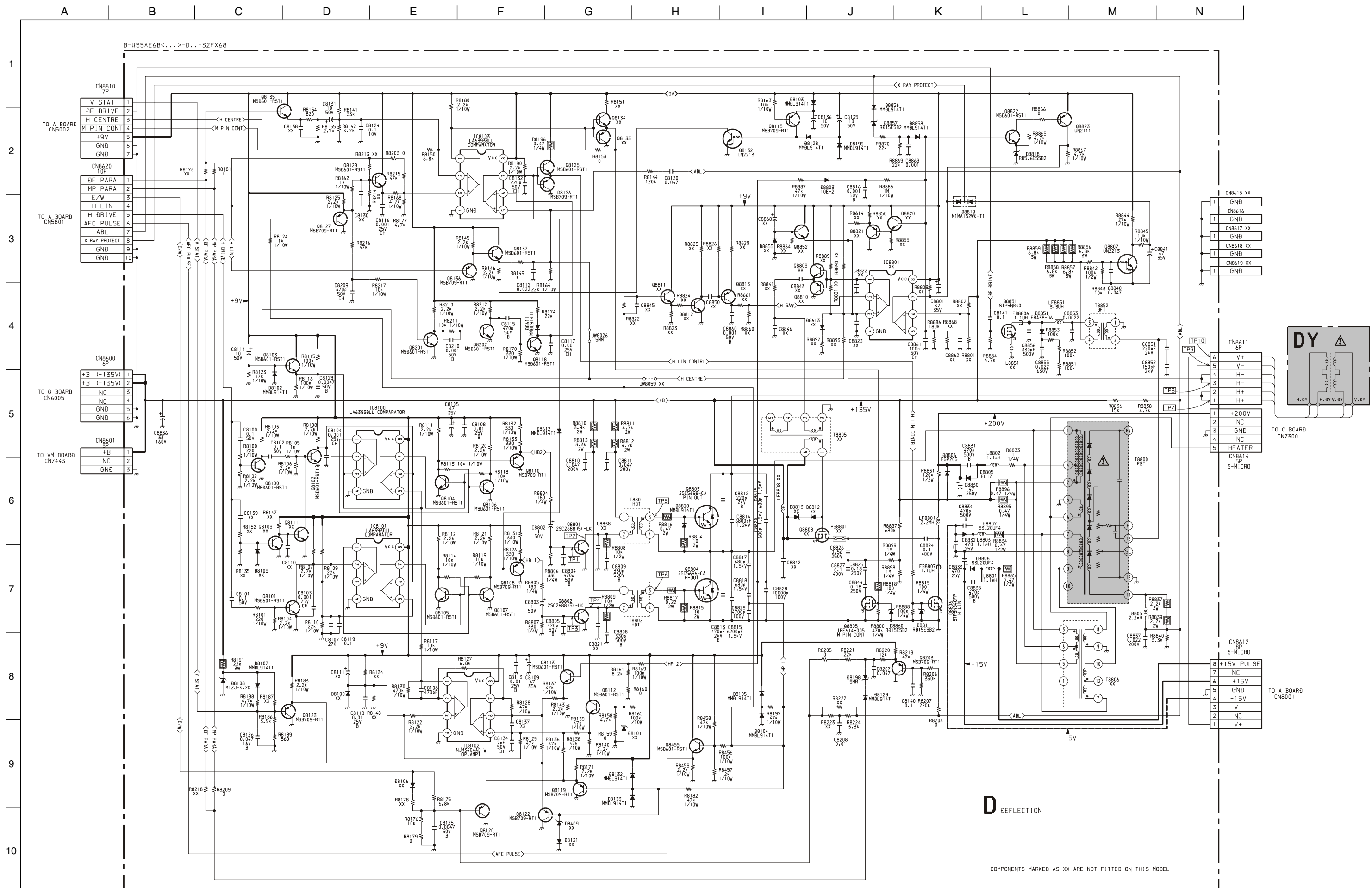


~ D Board IC Voltage Table ~

| IC Voltage Table |        |             |
|------------------|--------|-------------|
| Ref No           | Pin No | Voltage (V) |
| IC8100           | 1      | 0.3         |
|                  | 2      | 4.3         |
|                  | 3      | 4.1         |
|                  | 5      | 4.1         |
|                  | 6      | 3.0         |
|                  | 7      | 0.4         |
|                  | 8      | 0.4         |
| IC8101           | 1      | 0.3         |
|                  | 2      | 4.3         |
|                  | 3      | 4.4         |
|                  | 5      | 4.4         |
|                  | 6      | 3.0         |
|                  | 7      | 0.4         |
|                  | 8      | 0.4         |
| IC8102           | 1      | 2.5         |
|                  | 2      | 2.1         |
|                  | 3      | 1.7         |
|                  | 5      | 1.6         |
|                  | 6      | 1.0         |
|                  | 7      | 1.1         |
|                  | 8      | 1.1         |

~ D Board Semiconductor Voltage Table ~

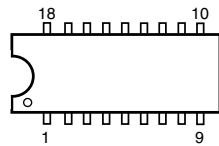
| Ref   | (e)(s) | (b)(g) | (c)(d) | Ref   | (e)(s) | (b)(g) | (c)(d) | Ref   | (e)(s) | (b)(g) | (c)(d) | Ref   | (e)(s) | (b)(g) | (c)(d) |
|-------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|
| Q8100 | 0      | 0.6    | 3.6    | Q8110 | 2.4    | 3.1    | 0      | Q8128 | 3.4    | 1.5    | 8.9    | Q8801 | 0      | 0.4    | 64.7   |
| Q8101 | 0      | 0.6    | 4.3    | Q8113 | 0.3    | 0.2    | 8.9    | Q8132 | 0      | 0      | 3.4    | Q8802 | 0      | 0.4    | 73.2   |
| Q8102 | 0      | 0.3    | 4.3    | Q8115 | 8.6    | 8.9    | 0      | Q8135 | 2.6    | 3.2    | 8.9    | Q8807 | 0      | 6.3    | 0      |
| Q8103 | 4.0    | 0      | 8.9    | Q8118 | 0      | 0      | 5.0    | Q8136 | 2.5    | 1.8    | 0      | Q8818 | 0      | 0      | 5.0    |
| Q8104 | 0      | 0.4    | 3.1    | Q8119 | 0.7    | 1.4    | 0      | Q8137 | 1.8    | 2.5    | 8.9    | Q8822 | 5.5    | 4.9    | 0      |
| Q8105 | 0      | 0.4    | 3.2    | Q8120 | 0.7    | 2.3    | 0      | Q8201 | 0      | 0.6    | 3.9    | Q8823 | 8.9    | 8.5    | 0      |
| Q8106 | 0      | 0.3    | 4.3    | Q8122 | 0.5    | 1.4    | 0      | Q8202 | 0      | 0.8    | 3.4    | Q8805 | 0      | 2.5    | 33     |
| Q8107 | 0      | 0.3    | 4.2    | Q8123 | 0.5    | 1.4    | 0      | Q8203 | 1.4    | 0.9    | 0      | Q8806 | 0      | 1.2    | 135    |
| Q8108 | 2.4    | 3.2    | 0      | Q8127 | 1.4    | 1.5    | 0      | Q8455 | 1.1    | 1.7    | 8.9    | Q8851 | 0      | 5.4    | 81.5   |



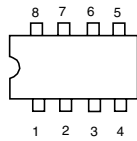
~ D Board Schematic Diagram [ Deflection ] ~

5-4. SEMICONDUCTORS

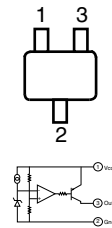
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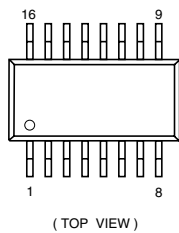
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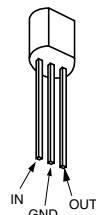
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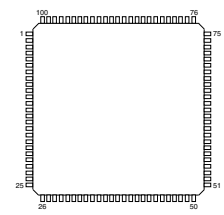
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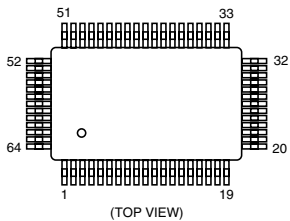
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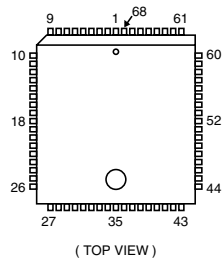
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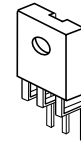
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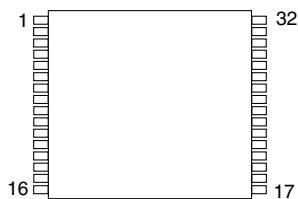
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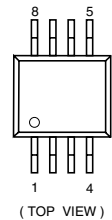
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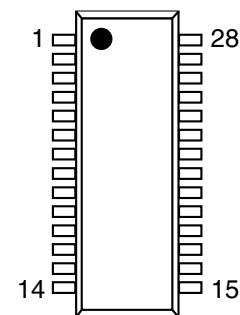
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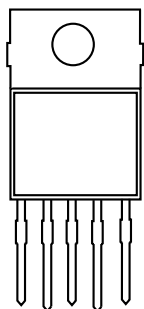
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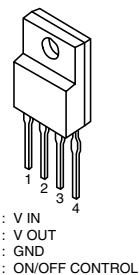
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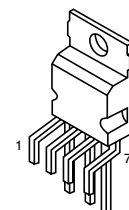
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PQ30RV11



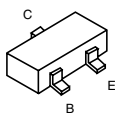
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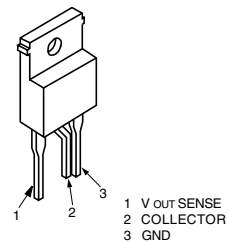
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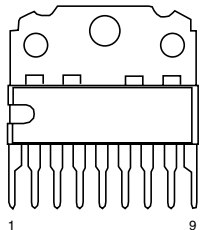
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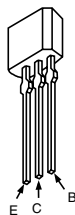
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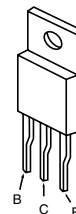
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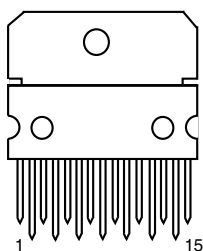
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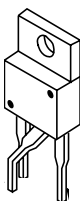
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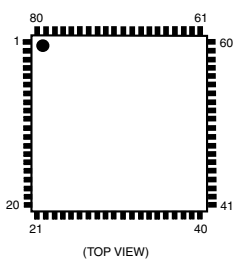
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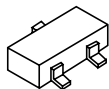
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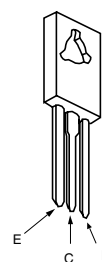
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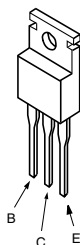
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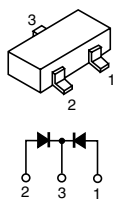
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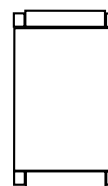
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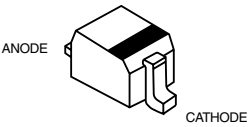
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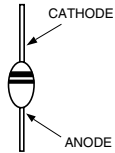
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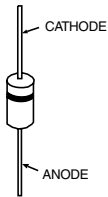
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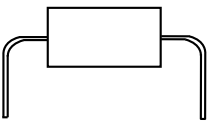
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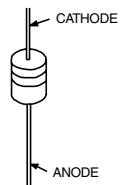
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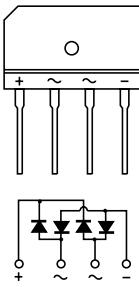
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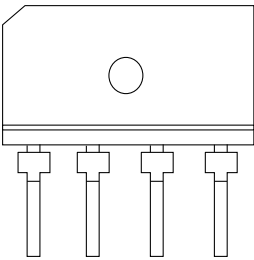
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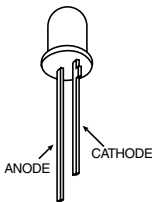
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GS1B460/45



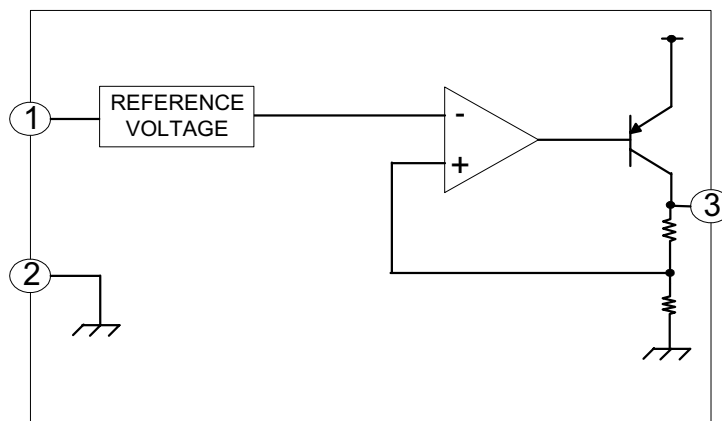
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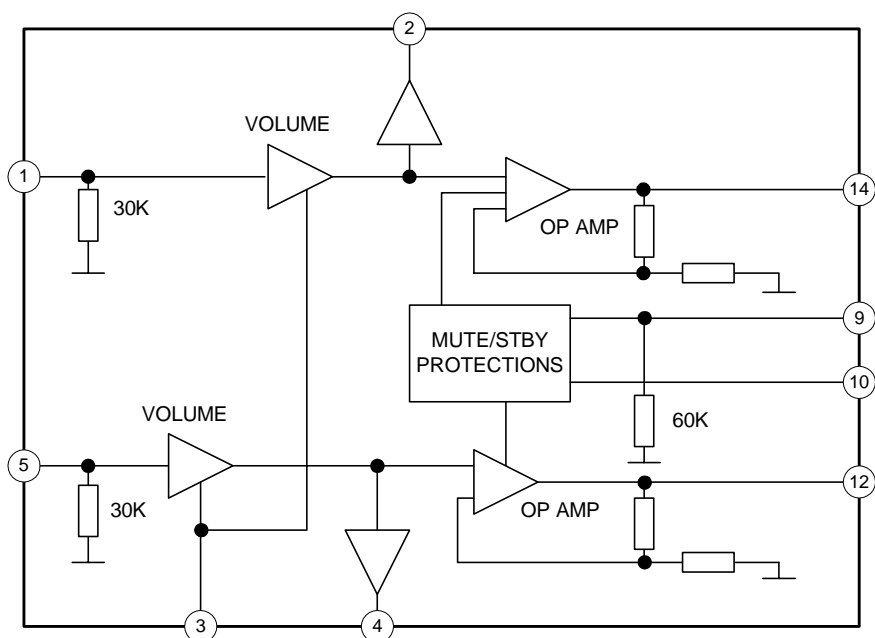
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1SS133T-77

## 5-5 IC BLOCK DIAGRAMS

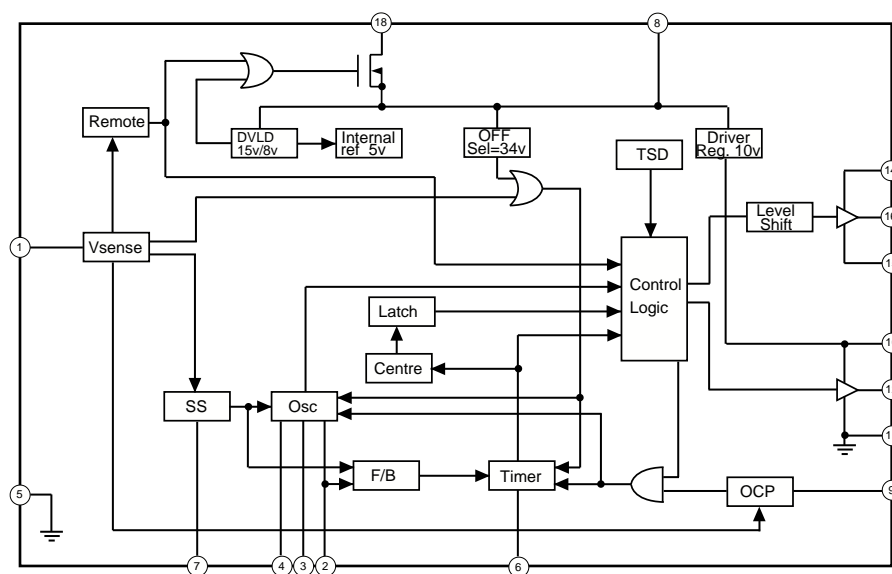
**A BOARD IC6202/IC6205 BA033T/BA12T**



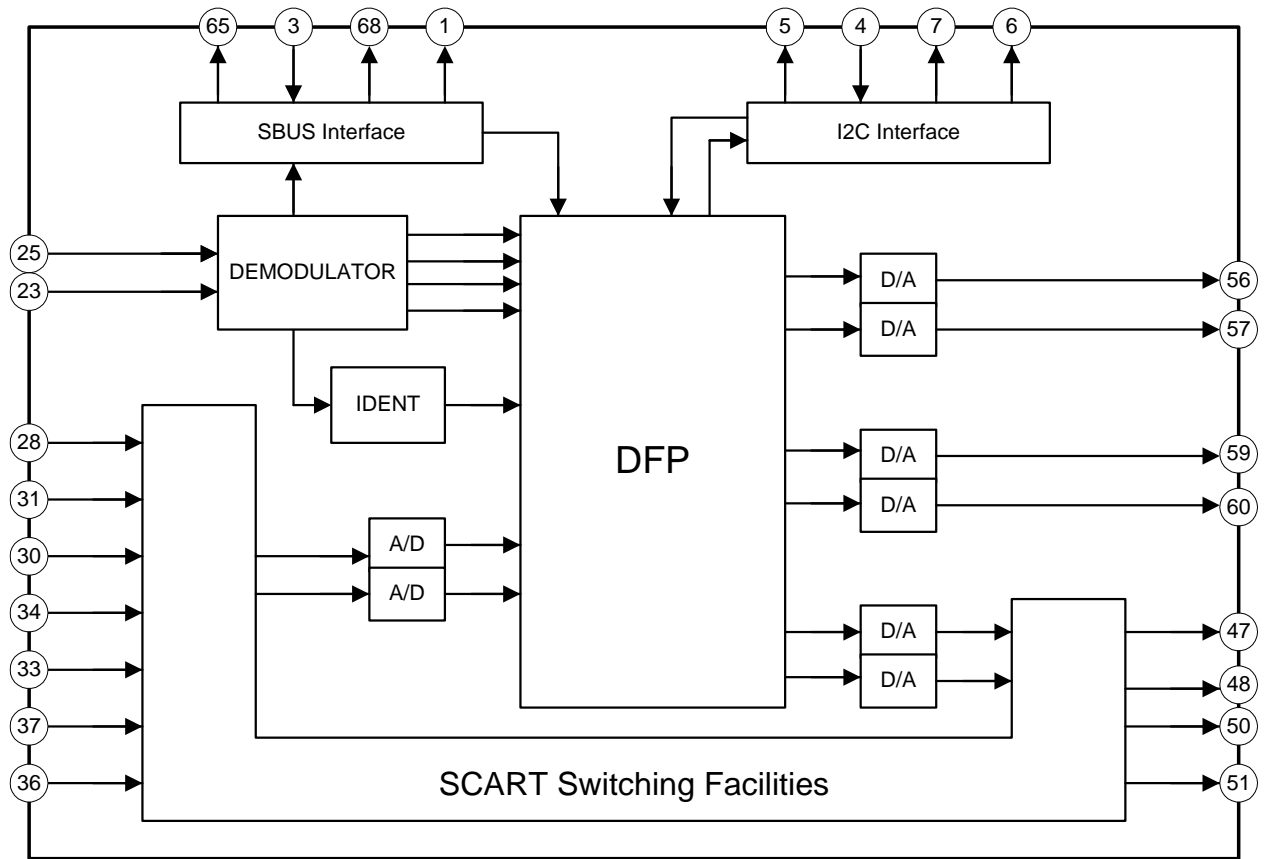
## A BOARD IC2500 TDA7497



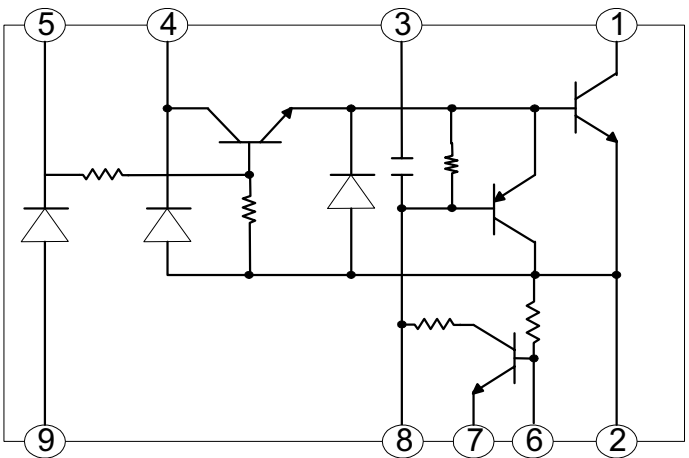
**G BOARD IC6001 MCZ3001D**



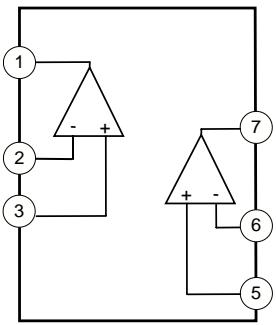
**A BOARD IC2000 MSP3411G**



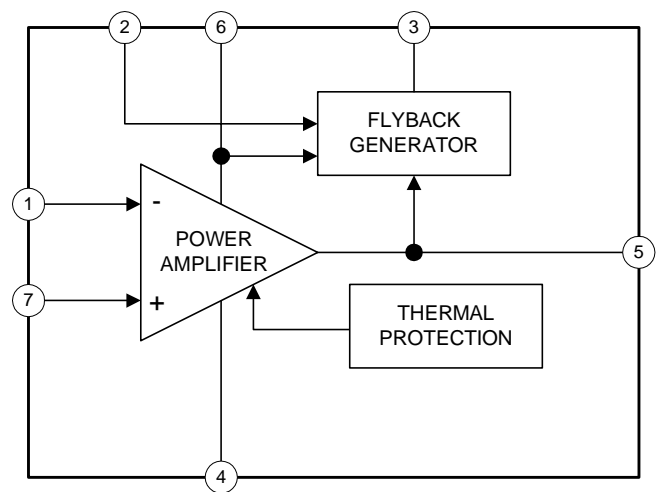
**G BOARD IC6003 SE135N-LF4**



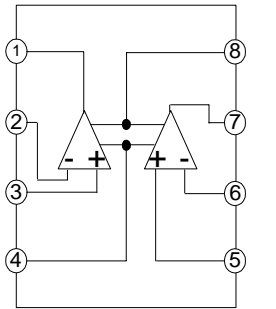
**A BOARD IC5301/IC5302 LA6393DLL**



**A BOARD IC5400 STV9379**



**A BOARD IC5300 LM358N**



## SECTION 6 EXPLODED VIEWS

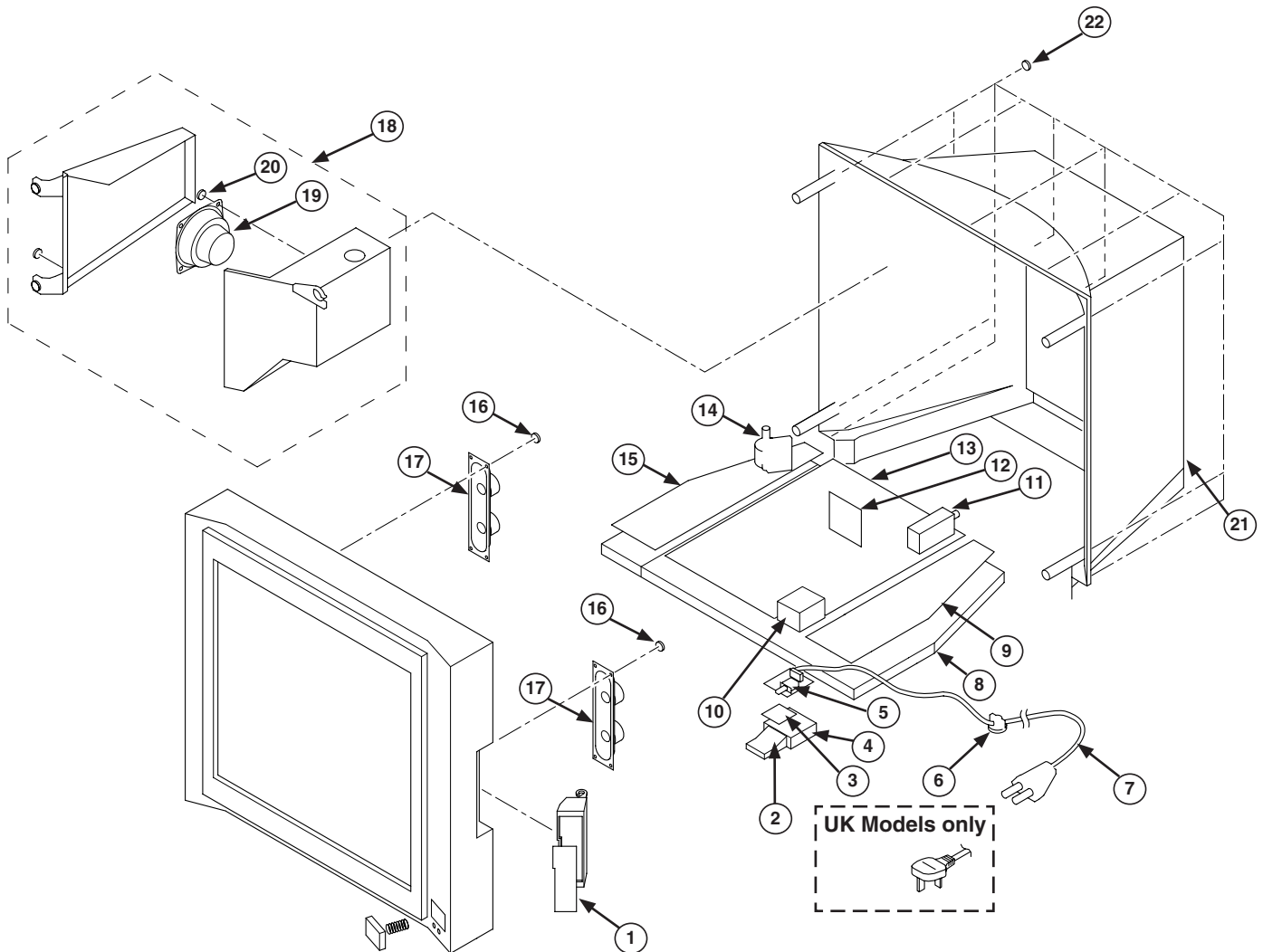
### NOTE :

- 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.

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

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

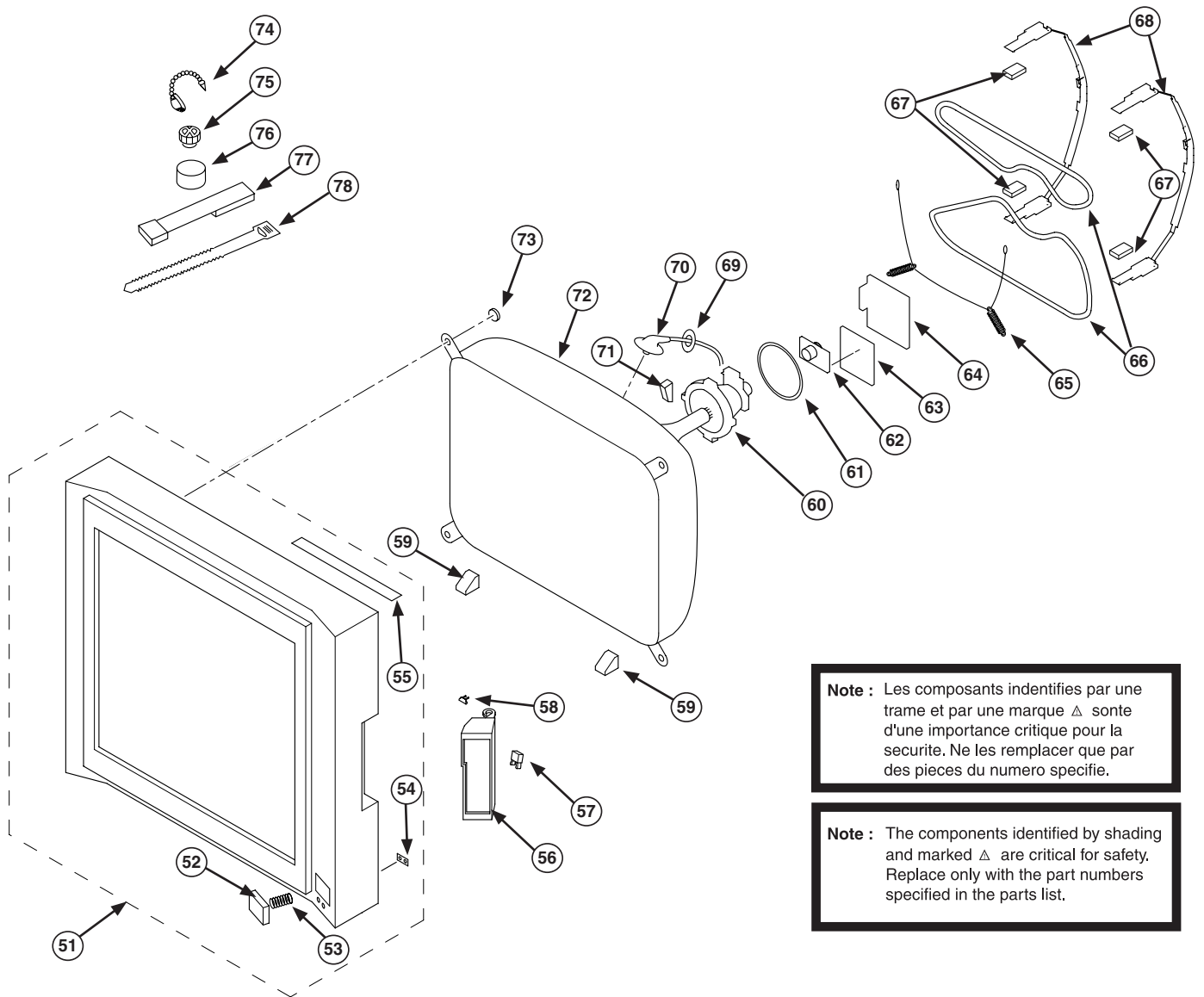
### 6-1. CHASSIS



| REF.NO. | PART.NO        | DESCRIPTION                              | REMARK | REF.NO. | PART.NO        | DESCRIPTION                              | REMARK |
|---------|----------------|--|--------|---------|----------------|--|--------|
| 1       | *A-1647-043-A  | H2 BOARD, COMPLETE                       |        | 12      | *A-1300-287-A  | M BOARD, COMPLETE                        |        |
| 2       | *A-1646-243-A  | H1 BOARD, COMPLETE                       |        | 13      | *A-1300-288-A  | A BOARD, COMPLETE (KV-32FX68B)           |        |
| 3       | *A-1625-000-A  | F4 BOARD, COMPLETE                       |        |         | *A-1300-177-A  | A BOARD, COMPLETE (KV-32FX68E/32FX68K)   |        |
| 4       | *4-206-097-01  | F4, HI BRACKET                           |        |         | *A-1300-289-A  | A BOARD, COMPLETE (KV-32FX68U)           |        |
| 5       | £ 1-571-433-21 | SWITCH, PUSH (AC POWER)                  |        | 14      | £ 1-453-340-41 | TRANSFORMER ASSY FLYBACK (NX-4522//Z2B4) |        |
| 6       | *4-202-531-01  | AC CORD LOCK (SC)                        |        | 15      | *A-1300-178-A  | D BOARD, COMPLETE                        |        |
| 7       | £ 1-783-083-11 | CORD, POWER (WITH FILTER)                |        | 16      | 4-039-358-01   | SCREW (4 X 16), (+) BV TAPPING           |        |
|         |                | (KV-32FX68B/32FX68E/32FX68K)             |        | 17      | 1-529-408-11   | SPEAKER (4.2 X 24CM)                     |        |
|         | £ 1-776-860-11 | POWER CORD, FILTER (UK) (KV-32FX68U)     |        | 18      | A-1678-221-B   | WOOFER COMPLETE ASSY                     | 19, 20 |
| 8       | *4-206-106-05  | BRACKET, MAIN                            |        | 19      | 1-529-417-11   | SPEAKER (8CM)                            |        |
| 9       | *A-1300-179-A  | G BOARD, COMPLETE                        |        | 20      | 7-685-663-71   | SCREW +BVTP 4 X 16 TYPE 2 IT-3           |        |
| 10      | 1-424-855-11   | COIL, CHOKE 29MMH                        |        | 21      | *4-205-540-21  | REAR COVER                               |        |
| 11      | 8-598-535-20   | FRONTEND BITF-EF411 (KV-32FX68B)         |        | 22      | 7-685-663-79   | SCREW (4 X 16), (+) BV TAPPING           |        |
|         | 8-598-533-10   | FRONTEND BITF-EC411 (KV-32FX68E/32FX68K) |        |         |                |  |        |
|         | 8-598-529-10   | FRONTEND BITF-EU611 (KV-32FX68U)         |        |         |                |  |        |



## 6-2. PICTURE TUBE



| REF.NO. | PART.NO        | DESCRIPTION               | REMARK | REF.NO. | PART.NO        | DESCRIPTION                   | REMARK |
|---------|----------------|---------------------------|--------|---------|----------------|-------------------------------|--------|
| 51      | *X-4041-375-1  | BEZNET ASSY               | 52-55  | 65      | 4-200-433-01   | SPRING, EXTENSION             |        |
| 52      | 4-205-699-03   | POWER, BUTTON             |        | 66      | £ 1-424-888-11 | COIL, DEGAUSSING              |        |
| 53      | 4-204-426-01   | SPRING                    |        | 67      | *4-203-390-11  | CUSHION, DGC                  |        |
| 54      | 4-205-698-02   | GULDE LIGHT               |        | 68      | *4-204-768-01  | HOLDER, DGC                   |        |
| 55      | 4-204-947-01   | SHEET, BLOTTING (680)     |        | 69      | 4-202-693-01   | HOLDER, HV CABLE              |        |
| 56      | 4-205-696-31   | DOOR                      |        | 70      | £ 1-251-374-33 | CAP ASSY, HIGH VOLTAGE        |        |
| 57      | 4-047-464-01   | CATCHER, PUSH             |        | 71      | 3-704-495-01   | SPACER, DY                    |        |
| 58      | 4-205-725-01   | DOOR SPRING               |        | 72      | £ 8-735-079-05 | PICTURE TUBE (W61LZ060X)      |        |
| 59      | *4-203-098-01  | SUPPORTER, CRT            |        | 73      | 4-046-765-12   | SCREW TAPPING 7+ CROWN WASHER |        |
| 60      | £ 1-451-520-31 | DEFLECTION YOKE (Y32RVC3) |        | 74      | 4-308-870-00   | CLIP, LEAD WIRE               |        |
| 61      | 1-419-363-11   | COIL, NA ROTATION         |        | 75      | 1-452-094-00   | MAGNET, ROTATABLE DISK; 15MMØ |        |
| 62      | 8-453-011-11   | NECK ASSY NA299-M         |        | 76      | 1-425-032-00   | MAGNET, DISK; 10MMØ           |        |
| 63      | *A-1300-626-A  | VMBOARD, COMPLETE         |        | 77      | X-4387-214-1   | PERMALLOY ASSY, CORRECTION    |        |
| 64      | *A-1300-532-A  | C BOARD, COMPLETE         |        | 78      | 3-701-007-00   | BAND BINDING                  |        |

## SECTION 7 ELECTRICAL PARTS LIST

### PARTS LISTING TABLE OF CONTENTS

|  | <u>Page</u> |
|--|-------------|
| <b>A BOARD COMMON Parts List :</b> Parts common to all models in this manual ..... | 55          |
| <b>A BOARD VARIANT Parts List :</b> Parts that belong only to the model specified  |             |
| <u>Model</u>   |             |
| (KV-32FX68B) : .....   | 63          |
| (KV-32FX68E) : .....   | 63          |
| (KV-32FX68K) : .....   | 63          |
| (KV-32FX68U) : .....   | 63          |
| <b>D BOARD COMPLETE Parts List :</b> .....   | 63          |
| <b>G BOARD COMPLETE Parts List :</b> .....   | 67          |
| <b>M BOARD COMPLETE Parts List :</b> .....   | 69          |
| <b>C BOARD COMPLETE Parts List :</b> .....   | 70          |
| <b>F4 BOARD COMPLETE Parts List :</b> .....  | 71          |
| <b>H1 BOARD COMPLETE Parts List :</b> .....  | 72          |
| <b>H2 BOARD COMPLETE Parts List :</b> .....  | 72          |
| <b>VM BOARD COMPLETE Parts List :</b> .....  | 72          |
| <b>MISCELLANEOUS :</b> .....   | 74          |
| <b>ACCESSORIES AND PACKAGING MATERIALS :</b> .....                                 | 74          |
| <b>REMOTE COMMANDER :</b> .....  | 74          |

**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.

| REF.NO.  | PART.NO      | DESCRIPTION          | REMARK     | REF.NO. | PART.NO      | DESCRIPTION          | REMARK     |
|--|--------------|----------------------|------------|---------|--------------|----------------------|------------|
| <b>* A-1300-288-A A Board, complete (KV-32FX68B)</b><br><b>* A-1300-177-A A Board, complete (KV-32FX68E/ KV-32FX68K)</b><br><b>* A-1300-289-A A Board, complete (KV-32FX68U)</b> |              |                      |            | C2039   | 1-162-906-11 | CERAMC CHIP 1.5PF    | 0.25PF 50V |
|  |              |                      |            | C2040   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V |
|  |              |                      |            | C2041   | 1-162-906-11 | CERAMC CHIP 1.5PF    | 0.25PF 50V |
|  |              |                      |            | C2042   | 1-216-864-11 | SHORT CHIP 0         |            |
|  |              |                      |            | C2043   | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V |
| <b>A Board Common Parts</b>  |              |                      |            | C2044   | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V |
| 4-382-854-01 SCREW (M8X8), P, SW (+)   |              |                      |            | C2046   | 1-162-923-11 | CERAMC CHIP 47PF     | 5.00% 50V  |
| < CAPACITOR >  |              |                      |            | C2047   | 1-162-927-11 | CERAMC CHIP 100PF    | 5.00% 50V  |
| C1001  | 1-126-933-11 | ELECT 100UF          | 20.00% 16V | C2048   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C1002  | 1-126-964-11 | ELECT 10UF           | 20.00% 50V | C2049   | 1-162-925-11 | CERAMC CHIP 68PF     | 5.00% 50V  |
| C1004  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2050   | 1-107-823-11 | CERAMC CHIP 0.47UF   | 10.00% 16V |
| C1006  | 1-126-933-11 | ELECT 100UF          | 20.00% 16V | C2051   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C1008  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2052   | 1-164-004-11 | CERAMC CHIP 0.1UF    | 10.00% 25V |
| C1009  | 1-162-925-11 | CERAMC CHIP 68PF     | 5.00% 50V  | C2053   | 1-164-227-11 | CERAMC CHIP 0.022UF  | 10.00% 25V |
| C1010  | 1-162-925-11 | CERAMC CHIP 68PF     | 5.00% 50V  | C2054   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C1014  | 1-126-933-11 | ELECT 100UF          | 20.00% 16V | C2055   | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V |
| C1015  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2057   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C1018  | 1-115-340-11 | CERAMC CHIP 0.22UF   | 10.00% 25V | C2058   | 1-164-004-11 | CERAMC CHIP 0.1UF    | 10.00% 25V |
| C1020  | 1-164-004-11 | CERAMC CHIP 0.1UF    | 10.00% 25V | C2059   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C1021  | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V | C2060   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C1022  | 1-216-295-91 | SHORT CHIP 0         |            | C2061   | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V |
| C2000  | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V | C2062   | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        |
| C2001  | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V | C2063   | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        |
| C2006  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2064   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C2007  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2065   | 1-162-966-11 | CERAMC CHIP 0.0022UF | 10.00% 50V |
| C2008  | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V | C2066   | 1-162-966-11 | CERAMC CHIP 0.0022UF | 10.00% 50V |
| C2009  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2069   | 1-127-715-91 | CERAMC CHIP 0.22UF   | 10% 16V    |
| C2010  | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V | C2073   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V |
| C2011  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2074   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V |
| C2012  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2075   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V |
| C2013  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2077   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V |
| C2014  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2078   | 1-126-963-11 | ELECT 4.7UF          | 20.00% 50V |
| C2015  | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V | C2079   | 1-164-004-11 | CERAMC CHIP 0.1UF    | 10.00% 25V |
| C2016  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2080   | 1-162-927-11 | CERAMC CHIP 100PF    | 5.00% 50V  |
| C2018  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2081   | 1-162-928-11 | CERAMC CHIP 120PF    | 5.00% 50V  |
| C2019  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2082   | 1-216-864-11 | SHORT CHIP 0         |            |
| C2021  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2083   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V |
| C2022  | 1-162-966-11 | CERAMC CHIP 0.0022UF | 10.00% 50V | C2084   | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V |
| C2023  | 1-162-966-11 | CERAMC CHIP 0.0022UF | 10.00% 50V | C2085   | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V |
| C2024  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2086   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V |
| C2026  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2087   | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V |
| C2027  | 1-126-947-11 | ELECT 47UF           | 20.00% 35V | C2088   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V |
| C2028  | 1-126-947-11 | ELECT 47UF           | 20.00% 35V | C2089   | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V |
| C2029  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2090   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C2031  | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V | C2091   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C2034  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2092   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C2035  | 1-164-346-11 | CERAMC CHIP 1UF      | 16V        | C2093   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C2038  | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V | C2094   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
|  |              |                      |            | C2095   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
|  |              |                      |            | C2096   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V |

| REF.NO. | PART.NO      | DESCRIPTION         | REMARK     | REF.NO. | PART.NO      | DESCRIPTION          | REMARK     |
|---------|--------------|---------------------|------------|---------|--------------|----------------------|------------|
| C2500   | 1-126-952-11 | ELECT 1000UF        | 20.00% 35V | C3236   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C2502   | 1-104-666-11 | ELECT 220UF         | 20.00% 25V | C3237   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C2504   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C3238   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C2505   | 1-115-339-11 | CERAMC CHIP 0.1UF   | 10.00% 50V | C3239   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C2506   | 1-126-972-11 | ELECT 1000UF        | 20.00% 50V | C3240   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C2507   | 1-164-230-11 | CERAMC CHIP 220PF   | 5.00% 50V  | C3241   | 1-126-933-11 | ELECT 100UF          | 20.00% 16V |
| C2508   | 1-164-230-11 | CERAMC CHIP 220PF   | 5.00% 50V  | C3242   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V |
| C2509   | 1-164-230-11 | CERAMC CHIP 220PF   | 5.00% 50V  | C3243   | 1-164-222-91 | CERAMC CHIP 0.22UF   | 25V        |
| C2510   | 1-164-227-11 | CERAMC CHIP 0.022UF | 10.00% 25V | C3245   | 1-163-251-11 | CERAMC CHIP 100PF    | 5.00% 50V  |
| C2511   | 1-163-021-91 | CERAMC CHIP 0.01UF  | 10.00% 50V | C3250   | 1-163-021-91 | CERAMC CHIP 0.01UF   | 10.00% 50V |
| C2512   | 1-163-021-91 | CERAMC CHIP 0.01UF  | 10.00% 50V | C3300   | 1-163-251-11 | CERAMC CHIP 100PF    | 5.00% 50V  |
| C2513   | 1-126-952-11 | ELECT 1000UF        | 20.00% 35V | C3309   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C2515   | 1-164-227-11 | CERAMC CHIP 0.022UF | 10.00% 25V | C3310   | 1-164-222-91 | CERAMC CHIP 0.22UF   | 25V        |
| C2516   | 1-126-953-11 | ELECT 2200UF        | 20.00% 35V | C5103   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V |
| C2517   | 1-126-960-11 | ELECT 1UF           | 20.00% 50V | C5106   | 1-126-933-11 | ELECT 100UF          | 20.00% 16V |
| C2518   | 1-126-960-11 | ELECT 1UF           | 20.00% 50V | C5109   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C2519   | 1-126-959-11 | ELECT 0.47UF        | 20.00% 50V | C5110   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C2521   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5111   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C2523   | 1-115-339-11 | CERAMC CHIP 0.1UF   | 10.00% 50V | C5112   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C3200   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5114   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3202   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5115   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C3203   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5117   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C3206   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5118   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3208   | 1-163-235-11 | CERAMC CHIP 22PF    | 5.00% 50V  | C5119   | 1-107-823-11 | CERAMC CHIP 0.47UF   | 10.00% 16V |
| C3209   | 1-163-235-11 | CERAMC CHIP 22PF    | 5.00% 50V  | C5120   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C3210   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5121   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C3211   | 1-126-964-11 | ELECT 10UF          | 20.00% 50V | C5122   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3213   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5124   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3214   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5125   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V |
| C3215   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5300   | 1-126-933-11 | ELECT 100UF          | 20.00% 16V |
| C3216   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5301   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V |
| C3217   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5302   | 1-164-222-91 | CERAMC CHIP 0.22UF   | 25V        |
| C3218   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5303   | 1-136-153-00 | FILM 0.01UF          | 5.00% 50V  |
| C3219   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5304   | 1-164-182-11 | CERAMC CHIP 0.0033UF | 10.00% 50V |
| C3220   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5305   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C3221   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5306   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3222   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5307   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3223   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5309   | 1-162-927-11 | CERAMC CHIP 100PF    | 5.00% 50V  |
| C3224   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5310   | 1-136-165-00 | FILM 0.1UF           | 5.00% 50V  |
| C3225   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5311   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3226   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5312   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V |
| C3227   | 1-164-222-91 | CERAMC CHIP 0.22UF  | 25V        | C5313   | 1-107-714-11 | ELECT 10UF           | 20.00% 50V |
| C3228   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5314   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V |
| C3229   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5316   | 1-164-230-11 | CERAMC CHIP 220PF    | 5.00% 50V  |
| C3230   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5318   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3231   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5319   | 1-136-347-11 | FILM 0.0047UF        | 5.00% 630V |
| C3232   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5320   | 1-129-716-00 | FILM 0.015UF         | 5.00% 630V |
| C3233   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5321   | 1-136-347-11 | FILM 0.0047UF        | 5.00% 630V |
| C3234   | 1-164-489-11 | CERAMC CHIP 0.22UF  | 10.00% 16V | C5322   | 1-164-156-11 | CERAMC CHIP 0.1UF    | 25V        |
| C3235   | 1-165-176-11 | CERAMC CHIP 0.047UF | 10.00% 16V | C5323   | 1-136-159-00 | FILM 0.033UF         | 5.00% 50V  |

| REF.NO.       | PART.NO        | DESCRIPTION                   | REMARK   | REF.NO. | PART.NO | DESCRIPTION | REMARK |
|---------------|----------------|-------------------------------|----------|---------|---------|-------------|--------|
| C5400         | 1-126-964-11   | ELECT                         | 10UF     | 20.00%  | 50V     |             |        |
| C5401         | 1-107-714-11   | ELECT                         | 10UF     | 20.00%  | 50V     |             |        |
| C5403         | 1-128-527-11   | ELECT                         | 330UF    | 20.00%  | 25V     |             |        |
| C5404         | 1-102-228-00   | CERAMC                        | 470PF    | 10.00%  | 500V    |             |        |
| C5405         | 1-163-021-91   | CERAMC CHIP                   | 0.01UF   | 10.00%  | 50V     |             |        |
| C5406         | 1-129-702-00   | MLAR                          | 0.001UF  | 10.00%  | 400V    |             |        |
| C5407         | 1-128-527-11   | ELECT                         | 330UF    | 20.00%  | 25V     |             |        |
| C5409         | 1-126-968-11   | ELECT                         | 100UF    | 20.00%  | 50V     |             |        |
| C5410         | 1-163-021-91   | CERAMC CHIP                   | 0.01UF   | 10.00%  | 50V     |             |        |
| C5411         | 1-137-401-11   | MLAR                          | 0.22UF   | 5.00%   | 100V    |             |        |
| C5412         | 1-106-220-00   | MLAR                          | 0.1UF    | 10.00%  | 100V    |             |        |
| C5413         | 1-130-785-11   | MLAR                          | 0.47UF   | 5.00%   | 100V    |             |        |
| C5414         | 1-126-964-11   | ELECT                         | 10UF     | 20.00%  | 50V     |             |        |
| C5801         | 1-126-963-11   | ELECT                         | 4.7UF    | 20.00%  | 50V     |             |        |
| C5850         | 1-126-963-11   | ELECT                         | 4.7UF    | 20.00%  | 50V     |             |        |
| C5851         | 1-107-826-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 16V     |             |        |
| C5853         | 1-162-970-11   | CERAMC CHIP                   | 0.01UF   | 10.00%  | 25V     |             |        |
| C5854         | 1-107-826-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 16V     |             |        |
| C5858         | 1-107-826-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 16V     |             |        |
| C5859         | 1-126-960-11   | ELECT                         | 1UF      | 20.00%  | 50V     |             |        |
| C5860         | 1-165-176-11   | CERAMC CHIP                   | 0.047UF  | 10.00%  | 16V     |             |        |
| C5868         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C5872         | 1-164-346-11   | CERAMC CHIP                   | 1UF      |         | 16V     |             |        |
| C5873         | 1-163-251-11   | CERAMC CHIP                   | 100PF    | 5.00%   | 50V     |             |        |
| C5888         | 1-164-156-11   | CERAMC CHIP                   | 0.1UF    |         | 25V     |             |        |
| C5889         | 1-126-964-11   | ELECT                         | 10UF     | 20.00%  | 50V     |             |        |
| C5890         | 1-164-227-11   | CERAMC CHIP                   | 0.022UF  | 10.00%  | 25V     |             |        |
| C5891         | 1-137-581-11   | FILM                          | 0.1UF    | 5.00%   | 100V    |             |        |
| C5892         | 1-107-826-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 16V     |             |        |
| C5893         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C5894         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C5895         | 1-164-156-11   | CERAMC CHIP                   | 0.1UF    |         | 25V     |             |        |
| C5896         | 1-165-176-11   | CERAMC CHIP                   | 0.047UF  | 10.00%  | 16V     |             |        |
| C5897         | 1-162-970-11   | CERAMC CHIP                   | 0.01UF   | 10.00%  | 25V     |             |        |
| C5898         | 1-162-964-11   | CERAMC CHIP                   | 0.001UF  | 10.00%  | 50V     |             |        |
| C5899         | 1-107-823-11   | CERAMC CHIP                   | 0.47UF   | 10.00%  | 16V     |             |        |
| C6200         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6201         | 1-126-935-11   | ELECT                         | 470UF    | 20.00%  | 16V     |             |        |
| C6202         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6203         | 1-126-935-11   | ELECT                         | 470UF    | 20.00%  | 16V     |             |        |
| C6204         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6205         | 1-126-935-11   | ELECT                         | 470UF    | 20.00%  | 16V     |             |        |
| C6206         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6207         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6208         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6209         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6210         | 1-126-935-11   | ELECT                         | 470UF    | 20.00%  | 16V     |             |        |
| C6211         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C6212         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6213         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C6214         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C7002         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C7004         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7008         | 1-162-919-11   | CERAMC CHIP                   | 22PF     | 5.00%   | 50V     |             |        |
| C7016         | 1-107-823-11   | CERAMC CHIP                   | 0.47UF   | 10.00%  | 16V     |             |        |
| C7018         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7019         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7020         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7021         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7022         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7023         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7030         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7031         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7032         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7038         | 1-107-823-11   | CERAMC CHIP                   | 0.47UF   | 10.00%  | 16V     |             |        |
| C7039         | 1-162-966-11   | CERAMC CHIP                   | 0.0022UF | 10.00%  | 50V     |             |        |
| C7050         | 1-162-927-11   | CERAMC CHIP                   | 100PF    | 5.00%   | 50V     |             |        |
| C7051         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7052         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7053         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7054         | 1-126-963-11   | ELECT                         | 4.7UF    | 20.00%  | 50V     |             |        |
| C7055         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7056         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C7057         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7058         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C7059         | 1-126-933-11   | ELECT                         | 100UF    | 20.00%  | 16V     |             |        |
| C7060         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7061         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7062         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7063         | 1-164-004-11   | CERAMC CHIP                   | 0.1UF    | 10.00%  | 25V     |             |        |
| C7064         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C7065         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7067         | 1-126-947-11   | ELECT                         | 47UF     | 20.00%  | 35V     |             |        |
| C7068         | 1-164-222-91   | CERAMC CHIP                   | 0.22UF   |         | 25V     |             |        |
| C7069         | 1-162-919-11   | CERAMC CHIP                   | 22PF     | 5.00%   | 50V     |             |        |
| C7070         | 1-162-919-11   | CERAMC CHIP                   | 22PF     | 5.00%   | 50V     |             |        |
| C7071         | 1-162-919-11   | CERAMC CHIP                   | 22PF     | 5.00%   | 50V     |             |        |
| < CONNECTOR > |                |                               |          |         |         |             |        |
| CND101        | * 1-823-330-11 | CONNECTOR, BOARD TO BOARD 40P |          |         |         |             |        |
| CND102        | * 1-564-520-11 | PLUG, CONNECTOR 5P            |          |         |         |             |        |
| CND103        | * 1-817-035-61 | PLUG, CONNECTOR 4P            |          |         |         |             |        |
| CN1000        | * 1-770-130-11 | CONNECTOR (SQUARE TYPE) 21P   |          |         |         |             |        |
| CN1001        | * 1-766-296-21 | CONNECTOR, DUAL SCART         |          |         |         |             |        |
| CN2000        | * 1-564-512-11 | PLUG, CONNECTOR 9P            |          |         |         |             |        |
| CN2500        | * 1-816-974-51 | PLUG, CONNECTOR 3P            |          |         |         |             |        |
| CN2501        | * 1-564-507-11 | PLUG, CONNECTOR 4P            |          |         |         |             |        |
| CN2502        | * 1-816-977-51 | PLUG, CONNECTOR 6P            |          |         |         |             |        |
| CN5002        | * 1-816-984-71 | PLUG, CONNECTOR 7P            |          |         |         |             |        |

| REF.NO. | PART.NO        | DESCRIPTION                      | REMARK | REF.NO. | PART.NO          | DESCRIPTION             | REMARK |
|---------|----------------|----------------------------------|--------|---------|------------------|-------------------------|--------|
| CN5100  | * 1-816-974-51 | PLUG, CONNECTOR 3P               |        | D5306   | 8-719-302-43     | DIODE EL1Z              |        |
| CN5801  | 1-764-333-11   | PIN, CONNECTOR(PCB) (V TYPE) 10P |        | D5307   | 8-719-987-87     | DIODE ERA85-009         |        |
| CN6200  | * 1-564-507-11 | PLUG, CONNECTOR 4P               |        | D5309   | 8-719-081-97     | DIODE MMDL914T1         |        |
| CN6202  | * 1-564-516-11 | PLUG, CONNECTOR 13P              |        | D5310   | 8-719-081-97     | DIODE MMDL914T1         |        |
| CN6203  | 1-695-915-11   | TAB (CONTACT)                    |        | D5400   | 8-719-982-03     | DIODE MZJ-3.6A          |        |
| CN7000  | * 1-817-042-81 | PLUG, CONNECTOR 5P               |        | D5401   | 8-719-050-38     | DIODE MMA152VK-T1       |        |
| CN7001  | * 1-564-512-11 | PLUG, CONNECTOR 9P               |        | D5404   | 8-719-110-41     | DIODE RD15ESB2          |        |
| CN8001  | 1-766-281-11   | PIN, CONNECTOR (PC BOARD) 8P     |        | D5405   | 8-719-908-03     | DIODE GP08D             |        |
|         | < DIODE >      |                                  |        | D5406   | 8-719-081-97     | DIODE MMDL914T1         |        |
|         |                |                                  |        | D5407   | 8-719-081-97     | DIODE MMDL914T1         |        |
| D0101   | 8-719-921-88   | DIODE MZJ-13B                    |        | D5804   | 8-719-109-89     | DIODE RD5.6ESB2         |        |
| D0104   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | D5807   | 8-719-929-15     | DIODE HZS9.1NB2         |        |
| D0110   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | D5809   | 8-719-050-38     | DIODE MMA152VK-T1       |        |
| D0111   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | D5811   | 8-719-081-97     | DIODE MMDL914T1         |        |
| D0112   | 8-719-921-88   | DIODE MZJ-13B                    |        | D5812   | 8-719-081-97     | DIODE MMDL914T1         |        |
| D0113   | 8-719-921-88   | DIODE MZJ-13B                    |        | D5813   | 8-719-081-97     | DIODE MMDL914T1         |        |
| D1006   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | D5814   | 1-216-295-91     | SHORT CHIP 0            |        |
| D2014   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | D6200   | 8-719-063-70     | DIODE D1NL20U           |        |
| D2015   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | D7004   | 8-719-929-15     | DIODE HZS9.1NB2         |        |
| D2016   | 8-719-050-38   | DIODE MMA152VK-T1                |        | D7006   | 1-216-809-11     | METAL CHIP 100 5% 1/10W |        |
| D2018   | 8-719-929-15   | DIODE HZS9.1NB2                  |        |         | < FERRITE BEAD > |                         |        |
| D2019   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | FB3001  | 1-414-760-21     | FERRITE 0UH             |        |
| D2500   | 8-719-050-38   | DIODE MMA152VK-T1                |        |         | < FILTER >       |                         |        |
| D2502   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | FL2000  | 1-239-803-11     | FILTER, EM              |        |
| D2503   | 8-719-050-38   | DIODE MMA152VK-T1                |        |         | < IC >           |                         |        |
| D3001   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC2000  | 6-701-031-11     | IC MSP3411G-QA-B11      |        |
| D3003   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC2001  | 8-759-100-96     | IC UPC4558G2            |        |
| D3005   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC2500  | 8-759-831-56     | IC TDA7497              |        |
| D3007   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC3200  | 6-700-505-01     | IC VSP9402A-A32GEG      |        |
| D3008   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC5102  | 8-759-325-48     | IC CA0005AD             |        |
| D3009   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC5103  | 8-752-072-94     | IC CXA1875AMT4          |        |
| D3011   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC5104  | 8-759-803-42     | IC LA6500-FA            |        |
| D3013   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC5300  | 8-759-008-70     | IC LM58N                |        |
| D3015   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC5301  | 8-759-659-67     | IC LA6393DLL            |        |
| D3017   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC5302  | 8-759-659-67     | IC LA6393DLL            |        |
| D3018   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC5400  | 8-759-696-71     | IC STV9379A             |        |
| D3019   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC6200  | 8-759-648-19     | IC L7809CV/LSY          |        |
| D3021   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC6201  | 8-759-648-20     | IC L7805CV/LSY          |        |
| D3023   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC6202  | 8-759-445-59     | IC BA033T               |        |
| D3024   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC6203  | 8-759-098-24     | IC PQ30RV11             |        |
| D3026   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC6204  | 8-759-591-02     | IC L78L33ABZ-AP         |        |
| D3028   | 8-719-929-15   | DIODE HZS9.1NB2                  |        | IC6205  | 8-759-394-35     | IC BA12T                |        |
| D3201   | 8-719-109-89   | DIODE RD5.6ESB2                  |        | IC6206  | 8-759-991-41     | IC LM78L05ACZ           |        |
| D5101   | 8-719-050-38   | DIODE MMA152VK-T1                |        | IC7002  | 8-752-090-88     | IC CXA2100AQ-TL         |        |
| D5103   | 8-719-110-86   | DIODE RD89ESB                    |        |         |                  |                         |        |
| D5104   | 8-719-109-89   | DIODE RD5.6ESB2                  |        |         |                  |                         |        |
| D5300   | 8-719-081-97   | DIODE MMDL914T1                  |        |         |                  |                         |        |
| D5303   | 8-719-081-97   | DIODE MMDL914T1                  |        |         |                  |                         |        |
| D5304   | 8-719-081-97   | DIODE MMDL914T1                  |        |         |                  |                         |        |
| D5305   | 8-719-991-33   | DIODE 1SS133T-77                 |        |         |                  |                         |        |



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

**A**

| REF.NO.    | PART.NO      | DESCRIPTION  | REMARK  | REF.NO.              | PART.NO      | DESCRIPTION               | REMARK |
|------------|--------------|--------------|---------|----------------------|--------------|---------------------------|--------|
| < SOCKET > |              |              |         | < PROTECTOR MODULE > |              |                           |        |
| J2000      | 1-784-632-11 | JACK, PIN 2P |         | PS2501               | 1-533-597-31 | IC LINK                   | 5A     |
| < COIL >   |              |              |         | < TRANSISTOR >       |              |                           |        |
| L1000      | 1-412-987-31 | INDUCTOR     | 4.7UH   | Q1000                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L1001      | 1-412-987-31 | INDUCTOR     | 4.7UH   | Q1001                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L1002      | 1-414-934-21 | INDUCTOR     | 10UH    | Q1004                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L1003      | 1-414-934-21 | INDUCTOR     | 10UH    | Q1005                | 8-729-421-19 | TRANSISTOR UN2213         |        |
| L1005      | 1-414-934-21 | INDUCTOR     | 10UH    | Q1006                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L2000      | 1-414-934-21 | INDUCTOR     | 10UH    | Q2000                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2001      | 1-414-934-21 | INDUCTOR     | 10UH    | Q2001                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2007      | 1-535-303-00 | LEAD, JUMPER | (5.0MM) | Q2002                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2008      | 1-216-295-91 | SHORT CHIP   | 0       | Q2003                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2009      | 1-216-295-91 | SHORT CHIP   | 0       | Q2004                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2010      | 1-414-928-21 | INDUCTOR     | 1UH     | Q2005                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2012      | 1-414-934-21 | INDUCTOR     | 10UH    | Q2501                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2014      | 1-408-602-31 | INDUCTOR     | 8.2UH   | Q2502                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2500      | 1-535-303-00 | LEAD, JUMPER | (5.0MM) | Q2503                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L2501      | 1-535-303-00 | LEAD, JUMPER | (5.0MM) | Q2504                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3000      | 1-216-295-91 | SHORT CHIP   | 0       | Q3200                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L3004      | 1-216-295-91 | SHORT CHIP   | 0       | Q3201                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L3005      | 1-216-295-91 | SHORT CHIP   | 0       | Q3202                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3006      | 1-216-295-91 | SHORT CHIP   | 0       | Q3204                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3007      | 1-216-295-91 | SHORT CHIP   | 0       | Q3300                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3008      | 1-216-295-91 | SHORT CHIP   | 0       | Q3301                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3009      | 1-216-295-91 | SHORT CHIP   | 0       | Q3302                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3010      | 1-216-295-91 | SHORT CHIP   | 0       | Q3500                | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) |        |
| L3011      | 1-216-295-91 | SHORT CHIP   | 0       | Q3501                | 8-729-028-28 | TRANSISTOR 2SK2036(TE85L) |        |
| L3012      | 1-216-295-91 | SHORT CHIP   | 0       | Q5100                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L3200      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5101                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L3202      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5300                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L3203      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5301                | 8-729-053-33 | TRANSISTOR IRF614-037     |        |
| L3206      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5302                | 8-729-140-97 | TRANSISTOR 2SB734-34      |        |
| L3208      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5303                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L3300      | 1-412-006-31 | INDUCTOR     | 10UH    | Q5304                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L5300      | 1-406-989-21 | INDUCTOR     | 10MH    | Q5305                | 8-729-119-78 | TRANSISTOR 2SC2785-HFE    |        |
| L5301      | 1-406-989-21 | INDUCTOR     | 10MH    | Q5306                | 8-729-140-97 | TRANSISTOR 2SB734-34      |        |
| L5400      | 1-412-524-11 | INDUCTOR     | 8.2UH   | Q5307                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L5896      | 1-216-864-11 | SHORT CHIP   | 0       | Q5400                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L5897      | 1-216-864-11 | SHORT CHIP   | 0       | Q5401                | 8-729-421-19 | TRANSISTOR UN2213         |        |
| L5898      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5402                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L5899      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5403                | 8-729-421-19 | TRANSISTOR UN2213         |        |
| L7001      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5404                | 8-729-926-76 | TRANSISTOR IRF620         |        |
| L7009      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5813                | 8-729-421-19 | TRANSISTOR UN2213         |        |
| L7010      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5814                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
| L7011      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5815                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |
| L7012      | 1-414-934-21 | INDUCTOR     | 10UH    | Q5816                | 8-729-010-05 | TRANSISTOR M5B709-RT1     |        |
|            |              |              |         | Q6201                | 8-729-140-97 | TRANSISTOR 2SB734-34      |        |
|            |              |              |         | Q7003                | 8-729-010-29 | TRANSISTOR M5D601-RST1    |        |

| REF.NO.      | PART.NO      | DESCRIPTION            | REMARK |  |  | REF.NO. | PART.NO      | DESCRIPTION          | REMARK |  |  |
|--------------|--------------|------------------------|--------|--|--|---------|--------------|----------------------|--------|--|--|
| Q7009        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2026   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7011        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2029   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7012        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2032   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7013        | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        |  |  | R2035   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7014        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2038   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7015        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2041   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7016        | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        |  |  | R2042   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| Q7017        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2043   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| Q7018        | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        |  |  | R2044   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| Q7019        | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        |  |  | R2047   | 1-216-853-11 | METAL CHIP 470K 5%   | 1/10W  |  |  |
| < RESISTOR > |              |                        |        |  |  | R2048   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| JR121        | 1-216-864-11 | SHORT CHIP 0           |        |  |  | R2050   | 1-216-845-11 | METAL CHIP 100K 5%   | 1/10W  |  |  |
| JR123        | 1-216-864-11 | SHORT CHIP 0           |        |  |  | R2051   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| JR2000       | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2052   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R0101        | 1-216-833-11 | METAL CHIP 10K 5%      | 1/10W  |  |  | R2053   | 1-216-864-11 | SHORT CHIP 0         |        |  |  |
| R0102        | 1-216-827-11 | METAL CHIP 3.3K 5%     | 1/10W  |  |  | R2054   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R0103        | 1-216-073-91 | RES-CHIP 10K 5%        | 1/10W  |  |  | R2055   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R0104        | 1-216-827-11 | METAL CHIP 3.3K 5%     | 1/10W  |  |  | R2056   | 1-216-037-00 | RES-CHIP 330 5%      | 1/10W  |  |  |
| R0105        | 1-216-025-11 | RES-CHIP 100 5%        | 1/10W  |  |  | R2057   | 1-216-025-11 | RES-CHIP 100 5%      | 1/10W  |  |  |
| R0107        | 1-216-025-11 | RES-CHIP 100 5%        | 1/10W  |  |  | R2058   | 1-216-025-11 | RES-CHIP 100 5%      | 1/10W  |  |  |
| R1000        | 1-216-049-11 | RES-CHIP 1K 5%         | 1/10W  |  |  | R2059   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1001        | 1-216-001-00 | RES-CHIP 10 5%         | 1/10W  |  |  | R2060   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1002        | 1-216-821-11 | METAL CHIP 1K 5%       | 1/10W  |  |  | R2061   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1003        | 1-216-809-11 | METAL CHIP 100 5%      | 1/10W  |  |  | R2062   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1004        | 1-216-809-11 | METAL CHIP 100 5%      | 1/10W  |  |  | R2063   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1005        | 1-216-049-11 | RES-CHIP 1K 5%         | 1/10W  |  |  | R2064   | 1-249-425-11 | CARBON 4.7K 5%       | 1/4W   |  |  |
| R1006        | 1-216-051-00 | RES-CHIP 1.2K 5%       | 1/10W  |  |  | R2065   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R1007        | 1-414-813-11 | FERRITE 00H            |        |  |  | R2066   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1008        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2067   | 1-216-829-11 | METAL CHIP 4.7K 5%   | 1/10W  |  |  |
| R1009        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2068   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R1010        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2069   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R1014        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2070   | 1-216-833-11 | METAL CHIP 10K 5%    | 1/10W  |  |  |
| R1017        | 1-216-822-11 | METAL CHIP 1.2K 5%     | 1/10W  |  |  | R2071   | 1-216-839-11 | METAL CHIP 33K 5%    | 1/10W  |  |  |
| R1019        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2072   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R1021        | 1-216-833-11 | METAL CHIP 10K 5%      | 1/10W  |  |  | R2073   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R1022        | 1-216-839-11 | METAL CHIP 33K 5%      | 1/10W  |  |  | R2074   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R1023        | 1-216-849-11 | METAL CHIP 220K 5%     | 1/10W  |  |  | R2075   | 1-216-833-11 | METAL CHIP 10K 5%    | 1/10W  |  |  |
| R1024        | 1-216-839-11 | METAL CHIP 33K 5%      | 1/10W  |  |  | R2076   | 1-216-839-11 | METAL CHIP 33K 5%    | 1/10W  |  |  |
| R1025        | 1-216-837-11 | METAL CHIP 22K 5%      | 1/10W  |  |  | R2077   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R1026        | 1-216-817-11 | METAL CHIP 470 5%      | 1/10W  |  |  | R2078   | 1-216-025-11 | RES-CHIP 100 5%      | 1/10W  |  |  |
| R2009        | 1-216-817-11 | METAL CHIP 470 5%      | 1/10W  |  |  | R2079   | 1-216-049-11 | RES-CHIP 1K 5%       | 1/10W  |  |  |
| R2010        | 1-216-817-11 | METAL CHIP 470 5%      | 1/10W  |  |  | R2080   | 1-218-867-11 | METAL CHIP 6.8K 0.5% | 1/10W  |  |  |
| R2011        | 1-216-049-11 | RES-CHIP 1K 5%         | 1/10W  |  |  | R2081   | 1-216-833-11 | METAL CHIP 10K 5%    | 1/10W  |  |  |
| R2014        | 1-216-049-11 | RES-CHIP 1K 5%         | 1/10W  |  |  | R2082   | 1-216-805-11 | METAL CHIP 47 5%     | 1/10W  |  |  |
| R2015        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2083   | 1-216-817-11 | METAL CHIP 470 5%    | 1/10W  |  |  |
| R2017        | 1-216-853-11 | METAL CHIP 470K 5%     | 1/10W  |  |  | R2084   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R2018        | 1-216-295-91 | SHORT CHIP 0           |        |  |  | R2085   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R2020        | 1-216-853-11 | METAL CHIP 470K 5%     | 1/10W  |  |  | R2086   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
| R2023        | 1-216-853-11 | METAL CHIP 470K 5%     | 1/10W  |  |  | R2087   | 1-216-837-11 | METAL CHIP 22K 5%    | 1/10W  |  |  |
|              |              |                        |        |  |  | R2088   | 1-216-041-00 | RES-CHIP 470 5%      | 1/10W  |  |  |



| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       | REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       |
|---------|--------------|-------------|--------|------|-------|---------|--------------|-------------|--------|------|-------|
| R2089   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W | R3022   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2092   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3023   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2093   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3024   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2094   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3025   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2095   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3026   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2096   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3027   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2097   | 1-216-039-00 | RES-CHIP    | 390    | 5%   | 1/10W | R3028   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2098   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3029   | 1-216-045-00 | RES-CHIP    | 680    | 5%   | 1/10W |
| R2099   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3030   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2500   | 1-216-073-91 | RES-CHIP    | 10K    | 5%   | 1/10W | R3031   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2501   | 1-216-341-11 | METAL OXIDE | 0.22   | 5%   | 1W    | R3032   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2502   | 1-208-810-11 | METAL CHIP  | 15K    | 0.5% | 1/10W | R3033   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2503   | 1-208-810-11 | METAL CHIP  | 15K    | 0.5% | 1/10W | R3034   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2504   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3035   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2507   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W | R3036   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W |
| R2509   | 1-249-417-11 | CARBON      | 1K     | 5%   | 1/4W  | R3037   | 1-216-045-00 | RES-CHIP    | 680    | 5%   | 1/10W |
| R2511   | 1-216-073-91 | RES-CHIP    | 10K    | 5%   | 1/10W | R3218   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R2516   | 1-216-081-00 | RES-CHIP    | 22K    | 5%   | 1/10W | R3219   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R2517   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W | R3220   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R2518   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W | R3221   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R2519   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R3222   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R2520   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3223   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R2524   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R3225   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2525   | 1-216-828-11 | METAL CHIP  | 3.9K   | 5%   | 1/10W | R3226   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2912   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3229   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2914   | 1-216-853-11 | METAL CHIP  | 470K   | 5%   | 1/10W | R3233   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R2921   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3234   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R2924   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3235   | 1-216-822-11 | METAL CHIP  | 1.2K   | 5%   | 1/10W |
| R2927   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3236   | 1-216-822-11 | METAL CHIP  | 1.2K   | 5%   | 1/10W |
| R2930   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3237   | 1-216-797-11 | METAL CHIP  | 10     | 5%   | 1/10W |
| R2933   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3238   | 1-216-797-11 | METAL CHIP  | 10     | 5%   | 1/10W |
| R2936   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3305   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2939   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3306   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R2942   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3312   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R2945   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R3313   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R3000   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3314   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R3001   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R3318   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R3009   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3319   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R3010   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R3320   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |
| R3011   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3403   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R3012   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R3500   | 1-216-834-11 | METAL CHIP  | 12K    | 5%   | 1/10W |
| R3013   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3501   | 1-216-834-11 | METAL CHIP  | 12K    | 5%   | 1/10W |
| R3014   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R3504   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R3015   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R3505   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R3016   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R3603   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |
| R3017   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R5102   | 1-208-814-91 | METAL CHIP  | 22K    | 0.5% | 1/10W |
| R3018   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R5103   | 1-218-833-11 | METAL CHIP  | 270    | 0.5% | 1/10W |
| R3019   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R5107   | 1-208-814-91 | METAL CHIP  | 22K    | 0.5% | 1/10W |
| R3020   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R5111   | 1-208-814-91 | METAL CHIP  | 22K    | 0.5% | 1/10W |
| R3021   | 1-216-022-00 | RES-CHIP    | 75     | 5%   | 1/10W | R5112   | 1-218-875-11 | METAL CHIP  | 15K    | 0.5% | 1/10W |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       | REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       |
|---------|--------------|-------------|--------|------|-------|---------|--------------|-------------|--------|------|-------|
| R5118   | 1-249-411-11 | CARBON      | 330    | 5%   | 1/4W  | R5325   | 1-208-812-11 | METAL CHIP  | 18K    | 0.5% | 1/10W |
| R5119   | 1-216-844-11 | METAL CHIP  | 82K    | 5%   | 1/10W | R5326   | 1-216-845-11 | METAL CHIP  | 100K   | 5%   | 1/10W |
| R5122   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W | R5327   | 1-216-472-00 | METAL OXIDE | 39     | 5%   | 3W    |
| R5125   | 1-216-836-11 | METAL CHIP  | 18K    | 5%   | 1/10W | R5328   | 1-216-033-00 | RES-CHIP    | 220    | 5%   | 1/10W |
| R5126   | 1-249-406-11 | CARBON      | 120    | 5%   | 1/4W  | R5331   | 1-216-033-00 | RES-CHIP    | 220    | 5%   | 1/10W |
| R5127   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R5332   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W |
| R5128   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5333   | 1-208-820-11 | METAL CHIP  | 39K    | 0.5% | 1/10W |
| R5129   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5334   | 1-208-834-11 | METAL CHIP  | 150K   | 0.5% | 1/10W |
| R5130   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5335   | 1-208-818-11 | METAL CHIP  | 33K    | 0.5% | 1/10W |
| R5131   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W | R5336   | 1-216-057-00 | RES-CHIP    | 2.2K   | 5%   | 1/10W |
| R5132   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5337   | 1-218-867-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W |
| R5133   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5338   | 1-249-413-11 | CARBON      | 470    | 5%   | 1/4W  |
| R5137   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5340   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |
| R5138   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5341   | 1-216-089-91 | RES-CHIP    | 47K    | 5%   | 1/10W |
| R5139   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W | R5342   | 1-208-818-11 | METAL CHIP  | 33K    | 0.5% | 1/10W |
| R5140   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W | R5343   | 1-208-808-11 | METAL CHIP  | 12K    | 0.5% | 1/10W |
| R5146   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W | R5344   | 1-208-820-11 | METAL CHIP  | 39K    | 0.5% | 1/10W |
| R5148   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W | R5345   | 1-208-832-11 | METAL CHIP  | 120K   | 0.5% | 1/10W |
| R5149   | 1-218-833-11 | METAL CHIP  | 270    | 0.5% | 1/10W | R5346   | 1-216-849-11 | METAL CHIP  | 220K   | 5%   | 1/10W |
| R5150   | 1-249-414-11 | CARBON      | 560    | 5%   | 1/4W  | R5347   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |
| R5151   | 1-249-454-11 | CARBON      | 3.9    | 5%   | 1/4W  | R5349   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W |
| R5152   | 1-249-413-11 | CARBON      | 470    | 5%   | 1/4W  | R5350   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W |
| R5153   | 1-249-393-11 | CARBON      | 10     | 5%   | 1/4W  | R5351   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |
| R5154   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R5352   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |
| R5155   | 1-249-421-11 | CARBON      | 2.2K   | 5%   | 1/4W  | R5400   | 1-216-849-11 | METAL CHIP  | 220K   | 5%   | 1/10W |
| R5156   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R5401   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R5157   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W | R5402   | 1-216-081-00 | RES-CHIP    | 22K    | 5%   | 1/10W |
| R5300   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W | R5403   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W |
| R5301   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W | R5404   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W |
| R5302   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W | R5405   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W |
| R5303   | 1-216-685-11 | METAL CHIP  | 27K    | 0.5% | 1/10W | R5407   | 1-216-857-11 | METAL CHIP  | 1M     | 5%   | 1/10W |
| R5304   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W | R5408   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R5305   | 1-208-852-11 | METAL CHIP  | 820K   | 0.5% | 1/10W | R5409   | 1-208-802-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W |
| R5306   | 1-208-802-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W | R5410   | 1-208-798-11 | METAL CHIP  | 4.7K   | 0.5% | 1/10W |
| R5307   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W | R5411   | 1-216-061-91 | RES-CHIP    | 3.3K   | 5%   | 1/10W |
| R5308   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R5413   | 1-208-802-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W |
| R5309   | 1-208-824-11 | METAL CHIP  | 56K    | 0.5% | 1/10W | R5414   | 1-249-383-11 | CARBON      | 1.5    | 5%   | 1/4W  |
| R5310   | 1-208-830-11 | METAL CHIP  | 100K   | 0.5% | 1/10W | R5415   | 1-249-389-11 | CARBON      | 4.7    | 5%   | 1/4W  |
| R5311   | 1-216-045-00 | RES-CHIP    | 680    | 5%   | 1/10W | R5416   | 1-215-888-00 | METAL OXIDE | 220    | 5%   | 2W    |
| R5312   | 1-208-832-11 | METAL CHIP  | 120K   | 0.5% | 1/10W | R5417   | 1-208-798-11 | METAL CHIP  | 4.7K   | 0.5% | 1/10W |
| R5314   | 1-208-840-11 | METAL CHIP  | 270K   | 0.5% | 1/10W | R5420   | 1-214-798-21 | METAL       | 1.8    | 1%   | 1/2W  |
| R5315   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W | R5421   | 1-214-798-21 | METAL       | 1.8    | 1%   | 1/2W  |
| R5316   | 1-216-057-00 | RES-CHIP    | 2.2K   | 5%   | 1/10W | R5803   | 1-216-861-11 | METAL CHIP  | 2.2M   | 5%   | 1/10W |
| R5317   | 1-216-845-11 | METAL CHIP  | 100K   | 5%   | 1/10W | R5804   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |
| R5318   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W | R5805   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |
| R5319   | 1-208-840-11 | METAL CHIP  | 270K   | 0.5% | 1/10W | R5806   | 1-216-089-91 | RES-CHIP    | 47K    | 5%   | 1/10W |
| R5320   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R5807   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |
| R5321   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W | R5808   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |
| R5322   | 1-216-820-11 | METAL CHIP  | 820    | 5%   | 1/10W | R5809   | 1-216-073-91 | RES-CHIP    | 10K    | 5%   | 1/10W |
| R5324   | 1-208-810-11 | METAL CHIP  | 15K    | 0.5% | 1/10W | R5865   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       |  |
|---------|--------------|-------------|--------|------|-------|--|
| R5869   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R5871   | 1-216-850-11 | METAL CHIP  | 270K   | 5%   | 1/10W |  |
| R5872   | 1-216-073-91 | RES-CHIP    | 10K    | 5%   | 1/10W |  |
| R5873   | 1-216-073-91 | RES-CHIP    | 10K    | 5%   | 1/10W |  |
| R5875   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |  |
| R5877   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |  |
| R5878   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |  |
| R5879   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R5880   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R5881   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |  |
| R5882   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |  |
| R5883   | 1-216-855-11 | METAL CHIP  | 680K   | 5%   | 1/10W |  |
| R5884   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W |  |
| R5885   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R5887   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R5888   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R5889   | 1-208-806-11 | METAL CHIP  | 10K    | 0.5% | 1/10W |  |
| R5892   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |  |
| R5895   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |  |
| R5898   | 1-216-832-11 | METAL CHIP  | 8.2K   | 5%   | 1/10W |  |
| R5899   | 1-216-863-11 | METAL CHIP  | 3.3M   | 5%   | 1/10W |  |
| R6200   | 1-218-831-11 | METAL CHIP  | 220    | 0.5% | 1/10W |  |
| R6201   | 1-218-839-11 | METAL CHIP  | 470    | 0.5% | 1/10W |  |
| R6202   | 1-249-395-11 | CARBON      | 15     | 5%   | 1/4W  |  |
| R7007   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |  |
| R7018   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7023   | 1-216-834-11 | METAL CHIP  | 12K    | 5%   | 1/10W |  |
| R7034   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7035   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7048   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7050   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |  |
| R7051   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7052   | 1-216-025-11 | RES-CHIP    | 100    | 5%   | 1/10W |  |
| R7053   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |  |
| R7054   | 1-216-847-11 | METAL CHIP  | 150K   | 5%   | 1/10W |  |
| R7056   | 1-218-867-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W |  |
| R7057   | 1-216-842-11 | METAL CHIP  | 56K    | 5%   | 1/10W |  |
| R7058   | 1-216-049-11 | RES-CHIP    | 1K     | 5%   | 1/10W |  |
| R7065   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W |  |
| R7066   | 1-216-809-11 | METAL CHIP  | 100    | 5%   | 1/10W |  |
| R7068   | 1-218-877-11 | METAL CHIP  | 18K    | 0.5% | 1/10W |  |
| R7070   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R7071   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R7072   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R7073   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W |  |
| R7074   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W |  |
| R7075   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R7076   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W |  |
| R7077   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W |  |
| R7078   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |

| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       |  |
|---------|--------------|-------------|--------|------|-------|--|
| R7079   | 1-216-041-00 | RES-CHIP    | 470    | 5%   | 1/10W |  |
| R7080   | 1-216-043-91 | RES-CHIP    | 560    | 5%   | 1/10W |  |
| R7081   | 1-216-817-11 | METAL CHIP  | 470    | 5%   | 1/10W |  |
| R7082   | 1-208-782-11 | METAL CHIP  | 1K     | 0.5% | 1/10W |  |
| R7088   | 1-208-783-11 | METAL CHIP  | 1.1K   | 0.5% | 1/10W |  |
| R7089   | 1-216-819-11 | METAL CHIP  | 680    | 5%   | 1/10W |  |
| R7090   | 1-216-819-11 | METAL CHIP  | 680    | 5%   | 1/10W |  |
| R7091   | 1-216-819-11 | METAL CHIP  | 680    | 5%   | 1/10W |  |
| R7092   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |  |
| R7093   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |  |
| R7094   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |  |
| R7095   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |  |
| R7096   | 1-216-803-11 | METAL CHIP  | 33     | 5%   | 1/10W |  |
| R7097   | 1-216-803-11 | METAL CHIP  | 33     | 5%   | 1/10W |  |
| R7098   | 1-216-803-11 | METAL CHIP  | 33     | 5%   | 1/10W |  |

&lt; CRYSTAL &gt;

X2000 1-760-628-11 VIBRATOR, CRYSTAL

X3200 1-781-946-21 VIBRATOR, CRYSTAL

X5800 1-767-127-11 VIBRATOR, CERAMC

**A Board, Variant Parts (KV-32FX68B)**

&lt; TUNER &gt;

TU1000 8-598-535-20 FRONTEND BTF-EF411

**A Board, Variant Parts (KV-32FX68E / KV-32FX68K)**

&lt; TUNER &gt;

TU1000 8-598-533-10 FRONTEND BTF-EC411

**A Board, Variant Parts (KV-32FX68U)**

&lt; TUNER &gt;

TU1000 8-598-529-10 FRONTEND BTF-EU611

**\* A-1300-178-A D Board, complete**

4-382-854-01 SCREW (M0X8), P, SW (+)

&lt; CAPACITOR &gt;

C8100 1-136-165-00 FILM 0.1UF 5.00% 50V

C8101 1-136-165-00 FILM 0.1UF 5.00% 50V

C8102 1-136-165-00 FILM 0.1UF 5.00% 50V

C8103 1-115-416-11 CERAMC CHIP 0.001UF 5.00% 25V

C8104 1-115-416-11 CERAMC CHIP 0.001UF 5.00% 25V

C8105 1-126-947-11 ELECT 47UF 20.00% 35V

C8106 1-164-315-11 CERAMC CHIP 470PF 5.00% 50V

C8107 1-216-685-11 METAL CHIP 27K 0.5% 1/10W

C8108 1-162-970-11 CERAMC CHIP 0.01UF 10.00% 25V

C8109 1-126-947-11 ELECT 47UF 20.00% 35V

| REF.NO. | PART.NO      | DESCRIPTION          | REMARK      | REF.NO.       | PART.NO        | DESCRIPTION                      | REMARK      |
|---------|--------------|----------------------|-------------|---------------|----------------|----------------------------------|-------------|
| C8112   | 1-164-227-11 | CERAMC CHIP 0.022UF  | 10.00% 25V  | C8832         | 1-126-941-11   | ELECT 470UF                      | 20.00% 25V  |
| C8113   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V  | C8833         | 1-126-941-11   | ELECT 470UF                      | 20.00% 25V  |
| C8114   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V  | C8834         | 1-102-228-00   | CERAMC 470PF                     | 10.00% 500V |
| C8115   | 1-162-962-11 | CERAMC CHIP 470PF    | 10.00% 50V  | C8835         | 1-102-228-00   | CERAMC 470PF                     | 10.00% 500V |
| C8116   | 1-115-416-11 | CERAMC CHIP 0.001UF  | 5.00% 25V   | C8836         | 1-123-024-21   | ELECT 33UF                       | 160V        |
| C8117   | 1-115-416-11 | CERAMC CHIP 0.001UF  | 5.00% 25V   | C8837         | 1-106-375-12   | MLAR 0.022UF                     | 5.00% 200V  |
| C8118   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V  | C8840         | 1-165-176-11   | CERAMC CHIP 0.047UF              | 10.00% 16V  |
| C8119   | 1-107-826-11 | CERAMC CHIP 0.1UF    | 10.00% 16V  | C8841         | 1-126-947-11   | ELECT 47UF                       | 20.00% 35V  |
| C8120   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V  | C8844         | 1-115-513-21   | FILM 0.18UF                      | 5.00% 250V  |
| C8124   | 1-107-826-11 | CERAMC CHIP 0.1UF    | 10.00% 16V  | C8851         | 1-162-131-11   | CERAMC 220PF                     | 10.00% 2KV  |
| C8125   | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V  | C8852         | 1-162-129-00   | CERAMC 150PF                     | 10.00% 2KV  |
| C8126   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V  | C8853         | 1-129-898-00   | FILM 0.0022UF                    | 5.00% 630V  |
| C8128   | 1-162-968-11 | CERAMC CHIP 0.0047UF | 10.00% 50V  | C8855         | 1-136-205-11   | MLAR 0.022UF                     | 5.00% 630V  |
| C8131   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V  | C8856         | 1-102-030-00   | CERAMC 330PF                     | 10.00% 500V |
| C8132   | 1-164-230-11 | CERAMC CHIP 220PF    | 5.00% 50V   | C8860         | 1-162-964-11   | CERAMC CHIP 0.001UF              | 10.00% 50V  |
| C8134   | 1-102-935-00 | CERAMC 2PF           | 0.25PF 50V  | C8861         | 1-162-927-11   | CERAMC CHIP 100PF                | 5.00% 50V   |
| C8135   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V  | C8869         | 1-162-964-11   | CERAMC CHIP 0.001UF              | 10.00% 50V  |
| C8136   | 1-126-964-11 | ELECT 10UF           | 20.00% 50V  | < CONNECTOR > |                |                                  |             |
| C8140   | 1-164-004-11 | CERAMC CHIP 0.1UF    | 10.00% 25V  | CN8600        | * 1-817-037-61 | PLUG, CONNECTOR 6P               |             |
| C8141   | 1-136-165-00 | FILM 0.1UF           | 5.00% 50V   | CN8601        | * 1-816-980-71 | PLUG, CONNECTOR 3P               |             |
| C8207   | 1-165-176-11 | CERAMC CHIP 0.047UF  | 10.00% 16V  | CN8611        | * 1-785-270-12 | PIN, DY CONNECTOR (PC BOARD)     |             |
| C8208   | 1-162-970-11 | CERAMC CHIP 0.01UF   | 10.00% 25V  | CN8612        | * 1-816-979-51 | PLUG, CONNECTOR 8P               |             |
| C8209   | 1-164-315-11 | CERAMC CHIP 470PF    | 5.00% 50V   | CN8614        | * 1-564-508-11 | PLUG, CONNECTOR 5P               |             |
| C8210   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V  | CN8616        | 1-695-915-11   | TAB (CONTACT)                    |             |
| C8801   | 1-126-947-11 | ELECT 47UF           | 20.00% 35V  | CN8620        | 1-764-333-11   | PIN, CONNECTOR(PCB) (V TYPE) 10P |             |
| C8802   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V  | CN8810        | * 1-564-510-11 | PLUG, CONNECTOR 7P               |             |
| C8803   | 1-126-960-11 | ELECT 1UF            | 20.00% 50V  | < DIODE >     |                |                                  |             |
| C8804   | 1-102-114-00 | CERAMC 470PF         | 10.00% 50V  | D8102         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8805   | 1-102-114-00 | CERAMC 470PF         | 10.00% 50V  | D8103         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8808   | 1-102-030-00 | CERAMC 330PF         | 10.00% 500V | D8104         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8809   | 1-102-030-00 | CERAMC 330PF         | 10.00% 500V | D8105         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8810   | 1-107-368-11 | MLAR 0.047UF         | 10.00% 200V | D8107         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8811   | 1-107-368-11 | MLAR 0.047UF         | 10.00% 200V | D8108         | 8-719-921-40   | DIODE MTZJ-4.7C                  |             |
| C8812   | 1-162-131-11 | CERAMC 220PF         | 10.00% 2KV  | D8128         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8813   | 1-162-134-11 | CERAMC 470PF         | 10.00% 2KV  | D8129         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8814   | 1-117-640-11 | FILM 6800PF          | 3.00% 1.2KV | D8132         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8815   | 1-117-835-11 | FILM 6200PF          | 3.00% 1.5KV | D8133         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8816   | 1-162-964-11 | CERAMC CHIP 0.001UF  | 10.00% 50V  | D8198         | 1-535-303-00   | LEAD, JUMPER (5.0MM)             |             |
| C8817   | 1-125-893-11 | FILM 680PF           | 3.00% 1.5KV | D8199         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8818   | 1-125-893-11 | FILM 680PF           | 3.00% 1.5KV | D8611         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8819   | 1-125-893-11 | FILM 680PF           | 3.00% 1.5KV | D8612         | 8-719-081-97   | DIODE MMDL914T1                  |             |
| C8820   | 1-125-893-11 | FILM 680PF           | 3.00% 1.5KV | D8803         | 8-719-200-02   | DIODE 10E-2                      |             |
| C8824   | 1-107-846-11 | FILM 0.1UF           | 5.00% 400V  | D8805         | 8-719-302-43   | DIODE EL1Z                       |             |
| C8825   | 1-117-662-11 | FILM 0.18UF          | 5.00% 250V  | D8806         | 8-719-979-85   | DIODE EGP20G                     |             |
| C8826   | 1-115-519-11 | FILM 0.56UF          | 5.00% 250V  | D8807         | 8-719-510-73   | DIODE S3L20UF4                   |             |
| C8827   | 1-107-846-11 | FILM 0.1UF           | 5.00% 400V  | D8808         | 8-719-510-73   | DIODE S3L20UF4                   |             |
| C8828   | 1-127-681-11 | FILM 10000PF         | 2% 100V     | D8811         | 8-719-110-41   | DIODE RDI5ESB2                   |             |
| C8829   | 1-127-680-11 | FILM 4700PF          | 2% 100V     |               |                |                                  |             |
| C8830   | 1-107-655-11 | ELECT 47UF           | 20.00% 250V |               |                |                                  |             |
| C8831   | 1-102-228-00 | CERAMC 470PF         | 10.00% 500V |               |                |                                  |             |

| REF.NO.          | PART.NO      | DESCRIPTION            | REMARK | REF.NO.      | PART.NO      | DESCRIPTION                | REMARK |
|------------------|--------------|------------------------|--------|--------------|--------------|----------------------------|--------|
| D8818            | 8-719-109-89 | DIODE RD5.6ESB2        |        | Q8127        | 8-729-010-05 | TRANSISTOR M5B709-RT1      |        |
| D8819            | 8-719-050-38 | DIODE MMA152VK-T1      |        | Q8128        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| D8820            | 8-719-081-97 | DIODE MMDL914T1        |        | Q8132        | 8-729-421-19 | TRANSISTOR UN2213          |        |
| D8851            | 8-719-970-87 | DIODE ERA38-06         |        | Q8135        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| D8856            | 8-719-081-97 | DIODE MMDL914T1        |        | Q8136        | 8-729-010-05 | TRANSISTOR M5B709-RT1      |        |
| D8857            | 8-719-110-41 | DIODE RD15ESB2         |        | Q8137        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| D8858            | 8-719-081-97 | DIODE MMDL914T1        |        | Q8201        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| D8860            | 8-719-110-41 | DIODE RD15ESB2         |        | Q8202        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| < FERRITE BEAD > |              |                        |        | Q8203        | 8-729-010-05 | TRANSISTOR M5B709-RT1      |        |
| FB8806           | 1-410-397-21 | FERRITE                | 1.1UH  | Q8455        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| FB8807           | 1-410-397-21 | FERRITE                | 1.1UH  | Q8801        | 8-729-048-47 | TRANSISTOR 2SC2688(5)-LK   |        |
| < IC >           |              |                        |        | Q8802        | 8-729-048-47 | TRANSISTOR 2SC2688(5)-LK   |        |
| IC8100           | 8-759-659-67 | IC LA6393DLL           |        | Q8803        | 8-729-056-16 | TRANSISTOR 2SC5698-SONY-CA |        |
| IC8101           | 8-759-659-67 | IC LA6393DLL           |        | Q8804        | 8-729-056-17 | TRANSISTOR 2SC5696-SONY-CA |        |
| IC8102           | 8-759-638-79 | IC NJM404AD-W          |        | Q8805        | 8-729-050-48 | TRANSISTOR IRF614-005      |        |
| IC8103           | 8-759-659-67 | IC LA6393DLL           |        | Q8806        | 8-729-047-59 | TRANSISTOR STP5NB40FP      |        |
| < COIL >         |              |                        |        | Q8807        | 8-729-421-19 | TRANSISTOR UN2213          |        |
| L8801            | 1-410-397-21 | FERRITE                | 1.1UH  | Q8822        | 8-729-010-29 | TRANSISTOR M5D601-RST1     |        |
| L8802            | 1-410-397-21 | FERRITE                | 1.1UH  | Q8823        | 8-729-424-08 | TRANSISTOR UN2111          |        |
| L8803            | 1-410-397-21 | FERRITE                | 1.1UH  | Q8851        | 6-550-012-01 | TRANSISTOR STP5NB40(033Y)  |        |
| L8805            | 1-408-947-00 | INDUCTOR               | 2.2MH  | < RESISTOR > |              |                            |        |
| < INDUCTOR >     |              |                        |        | R8100        | 1-216-813-11 | METAL CHIP 220 5% 1/10W    |        |
| LF8801           | 1-406-985-11 | INDUCTOR               | 2.2MH  | R8101        | 1-216-813-11 | METAL CHIP 220 5% 1/10W    |        |
| LF8851           | 1-406-674-11 | INDUCTOR               | 3.3MH  | R8102        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| < TRANSISTOR >   |              |                        |        | R8103        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8100            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8104        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8101            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8105        | 1-216-821-11 | METAL CHIP 1K 5% 1/10W     |        |
| Q8102            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8106        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8103            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8107        | 1-208-792-11 | METAL CHIP 2.7K 0.5% 1/10W |        |
| Q8104            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8108        | 1-208-792-11 | METAL CHIP 2.7K 0.5% 1/10W |        |
| Q8105            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8109        | 1-208-814-91 | METAL CHIP 22K 0.5% 1/10W  |        |
| Q8106            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8110        | 1-208-814-91 | METAL CHIP 22K 0.5% 1/10W  |        |
| Q8107            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8111        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8108            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8112        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8110            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8113        | 1-216-833-11 | METAL CHIP 10K 5% 1/10W    |        |
| Q8112            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8114        | 1-216-833-11 | METAL CHIP 10K 5% 1/10W    |        |
| Q8113            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8115        | 1-216-845-11 | METAL CHIP 100K 5% 1/10W   |        |
| Q8115            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8116        | 1-216-845-11 | METAL CHIP 100K 5% 1/10W   |        |
| Q8118            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8117        | 1-216-833-11 | METAL CHIP 10K 5% 1/10W    |        |
| Q8119            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8118        | 1-216-833-11 | METAL CHIP 10K 5% 1/10W    |        |
| Q8120            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8119        | 1-216-833-11 | METAL CHIP 10K 5% 1/10W    |        |
| Q8122            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8120        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8123            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8121        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8125            | 8-729-010-29 | TRANSISTOR M5D601-RST1 |        | R8122        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
| Q8126            | 8-729-010-05 | TRANSISTOR M5B709-RT1  |        | R8123        | 1-216-841-11 | METAL CHIP 47K 5% 1/10W    |        |
|                  |              |                        |        | R8124        | 1-216-821-11 | METAL CHIP 1K 5% 1/10W     |        |
|                  |              |                        |        | R8125        | 1-216-825-11 | METAL CHIP 2.2K 5% 1/10W   |        |
|                  |              |                        |        | R8126        | 1-216-815-11 | METAL CHIP 330 5% 1/10W    |        |
|                  |              |                        |        | R8127        | 1-208-802-11 | METAL CHIP 6.8K 0.5% 1/10W |        |



| REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       | REF.NO. | PART.NO      | DESCRIPTION | REMARK |      |       |
|---------|--------------|-------------|--------|------|-------|---------|--------------|-------------|--------|------|-------|
| R8128   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8203   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |
| R8129   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8204   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |
| R8130   | 1-208-846-11 | METAL CHIP  | 470K   | 0.5% | 1/10W | R8205   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |
| R8131   | 1-216-815-11 | METAL CHIP  | 330    | 5%   | 1/10W | R8206   | 1-208-842-11 | METAL CHIP  | 330K   | 0.5% | 1/10W |
| R8132   | 1-216-815-11 | METAL CHIP  | 330    | 5%   | 1/10W | R8207   | 1-216-849-11 | METAL CHIP  | 220K   | 5%   | 1/10W |
| R8133   | 1-216-815-11 | METAL CHIP  | 330    | 5%   | 1/10W | R8209   | 1-216-295-91 | SHORT CHIP  | 0      |      |       |
| R8136   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8210   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R8137   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8211   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |
| R8138   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8212   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R8139   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W | R8215   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W |
| R8140   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8216   | 1-208-822-11 | METAL CHIP  | 47K    | 0.5% | 1/10W |
| R8141   | 1-208-818-11 | METAL CHIP  | 33K    | 0.5% | 1/10W | R8217   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |
| R8142   | 1-208-798-11 | METAL CHIP  | 4.7K   | 0.5% | 1/10W | R8219   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W |
| R8143   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8220   | 1-216-834-11 | METAL CHIP  | 12K    | 5%   | 1/10W |
| R8144   | 1-216-846-11 | METAL CHIP  | 120K   | 5%   | 1/10W | R8221   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W |
| R8145   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8224   | 1-216-827-11 | METAL CHIP  | 3.3K   | 5%   | 1/10W |
| R8146   | 1-208-790-11 | METAL CHIP  | 2.2K   | 0.5% | 1/10W | R8456   | 1-216-845-11 | METAL CHIP  | 100K   | 5%   | 1/10W |
| R8149   | 1-216-828-11 | METAL CHIP  | 3.9K   | 5%   | 1/10W | R8457   | 1-216-834-11 | METAL CHIP  | 12K    | 5%   | 1/10W |
| R8150   | 1-218-867-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W | R8458   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W |
| R8153   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R8459   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W |
| R8154   | 1-216-820-11 | METAL CHIP  | 820    | 5%   | 1/10W | R8800   | 1-247-895-91 | CARBON      | 470K   | 5%   | 1/4W  |
| R8155   | 1-216-059-00 | RES-CHIP    | 2.7K   | 5%   | 1/10W | R8804   | 1-249-408-11 | CARBON      | 180    | 5%   | 1/4W  |
| R8158   | 1-208-798-11 | METAL CHIP  | 4.7K   | 0.5% | 1/10W | R8805   | 1-249-408-11 | CARBON      | 180    | 5%   | 1/4W  |
| R8159   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R8806   | 1-249-411-11 | CARBON      | 330    | 5%   | 1/4W  |
| R8160   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R8807   | 1-249-411-11 | CARBON      | 330    | 5%   | 1/4W  |
| R8161   | 1-208-804-11 | METAL CHIP  | 8.2K   | 0.5% | 1/10W | R8808   | 1-260-340-11 | CARBON      | 10K    | 5%   | 1/2W  |
| R8162   | 1-216-821-11 | METAL CHIP  | 1K     | 5%   | 1/10W | R8809   | 1-260-340-11 | CARBON      | 10K    | 5%   | 1/2W  |
| R8163   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R8810   | 1-216-460-11 | METAL OXIDE | 3.9K   | 5%   | 2W    |
| R8164   | 1-208-814-91 | METAL CHIP  | 22K    | 0.5% | 1/10W | R8811   | 1-215-896-00 | METAL OXIDE | 4.7K   | 5%   | 2W    |
| R8165   | 1-208-830-11 | METAL CHIP  | 100K   | 0.5% | 1/10W | R8812   | 1-215-896-00 | METAL OXIDE | 4.7K   | 5%   | 2W    |
| R8168   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W | R8813   | 1-215-895-11 | METAL OXIDE | 3.3K   | 5%   | 2W    |
| R8169   | 1-208-830-11 | METAL CHIP  | 100K   | 0.5% | 1/10W | R8814   | 1-215-880-00 | METAL OXIDE | 10     | 5%   | 2W    |
| R8170   | 1-216-815-11 | METAL CHIP  | 330    | 5%   | 1/10W | R8815   | 1-215-880-00 | METAL OXIDE | 10     | 5%   | 2W    |
| R8171   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8816   | 1-216-365-00 | METAL OXIDE | 0.47   | 5%   | 2W    |
| R8174   | 1-216-837-11 | METAL CHIP  | 22K    | 5%   | 1/10W | R8817   | 1-216-361-00 | METAL OXIDE | 0.22   | 5%   | 2W    |
| R8175   | 1-218-867-11 | METAL CHIP  | 6.8K   | 0.5% | 1/10W | R8818   | 1-249-405-11 | CARBON      | 100    | 5%   | 1/4W  |
| R8176   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W | R8819   | 1-247-807-31 | CARBON      | 100    | 5%   | 1/4W  |
| R8177   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W | R8831   | 1-260-124-11 | CARBON      | 120K   | 5%   | 1/2W  |
| R8179   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R8833   | 1-202-972-61 | FUSIBLE     | 1      | 5%   | 1/4W  |
| R8180   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8834   | 1-260-288-11 | CARBON      | 0.47   | 5%   | 1/2W  |
| R8181   | 1-216-295-91 | SHORT CHIP  | 0      |      |       | R8835   | 1-260-288-11 | CARBON      | 0.47   | 5%   | 1/2W  |
| R8182   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W | R8836   | 1-249-431-11 | CARBON      | 15K    | 5%   | 1/4W  |
| R8183   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8837   | 1-215-894-11 | METAL OXIDE | 2.2K   | 5%   | 2W    |
| R8186   | 1-216-828-11 | METAL CHIP  | 3.9K   | 5%   | 1/10W | R8838   | 1-214-905-11 | METAL       | 47K    | 1%   | 1/2W  |
| R8188   | 1-216-829-11 | METAL CHIP  | 4.7K   | 5%   | 1/10W | R8839   | 1-215-894-11 | METAL OXIDE | 2.2K   | 5%   | 2W    |
| R8189   | 1-216-818-11 | METAL CHIP  | 560    | 5%   | 1/10W | R8840   | 1-247-843-11 | CARBON      | 3.3K   | 5%   | 1/4W  |
| R8190   | 1-216-825-11 | METAL CHIP  | 2.2K   | 5%   | 1/10W | R8842   | 1-260-123-11 | CARBON      | 100K   | 5%   | 1/2W  |
| R8191   | 1-215-925-11 | METAL OXIDE | 22K    | 5%   | 3W    | R8843   | 1-216-833-11 | METAL CHIP  | 10K    | 5%   | 1/10W |
| R8196   | 1-249-377-11 | CARBON      | 0.47   | 5%   | 1/4W  | R8844   | 1-216-838-11 | METAL CHIP  | 27K    | 5%   | 1/10W |
| R8197   | 1-216-841-11 | METAL CHIP  | 47K    | 5%   | 1/10W | R8845   | 1-216-833-11 | METAL CHIP  | 10K    | 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**

**G**

| REF.NO.                              | PART.NO.       | DESCRIPTION                             |          | REMARK |       | REF.NO.   | PART.NO.         | DESCRIPTION                   |          | REMARK |      |
|--------------------------------------|----------------|---|----------|--------|-------|-----------|------------------|-------------------------------|----------|--------|------|
| R8851                                | 1-260-123-11   | CARBON                                  | 100K     | 5%     | 1/2W  | C6018     | 1-126-949-11     | ELECT                         | 220UF    | 20.00% | 35V  |
| R8852                                | 1-260-123-11   | CARBON                                  | 100K     | 5%     | 1/2W  | C6020     | 1-135-946-22     | FILM                          | 47000PF  | 3%     | 800V |
| R8853                                | 1-260-123-11   | CARBON                                  | 100K     | 5%     | 1/2W  | C6021     | 1-164-645-11     | CERAMC                        | 1000PF   | 10.00% | 500V |
| R8854                                | 1-249-425-11   | CARBON                                  | 4.7K     | 5%     | 1/4W  | C6022     | 1-126-963-11     | ELECT                         | 4.7UF    | 20.00% | 50V  |
| R8856                                | 1-215-922-11   | METAL OXIDE                             | 6.8K     | 5%     | 3W    | C6023     | 1-110-626-11     | ELECT                         | 330UF    | 20.00% | 160V |
| R8857                                | 1-215-922-11   | METAL OXIDE                             | 6.8K     | 5%     | 3W    | C6024     | 1-164-625-11     | CERAMC                        | 680PF    | 10.00% | 500V |
| R8858                                | 1-215-922-11   | METAL OXIDE                             | 6.8K     | 5%     | 3W    | C6025     | 1-164-625-11     | CERAMC                        | 680PF    | 10.00% | 500V |
| R8859                                | 1-215-922-11   | METAL OXIDE                             | 6.8K     | 5%     | 3W    | C6026     | 1-164-625-11     | CERAMC                        | 680PF    | 10.00% | 500V |
| R8865                                | 1-216-829-11   | METAL CHIP                              | 4.7K     | 5%     | 1/10W | C6027     | 1-164-625-11     | CERAMC                        | 680PF    | 10.00% | 500V |
| R8866                                | 1-216-295-91   | SHORT CHIP                              | 0        |        |       | C6028     | 1-128-548-11     | ELECT                         | 4700UF   | 20.00% | 25V  |
| R8867                                | 1-216-829-11   | METAL CHIP                              | 4.7K     | 5%     | 1/10W | C6029     | 1-126-939-11     | ELECT                         | 10000UF  | 20.00% | 16V  |
| R8869                                | 1-216-837-11   | METAL CHIP                              | 22K      | 5%     | 1/10W | C6030     | 1-119-940-51     | ELECT                         | 4700UF   | 20.00% | 50V  |
| R8870                                | 1-216-837-11   | METAL CHIP                              | 22K      | 5%     | 1/10W | C6031     | 1-535-143-71     | LEAD, JUMPER (7.5MM)          |          |        |      |
| R8885                                | 1-208-854-11   | METAL CHIP                              | 1M       | 0.5%   | 1/10W | C6032     | £ 1-113-927-11   | CERAMC                        | 0.01UF   |        | 250V |
| R8886                                | 1-208-836-11   | METAL CHIP                              | 180K     | 0.5%   | 1/10W | C6033     | 1-162-964-11     | CERAMC CHIP                   | 0.001UF  | 10.00% | 50V  |
| R8887                                | 1-216-841-11   | METAL CHIP                              | 47K      | 5%     | 1/10W | C6034     | 1-162-968-11     | CERAMC CHIP                   | 0.0047UF | 10.00% | 50V  |
| R8888                                | 1-249-441-11   | CARBON                                  | 100K     | 5%     | 1/4W  | C6035     | 1-136-165-00     | FILM                          | 0.1UF    | 5.00%  | 50V  |
| R8895                                | 1-249-443-11   | CARBON                                  | 0.47     | 5%     | 1/4W  | C6036     | 1-136-479-11     | FILM                          | 0.001UF  | 5.00%  | 100V |
| R8896                                | 1-249-443-11   | CARBON                                  | 0.47     | 5%     | 1/4W  | C6037     | 1-126-947-11     | ELECT                         | 47UF     | 20.00% | 35V  |
| R8897                                | 1-215-489-00   | METAL                                   | 680K     | 1%     | 1/4W  | C6038     | 1-164-645-11     | CERAMC                        | 1000PF   | 10.00% | 500V |
| R8898                                | 1-215-493-00   | METAL                                   | 1M       | 1%     | 1/4W  | C6039     | 1-125-891-11     | CERAMC CHIP                   | 0.47UF   | 10.00% | 10V  |
| R8899                                | 1-215-493-00   | METAL                                   | 1M       | 1%     | 1/4W  | C6040     | 1-115-340-11     | CERAMC CHIP                   | 0.22UF   | 10.00% | 25V  |
| < TRANSFORMER >                      |                |   |          |        |       |           |                  |                               |          |        |      |
| T8800                                | £ 1-453-340-41 | TRANSFORMER ASSY, FLYBACK NX-4522//Z2B4 |          |        |       |           |                  |                               |          |        |      |
| T8801                                | 1-437-430-11   | TRANSFORMER, FERRITE (HDT)              |          |        |       |           |                  |                               |          |        |      |
| T8802                                | 1-437-430-11   | TRANSFORMER, FERRITE (HDT)              |          |        |       |           |                  |                               |          |        |      |
| T8852                                | 1-437-690-11   | TRANSFORMER, FERRITE (DFT)              |          |        |       |           |                  |                               |          |        |      |
| * A-1300-179-A G Board, complete     |                |   |          |        |       |           |                  |                               |          |        |      |
| 4-382-854-01 SCREW (M&X8), P, SW (+) |                |   |          |        |       |           |                  |                               |          |        |      |
| 4-382-854-01 SCREW (M&X8), P, SW (+) |                |   |          |        |       |           |                  |                               |          |        |      |
| < CAPACITOR >                        |                |   |          |        |       |           |                  |                               |          |        |      |
| C6001                                | £ 1-137-999-11 | FILM                                    | 0.1UF    |        | 275V  | CN6001    | £ * 1-691-291-11 | PIN, CONNECTOR (PC BOARD) 5P  |          |        |      |
| C6002                                | £ 1-137-999-11 | FILM                                    | 0.1UF    |        | 275V  | CN6002    | £ * 1-508-786-00 | PIN, CONNECTOR (5MM PITCH) 2P |          |        |      |
| C6003                                | £ 1-119-899-51 | CERAMC                                  | 1000PF   | 10.00% | 250V  | CN6003    | £ * 1-508-765-00 | PIN, CONNECTOR (5MM PITCH) 3P |          |        |      |
| C6004                                | £ 1-119-899-51 | CERAMC                                  | 1000PF   | 10.00% | 250V  | CN6004    | £ * 1-691-960-11 | PIN, CONNECTOR (PC BOARD) 3P  |          |        |      |
| C6005                                | 1-126-965-91   | ELECT                                   | 22UF     | 20.00% | 50V   | CN6005    | * 1-817-037-61   | PLUG CONNECTOR 6P             |          |        |      |
| C6006                                | 1-117-753-11   | ELECT(BLOCK)                            | 470UF    | 20.00% | 450V  | CN6006    | * 1-564-516-11   | PLUG, CONNECTOR 13P           |          |        |      |
| C6007                                | 1-126-964-11   | ELECT                                   | 10UF     | 20.00% | 50V   | CN6008    | * 1-564-507-11   | PLUG, CONNECTOR 4P            |          |        |      |
| C6008                                | 1-126-963-11   | ELECT                                   | 4.7UF    | 20.00% | 50V   | < DIODE > |                  |                               |          |        |      |
| C6010                                | 1-136-165-00   | FILM                                    | 0.1UF    | 5.00%  | 50V   | D6001     | 6-500-067-01     | DIODE GS1B460L/45             |          |        |      |
| C6011                                | 1-162-964-11   | CERAMC CHIP                             | 0.001UF  | 10.00% | 50V   | D6002     | 8-719-982-26     | DIODE MZJ-33B                 |          |        |      |
| C6012                                | £ 1-104-571-91 | CERAMC                                  | 0.0015UF | 10.00% | 2KV   | D6004     | 8-719-979-64     | DIODE UF4005PKG23             |          |        |      |
| C6013                                | £ 1-104-571-91 | CERAMC                                  | 0.0015UF | 10.00% | 2KV   | D6006     | 8-719-081-97     | DIODE MMDL914T1               |          |        |      |
| C6015                                | 1-115-339-11   | CERAMC CHIP                             | 0.1UF    | 10.00% | 50V   | D6007     | 8-719-081-97     | DIODE MMDL914T1               |          |        |      |
| C6016                                | 1-104-571-91   | CERAMC                                  | 0.0015UF | 10.00% | 2KV   | D6008     | 8-719-063-70     | DIODE D1NL20U                 |          |        |      |
| C6017                                | 1-104-571-91   | CERAMC                                  | 0.0015UF | 10.00% | 2KV   | D6009     | 8-719-110-41     | DIODE RD15ESB2                |          |        |      |
|                                      |                |   |          |        |       | D6010     | 8-719-085-24     | DIODE FBIU4D7M-B              |          |        |      |
|                                      |                |   |          |        |       | D6016     | 8-719-060-88     | DIODE D4SBS6                  |          |        |      |
|                                      |                |   |          |        |       | D6031     | 8-719-080-59     | DIODE EK19-V0                 |          |        |      |
|                                      |                |   |          |        |       | D6032     | 8-719-080-59     | DIODE EK19-V0                 |          |        |      |

**Note :** The components identified by shading and marked Δ 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 |
|------------------|----------------|-----------------------------|--------|---------|----------------|----------------------------|--------|
| D6033            | 8-719-022-97   | DIODE D2S4MF                |        | R6005   | £ 1-205-998-11 | CEMENTED 1 5% 10W          |        |
| D6034            | 8-719-022-97   | DIODE D2S4MF                |        | R6006   | £ 1-205-998-11 | CEMENTED 1 5% 10W          |        |
| D6036            | 1-216-295-91   | SHORT CHIP 0                |        | R6007   | 1-243-979-21   | METAL OXIDE 0.1 5% 2W      |        |
| D6101            | 8-719-081-97   | DIODE MMDL914T1             |        | R6008   | 1-243-979-21   | METAL OXIDE 0.1 5% 2W      |        |
| D6102            | 8-719-511-40   | DIODE S1VB40                |        | R6009   | 1-216-687-11   | METAL CHIP 33K 0.5% 1/10W  |        |
| D6103            | 8-719-081-97   | DIODE MMDL914T1             |        | R6010   | 1-215-481-00   | METAL 330K 1% 1/4W         |        |
| D6104            | 8-719-081-97   | DIODE MMDL914T1             |        | R6013   | £ 1-218-265-11 | METAL 8.2M 5% 1W           |        |
| D6105            | 8-719-081-97   | DIODE MMDL914T1             |        | R6014   | 1-215-926-00   | METAL OXIDE 33K 5% 3W      |        |
| D6106            | 8-719-081-97   | DIODE MMDL914T1             |        | R6015   | 1-208-757-11   | METAL CHIP 91 0.5% 1/10W   |        |
| D6107            | 8-719-081-97   | DIODE MMDL914T1             |        | R6016   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
| < FERRITE BEAD > |                |                             |        | R6017   | 1-216-833-11   | METAL CHIP 10K 5% 1/10W    |        |
| FB6002           | 1-410-397-21   | FERRITE 1.1UH               |        | R6018   | 1-260-131-11   | CARBON 470K 5% 1/2W        |        |
| FB6003           | 1-410-397-21   | FERRITE 1.1UH               |        | R6019   | 1-260-129-11   | CARBON 330K 5% 1/2W        |        |
| FB6005           | 1-535-303-00   | LEAD, JUMPER (5.0MM)        |        | R6020   | 1-216-820-11   | METAL CHIP 820 5% 1/10W    |        |
| FB6006           | 1-535-303-00   | LEAD, JUMPER (5.0MM)        |        | R6021   | 1-216-362-11   | METAL OXIDE 0.27 5% 2W     |        |
| < IC >           |                |                             |        | R6022   | 1-216-833-11   | METAL CHIP 10K 5% 1/10W    |        |
| IC6001           | 8-759-670-30   | IC MZ3001D                  |        | R6024   | 1-216-615-11   | METAL CHIP 33 0.5% 1/10W   |        |
| IC6003           | 8-749-016-19   | IC SE135N-LF4               |        | R6029   | 1-216-833-11   | METAL CHIP 10K 5% 1/10W    |        |
| < COIL >         |                |                             |        | R6030   | 1-216-817-11   | METAL CHIP 470 5% 1/10W    |        |
| L6001            | 1-406-663-21   | INDUCTOR 47UH               |        | R6032   | 1-249-417-11   | CARBON 1K 5% 1/4W          |        |
| L6002            | 1-412-529-11   | INDUCTOR 22UH               |        | R6033   | 1-215-481-00   | METAL 330K 1% 1/4W         |        |
| L6003            | 1-412-529-11   | INDUCTOR 22UH               |        | R6034   | 1-249-389-11   | CARBON 4.7 5% 1/4W         |        |
| L6004            | 1-535-303-00   | LEAD, JUMPER (5.0MM)        |        | R6035   | 1-260-083-11   | CARBON 47 5% 1/2W          |        |
| L6005            | 1-535-303-00   | LEAD, JUMPER (5.0MM)        |        | R6036   | 1-216-817-11   | METAL CHIP 470 5% 1/10W    |        |
| L6006            | 1-406-659-11   | INDUCTOR 10UH               |        | R6037   | 1-249-405-11   | CARBON 100 5% 1/4W         |        |
| L6007            | 1-412-525-31   | INDUCTOR 10UH               |        | R6038   | 1-208-830-11   | METAL CHIP 100K 0.5% 1/10W |        |
| < PHOTOCOUPLER > |                |                             |        | R6039   | 1-208-830-11   | METAL CHIP 100K 0.5% 1/10W |        |
| PH6001           | £ 8-749-016-21 | IC TCET1103G                |        | R6040   | 1-208-814-91   | METAL CHIP 22K 0.5% 1/10W  |        |
| < TRANSISTOR >   |                |                             |        | R6042   | 1-216-295-91   | SHORT CHIP 0               |        |
| Q6003            | 8-729-010-29   | TRANSISTOR MJD601-RST1      |        | R6045   | 1-216-639-11   | METAL CHIP 330 0.5% 1/10W  |        |
| Q6005            | 8-729-029-56   | TRANSISTOR DTA144ESA        |        | R6047   | 1-216-681-11   | METAL CHIP 18K 0.5% 1/10W  |        |
| Q6006            | 6-550-146-01   | TRANSISTOR SPA07N60C2-E8152 |        | R6048   | 1-215-481-00   | METAL 330K 1% 1/4W         |        |
| Q6007            | 6-550-146-01   | TRANSISTOR SPA07N60C2-E8152 |        | R6049   | 1-208-805-11   | METAL CHIP 9.1K 0.5% 1/10W |        |
| Q6010            | 8-729-119-78   | TRANSISTOR 2SC2785-HFE      |        | R6050   | 1-208-758-11   | METAL CHIP 100 0.5% 1/10W  |        |
| Q6101            | 8-729-029-56   | TRANSISTOR DTA144ESA        |        | R6054   | 1-216-615-11   | METAL CHIP 33 0.5% 1/10W   |        |
| Q6102            | 8-729-010-29   | TRANSISTOR MJD601-RST1      |        | R6056   | 1-216-295-91   | SHORT CHIP 0               |        |
| Q6103            | 8-729-029-56   | TRANSISTOR DTA144ESA        |        | R6057   | 1-208-798-11   | METAL CHIP 4.7K 0.5% 1/10W |        |
| Q6104            | 8-729-010-29   | TRANSISTOR MJD601-RST1      |        | R6101   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
| Q6105            | 8-729-010-29   | TRANSISTOR MJD601-RST1      |        | R6102   | 1-216-829-11   | METAL CHIP 4.7K 5% 1/10W   |        |
| < RESISTOR >     |                |                             |        | R6103   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
| JR6004           | 1-216-295-91   | SHORT CHIP 0                |        | R6104   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
| R6003            | £ 1-202-933-61 | FUSIBLE 0.1 10% 1/2W        |        | R6105   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
| R6004            | £ 1-205-998-11 | CEMENTED 1 5% 10W           |        | R6106   | 1-216-829-11   | METAL CHIP 4.7K 5% 1/10W   |        |
|                  |                |                             |        | R6107   | 1-216-829-11   | METAL CHIP 4.7K 5% 1/10W   |        |
|                  |                |                             |        | R6108   | 1-216-821-11   | METAL CHIP 1K 5% 1/10W     |        |
|                  |                |                             |        | R6109   | 1-216-829-11   | METAL CHIP 4.7K 5% 1/10W   |        |
|                  |                |                             |        | R6110   | 1-216-821-11   | METAL 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.

**G**

**M**

| REF.NO.                                 | PART.NO        | DESCRIPTION                   | REMARK     | REF.NO.        | PART.NO      | DESCRIPTION               | REMARK        |
|---|----------------|-------------------------------|------------|----------------|--------------|---------------------------|---------------|
| < RELAY >                               |                |                               |            | FB0008         | 1-216-295-91 | SHORT CHIP                | 0             |
| RY6001                                  | £ 1-755-395-11 | RELAY (AC POWER)              |            | FB0009         | 1-412-006-31 | INDUCTOR                  | 10UH          |
| RY6002                                  | £ 1-755-389-11 | RELAY (AC POWER)              |            | FB0010         | 1-216-295-91 | SHORT CHIP                | 0             |
| < TRANSFORMER >                         |                |                               |            | FB0011         | 1-412-006-31 | INDUCTOR                  | 10UH          |
| T6002                                   | £ 1-437-443-11 | TRANSFORMER, CONVERTER (PIT)  |            | FB0012         | 1-216-295-91 | SHORT CHIP                | 0             |
| T6003                                   | £ 1-424-896-11 | TRANSFORMER, LINE FILTER      |            | FB0015         | 1-216-864-11 | SHORT CHIP                | 0             |
| T6101                                   | £ 1-437-483-11 | TRANSFORMER, STANDBY          |            | FB0016         | 1-216-864-11 | SHORT CHIP                | 0             |
| < THERMISTOR >                          |                |                               |            | FB0017         | 1-216-295-91 | SHORT CHIP                | 0             |
| TH6002                                  | £ 1-804-650-11 | THERMISTOR, POSITIVE          |            | FB0018         | 1-216-295-91 | SHORT CHIP                | 0             |
| <b>* A-1300-287-A M Board, complete</b> |                |                               |            | FB0019         | 1-216-295-91 | SHORT CHIP                | 0             |
| < CAPACITOR >                           |                |                               |            | FB0020         | 1-216-295-91 | SHORT CHIP                | 0             |
| C0001                                   | 1-107-826-11   | CERAMC CHIP 0.1UF             | 10.00% 16V | < IC >         |              |                           |               |
| C0002                                   | 1-107-826-11   | CERAMC CHIP 0.1UF             | 10.00% 16V | IC0001         | 8-759-699-33 | IC M24C16-M6T(A)          |               |
| C0004                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | IC0002         | 6-702-496-02 | IC SAA5667HL/M/1036       |               |
| C0006                                   | 1-126-947-11   | ELECT 47UF                    | 20.00% 35V | IC0003         | 8-759-672-39 | IC PST5731MT              |               |
| C0007                                   | 1-107-826-11   | CERAMC CHIP 0.1UF             | 10.00% 16V | IC0004         | 8-759-665-11 | IC LM93DT                 |               |
| C0008                                   | 1-107-826-11   | CERAMC CHIP 0.1UF             | 10.00% 16V | IC0005         | 6-702-395-01 | IC K6F2008V2E-YF70T       |               |
| C0009                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | < TRANSISTOR > |              |                           |               |
| C0010                                   | 1-162-927-11   | CERAMC CHIP 100PF             | 5.00% 50V  | Q0002          | 8-729-424-08 | TRANSISTOR UN2111         |               |
| C0011                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | Q0003          | 8-729-424-08 | TRANSISTOR UN2111         |               |
| C0012                                   | 1-162-924-11   | CERAMC CHIP 56PF              | 5.00% 50V  | Q0006          | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               |
| C0013                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | Q0007          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |               |
| C0015                                   | 1-135-834-91   | CERAMC CHIP 2.2E+06PF         | 6.3V       | Q0008          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |               |
| C0016                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | Q0009          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |               |
| C0017                                   | 1-162-924-11   | CERAMC CHIP 56PF              | 5.00% 50V  | Q0010          | 8-729-027-44 | TRANSISTOR DTC114TKA-T146 |               |
| C0019                                   | 1-165-128-11   | CERAMC CHIP 0.22UF            | 16V        | Q0011          | 8-729-010-29 | TRANSISTOR MSD601-RST1    |               |
| C0020                                   | 1-162-923-11   | CERAMC CHIP 47PF              | 5.00% 50V  | Q0012          | 8-729-424-08 | TRANSISTOR UN2111         |               |
| C0025                                   | 1-162-962-11   | CERAMC CHIP 470PF             | 10.00% 50V | Q0013          | 8-729-421-22 | TRANSISTOR UN2211         |               |
| C0026                                   | 1-162-962-11   | CERAMC CHIP 470PF             | 10.00% 50V | < RESISTOR >   |              |                           |               |
| C0027                                   | 1-162-962-11   | CERAMC CHIP 470PF             | 10.00% 50V | R0001          | 1-216-045-00 | RES-CHIP                  | 680 5% 1/10W  |
| C0028                                   | 1-126-947-11   | ELECT 47UF                    | 20.00% 35V | R0002          | 1-216-055-00 | RES-CHIP                  | 1.8K 5% 1/10W |
| < CONNECTOR >                           |                |                               |            | R0003          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
| CN0001                                  | * 1-793-497-11 | CONNECTOR, BOARD TO BOARD 40P |            | R0011          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
| < DIODE >                               |                |                               |            | R0014          | 1-216-081-00 | RES-CHIP                  | 22K 5% 1/10W  |
| D0001                                   | 6-500-079-01   | DIODE BAS40-05E6327           |            | R0016          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
| D0301                                   | 8-719-069-56   | DIODE UHZSTE-176.2B           |            | R0017          | 1-216-093-91 | RES-CHIP                  | 68K 5% 1/10W  |
| < FERRITE BEAD >                        |                |                               |            | R0018          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
| FB0003                                  | 1-216-295-91   | SHORT CHIP                    | 0          | R0019          | 1-216-073-91 | RES-CHIP                  | 10K 5% 1/10W  |
| FB0004                                  | 1-412-006-31   | INDUCTOR                      | 10UH       | R0020          | 1-216-049-11 | RES-CHIP                  | 1K 5% 1/10W   |
| FB0005                                  | 1-216-864-11   | SHORT CHIP                    | 0          | R0022          | 1-216-809-11 | METAL CHIP                | 100 5% 1/10W  |
| FB0006                                  | 1-216-864-11   | SHORT CHIP                    | 0          | R0023          | 1-216-097-11 | RES-CHIP                  | 100K 5% 1/10W |
| FB0007                                  | 1-216-295-91   | SHORT CHIP                    | 0          | R0027          | 1-216-821-11 | METAL CHIP                | 1K 5% 1/10W   |
|   |                |                               |            | R0028          | 1-216-833-11 | METAL CHIP                | 10K 5% 1/10W  |
|   |                |                               |            | R0029          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
|   |                |                               |            | R0030          | 1-216-025-11 | RES-CHIP                  | 100 5% 1/10W  |
|   |                |                               |            | R0032          | 1-216-809-11 | METAL CHIP                | 100 5% 1/10W  |
|   |                |                               |            | R0033          | 1-216-809-11 | METAL CHIP                | 100 5% 1/10W  |

| REF.NO.     | PART.NO      | DESCRIPTION       | REMARK |      |       |
|-------------|--------------|-------------------|--------|------|-------|
| R0034       | 1-218-725-11 | METAL CHIP        | 24K    | 0.5% | 1/10W |
| R0035       | 1-216-069-00 | RES-CHIP          | 6.8K   | 5%   | 1/10W |
| R0037       | 1-216-061-91 | RES-CHIP          | 3.3K   | 5%   | 1/10W |
| R0039       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0040       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0041       | 1-216-057-00 | RES-CHIP          | 2.2K   | 5%   | 1/10W |
| R0042       | 1-216-069-00 | RES-CHIP          | 6.8K   | 5%   | 1/10W |
| R0043       | 1-216-803-11 | METAL CHIP        | 33     | 5%   | 1/10W |
| R0044       | 1-216-025-11 | RES-CHIP          | 100    | 5%   | 1/10W |
| R0045       | 1-216-803-11 | METAL CHIP        | 33     | 5%   | 1/10W |
| R0046       | 1-216-803-11 | METAL CHIP        | 33     | 5%   | 1/10W |
| R0047       | 1-216-810-11 | METAL CHIP        | 120    | 5%   | 1/10W |
| R0048       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0049       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0050       | 1-216-810-11 | METAL CHIP        | 120    | 5%   | 1/10W |
| R0051       | 1-216-835-11 | METAL CHIP        | 15K    | 5%   | 1/10W |
| R0052       | 1-216-810-11 | METAL CHIP        | 120    | 5%   | 1/10W |
| R0053       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0054       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0055       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0056       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0057       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0058       | 1-216-823-11 | METAL CHIP        | 1.5K   | 5%   | 1/10W |
| R0059       | 1-216-841-11 | METAL CHIP        | 47K    | 5%   | 1/10W |
| R0060       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0061       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0062       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0063       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0065       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0066       | 1-218-871-11 | METAL CHIP        | 10K    | 0.5% | 1/10W |
| R0067       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0068       | 1-216-833-11 | METAL CHIP        | 10K    | 5%   | 1/10W |
| R0069       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0070       | 1-216-025-11 | RES-CHIP          | 100    | 5%   | 1/10W |
| R0071       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0072       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0073       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0074       | 1-216-809-11 | METAL CHIP        | 100    | 5%   | 1/10W |
| R0075       | 1-216-025-11 | RES-CHIP          | 100    | 5%   | 1/10W |
| R0076       | 1-216-049-11 | RES-CHIP          | 1K     | 5%   | 1/10W |
| R0078       | 1-216-817-11 | METAL CHIP        | 470    | 5%   | 1/10W |
| R0079       | 1-216-065-91 | RES-CHIP          | 4.7K   | 5%   | 1/10W |
| R0301       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0302       | 1-216-073-91 | RES-CHIP          | 10K    | 5%   | 1/10W |
| R0303       | 1-216-836-11 | METAL CHIP        | 18K    | 5%   | 1/10W |
| R0304       | 1-218-867-11 | METAL CHIP        | 6.8K   | 0.5% | 1/10W |
| < CRYSTAL > |              |                   |        |      |       |
| X0001       | 1-578-774-71 | VIBRATOR, CRYSTAL |        |      |       |

| REF.NO.                          | PART.NO        | DESCRIPTION             | REMARK |      |
|----------------------------------|----------------|-------------------------|--------|------|
| * A-1300-532-A C Board, complete |                |                         |        |      |
|                                  | 4-382-854-01   | SCREW (M3X8), P, SW (+) |        |      |
| < CAPACITOR >                    |                |                         |        |      |
| C7303                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7304                            | 1-107-967-11   | ELECT 1UF               | 20.00% | 400V |
| C7305                            | 1-136-207-11   | MLAR 0.047UF            | 5.00%  | 630V |
| C7306                            | 1-163-009-91   | CERAMC CHIP 0.001UF     | 10.00% | 50V  |
| C7308                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7309                            | 1-163-035-00   | CERAMC CHIP 0.047UF     |        | 50V  |
| C7310                            | 1-163-247-91   | CERAMC CHIP 68PF        | 5.00%  | 50V  |
| C7325                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7326                            | 1-163-009-91   | CERAMC CHIP 0.001UF     | 10.00% | 50V  |
| C7329                            | 1-107-967-11   | ELECT 1UF               | 20.00% | 400V |
| C7330                            | 1-136-207-11   | MLAR 0.047UF            | 5.00%  | 630V |
| C7331                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7333                            | 1-163-035-00   | CERAMC CHIP 0.047UF     |        | 50V  |
| C7334                            | 1-163-247-91   | CERAMC CHIP 68PF        | 5.00%  | 50V  |
| C7350                            | 1-126-947-11   | ELECT 47UF              | 20.00% | 35V  |
| C7351                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7352                            | 1-163-009-91   | CERAMC CHIP 0.001UF     | 10.00% | 50V  |
| C7354                            | 1-126-933-11   | ELECT 100UF             | 20.00% | 16V  |
| C7355                            | 1-107-967-11   | ELECT 1UF               | 20.00% | 400V |
| C7356                            | 1-136-207-11   | MLAR 0.047UF            | 5.00%  | 630V |
| C7358                            | 1-162-909-11   | CERAMC CHIP 4PF         | 0.25PF | 50V  |
| C7359                            | 1-163-035-00   | CERAMC CHIP 0.047UF     |        | 50V  |
| C7360                            | 1-163-247-91   | CERAMC CHIP 68PF        | 5.00%  | 50V  |
| C7378                            | 1-162-116-00   | CERAMC 680PF            | 10.00% | 2KV  |
| C7379                            | 1-162-114-00   | CERAMC 0.0047UF         |        | 2KV  |
| C7380                            | 1-107-662-11   | ELECT 22UF              | 20.00% | 350V |
| C7384                            | 1-162-911-11   | CERAMC CHIP 6PF         | 0.50PF | 50V  |
| C7385                            | 1-162-913-11   | CERAMC CHIP 8PF         | 0.50PF | 50V  |
| C7387                            | 1-162-911-11   | CERAMC CHIP 6PF         | 0.50PF | 50V  |
| C7388                            | 1-162-913-11   | CERAMC CHIP 8PF         | 0.50PF | 50V  |
| C7390                            | 1-162-911-11   | CERAMC CHIP 6PF         | 0.50PF | 50V  |
| C7391                            | 1-162-913-11   | CERAMC CHIP 8PF         | 0.50PF | 50V  |
| < CONNECTOR >                    |                |                         |        |      |
| CN7300                           | * 1-564-508-11 | PLUG, CONNECTOR 5P      |        |      |
| CN7301                           | * 1-564-512-11 | PLUG, CONNECTOR 9P      |        |      |
| CN7311                           | 1-695-915-11   | TAB (CONTACT)           |        |      |
| CN7333                           | 1-695-915-11   | TAB (CONTACT)           |        |      |
| < DIODE >                        |                |                         |        |      |
| D7300                            | 8-719-911-19   | DIODE 1SS119-25         |        |      |
| D7325                            | 8-719-911-19   | DIODE 1SS119-25         |        |      |
| D7350                            | 8-719-911-19   | DIODE 1SS119-25         |        |      |
| D7375                            | 8-719-991-33   | DIODE 1SS133T-77        |        |      |
| D7376                            | 8-719-991-33   | DIODE 1SS133T-77        |        |      |



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

**C**

**F4**

| REF.NO.        | PART.NO        | DESCRIPTION         | REMARK | REF.NO.                                   | PART.NO          | DESCRIPTION                  | REMARK |
|----------------|----------------|---------------------|--------|---|------------------|------------------------------|--------|
| D7378          | 8-719-109-89   | DIODE RD5.6ESB2     |        | R7364                                     | 1-216-824-11     | METAL CHIP 1.8K 5%           | 1/10W  |
| D7379          | 8-719-109-89   | DIODE RD5.6ESB2     |        | R7373                                     | 1-216-823-11     | METAL CHIP 1.5K 5%           | 1/10W  |
| D7380          | 8-719-302-43   | DIODE EL1Z          |        | R7374                                     | 1-216-819-11     | METAL CHIP 680 5%            | 1/10W  |
| D7381          | 8-719-302-43   | DIODE EL1Z          |        | R7375                                     | 1-249-435-11     | CARBON 33K 5%                | 1/4W   |
| D7382          | 8-719-302-43   | DIODE EL1Z          |        | R7376                                     | 1-249-429-11     | CARBON 10K 5%                | 1/4W   |
| < IC >         |                |                     |        | R7377                                     | 1-249-430-11     | CARBON 12K 5%                | 1/4W   |
| IC7300         | 8-759-360-83   | IC TDA6111Q/M       |        | R7379                                     | 1-216-833-11     | METAL CHIP 10K 5%            | 1/10W  |
| IC7325         | 8-759-360-83   | IC TDA6111Q/M       |        | R7380                                     | 1-216-833-11     | METAL CHIP 10K 5%            | 1/10W  |
| IC7350         | 8-759-360-83   | IC TDA6111Q/M       |        | R7381                                     | 1-216-833-11     | METAL CHIP 10K 5%            | 1/10W  |
| < SOCKET >     |                |                     |        | R7382                                     | 1-202-549-00     | SOLID 100 20%                | 1/2W   |
| J7375          | £ 1-251-732-11 | SOCKET, CRT         |        | R7383                                     | 1-216-349-00     | METAL OXIDE 1 5%             | 1W     |
| < COIL >       |                |                     |        | R7385                                     | 1-202-549-00     | SOLID 100 20%                | 1/2W   |
| L7375          | 1-410-671-31   | INDUCTOR 47UH       |        | R7387                                     | 1-247-735-11     | CARBON 47 5%                 | 1/2W   |
| L7376          | £ 1-532-637-00 | LINK, IC 1A/50V     |        | R7388                                     | 1-535-143-51     | LEAD, JUMPER (20.00M)        |        |
| L7378          | 1-414-934-21   | INDUCTOR 10UH       |        | R7389                                     | 1-247-881-00     | CARBON 120K 5%               | 1/4W   |
| < TRANSISTOR > |                |                     |        | R7390                                     | 1-249-417-11     | CARBON 1K 5%                 | 1/4W   |
| Q7350          | 8-729-901-06   | TRANSISTOR DTA144EK |        | R7391                                     | 1-216-824-11     | METAL CHIP 1.8K 5%           | 1/10W  |
| Q7352          | 8-729-421-19   | TRANSISTOR UN213    |        | R7392                                     | 1-216-819-11     | METAL CHIP 680 5%            | 1/10W  |
| Q7353          | 8-729-421-19   | TRANSISTOR UN213    |        | R7393                                     | 1-216-823-11     | METAL CHIP 1.5K 5%           | 1/10W  |
| Q7354          | 8-729-901-06   | TRANSISTOR DTA144EK |        | R7394                                     | 1-249-417-11     | CARBON 1K 5%                 | 1/4W   |
| Q7355          | 8-729-421-19   | TRANSISTOR UN213    |        | R7395                                     | 1-216-824-11     | METAL CHIP 1.8K 5%           | 1/10W  |
| < RESISTOR >   |                |                     |        | R7396                                     | 1-216-819-11     | METAL CHIP 680 5%            | 1/10W  |
| R7300          | 1-249-417-11   | CARBON 1K 5%        | 1/4W   | R7397                                     | 1-216-823-11     | METAL CHIP 1.5K 5%           | 1/10W  |
| R7302          | 1-535-303-00   | LEAD, JUMPER (5.0M) |        | R7398                                     | 1-249-417-11     | CARBON 1K 5%                 | 1/4W   |
| R7303          | 1-216-824-11   | METAL CHIP 1.8K 5%  | 1/10W  | R7399                                     | 1-216-824-11     | METAL CHIP 1.8K 5%           | 1/10W  |
| R7304          | 1-260-095-11   | CARBON 470 5%       | 1/2W   | < RESISTOR VARIABLE >                     |                  |                              |        |
| R7305          | 1-215-903-11   | METAL OXIDE 68K 5%  | 2W     | RV7375                                    | 1-241-656-11     | RES, ADJ, METAL FILM 110M    |        |
| R7306          | 1-535-143-61   | LEAD, JUMPER (5.0M) |        | <b>* A-1625-000-A F4 Board, complete</b>  |                  |                              |        |
| R7309          | 1-216-824-11   | METAL CHIP 1.8K 5%  | 1/10W  | * 4-374-846-01 COVER, CAPACITOR, CAP TYPE |                  |                              |        |
| R7310          | 1-216-819-11   | METAL CHIP 680 5%   | 1/10W  | < CAPACITOR >                             |                  |                              |        |
| R7325          | 1-249-417-11   | CARBON 1K 5%        | 1/4W   | C6991                                     | 1-113-924-11     | CERAMC 0.0047UF 20.00% 250V  |        |
| R7327          | 1-535-303-00   | LEAD, JUMPER (5.0M) |        | < CONNECTOR >                             |                  |                              |        |
| R7328          | 1-216-824-11   | METAL CHIP 1.8K 5%  | 1/10W  | CN6991                                    | £ * 1-580-843-11 | PIN, CONNECTOR (POWER)       |        |
| R7329          | 1-260-095-11   | CARBON 470 5%       | 1/2W   | CN6992                                    | £ * 1-691-291-11 | PIN, CONNECTOR (PC BOARD) 5P |        |
| R7330          | 1-215-903-11   | METAL OXIDE 68K 5%  | 2W     | CN6993                                    | 1-695-915-11     | TAB (CONTACT)                |        |
| R7331          | 1-535-143-61   | LEAD, JUMPER (5.0M) |        | < FUSE >                                  |                  |                              |        |
| R7334          | 1-216-819-11   | METAL CHIP 680 5%   | 1/10W  | F6991                                     | £ 1-576-232-11   | FUSE (H.B.C.) 5A/250V        |        |
| R7335          | 1-216-824-11   | METAL CHIP 1.8K 5%  | 1/10W  |   | £ 1-533-725-11   | FUSE HOLDER (F6991)          |        |
| R7350          | 1-249-417-11   | CARBON 1K 5%        | 1/4W   | < RESISTOR >                              |                  |                              |        |
| R7355          | 1-535-303-00   | LEAD, JUMPER (5.0M) |        | R6991                                     | £ 1-202-719-00   | SOLID 1M 10%                 | 1/2W   |
| R7356          | 1-216-824-11   | METAL CHIP 1.8K 5%  | 1/10W  |   |                  |                              |        |
| R7357          | 1-260-095-11   | CARBON 470 5%       | 1/2W   |   |                  |                              |        |
| R7358          | 1-215-903-11   | METAL OXIDE 68K 5%  | 2W     |   |                  |                              |        |
| R7360          | 1-535-143-61   | LEAD, JUMPER (5.0M) |        |   |                  |                              |        |
| R7363          | 1-216-819-11   | METAL CHIP 680 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.

**F4 H1 H2 VM**

| REF.NO.                                  | PART.NO        | DESCRIPTION            | REMARK     | REF.NO.                                  | PART.NO      | DESCRIPTION             | REMARK      |
|--|----------------|------------------------|------------|--|--------------|-------------------------|-------------|
| < SWITCH >                               |                |                        |            | < SOCKET >                               |              |                         |             |
| S6991                                    | £ 1-571-433-21 | SWTCH, PUSH (AC POWER) |            | J2900                                    | 1-750-264-11 | JACK                    |             |
| < VARISTOR >                             |                |                        |            | < RESISTOR >                             |              |                         |             |
| VD6991                                   | £ 1-803-830-11 | VARISTOR (ERZV14D621)  |            | R912                                     | 1-535-303-00 | LEAD, JUMPER (5.0MM)    |             |
| <b>* A-1646-243-A H1 Board, complete</b> |                |                        |            | R0901                                    | 1-249-427-11 | CARBON 6.8K 5%          | 1/4W        |
| 4-206-220-01                             |                | HOLDER, LED            |            | R0902                                    | 1-215-445-00 | METAL 10K 1%            | 1/4W        |
| < CAPACITOR >                            |                |                        |            | R0911                                    | 1-249-419-11 | CARBON 1.5K 5%          | 1/4W        |
| C0992                                    | 1-104-665-11   | ELECT 100UF            | 20.00% 25V | R0913                                    | 1-247-843-11 | CARBON 3.3K 5%          | 1/4W        |
| C0993                                    | 1-102-114-00   | CERAMC 470PF           | 10.00% 50V | R0914                                    | 1-249-431-11 | CARBON 15K 5%           | 1/4W        |
| C0994                                    | 1-102-129-00   | CERAMC 0.01UF          | 10.00% 50V | R2903                                    | 1-249-406-11 | CARBON 120 5%           | 1/4W        |
| < CONNECTOR >                            |                |                        |            | R2904                                    | 1-249-406-11 | CARBON 120 5%           | 1/4W        |
| CN0991                                   | * 1-564-507-11 | PLUG, CONNECTOR 4P     |            | R2909                                    | 1-247-895-91 | CARBON 470K 5%          | 1/4W        |
| < DIODE >                                |                |                        |            | R2910                                    | 1-247-895-91 | CARBON 470K 5%          | 1/4W        |
| D0991                                    | 8-719-109-89   | DIODE RD5.6ESB2        |            | R2915                                    | 1-249-406-11 | CARBON 120 5%           | 1/4W        |
| D0993                                    | 8-719-082-12   | DIODE TLHK5190         |            | R2916                                    | 1-249-406-11 | CARBON 120 5%           | 1/4W        |
| < IC >                                   |                |                        |            | R2917                                    | 1-249-412-11 | CARBON 390 5%           | 1/4W        |
| IC0991                                   | 8-742-180-30   | HYB IC SBX3081-51(30)  |            | R2918                                    | 1-249-412-11 | CARBON 390 5%           | 1/4W        |
| < RESISTOR >                             |                |                        |            | < SWITCH >                               |              |                         |             |
| R0992                                    | 1-247-807-31   | CARBON 100 5%          | 1/4W       | S0900                                    | 1-692-979-11 | SWTCH, TACTILE          |             |
| <b>* A-1647-043-A H2 Board, complete</b> |                |                        |            | S0901                                    | 1-692-979-11 | SWTCH, TACTILE          |             |
| < CAPACITOR >                            |                |                        |            | S0902                                    | 1-692-979-11 | SWTCH, TACTILE          |             |
| C2906                                    | 1-126-960-11   | ELECT 1UF              | 20.00% 50V | <b>* A-1300-626-A VM Board, complete</b> |              |                         |             |
| C2907                                    | 1-126-960-11   | ELECT 1UF              | 20.00% 50V | 4-382-854-01                             |              | SCREW (M8X8), P, SW (+) |             |
| C2913                                    | 1-162-964-11   | CERAMC CHIP 0.001UF    | 10.00% 50V | < CAPACITOR >                            |              |                         |             |
| C2914                                    | 1-162-964-11   | CERAMC CHIP 0.001UF    | 10.00% 50V | C7401                                    | 1-126-935-11 | ELECT 470UF             | 20.00% 16V  |
| < CONNECTOR >                            |                |                        |            | C7403                                    | 1-126-935-11 | ELECT 470UF             | 20.00% 16V  |
| CN2900                                   | 1-779-947-11   | TERMINAL BLOCK, S      |            | C7404                                    | 1-115-339-11 | CERAMC CHIP 0.1UF       | 10.00% 50V  |
| CN2906                                   | * 1-564-524-11 | PLUG, CONNECTOR 9P     |            | C7405                                    | 1-126-933-11 | ELECT 100UF             | 20.00% 16V  |
| CN2908                                   | * 1-564-521-11 | PLUG, CONNECTOR 6P     |            | C7406                                    | 1-126-935-11 | ELECT 470UF             | 20.00% 16V  |
| < COIL >                                 |                |                        |            | C7407                                    | 1-107-364-11 | MLAR 0.01UF             | 10.00% 200V |
| L0904                                    | 1-535-303-00   | LEAD, JUMPER (5.0MM)   |            | C7408                                    | 1-107-364-11 | MLAR 0.01UF             | 10.00% 200V |
| L2900                                    | 1-535-303-00   | LEAD, JUMPER (5.0MM)   |            | C7409                                    | 1-107-649-11 | ELECT 2.2UF             | 20.00% 250V |
| L2901                                    | 1-535-303-00   | LEAD, JUMPER (5.0MM)   |            | C7410                                    | 1-130-471-00 | MLAR 0.001UF            | 5.00% 50V   |
| L2902                                    | 1-535-303-00   | LEAD, JUMPER (5.0MM)   |            | C7411                                    | 1-130-471-00 | MLAR 0.001UF            | 5.00% 50V   |
| L2903                                    | 1-535-303-00   | LEAD, JUMPER (5.0MM)   |            | C7412                                    | 1-126-935-11 | ELECT 470UF             | 20.00% 16V  |
| < CONNECTOR >                            |                |                        |            | C7413                                    | 1-126-935-11 | ELECT 470UF             | 20.00% 16V  |
| CN7442                                   | * 1-564-508-11 | PLUG, CONNECTOR 5P     |            | C7414                                    | 1-107-652-11 | ELECT 10UF              | 20.00% 250V |
| CN7443                                   | * 1-564-506-11 | PLUG, CONNECTOR 3P     |            | C7415                                    | 1-107-363-91 | MLAR 0.0068UF           | 10.00% 200V |
|  |                |                        |            | C7418                                    | 1-163-021-91 | CERAMC CHIP 0.01UF      | 10.00% 50V  |
|  |                |                        |            | C7421                                    | 1-163-251-11 | CERAMC CHIP 100PF       | 5.00% 50V   |



| REF.NO. | PART.NO          | DESCRIPTION                  | REMARK | REF.NO. | PART.NO      | DESCRIPTION        | REMARK |
|---------|------------------|------------------------------|--------|---------|--------------|--------------------|--------|
| CN7444  | * 1-770-723-11   | CONNECTOR, BOARD TO BOARD 8P |        | R7419   | 1-249-421-11 | CARBON 2.2K 5%     | 1/4W   |
|         | < DIODE >        |                              |        | R7420   | 1-249-421-11 | CARBON 2.2K 5%     | 1/4W   |
| D7400   | 8-719-991-33     | DIODE 1SS133T-77             |        | R7421   | 1-249-389-11 | CARBON 4.7 5%      | 1/4W   |
| D7401   | 8-719-991-33     | DIODE 1SS133T-77             |        | R7422   | 1-249-405-11 | CARBON 100 5%      | 1/4W   |
| D7403   | 8-719-991-33     | DIODE 1SS133T-77             |        | R7423   | 1-215-915-11 | METAL OXIDE 470 5% | 3W     |
| D7404   | 8-719-991-33     | DIODE 1SS133T-77             |        |         |              |                    |        |
| D7405   | 8-719-924-11     | DIODE MZJ-T-77-22            |        | R7427   | 1-216-025-11 | RES-CHIP 100 5%    | 1/10W  |
| D7406   | 8-719-924-11     | DIODE MZJ-T-77-22            |        | R7428   | 1-216-033-00 | RES-CHIP 220 5%    | 1/10W  |
|         | < FERRITE BEAD > |                              |        | R7429   | 1-216-033-00 | RES-CHIP 220 5%    | 1/10W  |
| FB7400  | 1-535-303-00     | LEAD, JUMPER (5.0MM)         |        | R7432   | 1-216-065-91 | RES-CHIP 4.7K 5%   | 1/10W  |
| FB7401  | 1-535-303-00     | LEAD, JUMPER (5.0MM)         |        | R7433   | 1-249-395-11 | CARBON 15 5%       | 1/4W   |
|         | < COIL >         |                              |        |         |              |                    |        |
| L7400   | 1-414-934-21     | INDUCTOR 10UH                |        | R7434   | 1-249-395-11 | CARBON 15 5%       | 1/4W   |
| L7402   | 1-414-934-21     | INDUCTOR 10UH                |        | R7435   | 1-216-033-00 | RES-CHIP 220 5%    | 1/10W  |
| L7403   | 1-414-934-21     | INDUCTOR 10UH                |        | R7436   | 1-216-049-11 | RES-CHIP 1K 5%     | 1/10W  |
|         | < TRANSISTOR >   |                              |        |         |              |                    |        |
| Q7400   | 8-729-010-29     | TRANSISTOR M5D601-RST1       |        |         |              |                    |        |
| Q7401   | 8-729-010-29     | TRANSISTOR M5D601-RST1       |        |         |              |                    |        |
| Q7402   | 8-729-010-29     | TRANSISTOR M5D601-RST1       |        |         |              |                    |        |
| Q7403   | 8-729-119-78     | TRANSISTOR 2SC2785-HFE       |        |         |              |                    |        |
| Q7404   | 8-729-026-49     | TRANSISTOR 2SA1037AK-T146-R  |        |         |              |                    |        |
| Q7405   | 8-729-026-39     | TRANSISTOR 2SA933AS-QT       |        |         |              |                    |        |
| Q7406   | 8-729-045-05     | TRANSISTOR 2SA2005           |        |         |              |                    |        |
| Q7407   | 8-729-045-04     | TRANSISTOR 2SC5511           |        |         |              |                    |        |
| Q7408   | 8-729-026-49     | TRANSISTOR 2SA1037AK-T146-R  |        |         |              |                    |        |
| Q7409   | 8-729-010-29     | TRANSISTOR M5D601-RST1       |        |         |              |                    |        |
|         | < RESISTOR >     |                              |        |         |              |                    |        |
| R7400   | 1-216-017-91     | RES-CHIP 47 5%               | 1/10W  |         |              |                    |        |
| R7401   | 1-216-061-91     | RES-CHIP 3.3K 5%             | 1/10W  |         |              |                    |        |
| R7402   | 1-216-041-00     | RES-CHIP 470 5%              | 1/10W  |         |              |                    |        |
| R7403   | 1-249-393-11     | CARBON 10 5%                 | 1/4W   |         |              |                    |        |
| R7404   | 1-249-413-11     | CARBON 470 5%                | 1/4W   |         |              |                    |        |
| R7405   | 1-216-065-91     | RES-CHIP 4.7K 5%             | 1/10W  |         |              |                    |        |
| R7407   | 1-249-411-11     | CARBON 330 5%                | 1/4W   |         |              |                    |        |
| R7409   | 1-216-029-00     | RES-CHIP 150 5%              | 1/10W  |         |              |                    |        |
| R7410   | 1-216-017-91     | RES-CHIP 47 5%               | 1/10W  |         |              |                    |        |
| R7411   | 1-216-017-91     | RES-CHIP 47 5%               | 1/10W  |         |              |                    |        |
| R7412   | 1-216-017-91     | RES-CHIP 47 5%               | 1/10W  |         |              |                    |        |
| R7413   | 1-249-414-11     | CARBON 560 5%                | 1/4W   |         |              |                    |        |
| R7414   | 1-249-432-11     | CARBON 18K 5%                | 1/4W   |         |              |                    |        |
| R7415   | 1-247-739-11     | CARBON 100 5%                | 1/2W   |         |              |                    |        |
| R7416   | 1-249-389-11     | CARBON 4.7 5%                | 1/4W   |         |              |                    |        |
| R7417   | 1-249-432-11     | CARBON 18K 5%                | 1/4W   |         |              |                    |        |
| R7418   | 1-249-414-11     | CARBON 560 5%                | 1/4W   |         |              |                    |        |

**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>MISCELLANEOUS</b>                       |               |   |        |         |         |             |        |
| £  | 1-571-433-21  | SWTCH, PUSH (AC POWER)  |        |         |         |             |        |
| £  | 1-783-083-11  | CORD, POWER (WITH FILTER)<br>(KV-32FX68B/32FX68E/32FX68K)                                     |        |         |         |             |        |
| £  | 1-776-860-11  | POWER CORD, FILTER (UK) (KV-32FX68U)  |        |         |         |             |        |
|  | 1-424-855-11  | COIL, CHoke 29MMH   |        |         |         |             |        |
|  | 8-598-535-20  | FRONTEND BTF-EF411 (KV-32FX68B)   |        |         |         |             |        |
|  | 8-598-533-10  | FRONTEND BTF-EC411 (KV-32FX68E/32FX68K)   |        |         |         |             |        |
|  | 8-598-529-10  | FRONTEND BTF-EU611 (KV-32FX68U)   |        |         |         |             |        |
| £  | 1-453-340-41  | TRANSFORMER ASSY FLYBACK (NX-4522//Z2B4)  |        |         |         |             |        |
|  | 1-529-408-11  | SPEAKER (4.2 X 24CM)  |        |         |         |             |        |
|  | 1-529-417-11  | SPEAKER (8CM)   |        |         |         |             |        |
| £  | 1-451-520-31  | DEFLECTION YOKE (Y32RVC3)   |        |         |         |             |        |
|  | 1-419-363-11  | COIL, NA ROTATION   |        |         |         |             |        |
|  | 8-453-011-11  | NECK ASSY NA299-M   |        |         |         |             |        |
| £  | 1-424-888-11  | COIL, DEGAUSSING  |        |         |         |             |        |
| £  | 1-251-374-33  | CAP ASSY, HIGH VOLTAGE  |        |         |         |             |        |
| £  | 8-735-079-05  | PICTURE TUBE (W6LLZ060X)  |        |         |         |             |        |
|  | 1-452-094-00  | MAGNET, ROTATABLE DISK; 15MMØ   |        |         |         |             |        |
|  | 1-425-032-00  | MAGNET, DISK; 10MMØ   |        |         |         |             |        |
| <b>ACCESSORIES AND PACKAGING MATERIALS</b> |               |   |        |         |         |             |        |
|  | *4-046-772-01 | BAG, PROTECTION   |        |         |         |             |        |
|  | *4-205-513-02 | CUSHION (UPPER) (ASSY)  |        |         |         |             |        |
|  | *4-205-514-01 | CUSHION (LOWER) (ASSY)  |        |         |         |             |        |
|  | *4-205-512-01 | INDIVIDUAL CARTON   |        |         |         |             |        |
|  | 4-094-189-21  | MANUAL, INSTRUCTION (KV-32FX68B)<br>(GERMAN/ITALIAN/FRENCH/DUTCH)                             |        |         |         |             |        |
|  | 4-094-189-61  | MANUAL, INSTRUCTION (KV-32FX68B) (ENGLISH)  |        |         |         |             |        |
|  | 4-094-189-31  | MANUAL, INSTRUCTION (KV-32FX68E)<br>(GERMAN/TURKISH/GREEK)                                    |        |         |         |             |        |
|  | 4-094-189-71  | MANUAL, INSTRUCTION (KV-32FX68E) (ITALIAN)  |        |         |         |             |        |
|  | 4-094-189-41  | MANUAL, INSTRUCTION (KV-32FX68E)<br>(NORWEGIAN/PORTUGUESE/SWEDISH/FINNISH/<br>DANISH/SPANISH) |        |         |         |             |        |
|  | 4-094-189-51  | MANUAL, INSTRUCTION (KV-32FX68K)<br>(BULGARIAN/CZECH/ENGLISH/HUNGARIAN/<br>RUSSIAN/POLISH)    |        |         |         |             |        |
|  | 4-094-189-11  | MANUAL, INSTRUCTION (KV-32FX68U) (ENGLISH)  |        |         |         |             |        |
| <b>REMOTE COMMANDER</b>                    |               |   |        |         |         |             |        |
|  | 1-476-702-12  | REMOTE COMMANDER (RM932)  |        |         |         |             |        |

# 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.

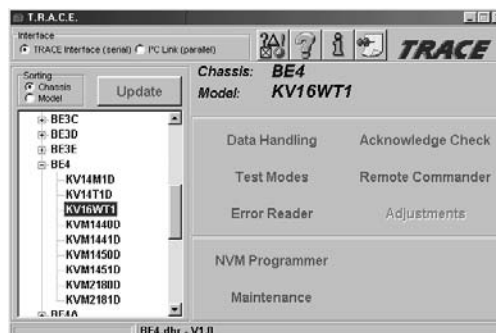
The TRACE software that is supplied with the interface allows you to:

- 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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