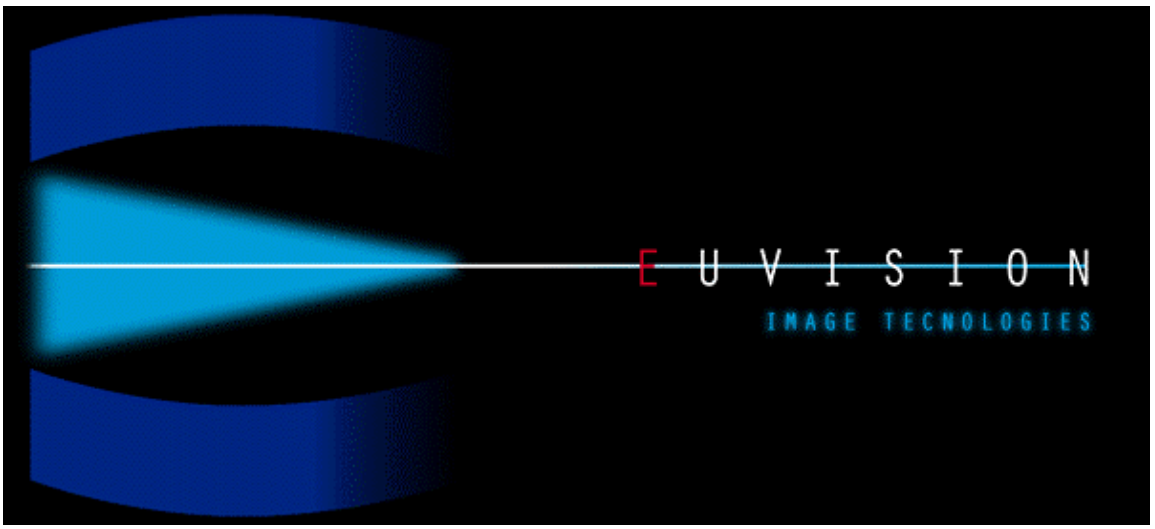
GoldenConEye - User Manual



This manual describes **only** Transconverter section of GoldenEye

Introduction

Thank you for choosing Euvision's TransConEye, the new revolutionary multipurpose image processor that allows high end Video and Data signals processing at the highest available quality standards.

1. Remote Usage / Common Functions

TransConEye Remote command has been designed to give the user the easiest access possible to common functions. In the next subchapters we will examine the basic principles of remote usage.

1.1. Addressed/Non Addressed Mode

The unit can work in addressed or not addressed mode: the two modes differ by the fact that in addressed mode, the unit can be deselected so that the commands coming from the remote will be ignored. This mode is very useful to control more units with the same remote command. Selection can do in MenuTools(Settings)/System/ID Request; please see chapter 4.3.4 (ID request) and image of O.S.D. for more details.

Attention must be paid to the status of the unit since, a non responding unit doesn't mean that the unit is broken, but simply that it's deselected!

When the unit is first switched on, it considers itself selected, so it will respond to commands in both addressed and non addressed modes.

To deselect the unit it's necessary to press the ID Clear Key (~~ID~~)

To select a unit, it's necessary to press the ID Select Key, to enter the desired unit ID and the to press the ESCAPE Key. This will select the unit with the matching ID. Note that units with different IDs won't be deselected.

If 0 is entered the ID to select, **all the units** will select themselves, regardless of their individual IDs.

1.2. Functions available with no OSD shown

When no OSD is shown, the 4 S keys allow the direct recall of the associated sources, while the 4 M keys allow the recall of 4 settings memories individually programmable for each input source channel.

The key 0 Freezes the current source and the key 8 defreezes the input, allowing the source to be updated.

Note that for this functions to work properly, the unit must be selected

1.3. Basic Menu

The Basic Menu allows the access to Brightness /Contrast/Saturation(on video inputs)/Keystone, and can be easily accessed by means of the dedicated direct recall key.

When in the basic menu, using the navigation button in the horizontal directions allows the increment/decrement of the selected value.

1.4. Advanced/Settings Menus

The User Menu and the Settings Menu allows more complex operations to be performed and are deeply explained in the next chapters.
To recall the User Menu it's sufficient to press the MENU > or <MENU keys, while to select the settings menu you'll have to use the dedicated Settings key.
To navigate in the menu structure, MENU> and <MENU allow to move through different menu pages, the navigation button in the vertical direction allows the choice of the desired item and the navigation button in the horizontal direction changes the value of the selected item.
When User and Settings Menus are shown, the numeric keyboard can be used for quick positioning of the OSD: by pressing the keys 1, 3, 5, 7, 9 you'll be able to reposition the OSD menus on the 4 edges of the screen or on the center, while the keys 2, 4, 6, 8 can be used as cursors to finely position the OSD.

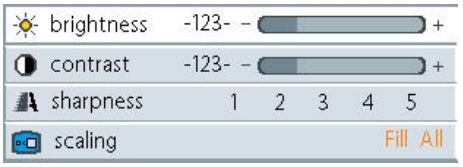
1.5. Troubleshooting methods

At system startup, it's possible to change the output resolution without entering any menu. This function is useful when the display connected is not able to show any image with the actual output resolution. To change the output resolution just power on the transconeye and press keys 1 to 4 to select resolutions from 15KHz to 1024x768. To be sure that the command is accepted, press the key several times during startup. After the last key press the system should restard with the correct resolution.

3. User Menu functions

User Menu is divided in three pages, Picture, Scaling and Utilities. Navigation between the pages is accomplished by pressing MENU> and <MENU keys.

3.1. Picture Menu



Picture menu contains the functions related to input image settings. Since the settings vary depending on input source, two different pages will be shown depending on the kind of input source (video or data).
Even if the meaning of the various functions can be easily understood, some of them need some explaination:

3.1.1. Brightness

Brightness functions sets the black level of the image. Rising this level, makes the black parts of the image become grey.

3.1.2. Contrast

Contrast sets the image gain. Changing this parameter allows the user to have brighter images, but much care must be taken since the darker greys and the lighter whites will be 'cut' causing some details to disappear in an uniform black or white colour.
Note also that in Video, rising contrast, keeps the brightness level constant until white clipping occurs; after this point is surpassed, also the brightness level will be changed, causing the black level to be decreased. When this situation occurs, changing the brightness doesn't produce a noticeable result.

3.1.3. Colour

This function is available only on video inputs and allows to select the colour balance of the image. Decreasing it to the minimum produces a black and white image while rising it to the maximum results in an image with very saturated colours.

3.1.4. Hue

This function is available only on video inputs and allows to adjust the colour phase of the image. Usually this function is useful with NTSC images to correct improper image reception. With other colour standards it can be used as a mean to obtain some fancy colour effects on the image.

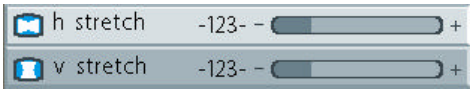
3.1.5. Sharpness

The kind of setting changes between video and data sources: with video sources a continuous potentiometer is available, while with data sources just 5 discrete steps are available.
This function allows to select the level of detail of the image. A low value means a 'smooth' image.

3.1.6. Scaling

Scaling allows to select among some predefined format conversion setups to change the aspect ratio of the input signal. Typically this setting is used to adjust the input signal to fit the output (e.g. to remove the black bars on the top and the bottom of a 16:9 image).

3.2. Scaling

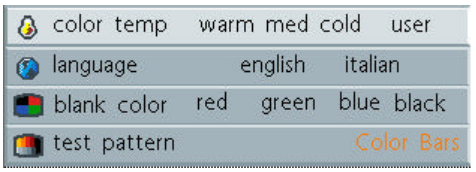


3.2.1. Horizontal and Vertical Stretch

Stretching allows non linear scaling to be performed. Changing from the central value, representing linear scaling, causes the image to be scaled with different magnifications on the center and on the sides of the image. This function can be used to compensate nonlinearities of projection displays or to allow aspect ratio conversion formats to show the entire image while preserving the aspect ratio of the resulting picture in the central part of it.

3.3. Utilities

Utilities menu contains basic setup functions useful to change device's operation conditions.



3.3.1. Colour Temperature

This function allows the selection of 3 predefined colour temperatures plus an user defined one. To change the user defined colour temperature, please refer to the settings menu.

3.3.2. Language

Language selection allows to switch GUI text among several languages.

3.3.3. Blank Colour

This function allows the selection of the colour to be used when no image is displayed.

3.3.4. Test Pattern

This function allows the display of the built in test patterns. Note that test patterns are not affected by scaling and zooming settings. To remove the test patterns simply return to the 'remove' test pattern.

3.4. Memories

This menu allows storage and recall of system configurations through the use of 16 memories. The first 4 memories are bound to the M1-M4 keys on the remote controller and may be recalled quickly. The other memories must be recalled using this menu.

3.4.1. Memory

Selects the memory to store to or to recall from using the following functions.

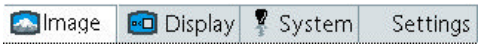
3.4.2. Store To Memory

Stores in the selected memory the actual settings, included zoom factor, panning and input source

3.4.3. Recall From Memory

Recalls from the selected memory the settings.

4. Menu Tools



The Menu tools includes four submenu pages. This menu contains system parameters and should be used carefully to avoid unpredictable results.

4.1. Image

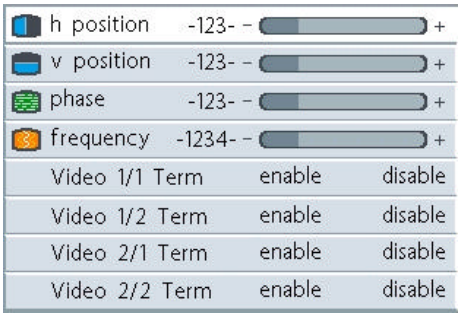


Image Submenu contains functions related to the input image settings.

4.1.1. Data Signal Adjustments

The first 4 options are related only to data signals and allow the fine adjustment of the input signal. Care should be taken when changing parameters since if the user modifies some parameters for a specific input mode (e.g. 640x480), the system will always use the user parameters for that mode. To restore automatic input adjustment for a mode, simply press Auto when that mode is input.

The setting of H and V position should be done only when no zooming is active and no scaling is performed (scaling is set to 'fill all') to allow the user to check exactly how the image is sampled in the input buffer.

If the image doesn't fit the screen horizontally and is larger or smaller, frequency adjustment must be done. The best way to adjust frequency is to feed an input signal with alternated black and white vertical lines: only when there is no 'beating' and all the lines look the same, the frequency is correct.

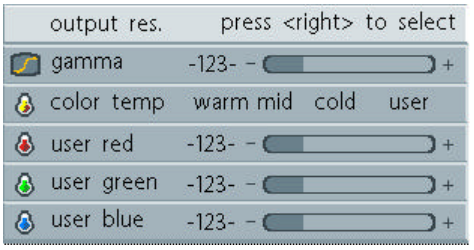
Phase allows to finely adjust the position of the sampling clock and usually produces a sharper image; if changing phase moves the 'beating' along the screen, then frequency is not properly set.

Note also that before adjusting this parameters it's very important to be sure that the display that Transconeye is connected to must be properly set and, if it's a digital one (LCD, DLP or Plasma), then the same adjustments should be done on the display using the internal test patterns BEFORE retouching the Transconeye parameters.

4.1.2.Video Terminations

This functions allow to select if the 75 Ohm terminations should be set or not on the 4 video inputs; the setting should be always be enabled unless the user intends to feed the same signal to more devices. If this happens please remember to set the termination only on the last device connected to the signal. Note also that when using the inputs as SVHS, its important to check that the two terminations related to luma and chroma have the same status.

4.2. Display



Display Menu allows to colour correct the output of the Transconeye and to change output resolution.

4.2.1. Output Res.

This function allows the selection of the output resolution. Care should be taken when changing this parameter since the display connected to the output of the Transconeye couldn't be able to display the new resolution. It is possible to return in a normal situation, pressing a remote control #keys after turn off/on the device (press like "pulse"), using the following table:

Key1 = 15 KHz
Key2 = VGA
Key3 = S-VGA
Key4 = XGA.

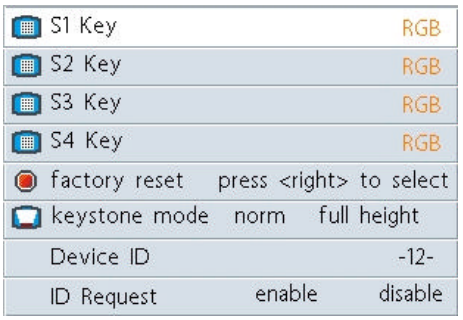
4.2.2. Gamma

Gamma settings allow to change the linearity of the greyscale response. The sliding available settings allow the selection between CRT, Linear and Inverse, which in turn correspond to CRT corrected image, Linear greyscale and inverse CRT compensation.

4.2.3. Colour Temperature

As in the User Menu, Colour temperature allow the correction of the balance between the three colour components. However, only in this menu page is possible to change the values of the red, green and blue gains of the user setting.

4.3. System



4.3.1. Source Keys assignment

This functions allow the association of individual input sources to any of the 4 dedicated S key in the remote.
Note that changing this values does not automatically change the input so for example, if you are showing the source related to key S1 and change it's association, you'll have to press S1 to switch to the new input.

4.3.2. Factory reset

This function allows to reset all the parameters to the factory defaults.

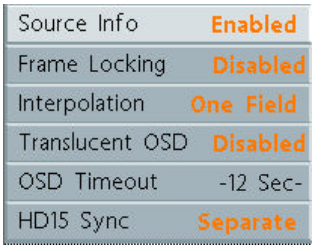
4.3.3. Device ID

Changing this value allow to assign an ID to this device. The ID will be used do distinguish the unit from others when controlling multiple units at the same time.

4.3.4. ID Request

ID Request enables the 'addressed' mode, which allows to select or deselect the units. Disabling this function lets the devices to always respond to the commands.

4.4. Settings



This menu allows the setting of several system related features. Care must be taken in changing this parameters if you don't know exactly what you're doing since they may produce unexpected results and cause the system to be unusable.

4.4.1. Source Info

Source info allows to enable or disable source information box when a new source is detected and when no source is connected.

4.4.2. Frame Locking

Frame locking allows to synchronize the vertical frequency of the output signal with the vertical frequency of the input signal. There are two kinds of frame locking: abort and nearest which allow to choose the way the system will process the last video line in a frame. Abort will truncate the last line while nearest will shift the Vsync to the end of the last line. Abort maintains a constant number of lines in a frame but the last line may have a shorter length than the others while Nearest will produce lines with equal length but frames with a varying number of lines. With Data sources it's also possible to select Abort/V and Nearest/V which allow the frame locking of Data sources to the last selected video input.

4.4.3. Interpolation

Interpolation allows the selection of deinterlacing method for interlaced inputs (video or data). One field deinterlacing should be selected only when Frame Locking is enabled; failure to do so will produce flickering images. Two fields deinterlacing produces a better image without flickering and with more detail but may cause some motion artifacts.

4.4.4. Translucent OSD

Enables or disables OSD bacground transparency.

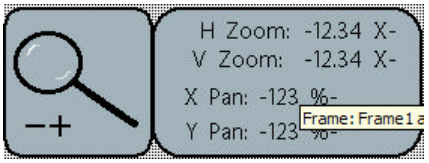
4.4.5. OSD Timeout

Sets the timeout after which the OSD should automatically disappear if the user doesn't interact with the system.

4.4.6. HD15 Sync

Selects if the syncs on the HD15 input are separated or composite

5. Zoom Menu Functions



When in the Zoom Menu, it's possible to quickly set up videowall settings. To access the various functions please refer to the following key assignment table:

Key(s)	Function	Description
1 – 8	Discrete Zoom	quickly select the magnification from 1x1 to 8x8
Up/Down	Continuous V Zoom	Finely change the magnification in 256 steps between each discrete magnification
Right/Left	Continuous H Zoom	Finely change the magnification in 256 steps between each discrete magnification
M1 – M4	Memory Select	Recalls the corresponding memory
ThumbPad	Pan	Selects which part of the zoomed image has to be displayed

6. Specifications

- Mechanical
  - Dimensions: **48,2 x 24,5 x 4,4 cm.**
  - Weight: **2 Kg.**
- Power
  - Consumption: <5W
  - Power Supply Voltage Range: 80-130 / 180-260 VAC 50/60Hz
- Video Input
  - Channels: 2 SVideo / 1 SVideo+2CVBS / 4 CVBS
  - Accepted standards: PAL/SECAM/NTSC, automatic detection
  - Comb filtering: 2 lines adaptive
  - Deinterlacing: proprietary 2 field interpolation
- Data Input
  - Channels: 1 RGB
  - Syncs: Separate/ Composite
  - Max pixel clock rate : 140 MHz
  - Max resolution supported: from 640x480 up to 1280x1024
  - Image adjustments: fully automatic/manual
- Output
  - Output Type: VideoComp / S-VHS / RGBs 15 KHz/ PC RGB + TTL separate syncs
  - Resolutions: 15KHz/50Hz, 15KHz/60Hz, 640x480/60Hz (VESA), 800x600/60Hz(VESA), 1024x768/60Hz(VESA)
- Control
  - IR Remote
  - RS232
  - RS485
- Functions
  - 4 remote selectable memories for configuration settings; total 16 memories.
  - High quality Zooming from 0,80 up to 16x16
  - Easy to use graphic OSD
  - Built in test patterns (VGA S-VGA XGA)
  - Standard conversion (Scaler)
  - Geometry corrector (eg. 4/4 in 16/9 format = circle not so compressed in a 16/9 displays with inputs 4/3)
  - Output resolution/frequency completely independent of input signal
  - Switcher via I.R. Remote control or RS232
  - Gamma and Colour temperature corrector
  - Keystone

For more infos: www.euvision.com info@euvision.com