Rainbow HD

Operator Manual

About

This Operator Manual describes the use of the Transvideo RainbowHD family.

The first Rainbow has been introduced to the Film Industry during year 1994.
The RainbowHD is our latest contribution to the Digital Cinematography world, including advanced decision tools for the HD world.

The RainbowHD family includes the following products:

      Rainbow HD   7" HD Monitor
      Rainbow HD SBL   7" HD Monitor SuperBright

If the physical, electrical and optical characteristics of the products are different, the user interface is the same.

This manual describes RainbowHD with Build 133 (and up).

The products described in this manual are professional equipment. Utilization of these products implies knowledge of basics in video signal management, HDTV and film making concept.

Warning & Caution

WARNING:
There is very high voltage inside of the component. Risk of injury or death.

WARNING:
This product must be used in a correct grounded electrical environment; ground defects can create severe problems to the equipment, the picture quality and even cause danger for the user.

WARNING:
Copyright law and international treaties protect this product, its design and its software. One or several international patents apply to the RainbowHD.
Unauthorized reproduction or distribution of this product or its design or its software or any portion of them, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

CAUTION:
Warranty is void as the product is opened. The unit contains electrostatic sensitive devices, which can be damaged or destroyed if you touch them. Very high voltage is present in the product and there is some risk of electric shock if opened by a non-accredited technician. Standard ESD procedures must be strictly followed during disassembly/re-assembly of the unit.
The user and/or technician assume full responsibility or any risk of bodily injury, death or property damage arising out of the use or disassembly or repair of this equipment. In no event shall Transvideo S.A. or its local representatives be liable to a user, technician or third party for any loss of income or any damage of any kind resulting from the use of or work on the said equipment.

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Rainbow HD

INTRODUCTION

Unpacking

Packing list
Control the content of the package accordingly to the packing list.

2 years warranty
All RainbowHD are covered by a 2 years limited warranty unless otherwise noted.
Get a **3rd year for free** by registering your product online within the first month of the purchase.
http://www.transvideo.eu/register-my-product (authentication required)

General safety instructions

> **IMPORTANT:**
> Never seal the monitor in a plastic bag. Never use the monitor in full sun with a Raincover.

Before using the monitor make sure that the product is not damaged, that the protective glass is not broken and that the connectors do not have missing pins, foreign objects inside the housing.

The RainbowHD needs to be in a ventilated area for a proper cooling. Prolonged use in confined environment without ventilation can damage the monitor.

Cables
The cables must be in good condition and adapted to the environment where you are working. A bad quality or wrong-wired cable or **damaged connectors** may damage this equipment or other equipment attached to it and/or create interferences.

The video cable must be adapted for carrying HD SDI signals. Proper 75 Ω connectors must be used. Always check the connector before plugging a cable to your monitor.

Transvideo offers high quality cables for cameras, power supplies and other equipment. Contact Transvideo S.A. or its local representative in case of need.

Installation
The RainbowHD must be securely mounted on the camera or on its location of use. Several mounting points with ¼-20" nut are present on this equipment for a secured professional use.

Do not use the monitor with loose fixation or damaged brackets for your own safety and that of others working with you.

Transvideo manufactures high quality brackets and accessories for the comfort of use and security for the equipment and user. Please contact Transvideo S.A. or its local representative in case of need or visit http://www.transvideo.eu.

*Rainbow*HD

Power requirements

RainbowHD accepts an input voltage range from **10 to 36V DC** through the XLR 4-pins male connector protected against inversion of polarity.

AC voltage can be used with an appropriate AC/DC converter. Recommended AC power adaptor is the Transvideo AL30.

V-Mount and Gold Mount batteries can be used when a battery back is connected to the monitor through the XLR 4-pins connector.

Power instructions
The power consumption slightly varies with the input voltage, the operating temperature and the equipment configuration. The internal power supply is protected against reverse polarity. Over voltage may cause severe damages to the equipment and/or to other equipment connected to it. This product must be used in a properly grounded electrical environment. Ground defects can create severe problems to the equipment and/or picture quality and may even cause danger for the user.

Turning power On/Off
The ON/OFF Switch is on the right side of the monitor.
The product needs some time to reach its nominal brightness.
This time can vary with the temperature.

Galvanic insulation
For safety of use, the RainbowHD family features a galvanic insulation of the DC input. Do not connect the power ground to the chassis of the monitor or to the metallic body of the power connector in order to keep the galvanic insulation. The galvanic insulation is rated at 1000VDC. The chassis of the monitor is connected to the video ground.

Anton-Bauer batteries / FuelReader™
Transvideo Labs engineers integrated communication between the fuel computer of Logic Series Digital batteries from Anton-Bauer and the RainbowHD. The FuelReader™ gives the remaining available percentage of battery and the time to run.

You need to use the battery socket from Transvideo (P/N 918TS0202-AB) to enjoy the benefits of the FuelReader™.

> **WARNING RISK OF FIRE:**
> It is always recommended to remove the power source from the monitor when you do not use it and/or when you travel. Especially if you place the monitor in a closed environment (bag, box, …).

Start-up

① Connect an appropriate power supply or battery support to the XLR4 connector.

② Connect a video source (SDI, HDMI, CVBS) to the corresponding input

③ Set the power switch to ON

④ Select the correct input with "Inputs" key

PRODUCT OVERVIEW

Parts identification

All connectors are on the back and on the right side of the monitor. Depending on the monitor, the connectors and their location may differ.
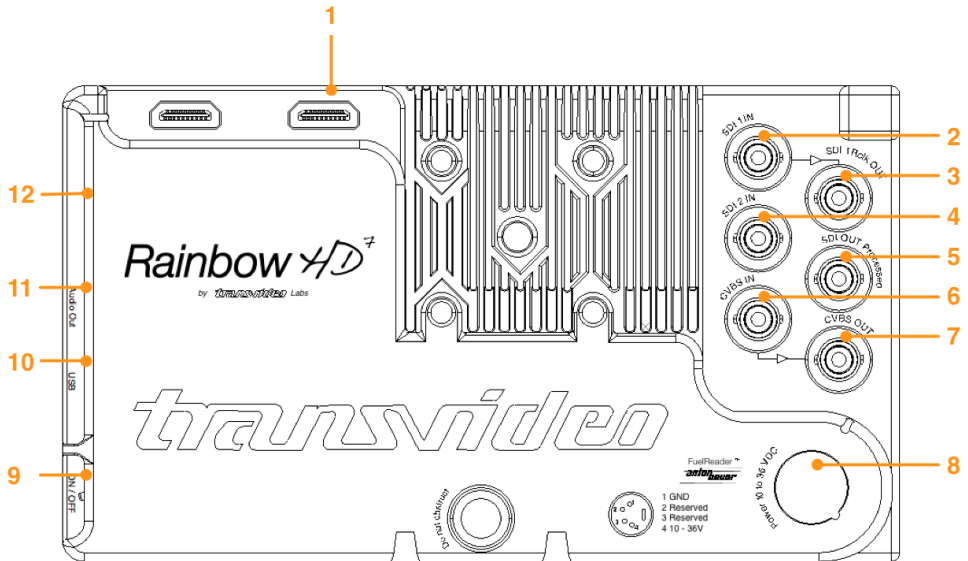
1. HDMI input – type A
2. HD/SD SDI input 1 – BNC *
3. HD/SD SDI reclocked output 1 – BNC *
4. HD/SD SDI input 2 – BNC
5. HD SD SDI processed output – BNC
6. CVBS input – BNC
7. CVBS output (loop through) – BNC
8. DC input – XLR 4-pins male
9. ON/OFF switch
10. USB
11. AUDIO monitoring output – jack 3.5 *
12. SD Card

* For feature use

User interface

1. Views – (p11)
2. Zoom – zoom modes (p12)
3. Peaking – peaking modes (p13)
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Direct functions

(1-8)

Most of the functions are directly accessible from the keypad (**1-8**).
Keys light up when the function is activated (if needed).
Keys blinks during the functions adjust period.

Joystick pad

(J)

When a menu is activated, the joystick (**J**) allows to adjust parameters (up/down, left/right) and to validate (short/long push).
A long push on the joystick knob exits from the menu.

Views

(1)

Patent pending

The concept of Views is a job-orientated concept. We introduce a view for each specific job (Operator, DIT, Body-Rig, Waveform, Focus Puller…).

Each View shows the video together with its specific tool package.

Depending on the View selected, the direct functions (1-8) may be used or turned into other specific direct functions.

Some View may give access to a contextual menu to adjust some specific parameters, through a short push on the joystick.

See page 19 to 23 for Views descriptions.

USING THE DIRECT FUNCTIONS

Views

*Short push on **Views** – toggles between different views:*

Focus Puller/ Operator / DIT / Waveform / Body-rig

Read pages 19 to 23 for description of the views.

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*Long push on **Views** – accesses to the list of views*

View selector – Long push to enter the Views menu.
Long push again to select the views you want to toggle
between.

Focus Puller
Short push on key 1 to display the Focus Puller View
Long push on key 1 to activate or deactivate the View

Operator
Short push on key 2 to display the Operator View
Long push on key 2 to activate or deactivate the View

DIT
Short push on key 3 to display the DIT View
Long push on key 3 to activate or deactivate the View

Waveform
Short push on key 4 to display the Waveform View
Long push on key 4 to activate or deactivate the View

Body-Rig
Short push on key 5 to display the Body-rig View
Long push on key 5 to activate or deactivate the View

BackFocus chart
Press key 6 to display a back focus chart.
When activated, all the tools (zoom, peaking…) are
deactivated. Push the key 1 to deactivate the back focus chart.

Tip: A View not selected can still be displayed. To do this, first, long push on the View Button. Then, short push to select the View you want to display.

Zoom modes

Pixel to pixel zoom (1:1)
Beyond the native resolution of the picture, magnify implies to create pixels that do not exist. This is why the pixel-to-pixel mode (1:1 zoom) is the highest magnification ratio in a Transvideo monitor.

Anamorphic zoom
The Anamorphic zoom* mode displays the 2.39:1 picture using the full height of the screen, cropping left and right sides. Moving left and right in the picture is possible with the joystick.

Custom zoom
The Custom zoom mode magnifies a specific zone of the native picture. It allows to display in full screen the active 16/9 area of a picture, for example when shooting with some DSLRs or with the ARRI Alexa in 4:3 mode. Long push on Zoom to adjust the custom zoom mode.

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*Short push on **Zoom*** – toggles between different zoom modes

OFF / Anamorphic zoom* / Custom zoom / Pix to pix zoom

When zoom is activated, a pictogram showing the relative position of the magnified zone is displayed.

Use the joystick to move the magnified zone. A long push on the joystick centers the picture.

After 5s of inactivity, the zoom zone is set. The led stops blinking and the pictogram disappears if selected (cf. menu zoom).

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*Long push on **Zoom*** – Custom zoom adjustments

When adjusting the custom zoom, a frame showing the zone to mag displayed on screen.

Custom zoom
Press key 1 to activate / deactivate the custom zoom.
Adjust size
Press key 2 then use joystick (up & down) to adjust the size of the zone to magnify.
Validate by pressing the joystick knob.
Adjust position
Press key 3 then use joystick (up & down, left & right) to adjust the position of the zone to magnify.
Zoom 1:1
Available only when the custom zoom is activated.
Press key 5 to enable / disable the Zoom 1:1. Choose if zoom 1:1 is used in the switching zoom mode (short push on zoom).
Perm. Indicator
Press key 6 to turn on / off
Choose if the zoom position's indicator is always displayed or not.

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* Only available if Menu Adjust - > A. Ratio: Ana 2x or Ana 1.3x.*

Peaking

This function emphasizes the contours of the picture, making manual focusing easier.

Short push on **Peaking** – activates or deactivates the peaking

When activating the peaking, the settings are displayed in the right side of the screen.

Use the joystick to adjust the peaking level (up & down).

After 5s of inactivity, the led stops blinking and peaking is activated on the selected level.

Focus Helper

This function displays in-focus zone with colored dots, making manual focusing easier.

Short push on **Focus** – activates or deactivates the focus helper

When activating the focus helper, the settings are displayed in the right side of the screen.

Select the desired emphasis color (left & right) and level (up & down) with the joystick.

After 5s of inactivity, the led stops blinking and focus helper is activated on the selected color and level.

Markers

*Short push on **Markers** – shows or hides the markers*

Several markers can be simultaneously displayed.

When the safe area marker is activated (but hidden), it will be possible
to adjust the value of the safe area by using the joystick (up & down).

Long push on Markers to select the markers to display.

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*Long push on **Markers** – markers selection*

Central cross
Press key 1 to activate / deactivate the central cross.

Safe area
Press key 2 then use the joystick (up & down) to adjust the safe
area marker (50 to 99%). Validate by pressing the joystick.

Marker 1.33:1 (4:3)
Press key 3 to activate / deactivate the marker 4:3.

Marker 1.56:1 (14/9)
Press key 4 to activate / deactivate the marker 14/9.

Marker 1.78:1 (16/9)
Press key 5 to activate / deactivate the marker 16/9.

Marker 1.85:1
Press key 6 to activate / deactivate the marker 1.85:1.

Marker 2.39:1
Press key 7 to activate / deactivate the marker 2.39:1.

Rainbow*HD*
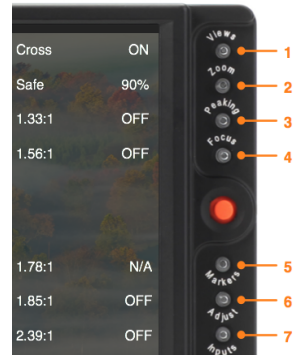
Display Adjust

*Short/long push on **Adjust** – display adjustments*

Brightness
Press key 1 then use joystick (up & down) to adjust the brightness.
Validate by pressing the joystick.

Contrast
Press key 2 then use joystick (up & down) to adjust the contrast.
Validate by pressing the joystick.

Saturation
Press key 3 then use joystick (up & down) to adjust the saturation.
Validate by pressing the joystick.

Hue (NTSC only)
Press key 4 then use joystick (up & down) to adjust the hue.
Validate by pressing the joystick.

Aspect ratio & anamorphic desqueeze
Press key 5 then use joystick (up & down) to select the aspect
ratio: 1.78:1 – Ana 2x – Ana 1.3x – 1.33:1 (CVBS)
Validate by pressing the joystick.

Colorimetry
Press key 6 then use joystick (up & down) to adjust the colorimetry.
D65 – D56 – FB (full bright) – D65 adj – D56 adj.
Validate by pressing the joystick.

Profile (Log profiles)
Press key 7 to enter into the input profile sub-menu.
Linear (default value)
Rec709
S-Log
S-Log2
Canon-Log
Log-C

About colorimetry:
D65: the brightness and white point are calibrated in D65 (6500K at 200Nits)
D56: the brightness and white point are calibrated in D56 (5600K at 200Nits)
FB (full bright): color calibration is deactivated - backlight dimmer can be adjusted in menu Tech
D65 adj: white point is calibrated in D65 (6500K) - backlight dimmer can be adjusted in menu Tech
D56 adj: white point is calibrated in D56 (5600K) - backlight dimmer can be adjusted in menu Tech

Inputs

*Short push on **Inputs** – toggles between video inputs*

Long push on Inputs to enter the Inputs Selector and select active video inputs..

***Input selector** – Long push to enter the Inputs menu.*
Long push again to select the inputs you want to toggle between.

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*Long push on **Inputs** – Inputs selector*

SDI
Long push on key 1 to activate or deactivate SDI A
Short push on key 1 to display SDI A
Long push on key 2 to activate or deactivate SDI B *
Short push on key 2 to display SDI B *

HDMI
Long push on key 3 to activate or deactivate HDMI
Short push on key 3 to display HDMI

CVBS
Long push on key 4 to activate or deactivate CVBS
Short push on key 4 to display

Rainbow HD

Tech adjustments

*Short/long push on **Tech*** – technical adjustments

Audio volume
Press key 1 then use joystick (up & down) to adjust the audio monitoring volume.

Audio pair selection
Press key 2 then use joystick (up & down) to select the audio pair displayed on the bargraph.

FLIP
Press key 3 then use joystick (up & down) to adjust the apply a flip to the image. Validate by pressing the joystick knob.
Auto: reverse the image when RainbowHD is up side down
HFlip : horizontal image flip
VFlip: vertical image flip
Reverse: horizontal + vertical image flip

Screenshot
When activated, allows to do a screenshot by pushing the central joystick, when no others function is in setting state (led associated to the function is flashing).
Press key 4 to enable/disable screenshot.

Notes: In Body-Rig View, a push on the joystick calls the Horizon menu (0CAL, Sensitivity, CAL on TAP). If Screenshot is enabled, a long push will be necessary to access the Horizon menu.

Backlight dimmer
Press key 5 then use joystick (up & down) to adjust the backlight dimmer. Validate by pressing the joystick knob.
Dimmer is not applicable when colorimetry is set as D65 or D56.

Night mode
Reverse the led behaviour: an activated function (ie Peaking/Focus Helper/Zoom...) will have its LED OFF an and inactive function will have its LED ON.
Press key 6 to turn ON/OFF night mode.

Factory Reset
Reset all settings to factory settings.

Audio Vol	50
Audio pair	1
FLIP	No Flip
Screenshot	OFF
Dimmer	N/A
Night mode	OFF

Technical adjustments

SCREENSHOT SPECS and LIMITATIONS

Name: screenshot_xxx.bmp
xxx: from 000 to 999. Starts from last number found. Limitation - Do not handle loop back)

SD CARD Format: FAT32

SD CARD Limitation: Total of 20 folders on the card.
For instance, if a folder "FOLD1" contains folders "F1_SUB1" and "F1_SUB2" there is a total of 3 folders on the SD card.
FOLD1 -- | - SUB1

        | - SUB2

        | - SUB3

FOLD2 -- | - SUB1

        | - SUB2

=> 7 folders

Record Time: 6 seconds by screenshot.

Record Queue: 20 pictures

Output Format: BMP

Limitation: Screenshots do not handle disconnection during saving. Never remove the SD card while recording, or the monitor will freeze.
Colorimetry/FLIP/Image Adjustment/ZOOM are saved with the picture. For example, in D56, whites will turn reddish.

Indicator: The number displayed next to the joystick corresponds to the remaining screenshots waiting to be saved on the SD card.

Screenshots are saved on the SD card root folder.

SD card with smaller capacity than 4GB have not been tested and may not work.

Tested cards:
Sandisk 4Go (micro-Class 4), 8Go (micro - Ultra - Class 10 / Normal - Ultra - Class 10), 16Go (Normal - Class 10)
Transcend 8Go (Normal - Class 10)
Verbatim 8Go (micro-Class 10 / Normal - Class 10)

Cards with 32GB and more capacity have not been tested

USING THE FOCUS PULLER VIEW

The FOCUS PULLER View shows only the picture from the first line first pixel to the last line last pixel.

USING THE OPERATOR VIEW

The OPERATOR View shows the picture and a status bar.

Ti. Timecode
Displays the SDI embedded timecode (ATC).

Ta. Tally
Activated through the REC/STOP command embedded in the SDI.

B. Battery / power information
Displays the input voltage from the power supply or the battery. With Anton Bauer batteries, gives the remaining percentage of charge of the battery and the time to run (see page 7).

USING THE DIT VIEW

The DIT View features measurements and tools that are not displayed in overlay on the picture.

W. Waveform luminance
Shows a line representation of luminance (Y component). The waveform has the same width than the picture, making the picture analysis more accurate and easy.

V. Vectorscope
Shows a representation of the color vectors

H. Histogram luminance
Shows a statistical representation of luminance (Y component) as a bargraph.

A. Audio monitoring
Displays the SDI embedded audio presence for all channels. Vu-meter and Peak-meter display one audio pair out of the 8 possible. Audio pair selection is done in the technical adjustments (see page 17).

S. Video input and standard

Ti. Timecode
Displays the SDI embedded timecode (ATC).

Ta. Tally
Activated through the REC/STOP command embedded in the SDI.

B. Battery / power information
Displays the input voltage from the power supply or the battery. With Anton Bauer batteries, gives the remaining percentage of charge of the battery and the time to run (see page 7).

USING THE WAVEFORM VIEW

The WAVEFORM view shows the picture with a small waveform in overlay and a status bar.

Ti. **Timecode**
Displays the SDI embedded timecode (ATC).

Ta. **Tally**
Activated through the REC/STOP command embedded in the SDI.

B. **Battery / power information**
Displays the input voltage from the power supply or the battery. With Anton Bauer batteries, gives the remaining percentage of charge of the battery and the time to run (see page 7).

W. **Waveform luminance**
Shows a line representation of luminance (Y component). The waveform is displayed in overlay on the picture.

USING THE BODY-RIG VIEW

The BODY-RIG View shows the picture and a status bar with VirtualHorizon (only available on SBL).

H.   Horizon
Color coded leveler with adjustable sensitivity.
When Cal-on-Tap is activated, tap on screen or on Transvideo logo to zero calibrate the horizon. A temporization of 3 seconds allows the user to stabilize the position of the system.

Short push on the joystick knob (J) – gives access to the horizon settings*.

Press key 1 to set the horizon to 0.

A temporization of 3 seconds allows stabilizing the position of the system.

Press key 2 then use the joystick (up & down) to adjust the sensitivity of the horizon. Validate by pressing the joystick knob.

Press key 3 to activate or deactivate the Cal-on-Tap** function.

B.   Battery / power information
Displays the input voltage from the power supply or the battery. With Anton Bauer batteries, gives the remaining percentage of charge of the battery and the time to run (see page 7).

Ta.   Tally
Activated through the REC/STOP command embedded in the SDI.

* If screenshots are enabled, the Horizon settings are accessed with a long push on the joystick.

** When activated, tap on screen or on Transvideo logo to zero calibrate the horizon.
0 CAL: Sets the horizon to 0. A temporization of 5 seconds allows the user to stabilize the position of the system. Pushing the rotating knob during calibration exits from the timing.

SERVICE & MAINTENANCE

General

Please read carefully the chapter "TRANSVIDEO EQUIPMENT LIMITED WARRANTY" about the Transvideo S.A. warranty on the equipment described in this manual.

For repairs contact Transvideo S.A. or its local representative or use the RAN procedure in the chapter "SERVICE & MAINTENANCE", section "Product Return".

Useful tips

Cleaning

The painting of the RainbowHD is resistant to general cleaners and solvents. Do not use abrasive products to clean your product.

The front glass is a high quality optical part. A metallic multi-layers vacuum deposit makes the anti-reflection coating. Do not use abrasive or acid cleaners. The microfiber cloth delivered with the RainbowHD is strongly recommended to clean the glass. Remove dust and particles of the glass before using the cloth. No liquid is normally necessary. If there is some dirt on the screen, it is possible to remove it with clean warm water.

The microfiber cloth collects grease particle in its structure. It is necessary to wash it when necessary with water and soap.

The microfiber cloth is orderable as spare part (refer to your local Transvideo dealer in case of need).

Full reset

If needed, a full reset of the monitor may be performed as follows:

① Connect the monitor to a power source (monitor off).
② Press the "Tech" key
③ Switch on the monitor while keeping pressed the "adjust" key until the display shows "FULL RESET"

Hardware, Software and Firmware

Hardware, software and firmware versions are given by the "build" version displayed during the start-up of the monitor. This information is useful to write down if trouble-shooting becomes necessary.

Updating your RainbowHD

All software and firmware updates are possible by the sole use of a USB stick.
The following procedure sets how to proceed to update your monitor.

Step 1
Get the last software update file for your RainbowHD.
Software and firmware files are merged into a single file. This file can be downloaded on our website (Support page) or sent by the Transvideo support team or by your local Transvideo representative.

Step 2
Paste the software update file **at the root** of the USB stick.

Step 3
Plug in the USB stick in the monitor.

Step 4
Switch on the monitor while keeping pressed the joystick.

Step 5
The update starts. Do not turn off the monitor neither remove the USB stick until the update ends.
Once updated, the monitor automatically starts and performs a full reset.
You can visit our support section on our website for more information regarding monitor updates (registered users only).

Precaution
The USB stick must be FAT formatted.
Do not rename files on the USB stick.
If update is launched by error, wait until the monitor starts (may take some time).

Calibration

The white point of the monitor is individually calibrated in factory for D65 and D56.
The calibration doesn't need to be performed except after some specific service operation as the replacement of the backlight unit or if you need to match a large inventory of your RainbowHD after hundreds hours of use.
To perform the calibration, you need to send the product to the factory. Fees may apply if needed.

Product Return

For repairs and technical operations you may return the product to the factory. Please use the following procedure:

① Ask for a RAN (Return Authorization Number)

Log in to our website using your user account and visit the Support section
www.transvideo.eu/support

Or contact us by:
Email   service@transvideo.eu
Fax   +33 2 3260 1479
Tel   +33 2 3232 2761

You will need to provide part number & serial number (found on the back of your product) and to briefly describe the reason for the return.

② Then send the product to the following address:

TRANSVIDEO
ZI - Rue Francois Arago
27130 Verneuil sur Avre
France

User is responsible for shipment and insurance of the equipment as well as for any damage that may occur during transit.
It is strongly recommended to inform us of the Tracking Number of your shipment and the RAN so we may track your produt while in transit.

SPECIFICATIONS

Common characteristics

	RainbowHD	RainbowHD SBL
Video inputs	1 x 3G HD/SD SDI (BNC) 1 x HDMI (type A) 1 x CVBS (BNC)	2 x 3G HD/SD SDI (BNC) 1 x HDMI (type A) 1 x CVBS (BNC)
Video outputs	1 x 3G HD/SD SDI (processed) 1 x CVBS (loop)	1 x 3G HD/SD SDI (processed) 1 x HD/SD SDI (reclocked) 1 x CVBS (loop)
Display type	AMLCD – 7 inches	
Pixels	Picture zone 960 x 540	
Brightness max	450 Nits	900 Nits
Contrast ratio	1000:1	950:1
Contrast ratio (ANSI)	760:1	600:1
Viewing angles	± 80° H & V	
White point calibration	D65 ITU-R BT.709-5 & D56	
Color space	Rec. ITU-R BT.709-5	
Latency	Less than 1 frame	
Dimensions (w x h x d)	187 x 105 x 35 mm – 7.3 x 4.1 x 1.4 inch	
Weight	660g / 1.45lbs	690g / 1.52lbs
Power	10 to 36 VDC – XLR 4pins male connector (-1,+4)	
Storage temp. Operating temp.	-40°C +80°C -20°C + 55°C	

*   only RainbowHD SBL

Rainbow*HD*

Supported standards

3G SDI (SMPTE 424M)	1920x1080p @ 50, 59.94, 60 Hz (SMPTE 425M Level B)
HD SDI (SMPTE 292M)	1280x720p @ 24, 25, 29.97, 30 Hz (SMPTE 296M) 1280x720p @ 50, 59.94, 60 Hz (SMPTE 296M) 1920x1080i @ 50, 59.94, 60 Hz (SMPTE 274M) 1920x1080psf @ 23.98, 24, 25, 29.97, 30 Hz (SMPTE 274M) 1920x1080p @ 23.97, 24, 25, 29.94, 30 Hz (SMPTE 274M)
SD SDI (SMPTE 259M-C)	720x487i @ 60 Hz (SD SDI 525 - SMPTE 125M) 720x576i @ 50 Hz (SD SDI 625 - ITU-R BT.601)
CVBS	NTSC-M, NTSC-J, NTSC 4.43 PAL B/G H I D, PAL M, PAL N SECAM
HDMI	720x480i @ 59.94, 60 Hz 720x576i @ 50Hz 720x480p @ 59.94, 60 Hz 720x576p @ 50Hz 1280x720p @ 50, 59.94, 60 Hz 1920x1080i @ 50, 59.94, 60 Hz 1920x1080psf @ 25, 29.97, 30 Hz 1920x1080p @ 23.97, 24, 25, 29.94, 30 Hz

TRANSVIDEO EQUIPMENT LIMITED WARRANTY

Transvideo S.A gives the warranty set forward below.

The limited warranty is only effective upon presentation of your Bill of Sale or other proof of purchase.

Transvideo equipment is warranted under normal use, against defective materials or workmanship as follows:

Parts: Defective parts will be exchanged for new parts or comparable rebuilt parts for a period of TWO YEARS from the date of original purchase.

Labor: For a period of TWO YEARS from the date of original purchase, labor will be provided free of charge by our factory service centers or designated service facilities located in country where the product have been purchased, or by the factory.

When returning equipment under this warranty, you must pre-pay the shipping charges, and you must enclose the Bill of Sale or other proof of purchase with a complete explanation of the problem.

During your TWO-YEAR warranty period, repairs will be made and the equipment return-shipped to you free of charge. After your warranty period is over, you will be given an estimate of the cost of repair and an opportunity to approve or disapprove of the repair expense before it is incurred. If you approve, repairs will be made and the equipment return shipped to you. (shipping charges apply). If you disapprove, we will return-ship the equipment at no charge to you. (shipping charges apply).

Non-Transvideo brand peripheral equipment and software which may be distributed with Transvideo products are sold "AS IS" without warranty of any kind by Transvideo, including any implied warranty regarding merchantability or fitness for a particular purpose. The manufacturer or producer gives the sole warranty with respect to such non-transvideo brand items

Thereof :

Transvideo shall have no responsibility under this limited warranty for use of Transvideo product in conjunction with incompatible equipment or peripheral equipment.

In order to obtain warranty service, contact the authorized Transvideo retail dealer from whom you purchased the product or contact the factory :

By phone   +33 2 3232 2761
By fax   +33 2 3260 1479
By email   service@transvideo.eu

You will be directed to the nearest service facility for your product.

If there is no service facility in your region, you will receive a RAN (Return Authorization Number) and instruction to return your product to the factory.

This Limited Warranty covers all defects encountered in normal use of the equipment and does not apply in the following cases:

Loss or damage to the equipment due to abuse, mishandling, accident, improper maintenance, or failure to follow operating instructions;

If the equipment is defective as a result of leaking batteries, sand, dirt or water damage; If defects or damages are caused by the use of unauthorized parts or by service other than our authorized agent. This Limited Warranty does not cover cabinet (exterior finish).

This warranty does not cover units sold to military operations or avionics. These uses are covered only by such specific warranty as Transvideo may issue with such sales.

This Limited Warranty does not apply to accessories or consumables for the product, which are sold "AS IS", without warranty of any kind by Transvideo.

Please retain this warranty card and your Bill of Sale as a permanent record of your purchase. This card is most important in order to be sure you are contacted right away should there be a safety inspection, modification or product recall under applicable laws or regulations.

Rainbow HD

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