

C3X Lumis

manuale d'uso ed installazione
user and installation manual
bedienungs und wartungsanleit
manuel d'utilisation et d'installation
manual de uso e instalación
manual de utilização
使用及安装手册
ВИДЕОПРОЕКТОР

1 INTRODUCTION

The **C3X Lumis** projector uses the maximum in signal processing technology as well as the innovative DLP™ 3 chip 1080p and a refined optical system.

It comes with inputs (1 Video Composite input, 1 S-Video input, 1 Component or RGB input, 1 RGB graphic input and 2 HDMI™ inputs) which allow connection to the most disparate sources, both analogue and digital: DVD readers, video recorders, satellite and terrestrial receivers, computers, videogame consoles, video cameras etc. Its image processing system permits optimum reproduction of a wide range of input signals, from interlaced video to high definition and digital graphics. Faithful reproduction of signals at higher resolutions (such as high definition video and graphics) occurs without loss of information or reduction of image sharpness thanks to the processor's high pixel rate signal acquisition capabilities. Different input signal resolutions can be adapted to match the specified screen resolution without loss of image quality, thanks to a generous selection of default aspect ratios, some of which are user definable.

All picture adjustments can be made with the remote control interacting with a simple menu-activated On Screen Display; alternatively, the projector can be controlled by a home automation system through its serial port or the USB port.

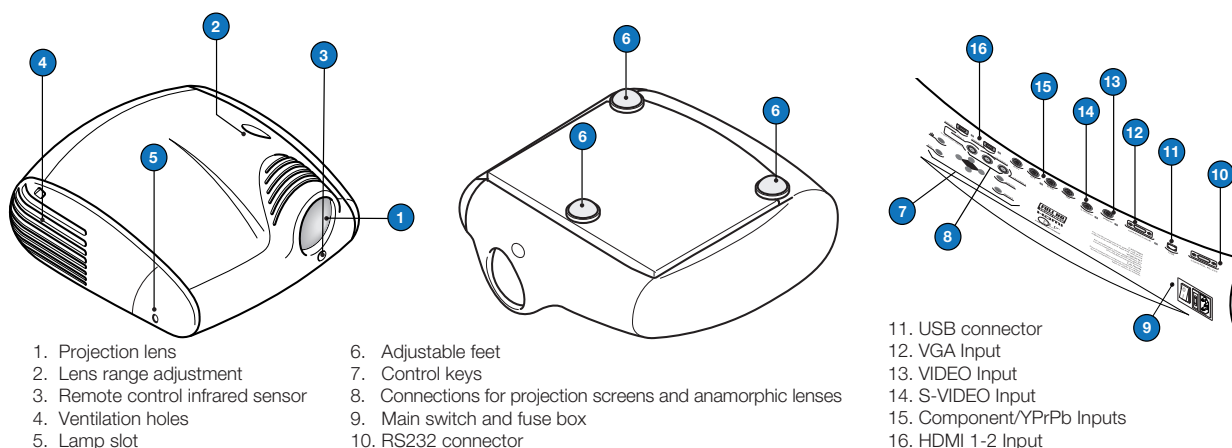
The appliance has been subjected to exhaustive operating tests by SIM2 to guarantee the highest quality. The projector bulb life should thus initially be around 30-60 hours. In addition to the customary checks, the Quality Control department also runs additional statistical tests before shipment. In such cases, the packaging may show signs of having been opened, and the hours of lamp operation may prove to be higher than those normally shown when only standard tests are performed.

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DLP and DMD are registered Texas Instruments trademarks. HDMI, the HDMI logo and the expression High-Definition Multimedia Interface are trade marks or registered marks of HDMI licensing LLC

2 SAFETY WARNINGS



CAUTION

To reduce the risk of electrocution, disconnect the power supply cable on the rear panel before removing the top cover of the projector. For technical service refer to trained personnel authorised by the manufacturer.

LAMP WARNING

If the lamp suddenly explodes with a loud bang, turn off the projector immediately and air the room thoroughly before using it. Do not attempt to replace the bulb: contact your local service centre.

ENVIRONMENTAL INFORMATION

This product contains materials derived from natural resources during its manufacture. It may contain materials which constitute a health and environmental hazard. To prevent harmful materials from being released into the environment and to promote the use of natural materials, SIM2 Multimedia provides the following information regarding the disposal and recycling of the product. Waste electrical and electronic materials (WEE) should never be disposed of in normal urban waste disposal facilities. The label on the product, shown here, indicating a cancelled garbage can, is intended to remind you that the product requires special handling at the end of its service life. Materials such as glass, plastic and some chemical compounds are recoverable and can be recycled for reuse. Please observe the following instructions:

- 1. When you no longer wish to use your electrical and electronic equipment, take it to your local waste disposal facility for recycling.**
- 2. You may return your old equipment to your dealer free of charge when you buy a new product which is equivalent or has the same functions as the old one. Call SIM2 Multimedia to find your local dealer.**
- 3. If you need more information regarding recycling, reuse and product exchanges, please contact customer service at the number given in the manual.**

Lastly we suggest further measures to safeguard the environment, such as recycling of internal and external packaging (including that used for shipping) in which the product was delivered. With your help, we can reduce the amount of environmental resources required to make electric and electronic equipment, reduce the use of waste tips for used equipment and, in general, improve our quality of life by making sure that hazardous materials are correctly scrapped. Incorrect treatment of the product at the end of its service life and failure to follow the above disposal instructions are punishable under local legislation.

CAUTION

As the optical system of the C3X Lumis is extremely compact and has the purpose of developing very high brightness and contrast, it is possible that a small quantity of light is visible out of the projection area varies depending on the type of lens used and the zoom and shift setup. This characteristic of the optical system is to be deemed as normal. In order to reduce this effect SIM2 recommends that the area surrounding the projection screen is as dark as possible.

The C3X Lumis is a three DLP™ chip projector and uses three high resolution DMDs™ (Red, Green, Blue). These three DMDs™ are precisely aligned through a high precision process which reduces the alignment error to within the foreseen limits of tolerance. The maximum limits of misalignment are the following: Screen Centre: up to 0.7 pixels between each colour. Screen Borders: up to 2 pixels between each colour. Note: 1 pixel corresponds to 10 thousandths of a millimetre on the DMD™.

Read all chapters of this manual carefully before switching on the projector. This manual provides basic instructions for operating the C3X Lumis system. Installation, preliminary adjustments and procedures that necessitate the removal of the top cover and contact with electrical components must be performed by authorised, trained technicians. To ensure safe operation and long term reliability use only the power cables supplied by the manufacturer. Observe all warnings and precautions.

Read this manual carefully.

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 units.

Inside the housing there are electrical parts carrying dangerously

high voltages and parts operating at high temperature. Never open the housing. Entrust all servicing and repair work to an authorised Service Centre. Opening the housing voids the warranty.

Disconnecting the appliance from the power supply.

The device which disconnects the unit from the mains is the power plug. Ensure that the power cable plugs and the electrical mains socket outlets are easily accessible during instal-

lation operations. Pull the plug, not the cable, to disconnect the unit from the mains. Use only the specified power supply. Connect the units to a mains electrical supply with rated voltage of between 100-240 VAC, 50/60 Hz and equipped with a protective earth connection. If you are not sure of your domestic mains rating, contact an electrician. Take care to avoid overloading the power socket and any extension leads.

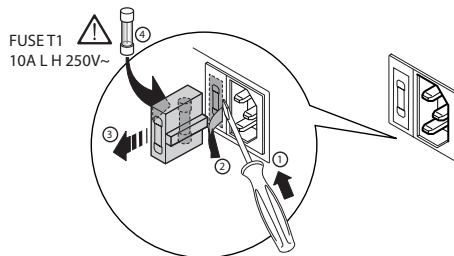
Switching the projector off

Pay attention to the switch off procedure for the projector. The system must always be brought back to the stand-by state to allow the projector to carry out the cooling procedure. Should this not happen, for example due to a power cut, the projector may enter a state of protection which leads to switch-on being blocked.

This block will last until the internal components of the system have completely cooled down.

Changing the fuses.

Before changing the fuse, disconnect the unit from the mains power supply. The fuse compartment is next to the power supply connector. Remove the fuse holder with a flat head screwdriver and replace the fuse. Fit the replacement fuse. Use only type T 10A L H fuses for the projector.



Be careful with cables.

Make certain cables are routed so that people will not be impeded or tripped up. Keep all cables away from children. Install the unit as close to the wall socket as possible.

Avoid stepping on power cables, make certain they do not become tangled, and never jerk or tug them; do not expose them to sources of heat, and make sure they do not become knotted or crimped.

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 during electrical storms and when not in use.

To prevent damage from lightning strikes in the vicinity, disconnect the unit during storms or when the system is going to be left unused for a long time.

Avoid contact with liquids and exposure to damp.

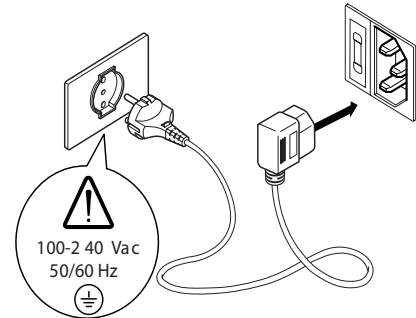
Do not use the unit near water (sinks, tubs, etc.); do not place objects containing liquids on or near the units and do not expose them to rain, humidity, drops of water or sprays; do not use water or liquid detergent to clean them.

Place the unit on a stable surface.

Place the projector on a stable surface or use the ceiling mounting bracket provided. Never place the projector on its side or rear, on the lens or top panel.

Avoid contact with liquids and exposure to damp.

Connect the unit to the mains as shown in the figure.



Do not allow the units to overheat.

To prevent overheating, allow a free space of at least 20 cm at the back of the projector. Do not obstruct the ventilation slots. Do not place the unit near heat sources such as heaters, radiators or other devices (including amplifiers) that generate heat. Do not place the unit in an area where there is insufficient space (shelving units, bookshelves, etc.) and in general avoid placing it in poorly ventilated areas as this may prevent sufficient cooling.

Never look directly at the projection lamp.

Never look directly at the objective lens when it is on as the intense light may damage your eyes. Take particular care that children cannot do so.

Take special care regarding movement of the lens.

Do not place objects in the slots on the side of the lens, and also ensure that vertical lens movements are not impeded by external objects.

Do not insert objects through the openings in the unit.

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

Power saving.

We advise disconnecting the unit from the power supply when not in use. In this way you will achieve considerable power savings while at the same time protecting internal electrical parts from wear.

PRODUCT DISPOSAL

This projector is fitted with a pressurised lamp containing a small amount of mercury. These lamps may be subject to special disposal regulations due to environmental considerations. For disposal or recycling information, please contact your local authorities or, if you are located in the USA, the Electronic Industries Alliance.

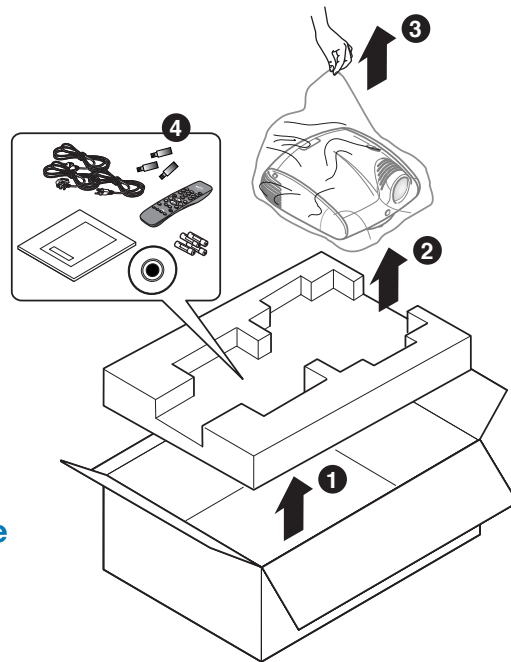
www.eiae.org
www.lamprecycle.org

3 PACKAGE CONTENTS

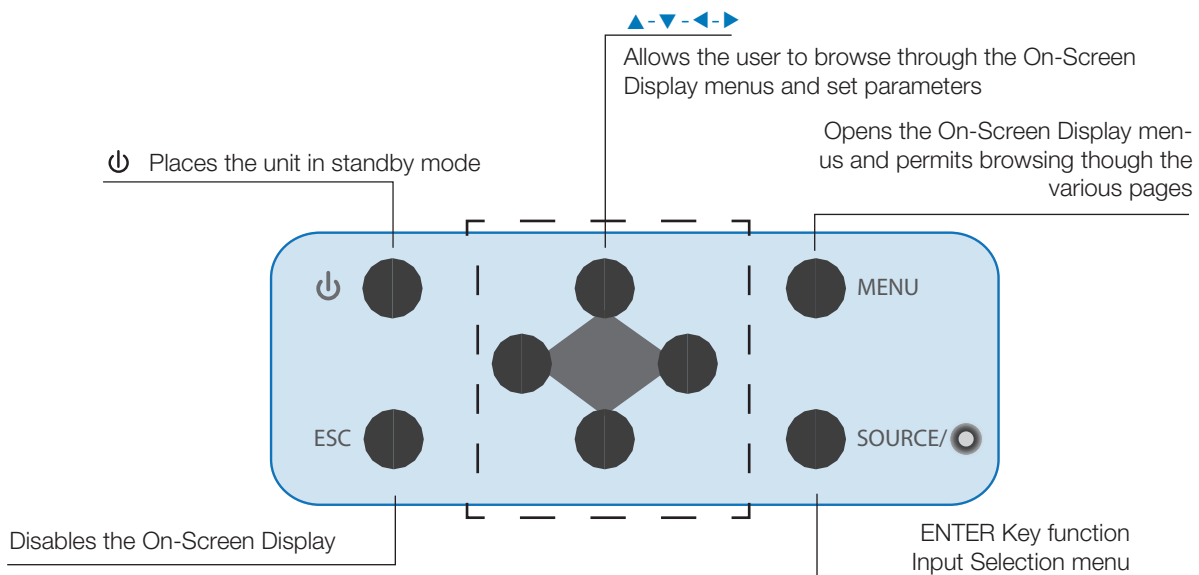
The packing box contains the following:

- Projector
- Remote control
- Four 1.5V AAA type batteries for the remote control
- Three network cables for the projector (EU, UK, USA)
- CD LiveColors Calibration
- Instruction booklet
- Three jacks for the 12V connections.

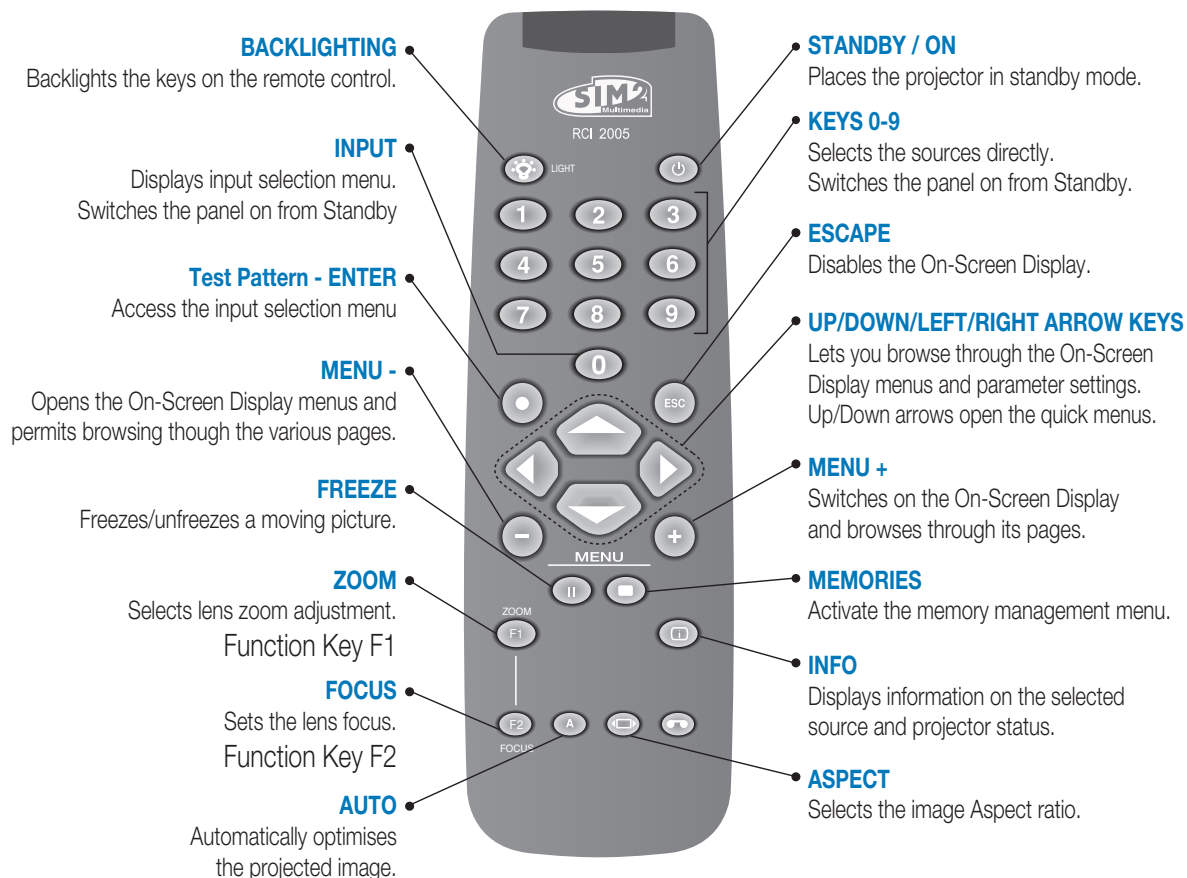
!! CAUTION:
If any of the accessories are missing, please contact your dealer as soon as possible.
Handle the packaging with care.



4.1 CONTROL (PROJECTOR KEYPAD)



4.2 CONTROL (REMOTE CONTROL)



!! CAUTION:

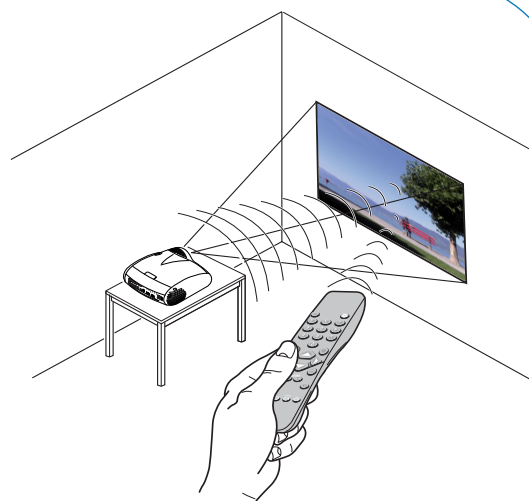
The remote control works with four 1.5 V AAA format batteries.

Insert the batteries being careful to respect their polarity, as shown inside the battery slot of the remote control. Replace the batteries when the remote control is not able to send commands to the projector.

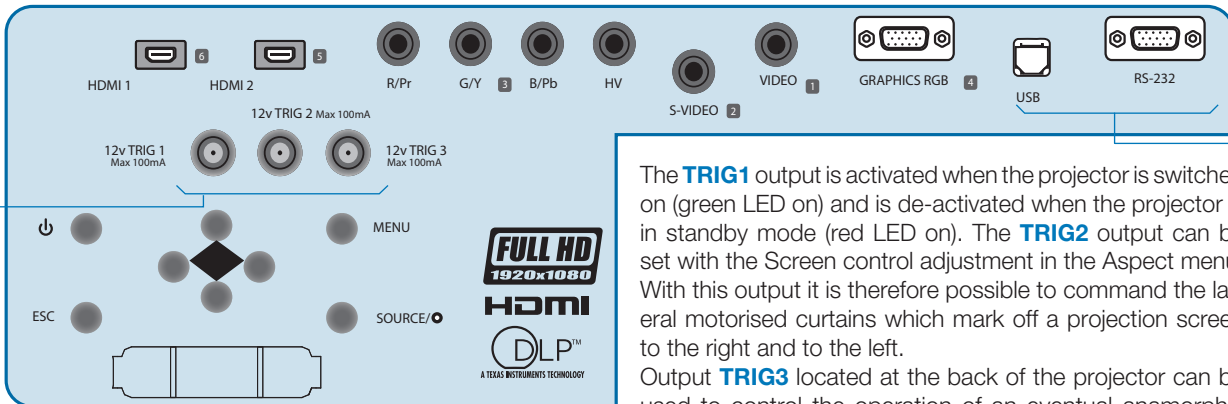
Remove the batteries from the remote control in the case in which it remains idle for a long time in order to avoid any leaks of chemical substances from the batteries corroding the remote control circuits.

The remote control sends commands to the projector through infrared rays.

Thanks to the receivers located in front of and behind the projector, it is possible to send commands by pointing the remote control towards the projection screen; the infrared rays will be reflected by the projection screen towards the projector.



5 CONNECTION PANEL



The **TRIG1** output is activated when the projector is switched on (green LED on) and is de-activated when the projector is in standby mode (red LED on). The **TRIG2** output can be set with the Screen control adjustment in the Aspect menu. With this output it is therefore possible to command the lateral motorised curtains which mark off a projection screen to the right and to the left.

Output **TRIG3** located at the back of the projector can be used to control the operation of an eventual anamorphic lens located at the front of the projector and can be set from the OSD.

USB - RS232 INTERFACE

The projector functions can be controlled by Personal Computer or other remote control devices by connecting them to the **RS232** or **USB** connectors located on the connection panel. It is advisable to use high-quality **USB** or serial cables in order to ensure that the electric control signals are not degraded and are thus properly interpreted by the projector. In order to use the **USB** port a specific SIM2 driver, which can be supplied by your local Dealer/Distributor, must be installed on the control PC. On request, SIM2 also provides a document describing the protocol used for programming remote control systems.

THE INPUTS CAN BE USED AS FOLLOWS:

(1) VIDEO

Television receiver, DVD player, Video recorder, Camcorder, Video game console

(2) S-VIDEO

Television receiver, DVD player, Video recorder, Camcorder, Video game console

(3) COMPONENT / RGBS

Television receiver, HDTV receiver, DVD player, Video recorder, Camcorder, Video game console, Blue-Ray player;

(4) GRAPHICS RGB

Computer

(5-6) HDMI

HDTV receiver, DVD player, Video game console, Blue-Ray player;

VIDEO SOURCE CONNECTIONS

Connect the cables from the video sources, any serial cable from an external control device to the rear panel of the **C3X Lumis**.

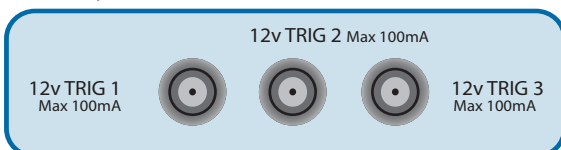
To get the most out of the **C3X Lumis** system, make connections to the various signal sources using quality cables made specifically for video applications. Be careful to:

- lay the cables so that they cannot obstruct people's movements;
- insert the cables into the connectors with care so that the feet are not damaged;
- do not twist or crush the cables;
- do not tear the cables out when disconnecting them from the various equipment.

! CAUTION: Often the sources (television receivers, video recorders, DVD players, etc.) have several outputs. To get the most out of your system, carefully select which output to use. Generally the type of signal that provides the best image quality is the HDMI™ signal, followed by the RGB, Components, S-Video and Composite Video signals, in this order. The C3X Lumis system is nevertheless equipped with an excellent Video Decoder and De-interlacer, so even lower-quality signals can produce very pleasant images.

OUTPUTS FOR MANAGING MOTORIZED SCREENS

The **C3X Lumis** is equipped with three outputs (voltage Vdc) for commanding motorised projection screens, commanding motorised curtains which can be used to mark off the usable surface area of the projection screen when the format of a projected image is changed and for controlling an anamorphic lens.



6 INSTALLATION

Place the projector on a stable surface or use the optional ceiling bracket.

CAUTION: When using the ceiling mount bracket, the safety instructions provided with the bracket must be strictly observed.

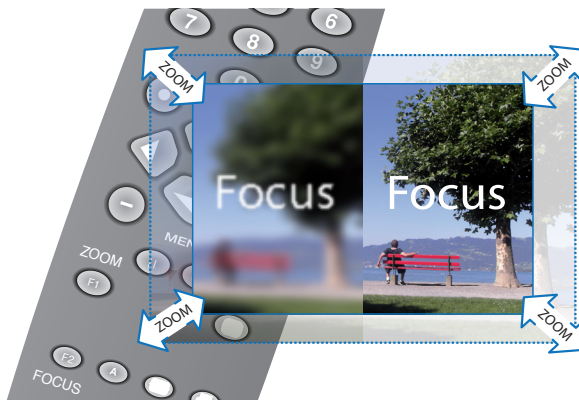
If you use a bracket other than the one provided by SIM2 Multimedia, make sure the projector is located at least 65 mm from the ceiling and that the bracket does not block the air intake and outlet slots.

If the image slopes left or right, adjust the two feet on the bottom to obtain a level position, lining up the base of the projected image with the base of the projection screen.



Placed the projector at the desired distance from the screen: the size of the projected image depends upon the distance between the lens and the screen and the zoom setting.

Use the motorised zoom by pressing the **ZOOM** key on the remote control to widen or narrow the size of the projected image.



Use the motorised focus, by pressing the **FOCUS** key on the remote control, to obtain the highest definition of the projected image; correct focussing should allow each individual pixel composing the projected image to be distinguishable on approaching the screen. If the use of the two screwed feet located on the base is not sufficient, it will be necessary to lean the projector and correct the trapezoidal distortion by adjusting the Horizontal/Vertical Keystone available in the Installation menu.

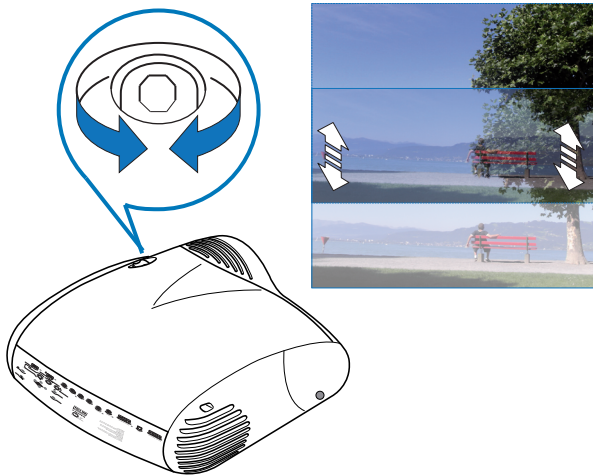


Using the Orientation item in the **Setup** menu, you can either turn the projected image upside down or create a mirror image of it, so as to adapt it to the configurations of frontal, frontal on ceiling, rear, or rear on ceiling installation. (Reference to page 20)



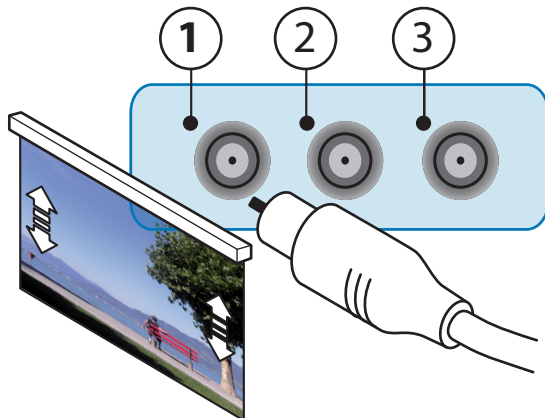
MANUAL LENS RANGE DEVICE

The manual lens range device allows the projected image to be shifted vertically upwards respect to the lens centre. The range of the vertical shift equals 50% of the height of the image.



It is possible to use a hideaway motorized screen. The activation switch can be provided using output **TRIG1** (+12V) located on the back of the projector.

This output is activated (voltage +12 V DC) when you turn the projector on. It is de-activated (no output voltage) when the projector is in standby status.

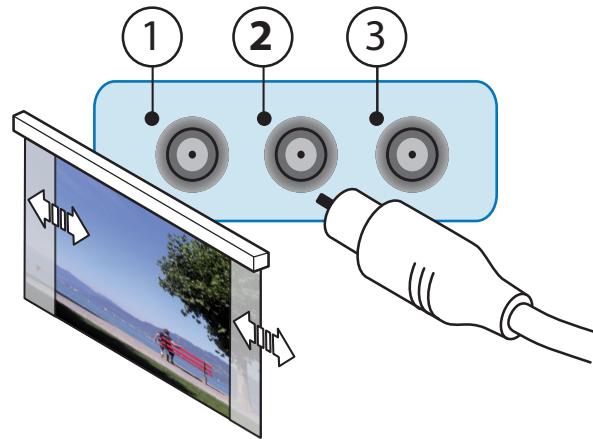


You can also use black motorized hideaway curtains to mark off the projection screen when you change the format of the projected image. The activation command can be provided using output **TRIG2** located on the back of the projector.

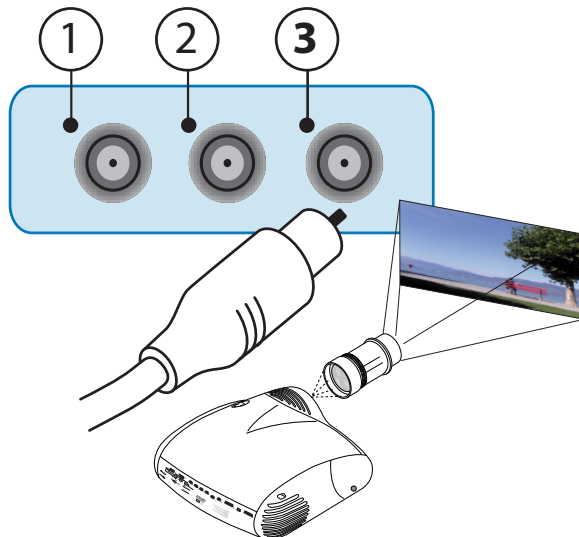
For rear installations, a suitable translucent screen must be used. For front installations, it is advisable to use a screen with non-reflective black edges that perfectly fit the projected image.

You should use screen with unity gain. Directional screens with high gain may be used effectively only for small groups of spectators located at the centre of the screen.

Do not allow room lighting to shine directly onto the screen during projection. This would reduce the contrast image. Keep the projection screen away from furniture or other objects with reflective surfaces, or light-coloured walls.



It is possible to install an anamorphic lens in the frontal part of the projector. The lens control commands of the anamorphic lens can be found at the **TRIG3** output located at the back of the projector.

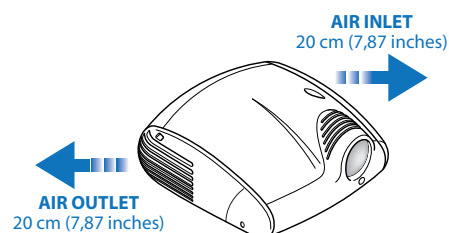


!! CAUTION:

For all information and data relative to assembly and use of the anamorphic lens, we recommend referral to the documentation supplied and attached with the lens.

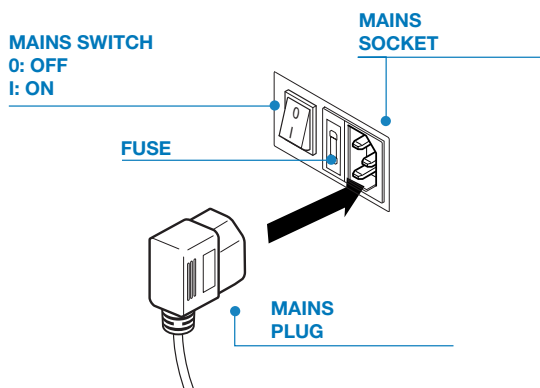
PROJECTOR VENTILATION

The lamp inside the projector generates a great deal of heat, so a continuous air flow is needed in order to keep the projector operating efficiently.



The air intake and outlet are positioned on the sides of the projector, and it is essential that these air vents are not obstructed. SIM2 recommends that you leave 20cm free space on each side. If the projector must be installed inside a box or a confined space, it must be fed cool air in order maintain good ventilation. Insufficient ventilation causes the projector to overheat, and this can lead to the projector switching off randomly and may damage the lamp, significantly reducing its life.

7 START-UP AND SHUTDOWN



Switch the projector mains switch to I. In position I, the projector runs a number of initialization steps (red and blue lights on), and then it goes into standby status.

START-UP FROM STANDBY STATUS

On the remote control, press one of the keys:

- 0: to reactivate the last selected input;**
- 1-9: to directly access the corresponding input;**

On the keypad, press one of the keys:

press the On/Off key;

When the "0" key is pressed, the projected image comes from the input selected at the time of the previous shutdown.

On start-up from stand-by the lamp turns on; the image appears after a short time for heating up. The projected image comes from the input selected at the time of the last shutdown. If too little time has elapsed since the last shutdown, the lamp may not light if it is too hot. In this case, you should let the lamp cool off for a few minutes.

INDICATIONS OF THE PROJECTOR'S STATUS

STATUS	STATUS LEDS C3X LUMIS	LED	STATUS DISPLAY C3X LUMIS
Standby	Red		-
On	Green		-
Cooling	Green/Red		-
Overheating	Red		Code: 6A
Fan error	Red		Code: 60
Control Error	Red		Code: 22
Lamp error	Red		Code: 40
 FLASHING LED			

SHUTDOWN AND RETURN TO STAND-BY

From the remote control: press the key .

From the keypad: press the key .

Upon shutdown, the projector reverts to standby status, and memorizes the input selected at the time of shutdown.

The fans keep working until the lamp has cooled (flashing red/green light), once this has happened they automatically stop. Do not turn off the projector with the network switch until the fans stop running.

8 VIDEO CONNECTIONS

! CAUTION:

When switching the inputs, the image is deliberately 'frozen' in order to give the system time to stabilize. During this time you may see colour changes and noise on the screen; this is completely normal and does not represent a malfunction of the projector.

COMPOSITE VIDEO (1)

Fit an RCA connector with a Composite Video (CVBS) signal to this input. The output connector on the external appliance is normally coloured yellow and will often be labelled VIDEO. Other signal and socket formats may be preferable (because they give better image quality), but this type of output socket is still the most commonly used, and nearly all television receivers, video recorders, DVD players and camcorders, etc. use it.

S-VIDEO (2)

Fit a mini-DIN connector with an S-Video signal to this input. The corresponding output on the external device is normally identified by the labels S VIDEO or Y/C. This type is nearly as common as Composite Video, and is preferable to the latter, since it gives higher image quality.

RGB - YPrPb (3)

These inputs use a set of 4 RCA connectors. RGB and Component signals can be applied to each set of connectors.

If you use the RGB inputs you can select YPrPb video mode. The RGB signals may have composite synchronisation on the green signal (RGsB), composite synchronisation on the HV signal. Connect the R, G, B outputs of the source to the respective R, G, B inputs of the C3X Lumis system (taking care not to invert the positions) and any synchronisation signals to the HV. With regard to the RCA connectors, when hooking up, use the colours of the RCA connectors as an aid as follows: the R connector is red, G is green, B is blue and HV is white. You can use a SCART to RCA adapter cable to connect the RGB signal from a source equipped with a SCART output to this input.

The Component signals connect to the Y, Pr and Pb inputs: take care that the inputs match the outputs on the source device. Only horizontal scanning frequencies of 15 kHz (standard video resolution) or 32 kHz or higher (high definition video, with progressive scanning, high definition video) can be applied to this input.

Progressive signals usually provide better quality than interlaced signals, but if the source features both progressive and de-interlaced signal outputs it is good practice to compare the quality of the pictures reproduced by the C3X Lumis in the two cases: the de-interlacing performed by the C3X Lumis is often more effective than that performed by the sources themselves.

GRAPHICS RGB / YPrPb (4)

This input should be connected to an RGB/YPrPb 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.

HDMI™ (5-6)

HDMI (High Definition Multimedia Interface) integrates an uncompressed high definition video signal with a multi-channel audio signal and allows exchange of control data between the video source and the C3X Lumis.

The HDMI™ input allows connection to video sources that use the HDCP (High-Bandwidth Digital Content Protection) protocol to protect their contents. Once the video source has been connected to the HDMI™ input, internal processing by the C3X Lumis separates the video information from the audio information.

Sources with a DVI-D output can be connected using a suitable DVI-D > HDMI cable. HDMI provides the user access to the highest image quality currently available. The system uses a code known as HDCP (High-bandwidth Digital Copy Protection), which protects the recorded supports from being copied illegally via satellite, cable, PC and latest-generation disk-based systems such as Blue-Ray. The connection between the source and display require that the two devices perform a “hand-shake” and exchange code keys before being able to display an image. For this reason it is perfectly normal to note a slight delay before the image appears on the screen.

9 ON-SCREEN MENU

All system functions can be operated from the keypad or remote control, with the aid of a complete, user-friendly on-screen menu.

INPUTS MENU

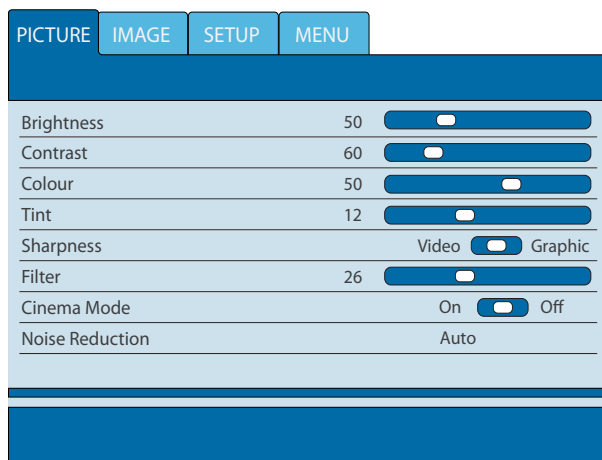
The input selection menu is opened by pressing **0** on the remote control or with the source key on the projector keypad. To select an input, scroll through the list with the **▲** and **▼** keys until the desired input is highlighted and then press **●** (“enter” key of the remote control). Input selection menu display terminates if you press the **ESC** key or when the On-Screen Menu display timeout interval (set in the Setup Menu) has elapsed or after the signal has been recognised.

RGB and YPrPB signals can be applied to some inputs. The association between the input and the type of signal (RGB or YPrPb) comes about, when required, through pressing symbol **>**. At the same time the signal changes without pressing key **●** (“enter” on the remote control).

Having selected the signal which reaches the source (through keys **▲** and **▼**), press **MENU+/MENU -** to confirm and close the pull-down menu; to the right of symbol **<** you will see the value just set displayed. During the short time that it takes to find the signal, a box will appear showing the signal requested. Additional information regarding the signal such as the video standard (for video signals) or definition (for graphic signals), the aspect and the current user memory can be displayed by pressing the number key on the remote control corresponding to the selected source. From the **SETUP** menu it is possible to choose whether or not to display the information: for further details, see item **SOURCE INFORMATION** in the part dedicated to the **MENU**. The information relative to the selected menu can be displayed on the projection screen by press button **INFO**.

MAIN MENU

All the adjustments and settings are in the main menu, these allow the projector to be set according to individual requirements. The main menu is subdivided into 4 main sections (**PICTURE**, **IMAGE**, **SETUP** and **MENU**) within which there are various sub-menus and sub-adjustments. The following are the principle instructions for navigating the main On Screen Display correctly.



NAVIGATING THE MAIN MENU

MENU (projector key)

MENU + or **MENU-** (on the remote control)

- To access the On Screen Display
- To change from PICTURE to IMAGE to SETUP to MENU
- To exit the On Screen Display

◀▶▲▼ (projector keys)

◀▶▲▼ (on the remote control)

- To navigate within the menu palettes
- To enable or disable a menu function
- To increase or decrease a function value

ESC (projector key)

ESC (on the remote control)

- To exit the On Screen Display
- To close an open sub-menu

USE OF ADJUSTMENT FUNCTIONS

1. VARIATION OF A NUMERIC VALUE



- Access the palette of the desired menu by using keys **MENU**, **MENU +** or **MENU-**.
- Place yourself on the parameter of which you wish to change the value using keys **▲▼**.
- Change the value of the parameter using keys **◀▶**.

2. ACTIVATION OF A FUNCTION



- Access the palette of the desired menu by using keys **MENU**, **MENU +** or **MENU-**.
- Place yourself on the parameter of which you wish to change the value using keys **▲▼**.
- Enable or disable the function using keys **◀▶**.

2. ACCESS TO THE FUNCTIONS IN THE SUBMENU

○ (available submenus)

- Access the palette of the desired menu by using keys **MENU**, **MENU +** or **MENU-**.
- Place yourself on the parameter of which you wish to explore the sub-menu using keys **▲▼**.
- Press the **INPUT/** key of the projector or the remote control to access the sub-menu.
- Navigate the sub-menu by using keys **◀▶▲▼** and proceed with changing the desired parameters.

! CAUTION

The various menus only propose adjustments pertaining to the video signal being used. For example certain adjustments typical of the video signal, not necessary for graphics signals, do not appear in the menus and vice versa. It can happen that some adjustments are not present within the menu: this could be due to the fact that the projector in question is not equipped with any specific adjustments.

PICTURE

The setup menu groups adjustments that have an impact on the image characteristics. Any adjustments not available for a given input will not be displayed in the menu. Table 4 here below summarises the adjustments available for each input.

ADJUSTMENTS	INPUTS					
	VIDEO S-VIDEO	RGBS 15 KHz YPrPb 15 KHz	RGBS	YPrPb	RGB Graphic	HDMI
Brightness	○	○	○	○	○	○
Contrast	○	○	○	○	○	○
Colour	○	○	○	○	○	③
Tint	①	-	-	-	-	-
Sharpness	○	○	○	○	○	○
Filter	○	-	-	-	-	-
Sharpness mode	-	○	○	○	○	○
Cinema mode	○	○	○	-	-	-
Video Mode	-	-	-	-	-	-
Noise reduction	○	○	○	②	○	○
① Only present if the Standard Video is NTSC						
② Only present if the signal is interlaced						
③ Only present if the HDMI input signal is YPrPb format						

BRIGHTNESS

Use this control to adjust the darker areas of the picture (black level), without affecting bright areas. Increasing the value will give more detail in darker parts of the picture. 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 ensure that all the objects can be separately identified.

CONTRAST

Use this control to adjust the image's white level without affecting its 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 objects with lower level lighting, and try to ensure that all the objects can be separately identified.

COLOUR

This control (also called Saturation) increases or decreases the picture colour intensity. When set to zero, colour images will be shown in black and white. Increase the value until the colours appear natural: suitable references include skin tones and the green in grass in landscape shots.

TINT

This adjustment controls the purity of colours. Basically it determines the red-green ratio of the picture. Decreasing the value increases the red content of the image, increasing it increases the green content. 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. For an interlaced or progressive video signal, set to VIDEO; for PC graphics signals, set to GRAPHICS. If the VIDEO option is set, it applies NOISE REDUCTION to increase the clarity of the image.

NOISE REDUCTION

This adjustment lets you choose the value of the noise reduction filter. Simply select the underlying cursor and set the values using keys ◀ and ▶ on the remote control.

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 Telecin device with 3:2 or 2:2 pull-down). In this case a de-interlace algorithm optimised for this type of signal is applied. Selecting AUTO mode causes the de-interlacer to analyse signal characteristics and apply the correct de-interlace mode automatically.

IMAGE

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

IMAGE

IMAGE

SETUP

MENU

Aspect	User 2	☐
Colour Management		☐
Gamma Correction		☐
Dynamic Black	Yes	☐ No
Overscan	+ 0	☐
Position	Hor. - 9 Vert. + 0	☐
Frequency	+ 0	☐
Phase	+ 0	☐

The table here below summarises the availability of the various functions according to the video input used.

ADJUSTMENTS	INPUTS					
	VIDEO S-VIDEO	RGBS 15 KHz YPrPb 15 KHz	RGBS	YPrPb	RGB Graphic	HDMI
Aspect	☐	☐	☐	☐	☐	☐
Colour Management	☐	☐	☐	☐	☐	☐
Gamma correction	☐	☐	☐	☐	☐	☐
Dynamic Black	☐	☐	☐	☐	☐	☐
Overscan	☐	☐	☐	☐	☐	-
Position	☐	☐	☐	☐	☐	-
Frequency	-	☐	☐	☐	☐	-
Phase	-	☐	☐	☐	☐	-
Y/C DELAY	☐	-	-	-	-	-
Signal Range	-	-	-	-	-	1

1 Only if the signal is in RGB mode

ASPECT

This adjustment allows you to change the dimensions and aspect ratio (relationship between width and height) of the displayed image. There are six default aspects available and three user aspects (with user-settable parameters). You can

select a different aspect for each source: the selected aspect ratio will be automatically applied the next time the relative source is displayed.

You can also select the required aspect ratio from the remote control by repeatedly pressing the key **◀▶** or by pressing the key **◀▶** and one of the number keys (1...9).

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:

correctly displays a 16:9 image.

Letterbox:

displays a 4:3 letterbox image (source signal with black bands above and below the picture) in such a way that it fills the 16:9 screen and maintains the correct aspect.

Panoramic:

widens the 4:3 image cutting off a strip from the top and bottom. Panoramic is ideal for displaying a 4:3 image on the 16:9 screen of the display.

Subtitles:

this moves the image upwards, making enough space for the subtitles to be seen.

Pixel to Pixel:

makes a pixel to pixel map of any image, without introducing any alteration to adapt 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 bordered by vertical and/or horizontal black bands.

Personal 1, 2, 3:

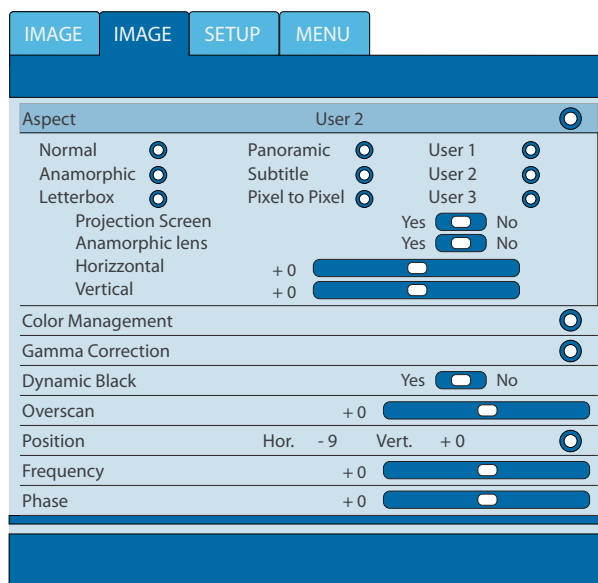
can be used if none of the preset formats are satisfactory. User formulas make it possible to continuously adjust the picture size horizontally and vertically and hence the aspect ratio.

Trig2 Activation - Use of the electric curtains

By activating the "Drop-Down" option from the aspect menu it is possible to manage the movement of additional electric projection screens.

Trig3 Activation - Use of the Anamorphic Lens

By activating the "Anamorphic Lens" option it is possible to manage the use of an optional anamorphic lens.



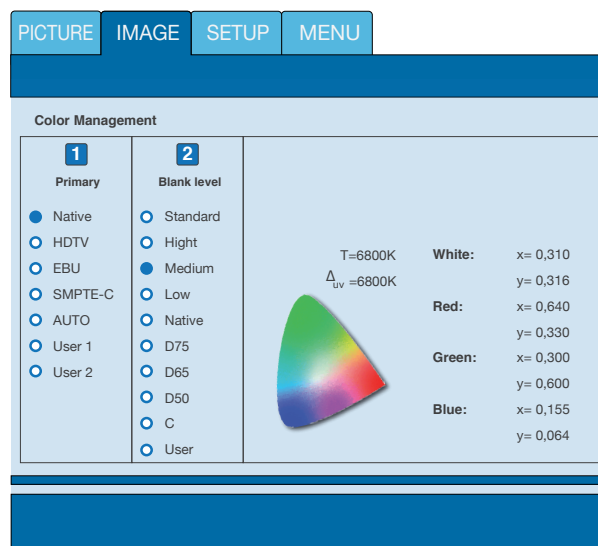
The screenshot shows the 'IMAGE' menu with tabs for IMAGE, SETUP, and MENU. The 'Aspect' section for 'User 2' includes options for Normal, Anamorphic, Letterbox, Panoramic, Subtitle, and Pixel to Pixel, each with a radio button. Below these are toggle switches for 'Projection Screen' and 'Anamorphic lens', both set to 'Yes'. Horizontal and vertical sliders are shown at the '+0' position. The 'Color Management' section has a radio button set to 'User 2'. 'Gamma Correction' is set to 'User 2'. 'Dynamic Black' is set to 'No'. 'Overscan' is set to '+0'. 'Position' has 'Hor.' at '-9' and 'Vert.' at '+0'. 'Frequency' is set to '+0'. 'Phase' is set to '+0'.

! CAUTION

With Progressive HDMI signals of any resolution, horizontal adjustment of the "User" aspect can only be carried out in decrease: the increase adjustment is intentionally held at zero.

COLOUR MANAGEMENT

In the first column relative to colour space, it is possible to select one of the 5 preset settings. When using LiveColor Calibration software, the USER modes may also be used, these allow manual adjustment:



The screenshot shows the 'PICTURE' menu with tabs for PICTURE, IMAGE, SETUP, and MENU. The 'Color Management' section has two columns: 'Primary' (1) and 'Blank level' (2). Under 'Primary', options include Native, HDTV, EBU, SMPTE-C, AUTO, User 1, and User 2. Under 'Blank level', options include Standard, High, Medium, Low, Native, D75, D65, D50, C, and User. A color triangle diagram is shown with 'T=6800K' and 'Δ_{liv}=6800K'. To the right, colorimetric data is listed: White (x=0,310, y=0,316), Red (x=0,640, y=0,330), Green (x=0,300, y=0,600), and Blue (x=0,155, y=0,064).

The default settings are:

NATIVE (the projector's native primary colours)
HDTV, EBU, SMPTE-C, primary colours defined by the standards
AUTO, mode that applies one of the standard settings described above.

Each of these has 9 available preset settings of the white balance. To access the white balance adjustment menu it is necessary to press key 2 on the remote control.

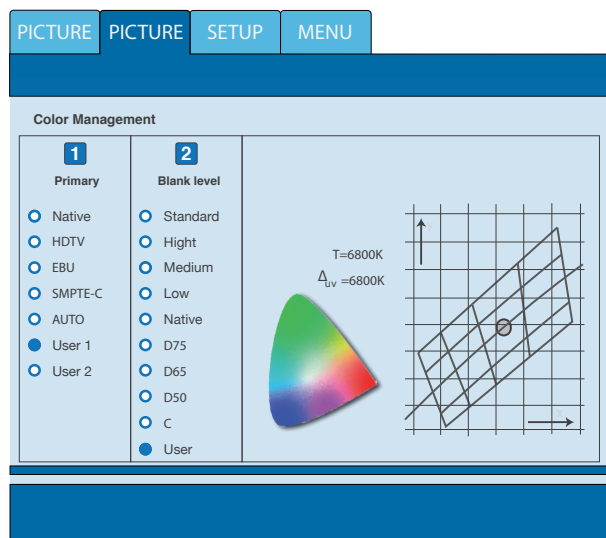
The default settings are:

STANDARD applies a certain white balance depending on the standard selected in column "1 RGB":

HIGH - MEDIUM - LOW (default white balance levels);

NATIVE (the machine's native white balance);

D75 - D65 - D50 - C standard CIE illuminants;



If the default white balance settings are not sufficient, you can adjust the white balance manually. To manually adjust the white balance, go to the [Personal](#) item and press 3. The colour temperature can be adjusted by positioning the white point within the [CIE](#) chromaticity diagram. The system permits you to place the white point inside a grid positioned in the neutral colour zone. Moving along the horizontal lines changes the related colour temperature, with low temperatures on the right (thus increasing the red content) and high temperatures on the left of the graph (thus increasing the blue content). Points along the lowest horizontal line represent the colours on the black body curve.

The colour temperature along the vertical lines is constant but differs to a lesser or higher degree from the black body curve. This means that by selecting the points on the higher part of the graph you will increase the green component. On the contrary, by selecting points in the lower part of the graph, the purple component increases.

GAMMA CORRECTION

Determines the systems response to the grey scale, emphasising or attenuating the different grades of brightness (blacks, dark, medium and light greys, whites) in the projected image. The projector has a range of gamma functions which enable you to display any image to the best effect for the type of video source, the ambient lighting and your

subjective preferences. There are 3 sets of gamma curves: Standard (ST), Enhanced SIM2 (EN) and Graphics (GR). The Standard curve has been defined for general use, and is set for camcorders, digital cameras, and for viewing films or photos from your PC.

The Enhanced set is suitable for watching movies. The Graphics set is suited to displaying synthetic graphics (PC, CAD, PC presentations, etc.). By choosing User you can define your own curve. You can thus select the coefficient which determines the curve.

GAMMA CORRECTION SETTINGS

Standard

ST1	For general use.
-----	------------------

Enhanced SIM2

EN1	Suitable for displaying images from camcorders, digital cameras or TV studios in bright ambient light.
EN2	Suitable for displaying images from camcorders, digital cameras or TV studios in poor ambient light.
EN3	Suitable for projecting films in bright ambient light.
EN4	Suitable for projecting films in moderate ambient light.
EN5	Suitable for projecting films in controlled ambient lighting conditions.

Graphics

GR1	Suitable for displaying graphic images (e.g. Windows Desktop) in moderate lighting conditions.
GR2	Suitable for displaying graphic images in controlled lighting conditions.

User

USER	Possibility of defining the curve by entering parameters. The curve is defined by the user.
------	--

Coefficient values from 1.5 to 2.2 allow you to emphasise the detail of dark images, while reducing overall contrast. Values higher than 2.2 increase overall contrast, but reduce the detail of dark areas. For the most common video sources, if you set the parameter to 2.2, you will obtain pleasant and well-contrasted images.

DYNAMIC BLACK

The C3X LUMIS allows the image contrast characteristics to be customised both by working a Variable Iris, which is set according to the brightness of the room during projection, and by enabling the Dynamic Black function which activates the operation of another Iris, this moves dynamically based on the informative content of the image being projected, considerably increasing the level of black and the depth and detail of the images, most of all in the parts with low and medium brightness. Activating the Dynamic Black function or not and setting the Variable Iris value, you can obtain the best image on the basis of the type of installation and the level of brightness in your room.

OVERSCAN

Eliminates irregularities around the outer borders of the image.

Some less accurate sources may produce an image with uneven borders; thanks to the overscan function these imperfections can be moved outside the projected area.

POSITION

Use this adjustment to position the image vertically and horizontally. These parameters do not normally require adjustment because the system checks the input signal and automatically sets the most suitable values.

However, if the image is not perfectly centred it may prove useful to make the system repeat the input signal analysis and image positioning, requesting the automatic control procedure with button A on the remote control. When this procedure is requested it is helpful to have a white or light coloured background in the current picture on the screen.

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.

It is not normally necessary to adjust these parameters because the system checks the input signal and automatically sets the most suitable values.

If however the image is disturbed (loss of resolution between equidistant vertical bands or instability and lack of detail in thin vertical lines), it may help to ask the system to rerun the input signal analysis and set the best parameters by requesting the automatic adjustment function with button A on the remote control or the AUTO key on the keypad.

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

Y/C DELAY

Where Video and S-Video signals are concerned, 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 adjustment, unless the source or connection cable is changed.

SETUP

The setup menu groups adjustments that have an impact on the image characteristics.

Any adjustments not available for a given input will not be displayed in the menu. Table 4 here below summarises the adjustments available for each input.

PICTURE	IMAGE	SETUP	MENU
Orientation	Desktop	☐	
Keystone	+1	☐	
Variable Iris	Open	☒	Close
Lamp Power	260	☐	
RGBs Sync	Video	☒	HV
Power ON	Auto	☒	Standby
Test Pattern		☐	
Initial Setting		☐	

ORIENTATION

Reverses the image vertically and horizontally to best fit the installation: i.e. desktop front, ceiling front, desktop rear and ceiling rear.



HORIZONTAL/VERTICAL KEYSTONE

To achieve the best image quality, we recommend installing the projector on a surface which is perpendicular to the screen.

If the image slopes left or right, adjust the feet on the bottom of the projector to obtain a level position, lining up the base of the projected image with the base of the projection screen.

If this adjustment is insufficient to centre the image on the screen, tilt the projector and use the Vertical/horizontal keystone adjustment to compensate for the resulting distortion.



VARIABLE IRIS

The C3X Lumis Lumis system is equipped with a "Variable Iris" which allows the user to choose between the best video settings and very high contrast settings.

The Iris is controlled from the OSD. Press +/- on the remote control until the 'Setup' page appears. Select the option 'Variable Iris'.

The user may choose from 5 different positions using a scroll bar ranging from 100 to 0 with 3 intermediate settings, for a total of 5 possibilities of adjustment.



At value "100" the "Variable Iris" is fully Open, at value "0" it is fully Closed.

LAMP POWER

If your projection room is particularly dark, the images projected by the C3X Lumis system may appear to be excessively bright.

Use the LAMP POWER function to reduce the power used to operate the lamp while achieving maximum image quality. In this way, the brightness of the image will be adapted to your projection conditions guaranteeing that the lamp lasts longer.

RGBs SYNC

RGB Sync indicates where the synchronisation relative to the RGB signal is supplied.

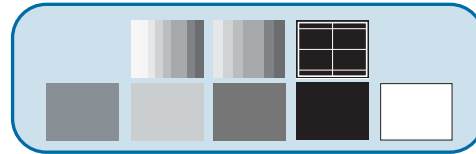
It normally uses the HV connector of the input (3) and therefore RGBs Sync is set to HV mode.

In the case of a RGB sync signal originating from a SCART outlet (via the SCART/ R-G-B-sync conversion cable), the R, G and B signals are connected to the specific RCA connectors (3) and the Sync signal to is connected to the Video input (1) (yellow connector). RGBs Sync is then be set to Video mode.

TEST PATTERNS

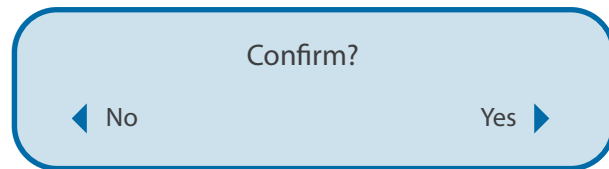
Displays a series of eight test patterns, which are useful when installing the system and checking basic functions. Use the

◀ and ▶ keys to select the various test patterns.



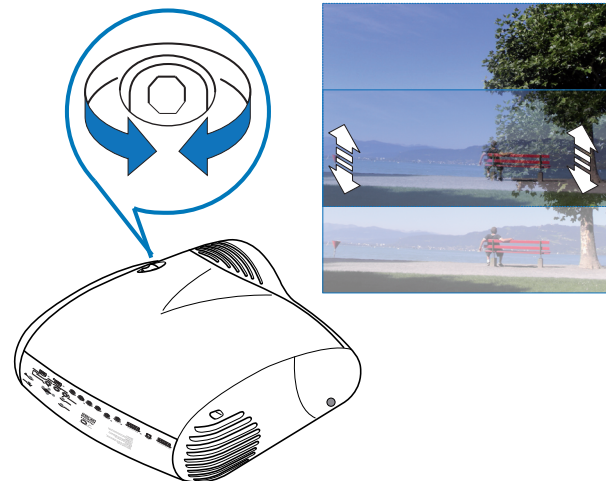
INITIAL SETTINGS

Resets the projector to its initial factory settings (except Position, Orientation, Y/C Delay, Zoom and Focus). Before performing this operation, confirmation is requested.



MANUAL LENS RANGE DEVICE

The manual lens range device allows the projected imaged to be shifted vertically upwards respect to the lens centre. The range of the vertical shift equals 50% of the height of the image.



MENU

PICTURE	IMAGE	SETUP	MENU
Language	English	☐	
Source List		☐	
F1/F2 Keys		☐	
Source Info	Yes	☐	No
Help Menu	Yes	☐	No
OSD Background	Trasparent	☐	Opaque
OSD Position		☐	
OSD Timeout	32	☐	

LANGUAGE

Allows selection of the available languages for the On Screen Display menu.

SOURCE LIST

In order to make the C3X Lumis system increasingly flexible, the functions described below make it possible to modify the input selection menu and adapt it so that it matches the requirements of the user more closely.
The main page displays all the source inputs physically connected to the projector.

PICTURE	IMAGE	SETUP	MENU
✓ 1 VIDEO	1 OFF	☐	ON VIDEO 1
✓ 2 S-VIDEO	2 OFF	☐	ON S-VIDEO 1
✓ 3 COMPONENT	3 OFF	☐	ON COMPONENT 1
✓ 4 GRAPHIC RGB	4 OFF	☐	ON GRAPHIC RGB 1
✓ 5 HDMI 1	5 OFF	☐	ON HDMI 1
✓ 6 HDMI 2	6 OFF	☐	ON HDMI 2

You can delete any inputs which are not in use. To do this, select the input in the drop-down menu which appears when you press ◀, and choose whether to enable or disable the input.
Enabling or disabling of sources will automatically cause the renumbering of the remaining active inputs.
Active video signal sources (shown in the input selection menu) are ticked.
It may be useful to identify the input with a user defined name rather than the type of signal (for example, with the name of the connected device).
When you have decided to display an input, select NAME

in the pull-down menu and rename the source currently in use.
This makes it easier to remember which source is connected to a given input; you can use up to 12 alphanumeric characters for the name (for further details, see Entering text).

Entering text

The text entry menu shown in the figure makes it possible to enter text simply and quickly. Text input mode is the same whether you are editing an existing name or entering a name for the first time.
Characters can be entered in any of the available positions (represented by horizontal lines).
Use the ◀ and ▶ keys to move the cursor left or right respectively.
Press the number key corresponding to the character; pressing once selects the first character, twice, the second character and so forth. The available characters are shown in the text entry menu that appears in this setup mode. Once you have entered a character, move to the next space on the right to enter the next with the ▶ key on the remote control, and repeat the procedure. This applies even if the letter is associated with the same key as before.
Use the ▲ key to switch from upper case to lower case characters and vice versa.
Cancel errors with ▼ after selecting the character to be cancelled. Once you have completed the text entry procedure confirm your text and save it by pressing the MENU+ key on the remote control. If you wish to cancel the changes, press MENU- on the remote control.

Source List / Rename Source

▲

Annula +

Cancel -

()?@1

ABC2

DEF3

GHI4

JKL5

MNO6

PQRS7

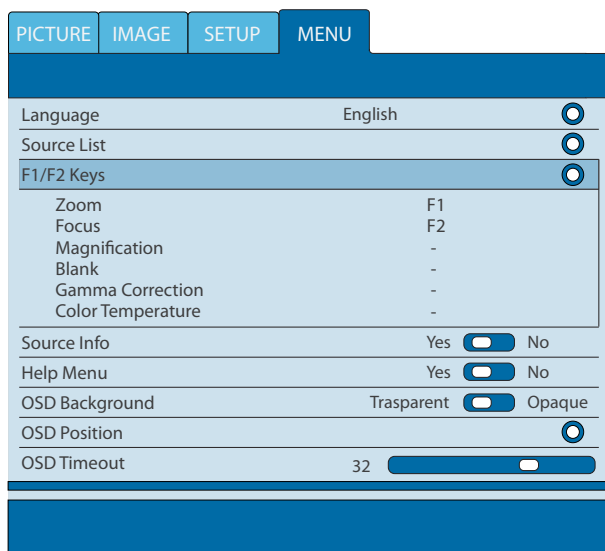
TUV8

WXYZ9

0

F1-F2 KEYS

Allows different functions to be assigned to the remote control keys F1 and F2. The screen is made up of six options, one for each line and a column showing the key F1/F2 assigned to the menu option. The choice between F1 and F2 is made by pressing keys F1/F2 on the remote control and will be carried out once the option of the menu to be customised has been chosen; the menu item to which key F1 or F2 is to be attributed is chosen by using keys ▼ and ▲. The menu items are described below.



F1/F2 - Zoom

This works on the motorised lens zoom and allows the enlargement or reduction of the projected image. By pressing key **●** on the remote control corresponding to the menu (zoom/focus) it is possible to display a pattern which facilitates the zoom/focus operation. This permits you to access the optic zoom control, where the **◀** and **▶** keys zoom in and out.

F1/F2 - Focus

Once selected, the keys **◀** and **▶** allow the image to be focused.

F1/F2 - Enlargement

Activates the electronic zoom; the keys **◀** and **▶** zoom in on the image. If you press the key again you will enter the mode PAN in which keys **◀** and **▶**, **▼** and **▲** make it possible to pan over the enlarged image. When the **▼** key is pressed a third time, the system resets the projector to original viewing settings.

F1/F2 - Blank

Switches off the video signal and displays a blank screen. As soon as the key is pressed an OSD message lasting a few seconds confirms that the function has been activated. You can restore the previous conditions by pressing any key on the remote control.

F1/F2 - Gamma correction

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

F1/F2 - Colour temperature

Pressing the concerned key (F1 or F2) will access the rapid choice "white balance" menu (see image on page 13).

SOURCE INFORMATION

When enabled (YES), each time the source is changed information regarding the signal type is displayed. If disabled (NO), no information on the source is displayed.

HELP MENU

Activating the "Help Menu" will appear some useful aids to navigation in the screen menu

OSD BACKGROUND

Determines the type of background for the On-Screen Display (opaque or transparent).

OSD DISPLAY TIMEOUT

Determines the On-Screen Display timeout after the last event (adjustment using remote control or keypad). The adjustment is made using the **◀** (decrease) and **▶** (increase) keys within a 6-200 second timeframe.

OSD POSITION

Positions the On-Screen Display in a particular area of the projected image. 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 default positions.

REMOTE CONTROL - SPECIAL KEYS

MEMORIES

The main image parameters can be saved in separate sets of values (called MEMORIES) so that they can be subsequently applied as a group using a single command.

There are 6 separate Memories (Memory 1, Memory 2... -6) for each of the 6 signal types handled. The following image parameters can be saved/recalled by the Memory Management system:

Image	Picture
BRIGHTNESS	ASPECT
CONTRAST	COLOUR TEMPERATURE
COLOUR	OVERSCAN
SHARPNESS	GAMMA CORRECTION
SHARPNESS MODE	
FILTER	
NOISE REDUCTION	

Some of these parameters may not be available for certain inputs or certain input signals, as indicated in Tables 4 and 5. The Memory Management function menu page is activated by pressing the  key on the remote control.

Memories			
0	Auto		
1	 MEMORY 1		
2	 MEMORY 2		
3	 MEMORY 3		
4	 MEMORY 4		
5	 MEMORY 5		
6	 MEMORY 6		

SAVING A MEMORY

To save the current values of the image parameters in Memory 1, place yourself on line '1' using keys  and , and open the pull-down menu with key  (**"enter" key on the remote control**). Select the "Save initial settings" line. In confirmation that the operation has been completed, on the bottom there are the words **"Current settings saved in Memory 1"**. Repeat the operation to save other image settings in new memories.

USING A MEMORY

To use a Memory, select the line in question and press the  key. The settings stored in the memory you have selected

will be applied to the projected image, while a message will confirm that Memory has been applied.

The memory will be associated with the particular source and signal type and will be automatically applied whenever that particular combination of source and signal type is selected.

SAVING ORIGINAL SETTINGS

To re-insert the values in a previously modified Memory, select the line relative to such Memory and open the pull-down menu corresponding with key  (**"enter" key on the remote control**).

Then select the "Save initial settings" line. The message, **"Initial settings saving in Memory 1"** will be shown at the bottom of the display to confirm that the operation has been completed.

RENAMING A MEMORY

All Memories can be named. To assign a name (with a maximum length of 12 alphanumeric characters) to a Memory, select the Rename option from the corresponding pull-down menu.

Text is entered according to the procedure shown in the section ENTERING TEXT.

RESTORING CURRENT SETTINGS

On entering menu MEMORIES a copy of the current settings is saved in a temporary memory (marked 0 - AUTO). Having recalled one or more memories, it is possible to recover the existing settings at the time of entering menu MEMORIES by selection Memory '0' (0 - AUTO). Nonetheless, this operation must be carried out before the menu page MEMORIES 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 which consider the Memories eventually selected in the penultimate access to the page MEMORIES.

Memory 0 can be used even when you do not wish to enable Memories management for the signal in use. In fact, once Memory 0 has been selected, when a source is chosen, the settings that were effective at the time the Memory was previously recalled will be automatically applied.

Memories			
0	Auto		
1	 MEMORY 1		
2	 MEMC Save Memory		
3	 MEMC Save Initial Setting		
4	 MEMC Rename		
5	 MEMORY 5		
6	 MEMORY 6		

INFO

Displays the current operating status of the projector and information concerning the projected video/graphic signal. This function is displayed by pressing the key  on the remote control (or, when the On Screen Display is not enabled, the  key on the keypad).

QUICK MENUS

The quick menus provide access to the main adjustments that affect image quality without opening the main menu. The adjustments BRIGHTNESS, CONTRAST, COLOUR, TINT, SHARPNESS, FILTER and NOISE REDUCTION will appear on after the other in the lower part of the screen by pressing keys  and .

MESSAGES

The following messages may appear on your screen:

So signal:

The system does not recognize 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 this 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).

10 CLEANING AND MAINTENANCE

The projector does not require internal adjustment. There are no user serviceable parts inside the projector. To replace the bulb or any other repairs, contact your local service centre, whose engineers will be happy to efficiently solve any problem. Use a soft cloth to clean the projector housing, if necessary slightly dampened with water and a small amount of neutral soap. Do not rub the rear panel markings.

The lens may be cleaned with a small very soft, non-abrasive brush, to remove dust particles. Alternatively, use a soft dry cleaning cloth (of the type used for camera lens cleaning) to remove fingerprints and grease marks.

11 TROUBLESHOOTING GUIDE

NO POWER (LEDS ALWAYS OFF)

- Check that the projector's power switches are in position.
- Check that the power cables are correctly connected to the projector's power sockets.
- Check the condition of the fuse located next to the power socket at the rear of the projector.
- Replace the fuse located on the projector's power socket with an identical type (FUSE T 10 A L H 250V).
- If the fuse blows repeatedly, seek technical assistance from your nearest service centre.

LAMP FAILS TO SWITCH ON

- If this happens immediately after the last time the unit was switched off, allow a few minutes between switching off and switching on again. This will allow the lamp to cool down to the optimum temperature for switching on.
- If the lamp fails to light - even though the unit has had time to cool down - seek technical assistance from your nearest service centre.
- Check the state of the connection by using Table 1 to interpret the code displayed by the system LEDs.
- Restart the projector by cutting the power supply. Wait 10 seconds before switching them back on.

IF AN EXTERNAL HDMI SWITCH OR AV AMPLIFIER IS BEING USED, SOMETIMES THE IMAGE IS NOT RECEIVED WHEN THE INPUT IS SWITCHED.

- First of all, bypass the switch and connect directly to the projector, and check that all the cables are OK. Set a lower resolution, if the source is adjusted to 1080p 50/60Hz try setting it at 1080i; if the image becomes visible, there are probably bandwidth or compatibility problems in the switch: contact the manufacturer to check if there are software updates available for the AV amplifier or for the switch.
- Try disconnecting the HDMI cable and reinsert it to activate the "hot plug" detection, then repeat the same procedure for all the HDMI inputs.
- Coloured sparks on the screen - The occasional appearance of flashes or coloured sparks on the screen when it is set at 1080p 50/60Hz. This may occur due to low-quality switches and cables, try a lower resolution.
- No image or a dim image - check that the source is compatible with the HDCP requirements, no image can be obtained using coded material through the DVI-D input.

NO IMAGE

- Make sure the selected input is connected to a video or graphic signal and that this source is functioning correctly.
- Check compatibility of the video or graphic signals with the technical specifications of the C3X Lumis and, specifically, with the specifications of the selected input.
- Check the condition of the cables used to connect the projector to its input sources.

- Check the state of the connection by interpreting the code displayed by the projector LEDs.
- Make sure the cooling air vents on the units are not blocked and that the room temperature is below 35°C.

IMAGE IS DISTURBED, UNSTABLE OR NOISY

- Check compatibility of the video or graphic signals with the technical specifications of the projector, and specifically, with the specifications of the selected input.
- Check all cables.
- 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.
- Adjust the Sharpness parameter in the PICTURE menu to optimise the projected image.
- If you are using a Blue-Ray or HDVD high-definition disk player, consider that the material recorded on the disk may be coded with a frame rate of 1080p 24Hz, which is the same format shown at the movies. Often the film previews, screen notices, menus and special sections are recorded at a different frequency than the main section, such as 1080i 25/30Hz, etc.
- For this reason, depending on how the player is set, the projector will appear to be “searching” for the correct signal and sometimes it will display “No signal” while the player is synchronizing on the correct format. On these occasions, a few seconds of the beginning of the program may not be displayed while the projector is stabilizing. This is normal and should not be considered as a malfunction.

INCOMPLETE IMAGE AT EDGES

- Check compatibility of the video or graphic signals with the technical specifications of the projector, and in particular, with the specifications of the selected input.
- Open the automatic image adjustment function by pressing the key A on the remote control or ◀ on the projector’s keypad.
- Adjust the horizontal or vertical position of the image with the IMAGE/POSITION menu (if available for the input in question).
- Adjust the image width and height, selecting Aspect in the IMAGE /ASPECT menu.
- Adjust the overscan setting applied to the image on the IMAGE/OVERSCAN menu.

IMAGE TOO DARK/PALE OR UNNATURALLY COLOURED

- Check compatibility of the video or graphic signals with the technical specifications of the projector, and in particular, with the specifications of the selected input.
- Adjust the CONTRAST, BRIGHTNESS, COLOUR and TINT parameters in the PICTURE menu.
- If necessary, adjust COLOUR TEMPERATURE and GAMMA CORRECTION (IMAGE menu).

GRAPHIC IMAGE WITH POOR QUALITY VERTICAL DETAIL

- Check compatibility of the video or graphic signals with the technical specifications of the projector, and in particular, with the specifications of the selected input.
- Press key A on the remote control or ◀ on the projector keypad to execute automatic adjustments.
- Adjust the FREQUENCY and PHASE settings in the IMAGE menu to optimise the vertical details of the image (if available for the input in question).

VIDEO IMAGE WITH DETAILS NOT ALIGNED WITH VERTICAL EDGES

- Check compatibility of the video or graphic signals with the technical specifications of the system, and in particular, with the specifications of the selected input.
- Adjust Y/C DELAY settings in the IMAGE menu to reduce colour misalignment.

REMOTE CONTROL DOES NOT WORK

- Check remote control battery power and that they are inserted correctly.
- Ensure the area between the infrared sensors (on the front panel of the projector) and the remote control is free from obstructions.
- Make sure the infrared sensors on the front and rear of the projector are not exposed to very bright light levels.

12 OPTIONAL ACCESSORIES

You can purchase the following optional accessories at your Dealer:

1. Ceiling assembling kit for C3X LUMIS
2. Motorised brackets for Anamorphic Lens.
3. Anamorphic Lens
4. Infrared signal repeater

A range of lenses are available from our dealers to satisfy varying installation and projection distance needs. See the Additional Information chapter for further details on projection distance and enlargement ratios. Always contact our service centre to have the lens replaced. Use only original or **SIM2 Multimedia** approved accessories.

CAUTION: for ceiling installation using a suspension bracket, follow the instructions meticulously and the safety norms included in the bracket packaging.

13 TECHNICAL SPECIFICATIONS

ELECTRONICS

Input signals:

- **1 COMPOSITE VIDEO (CVBS)**
gilded RCA type connectors
1.0 V_{pp} / 75 Ω, negative synchronisation
- **1 S-VIDEO (Y/C)**
4 pin mini-DIN connectors
Y: 1.0 V_{pp} / 75 Ω, negative synchronisation
C: 0.286 V_{pp} / 75 Ω, [NTSC burst rated level]
0.3 V_{pp} / 75 Ω [PAL, SECAM burst rated level]
- **1 SET OF 4 RCA CONNECTORS (YPrPb/RGB H/V)**
- Component signal
Y: 1.0 V_{pp} / 75 Ω, negative or 3 level synchronisation [HDTV]
PrPb: 0.7 V_{pp} / 75 Ω
- RGB Signal
R,B: 0.7 V_{pp} / 75 Ω
G: 0.7 V_{pp} / 75 Ω, HV synchronisation
1.0 V_{pp} / 75 Ω, negative or 3 level synchronisation [HDTV]
Positive or negative TTL, 5 V_{pp} / 1 kΩ
- **1 RGBHV (RGB analogue)**
female DB15HD-type connectors
R,B: 0.7 V_{pp} / 75 Ω
G: 0.7 V_{pp} / 75 Ω, separate H, V or HV synchronisation
1.0 V_{pp} / 75 Ω, negative or 3 level synchronisation [HDTV]
Positive or negative TTL, 5 V_{pp} / 1 kΩ
- **2 HDMI HDCP**

Control:	Keypad on back panel, remote control, via RS232 and USB from PC or domestic automation devices
Horizontal frequency:	from 15 to 80 kHz (up to UXGA format, 65 Hz)
Vertical frequency:	24Hz - 30Hz - 48Hz~100Hz
Video standard:	automatic selection (PAL B,G,H,I,M,N,60, SECAM, NTSC 3.58 and 4.43)
High definition standard:	ATSC HDTV (480p, 720p, 1080i, 1080p)
Graphic standards:	VGA, SVGA, XGA, SXGA, UXGA
Colour temperature:	from 5500K to 9000K

Outputs:	3 outputs (+12 V 100mA) jack (TRIG1 active with system switched on, TRIG2 active with 16:9 format ratio selected, TRIG3 for activating the anamorphic lens)
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Image vertical shift range:	+50% image
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GENERAL INFORMATION: PROJECTOR

Power cable:	(EU, UK and US); 2m long
Power supply:	from 100 to 240 V AC, tolerance +/- 10% frequency from 48 to 62 Hz
Absorption from mains:	420 W max
Fuse:	FUSE T 10 A L H 250V
Dimensions:	458 x 210 x 455 mm (WxHxD) 18,03 x 8,26 x 17,91 inches (WxHxD)
Weight (approx.):	11 kg
Operating temperature:	10 to 35°C
Shipping temperature:	-15 to 55°C
Storage temperature:	-15 to 55°C
Humidity:	20% to 95% without condensation
Safety:	EN 60950
Portability:	considered "desktop equipment"
Electromagnetic compatibility:	EN 55022 Class B EN 55024 EN 61000-3-2 EN 61000-3-3 UL in approval IEC 68-2-31, IEC 68-2-32
Transport:	

APPENDIX

PROJECTION DISTANCES
INSTALLATION INSTRUCTIONS
C3X Lumis DIMENSIONS

APP.1 PROJECTION DISTANCES 16:9

Metric Measure

SCREEN			PROJECTION DISTANCE						Height offset* (Ho)	
Screen Size (Diagonal)	Screen Width	Screen Height	T1		T2		T3			
			Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min. Offset	Max. Offset
Inches	cm	cm	m	m	m	m	m	m	cm	cm
60	133	75	1,80	2,22	2,32	3,10	3,45	5,18	37	0
80	177	100	2,41	2,97	3,13	4,16	4,60	6,91	50	0
90	199	112	2,72	3,35	3,52	4,69	5,18	7,77	56	0
100	221	125	3,03	3,73	3,92	5,22	5,76	8,63	62	0
110	244	137	3,34	4,10	4,32	5,75	6,33	9,50	68	0
120	266	149	3,65	4,48	4,72	6,38	6,91	10,36	75	0
150	332	187	4,58	5,62	5,93	8,24	8,63	12,95	93	0
180	398	224	5,52	6,76	7,13	9,96	10,36	15,54	112	0
220	487	274	6,75	8,28	8,74	12,18	12,66	18,99	137	0
250	553	311	7,68	9,41	9,96	13,84	14,39	21,58	156	0
300	664	374	9,22	11,32	11,94	16,60	17,27	25,90	187	0

(*) Height offset= H-screen center - H-lens center (in floor position)

British and U.S System

SCREEN			PROJECTION DISTANCE						Height offset* (Ho)	
Screen Size (Diagonal)	Screen Width	Screen Height	T1		T2		T3			
			Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min. Offset	Max. Offset
Inches	cm	cm	m	m	m	m	m	m	cm	cm
60	52,3	29,4	5,9	7,28	7,63	10,17	11,33	17	14,7	0
80	69,7	39,2	7,9	9,74	10,26	13,65	15,11	22,66	19,6	0
90	78,4	44,1	8,92	10,98	11,54	15,37	17	25,49	22,1	0
100	87,2	49,0	9,95	12,23	12,86	17,14	18,88	28,33	24,5	0
110	95,9	53,9	10,97	13,46	14,17	18,88	20,77	31,16	27,0	0
120	104,6	58,8	11,98	14,7	15,47	20,92	22,66	33,99	29,4	0
150	130,7	73,5	15,01	18,44	19,45	27,02	28,33	42,49	36,8	0
180	156,9	88,2	18,11	22,17	23,4	32,68	33,99	50,99	44,1	0
220	191,7	107,9	22,15	27,16	28,68	39,95	41,55	62,32	53,9	0
250	217,9	122,6	25,2	30,89	32,67	45,39	47,21	70,82	61,3	0
300	261,5	147,1	30,24	37,13	39,18	54,47	56,65	84,98	73,5	0

(*) Height offset= H-screen center - H-lens center (in floor position)

APP.1 PROJECTION DISTANCES 2.35.1

Metric Measure

SCREEN			PROJECTION DISTANCE						Height offset* (Ho)	
Screen Size (Diagonal)	Screen Width	Screen Height	T1		T2		T3			
			Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min. Offset	Max. Offset
Inches	cm	cm	m	m	m	m	m	m	cm	cm
60	140	60	1,43	1,76	1,84	2,45	2,74	4,10	30	0
80	187	80	1,91	2,35	2,48	3,30	3,65	5,47	40	0
90	210	90	2,15	2,65	2,79	3,71	4,10	6,15	45	0
100	234	99	2,40	2,95	3,10	4,14	4,56	6,84	50	0
110	257	109	2,65	3,25	3,42	4,56	5,01	7,52	55	0
120	280	119	2,89	3,55	3,73	5,05	5,47	8,21	60	0
150	351	149	3,62	4,45	4,69	6,52	6,84	10,26	75	0
180	421	179	4,37	5,35	5,65	7,89	8,21	12,31	90	0
220	514	219	5,35	6,56	6,92	9,64	10,03	15,04	109	0
250	584	249	6,08	7,46	7,89	10,96	11,40	17,10	124	0
300	701	298	7,30	8,96	9,46	13,15	13,68	20,51	149	0

(*) Height offset= H-screen center - H-lens center (in floor position)

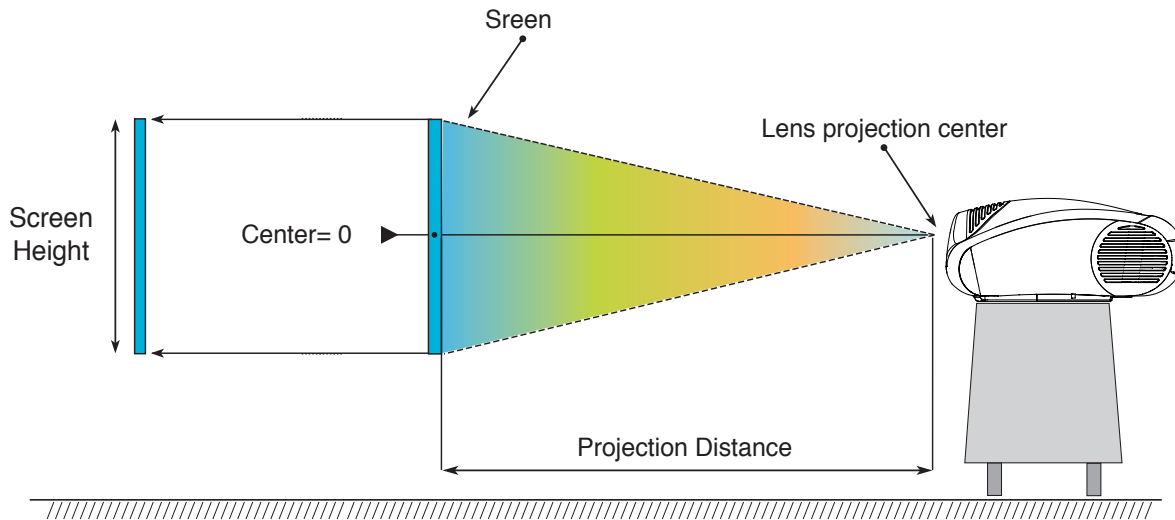
British and U.S System

SCREEN			PROJECTION DISTANCE						Height offset* (Ho)	
Screen Size (Diagonal)	Screen Width	Screen Height	T1		T2		T3			
			Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min Projection Distance	Max Projection Distance	Min. Offset	Max. Offset
Inches	cm	cm	m	m	m	m	m	m	cm	cm
60	55,2	23,5	4,68	5,76	6,04	8,05	8,97	13,46	11,7	0
80	73,6	31,3	6,26	7,71	8,12	10,81	11,97	17,95	15,7	0
90	82,8	35,2	7,07	8,7	9,14	12,18	13,46	20,19	17,6	0
100	92,0	39,2	7,88	9,69	10,18	13,58	14,96	22,43	19,6	0
110	101,2	43,1	8,69	10,66	11,22	14,95	16,45	24,68	21,5	0
120	110,4	47,0	9,48	11,65	12,25	16,57	17,95	26,92	23,5	0
150	138,0	58,7	11,89	14,61	15,4	21,4	22,43	33,65	29,4	0
180	165,6	70,5	14,34	17,56	18,53	25,89	26,92	40,38	35,2	0
220	202,4	86,1	17,54	21,51	22,72	31,64	32,9	49,36	43,1	0
250	230,0	97,9	19,96	24,46	25,87	35,95	37,39	56,09	48,9	0
300	276,0	117,5	23,95	29,41	31,03	43,14	44,87	67,3	58,7	0

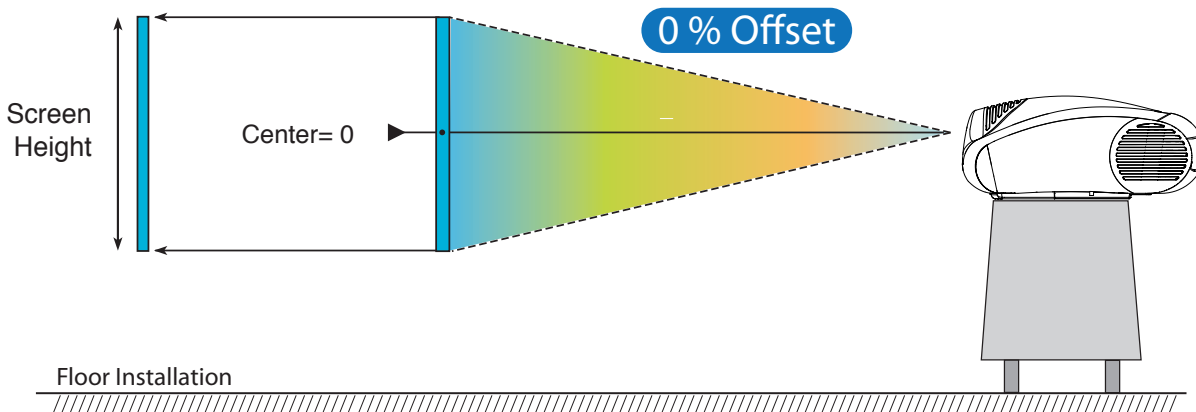
(*) Height offset= H-screen center - H-lens center (in floor position)

APP.2 INSTALLATION INSTRUCTION (VERTICAL SHIFT)

To install the C3X Lumis system correctly place the projector so that the projected image completely fills the screen. Ideally, to avoid image distortion, the projector should be positioned perfectly perpendicular to the projection screen, as shown in the figure below. The centre of the projection lens should be lined up with the centre of the projection screen.



VERTICAL SHIFT (ASSUMING 0% OFFSET)

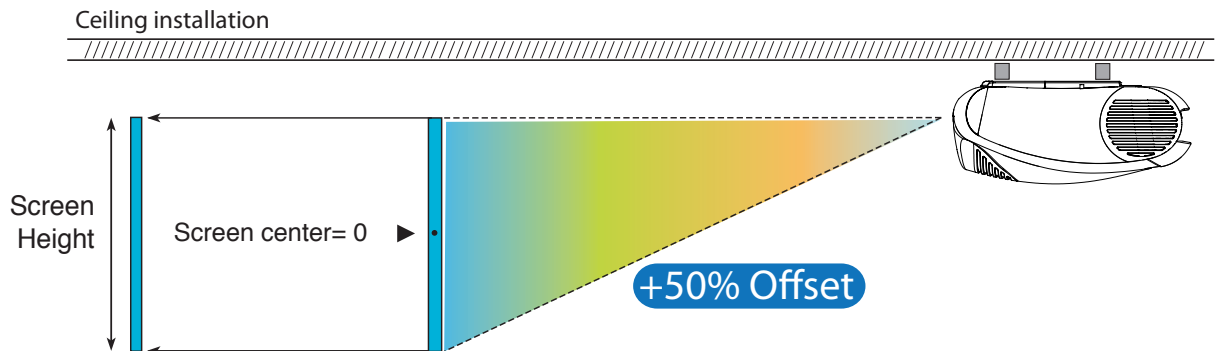


CAUTION:

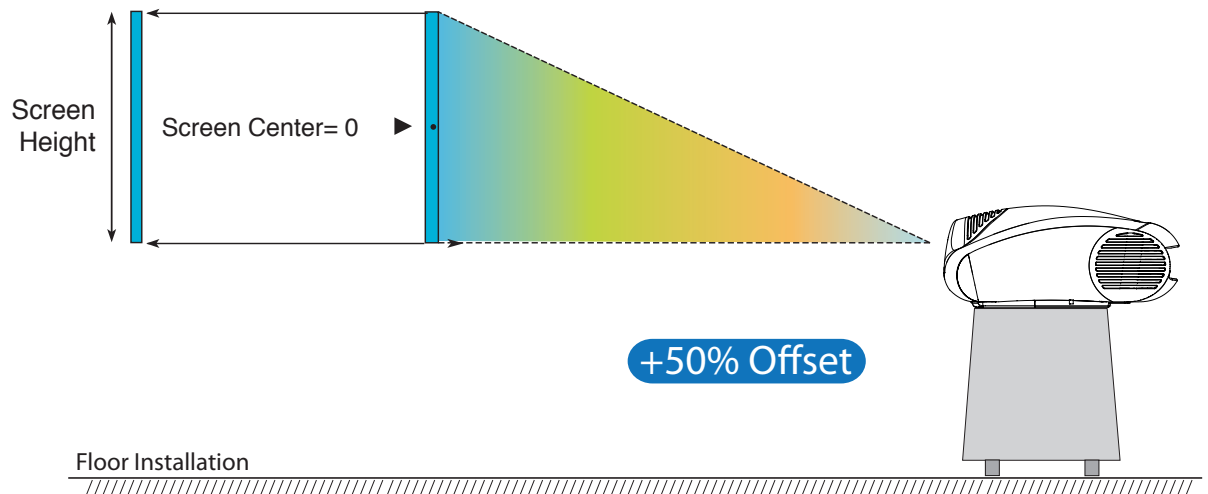
The examples shown in the figure give only general indication on the use of the vertical shift. Each projection lens may require differing vertical shift settings. For more detailed information, see the technical specifications or contact an authorised SIM2 Multimedia centre.

VERTICAL SHIFT (ASSUMING +50% OFFSET)

If it is not possible to position the projector perpendicular to the projection screen (with the centre of the lens in line with the centre of the screen) you can use the mechanical shift to move the projected image either above or below the centre of the projection lens.



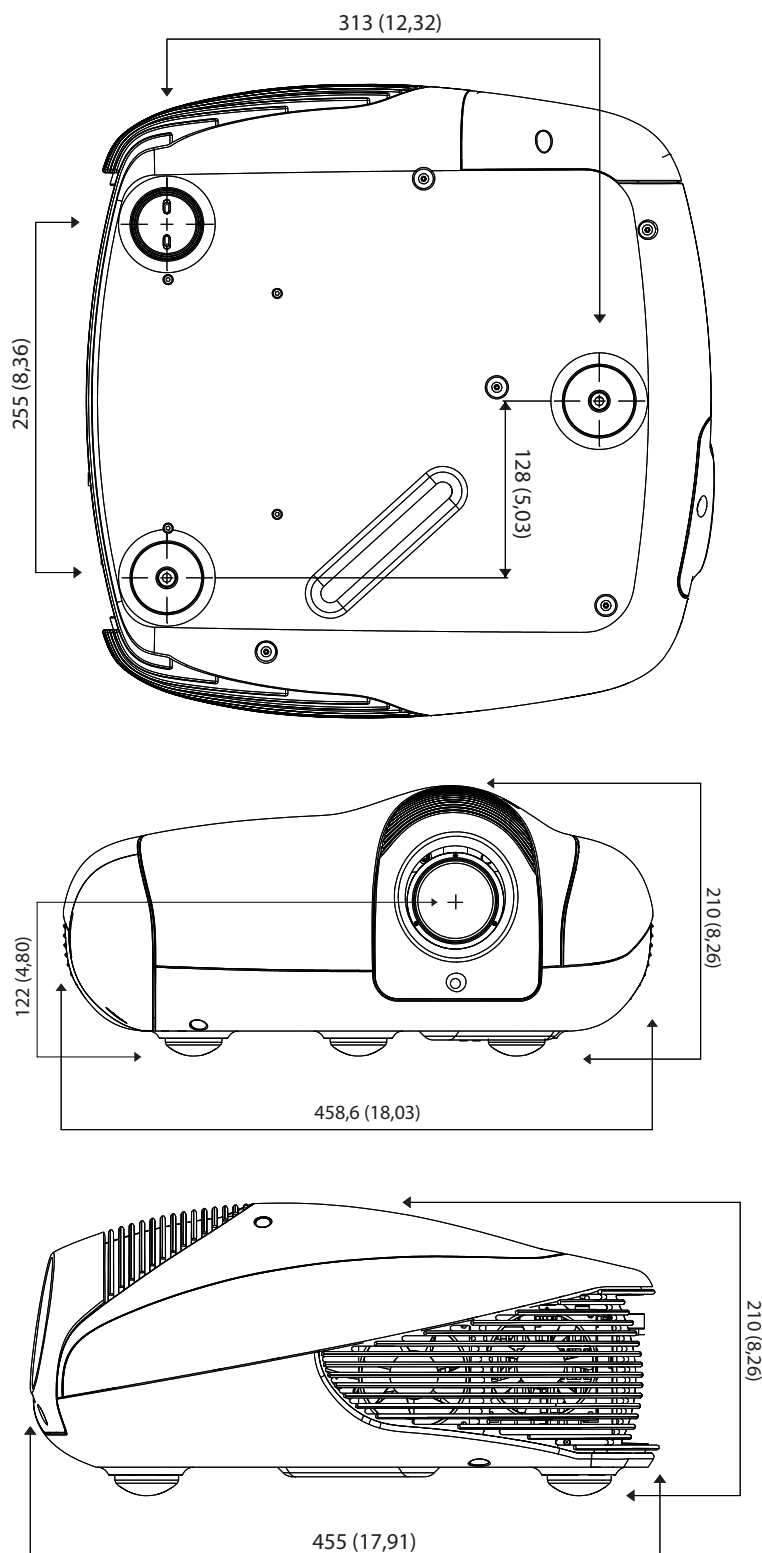
VERTICAL SHIFT (ASSUMING +50% OFFSET)



CAUTION:

The examples shown in the figure give only general indication on the use of the vertical shift. Each projection lens may require differing vertical shift settings. For more detailed information, see the technical specifications or contact an authorised SIM2 Multimedia centre.

APP.3 C3X Lumis DIMENSIONS (unit of measure: mm + inches)





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