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The following projector manual has not been modified or altered in any way.

# COMPACTVIEW SX+40

## USER MANUAL

## DOCUMENT STATUS

| Revision | Month Year | Paragraph(s) | Prepared by | Description of Change |
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| 1 | February 2008 | All | D Kennedy | Initial Release |
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# 1.       BEFORE YOU START

Thank you for choosing a 3D perception C**OMPACT**V**IEW** **SX+40** projector.

## 1.1        Accessories

Please take a few minutes to ensure that your C**OMPACT**V**IEW** **SX+40** projector pack contains all the necessary parts as listed on the Accessories Page.

## 1.2        Cables

Please take a few minutes to make sure that your C**OMPACT**V**IEW** **SX+40** projector pack contains all the necessary cables, as listed on the Accessories Page.

## 1.3        Other accessories

Please refer to our website at [www.3d-perception.com](www.3d-perception.com)

## 2. ACCESSORIES



**COMPACTVIEW SX+40 PROJECTOR**
**MODELS:** **SX+40I**
**SX+40E**



**REMOTE CONTROL AND BATTERIES**



**CABLE COVER**



**AIRFLOW COVER**



**User Manual**

### Cables
VGA male Blue - VGA male Blue, 2m
DVI-I male White - DVI–I male White, 2m
A/V Cable 3 x Phono – Phono + 3,3mm stereo jack, 2m
S-Video Mini DIN 4 pin male - Mini DIN 4 pin male, 2m
Sound Cable 3,5mm stereo jack - 3,5mm stereo jack, 2m
USB A – USB B, 2m
Communication Cable 6' spiral with RJ12 connectors
Power cord, 3m

# 3.      INTRODUCTION

The **COMPACTVIEW SX+40** projector is the ultimate in high-resolution projectors when projection on to flat, curved or double curved screens with multiple projectors is the requirement.

The **COMPACTVIEW SX+40** projector is compatible with most data and video sources, both analogue and digital, and provides the user with outstanding features such as:

- 1400x1050 pixel SXGA+ DLP™ technology. Single chip DMD™ with DarkChip2™ technology by Texas Instruments®
- BrilliantColour™ technologly for saturated and accurate colours•
- High resolution
- High brightness
- High contrast
- Geometry correction functionality
- Edge blending functionality
- Faroudja DCDi™
- Lamp ECO mode
- Variable lamp power
- Multiple lens options
- Six video and graphics inputs
- Compact, low weight
- Low noise
- Desktop and ceiling-mountable with rear protection.

This user guide contains important information about safety precautions and the set-up and use of the projector.

Please read the manual carefully before you operate the projector.

The specifications and functionality of the product may change without prior notice.

# 4.     SAFETY & WARNINGS

This user manual contains important information regarding safety precautions and the set-up and use of the projector. Please read the manual carefully before you operate the projector.

## 4.1     Safety

This device complies with relevant safety regulations for data processing equipment for use in an office environment. Before using the projector for the first time, please read the safety and warning instructions thoroughly.

## 4.2     Warnings

Always use 3-prong power cord to ensure proper grounding of the unit. Never use 2-prong power cords, this is dangerous and could lead to electrical shock.

Never open the unit. The projector contains no user serviceable parts. Refer all repairs to qualified personnel only.

Make sure that no objects enter into the vents and openings of the unit.

Do not spill any liquids on the projector or into the vents or openings of the unit.

Always remove the lens cap before switching on the projector. If the lens cap is not removed, it may melt due to the high energy light emitted through the lens. Melting the lens cap may permanently damage the surface of the projection lens.

Do not look into the projection lens when the projector is switched on. The strong light may permanently damage your eyesight.

Do not look into the laser beam when activated on the remote control. Laser light may permanently damage your eyesight.

Do not point the laser beam at people.

Only place the projector on a stable surface, or mount it securely using an approved ceiling-mount.

Do not drop the projector.

Always allow sufficient airflow through the projector. Never block any of the air vents. Never cover the unit in any way while it is operation. Allow sufficient distance to walls and ceilings in order to avoid overheating. Minimum safety distance to any side of the unit is 50 cm (20") in any direction.

**CAUTION**! Hot air is exhausted from the side vent. Do not place objects that are sensitive to heat nearer than 50cm (20") to the exhaust vent.

The projector is designed for indoor use only. Never operate the unit outdoors.

Do not operate the projector outside its temperature and humidity specifications, as this may result in overheating and malfunctioning.

Operating the projector in a dusty environment may reduce performance or damage projector.

Only connect the projector to signal sources and voltages as described in the technical specification chapter. Connecting to unspecified signal sources or voltages may lead to malfunction and permanent damage of the unit.

Allow the unit to cool down for 60 minutes before lamp change.

## 4.3      Mercury Vapour

The following information and warnings about potential health issues relate to mercury vapour.

This projector is using an extremely bright UHP™ lamp for illumination to attain the desired high brightness image.

This technology is similar to other high-pressure discharge lamps that are extensively used in cars, street lights and other lighting appliances today. These lamps, like fluorescent lighting, contain small amounts of mercury. The amount of mercury present in a lamp is far below the limits of danger set by the authorities.

It is very important that lamps containing mercury are treated properly to minimize potential health hazards.

The UHP™ lamp, like any other high brightness projector lamp, is under high-pressure when operating. While the lamp and the projector are carefully designed to minimize the probability of lamp rupture, the lamp may break while operating and small amounts of mercury vapor may be emitted from the projector. The probability of rupture increases when the lamp reaches its nominal life. It is therefore highly recommended that the lamp is replaced when the rated lifetime is reached.

As a general precaution, secure good ventilation in the room when operating the projector. If lamp rupture occurs, evacuate the room and secure good ventilation. Children and pregnant women in particular should leave the room.

When replacing a worn lamp, dispose of the used lamp carefully by proper recycling.

Mercury is a naturally occurring, stable metallic element that may pose a safety risk to people under certain conditions. According to the Public Health Statement for Mercury published by the Agency for Toxic Substances and Disease Registry ("ATSDR", part of the United States Public Health Service), the brain, central nervous system and kidneys are sensitive to the effects of mercury, and permanent damage can occur at sufficiently high levels of exposure.

Acute exposure to high concentrations of mercury vapor can cause conditions such as lung and airway irritation, tightness in the chest, a burning sensation in the lungs, coughing, nausea, vomiting and diarrhea. Children and fetuses are particularly sensitive to the harmful effects of metallic mercury to the nervous system.

Seek medical attention if any of the above symptoms are experienced or if other unusual conditions are experienced following lamp rupture.

## 4.4      Remote Control Warning

Laser radiation class II product; wavelength 670nm; maximum output 1mW.
Remote control complies with applicable requirements of 21 CFR 1040.10 and 1040.11.
Remote control complies with applicable requirements of EN 60 825-1: 1994 + A11
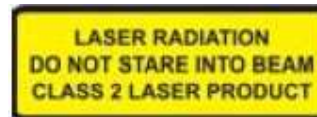
# 5.     BEFORE SET-UP AND USE

Be sure you have read the Safety and Warnings chapter in this manual before proceeding with the set-up and use of the **COMPACTVIEW SX+40** projector.

Unpack the supplied parts and familiarize yourself with the various components.

Remove the lens cap from the projection lens. If you switch the projector on with the lens cap in place, the lens cap may melt, damaging not only the lens cap itself, but also the projection lens and surrounding parts.

# 6. OVERVIEW

| | | | |
|---|---|---|---|
| **A.** | Focus ring | **H.** | Lamp house |
| **B.** | Zoom ring (optional lens) | **I.** | Adjustable foot |
| **C.** | IR sensor | **J.** | Foot release |
| **D.** | Ventilation | **K.** | Security lock |
| **E.** | Keypad | **L.** | Ceiling Mount |
| **F.** | Connector panel | **M.** | Control Chain In    (only on I models) |
| **G.** | Power connector | **N.** | Control Chain Out   (only on I models) |

# 7. KEYPAD

**POWER**
Switch the projector on and off.

**AUTO**
Automatically detect and synchronize to the signal source selected.

**MENU**
Activate the menu system. Use the four arrow keys to navigate and ◄┘ to activate.

**SELECT/KEYSTONE**  ▱/◄┘
Select menu option when the menu system is activated. When the menu system is not in use the menu button will activate the keystone correction. Use the four arrow keys to adjust horizontally and vertically.

**VOLUME +/-**
Use these two arrow keys to adjust the volume when the keystone correction and the menu system are not activated.

**SOURCE**
Use these two arrow keys to select the source when the keystone correction and the menu system are not activated.

**STATUS**
This is not a key. The LED indicates the current projector status. See chapter **Status** for details.
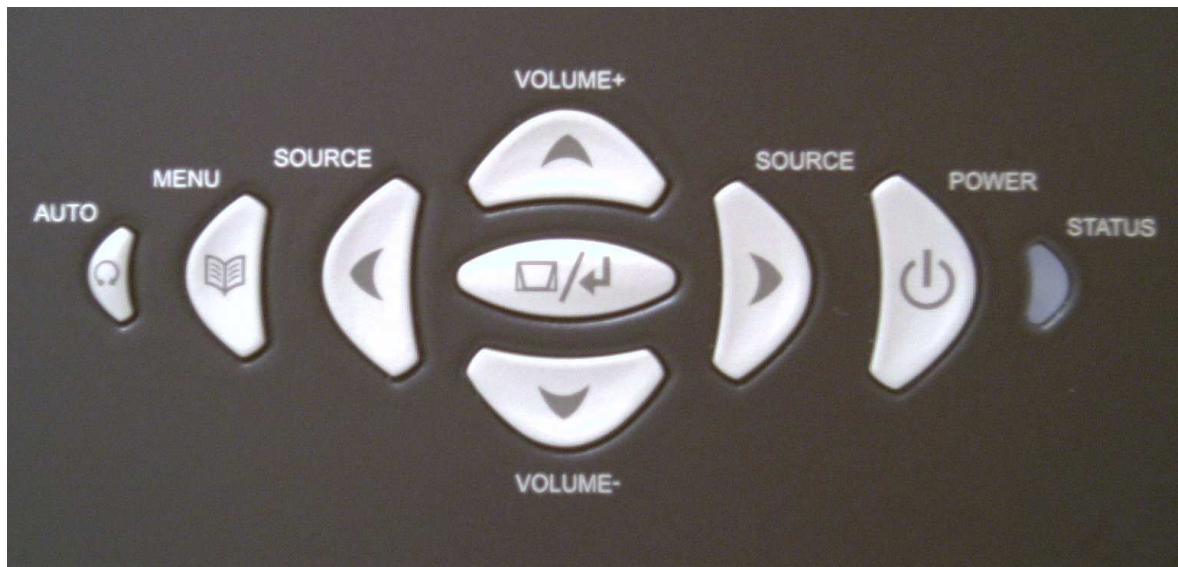
# 8.    STATUS

**GREEN LIGHT**
A permanent GREEN light indicates the
projector is turned on



**YELLOW LIGHT**
A permanent YELLOW light indicates the
projector is either switched off or is in stand-by
mode.
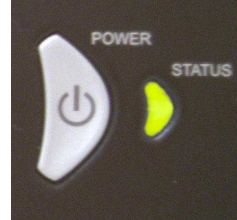


**YELLOW LIGHT FLASHING**
A flashing yellow light indicates wait. The
yellow light will flash for a period of 10 -15
seconds after the power cord is connected and
for a period of 45 seconds after the projector
has been turned off.



**RED LIGHT**
A permanent RED light indicates it is time to
change the projection lamp. It may also
indicate faulty lamp power. Failure to change
the lamp may lead to the lamp exploding.



**RED LIGHT FLASHING**
A flashing RED light indicates the projector is
overheated. Turn the projector off immediately.
Check if any air inlets are covered or if the
ambient temperature is outside specifications.
It may also indicate that one of the fans is not
turning due to physical damage or blockage.
Do not remove the power cord.
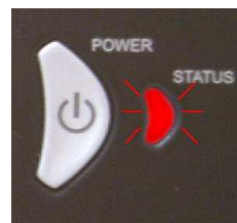
## 9.          REMOTE CONTROL

The remote control allows flexible access to the projector settings, either through direct keys, or through the menu system. The remote control can be used to emulate the computer mouse through the USB interface.

**POWER**
Switches the projector between on and standby modes.

**AUTO**
Adjusting the projector to display a correct image, including position, width, height, contrast, brightness and overall stability.

**OSD**
Toggle On Screen Display (OSD) feedback on and off. When on, all user commands are echoed on screen. When off, user commands will not be echoed on screen.

**INFO**
Displays source and projector status on screen.

**VIDEO**
Selects the composite video input as signal source

**S-VIDEO**
Selects the super video input as signal source

**YPbPr**
Selects component video input

**DVI**
Selects the DVI input

**VGA 1**
Selects the VGA 1 input

**VGA 2**
Selects the VGA 2 input

**STILL**
Toggles between live and still (frozen) image

**AV MUTE**
Toggles between live and no (muted) sound

**BRIGHT**
Adjusts image brightness from dark to bright

**CONTRAST**
Adjusts the image contrast from soft to hard

**COLOR**
Adjusts the color of the image from pale to saturated

**VOLUME**
Adjusts the sound volume

**ASPECT**
Cycles through the aspect ratios available with the
current source

**MENU**
Toggles the menu system on and off

**TRACKBALL**
When USB cable is connected between PC and
projector, the trackball is used to move the mouse
pointer when not in the menu. Use the trackball to
navigate between options when in the menu.

**LEFT/SELECT**
Use as mouse LEFT key when not in the menu. Use as
SELECT key when in the menu

**RIGHT**
Use as mouse RIGHT key

**LASER**
Activates the built-in laser pointer.
CAUTION! Do not point laser beam at people. Do not
stare into laser beam.

**ARROW KEYS**
Use the four arrow keys as alternatives to the trackball
for menu navigation

**SELECT**
Select option in menu. Same function as
LEFT/SELECT above.

# 10.     CONNECTOR PANEL
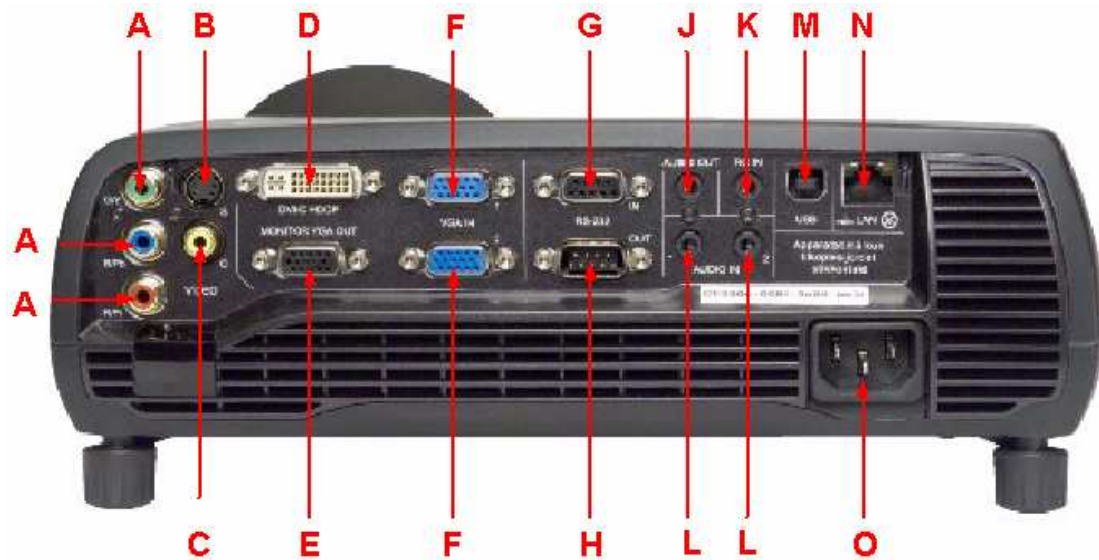


**A**. Component video In (YPbPr). Used for high quality video reproduction.

**B**. Super video In. Used for improved quality video.

**C**. Composite video In. Used for standard video quality.

**D**. DVI - Digital RGB. For a low noise computer and video image.

**E**. Monitor VGA out: Allows for connection to local VGA monitor or daisy-chaining of several projectors using VGA. Works with VGA inputs only.

**F**. VGA - Analogue RGB In (x 2). The standard analogue computer graphics interface.

**G**. RS 232 control in. Allows for wired remote control and monitoring of many projector functions used in installation environments.

**H**. RS 232 control Out. The secondary output connector allows for daisy-chaining, enabling both individual and global control and monitoring of multiple projectors.

**J**. Audio Out. Connection to external audio system.

**K**. RC In. Allows connection of external IR receiver or wired remote control.

**L**. Audio In (x 2). Allows for the connection of up to two audio sources simultaneously.

**M.** USB interface. Allows for computer mouse control.

**N**. LAN.  Provides access to control and monitoring over a Local Area Network

**O**. Mains power connector

# 11.    SET-UP

Before any set-up, switch off all equipment.


## 11.1    Set-up computer

The projector may be connected to up to three computer sources simultaneously, using the VGA and DVI inputs.

The VGA interface is analog and may cause some noise in the projected image, depending on the signal quality from the VGA graphics card in the computer and cabling.

The DVI (Digital Visual Interface) interface is all digital and will yield a projected image with very low noise.

Connect the USB cable to allow for remote mouse control.

Connect the power cord.

Connect the RS232 interface to allow for individual or global control of multiple units in a daisy chain configuration.

Connect the LAN connector for individual control and monitoring of multiple projectors over LAN.

## 11.2      Set-up Video

Three video sources may be connected, using the YPbPr (component), S-VIDEO (super video) and VIDEO (composite video) inputs.

Component video will display more detailed images. Composite video yields images with less detail.

In addition, the DVI-D input can be used with video sources (DVD player fitted with an HDCPTM compliant DVI or HDMI connector) for a pure digital connection.

Connect the power cord.

## 12.      GCM - GEOMETRY CORRECTION MODULE

The GCM (Geometry Correction Module) facilitates, via CompactDesigner/CompactControl, the special features unique to the 3D perception projection solutions. These include:

- Image warping
- Soft edge blending
- Colour balance and matching
- Masks

For full details on achieving the effects of these features please read the CompactDesigner/CompactControl User Manual.

The CompactView SX+40-I is delivered with a GCM card inside it. The CompactView SX+40-E does not have a GCM card inside it, it has to been connected to a GCM card in a CompactUTM.

## 12.1     Connecting the CompactView SX+40I

Connect the Control PC (running CompactDesigner or CompactControl) to the projectors 'Control chain In' port.  The supplied 6 lead cable plugs into the Control PC's serial port using a RJ12 6 pin to serial DB-9 female adapter.



### Connecting multiple projectors

Multiple projectors may be connected together in a 'daisy chain' by using the input and output ports on each projector. From the first projector, another 6 lead cable connects between the 'Control Chain Out' port and the 'Control Chain In' port of the second projector.  This chain can be extended up to the theoretical limit of 255 projectors in a single chain.
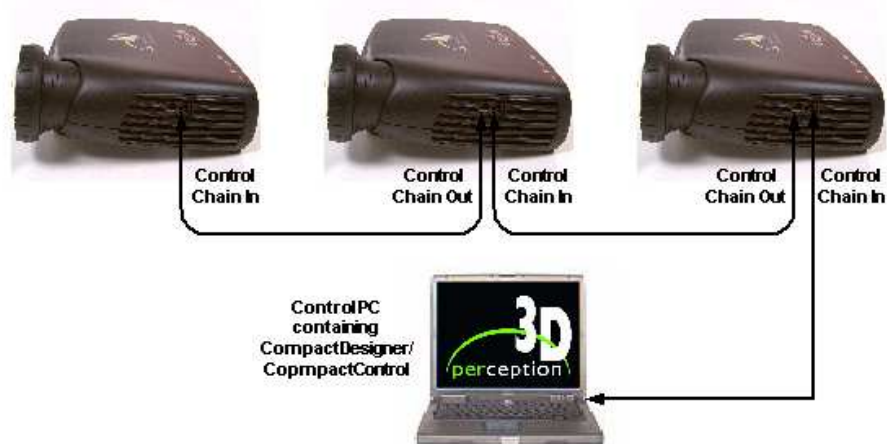
## 12.2     Connecting the CompactView SX+40

The CompactView SX+40-E must be connected to a channel in a CompactUTM. For full details please see the Compact UTM basic/Compact UTM zero User Manual.

## 13.     FOCUS AND ZOOM

### 13.1     Focus

Turn the Focus ring (A) on the projection lens
to get a correctly focused image.

### 13.2     Zoom

Turn the Zoom ring (B) on the projection lens
to zoom In and Out. (This is only available on
the optional zoom lens.)

 If the desired image size cannot be achieved
by adjusting the zoom ring, relocate the
projector nearer or farther away from the
projection screen and re-try.

# 14.    MOUNTING THE PROJECTOR

## 14.1    To a Ceiling Mount

The projector can be ceiling mounted using any approved UL tested/listed ceiling mount fixture with a minimum weight capacity of 12 kg (26 lbs).

The ceiling mount obtainable through 3D perception (as illustrated below) is only approved for **COMPACTVIEW** projectors.

For the ceiling mount use M4 screws provided.

For proper ventilation, the minimum distance from the ceiling/rear wall should be 30 - 50 cm, (12 - 20 inches).

The specifications and functionality of the product may change without prior notice.
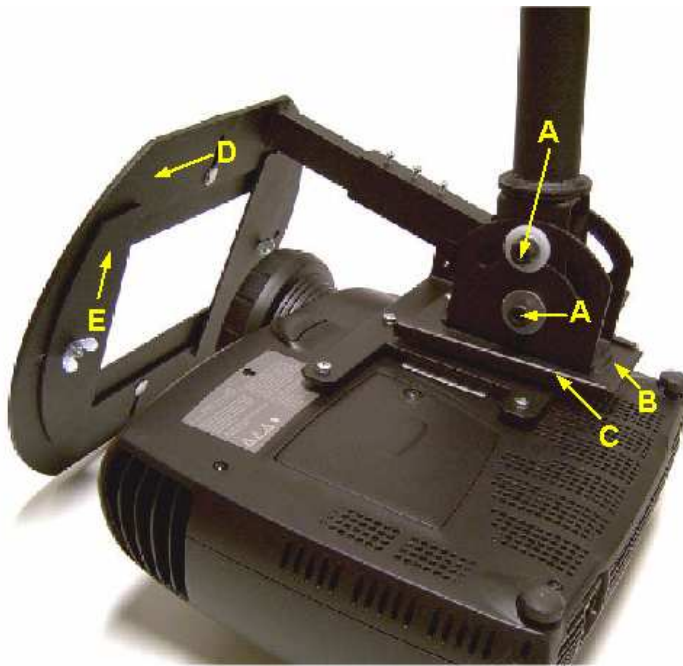


A    Locking screws for vertical adjustment     D    Night aperture
B    Slide                                        E    Adjustable flanges*
C    Housing for slide

* Adjustable Flanges are not provided with the night aperture, they have to be manufactured by individual users to suit their particular required shapes. Under normal circumstances it is sufficient that the flanges are made from stiff paper or cardboard; in which case they can be affixed to the night aperture with strong tape. Should it be deemed necessary to manufacture metal flanges, they can be affixed to the night aperture with the bolts and wing nuts provided.

## 14.2      To a Tabletop

The projector may be mounted or sited directly onto a tabletop.

To adjust the projected image to the desired height on the screen, eject the front foot (C) by pressing the release button (D), and adjust the angle to the right position.

To get an image level with the screen, turn the rear feet (E) to the right position.
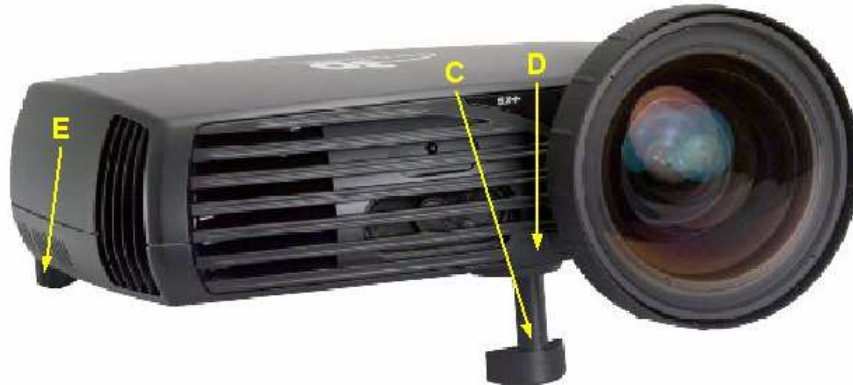
**NOTE:** Although this method of mounting is suitable for temporary use such as demonstration pruposes, is not recommended for permanent installations such as simulators.

# 15.     USING THE PROJECTOR

After set-up, switch on all equipment.

To switch the projector on, firmly press the POWER button on the keypad or the remote control. The STATUS indicator will turn from yellow to green when the projector is switched on.

When only one source is connected, the projector will auto-detect the source. If more sources are connected, the projector will display the source with the highest priority according to the following list:

- VGA 1
- VGA 2
- DVI
- Component
- Super video
- Composite video

Sound will follow the selected source. Select between the sources by pressing the SOURCE buttons on the keypad or the remote control. Only sources that are active will be displayed.

If no source is active, the message "searching" will appear on the screen.

If no source is active for a long time, the projector will go into the standby mode. The projector will be switched on if at least one source is activated/re-activated. This can be disabled in the menu. See DPMS in the set up sub menu.

To switch the projector off, firmly press the POWER button on the keypad or the remote control twice. The STATUS indicator will turn from green to flashing yellow, then to yellow when switched off.

# 16.    MENU SYSTEM

The menu system gives access to a multitude of image and system controls.

The menu system is structured through a top menu with several sub menus. The sub menus will vary depending on the actual source selected.

## Top Menu

**picture:**
Basic picture controls

**dynamic:**
Allows additional control over the
projected image.

**advanced:**
Advanced picture controls

**setup:**
General projector controls

**utilities:**
System controls and information

**Control:**
RS232, RIMI and LAN configurations

**NOTE:** For full details on the setting up and functional use of the features of the GCM card, please refer to the CompactDesigner/CompactControl User Manual.

# 16.1    Picture Sub-menu

**brightness**
Adjusts the image brightness. A higher setting will increase the brightness a lower setting will decrease the brightness of the image.

**contrast**
Controls the contrast of the image. A higher setting will yield a 'harder' image with larger difference between shades, while a low setting will produce a 'softer' image with less difference between shades.

**color**
Adjusts the color saturation. A higher setting will produce stronger coloring, while a lower setting will yield paler colors.

**tint**
Adjusts the NTSC color tint. Applicable to NTSC (American) video standard only. A higher setting will yield a more reddish color scheme, while a lower setting will turn colors more greenish.

**hue**
Controls the color hue

**sharpness**
Controls the image sharpness. A higher setting will yield a harder image, with less filtering. In video applications, this may produce more noise in the projected image. A lower setting will soften the image, looking more smeared out, and reducing the overall noise.

**aspect**
Selects image format. An image may be displayed in various aspect ratios. This function is used when displaying source formats that differ from the projectors native display format.

**space**
Defines the color standard used for component video so that the image is displayed with the proper characteristics.

**S-VIDEO/COMPOSITE VIDEO**

| | | | |
|---|---|---|---|
| ☼ brightness | 50 | – ▭ + |
| ◑ contrast | 50 | – ▭ + |
| 🖼 color | 50 | – ▭ + |
| ▭ tint | 50 | – ▭ – |
| ◮ sharpness | 3 | – ▭ + |
| ▦ aspect | | fill 16:9 |

**VGA**

| | | | |
|---|---|---|---|
| ☼ brightness | 40 | – ▭ + |
| ◑ contrast | 70 | – ▭ + |
| ◮ sharpness | 3 | – ▭ + |
| ▭ aspect | | fill aspect ratio |

**DVI**

| | | | |
|---|---|---|---|
| ☼ brightness | 50 | – ▭ + |
| ◑ contrast | 50 | – ▭ + |
| ◮ sharpness | 3 | – ▭ + |
| ▭ aspect | | fill aspect ratio |

**YPbPr (progressive)**

| | | | |
|---|---|---|---|
| ☼ brightness | 50 | – ▭ + |
| ◑ contrast | 50 | – ▭ + |
| 🖼 color | 50 | – ▭ + |
| ▭ hue | 50 | – ▭ – |
| 🖼 space | | SMPT REC601 REC709 |
| ◮ sharpness | 3 | – ▭ – |
| ▭ aspect | | fill 16:9 |

**YPbPr (interlaced)**

| | | | |
|---|---|---|---|
| ☼ brightness | 50 | – ▭ + |
| ◑ contrast | 50 | – ▭ + |
| 🖼 color | 50 | – ▭ + |
| ▭ tint | 50 | – ▭ |
| ◮ sharpness | 3 | – ▭ + |
| ▦ aspect | | fill 16:9 |
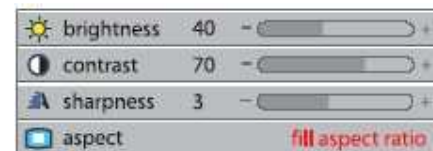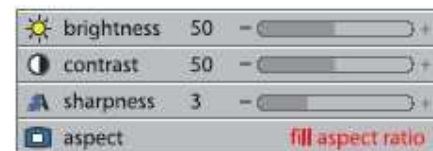
## 16.2     Dynamic Sub-menu

**white boost**
Increases the white level of the image for enhanced contrast

**gamma**
The source image is adapted to characteristics typical to certain applications. This enables an optimized display of images, depending on whether the source is video, computer etc.

**eco mode**
Reducing lamp power for maximum lamp life and reduced power consumption

**lamp power**
Allows for continuously adjustable lamp power for easier calibration of multiple screen set-ups.

**estimated remaining**
The estimated remaining lamp lifetime, depends on the lamp power setting. Higher power yields less lifetime and vice versa

**FOR ALL**

| white boost | 0 - |
| gamma | |
| eco mode | on    off |
| lamp power | 0 - |
| estimated remaining | 1999 : 44 |

## 16.3      Advanced Sub-menu

**h position**
Shifts the image sideways.

**v position**
Shifts the image up and down.

**phase**
Adjust for stable image. A jittery image may appear with certain VGA sources. You may also press the AUTO button on the keypad or remote control to optimize.

**frequency**
Adjust image width. An incorrect setting may produce vertical, unstable bands in the image, and parts of the image may not be displayed on screen. Push the AUTO button to find a correct setting, or manually adjust the frequency until the vertical bands disappear.

**color temp**
Changes the color temperature. A video signal demands a different color temperature than a computer image. A higher setting yields a colder (bluer) image, while a lower setting produces a warmer (more yellow) image.

**custom color**
Defines custom color temperature. Lets you define your own customized color temperature for your specific application.

**video format**
Select between manual or auto detection of TV standard.

**video type**
Select between video types; DVD and VCR. The DVD setting is normally used and will yield well defined video images.

**custom brightness**
Allows for individual user control of red, green and blue brightness.

**custom contrast**
Allows for individual user control of red, green and blue contrast.

**S-VIDEO/COMPOSITE VIDEO**

| | | |
|---|---|---|
| H position | 50 | – ⬛ + |
| V position | 50 | – ⬛ + |
| color temp | 6500 7300 9300 custom | |
| custom color | ► | |
| video format | auto NTSC PAL SECAM | |
| video type | DVD VCR | |

**VGA**

| | | |
|---|---|---|
| H position | 50 | – ⬛ – |
| V position | 50 | – ⬛ – |
| Phase | 4 | – ⬛ + |
| frequency | 1688 | – ⬛ – |
| color temp | 6500 7300 9300 custom | |
| custom color | ► | |
| custom brightness | press ► | |
| custom contrast | press ► | |

**DVI**

| | | |
|---|---|---|
| color temp | 6500 7300 9300 custom | |
| custom color | ► | |
| custom brightness | press ► | |
| custom contrast | press ► | |

**YPbPr (progressive)**

| | | |
|---|---|---|
| H position | 50 | – ⬛ + |
| V position | 50 | – ⬛ – |
| Phase | 4 | – ⬛ + |
| frequency | 864 | – ⬛ + |
| color temp | 6500 7300 9300 custom | |
| custom color | ► | |

**YPbPr (interlaced)**

| | | |
|---|---|---|
| H position | 50 | – ⬛ + |
| V position | 50 | – ⬛ + |
| color temp | 6500 7300 9300 custom | |
| custom color | ► | |
| video format | auto NTSC PAL SECAM | |
| video type | DVD VCR | |

## 16.4    Set Up Sub-menu

**keystone V**
Adjust vertical keystone correction. Compensates for the geometrical distortion of the projected image resulting from tilting the projector to shoot higher up on the wall.

**keystone H**
Adjust horizontal keystone correction. Compensates for the geometrical distortion of the projected image resulting from shooting the image at an angle sideways on the screen.

**DPMS**
Activate/deactivate DPMS (Display Power Management Signaling). When DPMS is on, the projector will switch off following the powering off or disconnection of the signal source. The projector will switch back on when the signal source is reactivated.

**source scan**
Switches source scan on and off. With source scan on, the projector will search for another source if the current source is disconnected or switched off.
With source scan off, the projector will remain at the selected source input even if the source is switched off or disconnected.

**orientation**
Select between desktop front, desktop rear, ceiling front and ceiling rear mode. The image will be flipped and reversed accordingly.

**OSD**
Select the required position on the OSD (On Screen Display)

**language**
Select between languages

**RGB video**
Selects RGB video on the component video input (YPbPr). Requires composite sync connected to the composite video input.

**FOR ALL**

## 16.5     Utilities Sub-menu

**information**
Displays information about the source and projector status

**OSD**
Turn the On Screen Display on (display) or off (hide) during source scan.

**OSD timeout**
Defines how long OSD is displayed after last key action before it disappears from the screen.

**OSD background**
Select background mode, whether translucent or opaque.

**reset**
Resets the projector to its basic settings. All parameters available in the various menus are reset to their factory values.
> **Note:** Control mode will automatically be reset to RS232 even if the projector is a type SX+40-I. A power cycle is needed for the projector to detect the presence of a GCM card and to select the RIMI mode

**lamp reset**
Reset lamp after lamp change. Do not reset lamp counter unless the lamp has been replaced with an original new lamp.

**service menu**
For service personnel only. A special service code is needed to access internal calibration controls and status information. Not accessible to the user.

**test image**
Applies a fixed test image for set-up purposes

**FOR ALL**

| | | | |
|---|---|---|---|
| system information | press | ▶ |
| OSD | on | off |
| OSD timeout | 50 | seconds |
| OSD background | opaque | translucent |
| reset | press | ▶ |
| lamp reset | press | ▶ |
| service menu | press | ▶ |
| test image | hide | show |

**SYSTEM INFORMATION**

| system information | | | |
|---|---|---|---|
| source: | s-video | brightness: | 50 |
| format: | 576p PAL | contrast: | 47 |
| mode | 69 | color: | 40 |
| software: | 0034-01.06 | sharpness: | 3 |
| lamp remaining: | 1999:44 | gamma: | film 1 |
| black level: | 0 | color temp: | 6500K |
| White boost | 0 | | |
| MAC: | 00-00-00-00-00-00 | | |
| IP address: | 0.0.0.0 | | |
| subnet: | 0.0.0.0 | | |
| gateway: | 0.0.0.0 | | |
| TCP port: | 0 | | |
| UDP port: | 0 | | |

## 16.6      Control Sub-menu

**mode**
Selects between RS232, RIMI (internal) and LAN
control modes. The projector can be controlled by
only one of the modes at a time.

When using the CompactView SX+40-I the mode
must be set to RIMI (Rich Media Interface). When a
GCM has been installed, the projector will detect its
presence after a power cycle and select RIMI.
   **Note:** Reset to factory default will automatically
   reset to RS232.

**RS232 address**
For use when daisy-chaining several units. Select
auto or fixed address. Only one address scheme is
allowed per daisy-chain. The auto address is
allocated following the relative position in the daisy-
chain. The fixed address is an absolute address. Only
unique fixed addresses are allowed.

**RS232 fixed**
Select a unique fixed address in the range available.

**baudrate**
Selects between baud rates 4800, 9600 and 19200. A
lower baud rate may be required in installations with
long cable runs.

**FOR ALL**



| mode | | RS232 |
| RS232 Address | auto | fixed |
| RS232 Fixed | | 1 |
| baudrate | | 19200 |

# 17.    MAINTENANCE

The projector may from time to time require cleaning. Never open the projector, as this will void any warranties. Refer all service and repair work to qualified personnel.

Only the exterior of the projector may be cleaned. Use a damp cloth. Make sure no liquids enter the inside of the projector

Vacuum-clean all the air vents regularly to maintain sufficient air flow.

The projection lens is sensitive to scratches. Use lens-cleaning tissue, available at all photographic shops when cleaning the projection lens. Use lens cap when not in use.

# 18.   LAMP REPLACEMENT

The STATUS lamp on the keypad will turn red when the lamp life expires. In addition, a message will appear on the screen; "LAMP LIFE TIME HAS EXPIRED! Please change lamp."
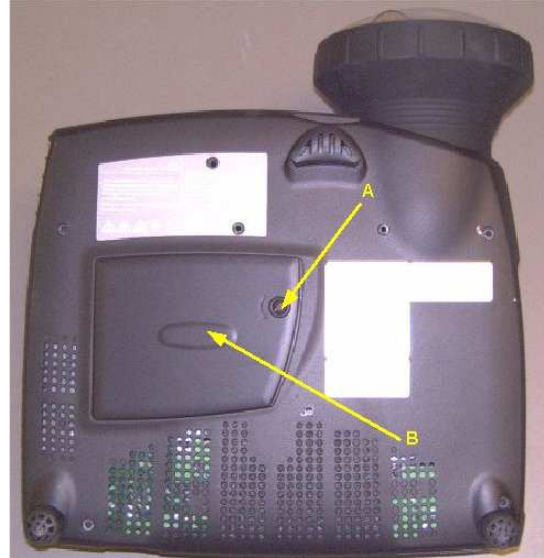
## 18.1   Remove old lamp

Change the lamp when its lifetime expires. Always replace the lamp with the same type and rating.
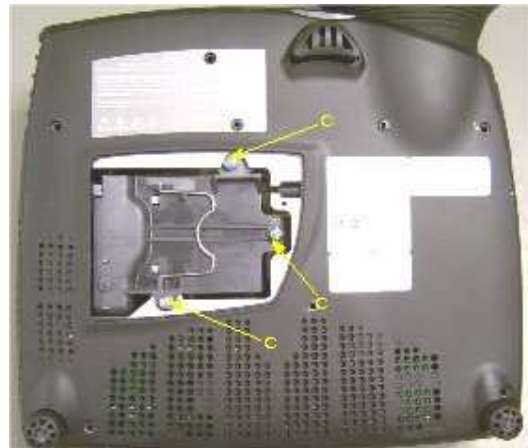
Always disconnect the power cord and wait until the projector has cooled down (60 minutes) before opening the lamp cover.

Release the screw (A).

Remove the lamp cover (B).



Release the 3 screws on the lamp house (C).

Pull the handle (D).

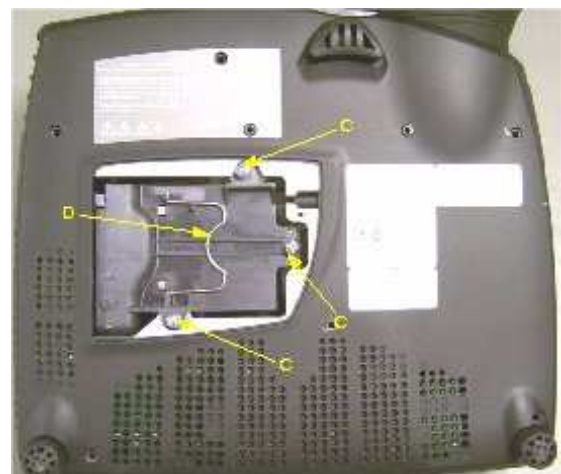Remove the lamp house (E).

## 18.2      Insert New Lamp

Replace the lamp house (E)

Fold the handle (D) back in to place.
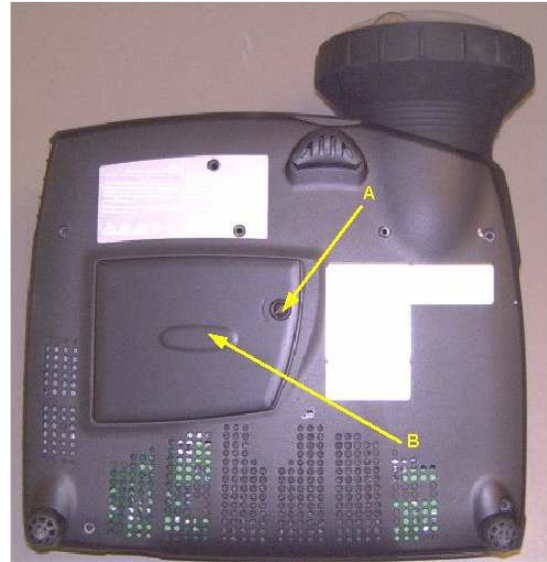
Tighten the 3 screws (C)

Replace the lamp cover (B)

Tighten the screw (A).

In the "utilities" sub menu, reset the lamp timer.

After resetting the lamp timer to clear the warning you must initiate a power cycle.

## 19.      SERVICE INFORMATION

This product contains no user-serviceable parts.

If the product fails to function as expected, first check that all connections are properly made, and that the power cord is properly connected.

Check that the projector and the video and computer sources are all switched on.

Cables and cords may break over time. Try changing the cables and cords in case there is a bad or intermittent connection.

Check if the circuit breaker or the fuse of the mains is intact.

In the event of product failure, please contact your reseller. You should prepare a description of the symptoms of failure you experience. Also state the projector number and serial number as printed on the label on the bottom of the projector.

## 20.    TECHNICAL DATA

## 20.1     Projector Specifications

| | |
|---|---|
| Resolution | 1400 x 1050 (native) SXGA+ |
| Display technology | Single chip DLP™ technology by Texas Instruments® |
| Display device | LVDS DMD™ with DarkChip2™ technology |
| Computer Compatibility | UXGA, SXGA+, SXGA, XGA, SVGA, VGA<br>PC, MAC, SGI and other workstations<br>RGBHV, RGBS, RGsB |
| Video Compatibility | HDTV (1080i, 720p, 576i/p, 480i/p) NTSC, NTSC 4.43, PAL, PAL-M,<br>PAL-N, SECAM. Faroudja™ de-interlacing with<br>automatic film mode detection (3 : 2 and 2 : 2 pull-down) |
| Aspect ratio | 4 : 3 (native), 16 : 9 / 5 : 4 (compatible) |
| Bandwidth | Up to 205 MHz on analog RGB<br>Up to 160 MHz on DVI<br>Up to 75 MHz on component input |
| Brightness | Up to 3500 lumen |
| Contrast | Up to 2500 : 1 |
| Wide angle lens | f = 19.5<br>F = 2.8<br>throw ratio = 1 : 1 (distance : width)<br>throw distance = 1.5m - 20m / 5 - 66 ft.<br>Image width = 1.5m - 20m / 2.3 - 66 ft.<br>offset = 108% |
| Zoom lens | f = 33 - 42<br>F = 2.75 - 3.1<br>Zoom factor = x 1.25<br>throw ratio = 1.70 - 2.2 : 1 (distance : width)<br>throw distance = 1.5m -10m / 5 - 33 ft.<br>image width = 0.7m - 5.7m / 2.3 - 18.8 ft.<br>offset = 108% |
| Lamp | 250W UHP™ dimmable to 200W |
| Lamp life | 2000 hrs (typ) to 50% brightness @ 250W<br>4000 hrs (typ) to 50% brightness @ 200W |
| Noise level | 28 dB (typ), 32 dB (max) @ 20°C/68°F, sea<br>level |
| Dimensions | 244 x 278 x 88 mm / 9.6" x 10.9" x 3.5", excluding lens |
| Weight | 3.4 kg / 7.5 lbs |

| Inputs | 2 VGA 15 pin female HD-DSUB analog RGBHV |
|---|---|
| | 1 DVI-D female digital RGB |
| | 1 Component video female 3 x RCA/phono |
| | 1 S-video female 4 pin mini-DIN |
| | 1 C-video female RCA/phono |
| | 2 Audio 3.5 mm female stereo jack |
| | 1 RS 232 9 pin female DSUB (control, firmware update) |
| | 1 USB-B female (control, firmware update) |
| | 1 LAN RJ-45 female (control, firmware update) |
| | 1 Remote Control 3.5 mm female stereo jack |
| Outputs | 1 VGA Monitor 15 pin female HD-DSUB analog RGBHV |
| | 1 Audio 3.5 mm female stereo jack |
| | 1 RS 232 9 pin male DSUB |
| Power | 90-260 VAC, 50-60 Hz, 350W |
| Conformance | CE, FCC A, CSA(C,US) |
| Temperature operating | 0-40°C / 32-104°F, 0-1500 m / 0-4950 ft |
| | 0-35°C / 32-95°F, 1500-3000 m / 4950-9900 ft |
| Temperature storage | -20 - 60°C / -4 - 140°F |
| Humidity operating | 20-90% RH, non-condensing |
| Humidity storage | 10-95% RH, non-condensing |

## 20.2    GCM Specifications

These specifications apply to the CompactView SX+40-I only

| Warping | Non-linear image mapping from 50% to 200 % |
|---|---|
| | Total latency typically 250 line period |
| | Automatic and manual options |
| | Up to 100 geometrical control points (compliant with curved screens requirements) |
| | Up to 5th order approximation between geometrical control points |
| Soft Edge Blending | Multisided non-linear blending from 2% to 100% of total image |
| | Alpha adjustable from 0 to 4 across overlapped areas |
| | Gamma adjustable from 0.25 to 4 in overlapped areas |
| | Up to 5 geometrical control points (compliant with curved screens requirements) |
| Colour | Individual RGB adjustments of ± 20% in addition to native adjustment capabilities |
| | Primary Colour Calibration (For 'E' models with CompactUTM zer0 only) |
| | Input Offset and Input Gain adjustments |
| Gamma | Individual RGB adjustments from 0.25 to 4 in addition to native adjustment capabilities |

Specifications are subject to change without prior notice. All values may vary up to +/- 20%.

# 21.    COVERS

## 21.1    Cable cover

Loosen the rear adjustable feet by unscrewing them.

Align the vertical hooks on the cover with the guides on the rear of the projector.

Snap the cover into place with the lower guides clamping the rear feet.

Tighten the rear feet to fix the cable cover (A) in place.

**Tip:** Connect all cables and fix them in place before the cable cover (A) is attached to the projector.

## 21.2    Airflow cover

Affix Airflow cover (B). (This should only be used when ceiling mounted).
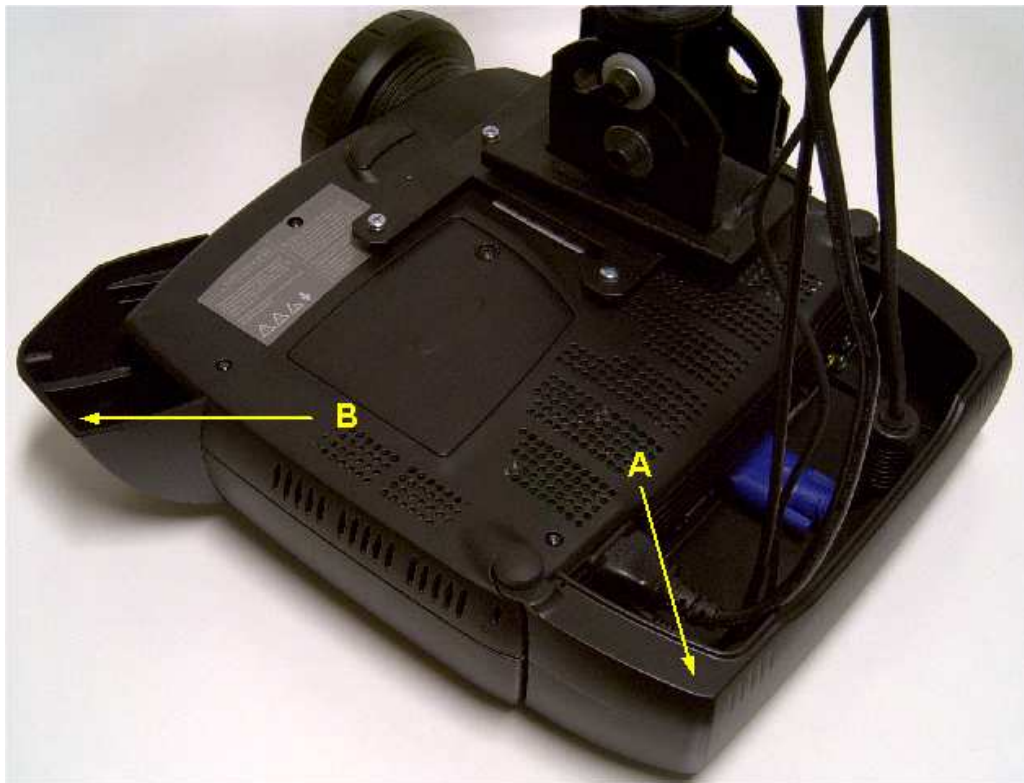
## 22.     PARTS LIST

### 22.1     Main products

| Product name | Product number |
|---|---|
| CompactView SX+40-E | 313-SX+40-E |
| CompactView SX+40-I | 313-SX+40-I |

### 22.2     Spare parts

| Product name | Product number |
|---|---|
| Lamp Replacement Kit 300 W | 313-400-00 |

# 23. Limited Warranty, 'FCC Statement' and 'Trademarks Copyright'

**Limited Warranty**

Except as otherwise stated herein, 3D perception warrants that a **CompactView SX+40** projector is free from defects in parts and labour under normal use during the warranty period. The warranty period means the 12-month period from the date of purchase of a **CompactView SX+40** projector.

During the warranty period, 3D perception will, at its option and in its sole discretion, repair or replace defective parts, including replacement of the entire **CompactView SX+40** projector, at no additional charge to the Customer. However, the Customer is responsible for all shipping and insurance costs incurred in returning any **CompactView SX+40** projector to the Customer which does not require any repair or replacement work, as determined by 3D perception in its sole discretion. This limited warranty does not extend to any 3D perception product that has been damaged as a result of accident, misuse, or abuse. Nor does it extend to the use of parts not manufactured or sold by 3D perception, by unauthorised modification of a **CompactView SX+40** projector, or as a result of servicing by unauthorised personnel. This limited warranty extends only to the Customer, and is not transferable or applicable to any other third party or user, including any one who purchases a used **CompactView SX+40** projector. Any person asserting a claim under this limited warranty must establish to 3D perception' satisfaction the date of purchase and that a **CompactView SX+40** projector was purchased new.

**Other warranty and liability limitations**

Aside from this standard published warranty, 3D perception makes no warranty of any kind, express or implied, including without limitation, those of merchantability and of fitness for a particular purpose. Without limiting the generality of the foregoing, any description of a **CompactView SX+40** projector is for the sole purpose of identifying it, is not part of the basis of any bargain, and does not constitute a warranty that the item sold shall conform to that description. The use of any sample or model is for illustrative purposes only, it is not part of the basis of any bargain, and it is not to be construed as a warranty that a **CompactView SX+40** projector will conform to the sample or model.

No affirmation of fact or promise made by 3D perception shall constitute a warranty that a **CompactView SX+40** projector will conform to the affirmation or promise. 3D perception makes no warranty that the goods are free from claims of infringement of patents, trademarks, or copyrights. This limited warranty shall be the exclusive remedy. 3D perception shall not be liable to customers or others for incidental, consequential, or special damages, or lost profits. Under no circumstance shall 3D perception liability or customer's remedy for damages against 3D perception exceed its cost for a **CompactView SX+40** projector.

**Procedure for claims**

Any and all questions or claims concerning a **COMPACTVIEW SX+40** projector shall be made to 3D perception authorised personnel through the VAR from whom the **COMPACTVIEW SX+40** projector was purchased. In no case shall a **COMPACTVIEW SX+40** projector be returned without first securing the authority of 3D perception or its authorised personnel. Any damages to, defects in, loss of, non conformities in, or any other claim concerning a **COMPACTVIEW SX+40** projector which could be discovered by inspection upon delivery must be reported to the delivering carrier, and in writing to 3D perception at: the following address, promptly and in no event later than thirty (30) days after delivery.

**3D perception AS**
**Solbråveien 41**
**P.O. Box 455**
**N-1373 Asker**
**Norway**

In the case of any such claim, inspection shall be promptly arranged with 3D perception or it's authorised personnel, and where appropriate, representatives of the carrier. Any other claim or action respecting the condition or conformity of a **COMPACTVIEW SX+40** projector or any other matter affecting a **COMPACTVIEW SX+40** projector must be submitted in writing to 3D perception promptly upon discovery and in no event later than expiration of the Warranty Period. Any part of a **COMPACTVIEW SX+40** projector which is subject of any claim shall be set aside and protected, without further processing or use, until 3D perception or its authorised personnel have an opportunity to inspect it and advice the Customer of the disposition, if any to be made thereof. Failure to give timely written notice of any claim shall bar any remedy.

**Technical advice**

3D perception, or its authorised personnel, may furnish technical advice with reference to the use of a **COMPACTVIEW SX+40** projector, but there is no obligation to furnish such advice. If any advice or assistance is furnished, it shall be given and accepted at Customer's risk, 3D perception shall not be responsible or liable for the advice or assistance given or the results thereof.

**FCC Statement**

A **COMPACTVIEW SX+40** projector has been tested and found to comply with the limits for a 'Class A' digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when it is operated in a commercial environment. A **COMPACTVIEW SX+40** projector generates, uses and can radiate radio frequency energy and, if not used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of a **COMPACTVIEW SX+40** projector in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

## 24. **CONTACT US**

**Head office**        **3D perception AS**
**Solbråveien 41**
**P. O. Box 455**
**N1373 Asker**
**Norway**
**Tel:**              **+47 66 98 70 70**
**Fax:**              **+47 66 98 70 71**
**Support desk:   +47 66 98 70 90**
**info@3d-perception.com**
**support@3d-perception.com**        **www.3d-perception.com**

**Regional offices**

**USA**  **3D perception Inc**
**1277 N. Semoran Blvd.**
**Suite 117**
**Orlando,**
**Florida 32807**
**USA**
**Tel:**              **+1 321 235 7999**
**Fax:**              **+1 321 235 7992**
**paal.s@3d-perception.com**

**Japan**  **3D perception AS**
**Mitsui Residence 102**
**4-2-2 Ropponngi,**
**Minato-ku,**
**Tokyo 109-0032**
**Japan**
**Tel:**              **+81 3 3401 6771**
**Fax:**              **+81 3 3401 6772**
**satoh@3d-perception.com**

**NOTE:** Local support may be available in other countries. Please contact the head office for further details.