

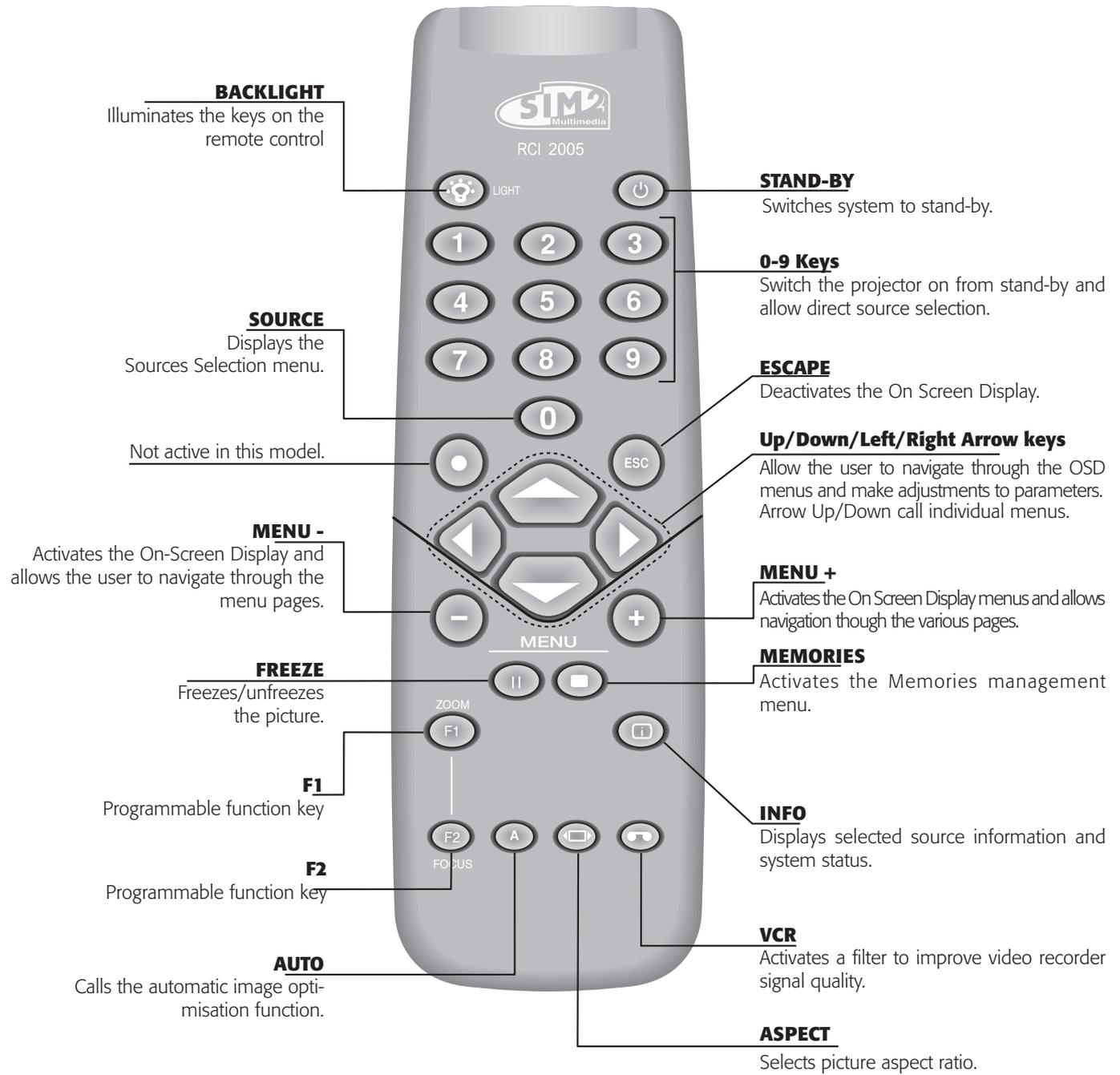
SIM2 *Grand Cinema* HT



Manual and installation guide

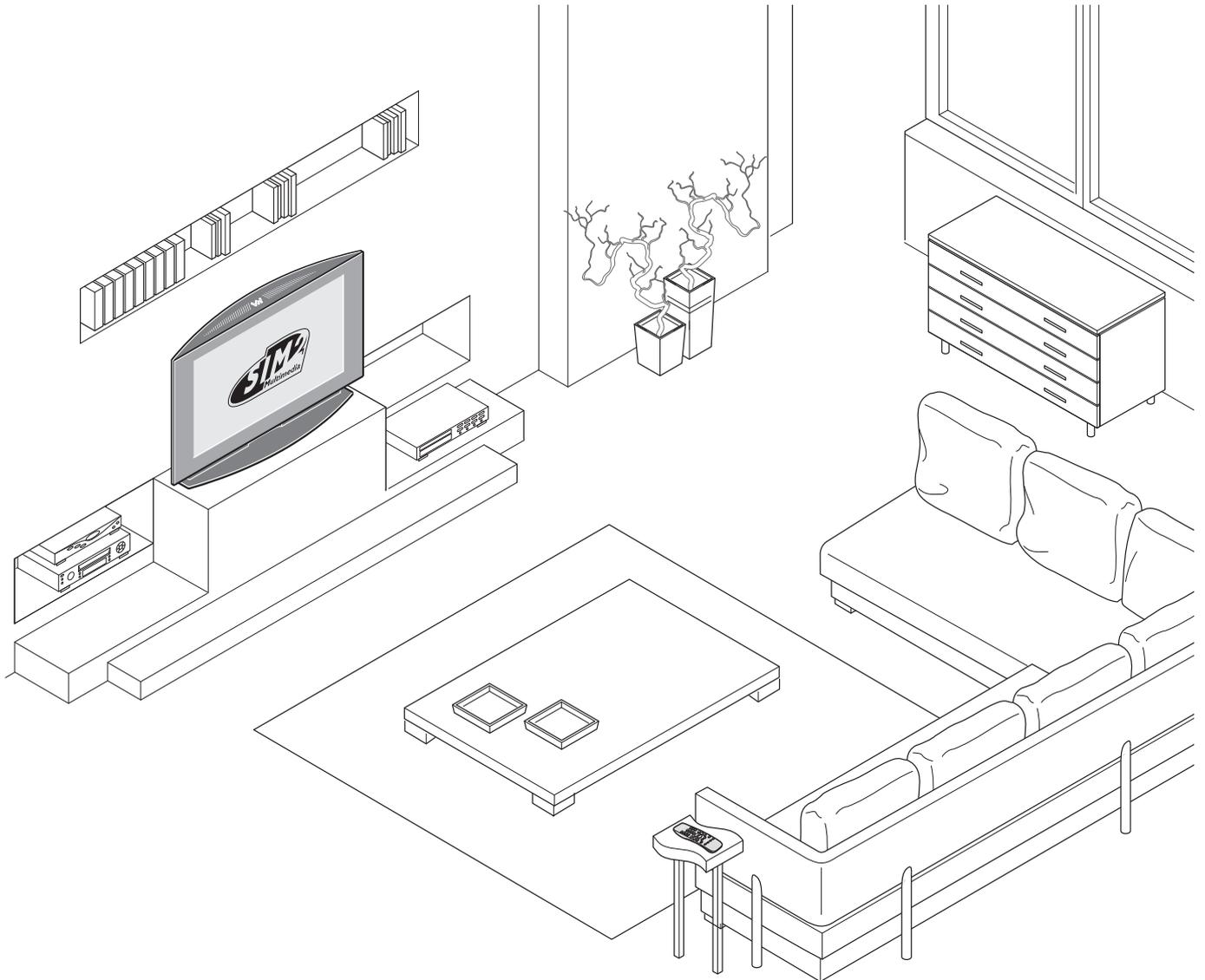
# HTL40





# 1 INTRODUCTION

Congratulations on your choice of the innovative SIM2 GrandCinema HTL40 system!



The new HTL40 flat screen offers the ideal combination between top TFT-LCD technology and an expert system for digital processing of video signals.

Your new HTL40 system combines a top quality display unit with a refined signal processing system. The 40" screen reflects the state of the art of TFT-LCD technology, with 1366x768 pixel resolution and the ability to display up to 16.7 million colours. In addition, this device makes it possible to acquire a very broad range of different video signals, thanks to an image processing section able to assure optimum reproduction of all the different input signals, from interlaced video to high definition video and graphics. The images generated are always sharp, detailed, and with natural colours.

The large number of inputs available (1 Composite Video input, 1 S-Video input, up to 2 Component or RGB inputs, 1 graphic RGB input, 1 DVI-D input, and 1 HDMI™ input) ensures the system supports a wide variety of analogue and digital sources: DVD players, VCRs, satellite and terrestrial receivers, computers, game consoles, video cameras, etc.

Conversion of interlaced video signals to progressive signals by means of DCDi™ technology produces fluid, natural, images free of flicker and stairstepping artifacts on diagonal lines.

Faithful reproduction of signals at higher resolutions (such as high definition video and graphics) occurs without loss of detail or reduction of image sharpness thanks to the processor's high pixel rate signal acquisition capabilities.

In addition, the specific type of signal processing makes it possible to

eliminate the swirl effects that can sometimes mar the performance of LCD screens when displaying moving images.

All image adjustments can be performed from the remote control with the aid of the On Screen Display; alternatively, the unit can be controlled by from a home automation system through the serial port.

Besides the usual checks, the Quality Control department also runs additional statistical tests before dispatch. Therefore the packing may show signs of having been opened.



DCDi is a registered trademark of Faroudja, a division of Genesis Microchip, Inc.

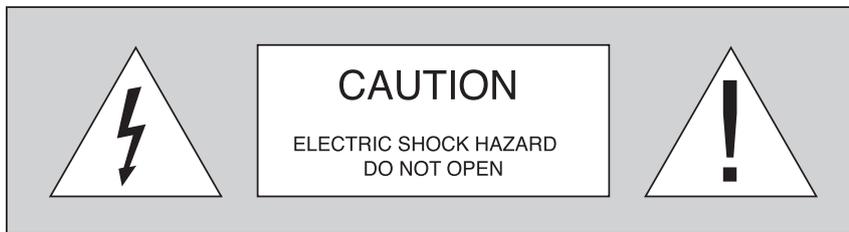
HDMI, the HDMI logo and the expression High-Definition Multimedia Interface are trade marks or registered marks of HDMI licensing LLC



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## 2 IMPORTANT SAFETY INSTRUCTIONS

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**CAUTION!**

*To reduce the risk of electric shock, disconnect the power supply cable on the rear panel before removing the cover of the screen.*

*For technical assistance refer to trained personnel authorised by the manufacturer.*



*This symbol indicates the possible electric shock hazard associated with uninsulated live components inside the unit.*



*This symbol indicates the presence of important instructions regarding use and maintenance of the product.*

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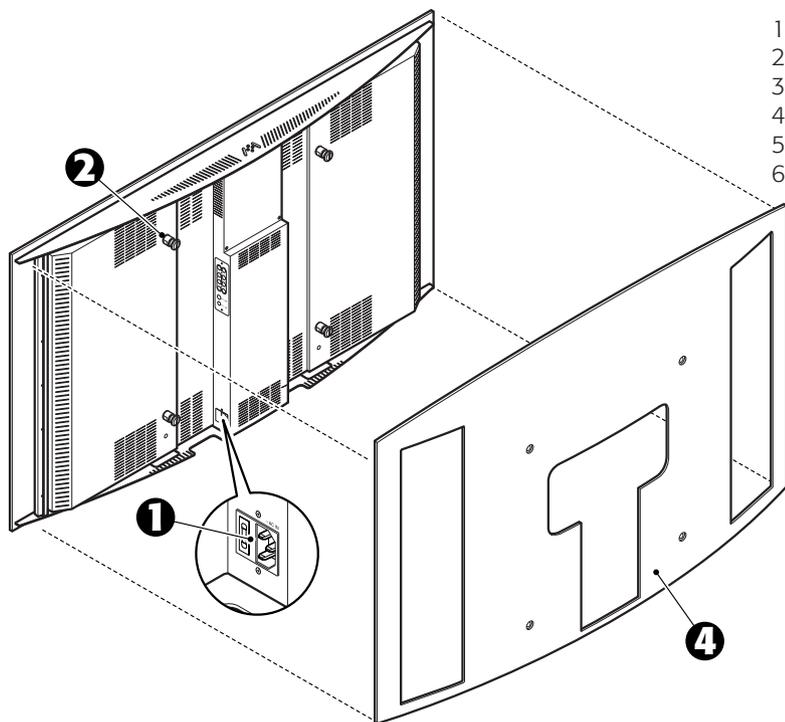
*Read all chapters of this manual carefully before switching on the screen. This manual provides basic instructions for using the HTL40 system. Installation, preliminary adjustments and procedures that necessitate opening the units and touching electrical components must be carried out by authorised, trained technicians.*

*To ensure safe and long term reliability use exclusively the power cables supplied by the manufacturer.*

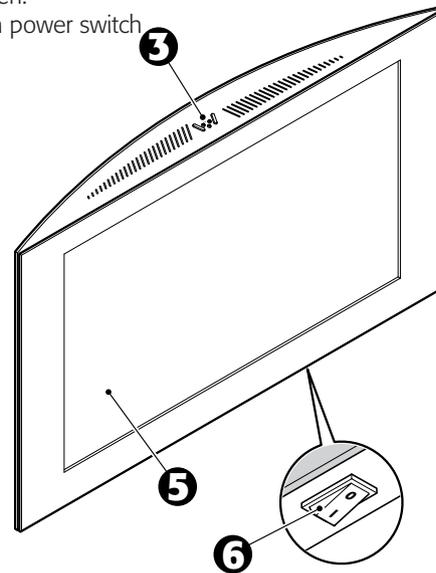
*Observe all warnings and cautions.*

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## PARTS LIST



- 1 Fused power socket.
- 2 Bushes.
- 3 Keypad.
- 4 Curved rear panel
- 5 Screen.
- 6 Main power switch



- **Read this manual and keep it safe**

This manual contains important information on how to install and use this equipment correctly. Before using the equipment, read the safety prescriptions and instructions carefully. Keep the manual for future consultation.

- **Do not touch internal parts of the unit.**

The unit contains electrical parts carrying high voltages and operating at high temperatures. Do not remove the cover from the unit, refer to qualified service personnel for all repair and maintenance requirements. The warranty will be automatically invalidated if the cover is removed from the unit.

- **Power supply disconnect device.**

The device for disconnecting the unit from the mains power supply is constituted by the power cable plug. Ensure that the power cable plugs and the electrical mains socket outlets are easily accessible during installation operations. To disconnect the unit from the electric power supply, pull the plug to remove it from the socket outlet. Do not pull the power cable.

- **Connect the appliance only to the type of power supply indicated**

Connect the unit to a mains electrical supply with rated voltage of between 120-240 VAC, 50/60 Hz and equipped with a protective earth connection. If you are unsure of the type of mains power supply in your home, consult a qualified electrician. Take care to avoid overloading the power socket and any extension leads.

- **Connection of the unit to the mains power supply.**

Make the connection as shown in Fig.1. Before connecting the panel to the electrical mains supply, follow the setup instructions carefully.

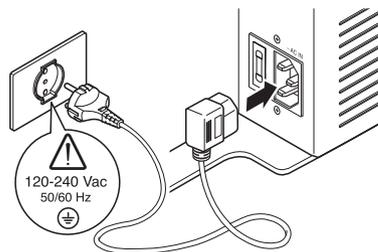


Fig. 1

- **Changing the fuses.**

Before changing the fuse disconnect the unit from the mains power supply. The fuse compartment is next to the mains power connector (Fig. 2). Remove fuse carrier (2) with the aid of a flat blade screwdriver, then change fuse (3). Insert a new spare fuse (4). Use only T5A H fuses.

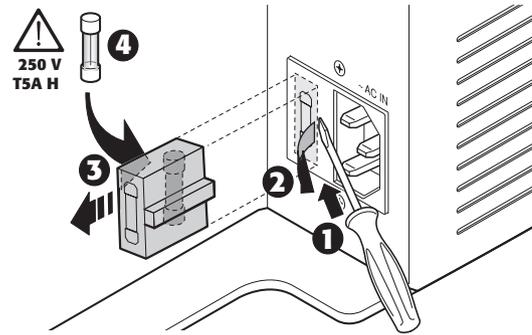


Fig.2

- **Beware of power supply cables.**

Position the cables carefully to avoid a trip hazard and make sure they are kept out of reach of children. Install the unit as close as possible to the wall electrical socket outlet. Do not tread on the power cables, make sure that they are not tangled or pulled; do not expose the power cables to heat sources; make sure that the power cables do not become knotted or kinked. If the power cables become damaged, stop using the system and request the assistance of an authorised technician.

- **Disconnect the unit from the mains power supply in the event of electrical storms and when not in use.**

To avoid damage that could be caused by lightning striking in the vicinity of your home, disconnect the unit in the event of electrical storms or when the system will remain unused for prolonged periods.

- **Avoid contact with liquids and exposure to damp.**

Do not use the unit near water (sinks, tanks, etc.); do not place objects containing liquids on top of or near the unit and do not expose it to rain, humidity, dripping water or spray; do not use water or liquid detergents to clean the unit.

- **Prevent the unit from overheating.**

Do not obstruct ventilation openings. Do not place the unit near heat sources such as heaters, radiators or other devices that generate heat (including amplifiers). Do not position the unit in confined, poorly ventilated places (bookcase, shelves, etc.).

- **Never look directly at the projection lamp.**

Never look directly at the lamp through the ventilation opening when the unit is switched on. Risk of eyesight impairment. Ensure also that children do not look directly at the lamp.

- ***Position the unit on a stable surface.***

The screen must be positioned on a suitable stable surface or be installed using a bracket for fixed ceiling or wall installation. Never use the screen by resting it on either of its sides or on the rear panel.

- ***Do not insert objects through the units' openings.***

Make sure that no objects are inserted inside the unit. If this should occur, disconnect the unit from the power supply immediately and call an authorised technician.

### 3 UNPACKING

To remove the HTL40 system from its carton follow the figures on the left (Fig. 3).

The carton and packaging should be retained for future use and in the unlikely event that your system needs to be returned for repair.

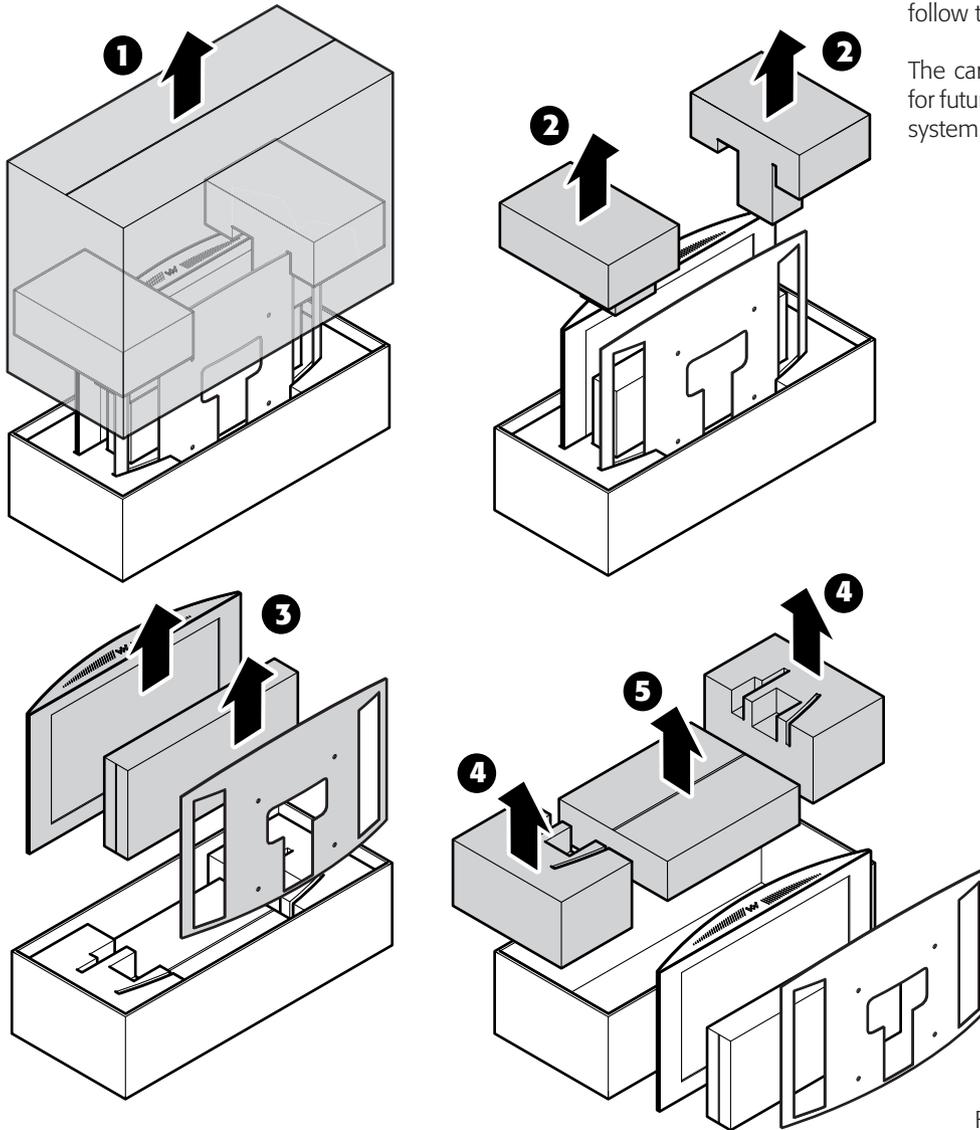


Fig. 3

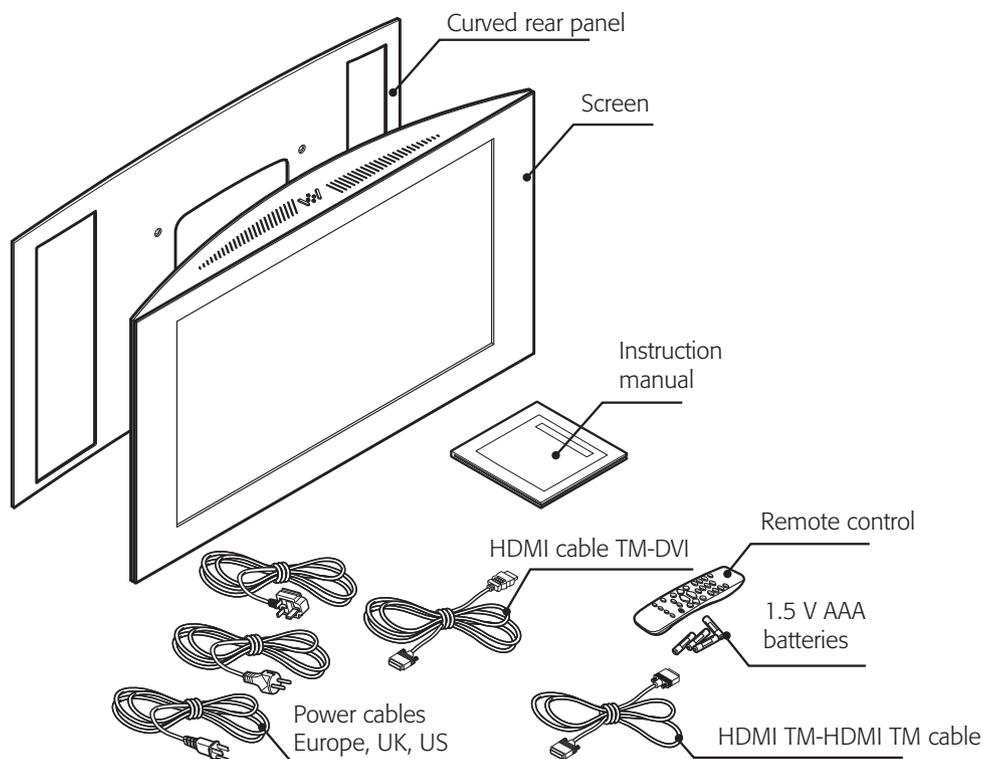
**PACK CONTENTS**

Fig.4

The carton should contain the following:

- screen
- curved rear panel
- remote control
- four 1.5V AAA batteries (for remote control)
- three power cables (EU, UK, USA) for the screen
- one HDMI™-HDMI™ cable
- one HDMI™-DVI cable
- user manual.

If any accessories are missing, contact your Dealer as soon as possible.

## 4 INSTALLATION

### POSITIONING THE UNIT

Some minor assembly steps must be carried out on the HTL40 screen unit before it can be positioned correctly. The screen can be installed on a wall, using the specific VESA rails and the supplied screws, or placed on a table using the supporting base (optional - for further requirements or information concerning the support base contact your nearest SIM2 dealer).

The following section describes the operations to be performed for the various installation configurations.

#### **Caution!**

**All the operations described below must be executed exclusively with the mains power cable unplugged from the mains socket outlet.**

### WALL MOUNTING

#### **Caution!**

**Wall mounting of the LCD panel calls for special skills and must be carried out exclusively by authorised, trained technicians. Because of the weight of the screen (approx. 345 N, 35 kg) wall mounting operations should be carried out with at least two people. Sim2 Multimedia declines all liability for possible injury to persons or damage to property deriving from incorrect installation of the screen.**

Make sure the components listed below are within easy reach:

- TFT-LCD flat screen
- curved rear panel.
- the fixing screws.
- spacers for installation with VESA interface

With the panel supported in a vertical position, insert the mains power cable connector into the relevant socket on the rear of the LCD panel (Fig.5).

#### **Caution!**

**Do not supply power to the panel by plugging the power cable into the mains socket outlet until you have finished the installation procedure.**

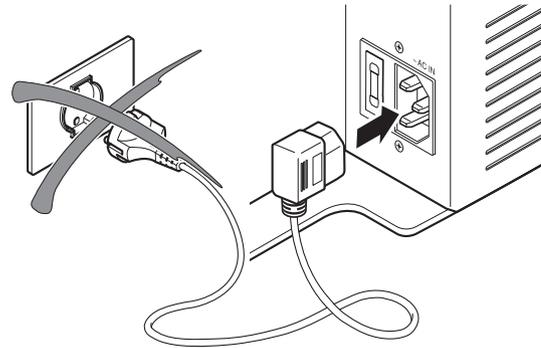


Fig.5

Position the styled rear panel at the back of the display and line up the four holes with the pre-fitted bushes (Fig.6). In the case of wall mounting, screw the spacers into the holes in the rear panel. Screwing the spacers into the holes makes it possible to increase the distance between rear panel and the wall to which the rear panel is secured, thus making it possible to position the display freely. Finally, secure the rear panel to your VESA interface (not included).

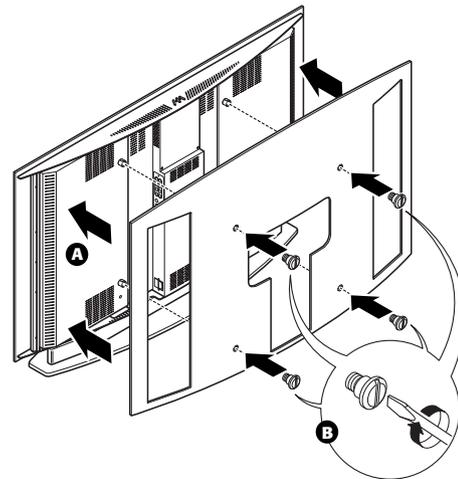


Fig.6

**TABLETOP INSTALLATION WITH SUPPORT BASE (OPTIONAL)**

For tabletop installation of the unit you will need the tabletop support, which is sold separately.

For more details on the tabletop support and the various models available contact your nearest dealer.

Fit the screen into the tabletop support, aligning the slots on the bottom of the screen unit with the vertical tabs on the support (Fig.7A). Secure the support to the screen by screwing in the two screws in the rear (Fig.7B).

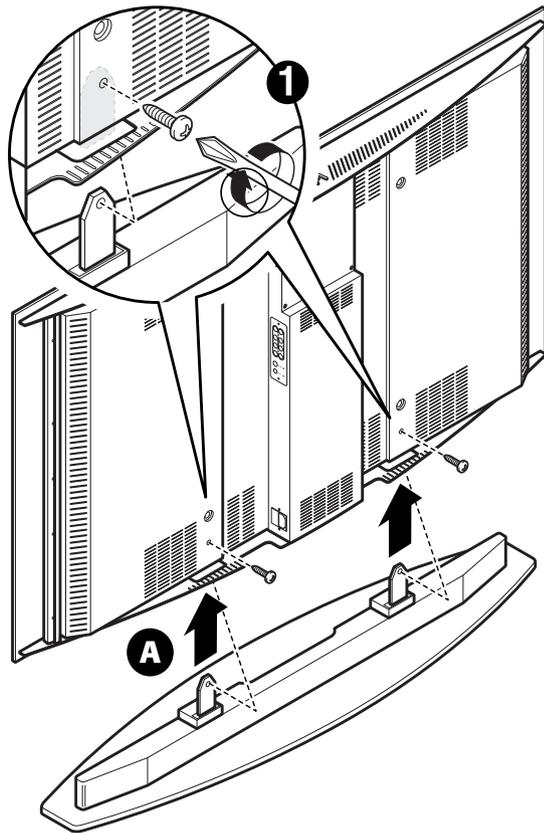


Fig.7

With the panel in its vertical position, insert the power cable plug into the socket on the LCD panel (Fig.5).

**Caution!**

**Do not supply power to the panel by plugging the power cable into the mains socket outlet until you have finished the installation procedure.**

Position the curved rear panel at the back of the display and line up the four holes with the bushes (Fig.8A) fixing the parts together with the flathead screws (Fig.8B).

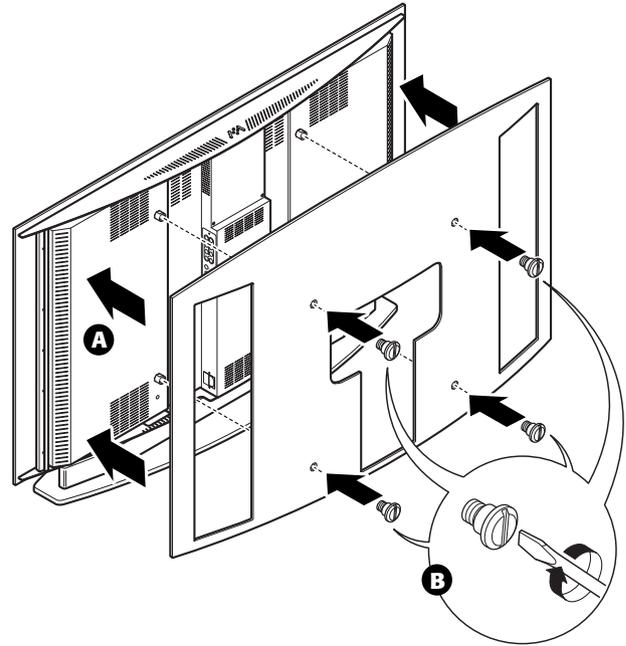


Fig.8

**CONTROL OF THE SYSTEM**

The system can be fully controlled using the supplied IR (infrared) remote control handset.

**PANEL POSITIONING**

Avoid exposing the panel to direct light sources. As far as possible it is also advisable to avoid placing light coloured furniture or other objects with highly reflective surfaces in the immediate proximity of the screen.

## CONNECTING THE VIDEO SOURCES

The video signal inputs and the RS-232 port are located at the rear of the panel. Cables from video sources and the cable from an external control device (if present) must be connected to these inputs.

To obtain the best performance from the HTL40 system, connect the various signal sources using good quality cables designed for video applications (rated impedance  $75\Omega$ ).

Ensure that:

- the cables are routed in such a way that they do not present an obstruction to people moving around the room;
- the connectors are inserted carefully to avoid damaging the pins;
- the cables are not twisted or crushed;
- when disconnecting the cables the connectors are not violently pulled out of the connectors on the various units.

Video sources (television receivers, VCRs, DVD players, etc.) often feature several outputs. To obtain the best performance from your system, carefully choose which output to use. Generally, the type of signal offering the best picture quality is DVI-D, followed by RGB, Components, S-Video and Composite Video, in that order. However, the HTL40 system is equipped with an excellent Video Decoder and Deinterlacer and therefore even lower quality signals will produce high quality results.

Table 1 shows the connectors to be used as inputs for RGB or YCrCb signals (YPrPb,YUV,...)

Table 1

Connettore Pannello LCD	Video signal source connector		
	Y	Y	Y
Y (green)	Y	Y	Y
Cr (red)	P <sub>R</sub>	R-Y	V
Cb (blue)	P <sub>B</sub>	B-Y	U

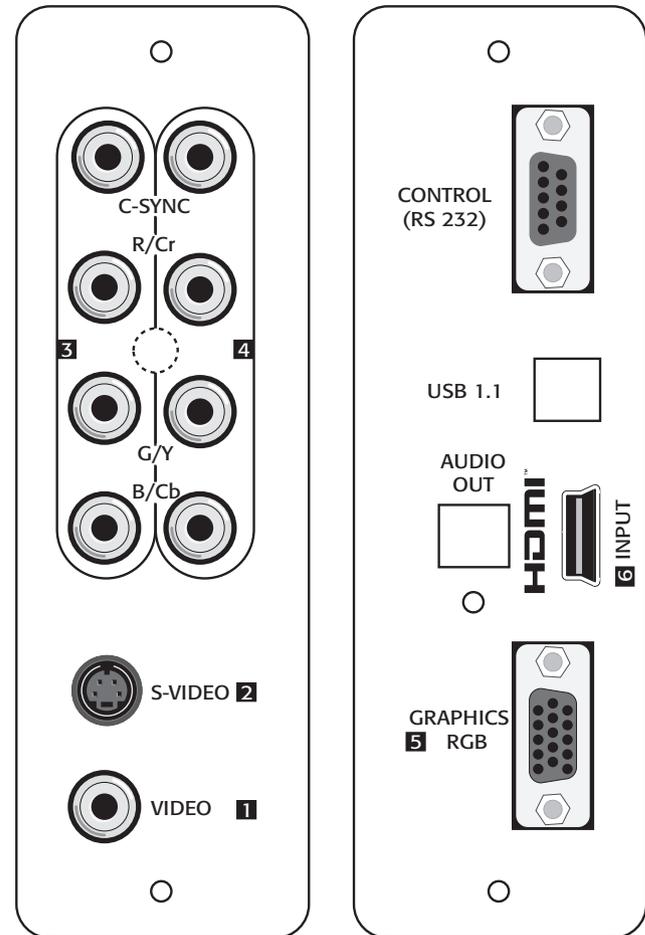


Fig.9

### VIDEO 1

This input is suitable for a Composite Video (CVBS) signal via a cable with an RCA/Phono connector. The connector on the source is usually yellow and is frequently labelled VIDEO. Although other types of signals are preferable because they give better picture quality, Composite Video is still the most common type of signal, and most television receivers, videorecorders, DVD players, video cameras, etc., are equipped with CVBS outputs.

**S-VIDEO 2**

This input can be used to connect equipment fitted with an S-Video output by means of a cable with a mini-DIN connector. Typically, the corresponding output on the source can be identified by the wording S-VIDEO or Y/C.

The S-VIDEO signal output is available on numerous video sources (DVD players, video recorders, video cameras, still cameras, etc.). This signal is preferable to Composite Video because it gives better picture quality.

**RGB / YCrCb 3 4**

The RGB/YCrCb inputs are composed of two groups of four RCA connectors each. The two sets of inputs are equivalent to each other. Both inputs are able to acquire the following video signals:

- RGB with composite sync on the green signal (RGsB);
- YCrCb "component", with composite sync on the luminance signal (YsCrCb);
- RGB with separate composite syncs on a fourth cable to connect to the C-SYNC input;
- YCrCb with separate composite syncs on a fourth cable to connect to the C-SYNC input;

The video signals that can be connected to these inputs can have horizontal scanning frequencies of 15 kHz (standard video resolution) or 32 kHz (progressive scanning video, high definition video).

By using a suitable SCART to RCA connector adapter cable, an RGB video signal from a source equipped with an SCART connector can be connected to this input.

**RGB GRAPHICS 5**

This input should be connected to an RGB-type video or graphic signal using a cable with a DB15HD type connector.

The signal source device (typically a personal computer or game console) must be able to provide separate H/V synchronisation or composite H+V synchronisation.

The video or graphic signals that can be connected to this input can have horizontal scan frequencies (H-sync) of between 32 and 80 kHz and a vertical frequency (V-sync) of between 48 and 100 Hz. Image resolution can vary between 640x480 and 1600x1200 pixels (VGA, SVGA, XGA, SXGA, UXGA).

**HDMI 6**

This input provides the facility to integrate the excellent quality of a digital image with a multichannel audio signal.

In fact the High Definition Multimedia Interface (HDMI™) combines the uncompressed high definition video signal with a multichannel audio signal.

In addition, the interface enables control data to be exchanged between the video source and the HT system in order to optimise the displayed picture.

The HDMI™ input makes it possible to connect to video sources that use the High-Bandwidth Digital Content Protection protocol (HDCP) to protect their contents. This is possible because the HDCP protocol forms part of the definition of HDMI™ technology.

Connecting an audio-video source to the HDMI™ input makes it possible to take the audio signal from the S/PDIF digital optical output (TOSLINK female connector).

**CONTROL (RS232)**

The system can be controlled via a personal computer or home automation systems by means of the serial port: simply connect a serial cable from an RS232 serial port to this input. On request, SIM2 will send you a document containing serial port settings and a list of the main commands.

**USB**

The USB port can be used as an alternative to the RS232 serial port to control the system from a PC or home automation device. Ask SIM2 for the drivers to install on your PC and documentation concerning the device control commands.

## 5 SWITCHING ON AND OFF

Unit HTL40 can be controlled either from the remote control or from the keypad located on the top of the screen.

### POWER-UP SEQUENCE

- 1) Set the LCD screen power switch at the bottom of the rear panel to "I" (ON) (Fig.10A).
- 2) Wait for a few seconds.
- 3) Power-up the system by pressing one of the number buttons 0...9 on the remote control (Fig.10B).

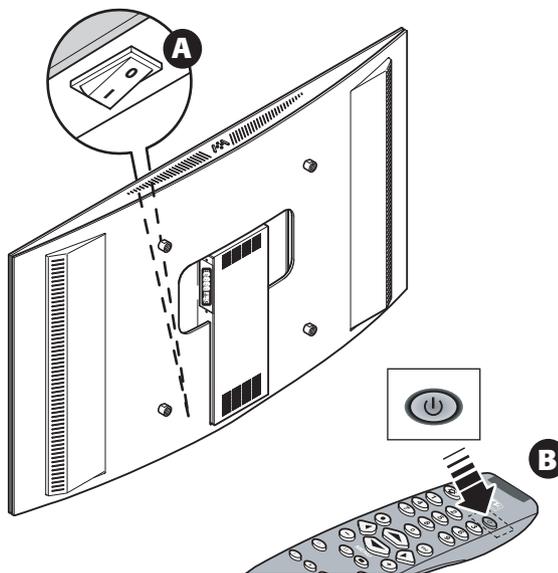


Fig.10

Two LEDs (green and blue) located on the front panel of the display indicate the operating status of the system in accordance with the contents of Table 2.

Unit HTL40 can be controlled either from the remote control or from the keypad located on the top of the screen.

Table 2

Stato	Schermo
	Led blu
Spento	○
Inizializzazione	○
Standby	●
Acceso	○

○ : Off    ● : On    ◐ : Lampeggiante    - : Non significativo

### SWITCHING ON AND OFF FROM STAND BY

Switching on the system (Fig.11):

- from the remote control (keys 0-9)
- from the screen keypad (keys ▲ and ▼).

Typically, the picture will appear after 15-20 seconds.

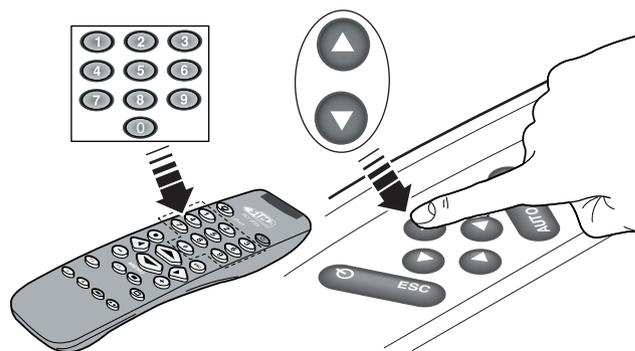


Fig. 11

Pressing a key from 1-9 on the remote control selects the corresponding input; pressing 0 selects the input that was active at the time the system was last switched off.

Switching off the system (Fig.12):

- from the remote control (key )
- from the screen keypad (key )

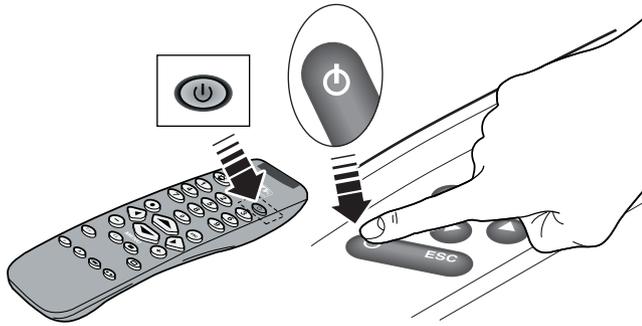


Fig.11

To allow the unit to cool down do not set the mains power switch to the "O" position or unplug the power supply cable immediately after having set the system to stand-by mode. We recommend waiting for several minutes before switching off the unit completely.

## 6 KEYPAD

The keypad on the top of the screen features eight keys providing the facility for complete control of the unit even without the remote control.

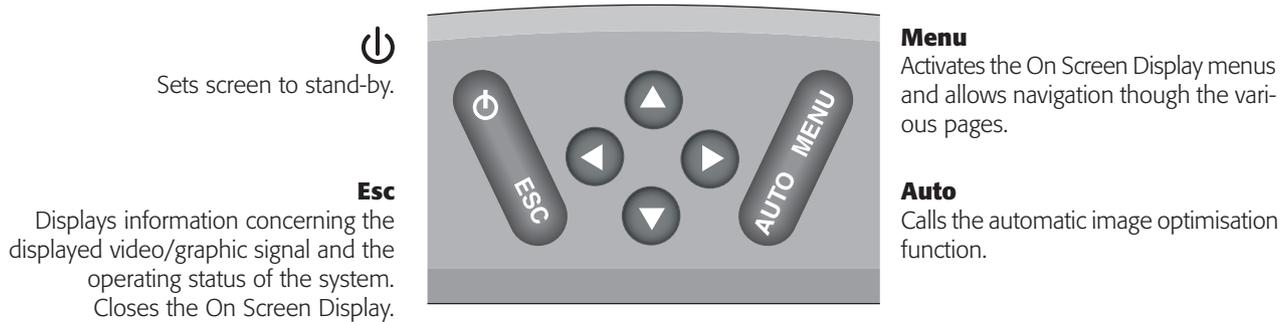


Fig. 12

## 7 REMOTE CONTROL

The remote control serves to control the system from a distance. The receiver is located in the front of the panel. Avoid placing obstructions between the remote control and the screen as this will impair communication between the two units. The remote control requires four 1.5V, AAA alkaline batteries. Insert the batteries, taking care to match the polarity, as indicated in the battery recess of the remote control (Fig.13). Change the remote control batteries if you experience difficulty in transmitting commands to the system. Remove batteries from the remote control if it is to remain unused for a long period of time to avoid the risk of potentially harmful chemical leaks. Dispose of spent batteries at specific battery collection points.

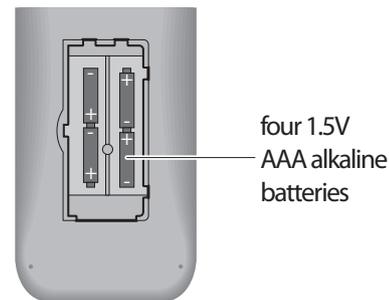


Fig. 13

## 8 ON-SCREEN MENU

All system functions can be activated from the keypad or remote control with the aid of a practical and comprehensive system of on screen menus.

### INPUTS

The input selection menu is called by pressing 0 on the remote control and, when no other menu is displayed, also using the  $\blacktriangle$  and  $\blacktriangledown$  keys on the keypad. To select an input, scroll through the list with the  $\blacktriangle$  and  $\blacktriangledown$  keys until the required input is highlighted, then press  $\blacklozenge$ . Display of the input selection menu is terminated by pressing the ESC key or when the On-Screen Menu display timeout interval (set in the Menu page) has elapsed.

Inputs 3 and 4 can receive RGB and YCrCb signals, at 15kHz, 32 kHz or higher. The association between the input and the type of signal is made on the pull-down menu that appears on the right of the symbol < after pressing the  $\blacklozenge$  key (Fig. 14b).

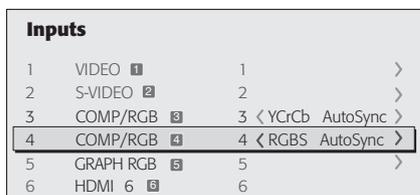


Fig. 14a

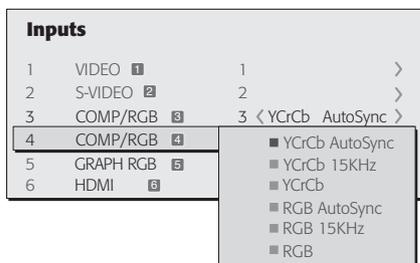


Fig. 14b

In the pull-down menu it is also possible to select the horizontal frequency manually or use the AutoSync option; in this case the system automatically recognises the input signal horizontal frequency (15kHz, 32kHz or higher).

After selecting the source signal (by means of the  $\blacktriangle$  and  $\blacktriangledown$  keys), press MENU+/MENU - to confirm and close the pull-down menu; the value you have just entered will be displayed to the right of

the < symbol.

In general, the selection become operational for all inputs after pressing the  $\blacklozenge$  key.

Once the input has been selected, a brief phase starts during which the system analyses the applied signal while a message is displayed showing the requested signal. As soon as the system locks on to the signal the picture is displayed and a window appears containing information relative to the specific video format and standard (for video signals) or the resolution (for graphic signals).

In the SETUP menu you can select whether or not to display this information; for further details refer to the "SOURCE INFORMATION" heading in the "MENU" section.

### MAIN MENU

To access the main On Screen Display menu, press the MENU key on the keypad or the MENU+ or MENU - key on the remote control. The main menu is divided into four windows, PICTURE, IMAGE, SETUP and MENU, in which the various adjustments are grouped according to the frequency of use. Use the  $\blacktriangle$  and  $\blacktriangledown$  keys to select the line corresponding to the adjustment you wish to make (Fig. 15).

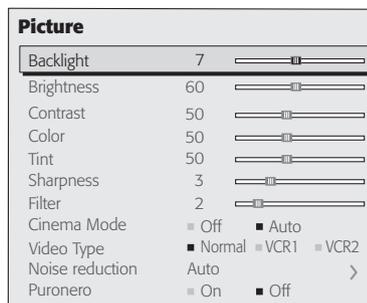


Fig. 15

The various menus offer only the relevant adjustments in accordance with the type of input signal displayed. For this reason, for example, when the source is a graphic signal certain typical adjustments for video signals do not appear on the menus, and vice versa when the source is a video signal.

Some adjustments (e.g. Brightness and Contrast) are associated with a numerical value that can be varied within the set limits using the  $\blacktriangle$  and  $\blacktriangledown$  keys. For others (e.g. VIDEO TYPE) you can choose between two options presented on the same line (and selectable

using the **▶** and **◀** keys).

Other adjustments (identified by the symbol **<**) are associated with submenus, which appear as a superimposed window in which the selection is made with the **▶** and **▼** keys (Fig.16).

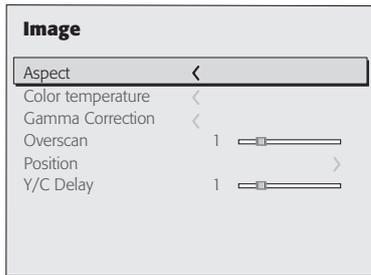


Fig. 16A

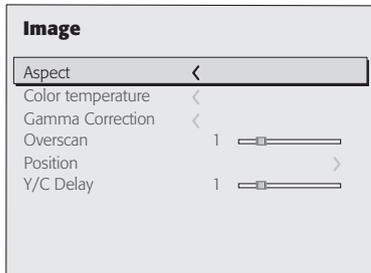


Fig. 16B

These submenus are accessed by pressing the **<** key. To quit the submenu and return to the higher level press the **MENU+/-** keys. Press **ESC** on the remote control or keypad to abandon the menu display or wait for it to disappear automatically after the number of seconds set in the **SETUP** page.

## PICTURE

This menu features the adjustments related to picture quality. Adjustments that are not available for a specific input will not be displayed on the menu. Table 3 summarises the adjustments available for each input. For a complete overview of the on-screen menus, consult 'On screen menu layout' in the "Additional Information" section.

### BACKLIGHTING

Adjusts the global brightness of the picture by altering the level of backlighting. This parameter must be set in accordance with the level

of ambient lighting. In low ambient light conditions the screen may appear too bright; in this case it is advisable to reduce backlighting intensity. On the other hand, in very bright ambient light conditions backlighting intensity should be increased.

### BRIGHTNESS

Use this control to adjust the darker areas of the picture (black level), without significantly affecting bright areas. For correct adjustment it may prove useful to display a grey scale with at least twenty bands. Now try to reduce the brightness of the black band as much as possible while ensuring that it can still be distinguished from the adjacent band with brightness slightly higher than black. Alternatively use a scene composed of black objects alongside other dark coloured objects and try to keep all the objects separately identifiable.

### CONTRAST

Use this control to adjust the brighter areas of the image (white level), without significantly affecting dark areas. For correct adjustment it may prove useful to display a grey scale with at least twenty bands. Now try to increase the brightness of the white band as much as possible while ensuring that it can still be distinguished from the adjacent band with brightness slightly less than white. Alternatively use a scene composed of well-lit white objects surrounded by light coloured objects with lower level lighting, and try to ensure that all the objects remain separately identifiable.

### COLOUR

This control (also called Saturation) increases or decreases the picture color intensity. When set to zero, colour images will be shown in black and white. Increasing the value, try to find the point at which the colours look natural: suitable references include skin tones and grass in landscape shots.

### TINT

Controls the purity of the colours. Basically determines the red-green ratio of the picture.

Reducing the value will boost the red contents of the picture, increasing the value will boost the green tones. For this adjustment use skin tones or a test card image with colour bars as a reference.

### SHARPNESS

This adjustment serves to modulate the signal to increase or decrease the level of picture detail.

When the sharpness value is reduced the image details appear less pronounced, while increasing the value raises image definition, making the outline of objects sharper.

Note that an excessively high value may result in a 'noisy' picture and the edges of objects may appear unnaturally clearly defined.

### SHARPNESS MODE

This allows you to select the type of processing associated with sharpness adjustment. In the case of a progressive or interlaced video signal Video mode is advisable; with PC graphic signals use Graphic mode .

### FILTER

This allows you to select the mode in which the input signal is processed. Selecting the most appropriate value for a given input signal ensures the best horizontal and vertical definition and makes the picture sharper.

### CINEMA MODE

Use this option if the video signal source is a movie film (obtained from a Teleciné device with 3:2 or 2:2 pull-down). In this case a deinterlace algorithm optimized for this type of signal is applied. Selecting AUTO mode causes the de-interlacer to analyse signal characteristics and apply the correct deinterlace mode automatically. Selecting the OFF option causes the de-interlacer to apply a Motion compensated algorithm optimized for video camera signals..

### VIDEO TYPE

Inserts a filter that improves stability of images from videorecorders or DVD players. To toggle between Normal and VCR mode, press the  key on the remote control or select the value on the On Screen Display.

### NOISE REDUCTION

This adjustment serves to select the noise reduction filter value. When the option is selected in the menu the picture is divided into two. On the left hand side the picture is not affected by the filter while the filter is active on the right hand side; this makes it possible to compare the changes resulting from noise filtration with a clean unfiltered image. It is possible to deactivate the filter (NOT ACTIVE) using the automatic (AUTO) setting or manually (MANUAL) selecting the most suitable value for the picture with the VALUE adjustment. In this latter case it is sufficient to position the cursor under the values and make the required setting with the  and  keys on the remote control. A specific function (SKIN TONES ADJUSTMENT) can be used in conjunction with Noise Reduction in order to make

skin tones appear more natural. In fact, it is frequently the case that the reduction of noise is accompanied by a slight degradation of the picture in skin tone areas, while using this function makes it possible to obtain optimum quality of the entire picture.

### PURONERO

Dynamically increases perceived contrast according to pictures displayed. Puronero is a SIM2 proprietary features.

Table 3

Adjustments	Inputs					
	Video SV Video	RGBS 15kHz YCb 15kHz	RGBS	YCb	RGB Grafico	DVI-D
Brightness	●	●	●	●	●	●
Contrast	●	●	●	●	●	●
Colour	●	●	-	●	-	-
Tint	○	●	-	●	-	-
Sharpness	●	●	●	●	●	●
Sharpness Mode	-	-	●	●	●	●
Filter	●	●	-	-	-	-
Cinema Mode	●	●	-	-	-	-
Video Type	●	●	-	-	-	-
Noise reduction	●	●	-	-	-	-
Flesh tone correction	●	●	-	-	-	-
Puronero	●	●	●	●	●	●

○ Present only if the Video Standard is NTSC

### IMAGE

This menu features adjustments relating to picture position, aspect ratio, magnification etc.

### ASPECT

This adjustment allows you to change the dimensions and aspect ratio (relationship between width and height) of the displayed image. There are five preset aspects available and three personalised aspects (with user-settable parameters). You can select a different aspect for each source: the selected aspect ratio will be automatically called the next time the relative source is called.

You can also select the required aspect ratio by repeatedly pressing the  key, or by pressing  and a numerical key (1...8).

The following aspects are available.

**NORMAL:** projects the image occupying the full height of the screen while maintaining the aspect ratio of the input signal. When the input signal aspect ratio is 4:3 black vertical bands are displayed on the right and left of the picture.

**Anamorphic:** allows a 16:9 picture to be displayed correctly.

**LETTERBOX:** serves to display a 4:3 letterbox image (with source signal having black bands above and below the picture) so that it fills the 16:9 screen and maintains the correct aspect ratio.

**PANORAMIC:** stretches the 4:3 image, slightly cropping the upper and lower parts. Panoramic is ideal for displaying a 4:3 image on the 16:9 screen of the Display.

**PIXEL TO PIXEL:** displays the image as it is input without adapting it to the screen.

The image is projected in the centre of the screen and if its horizontal and/or vertical dimensions are smaller than the display, it is bounded by vertical and/or horizontal black bands.

**USER 1, 2, 3:** when none of the preset formulas are suitable, the User formulas are available, with the facility for continuous horizontal and vertical adjustment of picture size.

### **COLOR TEMPERATURE**

Changes the colour balance of the image and is referred to the colour temperature of white. Colours can be adjusted towards the red end of the spectrum (low colour temperature values - expressed in degrees Kelvin) or the blue end (high values). Colour temperature can be selected with three preset values: High, Medium and Low. In addition, a User setting is provided in which the user can set the white point by making separate adjustments for Red, Green and Blue. Generally the High value is more suitable for viewing graphic images, Medium and Low for video images.

### **GAMMA CORRECTION**

Determines the system's response to the grey scale, emphasising or attenuating the different grades of brightness (blacks, dark, medium, light grey, whites) in the projected image. The GRAPHIC setting is more suitable for computer images, while the Video and FILM settings are more suitable for video images.

The Personal setting allows the gamma curve to be defined parametrically. The user can select the coefficient that determines the shape of the curve. Coefficient values between 1.5 and 2.2 serve to emphasise details in darker parts of the picture although the global perception of contrast is reduced. Values higher than 2.2 increase

the global perception of contrast while attenuating the visibility of details in darker areas of the picture. With the most common video sources a parameter value of 2.2 will give high quality pictures with the right amount of contrast.

### **OVERSCAN**

Eliminates irregularities around the outer borders of the image. Certain relatively inaccurate sources can produce an image with more or less pronounced irregularities around the outer edges; thanks to the overscan function these imperfections can be moved to outside the displayed area. Overscan values can be between 0 (no overscanning) and 32 (maximum overscanning). The resulting image always maintains the selected aspect irrespective of the selected overscan value.

### **POSITION**

Use this adjustment to position the image vertically and horizontally. Determines the aspect of the displayed image.

These parameters do not normally require adjustment because the system examines the input signal and automatically sets the most suitable values. However, if the image is not perfectly centralised it may prove useful to repeat the input signal analysis and the consequent image positioning procedure. This automatic control procedure is activated by pressing key "A" on the remote control. When this procedure is called it is helpful to have a white or light coloured background on the screen in the current picture.

### **FREQUENCY/PHASE**

These adjustments, available for progressive signals and for signals from a PC, ensure correspondence between the number of pixels making up the signal and the number of pixels that make up the projected image.

These parameters do not normally require adjustment because the system examines the input signal and automatically sets the most suitable values. However, if the image appears disturbed (loss of resolution within equidistant vertical bands or instability and lack of sharpness on narrow vertical lines) it may help to prompt the system to repeat the input signal analysis and consequent determination of the frequency and phase parameters. This automatic control procedure is activated by pressing key "A" on the remote control.

If the automatic procedure fails to have the required effect, enter the frequency and phase values manually and move sufficiently near to the screen to observe the effects of the adjustments.

## Y/C DELAY

In the case of Video and S-Video signals, it may be necessary to correct horizontal colour misalignment within the projected image. For a given video standard (e.g. PAL or NTSC) the stored value does not normally require further fine-tuning, unless the source or connection cable is changed.

Table 4

Adjustments	Input					
	Video S-Video	RGBS 15kHz Y/Cb 15kHz	RGBS	Y/Cb	RGB Grafico	HDMI™
Position	•	•	•	•	•	-
Aspect	•	•	•	•	•	•
Frequency	-	-	•	•	•	-
Phase	-	-	•	•	•	-
Color Temperature	•	•	•	•	•	•
Gamma correction	•	•	•	•	•	•
Overscan	•	•	•	•	•	•
Y/C Delay	•	•	-	-	-	-

## SETUP

The setup menu contains less frequently used adjustments that may be required during installation (e.g. On Screen Display language selection or the display of Test Patterns).

## POWER ON

If selected (AUTO), this option allows the system to be switched on directly from the mains power supply once the initialisation phase is terminated.

If disabled (STAND BY), at the end of the initialisation phase the system assumes Standby status and awaits the power-up command from the remote control or keypad.

## TEST PATTERNS

Displays a series of four test patterns, which are useful when installing the system and checking basic functions. Use the ▲ and ▼ keys to browse through the test patterns.

## INITIALS SETTINGS

Reconfigures the projector to original factory settings (except Position, and Y/C delay).

## MENU

### LANGUAGE

Lists the languages available for the On Screen Display menus.

### IMPUTS LIST

The functions described below provide the facility to modify the input selection menu to match the needs of the user. The main screen displays all the input physically present on the HTL40 unit.

If one or more of the inputs is not used it often proves helpful to remove them from the list (called by pressing the "0" key).

For this purposes once the input has been selected, you can select whether to activate the source or not in the drop-down menu that is displayed by pressing the ◀ key (Fig.17).

The deactivation or activation of the source results in automatic renumbering of the remaining active inputs.

The active sources (shown in the inputs selection menu) are distinguished by tick symbols.

Inputs			
1	VIDEO	1	>
2	S-VIDEO	2	>
3	COMP/RGB	3	ACTIVE <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
4	COMP/RGB	4	NAME
5	GRAPH RGB	5	
6	HDMI	6	

Fig.17

The user can assign an appropriate name to each input (e.g. the name of the connected device).

This is possible by selecting the item NAME and entering up to 12 alphanumeric characters in the relative screen (for more details refer to the "Text insert" section).

### TEXT INSERT

Characters are entered using a specific text input menu (Fig.18). This menu provides the facility to store text strings easily and quickly.

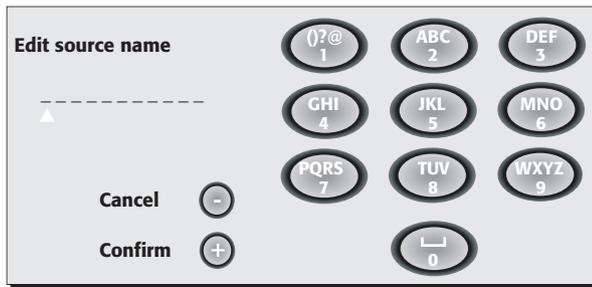


Fig.18

Text input mode is same whether you are editing an existing name or entering a name for the first time. Characters can be inserted in any of the available positions (represented by horizontal lines). Use the  $\blacktriangleleft$  and  $\blacktriangleright$  keys to move the cursor right or left respectively. Press the numerical key corresponding to the character (Fig. 19); the first press selects the first character, the second press selects the second character, and so forth. Once you have entered a character, to enter the next character move the cursor to a position immediately to the right by means of the  $\blacktriangleright$  key on the remote control and repeat the procedure described above.

Use the  $\oplus$  key to toggle between upper case and lower case characters.

To delete any errors move the cursor to the incorrect character and press the  $\ominus$  key.

Once you have terminated the text input procedure confirm your text and save it by pressing the MENU+ key on the remote control. If you want to cancel the changes you have made press the MENU- key.

### F1-F2 KEYS

The remote control is equipped with two keys (F1 and F2) which are associated with various different functions. To consult the available functions select the option F1/F2 KEYS to display a table in which the items on the rows describe the functions that can be assigned to keys F1 and F2, which are represented by the table columns. Choose the required column using the  $\blacktriangleleft$  and  $\blacktriangleright$  keys on the remote control; this will enable you to identify one of the two keys F1 or F2; now select the function to assign to the key (F1 or F2) by means of the  $\blacktriangleleft$  and  $\blacktriangleright$  keys on the remote control.

The function performed by the key is confirmed by the appearance of a dot on the corresponding column-row intersection.

The functions available for keys F1 and F2 are described below.

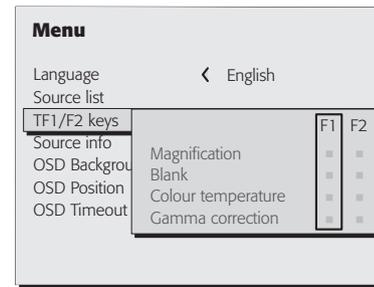


Fig.19

### MAGNIFICATION

Selects the electronic zoom function. Use the  $\blacktriangleright$  and  $\blacktriangleleft$  keys to adjust image magnification. If the key is pressed a second time you will activate PAN mode in which the  $\blacktriangleup$ ,  $\blacktriangledown$ ,  $\blacktriangleright$  and  $\blacktriangleleft$  keys enable you to pan over the magnified image.

### BLANCK

Switches off the video signal and displays a black page. As soon as the key is pressed a message is displayed for a few seconds confirming that the function has been activated. To restore the previous display status simply press any key on the remote control.

### COLOR TEMPERATURE

Successive pressing of the key in question (F1 or F2) makes it possible to select a different colour temperature.

### GAMMA CORRECTION

Successive pressing of the key in question (F1 or F2) makes it possible to select from among the available gamma curves.

### SOURCE INFORMATION

When active (YES) each time the source is changed information is displayed relative to the signal type. When disabled (NO) no information is displayed relative to the selected source.

### OSD BACKGROUND

Determines the type of background for the On Screen Display.

## OSD TIMEOUT

Determines the On Screen Display timeout. When the On Screen Display appears it will remain displayed for the time set in this parameter starting from the time the last key was pressed. The adjustment is made within a 5-60 second timeframe using the ◀ (decrease) and ▶ (increase) keys.

## OSD POSITION

Serves to position the On Screen Display within the screen area. The OSD can be positioned using the arrow keys ◀, ▶ for fine adjustments or keys 1...9 on the remote control to select one of 9 preset positions.

## MEMORIES

The main picture parameters can be saved in discrete sets of values called "Memories" so that they can be subsequently applied as a group using a single command. There are 3 separate Memories (Memory 1, Memory 2, Memory 3) for each of the 12 types of signals managed:

	1 VIDEO	
	2 S-VIDEO	
3	COMP/RGB(YCrCb 15KHz)	3 COMP/RGB(RGB 15KHz)
3	COMP/RGB(YCrCb 32KHz)	3 COMP/RGB(RGB 32KHz)
4	COMP/RGB(YCrCb 15KHz)	4 COMP/RGB(RGB 15KHz)
4	COMP/RGB(YCrCb)	4 COMP/RGB(RGB)
	5 GRAPHICS RGB	
	6 HDMI	

for a total of 36 memories.

The image parameters that can be stored/retrieved by the Memories management system are as follows:

### IMAGE

BRIGHTNESS  
CONTRAST  
COLOUR  
TINT  
SHARPNESS  
FILTER  
SHARPNESS MODE  
VIDEO TYPE  
NOISE REDUCTION

### PICTURE

ASPECT  
COLOUR TEMPERATURE  
OVERSCAN  
GAMMA

Some of these parameters may not be available for certain inputs or certain input signals, in accordance with the definitions in Tables 3 and 4.

Pressing the  key on the remote control or the  key on the keypad (Fig.20) serves to activate the menu management menu page.



Fig.20

The available operations for each selected memory are described below.

## SAVING A MEMORY

To save the image parameter current values in Memory 1, move the cursor to line '1' with the ◀ and ▶ keys and open the pull-down menu by pressing the  key (Fig.21). Select the line SAVE CURRENT SETTINGS. To confirm the operation, the message Current settings saved in Memory 1 is displayed at the bottom of the screen and the letter S appears to the left of the memory name. Memories 2 and 3 can be saved using the same procedure.

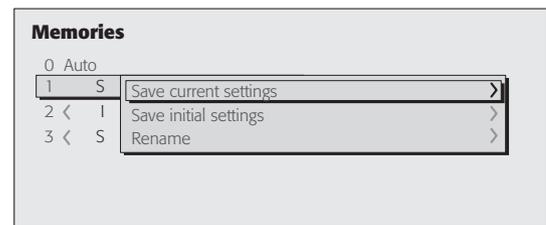


Fig.21

## RECALL MEMORIES

To retrieve memories select the required line and press the  key. The parameters stored in the selected memory will be applied to

the displayed image, while a confirmation message will be displayed to confirm the operation Memory 1 recalled. The retrieved memory is associated with the specific source and signal type and called automatically whenever that specific combination of source and signal type is selected.

### RESTORE MEMORIES

To restore the original values of a previously modified Memory, select the line relative to the Memory in question and open the corresponding pull-down menu (⬇️ key). Select the line 'Save initial settings'. To confirm the operation, the message 'Initial settings saved in Memory 1' is shown at the bottom of the display and the letter 'I' appears to the left of the memory name.

### RENAME MEMORIES

All Memories can be named. To enter a name (maximum length of 12 alphanumeric characters) select the option Rename in the relative drop-down menu. The text is input in accordance with the method described in the heading Text Insert".

### RESTORE CURRENT VALUES

When you open the "Memories" menu a copy of the current settings is saved in a temporary memory (designated by 0 - AUTO). After having retrieved one or more memories you can restore the settings existing at the time you opened Memories menu by selecting Memory '0' (0 - AUTO). Note that this operation must be executed before the 'Memories' menu page disappears (30 seconds after the last operation with the remote control or keypad). The next time it appears, in fact, the temporary memory will contain new information that takes account of any Memories that were selected in the penultimate access to the 'Memories' page.

Memory 0 can be used even when you do not wish to enable Memories management for the signal in use. Once selected, each time a source is chosen the system will automatically reload the settings that were active the last time the source was used.

### INFO

Displays information concerning the displayed video/graphic signal and the operating status of the system.

This function is displayed on pressing the **i** key on the remote control (or, in the absence of the On Screen Display, the ⬇️ key on the keypad).

### QUICK MENUS

The quick menus provide access to the main adjustments that affect image quality without calling the main menu.

BACKLIGHTING, Brightness, Contrast, Colour, Tint, Sharpness and Filter adjustments appear at the bottom of the screen one after the other when the ⬇️ and ⬆️ keys are pressed.

### MESSAGES

The following messages may appear during operation of the system:

#### No Signal

The system does not recognise any signal applied to the selected input. In this case:

- Make sure the selected input is connected to a video or graphic signal and that that source is functioning correctly.
- Check the condition of the cables used to connect the system to the various sources.
- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.

#### Out of range

This message appears when either the resolution or the vertical/horizontal frequency of the input signal exceeds system specifications (e.g. a QXGA graphic signal) or when an input is supplied with an incompatible signal (e.g. after setting the components input to YCrCb 15kHz a progressive signal is connected).

## 9 CLEANING AND MAINTENANCE

The Display does not require any internal adjustments and it does not contain any user-servicable parts.

For any service requirements seek qualified technical assistance from your nearest Dealer.

To clean the exterior of the unit use a soft cloth moistened slightly with water and a small amount of neutral detergent if necessary.

Avoid direct cleaning of the rear panel's screen-printed captions.

## 10 TROUBLESHOOTING GUIDE

### **No power (LEDs always OFF)**

- Check that the unit's power switch is set to "I".
- Check that the mains power cord is correctly plugged in to the mains socket outlet.
- Check the condition of the fuse located on the power socket on the rear of the screen.
- Replace the fuse located on the screen power socket with an equivalent and identically rated fuse (T5A H).
- If the fuse blows repeatedly, seek technical assistance from your nearest Dealer.

### **No picture**

- Make sure the selected input is connected to a video or graphic signal and that the source is functioning correctly.
- Make sure the video or graphic signals supplied by the source are compatible with the technical specifications of the HTL40 system and, in particular, with the selected input.
- Check the condition of the cables used to connect the HTL40 system to the various sources.
- Make sure the cooling air vents on the units are not blocked and that the ambient temperature is below 35°C.

### **Picture is disturbed, unstable or noisy**

- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.
- Check the condition of the cables used to connect the HTL40 panel to the various sources.
- If the problem occurs on a terrestrial broadcast source signal, check that the receiver has been correctly tuned in and that the aerial system is in good working order.

- If the problem occurs in a video signal from a video-recorder, ensure that the videotape is an original "first generation" copy and that VCR is active in the PICTURE menu.
- Adjust the Sharpness parameter in the PICTURE menu to optimise the displayed image.

### **Image incomplete along the edges (vertical or horizontal)**

- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.
- Recall the automatic image adjustment function by pressing key "A" on the remote control or the AUTO key on the screen keypad.
- Adjust the horizontal or vertical position of the displayed image using the IMAGE / POSITION menu.
- Adjust the width and height of the image, selecting Aspect in the IMAGE / ASPECT menu.
- Adjust the overscan value applied to the image on the IMAGE / OVERSCAN menu.

### **Image too dark, too pale or unnaturally coloured**

- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.
- Adjust the BACKLIGHTING parameters, Contrast, Brightness, Colour and Tint in the PICTURE menu.
  - If necessary, adjust colour temperature and Gamma Correction ( IMAGE menu).

### **Graphic image with poor quality vertical detail**

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- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.
- Press key "A" on the remote control or the AUTO key on the screen keypad to execute automatic adjustments. Adjust Frequency and Phase parameters in the IMAGE menu to optimise the vertical detail of the displayed image.

### **Video image showing colour misalignment on vertical details**

- Make sure the video or graphic signals supplied by the source are compatible with the system's technical specifications and, in particular, with those of the selected input.
- Adjust Y/C delay settings in the IMAGE menu to reduce colour misalignment.

### **Remote control not working**

---

- Check remote control battery power and correct polarity.
- Ensure there are no obstructions in front of the infrared sensor at the front of the screen or in the line of sight between the remote control and the infrared sensor.
- Check that the infrared sensor on the front of the screen is not exposed to intense light sources.

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## **11 OPTIONAL ACCESSORIES**

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You can purchase the HTL40 screen support base from your dealer as optional accessory.

Use only original or **SIM2 Multimedia** approved accessories.

**CAUTION: for wall installation, by means of suspension bracket, carefully follow the instructions and safety instructions provided by the Manufacturer and supplied together with the bracket.**

## 12 ADDITIONAL INFORMATION

### A TECHNICAL SPECIFICATIONS

#### Display

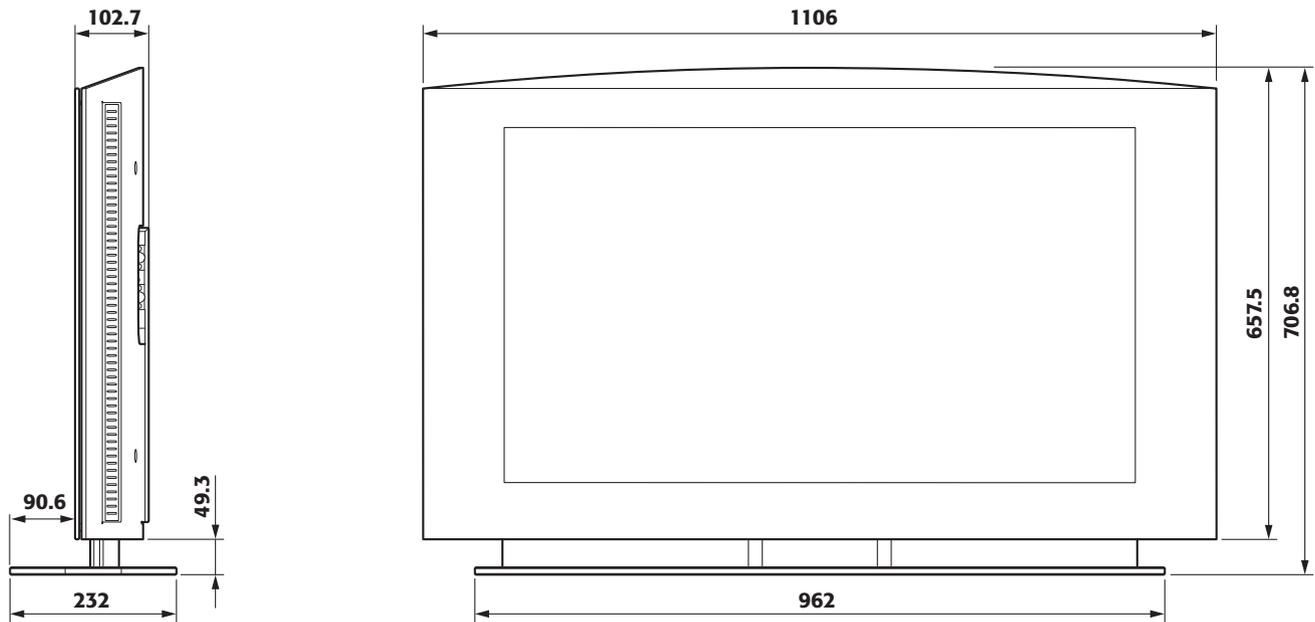
Technology:	Thin Film Transistor - Liquid Crystal Display
Matrix:	1366x768x3 pixels, 3147264 pixels for high definition images
Dimensions :	40", image aspect 16/9 native
Brightness :	600 cd/m <sup>2</sup>
Contrast :	1000:1
Vertical viewing angle:	+/- 85 °
Horizontal viewing angle:	+/- 85 °
Typical response time:	8ms
Lamp life time:	60000 hours under standard brightness conditions
Control:	keypad on panel, remote control, serial port (RS232)

#### General

Power supply cable:	(EU, UK and US); length 2 m
Power supply:	from 120 to 240 Vac, tolerance +/- 10%, frequency from 48 to 62 Hz
Peak current:	30 A max
Consumption:	200 W max
Fuse:	T 3.15A H. 5 x 20 mm
Screen dimensions:	1106x656x103 mm (LxHxD)
Weight (approx.):	35 kg
Packing:	1230x520x740mm
Operating Temperature:	10 to 35 °C
Transportation temperature:	-15 to 55 °C
Storage temperature:	-15 to 55 °C
Humidity:	20% to 95% non-condensing
Safety:	EN 60950, UL 60950
Transportability:	"desktop equipment"
Electromagnetic compatibility:	EN 55022 Class B EN 55024 EN 61000-3-2 EN 61000-3-3
Transportation:	IEC 68-2-31, IEC 68-2-32

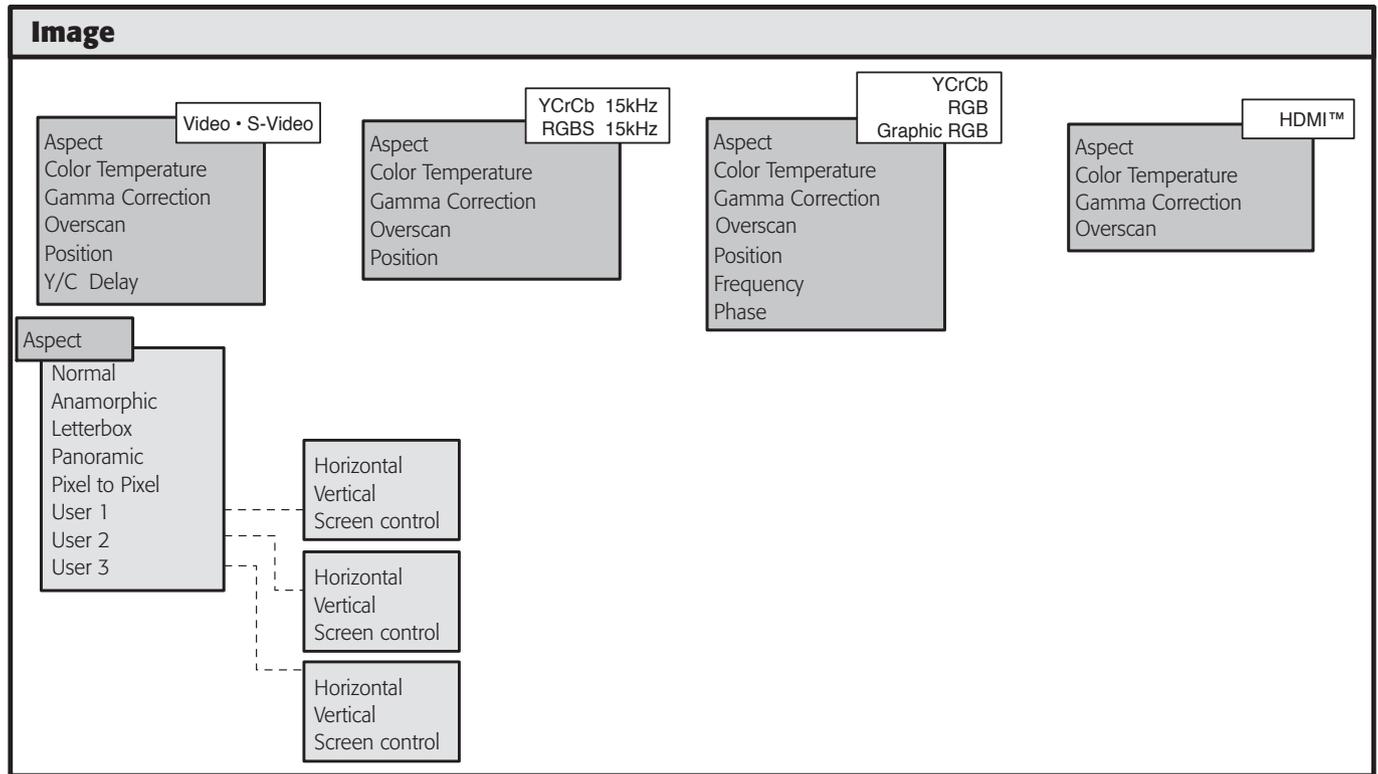
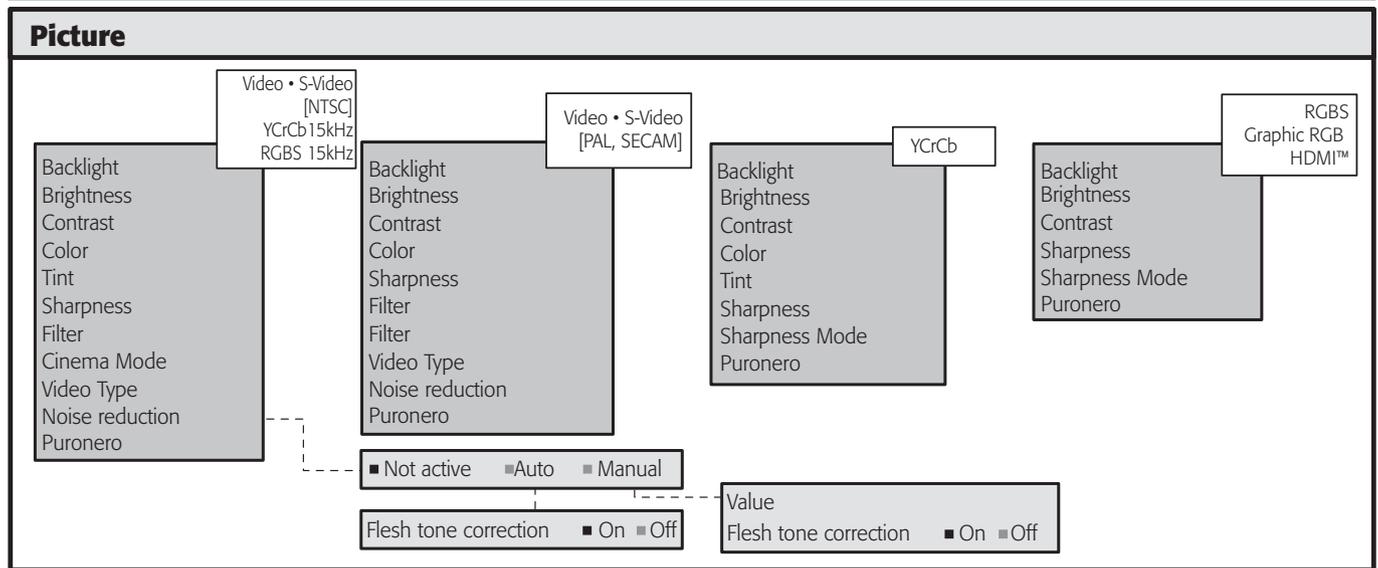
#### Electronics

Input Signals:	VBS on RCA/Phono type connector S-VIDEO on mini-DIN connector RGBHV on DB15HD connector RGBS/YCrCb on RCA connector HDMI™
Audio output:	Optical S/PDIF Audio Output
Ports:	RS232 and USB.
Control:	Panel (keypad), remote control, via RS232 from PC or home automation devices
Horizontal frequency:	from 15 to 80 kHz (up to UXGA, 60 Hz)
Vertical frequency:	48 -100 Hz
Video standards:	automatically selected (PAL,B,G,H,I,M,N,60, SECAM, NTSC 3.58 and 4.43)
High definition video:	ATSC HDTV(480p, 720p, 1080i, 1080p)
Graphic standards :	VGA, SVGA, XGA, SXGA, UXGA
Deinterlacer:	Faroudja chipset, DCDi™, 3:2 pull down sequence conversion
Control:	infrared remote control, RS232 serial (DB9 connector, female)

**B DIMENSIONS****Screen**

Unit of measure: mm

### C ON SCREEN MENU LAYOUT



## Setup

Power ON  
Test patterns  
Initial Settings

Auto  
Stand-by

## Menu

Language  
Source list  
F1/F2 keys  
Source info  
OSD background  
OSD Position  
OSD Timeout

English  
Italiano  
Français  
Deutsch  
Español  
Português

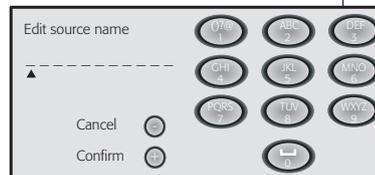
■ Yes ■ No

Magnification  
Blank  
Color temperature  
Gamma correction

F1 F2  
■ ■  
■ ■  
■ ■

√ 1 VIDEO 1	1	< VIDEO 1
√ 2 S-VIDEO 2	2	< S-VIDEO 3
√ 3 COMPONENT / RGBS 3	3	< COMP RGB 5
√ 4 COMPONENT / RGBS 4	4	< COMP RGB 6
√ 5 GRAPHICS RGB 5	5	< GRAPH RGB 9
√ 6 HDMI 6	6	< HDMI 12

Active ■ Yes ■ No  
Name >



## Memories

### Memories

- 0 Auto
- 1< S MEMORY 1 >
- 2< S MEMORY 2 >
- 3< S MEMORY 3 >

- Save current settings >
- Save initial settings >
- Rename >

### Edit memory name

▲ -----

Cancel 

Confirm 

0/1 1	ABC 2	DEF 3
GHI 4	JKL 5	MNO 6
PQRS 7	TUV 8	WXYZ 9
0		

## SUMMARY

1	INTRODUCTION	3		
2	IMPORTANT SAFETY INSTRUCTIONS	5		
3	UNPACKING	9		
	▶ Pack contents	10		
4	INSTALLATION	11		
	▶ Positioning the unit	11		
	▶ Connecting the video sources	13		
5	SWITCHING ON AND OFF	15		
	▶ Switching on/off from stand-by	15		
6	KEYPAD	17		
7	REMOTE CONTROL	17		
8	ON-SCREEN MENU	18		
	▶ Inputs	18		
	▶ Main menu	18		
	▶ Picture	19		
	▶ Image	20		
	▶ Set up	22		
	▶ Menu	22		
	▶ Memories	24		
	▶ Info	25		
	▶ Quick menus	25		
	▶ Messages	25		
9	CLEANING AND MAINTENANCE	26		
10	TROUBLESHOOTING GUIDE	26		
11	OPTIONAL ACCESSORIES	27		
12	ADDITIONAL INFORMATION	28		
	▶ a technical specifications	28		
	▶ b dimensions	29		
	▶ C on-screen menus layout	30		



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• In accordance with the manufacturer's constant product development programme, product specifications and design are subject to changes without notice.