

# Service Service Service

# Service Information

## Introduction

In this Service Information, additional info is given on the A10E DTV (Digital TV) concerning the models 28/32DW6557, launched on the market in week 227. The A10E DTV is in fact an A10E-chassis with an integrated S5.2 Digital Board (the same as used in settop boxes). Only new items, compared to the standard A10E manual (3122 785 10430) are mentioned here.

The S5.2 module is regarded as a black-box, therefore the only items described in this document are the DTV Interface panel and Power supply. For more info on the S5.2 Digital board see the MG4.1E Service Manual (3122 785 10650).

## Contents

- Warnings
- Directions for Use
- Mechanical Instructions
- Wiring Diagram
- Electrical Diagrams and PWB's
- Spare Parts List

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## Warnings

- Non mains-isolated (=hot) parts:  
On the Power Supply of the Digital Board, 2 areas are not isolated from the mains. See grey parts in figure 1.

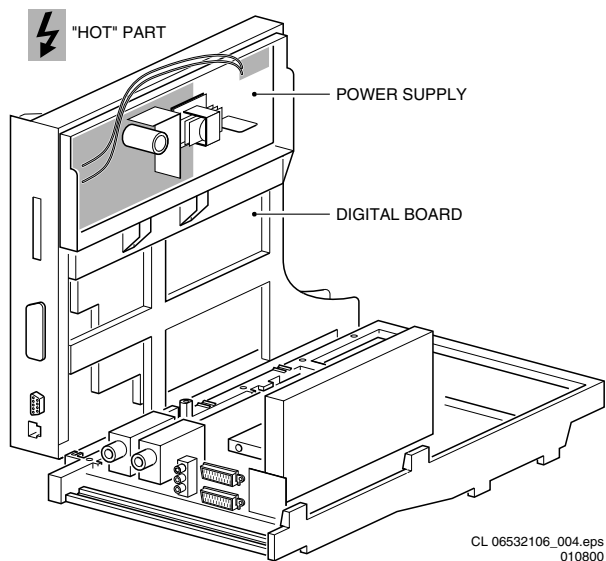


Figure 1

## Mechanical Instructions

**Note:** Figures can deviate slightly from the actual situation, due to different set executions.

### Removing the Digital TV module

1. Before you can access the Digital TV module, remove the rear cover.
2. Disconnect all cables on the Digital TV module.
3. Take the module out of the set.

### Removing the Digital Board from the bracket (see fig. 2)

1. Remove the I/O cover plate by lifting the upper and lower snap hooks [1]. Then remove the cover plate [2].
2. Now the complete Digital Board PWB can be slid out of its bracket [3]. If the board blocks, it is possible due to connector 1000, which can hamper the movement of the panel. Press the board a little upward near this connector and slide it out.

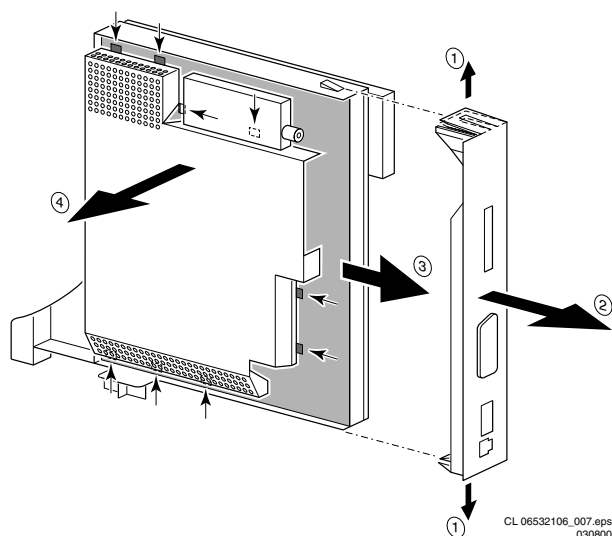


Figure 2

Direction for Use

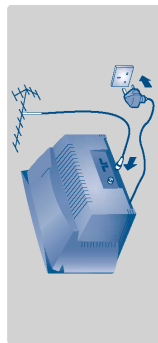
**Installing your television set**

**1 Positioning the television set**  
Place your TV on a solid, stable surface, leaving a space of at least 5 cm around the appliance. To avoid accidents, do not put anything on the set such as a cloth or cover; a container full of liquid (vase) or a heat source (lamp). The set must not be exposed to water.



**2 Connections**

- Insert the aerial plug into the **T** socket at the rear of the set.
- Insert the mains plug into a wall socket (220-240 V / 50 Hz).

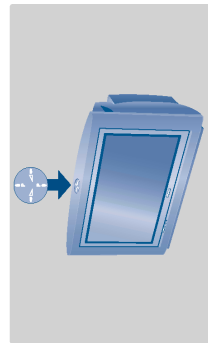


**3 Optional Surround loudspeakers**

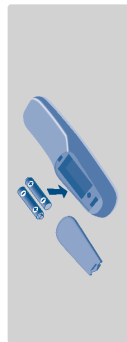
To connect the optional surround loudspeakers see the detailed informations, on page 18.

**The keys on the TV set**

The television set has 4 keys which are located on the front or the top of the set depending on the model.



**4 Remote control**  
Insert the two R6-type batteries (supplied) making sure that they are the right way round. The batteries supplied with this appliance do not contain mercury or nickel cadmium. If you have access to a recycling facility, please do not discard your used batteries (if in doubt, consult your dealer). When the batteries are replaced, use the same type.



**5 Switching on**

To switch on the set, press the on/off key. A red indicator comes on and the screen lights up. Go straight to the chapter **Switch on for the first time**, on page 4.



If the television remains in standby mode, press **P** on the remote control. The indicator will flash when you use the remote control.

The **VOLUME** - + (-  $\nabla$  +) keys are used to adjust sound levels. The **PROGRAM** - + (- P +) keys are used to select the required programmes. To access the menus, simultaneously hold down the  $\nabla$  - and  $\nabla$  + keys. The **PROGRAM** - + keys may then be used to select an adjustment and the -  $\nabla$  + keys to make that adjustment. To exit from the menus, hold down the 2  $\nabla$  - and  $\nabla$  + keys.  
*Note: when the CHILD LOCK function is activated, these keys are unavailable (refer to FEATURES menu on page 13).*

**The remote control keys**

**Screen information**  
To display / remove the programme number, the name (if it exists), the time, the sound mode and the time remaining on the timer: Hold down for 5 seconds to permanently display the analogue programme number on the screen. The volume level and the smart control adjustments are then displayed each time they are used.

**Mode selector**  
To activate the remote control in VCR (video recorder) or DVD mode (see p. 15),  
**Teletext** (p. 12)  
To display or exit from the analogues menus

**TV Menu**  
**Select**  
In digital mode this displays/clears the list of programmes. Use the keys  $\nabla$  or  $\nabla$  to select a programme and the  $\nabla$  (or  $\nabla$ ) key to display it. The symbol  $\nabla$  is displayed alongside all programmes which are locked (p. 11).

**Volume**  
To adjust the sound level

**Mute**  
To disable or enable the sound.  
**16:9 formats** (p. 13)

**Surround sound**  
To activate / deactivate the Virtual Dolby Surround \* effect. In stereo, you can obtain Dolby Surround Pro Logic sound quality. In mono, a stereo spatial effect is simulated. \* Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" "Pro Logic" and the double-D symbol  $\nabla$  are trademarks of Dolby Laboratories Licensing Corporation.

**Smart picture controls**  
To access a series of settings: **RICH**, **NATURAL**, **SOFT**, **MULTIMEDIA** and return to **PERSONAL**.

**Sleep timer**  
To select the length of time before the set automatically switches to standby (from 0 to 240 minutes)

**Sound mode**  
To switch from STEREO to MONO or to choose between different languages (Dual L, Dual L+...). When the sound mode is switched to MONO, the indication is displayed in red.

**Select EXT sockets**  
Press several times to select EXT1, EXT2, EXT3, S-VHS2 and S-VHS3 (see p. 14).

**Standby**  
To set the TV to standby mode. To switch the TV set on again, press **P** (+) or  $\nabla$  (9).

**Teletext features** (p. 12) and **VCR/DVD keys** (p. 15).

**Programme list (analogue mode) or Programme guide (digital mode)**

**Digital Menu**  
To display or exit from the digital menus (when TV is in digital mode).

**Analogue or Digital mode**  
To switch the television into analogue or digital mode.

**Cursor**  
These 4 keys are used to move within the menus or to have direct access to the 16:9 formats (p. 13).

**Selecting TV programmes**  
To move up or down a programme.

**Previous programme**  
To access the previously viewed programme.

**Numerical keys**  
For direct access to programmes. For a 2 (3) digit programme number, the 2<sup>nd</sup> (3<sup>rd</sup>) digit must be entered before the dash disappears. The number; the name (and the sound mode, in analogue mode) are displayed for a few seconds.

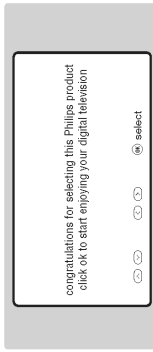
**Smart sound controls**  
To access a series of settings: **VOICE**, **MUSIC**, **THEATRE** and return to **PERSONAL**.

**Digital or Analogue channels ?**

To receive TV channels, your television is equipped with 2 tuners. One is for digital channels, the other is for analogue channels. Use the  $\nabla$  key of the remote control to switch the TV between analogue or digital mode. Then use the **P** (-) (+) or  $\nabla$  (9) keys to select channels.

## Switch on for the first time

The first time the TV set is switched on, the congratulation message appears on the screen:



- Press the **OK** key on the remote control to activate. The main menu is displayed.  
*Note: not all sub menus will be accessible until the installation is complete.*

## Common interface menu

- From digital mode, press the **MENU** key.



## Technical information

- From digital mode, press the **MENU** key.
- Press **7** to select technical informations.
- Press **1**, **2** or **3** to select signal strength, manufacturer data or software download.
- Press the **EXIT** key to leave the menu.

**Signal strength**  
This menu allows you to check the strength of the signal you are receiving through your area.



The number of diamonds indicates the signal strength, the colour of the diamond indicates the signal quality.

- Press the **5** key to get started. The store channel menu is displayed. All the digital and analogue programmes are searched for and stored automatically. The operation takes approximately 20 minutes. When the search is complete, the digital channel list menu is automatically displayed.

- You can check what digital channels have been found by using the **OK** key.
- Press the **EXIT** key. The television then displays the current programme being broadcast on channel 1. The installation is now complete.

*(only available in digital mode)*

- Press **6** to select common interface menu. The name of the module which is connected is indicated.
- Press the **EXIT** key to leave the menu.

*(only available in digital mode)*

### Manufacturer data

This screen shows informations about the digital hardware and software your television contains.

### Software download

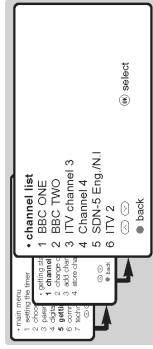
This option can update the software used in your digital TV. Normally the product will detect if an update is available while it is in standby mode. Next time the television is turned on a banner will appear at the bottom of the screen indicating new software is available. Selecting **OK** activates the software download. The software download menu will give a description of the software together with the date and time of the download. This may update certain menus, functions or add new features, but the general way in which the TV operates will not change. Once accepted the download will take place at the designated time and date.

*Note: The TV must be put into standby when the download is due in order for it to take place.*

## Channels list

*(only available in digital mode)*

- This menu lists all the stored and available digital channels.
- From digital mode, press the **MENU** key.
- Press **5** to select getting started.



To lock channels or to select channel as favourite, see page 6.

- Use the **OK** keys to move through the channel list and the **OK** keys to move a whole page at a time.
- Press the **OK** key to view the selected channel and exit from the menu.

## Change channels numbers

*(for analogue see Sort on page 8)*

This menu allows you to change the order of the stored digital channels. This is done by exchanging the position of the channels.

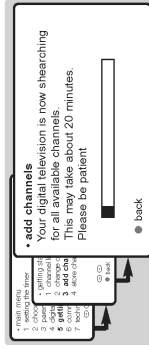
- From digital mode, press the **MENU** key.
- Press **5** to select getting started.
- Press **2** to select change channel numbers.
- Use the **OK** keys to select the channel you want to exchange.

## Add channels

*(only available in digital mode)*

This menu allows you to search for new digital channels that have been launched by the broadcaster after the initial installation.

- From digital mode, press the **MENU** key.
- Press **5** to select getting started.



- Press **3** to activate the add channels menu. The search begins and only new channels will be stored and added to the channel list menu. The operation takes approximately 20 minutes. The percentage of the installation that has been completed and the number of channels found is displayed. When the search is complete, the channel list menu appears.
- You can check what channels have been found by using the **OK** keys.
- Press the **EXIT** key to switch the menu off.

## Store channels

*(only available in digital mode)*

This menu allows you to store all the available digital channels.

- From digital mode, press the **MENU** key.
- Press **5** to select the getting started menu.
- Press **4** to select the store channels menu.
- Press **OK** to activate. All the digital channels are searched for and stored automatically. The operation takes approximately 20 minutes.

When the search is complete, the channel list menu appears.

- You can check what channels have been found by using the **OK** keys.
- Press the **EXIT** key to switch the menu off. The television then displays the current programme being broadcast on channel 1.

### Setting the timer (for video recording)

(only available in digital mode)

- This function enables you to program the TV to provide a digital channel that can be recorded. If your video recorder is equipped with Easylink, there is no need to program it. If your vcr is not equipped with Easylink, do not forget to program it.
- Important:** The video recorder **must be connected to EXT2**. Please note that it is **NOT possible to record one digital channel and watch another digital channel at the same time. You can however record a digital channel and watch an analogue channel on your TV, or vice versa.**
- From digital mode, press the **MENU** key.
  - Press **1** to select **setting the timer**. The screen shows a list of 8 program slots, each one indicating that it is either free for programming, or that it has a programme already stored in it.
  - Select a free row using the **UP** keys and press **OK**. The timer screen is displayed.

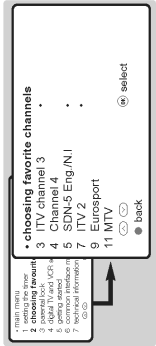


- Select each option with the **UP** keys :
  - date** : Use the numeric keys to enter the date, for example to enter 8th February, press 0802.
  - channel number** : with the digit keys, enter the channel number you want to record or press the green key to display the channel list and then select the channel you require.
  - start and end time** : enter the start and end time of the programme you want to record (e.g.: for 8.25pm enter: 2025). You can use the **UP** keys to

### Choosing favourite channels

(only available in digital mode)

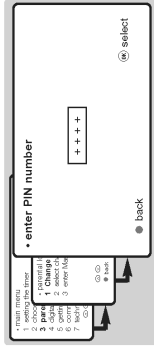
- This menu enables you to select favourite channels that you can browse through by pressing the **UP** keys. Only those channels which are marked as favourite will be displayed. Non favourite channels can still be selected with the digit keys. From digital mode, press the **MENU** key.
- From digital mode, press the **MENU** key.
    - Press **2** to select **choosing favourite channels**.
    - The favourite channel list is displayed.
    - Use the **UP** keys to select the channel you want to make favourite. The **UP** keys is used to change page.
    - Press the **OK** key to activate (or deactivate).
    - A heart symbol appears alongside the channels which have been selected as favourites.
    - Repeat the operations **3** and **4** for every channels you want to make favourites.
    - After you have selected all your favourites, press the green key, as indicated, to switch the favourite mode on or off.
    - Press the **EXIT** key to leave the menu.



### Parental lock

(only available in digital mode)

- This menu enables you to limit access to any specific digital channel by blocking it.
- To lock or unlock channels**
- From digital mode, press the **MENU** key.
  - Press **3** to select **parental lock**. The first time this option is selected, the menu is set to **change PIN number**. Press **1**. Now choose and enter your Personal Identification Number will be used to lock/unlock channels. Follow the on screen instructions.
- Important:** Don't forget your code!



- Press **2** to select channels to lock or unlock.
- Enter your 4 digit code with the digit keys and press **OK**. A list with all the channels is displayed.
- Use the **UP** keys to select the channel you want to lock or unlock and press **OK**. A closed padlock appears alongside the locked channel.
- Press the green colour key to open or close the lock. On top of the screen, it is indicated whether the channels are locked or not.
- Press the **EXIT** key to leave the menu.

### Digital TV and VCR settings

(only available in digital mode)

- This menu enables you to adjust the digital settings.
- From digital mode, press the **MENU** key.
  - Press **4** to select **digital TV and VCR settings**.
  - Press **1** or **2** to select **digital TV setting** or **VCR setting**.
  - Press the **EXIT** key to leave the menu.
- Digital TV settings**
- preferred language** : you can select english, welsh or gaelic. When your preferred language is not transmitted, english is selected by default.
  - timer alarm** : The alarm gives a warning when a programme is about to start for which the timer has been set. You have the choice between visual (a confirmation banner will be displayed on the screen when the timer starts) or visual-audio (the TV will also beep).
- VCR settings**
- If you have an easylink vcr connected to the tv, set the vcr type to **easylink**. If you do not have an easylink vcr, set the vcr type to **not easylink**.

### Watching your locked channels

- Select the channel which has been locked.
- Enter your current code then press **OK**. The channel remains unlocked until you select another channel or switch off your tv.

**Note:** When the timer is set to record a locked channel you will be asked to enter your pin code.

### To change your parental code

- Press the **MENU** key then **3** followed by **1**.
  - Enter your current code then press **OK**. The screen will prompt the entry of a new code.
  - Enter your new code then press **OK**.
  - Confirm by entering it again. Your new code will be stored.
- Important:** Don't forget your code!

- To temporarily unlock all channels**
- Press the **MENU** key then **3** followed by **2**.
  - Enter your current code then press **OK**.
  - With the channel list displayed, press the green key to open or close all the padlocks.
  - Press the **EXIT** key to leave the menu.

**To unlock all**

This menu enables you to erase all the parental settings (locked channels + PIN number).

- Press the **MENU** key then **3** followed by **3**.
- Enter the Mastercode 0711 to unlock all yours settings.
- Press the **EXIT** key to leave the menu.

### 3 date and time

Your television automatically sets the current date and time by taking the information from digital broadcasts. If you wish, you can do so manually by using this menu.

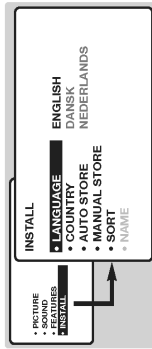
Follow the instructions on screen.

**4 subtitles language** : to select a language in which the subtitles will be displayed when they are available.

**5 subtitles** : on / off. When selected on, the subtitles will be displayed if they are transmitted. **Remember:** the digital teletext are never displayed when the subtitles are on.

## Choosing a language and country

- Press the **(TV)** MENU key to display the main menu.
- Select **INSTALL** (⇨), then press **(⇨)**. The **INSTALL** menu appears. The **LANGUAGE** option is activated.

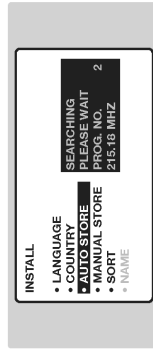


- Press **(⇨)** to go into the **LANGUAGE** menu. Select your language with the **(⇨)** keys. The menu will appear in the chosen language.
- Press **(⇨)** to exit the **LANGUAGE** menu. Select the option **COUNTRY** and press **(⇨)**.
- Select your country with **(⇨)** keys. *If your country does not appear in the list, select OTHER.*
- Press **(⇨)** to exit the **COUNTRY** menu. To exit from the menus, press **(EXIT)**. See also: *EasyLink function, page 9.*

## Automatic tuning of analogue programmes

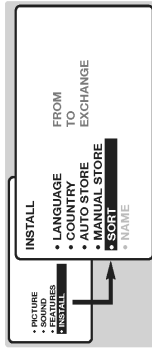
This menu allows you to automatically search for all the analogue programmes available in your region (or on your cable network).

- First carry out operations 1 to 4 above, then:
- Press **(⇨)** once to select **AUTO STORE** then press **(⇨)**. The search begins. After several minutes, the **INSTALL** menu reappears automatically.



## Sorting analogue programmes

- Press the **(TV)** MENU key to display the main menu.
- With the cursor, select the **INSTALL** menu. The **FROM** option is activated.

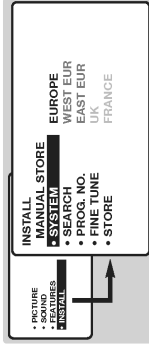


- Select the programme you wish to renumber using **(⇨)** keys or **(0)** to **(9)**. Example: to renumber programme 78 as 2, press **(7)** **(8)**.

## Manual tuning of analogue programmes

This menu allows you to store the analogue programmes on at time.

- Press **(TV)** MENU.
- With the cursor, select the **INSTALL** menu then **MANUAL STORE**:

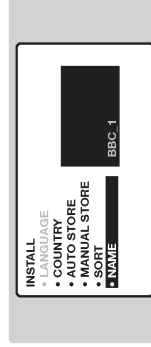


- SYSTEM**: select **EUROPE** (automatic detection\*) or **WEST EUR** (BG standard), **EAST EUR** (DK standard), **UK** (I standard) or **FRANCE** (LL' standard).  
\* Except for France (standard LL'), select the option **FRANCE**.

## Naming analogue programmes

If required, you can give a name to the first 40 analogue programmes (from 1 to 40) and external connectors.

- Press **(TV)** MENU.
- With the cursor, select the **INSTALL** menu, then **NAME** (concealed at the bottom of the screen):



- Select the programme you wish to name using the keys **(0)** **(9)** or **(-)** **(+)**.

*Note: on installation, the programmes are named automatically when the correct information is transmitted by the broadcaster.*


- Use the **(⇨)** **(⇨)** keys to move within the name display area (5 characters), and the **(⇨)** **(⇨)** keys to choose the characters.
- When the name has been entered, press **(TV)** MENU. The name is stored. See also: *EasyLink function, below.*
- Repeat steps 1 to 5 for each programme to be named.
- To exit from the menus, press **(EXIT)**.

## EasyLink function

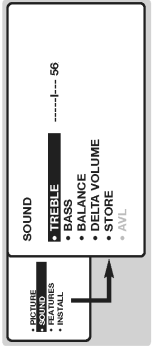
If the set is connected (by the EXT2 socket) to a video equipped with the EasyLink function, the language, country and analogue channels found are automatically transmitted to the video recorder at the time of installation. A message is displayed on-screen during loading. The list of video recorder analogue channels is then the same as those of the set. You must first check in the menus that the EasyLink function is activated:

- Press **(TV)** MENU key.
- Select **OPTIONS** (⇨) and press **(⇨)**. The **OPTIONS** menu is displayed.
- Use **(⇨)** key to select **EASY LINK** and press **(⇨)** to set it to **ON**. If your video recorder is not equipped with this function, set to **OFF**.
- Press **(EXIT)** to exit the menus. *The EASY LINK setting is set to OFF by default.*

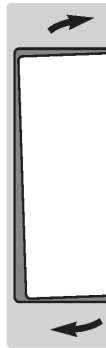
## Adjusting the picture

- Press **(TV)** MENU then **(V)**.  
The **PICTURE** menu appears :  

  - Use **(←)** **(→)** keys to select a setting and **(↵)** keys to adjust.  
*Note: the menu is a scroll-down menu. Keep the key (↵) held down to access the settings hidden at the bottom of the screen.*
  - Once the adjustments have been made, select **STORE** and press **(V)** to store them.
  - To exit from the menu, press **(OFF)**.
- Description of the settings:**
- BRIGHTNESS:** alters the brightness of the image.
  - COLOUR:** alters the colour intensity.
  - CONTRAST:** alters the variation between light and dark tones.
  - SHARPNESS:** alters the crispness of the image.
  - STORE:** stores the picture settings.
  - COLOUR TEMP (colour temperature):** adjusts the colour temperature of the picture. Three options are available here: **COOL** (blue white), **NORMAL** (balanced) or **WARM** (red white).
  - NR (Noise Reduction):** alleviates fuzziness (snowy picture). This setting is useful when reception is difficult.
  - CONTRAST + :** automatic adjustment of the picture contrast which permanently sets the darkest part of the picture to black.

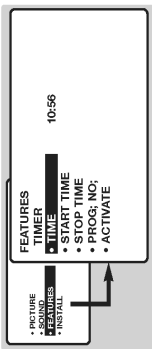
## Adjusting the sound

- Press **(TV)** MENU, select the **SOUND** option **(V)** and press **(V)**. The **SOUND** menu appears :  

  - Use the cursor keys to select and adjust.  
*Note: to access the AVL setting (hidden at the bottom of the screen) hold down (V) key.*
  - Once the adjustments have been made, select **STORE** and press **(V)** to store them.
  - To exit from the menu, press **(OFF)**.
- Description of the settings:**
- TREBLE:** alters the level of the high frequency sound.
  - BASS:** alters the level of the low frequency sound.
  - BALANCE:** to balance the sound between the left and right speakers.
  - DELTA VOLUME (volume difference):** allows you to compensate for the volume differences between the different programmes or the EXT sockets. This setting is available for programmes 1 - 40 and the EXT sockets.
  - STORE:** stores the sound settings.
  - AVL (Automatic Volume Leveller):** automatic volume control used to avoid sudden increases in volume, particularly when changing programmes or during advertisements

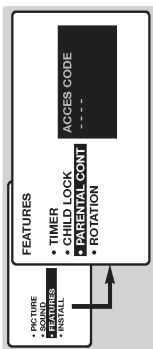
## Rotating the picture

- Larger screens are sensitive to variations in the earth's magnetic field. This setting makes it possible to compensate for this phenomenon.
- Press **(TV)** MENU key
  - Select **FEATURES (V)** and press **(V)**.  
The **FEATURES** menu appears.
  - Use **(V)** key to select **ROTATION** and use **(←)** **(→)** keys to alter the angle of the image.
  - Press **(OFF)** to exit from the menus.
- 

## Timer function

- This menu allows you to use your TV as an alarm clock.
- Press **(TV)** MENU.
  - Select **FEATURES (V)** and press **(V)** twice. The **TIMER** menu appears :  

  - Press **(V)** to enter and exit the sub-menus and use keys **(←)** **(→)** to adjust.
  - TIME:** enter current time.  
*Note: the time is updated automatically each time the set is switched on using information taken from the digital module.*
- START TIME:** enter the start time.  
**STOP TIME:** enter the stop time.  
**PROG. NO.:** enter the number of the programme required.
- ACTIVATE:** you can set the alarm to be activated :
- ONCE ONLY** for a one-off alarm,
  - DAILY** for a daily alarm or
  - STOP** to cancel.
- Press **(OFF)** to set the TV to standby. It will automatically switch on at the time programmed. If you leave the TV switched on, it will only change programme at the time indicated.
- The combination of the **CHILD LOCK** and **TIMER** functions may be used to limit the length of time your television is in use, for example, by your children.

## Locking the set

- You can bar access to certain programmes or completely lock the set by locking the keys.
- ### Locking programmes
- Press **(TV)** MENU.
  - Select **FEATURES (V)** and press **(V)**.
  - Select **PARENTAL CONT. (V)** and press **(V)**.
- 
- Enter your confidential access code. The first time, enter the code 0711 then confirm by re-entering 0711. The menu appears.
  - Press **(V)** to go into the menu.
  - Use keys **(←)** **(→)** to select the required programme and confirm with **(V)**. The symbol **(i)** is displayed alongside the programmes or sockets that have been locked.
  - Press **(OFF)** to exit.
- The set cannot be used (it can only be switched on using the remote control).
- To cancel: switch **CHILD LOCK** to **OFF**.
- ### Locking the keys
- Press **(TV)** MENU, select **FEATURES (V)** and press **(V)**.
  - Select **CHILD LOCK (V)** and press **(V)** to set the lock to **ON**.
  - Switch off the set and put the remote control out of sight.
- The set cannot be used (it can only be switched on using the remote control).
- To cancel: switch **CHILD LOCK** to **OFF**.
- ### To unlock all programmes
- Repeat stages 1 to 4 above, then select **CLEAR ALL** and press **(V)**.
- ### To change the confidential code
- Repeat stages 1 to 4 above, then:
- Select **CHANGE CODE** and enter your own 4-digit number.
  - Confirm by entering it again.
  - Your new code will be stored.
  - Press **(OFF)** to exit from the menus.
- If you have forgotten your confidential code, enter the universal code 0711 twice.

## Analogue Teletext

Teletext is an information system, broadcast by most of analogue TV channels. It also provides subtitles for people with hearing difficulties.

Press :



Teletext call

You will obtain:

To call up or exit from teletext. When first pressed, the main index page appears with a list of the items available. Each page has a corresponding 3-figure number. Some digital programmes may also include analogue teletext. If this is the case, it can be accessed by pressing the teletext key for 4 seconds. *If no teletext is available, 100 will appear and the screen will remain blank (in this case, exit from teletext and choose another channel).*

Use the 0 to 9 or P or + or - keys to enter the page number required. Example: page 120, enter 1 2 0. The number is displayed top left, the counter turns and then the page is displayed. Repeat this operation to view another page. *If the counter continues to search, this means that the page is not transmitted. Select another number.*



Selecting a page



Direct access to the items



Contents  
Direct selection of sub-pages



Text overlaying & double page text



Double height teletext



Hidden information



Favourite pages



To display or hide the concealed information (games solutions).

Instead of the standard coloured areas displayed at the bottom of the screen, you can store 4 favourite pages on the first 40 channels which can then be accessed using the coloured keys (red, green, yellow, blue). Once set, these favourite pages will become the default every time teletext is selected.

- Press the (TV) MENU key to change to favourite pages mode.
- Display the teletext page that you want to store.
- Press (RE) then the coloured key of your choice. The page is stored.
- Repeat steps 2 and 3 for the other coloured keys.
- Now when you consult teletext, your favourite pages appear in colour at the bottom of the screen. To temporarily retrieve the standard items, press (TV) MENU.

To clear everything and return the standard items as the default, press (RE) for 3 seconds.

## Digital Teletext

Some digital channels, which you select like any other channel, offer dedicated teletext services (for instance BBC TEXT). Some digital channels also offer information on the programme being broadcast (a message may appear at the bottom of the screen). *Remarks: when subtitles are on, the digital teletext is not available (see Digital TV settings, page 7).*

- To use the digital teletext, follow the instructions on screen.
- Depending on the service, you can be asked to use the cursor and SELECT keys (OK), the coloured keys, the TEXT key (TEXT) and sometimes the numerical keys.
- When you have finished watching teletext, select a different channel with P or + keys or follow the on screen instructions to return to picture.

## 16:9 Formats

The pictures you receive may be transmitted in 16:9 format (wide screen) or 4:3 format (conventional screen). 4:3 pictures sometimes have a black band at the top and bottom of the screen (letterbox format). This function allows you to optimise the picture display on screen.

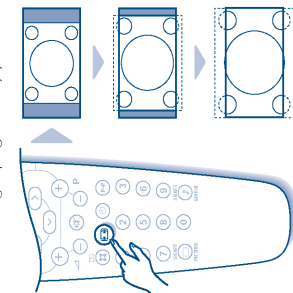
### Automatic switching

This TV set is also equipped with automatic switching which will select the correct-screen format, provided the specific signals are transmitted with the programmes. *This automatic format can also be modified manually.*

### Using the different screen formats

Press the (RE) to select the different modes:

4:3, ZOOM 14:9, ZOOM 16:9, SUBTITLE ZOOM, SUPER ZOOM and WIDE SCREEN. *With analogue programs only, you can access directly these settings with the (L) and (R) key.*



**4:3 Mode**  
The picture is reproduced in 4:3 format and a black band is displayed on either side of the picture. With analogue programs only, the picture may be progressively enlarged using the (L) and (R) keys.

**ZOOM 14:9**  
The picture is enlarged to 14:9 format, a thin black band remains on both sides of the picture. With analogue programs, the (L) and (R) keys allow you to compress vertically the image to view the top or the bottom of the picture (subtitles).

**ZOOM 16:9**  
The picture is enlarged to 16:9 format. This mode is recommended when displaying pictures which have black bands at the top and bottom (letterbox format). With analogue programs, use the (L) and (R) keys if you wish to display the top or the bottom of the picture.

**SUBTITLE ZOOM**  
This mode is used to display 4:3 pictures using the full surface of the screen leaving the sub-titles visible. With analogue programs, use the (L) and (R) keys to increase or decrease the section at the bottom of the picture.

**SUPERWIDE**  
This mode is used to display 4:3 pictures using the full surface of the screen by enlarging the sides of the picture. With analogue programs, the (L) and (R) keys allow you to move the image up or down.

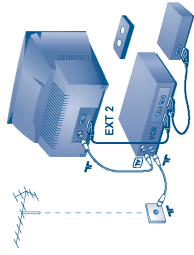
**WIDE SCREEN**  
This mode restores the correct proportions of pictures transmitted in 16:9 using full screen display. *Note: if you display a 4:3 picture in this mode, it will be enlarged horizontally.*



## Connecting peripheral equipment

The television has 2 external sockets situated at the back of the set (EXT1 and EXT2).  
The EXT1 socket has audio and video inputs/outputs and RGB inputs.  
The EXT2 socket has audio and video inputs/outputs and S-VHS inputs.

### Video recorder



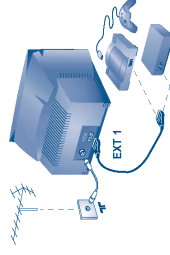
### Video recorder (only)

Carry out the connections featured opposite. To record digital programmes from your TV, the VCR must be connected to EXT2. If your video recorder does not have a euroconnector socket, the only connection possible is via the aerial cable. You will therefore need to tune in your video recorder's test signal and assign it programme number 0 (refer to manual store, p. 9).  
To reproduce the video recorder picture, press 0.

### Video recorder with decoder

Connect the decoder to the second euroconnector socket of the video recorder. You will then be able to record scrambled transmissions.

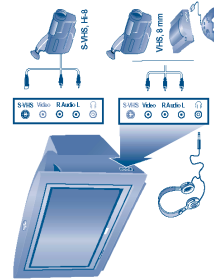
### Other equipment



### Satellite receiver, decoder, DVD, games, etc.

Carry out the connections featured opposite.  
To optimise picture quality, connect the equipment which produces the RGB signals (digital decoder, games, etc.) to EXT1, and the equipment which produces the S-VHS signals (S-VHS and Hi-8 video recorders, certain DVD drives) to EXT2 and all other equipment to either EXT1 or EXT2.

### Side connections



Carry out the connections featured opposite.

Using the **EXT** key, select EXT3 for a VHS or 8mm camcorder and S-VHS3 for an S-VHS or Hi-8 camcorder.

For a mono set, connect the sound signal to the AUDIO L (or AUDIO R) input. The sound automatically comes out of the left and right speakers of the TV.

### Headphones

The **+** **-** keys allow you to adjust the volume on the headphones and on the set. Press **0** if you want to cut off the sound on the set.

The headphones must have an impedance of between 32 and 600 ohms.

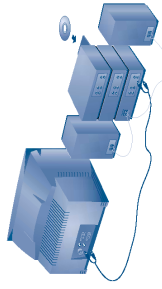
### To select connected equipment

Press the **EXT** key to select EXT1, EXT2, S-VHS2 (S-VHS signals from the EXT2 socket) and EXT3 or S-VHS3 for connections on the front panel.

Most equipment (video recorder, etc) carries out the switching automatically.



### Amplifier



To connect to a hi-fi system, use an audio connection cable and connect the "L" and "R" outputs on the TV set to the "AUDIO IN" "L" and "R" input on your hi-fi amplifier.

### Common interface



A common interface is available to connect a CAM (conditional access module) and a smartcard. Please contact your service provider to get more information about these modules.

*Note: the television should always be switched off before any module is inserted in the common interface slot.*

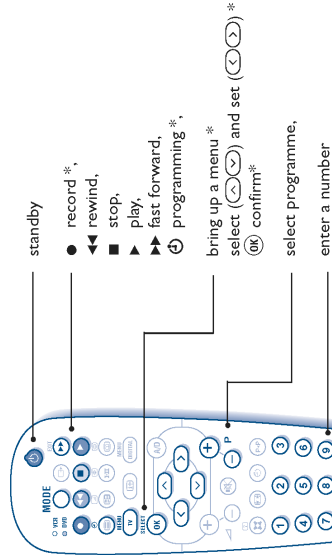
## VCR / DVD mode selector

The remote control allows you to control the main functions of your video recorder or DVD.

1 Press the **MODE** key to select the required mode : **VCR** (video recorder) or **DVD**.

A green indicator lights up to show the selected mode. It returns automatically off (TV mode) after 20 seconds without action.

2 Then press one of the following keys :



\* Some programming functions are not available on all models (cursors, menu, OK key, etc.). For video recorders equipped with the Easylink function : when the set is on standby, pressing the **▶** or **◀** **MENU** key once switches it on automatically. The remote control is compatible with all the video recorders in our range as well as models which use the RCS signalling standard.

Glossary

CAM and Smart Card : A CAM (conditional access module) and a smart card can be connected to the television...

Digital receiver : The television is equipped with an integrated digital tuner which enables you to receive a digital transmission with a terrestrial antenna...

EasyLink : Digital link between the set and the video recorder which allows a direct transfer of certain information such as channel setting.

Tips

Poor reception (in analogue mode) The proximity of mountains or high buildings may be responsible for ghost pictures, echoing or shadows...

Bad picture (in digital mode) If the picture freezes a lot, or in cases of block effect, there is a problem of poor reception. Please check with the signal strength menu...

No picture Have you connected the aerial socket properly? Have you chosen the right system? (p. 9). Poorly connected euroconnector cables or aerial sockets are often the cause of picture or sound problems...

Peripheral equipment gives a black & white picture You have not selected the right socket with the

System : Analogue programmes are not broadcast in the same way in all countries. There are different standards: BG, DK, I, and L. The SYSTEM setting (p. 9) is used to select these different standards. This is not to be confused with PAL or SECAM colour coding...

16:9 : Refers to the ratio between the length and height of the screen. Wide screen televisions have a ration of 16/9, conventional screen TV sets have a ration of 4/3.

key S-VHS2 (S-VHS) instead of EXT2, (EXT3). To play a video cassette, check that it has been recorded under the same standard (PAL, SECAM, NTSC) which can be replayed by the video recorder.

No sound (in analogue mode) If on certain channels you receive a picture but no sound, this means that you do not have the correct TV system. Modify the SYSTEM setting (p. 9).

The remote control no longer works. Check that the mode selector on the side of the remote control is set to TV.

The TV set does not react to the remote control; the indicator on the set no longer flashes when you use the remote control? Replace the batteries.

Standby

When you switch the TV set on it remains in standby mode and the indication LOCKED is displayed when you use the keys on the TV set? The CHILD LOCK function is switched on (p. 13). If the set receives no signal for 15 mins, it automatically goes into standby mode.

Cleaning the set

Only use a clean, soft and lint-free cloth to clean the screen and the casing of your set. Do not use alcohol-based or solvent-based products.

Still no results?

If your TV set breaks down, never attempt to repair it yourself; contact your dealer's after-sales service.

- Table of TV frequencies. Frequentzabelle der Fernsehsender. Liste des frequences TV. Frequentztabel TV-Zenders. Tabella delle frequenze TV. Lista de frequencias TV.

Table with columns for EUROPE and FRANCE, listing CANAL, FREQ (MHz), and other technical details.

- Список частот передатчиков. A televízió-adóállomások frekvenciáinak a listája. Lista częstotliwości stacji nadawczych. Seznam frekvencních pásem vysílačů. Zoznam frekvenciých pásem vysieláčov.

Table with columns for ITALY, listing CANALE, FREQ (MHz), and other technical details.

Information for users in the UK (not applicable outside the UK)

Positioning the TV

For the best results, choose a position where light does not fall directly on the screen, and at some distance away from radiators or other sources of heat. Leave a space of at least 5 cm all around the TV for ventilation, making sure that curtains, cupboards etc. cannot obstruct the air flow through the ventilation apertures.

General Points

Take note of the section entitled 'Tips' at the end of this booklet.

Interference

The Department of Trade and Industry operates a Radio Interference Investigation Service to help TV licence holders improve reception of BBC and IBA programmes where they are being spoilt by interference.

Mains connection

Before connecting the TV to the mains, check that the mains supply voltage corresponds to the voltage printed on the type plate on the rear panel of the TV. If the mains voltage is different, consult your dealer.

Important

This apparatus is fitted with an approved moulded wood screws.

13. Amp plug: To change a fuse in this type of plug proceed as follows:

- 1. Remove fuse cover and fuse. 2. Fit new fuse which should be a BS1362 5A. A.S.T.A. or BSI approved type. 3. Refit the fuse cover.

In order to maintain conformity to the EMC directive, the mains plug on this product must not be removed.

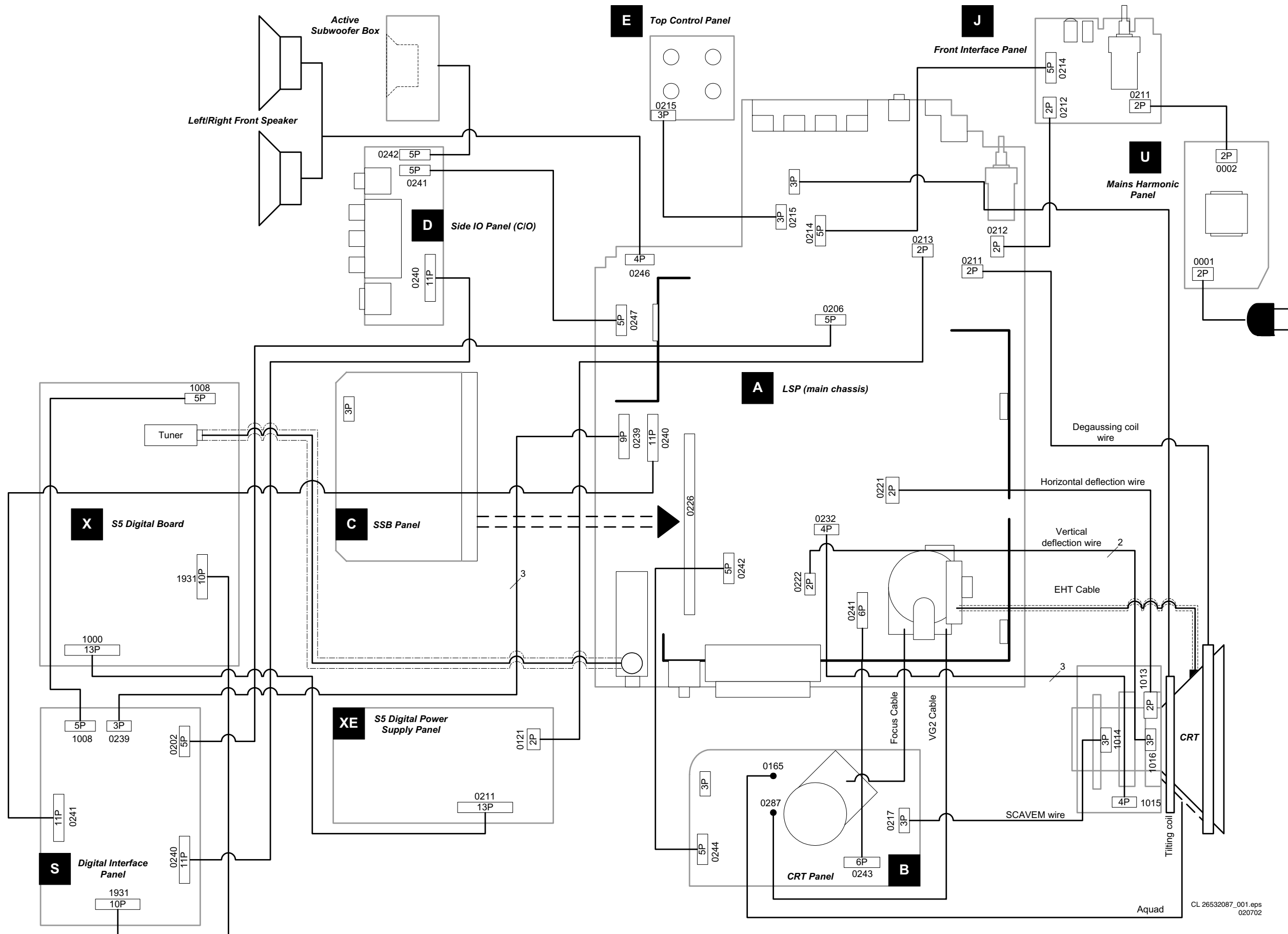
Connecting the aerial

The aerial should be connected to the socket marked "I" at the back of the set. An inferior aerial is likely to result in a poor, perhaps unstable picture with ghost images and lack of contrast. Make-shift loft or set-top aerials are often inadequate. Your dealer will know from experience the most suitable type for your locality.

Fitting the stand (if provided)

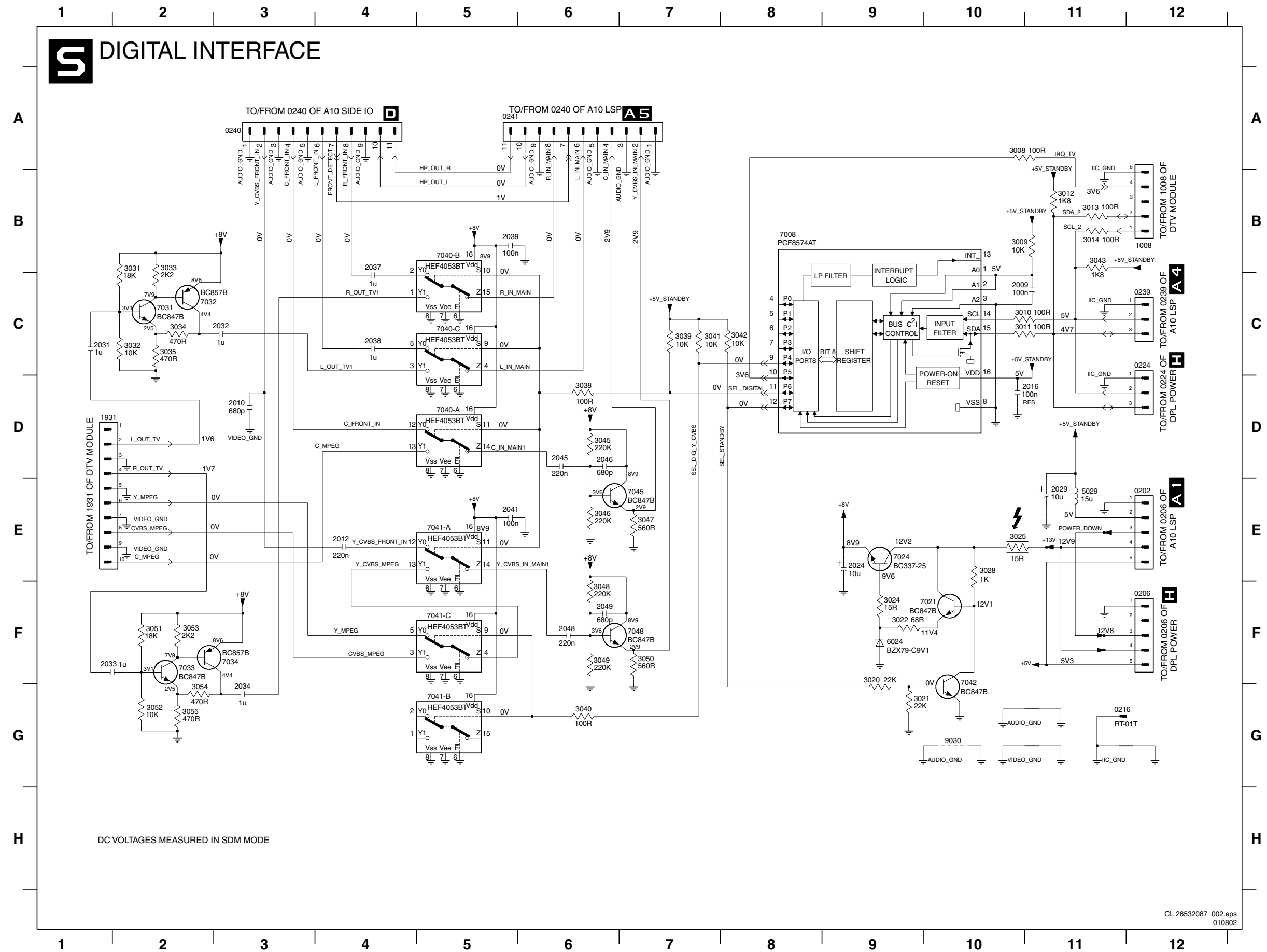
Use only the stand provided with the set, making sure that the fixings are properly tightened. A diagram showing how to assemble the stand is packed with the stand. Never use a make-shift stand, or legs fixed with wood screws.

# Wiring Diagram



Electrical Diagrams and PWB's

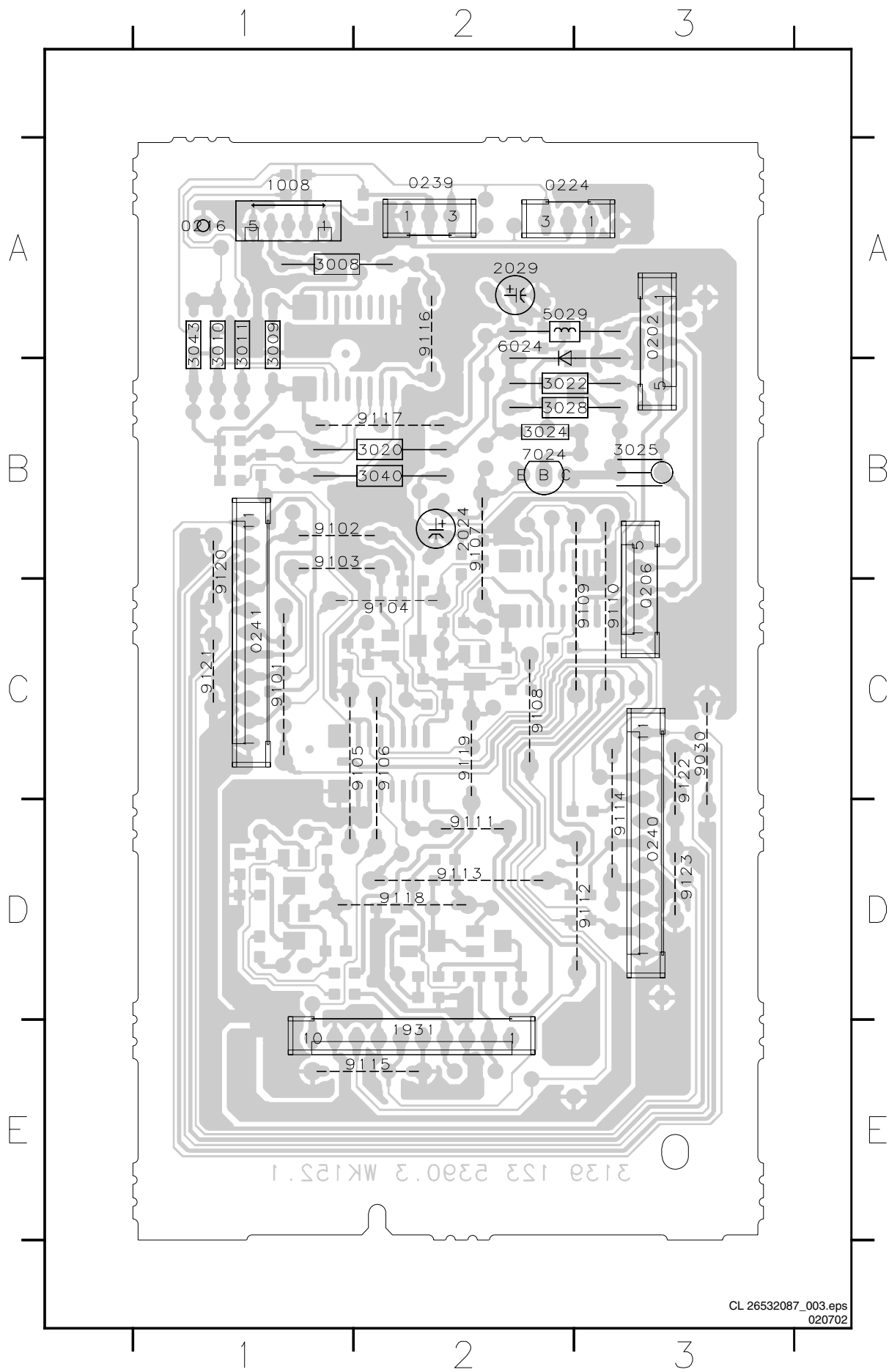
Digital Interface Panel



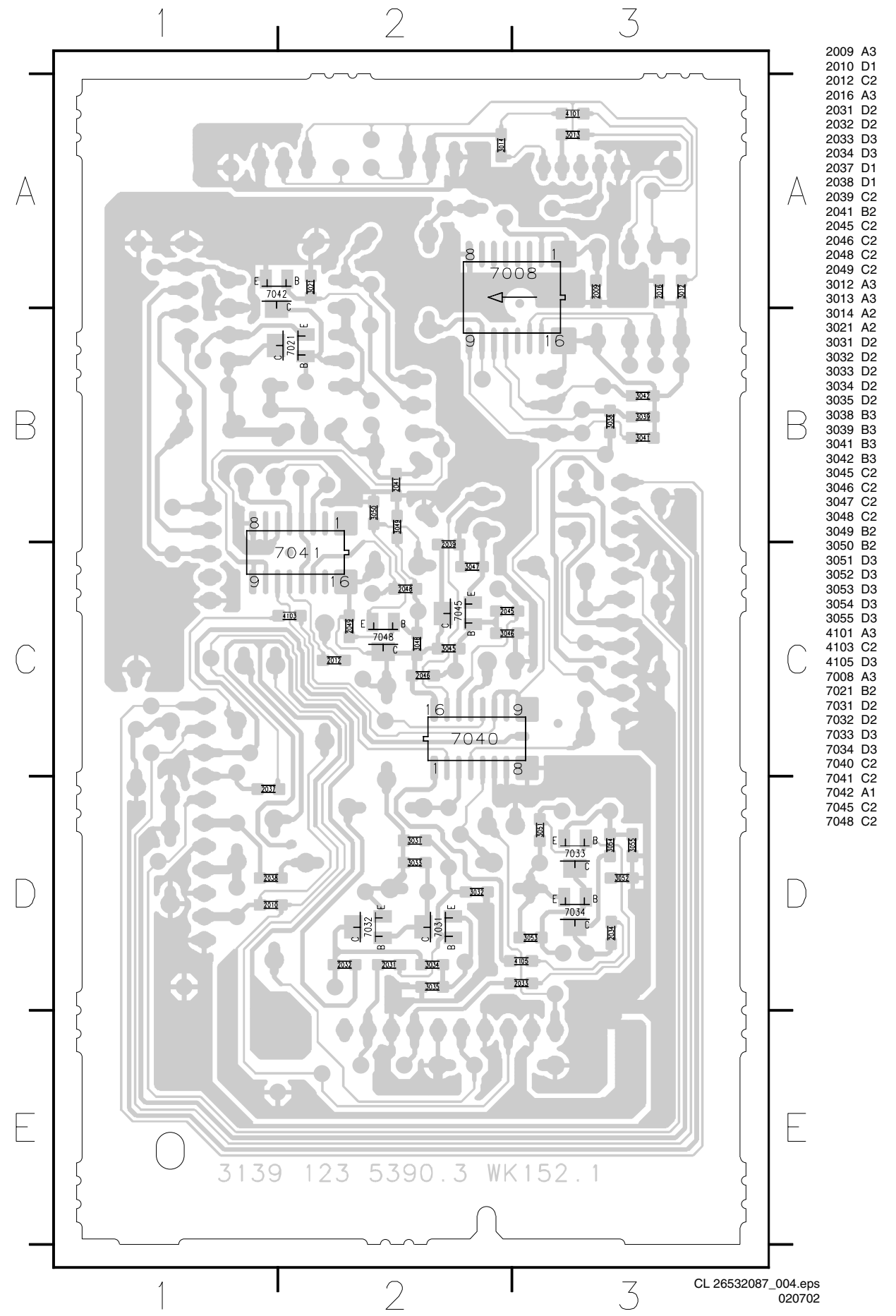
- 0202 E12
- 0206 F12
- 0216 G12
- 0224 C12
- 0239 C12
- 0240 A3
- 0241 A5
- 1008 B12
- 1931 D2
- 2009 C10
- 2010 D3
- 2012 E4
- 2016 D11
- 2024 E9
- 2029 E11
- 2031 C1
- 2032 C3
- 2033 F1
- 2034 G3
- 2037 B4
- 2038 C4
- 2039 B5
- 2041 E5
- 2045 D6
- 2046 D6
- 2048 F6
- 2049 F6
- 3008 A10
- 3009 B10
- 3010 C10
- 3011 C10
- 3012 B11
- 3013 B11
- 3014 B11
- 3020 F9
- 3021 G9
- 3022 F9
- 3024 F9
- 3025 E10
- 3028 E10
- 3031 B2
- 3032 C2
- 3033 B2
- 3034 C2
- 3035 C2
- 3038 D6
- 3039 C7
- 3040 G6
- 3041 C7
- 3042 C8
- 3043 B11
- 3045 D6
- 3046 E6
- 3047 F7
- 3048 F6
- 3049 F6
- 3050 F7
- 3051 F2
- 3052 G2
- 3053 F2
- 3054 G2
- 3055 G2
- 5029 E11
- 6024 F9
- 7008 B8
- 7021 F10
- 7024 E9
- 7031 C2
- 7032 C2
- 7033 F2
- 7034 F3
- 7040-A D5
- 7040-B B5
- 7040-C C5
- 7041-A E5
- 7041-B G5
- 7041-C F5
- 7042 G10
- 7045 E7
- 7048 F7
- 9030 G10

### Layout Digital Interface Panel (Front Side)

### Layout Digital Interface Panel (Bottom Side)

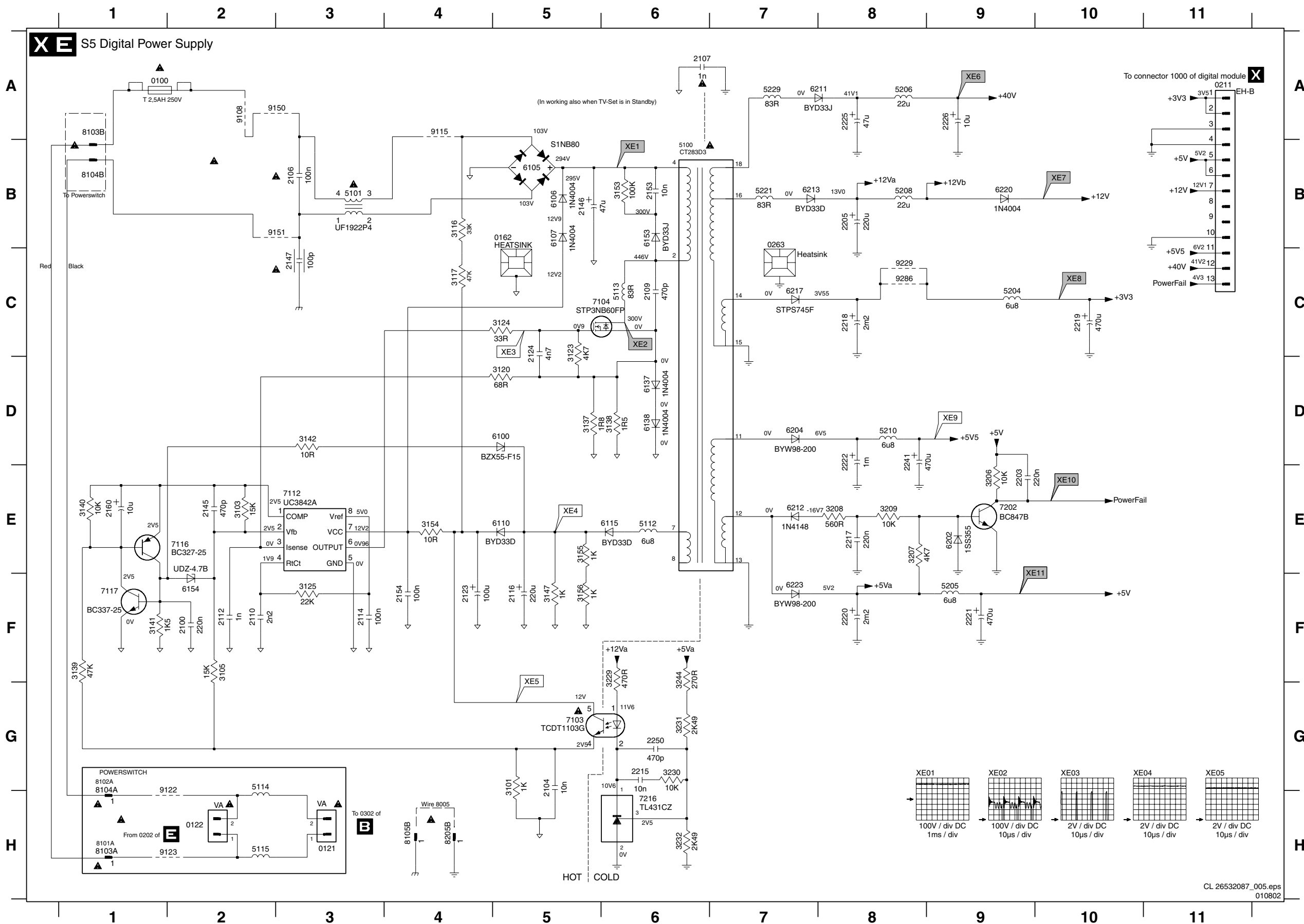


- 0202 A3
- 0206 C3
- 0216 A1
- 0224 A2
- 0239 A2
- 0240 D3
- 0241 C1
- 1008 A1
- 1931 E2
- 2024 B2
- 2029 A2
- 3008 A1
- 3009 A1
- 3010 A1
- 3011 A1
- 3020 B2
- 3022 B2
- 3024 B2
- 3025 B3
- 3028 B2
- 3040 B2
- 3043 A1
- 5029 A2
- 6024 A2
- 7024 B2
- 9030 C3
- 9101 C1
- 9102 B1
- 9103 B1
- 9104 C2
- 9105 C2
- 9106 C2
- 9107 B2
- 9108 C2
- 9109 C3
- 9110 C3
- 9111 D2
- 9112 D3
- 9113 D2
- 9114 D3
- 9115 E2
- 9116 A2
- 9117 B2
- 9118 D2
- 9119 C2
- 9120 B1
- 9121 C1
- 9122 C3
- 9123 D3



- 2009 A3
- 2010 D1
- 2012 C2
- 2016 A3
- 2031 D2
- 2032 D2
- 2033 D3
- 2034 D3
- 2037 D1
- 2038 D1
- 2039 C2
- 2041 B2
- 2045 C2
- 2046 C2
- 2048 C2
- 2049 C2
- 3012 A3
- 3013 A3
- 3014 A2
- 3021 A2
- 3031 D2
- 3032 D2
- 3033 D2
- 3034 D2
- 3035 D2
- 3038 B3
- 3039 B3
- 3041 B3
- 3042 B3
- 3045 C2
- 3046 C2
- 3047 C2
- 3048 C2
- 3049 B2
- 3050 B2
- 3051 D3
- 3052 D3
- 3053 D3
- 3054 D3
- 3055 D3
- 4101 A3
- 4103 C2
- 4105 D3
- 7008 A3
- 7021 B2
- 7031 D2
- 7032 D2
- 7033 D3
- 7034 D3
- 7040 C2
- 7041 C2
- 7042 A1
- 7045 C2
- 7048 C2

# S5 Digital Power Supply Panel

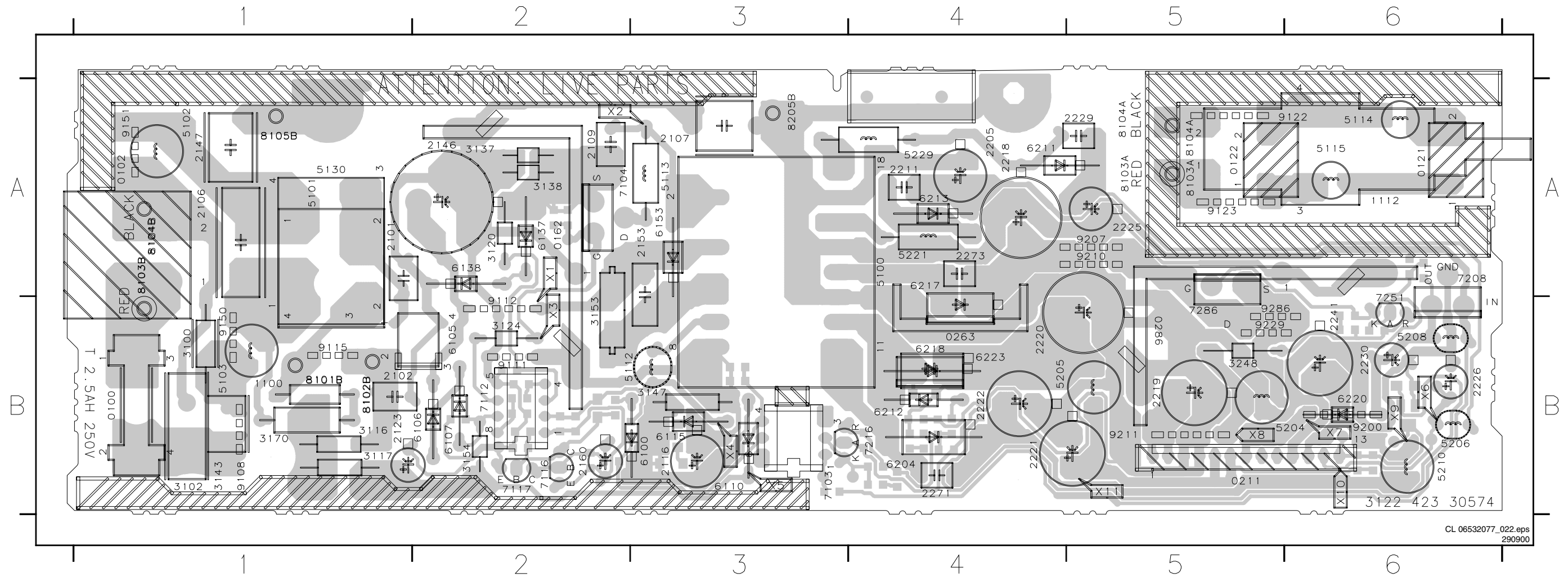


- 0100 A1
- 0102 A1
- 0121 H3
- 0122 H2
- 0162 B5
- 0211 A11
- 0263 B7
- 0286 B9
- 1100 A3
- 1112 H1
- 2100 F2
- 2101 B4
- 2102 B4
- 2104 G5
- 2106 B3
- 2107 A6
- 2109 C6
- 2110 F2
- 2112 F2
- 2114 F3
- 2116 F5
- 2123 F4
- 2124 C5
- 2145 E2
- 2146 B5
- 2147 C3
- 2153 B6
- 2154 F4
- 2160 E1
- 2203 E9
- 2205 B8
- 2211 B7
- 2215 G6
- 2217 E8
- 2218 C8
- 2219 C10
- 2220 F8
- 2221 F9
- 2222 D8
- 2225 A8
- 2229 A8
- 2230 B9
- 2241 D8
- 2250 G6
- 2252 C9
- 2271 D7
- 2272 E7
- 2273 C7
- 3100 G2
- 3101 G5
- 3102 B2
- 3103 E2
- 3105 F2
- 3116 B4
- 3117 C4
- 3120 D5
- 3123 C5
- 3124 C5
- 3125 F3
- 3137 D5
- 3138 D6
- 3139 F1
- 3140 E1
- 3141 F1
- 3142 D3
- 3143 A2
- 3147 F5
- 3153 B6
- 3154 E4
- 3155 E5
- 3156 F5
- 3170 A3
- 3206 E9
- 3207 E8
- 3208 E8
- 3209 E8
- 3229 F6
- 3230 G6
- 3231 G6
- 3232 H6
- 3244 F6
- 3248 C10
- 3249 D10
- 3250 C9
- 3251 C9
- 3252 C9
- 5100 B6
- 5101 B3
- 5102 B3
- 5103 A3
- 5112 E6
- 5113 C6
- 5114 G2
- 5115 H2
- 5130 A3
- 5204 C9
- 5205 F9
- 5206 A8
- 5208 B8
- 5210 D8
- 5221 B7
- 5229 A7
- 6100 D5
- 6105 B5
- 6106 B5
- 6107 B5
- 6110 E5
- 6115 E6
- 6137 D6
- 6138 D6
- 6153 B6
- 6154 F2
- 6202 E9
- 6204 D7
- 6211 A8
- 6212 E7
- 6213 B7
- 6217 C7
- 6218 F7
- 6220 B9
- 6223 F7
- 7103 G5
- 7104 C6
- 7112 E3
- 7116 E2
- 7117 F1
- 7202 E9
- 7208 B8
- 7216 H6
- 7251 D8
- 7286 C8
- 8101B A4
- 8102B A4
- 8103A H1
- 8103B A1
- 8104A H1
- 8104B B1
- 8105B H4
- 8205B H4
- 9108 A2
- 9115 A4
- 9122 H2
- 9123 H2
- 9150 A3
- 9151 B3
- 9200 B9
- 9229 C8
- 9286 C8

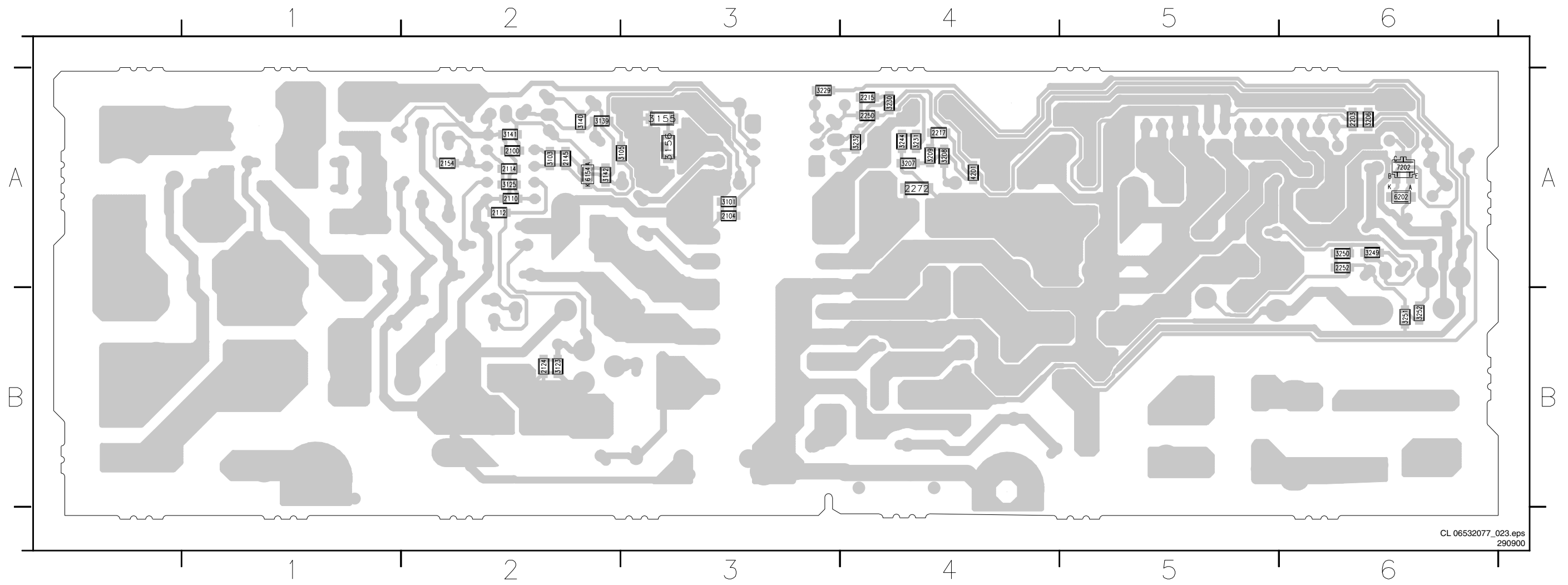
CL 26532087\_005.eps  
010802

Layout S5 Digital Power Supply Panel (Front Side)

0100	B1	0286	B5	2109	A2	2205	A4	2225	A5	3100	B1	3138	A2	5100	A4	5115	A6	5221	A4	6115	B3	6213	A4	7112	B2	9108	B1	9151	A1
0102	A1	1100	B1	2110	B3	2211	A4	2222	B5	3102	B1	3137	A2	5101	A1	5130	A1	5222	B4	6117	B2	6214	A4	7116	B2	9111	B2	9200	B5
0121	A6	1112	A6	2123	B1	2218	A4	2223	B5	3106	B1	3147	A2	5102	B1	5204	B6	5205	B4	6137	A2	6218	A4	7117	B2	9112	B2	9207	B5
0122	A5	2101	B1	2146	A2	2219	B5	2230	B5	3117	B1	3153	A2	5103	B1	5206	B4	5209	B4	6153	B4	6220	A3	7208	A6	9115	B1	9210	A5
0162	A2	2102	B1	2147	A1	2220	B4	2241	B4	3120	A2	3157	A2	5104	B2	5208	B6	5210	B6	6107	B4	6204	B4	7216	B4	9122	A6	9211	B5
0211	B5	2106	A1	2153	A3	2221	B4	2271	B4	3124	B2	3170	A2	5105	B2	5210	B6	5221	B3	6106	B4	6212	A4	7251	B6	9123	A5	9229	B5
0263	B4	2107	A3	2160	B2	2222	B4	2273	A4	3137	A2	3177	A2	5106	B2	5211	B6	5222	B3	6108	B4	6217	B4	7286	B5	9150	B1	9286	B5



Layout S5 Digital Power Supply Panel (Bottom Side)













7444 4822 130 60383 BF824  
7445 5322 130 42718 BFS20  
7630 9351 874 90118 74HC4052PW  
7645 9340 425 20115 BC847BS  
7651 9322 169 38702 MSP3411G-FH-B8

## Side I/O Panel [D]

## Various

0240 2422 025 12485 11p male  
0241 4822 267 10734 5p  
0242 4822 267 10734 5p  
1254 4822 267 31014 Headphone socket  
1255 4822 265 11606 3p  
1256 2422 026 04926 MDIN 4p female

## -II-

2286 4822 122 33642 150pF 5% 50V  
2288 4822 122 33642 150pF 5% 50V  
2292 5322 122 32311 470pF 10% 100V  
2294 5322 122 32311 470pF 10% 100V  
2296 4822 122 31125 4.7nF 80% 63V  
2297 4822 122 31125 4.7nF 80% 63V

## □

3285 4822 116 52201 75Ω 5% 0.5W  
3286 4822 116 52176 10Ω 5% 0.5W  
3287 4822 116 52201 75Ω 5% 0.5W  
3288 4822 116 52176 10Ω 5% 0.5W  
3289 4822 116 52249 1.8kΩ 5% 0.5W  
3291 4822 050 11002 1kΩ 1% 0.4W  
3292 4822 117 10834 47kΩ 1% 0.1W  
3293 4822 050 11002 1kΩ 1% 0.4W  
3294 4822 117 10834 47kΩ 1% 0.1W  
3295 4822 116 52276 3.9kΩ 5% 0.5W  
3296 4822 117 10833 10kΩ 1% 0.1W  
3297 4822 117 10833 10kΩ 1% 0.1W

## -&gt;-

6291 9340 548 61115 PDZ12B  
6292 9340 548 61115 PDZ12B  
6293 9340 548 61115 PDZ12B  
6294 9340 548 61115 PDZ12B  
6296 9340 548 61115 PDZ12B  
6297 9340 548 61115 PDZ12B

## Top Control Panel [E]

## Various

0158 3139 131 01601 Cable 3p 1080mm  
0215 4822 267 10748 3p  
1091 4822 276 13775 Switch  
1092 4822 276 13775 Switch  
1093 4822 276 13775 Switch  
1094 4822 276 13775 Switch

## □

3088 4822 051 30008 Jumper  
3089 4822 051 30008 Jumper  
3091 4822 051 20008 Jumper (0805)  
3092 4822 051 20008 Jumper (0805)  
3093 4822 051 30561 560Ω 5% 62mW  
3094 4822 051 30271 270Ω 5% 62mW  
3095 4822 117 11143 3kΩ 1% 0.1W  
3096 4822 051 30152 1.5kΩ 5% 62mW

## -&gt;-

6092 4822 130 10654 BAT254

## Front Interface Panel [J]

## Various

0156 3104 311 01431 Cable 2p 340mm  
0157 3139 131 02332 Cable 5p 680mm  
0211 2422 025 16268 2p male  
0212 2422 025 16268 2p male  
0214 2422 025 06353 5p male  
0231 2422 128 02972 Power switch

## -II-

2691 4822 124 40207 100μF 20% 25V  
2698 4822 122 30043 10nF 80% 63V

## □

3500 4822 053 21225 2.2M Ω 5% 0.5W  
3501 4822 053 21475 4.7M Ω 5% 0.5W  
3691 4822 116 52228 680Ω 5% 0.5W  
3693 4822 116 83872 220Ω 5% 0.5W

## -&gt;-

6691 9322 050 99682 LED LTL-10224WHCR  
6692 9322 127 54667 IR receiver TSOP1836UH1

## Digital Interface Panel [S]

## Various

0202 2422 025 15848 5p male  
0206 4822 267 10734 5p  
0224 2422 025 16382 3p male  
0239 4822 267 10735 3p  
0240 2422 025 12485 11p male  
0241 2422 025 12485 11p male  
1008 4822 267 10637 5p  
1931 4822 267 10557 10p

## -II-

2009 2238 586 59812 100nF 50V  
2012 4822 126 13879 220nF 20-80% 16V  
2016 2238 586 59812 100nF 50V  
2024 4822 124 11947 10μF 20% 16V  
2029 4822 124 11947 10μF 20% 16V  
2031 3198 017 41050 1μF 10V  
2032 3198 017 41050 1μF 10V  
2033 3198 017 41050 1μF 10V  
2034 3198 017 41050 1μF 10V  
2037 3198 017 41050 1μF 10V  
2038 3198 017 41050 1μF 10V  
2039 2238 586 59812 100nF 50V  
2041 2238 586 59812 100nF 50V  
2045 4822 126 13879 220nF 20-80% 16V  
2048 4822 126 13879 220nF 20-80% 16V

## □

3008 4822 116 52175 100Ω 5% 0.5W  
3009 4822 050 21003 10kΩ 1% 0.6W  
3010 4822 116 52175 100Ω 5% 0.5W  
3011 4822 116 52175 100Ω 5% 0.5W  
3012 4822 117 12903 1.8kΩ 1% 63mW  
3013 4822 051 30101 100Ω 5% 62mW  
3014 4822 051 30101 100Ω 5% 62mW  
3020 4822 116 52257 22kΩ 5% 0.5W  
3021 4822 051 30223 22kΩ 5% 62mW  
3022 4822 116 52199 68Ω 5% 0.5W  
3024 4822 116 52182 15Ω 5% 0.5W  
3025 4822 052 10159 15Ω 5% 0.33W  
3028 4822 050 11002 1kΩ 1% 0.4W  
3031 4822 051 30183 18kΩ 5% 62mW  
3032 4822 051 30103 10kΩ 5% 62mW  
3033 4822 051 30222 2.2kΩ 5% 62mW  
3034 4822 051 30471 470Ω 5% 62mW  
3035 4822 051 30471 470Ω 5% 62mW  
3038 4822 051 30101 100Ω 5% 62mW  
3039 4822 051 30103 10kΩ 5% 62mW  
3040 4822 116 52175 100Ω 5% 0.5W  
3041 4822 051 30103 10kΩ 5% 62mW  
3042 4822 051 30103 10kΩ 5% 62mW  
3043 4822 116 52249 1.8kΩ 5% 0.5W  
3045 4822 117 12891 220kΩ 1%  
3046 4822 117 12891 220kΩ 1%  
3047 4822 051 30561 560Ω 5% 62mW  
3048 4822 117 12891 220kΩ 1%  
3049 4822 117 12891 220kΩ 1%  
3050 4822 051 30561 560Ω 5% 62mW  
3051 4822 051 30183 18kΩ 5% 62mW  
3052 4822 051 30103 10kΩ 5% 62mW  
3053 4822 051 30222 2.2kΩ 5% 62mW  
3054 4822 051 30471 470Ω 5% 62mW  
3055 4822 051 30471 470Ω 5% 62mW

5029 4822 157 11747 15μH 5%

## -&gt;-

6024 4822 130 30862 BZX79-B9V1



7008 5322 209 33172 PCF8574AT  
7021 5322 130 60159 BC846B  
7024 4822 130 40981 BC337-25  
7031 5322 130 60159 BC846B  
7032 4822 130 60373 BC856B  
7033 5322 130 60159 BC846B  
7034 4822 130 60373 BC856B  
7040 5322 209 14481 HEF4053BT  
7041 5322 209 14481 HEF4053BT  
7042 5322 130 60159 BC846B  
7045 5322 130 60159 BC846B  
7048 5322 130 60159 BC846B

## Mains Harmonic Panel [U]

## Various

0001▲ 4822 265 20723 2p  
0002▲ 4822 267 10775 2p male (black)  
0127▲ 4822 265 11253 Fuse holder  
1000▲ 2422 086 10914 Fuse 4A 250V

## -II-

2000▲ 4822 126 13589 470nF 275V  
2001 4822 121 70141 33nF 5% 400V



3000 3198 013 01020 1kΩ 20% 0.5W  
3002▲ 4822 053 21155 1.5M Ω 5% 0.5W



5000▲ 2422 549 44444 Mains harmonic filter

## S5 Digital Power Supply [XE]

## Various

0084 4822 492 63524 Fix. transistor  
0085 4822 492 63066 Spring  
0100 4822 265 11253 Fuse holder  
0121▲ 2422 025 16374 2p male  
0122▲ 2422 025 16374 2p male  
1108▲ 4822 253 30383 Fuse 2,5A

## -II-

2100 4822 126 13561 220nF 10% 16V  
2104 4822 122 33177 10nF 20% 50V  
2106▲ 4822 121 10711 100nF 20% 275V  
2107 2020 554 90186 1nF 20% 250V  
2109▲ 4822 122 50116 470pF 10% 1kV  
2110 4822 122 33127 2.2nF 10% 63V  
2112 5322 122 31647 1nF 10% 63V  
2114 4822 126 14585 100nF 10% 50V  
2116 4822 124 80144 220μF 20% 25V  
2123 4822 124 40207 100μF 20% 25V  
2124 5322 126 10223 4.7nF 10% 63V  
2145 5322 122 32268 470pF 5% 63V  
2146 2222 151 90048 47μF 20% 400V  
2147▲ 4822 126 14572 100pF 10% 250V  
2153▲ 4822 121 70162 10nF 5% 400V  
2154 4822 126 14585 100nF 10% 50V  
2160 4822 124 40248 10μF 20% 63V  
2203 4822 126 13561 220nF 10% 16V  
2205 4822 124 80144 220μF 20% 25V  
2215 4822 122 33177 10nF 20% 50V  
2217 4822 126 14573 220nF 10% 25V  
2218 4822 124 12417 2200μF 20% 25V  
2219 4822 124 11767 470μF 20% 25V  
2220 4822 124 11582 2200μF 20% 16V  
2221 4822 124 11767 470μF 20% 25V  
2222 4822 124 80061 1000μF 20% 25V  
2225 4822 124 11566 47μF 20% 50V

2226 4822 124 40248 10 $\mu$ F 20% 63V  
 2241 4822 124 11767 470 $\mu$ F 20% 25V



3101 4822 051 10102 1k $\Omega$  2% 250mW  
 3103 4822 116 83933 15k $\Omega$  1% 0.1W  
 3105 4822 116 83933 15k $\Omega$  1% 0.1W  
 3116 2322 193 53273 27k $\Omega$  5% B  
 3117 2322 193 53273 27k $\Omega$  5% B  
 3120 4822 116 52199 68 $\Omega$  5% 0.5W  
 3123 4822 051 20472 4.7k $\Omega$  5% 0.1W  
 3124 4822 116 52191 33 $\Omega$  5% 0.5W  
 3125 4822 117 10354 22k $\Omega$  1% 0.1W  
 3137▲ 4822 116 81039 1.8 $\Omega$  5% 0.5W  
 3138▲ 4822 116 80676 1.5 $\Omega$  5% 0.5W  
 3139 4822 117 10834 47k $\Omega$  1% 0.1W  
 3140 4822 117 10833 10k $\Omega$  1% 0.1W  
 3141 4822 117 11139 1.5k $\Omega$  1% 0.1W  
 3142 4822 051 20109 10 $\Omega$  5% 0.1W  
 3147 4822 053 10102 1k $\Omega$  5% 1W  
 3153 4822 053 11104 100k $\Omega$  5% 2W  
 3154 4822 116 52176 10 $\Omega$  5% 0.5W  
 3155 4822 051 10102 1k $\Omega$  2% 250mW  
 3156 4822 051 10102 1k $\Omega$  2% 250mW  
 3206 4822 117 10833 10k $\Omega$  1% 0.1W  
 3207 4822 051 20472 4.7k $\Omega$  5% 0.1W  
 3208 4822 051 20561 560 $\Omega$  5% 0.1W  
 3209 4822 117 10833 10k $\Omega$  1% 0.1W  
 3229 4822 051 20471 470 $\Omega$  5% 0.1W  
 3230 4822 117 10833 10k $\Omega$  1% 0.1W  
 3231 4822 117 12846 2.49k $\Omega$  1% 0.1W  
 3232 4822 117 12846 2.49k $\Omega$  1% 0.1W  
 3244 4822 117 11504 270 $\Omega$  1% 0.1W  
 4xxx 4822 051 10008 0 $\Omega$  5% 0.25W (1206)  
 4xxx 4822 051 20008 0 $\Omega$  5% 0.25W (0805)



5100▲ 3128 138 38990 Transformer -CT283D3  
 5101▲ 4822 157 11846 Mains filter  
 5112 4822 157 11847 18 $\mu$ H 5%  
 5113 4822 157 11411 Bead 100MHz  
 5114 5322 158 10052 Coil  
 5115 5322 158 10052 Coil  
 5204 2422 535 96607 6U8 20%  
 5205 2422 535 96607 6U8 20%  
 5206 4822 157 70746 22 $\mu$ H  
 5208 4822 157 70746 22 $\mu$ H  
 5210 2422 535 96607 6U8 20%  
 5221 4822 157 11411 Bead 100MHz  
 5229 4822 157 11411 Bead 100MHz



6100 4822 130 11583 BZX55-F15  
 6105 4822 130 83707 SINB80  
 6106 5322 130 34574 1N4004G  
 6107 5322 130 34574 1N4004G  
 6110 4822 130 42488 BYD33D  
 6115 4822 130 42488 BYD33D  
 6137 5322 130 34574 1N4004G  
 6138 5322 130 34574 1N4004G  
 6153 4822 130 42606 BYD33J  
 6154 4822 130 11148 UDZ4.7B  
 6202 4822 130 83649 1SS355  
 6204 4822 130 41602 BYW95C  
 6211 4822 130 42606 BYD33J  
 6212 4822 130 30621 1N4148  
 6213 4822 130 42488 BYD33D  
 6217 4822 130 81274 MBR745  
 6220 5322 130 34574 1N4004G  
 6223 4822 130 11584 BYW98-200-C1



7103▲ 4822 209 16708 TCDT1103G  
 7104 4822 130 11417 STP3NB60FP  
 7112 4822 209 90755 UC3842AN  
 7116 4822 130 40854 BC327  
 7117 4822 130 40981 BC337-25  
 7202 5322 130 60159 BC846B  
 7216 4822 209 81397 TL431CLPST  
 8103▲ 3111 179 08170 Cable black  
 8104▲ 3111 179 08180 Cable red