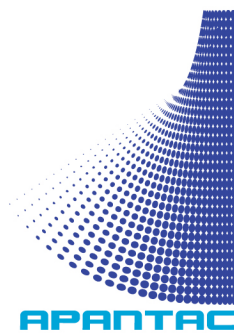
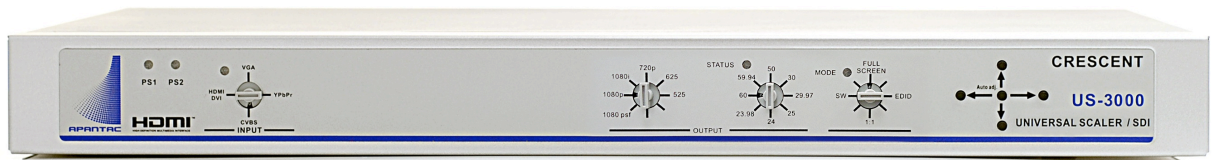
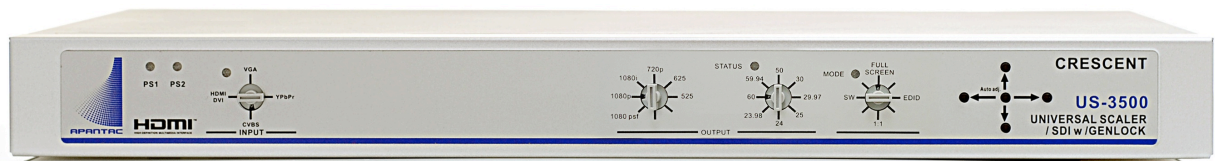

US-3000

US-3500

User Manual



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Apantac LLC (herein after referred to as "Apantac") warrants to the original purchaser of the products manufactured by Apantac (the "Product,") will be free from defects in material and workmanship for a period of three (3) year from the date of shipment of the Product to the purchaser.

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- (a) Repair the defective Product without charge for parts and labor or,
- (b) Provide a replacement in exchange for the defective Product or,
- (c) If after a reasonable time, is unable to correct the defect or provide a replacement Product in good working order, then the purchaser shall be entitled to recover damages subject to the limitation of liability set forth below.

Limitation of Liability

Apantac's liability under this warranty shall not exceed the purchase price paid for the defective product. In no event shall Apantac be liable for any incidental, special or consequential damages, including without limitation, loss of profits for any breach of this warranty.

If Apantac replaces the defective Product with a replacement Product as provided under the terms of this Warranty, in no event will the term of the warranty on the replacement Product exceed the number of months remaining on the warranty covering the defective Product.

Equipment manufactured by other suppliers and supplied by Apantac carries the respective manufacturer's warranty. Apantac assumes no warranty responsibility either expressed or implied

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- a) Caused by improper use of the Product or inadequate maintenance and care of the Product,
- b) Resulting from attempts by those other than Apantac representatives to install, repair, or service the Product,
- c) Caused by installation of the Product in a hostile operating environment or connection of the Product to incompatible equipment.

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1.0 WHAT'S IN THE BOX

- 1 x US-3000 or 3500
- 2 x Rack Ears
- 1 x VGA-DVI Adapter
- 1 x HDMI-DVI Adapter
- 1 x YPbPr-DVI Adapter
- 1 x 75 ohm Terminator
- 1 x Manual

2.0 Features

The US-3000 is a Universal Scaler without genlock capability and the US-3500 is a Universal Scaler with genlock capability. They both:

- Support HDMI, DVI, VGA, YpbPr and CVBS inputs
- Support multiple SDI output formats.

3.0 Specifications

3.1 Input

Input	Resolutions
VGA	800x600 60Hz
VGA	1024x768 60Hz
VGA	1280x800 60Hz
VGA	1280x960 60Hz
VGA	1280x1024 60Hz
VGA	1360x768 60Hz
VGA	1366x768 60Hz
VGA	1440x900 60Hz
VGA	1400x1050 60Hz
VGA	1600x1200 60Hz
VGA	1680x1050 60Hz
VGA	1920x1080 60Hz
VGA	1920x1200 60Hz (R.B.)
DVI	800x600 60Hz
DVI	1024x768 60Hz

DVI	1280x720 60Hz
DVI	1280x768 60Hz
DVI	1280x800 60Hz
DVI	1280x960 60Hz
DVI	1280x1024 60Hz
DVI	1360x768 60Hz
DVI	1366x768 60Hz
DVI	1440x900 60Hz
DVI	1400x1050 60Hz
DVI	1600x1200 60Hz
DVI	1680x1050 60Hz
DVI	1920x1080i 60Hz
DVI	1920x1080p 60Hz
DVI	1920x1200 60Hz (R.B.)
HDMI	480i
HDMI	576i
HDMI	480P 59.94Hz
HDMI	576P 50Hz
HDMI	720P 59.94, 60, 50 Hz
HDMI	1080i 59.94, 60, 50 Hz
HDMI	1080P 59.94, 60, 50 Hz
Discrete Audio	Unbalanced stereo analog audio
YpbPr	480i
YPbPr	576i
YPbPr	720p 50/60/59.94 Hz
YPbPr	1080i 50/60/59.94 Hz
YPbPr	1080p 50/60/59.94 Hz
Composite PAL	ITU624-2
Composite NTSC	SMPTE-170M

3.2 Output formats

SD-SDI	SMPTE-259M
HD-SDI	SMPTE-292M
3G-SDI	SMPTE-424M
Embedded Audio	4 channels (1 group) of audio with

HDMI input. 2 channels of audio with analog audio input

3.3 Genlock

Input	
NTSC	SMPTE-170M
PAL	ITU624-2
Adjustments	
Vertical	-1000 to +1000 lines
Horizontal	-2000 to +2000 clock

4.0 Front/Rear Panels

4.0.1 Front Panel

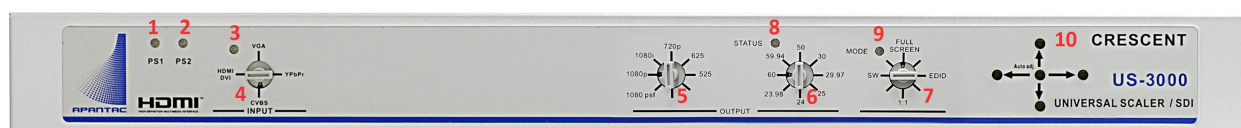


Figure 4-1 US-3000 and US-3500 have the same front panel

4.0.2 Descriptions

1. PS1 – Main power supply indicator
2. PS2 – Redundant power supply indicator (redundant power supply is optional)
3. Input signal status indicator
4. Rotary dial to select input format
5. Rotary dial to select output format
6. Rotary dial to select output frequency
7. Rotary dial to select Mode
 - a. Full Screen – Regardless of the input aspect ratio, the output will always fill the screen
 - b. EDID – EDID learning mode
While in this mode, connect the DVI-I input connector and apply power.

The US-3x00 will read the monitor's EDID and store it. Then the next time a device is connected to the unit DVI-I input, it will be in the same situation as if it was directly connected to the monitor.

- c. 1:1 – The input image aspect ratio will be preserved. If the source aspect ratio is 4:3 and the output format is 16:9, there will be left and right black bars. If the source aspect ratio is 16:9 and the output format is 4:3, there will be black bars on top and bottom
 - d. SW – Software control mode. The control software settings have priority over the front panel settings
8. Status – Output status LED
9. Mode
- a. In the US-3500, it is green, when reference is locked
 - b. In the US-3000, it is green, when the output is valid
10. Horizontal and Vertical position adjustment for VGA inputs

4.0.3 Rear Panel



Figure 4-2: US-3000 Rear Panel

1. Multi-format DVI-I input connector
2. Analog stereo audio in
3. SDI out 1
4. SDI out 2
5. RS-232 – for remote control (future implementation)
6. IP – for remote control and FW upgrade
7. 12 VDC power inlet – for redundant power supply
8. AC power inlet – 90 to 250V



Figure 4-3: US-3500 Rear Panel

1. Multi-format DVI-I input connector
2. Analog stereo audio in
3. Reference In
4. Reference Loop out
5. SDI out 1
6. SDI out 2
7. RS232 – for remote control
8. IP – for remote control and FW upgrade
9. 12 VDC power inlet – for redundant power supply
10. AC power inlet – 90 to 250V

5.0 US-3500 Genlock Adjustment

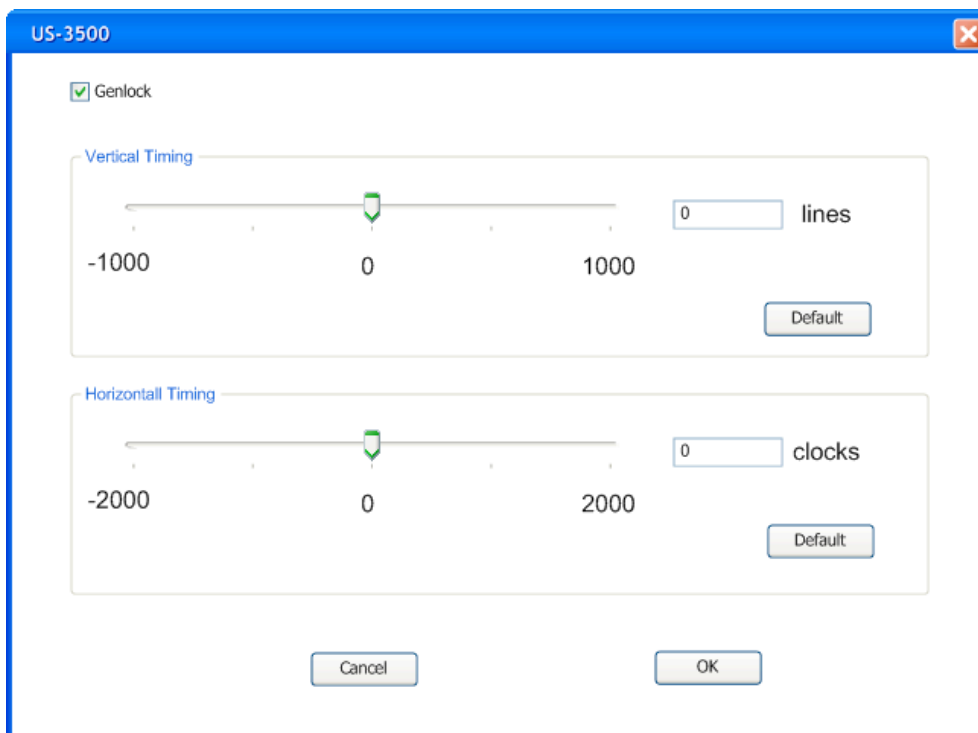


Figure 4-4: US-3500 Genlock Adjustment, <Default> returns to the "0" mark

6.0 Accessories

<p>2 x Rack Ears</p>	<p>1 x VGA to DVI Adapter</p>

	
<p>1 x HDMI to DVI Adapter</p>	<p>1 x YPbPr / CVBS to DVI Adapter</p>
	
<p>75 ohm Terminator</p>	