ATLONA
Connecting Technology

Three-Input HD Video Scaler
for HDMI and VGA Signals

AT-HD-SC-500 | Atlona Manuals **Switchers**

Version Information

Version	Release Date	Notes
6	04/17	New manual format
7	05/17	Added DispBtn command (only available when running firmware v1.3.30)

Welcome to Atlona!

Thank you for purchasing this Atlona product. We hope you enjoy it and will take a extra few moments to register your new purchase.

Registration only takes a few minutes and protects this product against theft or loss. In addition, you will receive notifications of product updates and firmware. Atlona product registration is voluntary and failure to register will not affect the product warranty.

To register your product, go to http://www.atlona.com/registration

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Operating Notes

IMPORTANT: Visit http://www.atlona.com/product/AT-HD-SC-500 for the latest firmware updates and User Manual.

- The Atlona Management System (AMS) is a free downloadable application from Atlona that provides network configuration assistance for this product. This application is available only for the Windows® Operating Sytem and can be downloaded from the Atlona web site.
- Consumer Electronics Control (CEC): Atlona has confirmed proper CEC functionality with several current models of Samsung, Panasonic, and Sony displays. However, it is not guaranteed that CEC will work with all displays. Many manufacturers do not support the CEC “off” command, and older displays use proprietary commands. Atlona only supports displays that use the CEC command structure defined in HDMI 1.2a. It is recommended that dealers request an evaluation product from Atlona, before designing a system using the CEC protocol. If this is not possible, then other control methods will need to be considered, in order to control displays using Atlona products.

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OR

- replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products.

OR

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- 3 years from proof of purchase date for hardware/electronics products purchased before June 1, 2013.
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Atlona requires that products returned are properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization or case number will be refused. Atlona, at its sole discretion, reserves the right to reject any products received without advanced authorization. Authorizations can be requested by calling 1-877-536-3976 (US toll free) or 1-408- 962-0515 (US/international) or via Atlona’s website at www.atlona.com.

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This Limited Product Warranty excludes:

- Damage, deterioration or malfunction caused by any alteration, modification, improper use, neglect, improper packaging or shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature.

- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.
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Important Safety Information

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCT THE RISK OF ELECTRIC SHOCK
DO NOT OPEN ENCLOSURE OR EXPOSE TO RAIN OR MOISTURE.
NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.
11. Only use attachments/accessories specified by Atlona.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this product during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

FCC Statement

FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired operation. This equipment 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 in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

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Introduction

The dual HDMI and VGA switcher w/scaler provides a multisystem solution. Use the HD-SC-500 as: a standalone 3 in 1 out switcher for small systems, an analog to digital video converter for systems with no VGA ports, and a scaler for systems with displays that require specific resolutions. Supports scaling of video up to 1920x1200/1080p, VGA conversion and audio embedding and de-embedding, the HD-SC-500 has a function in almost any system.

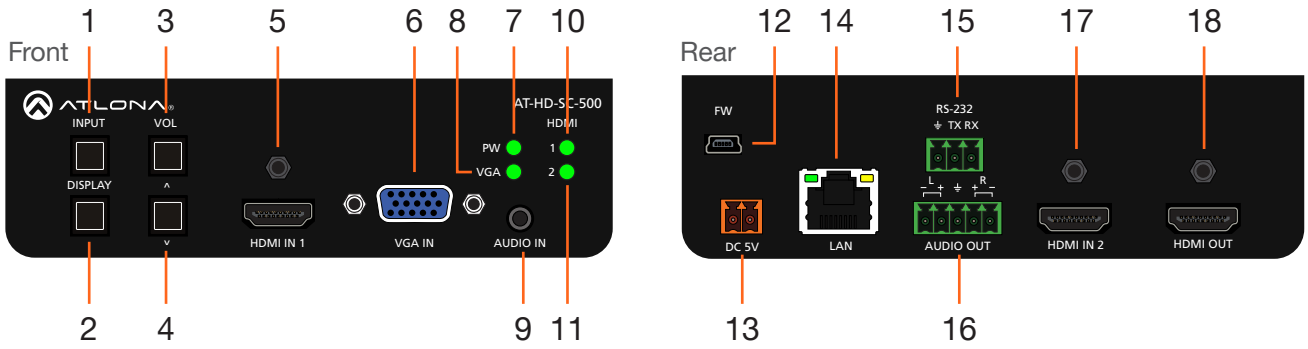
Features

- Scales incoming signals up to 1920x1200
- Three input, one output switcher
- Auto-switching (activated through RS-232 or webGUI)
- HDMI inputs support DVI and DisplayPort signals (with adaptors)
- Audio input for embedding audio onto video signals
- Control of brightness, contrast, saturation, hue, and sharpness
- Volume control
- Adjust treble and bass of audio output to ensure the best speaker performance
- Balanced, analog audio output for de-embedding audio to amplifiers or audio systems
- Control via RS-232, TCP/IP, webGUI, and OSD
- Ability to switch HDCP reporting between compliant and non-compliant
- Firmware upgradable for easy field service through USB or web GUI

Package Contents

1 x AT-HD-SC-500
1 x Phoenix terminal block, 5-pin (captive screw)
1 x Phoenix terminal block, 3-pin (captive screw)
1 x Phoenix terminal block, 2-pin (captive screw)
1 x 5V DC power supply
1 x Wall/table mount ears
1 x Installation Guide

Panel Description



1 INPUT
Press this button to select the desired input.

2 DISPLAY
Press this button to show the On-Screen Display (OSD) and select items within the OSD.

3 VOL / UP CURSOR
Press this button to adjust the volume on the connected display and to select items within the OSD.

4 DOWN CURSOR
Press this button to scroll down within the OSD.

5 HDMI IN 1
Connect an HDMI cable from this port to an HD source.

6 VGA IN
Connect a VGA cable from this port to a VGA source.

7 PW
This LED indicator will glow bright green when the switcher is powered.

8 VGA
This LED indicator will glow bright green when the VGA IN port is selected.

9 AUDIO IN
Connect a 3.5mm mini-stereo audio cable, from an analog audio source, to this port.

10 HDMI 1
This LED indicator will glow bright green when the HDMI 1 port is selected.

11 HDMI 2
This LED indicator will glow bright green when the HDMI 2 port is selected.

12 FW
Connect a mini USB to USB-A type cable from this port to a computer to update the firmware.
See Updating the Firmware (page 81) for more information.

13 DC 5V
Connect the included 2-pin Phoenix block from this connector to the 5V DC power supply.

14 LAN
Connect an Ethernet cable from this port to a Local Area Network (LAN).

15 RS-232
Connect the included 3-pin Phoenix block from this connector to an RS-232 device.

16 AUDIO OUT
Connect the included 5-pin Phoenix block from this connector to an audio amplifier.

17 HDMI IN 2
Connect an HD source to this port.

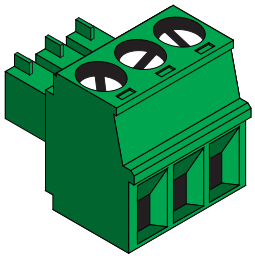
18 HDMI OUT
Connect an HDMI cable from this port to a display (sink) device.

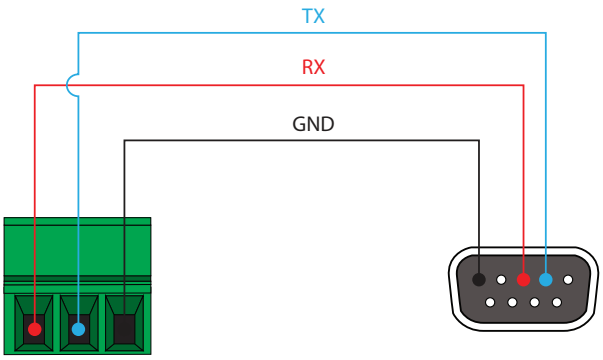
Installation

RS-232

The AT-HD-SC-500 provides RS-232 control between an automation system and an RS-232 device. This step is optional.

1. Use wire strippers to remove a portion of the cable jacket.
2. Remove at least 3/16” (5 mm) from the insulation of the RX, TX, and GND wires.
3. Insert the TX, RX, and GND wires into correct terminal on the included Phoenix block. If using non-tinned stranded wire, presss the orange tab, above the terminal, while inserting the exposed wire. Repeat this step for the TX, RX, and GND connections.

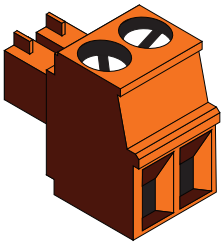


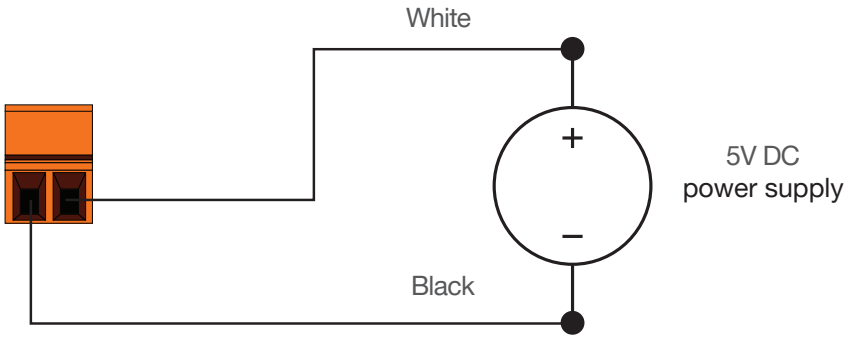


Power

Locate the included orange Phoenix terminal block and wire the included power supply to the block, as shown below. Do not use high-torque devices, when securing the wires to the Phoenix terminal block, as this may damage the screws and/or block.

1. Insert the wires into the correct terminal on the included Phoenix block, as shown below.
2. Tighten the screws to secure the wires. Do not use high-torque devices as this may damage the screws and/or connector block.

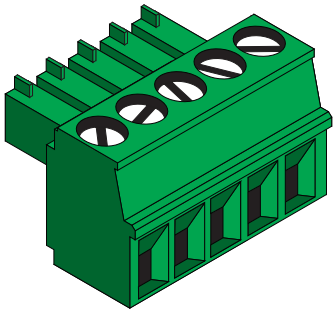


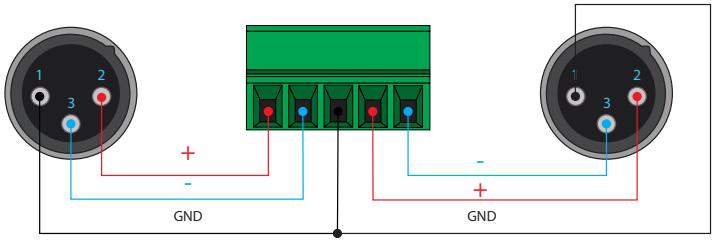


Audio

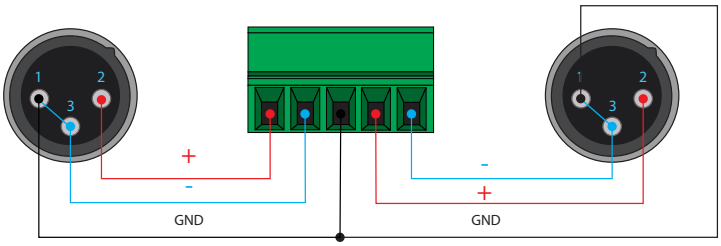
The **AUDIO OUT** connector on the AT-HD-SC-500 provides the connection of either balanced or unbalanced audio outputs using XLR connectors. Use the included 5-pin Phoenix terminal block.

Balanced audio connections use two signal wires and a ground to minimize interference in audio signals. Unbalanced audio connections use one signal wire and a ground and are used if system components don't support balanced signals.





Balanced



Unbalanced

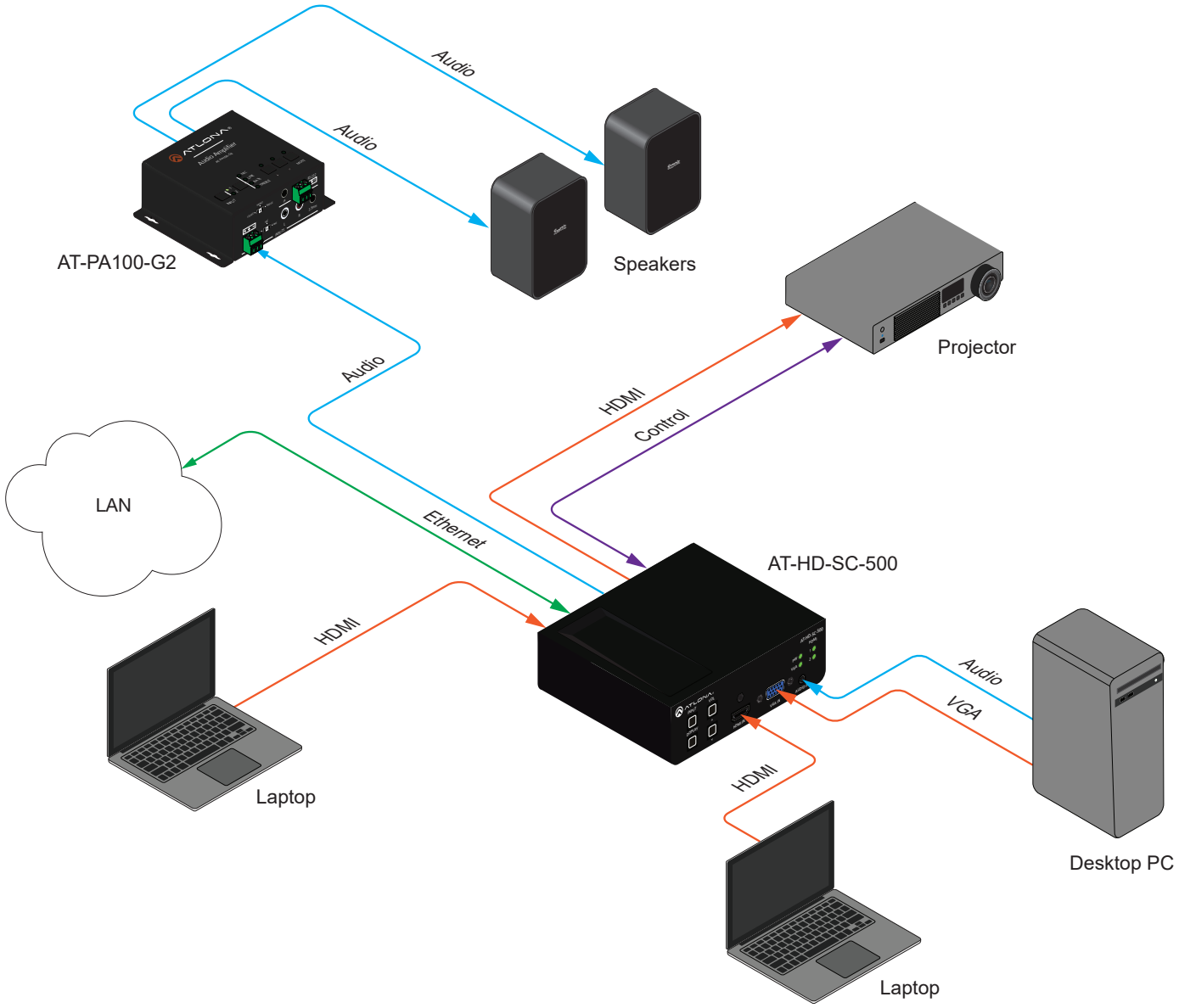
Connection Instructions

1. Connect an HDMI cable between the HD source and the **HDMI IN 1** port on the switcher.
2. Connect another HDMI cable between another HD source and the **HDMI IN 2** port on the switcher.
3. Connect a VGA cable from a VGA source to the **VGA IN** port on the switcher.
4. Connect a 3.5 mm mini-stereo cable from the **AUDIO IN** port on the switcher to the analog audio source. This port allows two-channel analog audio to be included when the **VGA IN** port is selected. See Passing Analog Audio (page 17) for more information.
5. Connect an Ethernet cable, up to 330 feet (100 meters), from the **LAN** port on the switcher to a Local Area Network (LAN).

> **IMPORTANT**: If EZ RJ-45 connectors are being used to terminate Ethernet cable, make sure that each twisted pair does not extend beyond the RJ-45 connector. Exposed twisted-pair wires may cause a short when connected to the **LAN** port.

6. Connect an HDMI cable from the **HDMI OUT** port on the switcher to an HD display.
7. OPTIONAL: Connect an RS-232 device, such as a projector, to the **RS-232** port on the switcher.
8. OPTIONAL: Connect an audio amplifier, or other audio output device, to the **AUDIO OUT** port on the switcher.
9. Connect the included 5V DC power supply to the **DC 5V** port.
10. Connect the power supply to an available AC outlet.

Connection Diagram

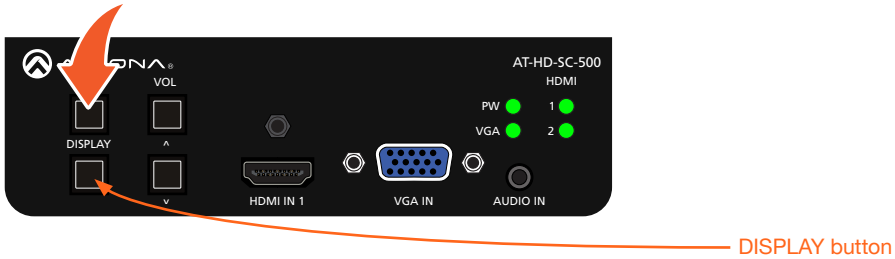


IP Configuration

The AT-HD-SC-500 is shipped with DHCP enabled. Once connected to a network, the DHCP server (if available), will automatically assign an IP address to the unit. Use an IP scanner, along with the MAC address on the bottom of the unit, to identify both the unit and its IP address on the network. If a static IP address is desired, the unit can be switched to static IP mode. Use one of the following procedures to switch between DHCP and static IP mode. The default static IP address of the AT-HD-SC-500 is 192.168.1.254.

Using the Front Panel

1. Make sure the AT-HD-SC-500 is powered.
2. Press and hold the **INPUT** button for approximately 15 seconds.



3. Release the **INPUT** button once the **DISPLAY** button begins to flash. The number of flashes will indicate the currently selected IP mode.

PW LED flashes	Description
Two	Static IP mode
Four	DHCP mode

Using Commands

Use the IPStatic and IPDHCP commands to switch between DHCP and IP mode through RS-232 or Telnet. Refer to Commands (page 49), for more information. All commands and their arguments are case-sensitive.

- **Setting static IP mode**

  1. Connect to the AT-HD-SC-500 using RS-232 or Telnet.
  2. At the command line, execute the IPDHCP command using the off argument, as shown.

     IPDHCP off

  3. Execute the IPStatic command. This command requires three arguments: the desired IP address of the AT-HD-SC-500, the subnet mask, and the gateway address. All arguments must be entered in dot-decimal notation. The following is an example:

     IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

- **Setting DHCP mode**

1. Connect to the AT-HD-SC-500 using RS-232 or Telnet.
2. At the command line, execute the IPDHCP command using the on argument, as shown. All characters are case-sensitive.

   IPDHCP on

   Once DHCP is enabled, the unit will be assigned an IP address by the DHCP server (if present).

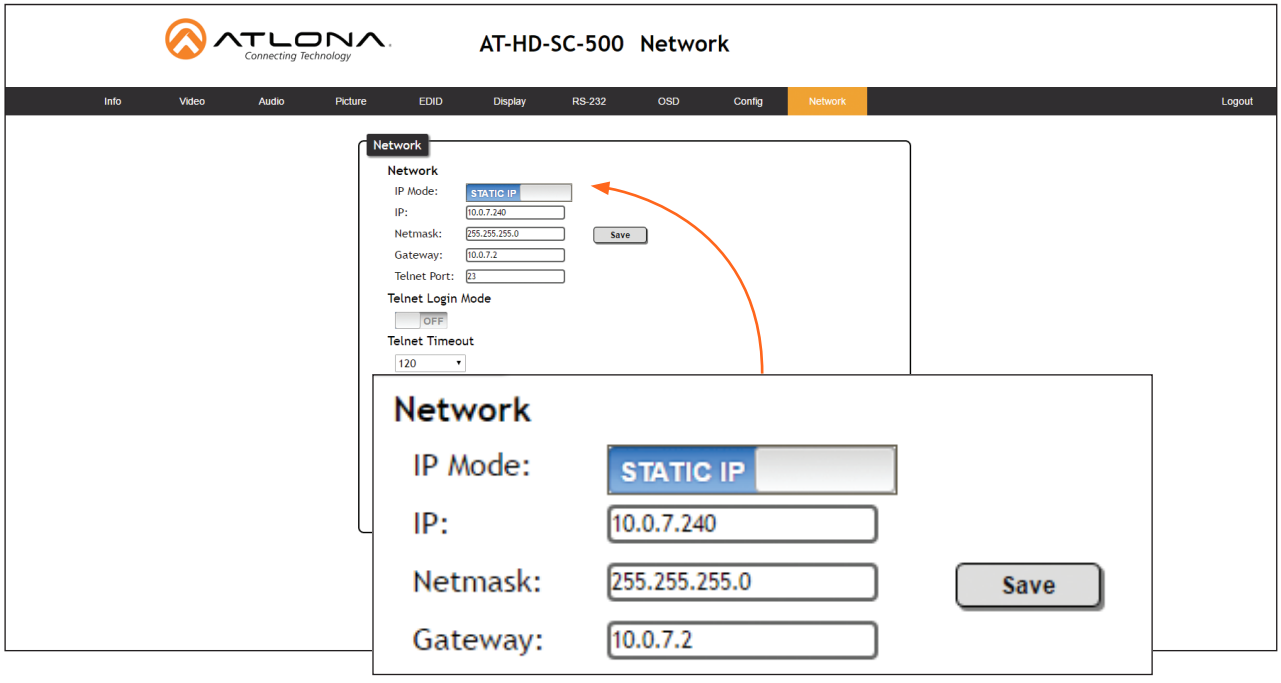
Using the Web GUI

The Network Menu (page 47) in the web GUI, allows the AT-HD-SC-500 to use either DHCP or static IP mode. In order to access the web GUI, the IP address of the AT-HD-SC-500 must be known.

1. Open the desired web browser and enter the IP address of the AT-HD-SC-500.
2. Log in, using the required credentials. The factory-default username and password are listed below:

   Username: root
   Password: Atlona

3. Click the **Network** tab.



4. Click the **IP Mode** toggle to switch between the **DHCP** and **STATIC IP** setting.

   When set to **STATIC IP**, the **IP**, **Netmask**, and **Gateway** fields can be modified.

5. Click the **Save** button to save the changes.

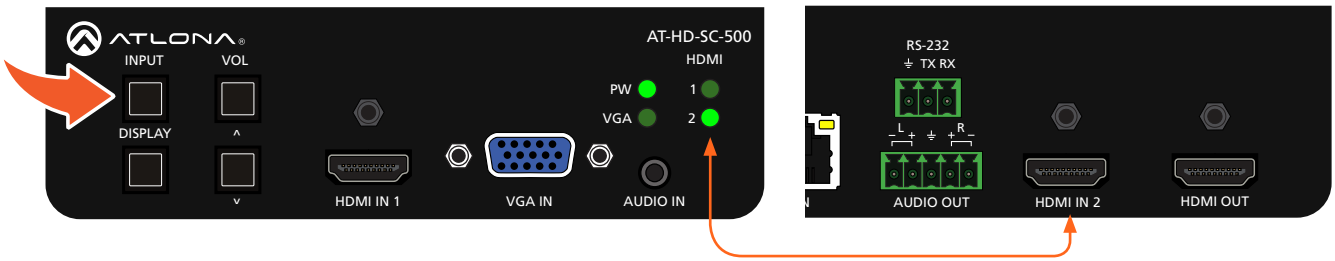
Basic Operation

Selecting the Input

Press the INPUT button to cycle through each of the available inputs on the unit. The unit will always retain the last selected input when the unit is powered-off.

1. Below, the **HDMI 1** LED indicator is bright green, indicating that **HDMI IN 1** is the active input. This is the default port selection of the AT-HD-SC-500.

2. Press the **INPUT** button, to select **HDMI IN 2**. The **HDMI 2** LED indicator will turn bright green.



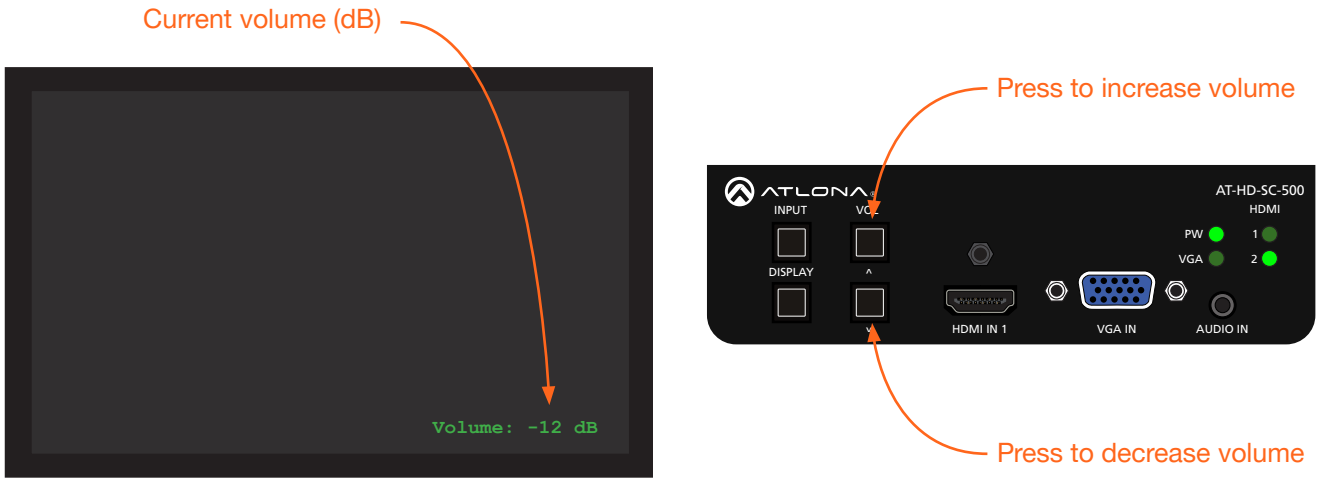
3. Press the **INPUT** button a third time, to select the **VGA IN** port. The **VGA** LED indicator will turn bright green.

4. Press the **INPUT** button again to return to **HDMI IN 1**.

Adjusting the Output Volume

Press the **VOL UP** / **DN** buttons on the front panel of the AT-HD-SC-500 to control the output volume of the display device. Output volume is displayed in decibels, and can be set from -32 dB to 0 dB.

Press the **VOL UP** button to increase the volume; press the **VOL DN** button to decrease the volume. Press and hold these buttons to quickly scroll through the values.



Volume control can also be managed over RS-232 or IP and can be configured using any of the following methods:

- On-Screen Display (OSD). Refer to the Control Settings (page 26) menu for more information.
- Web GUI. Refer to RS-232 Menu (page 44) for more information.

Auto Switching

Both products have auto-switching capability. The unit will automatically switch to the most recently-connected or powered source when a source is disconnected. For example, if the connection sequence is **HDMI 2** > **HDMI 1** > **VGA**, then disconnecting the source from **HDMI 1** will result in the product automatically switching to the **VGA** port.

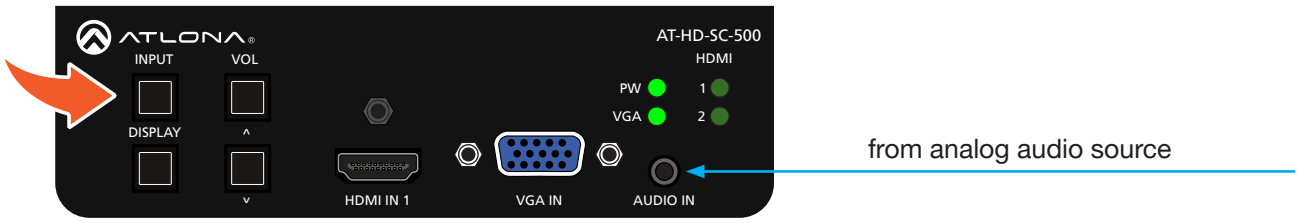
Auto-switching can be enabled or disabled using any one of the following methods:

- On-Screen Display (OSD). Refer to the Others (page 28) menu for more information.
- Web GUI. Refer to Introduction to the Web GUI (page 31) for more information.
- RS-232 / IP commands. Refer to Commands (page 49) for more information.

Passing Analog Audio

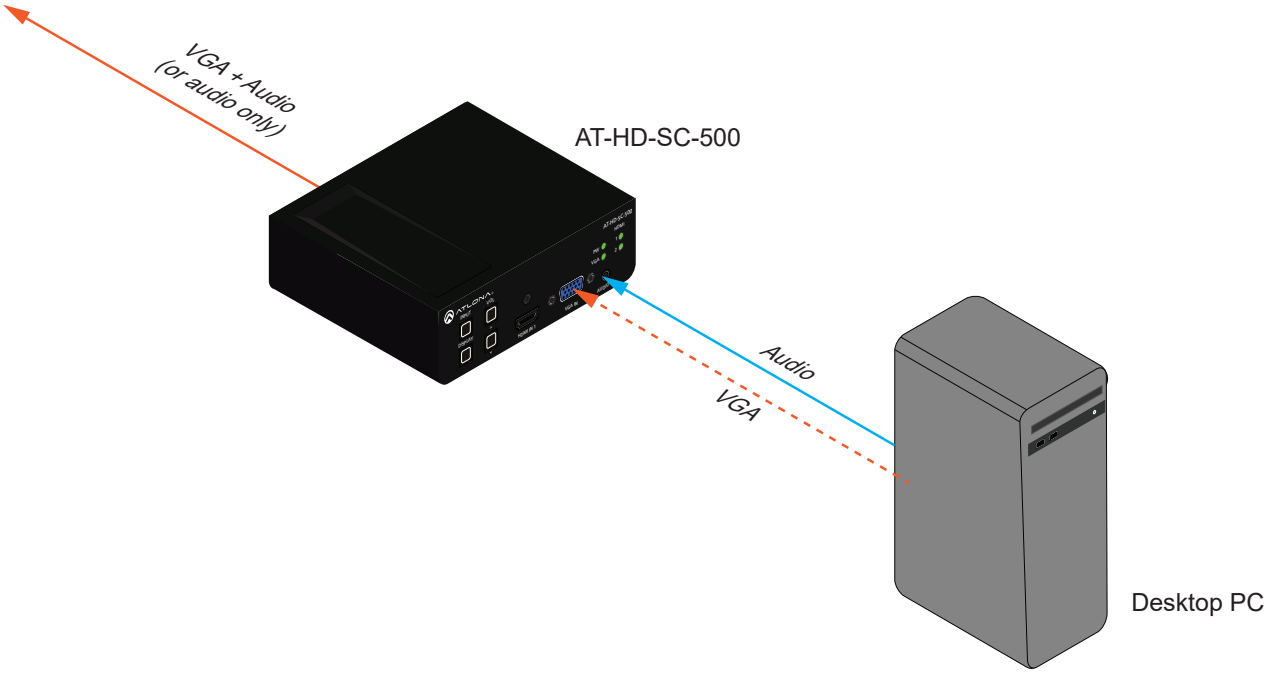
The AT-HD-SC-500 can pass two-channel analog audio, by itself, or with a VGA signal. The signal is embedded on the HDMI output.

1. Connect a 3.5 mm mini-stereo cable from the **AUDIO IN** port to the analog audio source.
2. OPTIONAL: Connect a VGA source to the **VGA IN** port.
3. Press the **INPUT** button until the **VGA** indicator turns bright green. This input must be selected in order to use the **AUDIO IN** port.



NOTE: The analog audio input will not replace existing embedded HDMI audio. Audio is heard only if the HDMI source has no audio. DVI to HDMI adapters can also be used when connecting DVI sources to one of the HDMI inputs, allowing the analog audio to be audible on the output.

The example, below, shows a desktop PC providing both the audio and video source. However, these signals may be connected to separate sources. The dotted line indicates that the video source is optional.

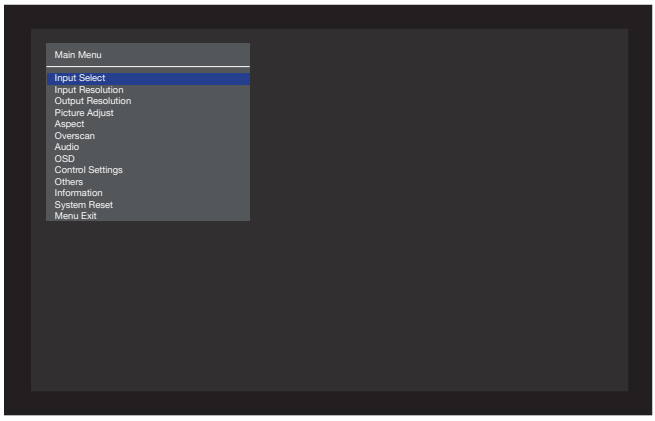


Menu System

Accessing the On-Screen Display

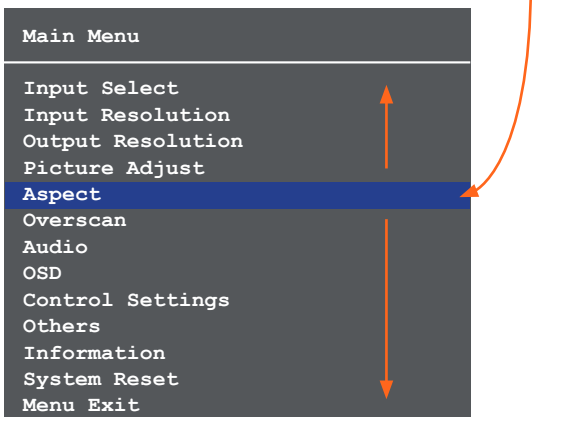
The AT-HD-SC-500 includes a built-in On-Screen Display (OSD) menu system to manage and control all video features.

1. Press and hold the **DISPLAY** button, until the OSD is shown.

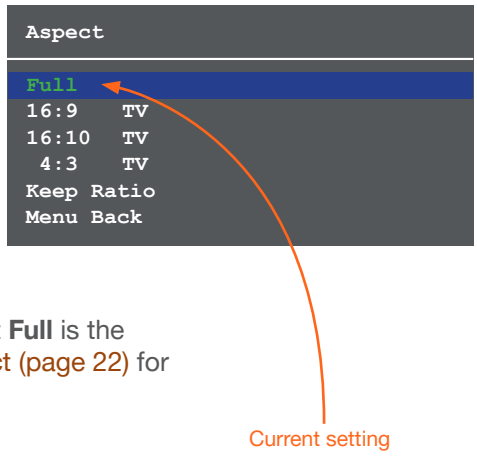


2. Release the **DISPLAY** button.

3. Press the **VOL UP** / **VOL DN** buttons to highlight the various menu options. The currently selected menu item will be highlighted with a blue cursor bar. Press the **VOL UP** button to move the cursor up through the menu system and press the **VOL DN** button to move down.



4. Once the desired menu item is highlighted, press the **DISPLAY** button to access its settings.



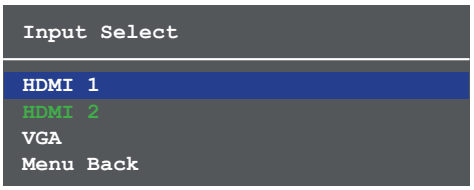
Within the menu item, the current setting will always be highlighted in green.

In this illustration, the Aspect menu item indicates that **Full** is the currently selected aspect ratio setting. Refer to Aspect (page 22) for more information.

Input Select

Selects the desired input. This can also be done using the INPUT button on the front panel. Refer to Selecting the Input (page 16) for more information.

1. Under the **Main Menu**, highlight the **Input Select** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Input Select** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired input.

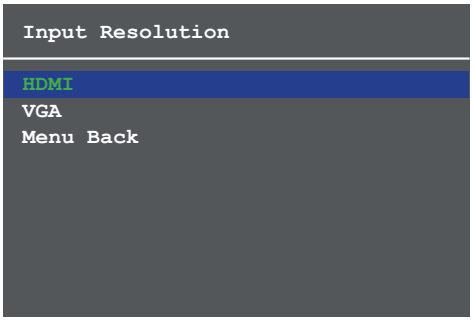


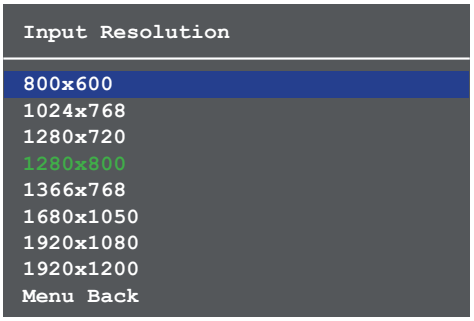
5. Press the **DISPLAY** button to confirm the selection.
6. Press the **Menu Back** option to return to the **Main Menu**.

Input Resolution

Selects the desired input resolution.

1. Under the **Main Menu**, highlight the **Input Select** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Input Resolution** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired input.
5. Press the **DISPLAY** button to confirm the selection and display the list of available input resolutions.



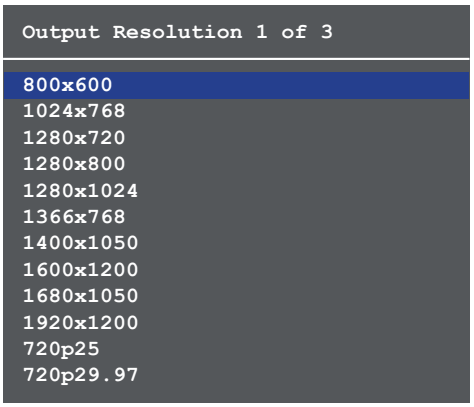


6. Press the **VOL UP/DN** buttons to select the desired resolution.
7. Press the **DISPLAY** button to confirm the selection.
8. Press the **Menu Back** option to return to the **Main Menu**.

Output Resolution

Selects the desired output resolution. The default output resolution is 720p (1280x720). The Output Resolution menu consists of three pages.

1. Under the **Main Menu**, highlight the **Output Resolution** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Output Resolution** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired resolution.

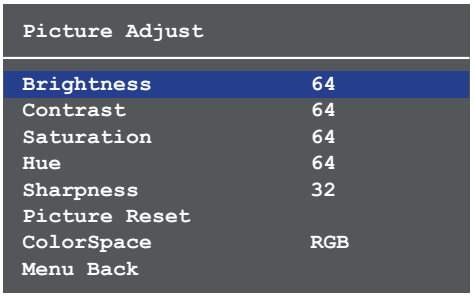


5. Press the **DISPLAY** button to confirm the selection.
6. Select the **Menu Back** option, under **Output Resolution 3 of 3**, then press the **DISPLAY** button, to return to the **Main Menu**.

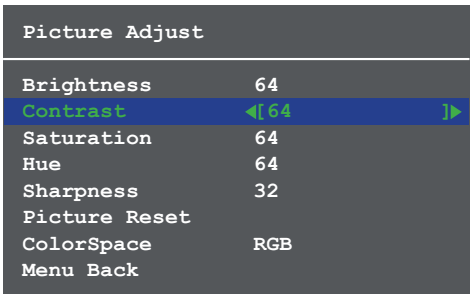
Picture Adjust

Provides custom adjustment of picture brightness, contrast, saturation, hue, and color space.

1. Under the **Main Menu**, highlight the **Output Resolution** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Picture Adjust** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired option.



5. Press the **DISPLAY** button to confirm the selection.
6. The current value will be highlighted in green and surrounded by brackets and two arrowheads.

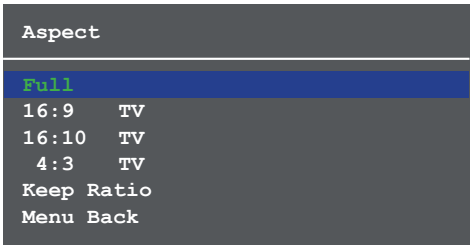


8. Press the **VOL UP/DN** buttons to select the desired value. Press the **VOL UP** button to increase the value; press **VOL DN** to decrease the value.
9. Press the **DISPLAY** button to confirm the new vvalue.
10. Select the **Menu Back** option, then press the **DISPLAY** button, to return to the **Main Menu**.

Aspect

Allows the aspect ratio of the output image to be changed.

1. Under the **Main Menu**, highlight the **Output Resolution** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Aspect** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired aspect ratio.



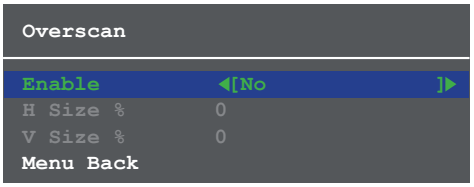
Setting	Description
Full	The output signal will be scaled to fill the screen.
16:9 TV	The output signal will be scaled to fit as 16:9.
16:10 TV	The output signal will be scaled to fit as 16:10.
4:3 TV	Output signal will be set to 4:3. If the input is HD, approximately 35% of the total horizontal resolution will be lost.
Keep Ratio	The input aspect ratio is preserved on the output.

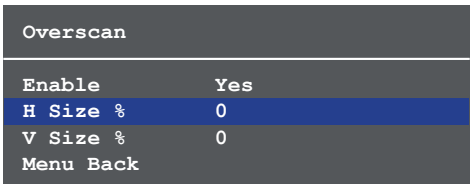
5. Press the **DISPLAY** button to confirm the selection.
6. Select the **Menu Back** option, then press the **DISPLAY** button, to return to the **Main Menu**.

Overscan

Adjusts the overscan setting of the output video signal. By default, overscan is *disabled*.

1. Under the **Main Menu**, highlight the **Overscan** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Overscan** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the **Enable** option.
5. Press the **DISPLAY** button to change the **Enable** value



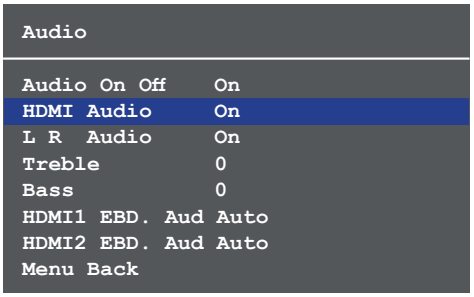


6. When overscan is *enabled*, the **H Size %** and **V Size %** fields can be adjusted. Press the **VOL UP/DN** buttons to highlight the desired field.
7. Press the **DISPLAY** button to select the field.
8. Press the **VOL UP/DN** buttons to change the value. Press the **VOL UP** button to *increase* the value; press the **VOL DN** button to *decrease* the value.
9. Press the **DISPLAY** button to confirm the change.
10. Highlight the **Menu Back** option, then press the **DISPLAY** button to return to the **Main Menu**.

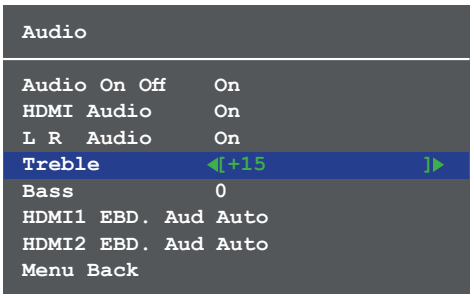
Audio

The Audio menu allows adjustment of all audio settings.

1. Under the **Main Menu**, highlight the **Audio** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Audio** menu will be displayed.



4. Press the **VOL UP/DN** buttons to highlight the desired option.
5. Press the **DISPLAY** button to confirm the selection.
6. The current value will be highlighted in green and surrounded by brackets and two arrowheads.



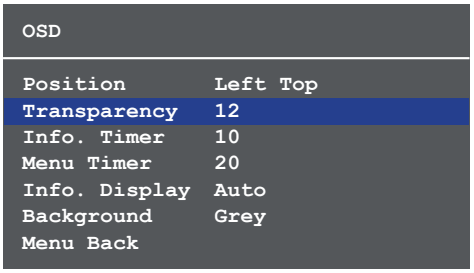
Setting	Description
Audio On Off	Provides muting of both HDMI and analog audio outputs. Set this value to Off to mute all audio.
HDMI Audio	Controls the HDMI audio, only. Set to Off to mute the HDMI audio.
L R Audio	Toggles the analog audio output On or Off. Set to Off to mute the analog audio output.
Treble	Sets the amount of treble on the audio output. Range is -12 to 15.
Bass	Sets the amount of bass on the audio output. Range is -12 to 15.
HDMI1 EBD. Aud	Selects the audio source to be embedded on HDMI 1. • **Auto** - Automatically uses the analog audio input when using DVI sources. When set to Auto, and an HDMI signal is used, the output audio will be from the HDMI input signal. • **Digital** - Uses audio from HDMI 1. • **Analog** - Forces the analog audio input to be used and embeds it on the HDMI output.
HDMI2 EBD. Aud	Selects the audio source to be embedded on HDMI 2. • **Auto** - Automatically uses the analog audio input when using DVI sources. If an HDMI signal is used, when set to Auto, the output audio will be from the HDMI input signal. • **Digital** - Uses audio from HDMI 2. • **Analog** - Forces the analog audio input to be used and embeds it on the HDMI output.

7. Press the **VOL UP/DN** buttons to select the desired value. Press the **VOL UP** button to increase the value; press **VOL DN** to decrease the value.
8. Press the **DISPLAY** button to confirm the value.
9. Highlight the **Menu Back** option, then press the **DISPLAY** button to return to the **Main Menu**.

OSD

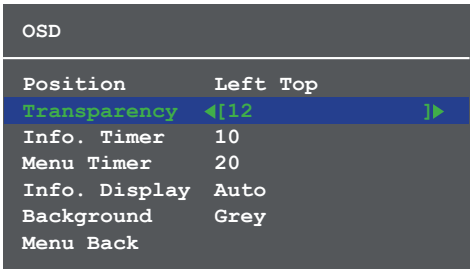
Adjusts the appearance and position of the On-Screen Display (OSD) on the screen.

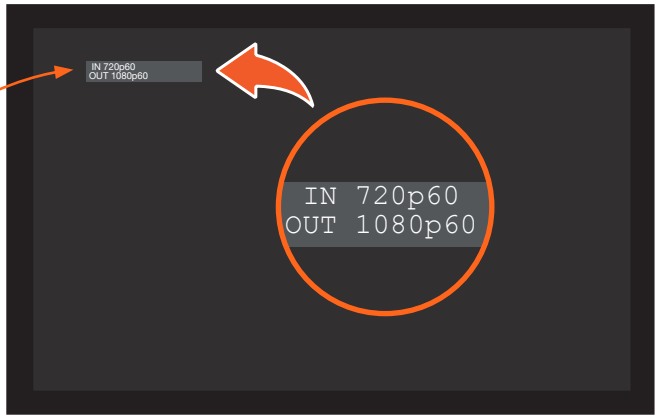
1. Under the **Main Menu**, highlight the **Audio** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **OSD** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired option.



Setting	Description
Position	Sets the position of the OSD on the display. The following options are available: • **Left Top** • **Right Top** • **Right Bottom** • **Left Bottom** • **Center**
Transparency	Adjusts the transparency setting of the OSD. • **Range:** 5 to 100
Info. Timer	The duration, in seconds, of how long the Display Info screen is displayed. • **Range:** 5 to 100
Menu Timer	The duration, in seconds, of how long the OSD remains on the screen, after no activity. • **Range:** 5 to 100
Info. Display	Adjusts the display settings of the **Info Display** screen, which indicates the input and output resolution. Refer to the next page for an example of the Info Display screen. The following options are available: • **Auto** - Automatically displays the Info Display screen when a change is made to the input or output signal. The screen will automatically be hidden after approximately five seconds. • **Off** - Prevents the Info Display screen from being displayed. • **On** - The Info Display screen is always displayed.
Background	Sets the background color of the OSD. The following options are available: • **Grey** • **Cyan** • **Magenta** • **Yellow**

5. Press the **DISPLAY** button to confirm the selection.
6. The current value will be highlighted in green and surrounded by brackets and two arrowheads.
7. Press the **VOL UP/DN** buttons to change the value. For settings that contain a value, press the **VOL UP** button to *increase* the value; press the **VOL DN** button to *decrease* the value.





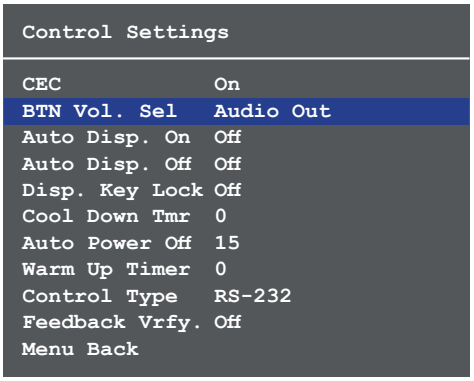
Info Display screen

8. Press the **DISPLAY** button to confirm the change.
9. Highlight the **Menu Back** option, then press the **DISPLAY** button to return to the **Main Menu**.

Control Settings

Adjusts the control settings.

1. Under the **Main Menu**, highlight the **Control Settings** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Control Settings** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired option.



Setting	Description
CEC*	Enables or disables Consumer Electronics Control (CEC) command transmission to the display (sink) device. • **On** - Allows CEC commands to be transmitted over the HDMI cable to the connected display (sink) device. • **Off** - Prevents transmission of CEC commands.

** Consumer Electronics Control (CEC): Atlona has confirmed proper CEC functionality with several current models of Samsung, Panasonic, and Sony displays. However, it is not guaranteed that CEC will work with all displays. Many manufacturers do not support the CEC "off" command, and older displays use proprietary commands. Atlona only supports displays that use the CEC command structure defined in HDMI 1.2a. It is recommended that dealers request an evaluation product from Atlona, before designing a system using the CEC protocol. If this is not possible, then other control methods will need to be considered, in order to control displays using Atlona products.*

Setting	Description
BTN Vol. Sel	Sets the delivery method used by the **VOL UP** / **DN** buttons. • **Audio Out** - Directly controls the output volume on the connected display (sink) device. • **RS-232** - Volume commands are sent over RS-232, to the connected display. • **IP** - Volume commands are sent over IP, to the connected display.
Auto Disp. On	Sends the command to power-on the display when an A/V signal is detected. The following options are available: • **On** - Enables the feature. • **Off** - Disables the feature.
Auto Disp. Off	Sends the command to power-off the display when an A/V signal is no longer present. The following options are available: • **On** - Enables the feature. • **Off** - Disables the feature.
Disp. Key Lock	Allows the **DISPLAY** button to be locked, preventing accidental operation when the product is in use. Define the time interval using the Warm Up Timer option, below. The following options are available: • **On** - Enables the feature. • **Off** - Disables the feature.
Cool Down Tmr	Sets the cool-down interval, in seconds, before the projector can be powered-off. During this time interval, the projector will not accept any commands until the "power off" command has been processed, requiring the projector lamp to complete the cool-down process. • **Range:** 0 to 300
Auto Power Off	Sets the time interval, in seconds, between when the loss of A/V signal is detected and when the "Display Off" command is sent. • **Range:** 0 to 240
Warm Up Timer	Sets the time interval, in seconds, between when the display is powered-on and when the **DISPLAY** button, on the front panel, will be locked. • **Range:** 0 to 300

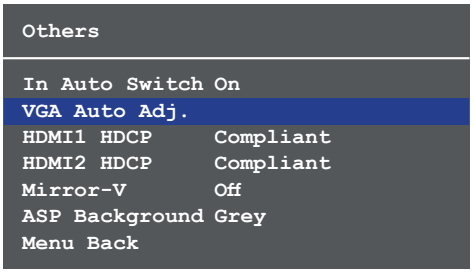
Setting	Description
Control Type	Sets the control method for sending commands. The following options are available: • **RS-232** • **IP** • **CEC**
Feedback Vrfy.	Sets the feedback verification state. The following options are available: • **On** - The AT-HD-SC-500 will make four attempts to send the command. If the feedback string is not acknowledged after the fourth attempt, the process will fail. Execute the SetCmdFB (page 72) command to set the feedback string. • **Off** - Sends the command and ignores the feedback string.

5. Press the **DISPLAY** button to confirm the selection.
6. The current value will be highlighted in green and surrounded by brackets and two arrowheads.
7. Press the **VOL UP/DN** buttons to change the value.
8. Press the **DISPLAY** button to confirm the change.
9. Highlight the **Menu Back** option, then press the **DISPLAY** button to return to the **Main Menu**.

Others

This menu provides control for various other settings, such as auto-switching, HDCP, and vertical mirroring.

1. Under the **Main Menu**, highlight the **Others** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Others** menu will be displayed.
4. Press the **VOL UP/DN** buttons to highlight the desired option.



Setting	Description
In Auto Switch	Enables or disables auto-switching. The following options are available: • **On** - Enables auto-switching. • **Off** - Disables auto-switching.

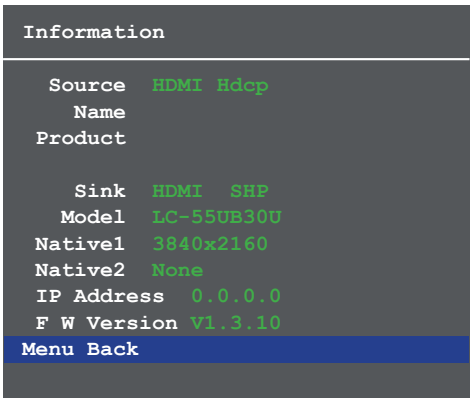
Setting	Description
VGA Auto Adj.	Centers the VGA signal by automatically This feature is only available when a VGA source is connected to the switcher.
HDMI1 HDCP	Provides control over the transmission of HDCP content for HDMI 1. The following options are available: • **Compliant** - Forces detection of HDCP-compliant sink devices. If the sink device is not HDCP-compliant, then no content will be transmitted. • **Noncompliant** - Suppresses detection of HDCP-compliant sink devices, allowing non-HDCP content to be transmitted. • **Auto** - Automatically detects the presence of HDCP-compliant sink devices. If an HDCP-compliant display is detected, then HDCP content will be sent. Otherwise, non-HDCP content will be sent. **NOTE:** Some source devices will enable HDCP if an HDCP-compliant display (sink) is detected. However, there may be applications where sending HDCP content is not desired. This feature does ***not*** provide decryption of HDCP content to non-HDCP sink devices
HDMI2 HDCP	Provides control over the transmission of HDCP content for HDMI 2. Refer to note, on the previous page. The following options are available: • **Compliant** - Forces detection of HDCP-compliant sink devices. If the sink device is not HDCP-compliant, then no content will be transmitted. • **Noncompliant** - Suppresses detection of HDCP-compliant sink devices, allowing non-HDCP content to be transmitted. • **Auto** - Automatically detects the presence of HDCP-compliant sink devices.
Mirror-V	Vertically flips the output signal. The default setting is Off. The following options are available: • **On** - Vertically flips the output image. • **Off** - The output image is unaltered.
ASP Background	Changes the color of background bars when changing the aspect ratio of the output image. The default color is Black. The following options are available: • **Black** • **Grey**

5. Press the **DISPLAY** button to confirm the selection.
6. The current value will be highlighted in green and surrounded by brackets and two arrowheads.
7. Press the **VOL UP/DN** buttons to change the value.
8. Press the **DISPLAY** button to confirm the change.
9. Highlight the **Menu Back** option, then press the **DISPLAY** button to return to the **Main Menu**.

Information

The Information displays current information about the AT-HD-SC-500. None of the fields within the **Information** menu can be edited.

1. Under the **Main Menu**, highlight the **Information** menu item using the **VOL UP/DN** buttons on the front panel.
2. Press the **DISPLAY** button.
3. The **Information** menu will be displayed.



Setting	Description
Source	The current input source that is displayed. The source will be displayed as HDMI or VGA. If HDCP content is transmitted (HDMI only), then “Hdcp” will be displayed.
Name	The name of the source, if available.
Product	The product name, if available.
Sink	Contains the manufacturer’s abbreviation of the sink.
Model	Displays the model of the display.
Native1	The native (preferred) timing for the display.
Native2	Displays any detailed (alternate) timing for the display.
IP Address	IP address of the display.
F W Version	Current version of firmware running on the switcher.

4. The Menu Back option will already be selected.
5. Press the **DISPLAY** button to return to the **Main Menu**.

Web GUI

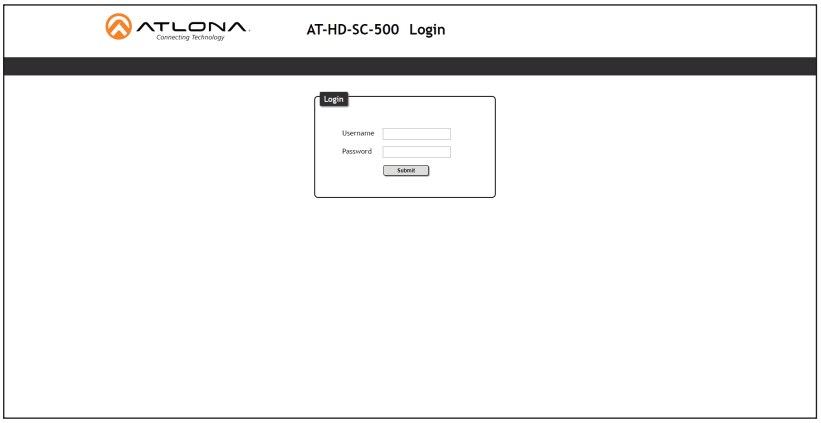
Introduction to the Web GUI

The AT-HD-SC-500 includes a built-in web GUI. Atlona recommends that the web GUI be used to control the AT-HD-SC-500, as it provides intuitive management of all features.

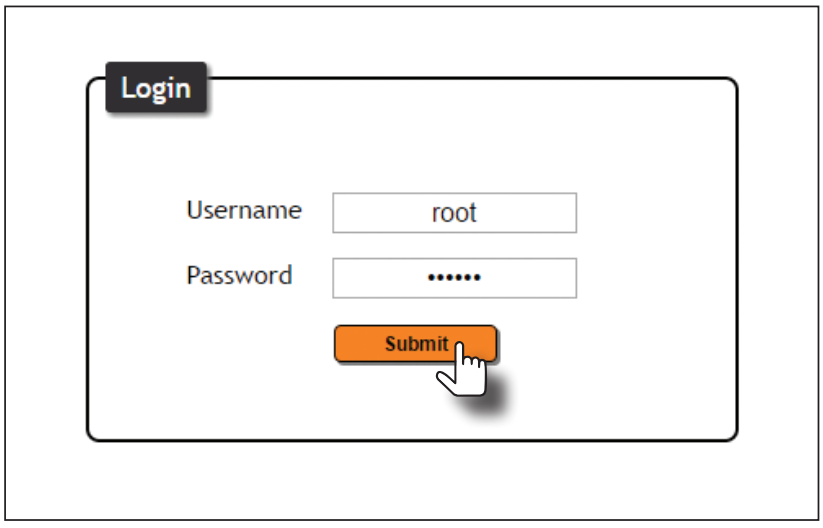
The AT-HD-SC-500 is shipped with DHCP enabled. Once connected to a network, the DHCP server will automatically assign an IP address to the unit. If a DHCP server is not available or if a static IP address is desired, it can be assigned using the IPStatic (page 66) command or through the Network Menu (page 47) in the web GUI. The default IP address of the AT-HD-SC-500 is 192.168.1.254.

Logging In

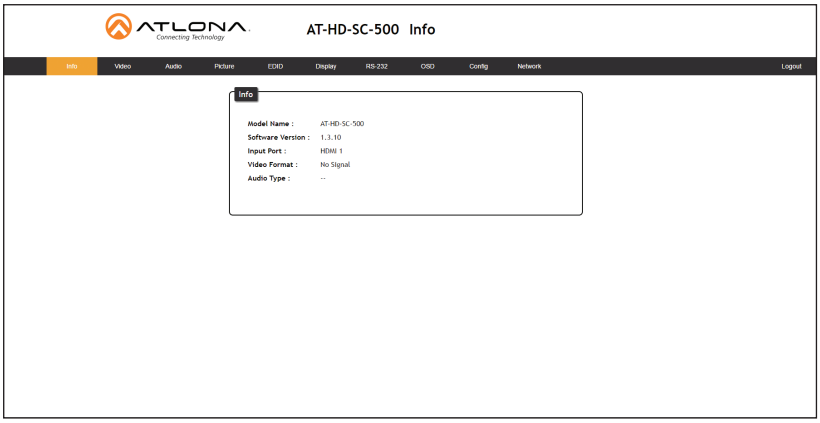
1. Launch a web browser.
2. In the address bar, type the IP address of the AT-HD-SC-500.
3. The **Login** page will be displayed.



4. Type `root`, using all lower-case characters, in the **Username** field. The username cannot be altered.
5. Type `Atlona` in the **Password** field. The password field is case-sensitive. When the password is entered, it will be masked. The password can be changed through the Config Menu (page 46) of the web GUI.
6. Click the **Submit** button or press the ENTER key on the keyboard.

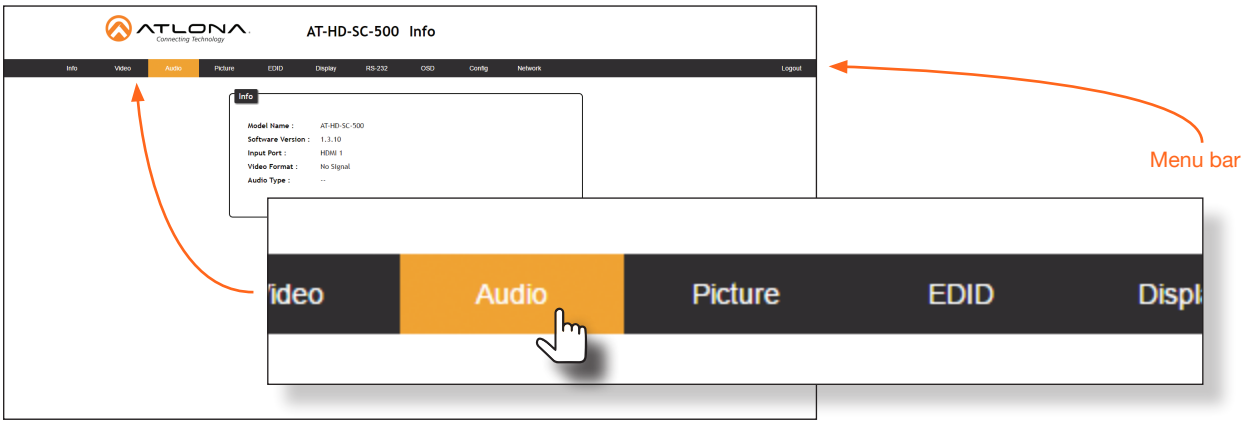


7. The **Info** page will be displayed.



Menus

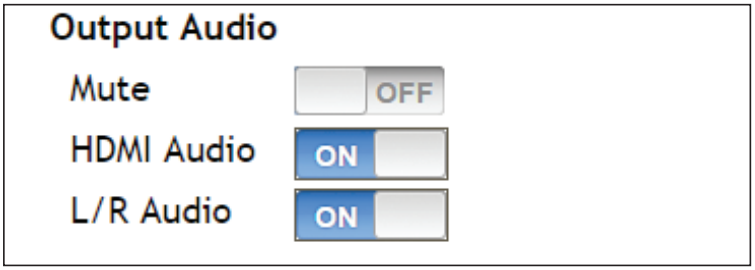
The dark-colored bar, near the top of the screen, is the menu bar. When the mouse is moved over each menu element, it will be highlighted in light orange. Once the desired menu element is highlighted, click the left mouse button to access the settings within the menu.



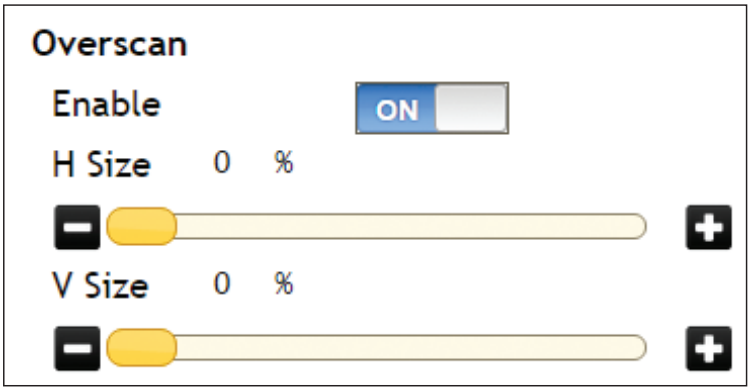
In this example, clicking **Audio**, in the menu bar, will display the **Audio** page.

Toggles

Several settings within the Web GUI use *toggles*, which enable, disable, or assign one of two settings. In most cases, when the *toggle* is blue, this means the feature is enabled. In addition, the *toggle* will be set to the ON or ENABLED position. If a feature is disabled, then the *toggle* will appear gray and be labeled as OFF or DISABLED.



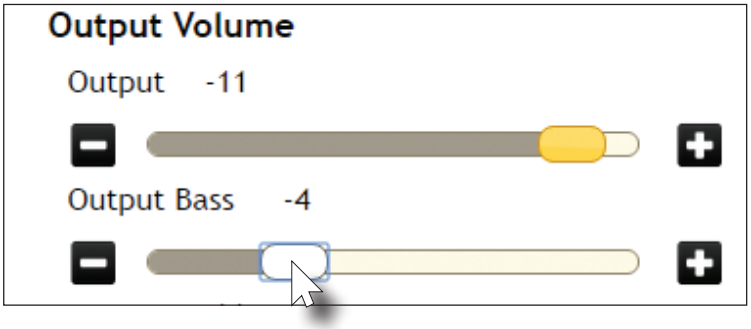
Toggles are also used to enable or access another set of controls within the Web GUI. For example, the **Enable** *toggle*, for the **Overscan** setting, must be set to the ON position in order for the *slider* controls to be adjusted.



In some cases, the *toggle* will allow switching between two settings, such as the **IP Mode** setting, under the **Network** menu. This *toggle* sets the AT-HD-SC-500 to either static or DHCP mode. Refer to Network Menu (page 47) for more information on this feature.

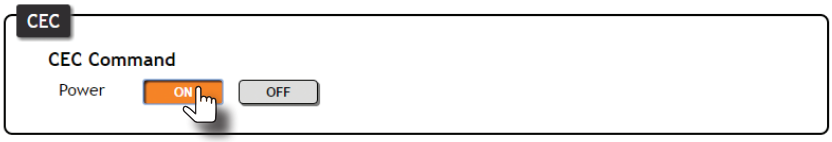
Sliders

Click and drag slider controls to change their value.



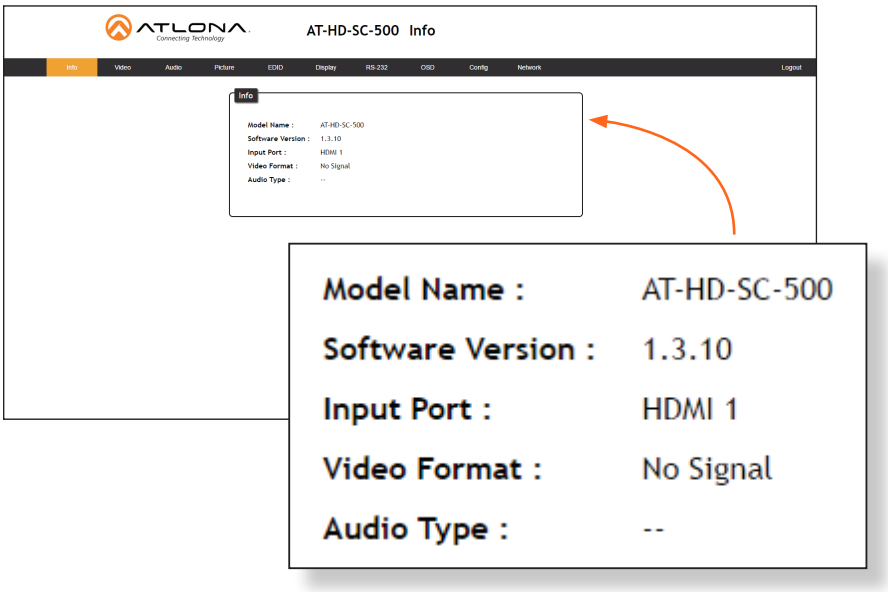
Buttons

Buttons are used to execute an action or setting. Several pages within the Web GUI include a **Save** button. Clicking the **Save** button will apply and save all settings in the current page. Other buttons, such as the **Power** command for **CEC** (found under the **Display** page), will send the power-on or power-off command to the display.



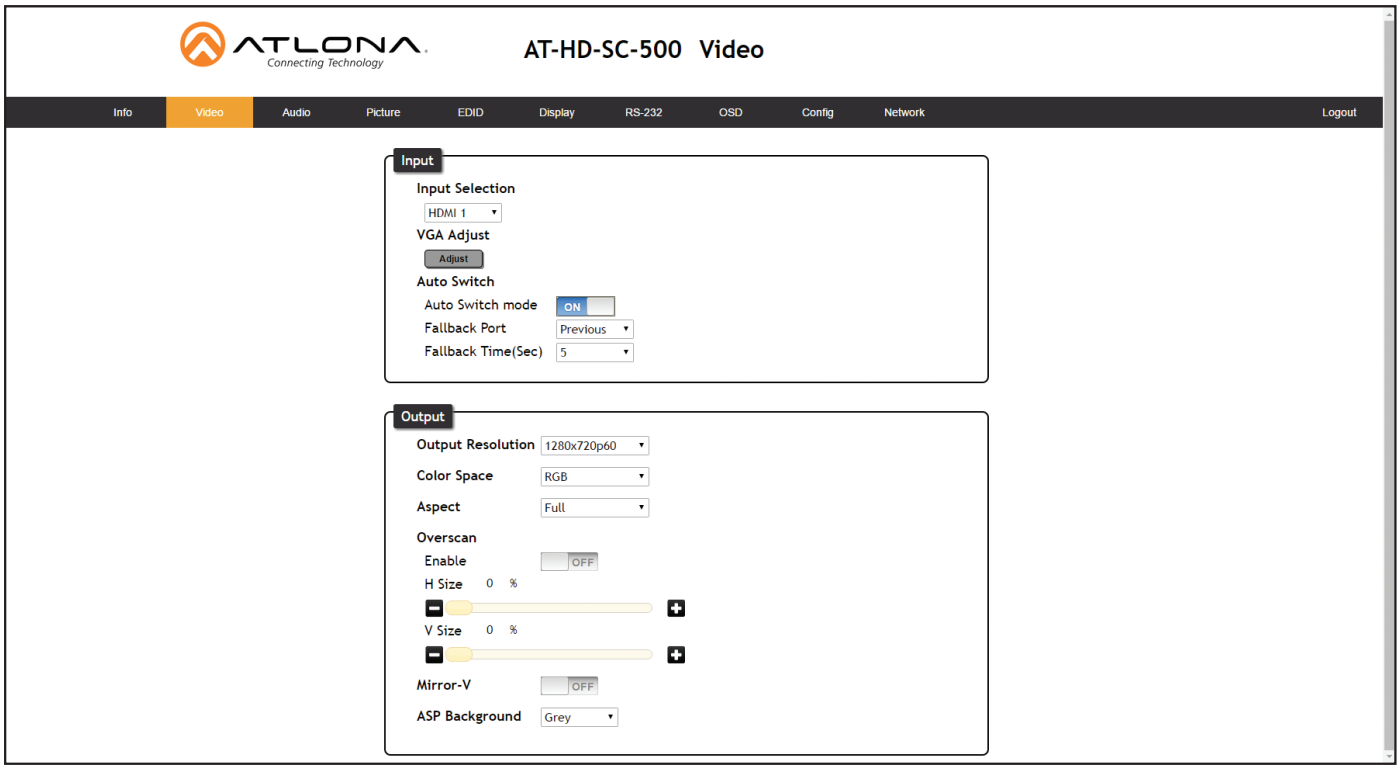
Getting Information on the Switcher

After logging in, the Info page will be displayed. The **Info** page displays the model and firmware version of the switcher. In addition, the active input, video format, and audio type are also reported. No fields can be edited on this page. To access this page from any menu, click **Info** in the menu bar.



Setting	Description
Model Name	The model name of this switcher.
Software Version	The version of firmware that the AT-HD-SC-500 is running. Always make sure to check the AT-HD-SC-500 product page, on the Atlona web site, for the latest version of firmware.
Input Port	The active input port on the switcher.
Video Format	The video format of the input signal. If no input signal is detected, then No Signal will appear in this field.
Audio Type	The audio format of the input signal. If no audio is available, this field will display two dash symbols, as shown above.

Video Menu



Input

Input Selection
Click this drop-down list to select the desired input.

VGA Adjust
In most situations, adjustment of the VGA signal should not necessary. However, if the VGA signal does not appear correctly, click the **Adjust** button to automatically correct the clock and phase.

Auto Switch
Three controls are available under the Auto Switch feature.

- Click the Auto Switch mode toggle to enable or disable auto-switching.
- Click the **Fallback Port** drop-down list to select the fallback port. If the source is disconnected from the active port, then the switcher can be configured to automatically switch to the desired port.
  Click the Auto Switch mode toggle to enable or disable auto-switching.

Setting	Description
HDMI 1	Automatically switches to HDMI 1.
HDMI 2	Automatically switches to HDMI 2.
VGA	Automatically switches to VGA.
Previous	The switcher will return to the previous (last connected) input. If no input is found, then it will attempt to switch to a ternary port.

- Click the **Fallback Time (Sec)** drop-down list and select the time interval before the switcher attempts to search for the next port. Range: 3 to 600.

Output

Output Resolution
Click the **Output Resolution** drop-down list and select the desired resolution. The default resolution is 720p.

Output Resolutions			
800x600p60	1600x1200p60	1280x720p59	1920x1080p25
1024x768p60	1680x1050p60	1280x720p60	1920x1080p29
1280x800p60	1920x1200pRB	1920x1080i50	1920x1080p30
1280x1024p60	1280x720p25	1920x1080i59	1920x1080p50
1366x768p60	1280x720p29	1920x1080i60	1920x1080p59
1400x1050p60	1280x720p30	1920x1080p23	1920x1080p60
1600x900p60	1280x720p50	1920x1080p24	NATIVE

Color Space
Click the **Color Space** drop-down list and select the desired color space.

Aspect
Click the **Aspect** drop-down list and select the desired aspect ratio.

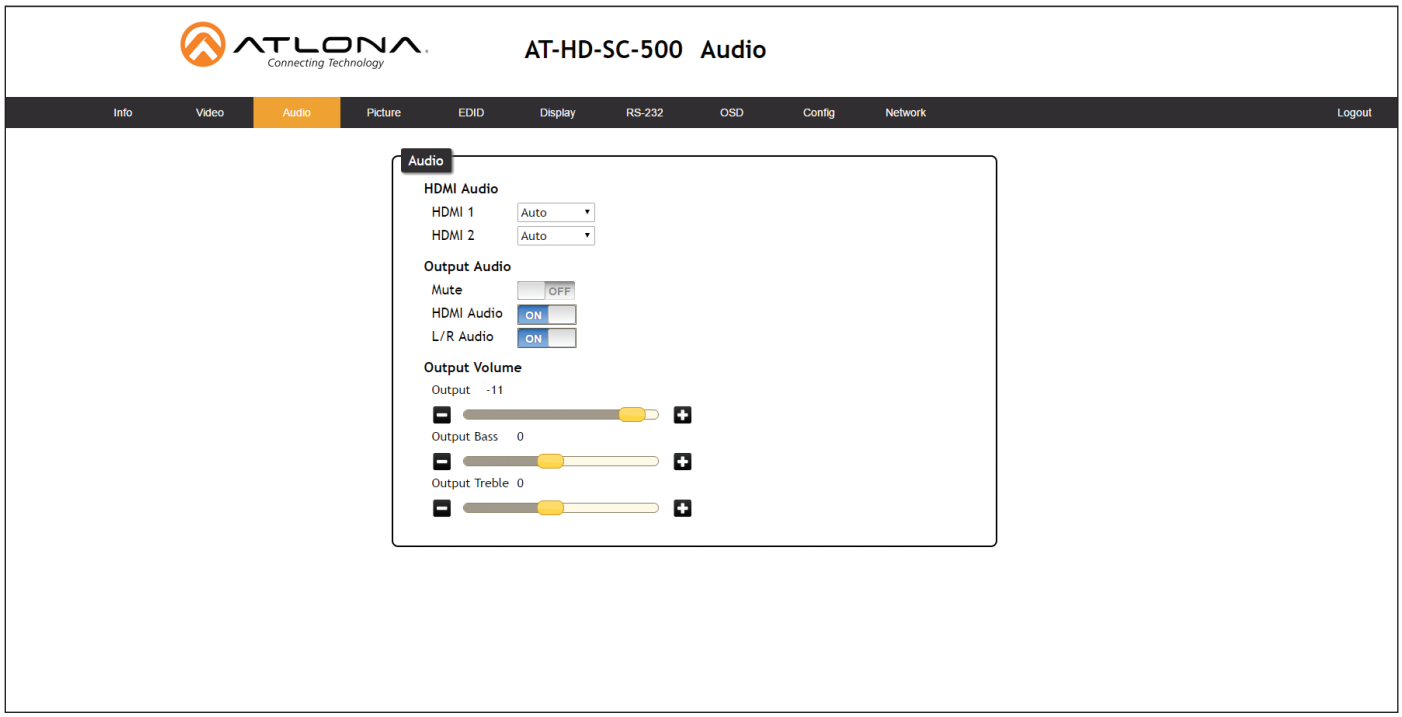
Aspect Ratio	Description
Full	The input signal is adjusted to fill the screen.
16:9	Set the aspect ratio to 16:9; common aspect ratio for HD and widescreen formats; also notated as 1:77.1
16:10	Set the aspect ratio to 16:10; typical aspect ratio for computer and tablet displays.
4:3	Sets the aspect ratio to 4:3; if the input signal is 16:9 or 16:10, up to 30% of the vertical resolution is lost.
Keep Ratio	The output aspect ratio is the same as the input.

Overscan
Adjust the overscan of the output signal. Before the overscan can be adjusted, click the **Enable** toggle to the ON setting. Click and drag the *slider* controls to adjust the horizontal and vertical size. The **Enable** toggle must remain in the ON position, in order for the overscan to be applied. To disable overscan, click the **Enable** toggle to the OFF position.

Mirror-V
Click the **Mirror-V** toggle to the ON setting. Enabling this feature applies a vertical transformation (rotated 180° about the x-axis) to the output signal.

ASP Background
Click this drop-down list to select the color of the bars that appear when viewing an image in “letterbox” format.

Audio Menu



HDMI Audio
Click the drop-down list for HDMI 1 and HDMI 2 to select the input audio source used by each HDMI input.

Setting	Description
Auto	Automatically detects the audio source. If an HDMI cable with embedded audio is connected, the system will use the digital audio on the HDMI cable. If a cable, which does not support audio (such as a DVI cable) is connected to the HDMI port, then the analog audio from the **AUDIO IN** port will be used.
Digital	The HDMI audio will be used as the source.
Analog	The analog source, connected to the **AUDIO IN** port, will be used.

Mute
Click this toggle to the **OFF** position to mute all audio on the output.

HDMI Audio
Click this toggle to the **OFF** position to mute only the HDMI audio.

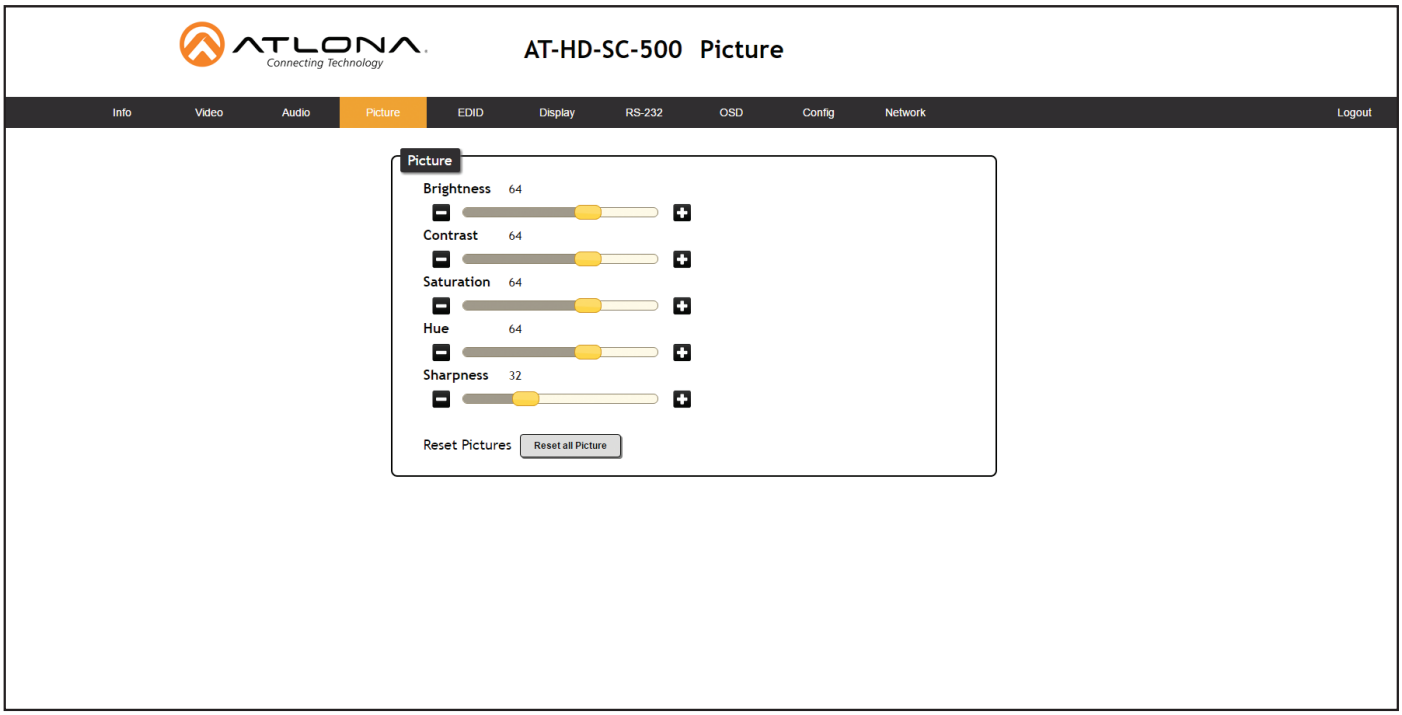
L/R Audio
Click this toggle to the **OFF** position to mute all audio on the output.

Volume
Click and drag this slider bar to adjust the audio volume. Range: -80 to 6.

Output Bass
Click and drag this slider bar to adjust the bass of the audio output. Range: -15 to 15.

Output Treble
Click and drag this slider bar to adjust the treble of the audio output. Range: -15 to 15.

Picture Menu



Brightness
Adjusts the brightness setting of the output signal. Range: 0 - 128

Contrast
Adjusts the contrast setting of the output signal. Contrast is the difference between the lightest and darkest area of an image. Range: 0 - 128

Saturation
Adjusts the color saturation of the output signal. Range: 0 - 128

Hue
Adjusts the hue of the output signal. Range: 0 - 128

Sharpness
Adjusts the sharpness of the output signal. Range: 0 - 128

Reset all Picture
Click this button to reset the above picture settings to their factory-default settings.

EDID Menu

HDMI Perfer Timing
Sets the preferred timing for the HDMI input.

VGA Prefer Timing
Sets the preferred timing for the VGA input.

HDMI1 HDCP
Provides control over the transmission of HDCP content for HDMI 1. The following options are available:

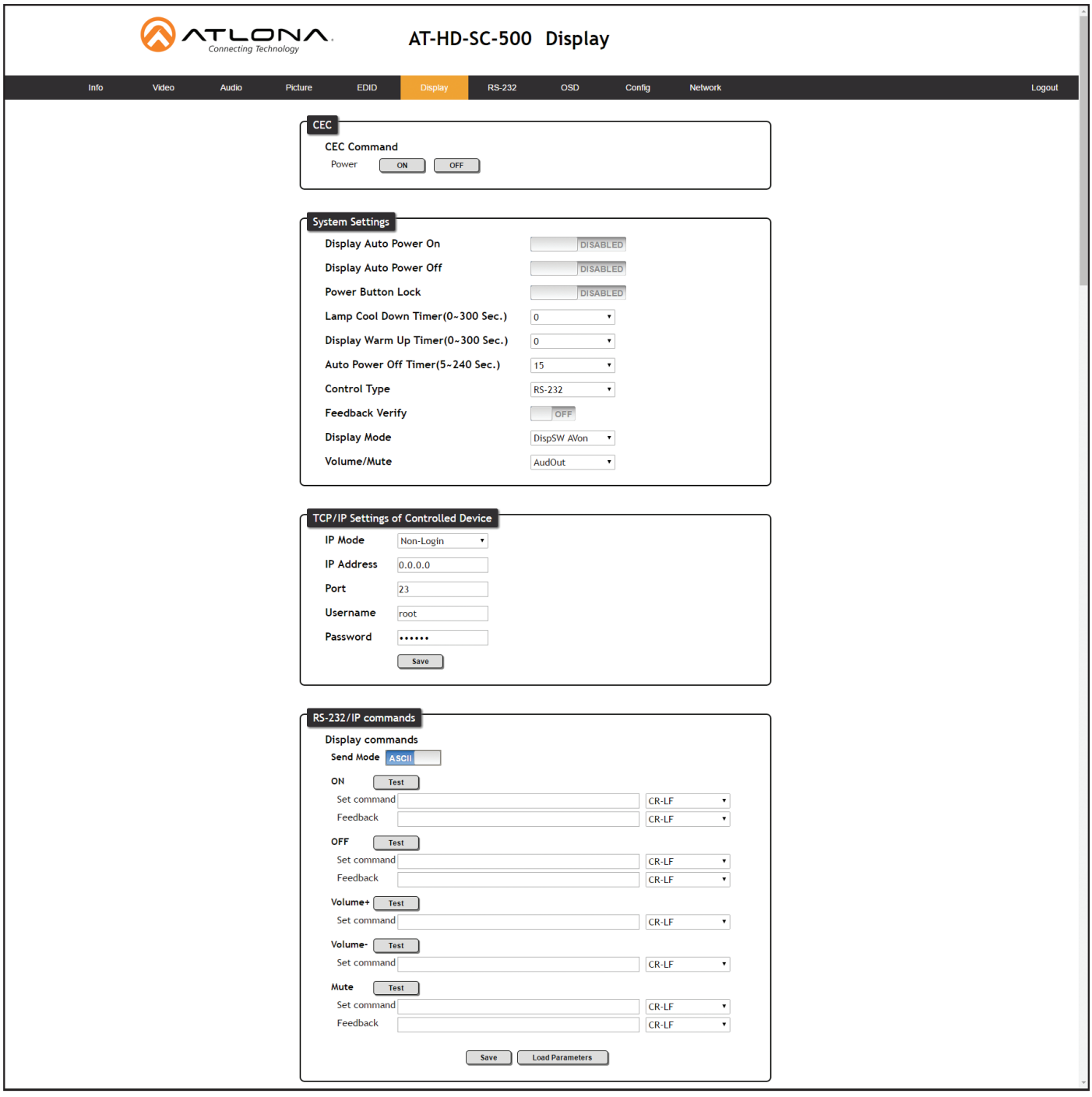
- **Compliant** - Forces detection of HDCP-compliant sink devices. If the sink device is not HDCP-compliant, then no content will be transmitted.
- **Noncompliant** - Suppresses detection of HDCP-compliant sink devices, allowing non-HDCP content to be transmitted.
- **Auto** - Automatically detects the presence of HDCP-compliant sink devices. If an HDCP-compliant display is detected, then HDCP content will be sent. Otherwise, non-HDCP content will be sent.

HDMI2 HDCP
Provides control over the transmission of HDCP content for HDMI 2. The following options are available:

- **Compliant** - Forces detection of HDCP-compliant sink devices. If the sink device is not HDCP-compliant, then no content will be transmitted.
- **Noncompliant** - Suppresses detection of HDCP-compliant sink devices, allowing non-HDCP content to be transmitted.
- **Auto** - Automatically detects the presence of HDCP-compliant sink devices. If an HDCP-compliant display is detected, then HDCP content will be sent. Otherwise, non-HDCP content will be sent.

NOTE: The HDCP control feature does ***not*** provide decryption of HDCP content to non-HDCP sink devices.

Display Menu



CEC

CEC Command

Click the ON button to send the power-on command to the display device. Click the **OFF** button to toggle the power state to off.

System Settings

Display Auto Power On
Sends the command to power-on the display when an A/V signal is detected. Click the toggle to enable or disable this feature.

Display Auto Power Off
Sends the command to power-off the display when an A/V signal is no longer present. Click the toggle to enable or disable this feature.

Power Button Lock
Allows the **DISPLAY** button, on the front panel, to be locked, preventing accidental operation when the product is in use. Define the time interval, before the button is locked, in the Display Warm Up field.

Lamp Cool Down Timer
Sets the cool-down interval, in seconds, before the projector can be powered-off. During this time interval, the projector will not accept any commands until the "power off" command has been processed and the projector lamp has completed the cool-down cycle. Range: 0 to 300.

Display Warm Up Timer
Sets the time interval, in seconds, between when the display is powered on and when the **DISPLAY** button, on the front panel, will be locked. Range: 0 to 300.

Auto Power Off Timer
Sets the time interval, in seconds, between when the loss of A/V signal is detected and when the "Display Off" command is sent.

Control Type
Sets the control method for sending commands. The following options are available: RS-232, IP, CEC.

Setting	Description
RS-232	RS-232 is used to send commands.
IP	Commands are sent over IP.
CEC	Uses CEC to send commands.

Feedback Verify
Sets the feedback verification state. Click the toggle to enable or disable this feature. The following options are available.

Setting	Description
On	The AT-HD-SC-500 will make four attempt to send the command, if the feedback string is not acknowledged. After the fourth attempt, the process will fail. Execute the SetCmdFB (page 72) command to set the feedback string.
Off	Sends the command and ignores the feedback string.

Display Mode
Click this drop-down list to select the display mode.

Setting	Description
DispSW AVon	Display switches on/off, source audio/video signal always on.
DispSW AVSW	Display switches on/off, source audio/video signal switches on/off.
AV SW	Display is always on, source audio/video signal switches on/off

Volume / Mute
Click this drop-down list to select the control method for volume and muting.

Setting	Description
Audio Out	Volume and mute buttons will control volume level of the output.
RS-232	Volume/Mute buttons will send the commands using RS-232 to compatible extenders and displays.
IP	Volume/Mute buttons will send the commands over Ethernet using the LAN connection.

TCP/IP Settings of Controlled Devices

IP Mode
Click this drop-down list to select the control method for volume and muting.

Setting	Description
Non-login	Does not require a username and password when using TCP/IP to control the display.
RS-232	Requires a username and password to control the display through TCP/IP.

IP Address
Enter the IP address of the display in this field.

Port
Enter the listening port of the device in this field.

Username
Enter the username for login.

Password
Enter the password for login.

RS-232 / IP Commands

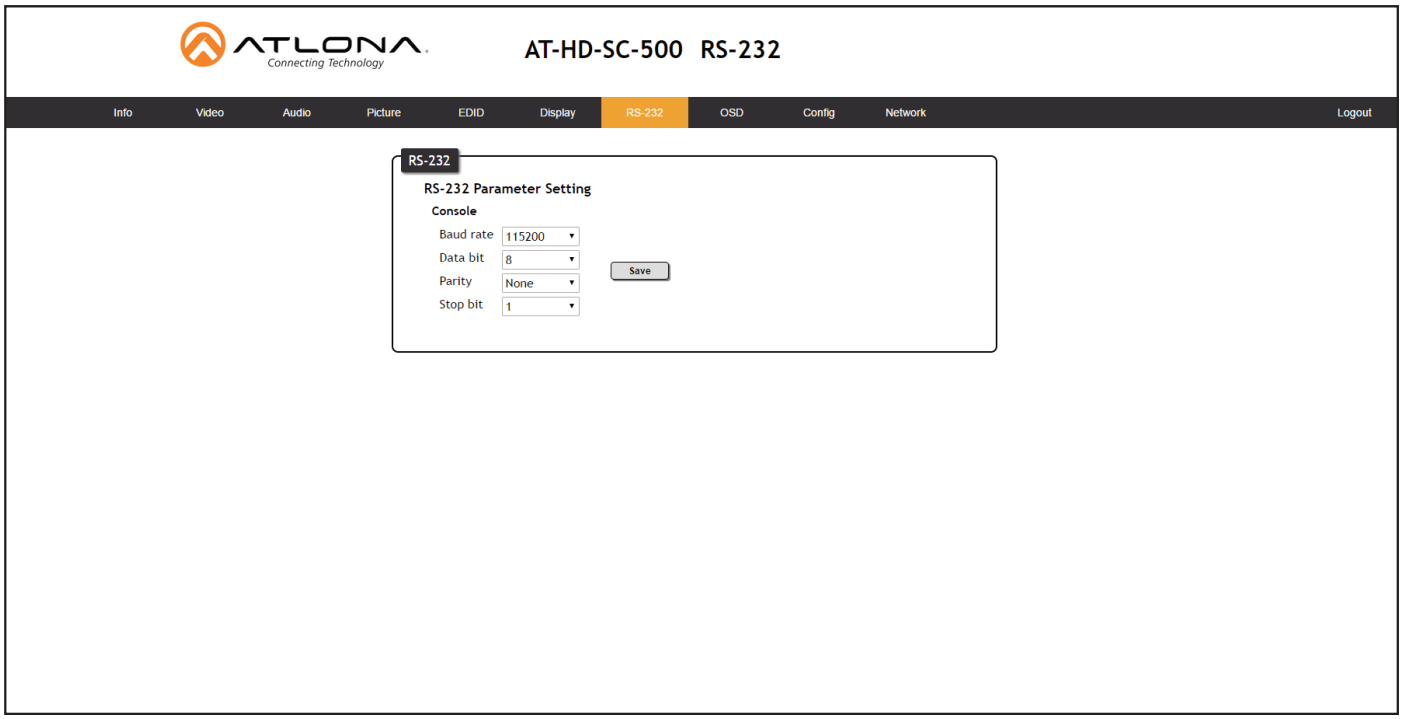
Send Mode
Click this toggle to set how the commands will be sent to the display. Range: **ASCII** or **Hex**.

ON/OFF/Volume+/Volume-/Mute
These are the available operations that can be performed on the display.

- **Set command**
  Enter the command in this field.
- **Feedback**
  Enter the feedback string in this field.
- **CR-LF**
  Click this drop-down list to select the desired end-of-line characters to be sent.

Setting	Description
None	No end-of-line characters included
CR	Carriage return
LF	Line feed
CR-LF	Carriage return + Line feed
Space	Space character
STX	Start-of-text character
ETX	End-of-text character
Null	Null character (binary zero)

RS-232 Menu



Baud rate
Sets the baud rate for the AT-HD-SC-500. The following options are available: 2400, 4800, 9600, 19200, 28800, 57600, 115200.

Data bit
Sets the number of data bits used to represent each character of data. The following options are available: 5, 6, 7, 8, 9.

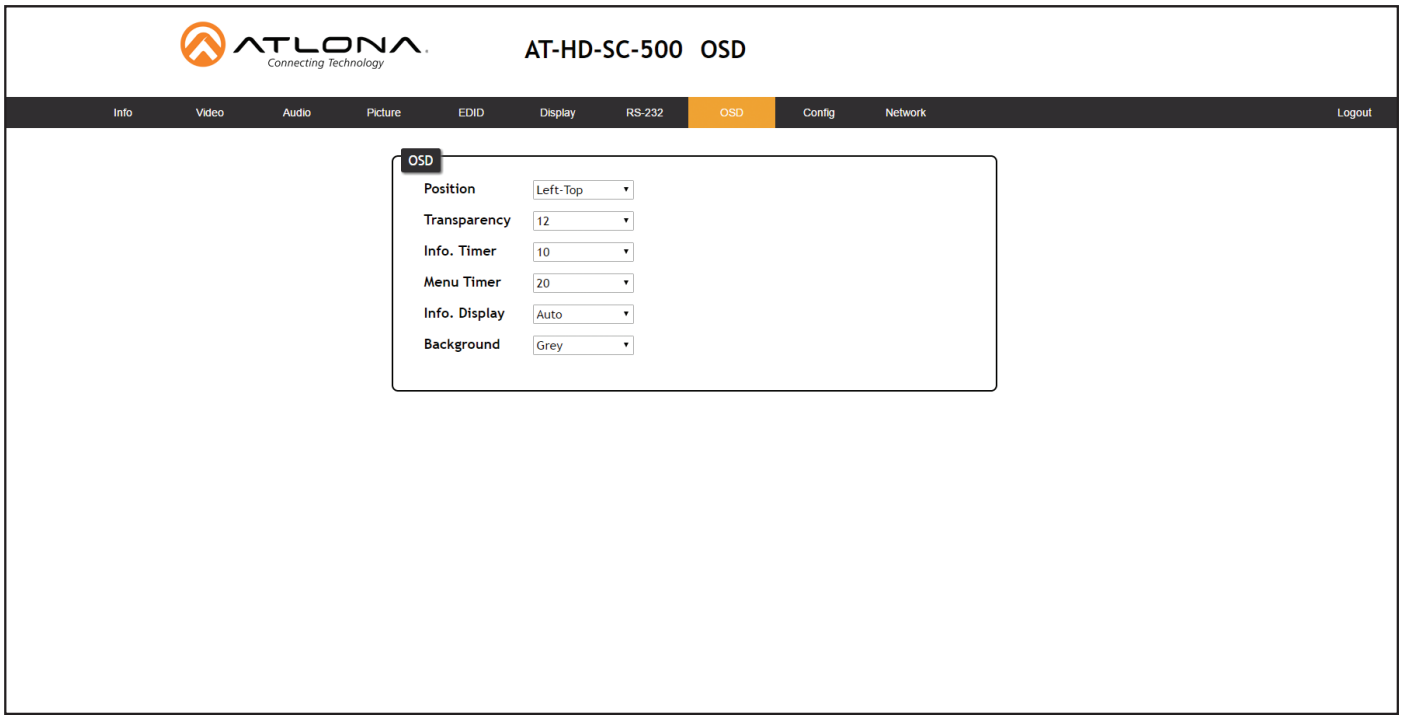
Parity
Sets the parity bit, which can be included with each character to detect errors during the transmission of data. The following options are available: None, Odd, or Even.

Setting	Description
None	No parity; error detection is handled by RS-232 protocol.
Odd	Party will be set to 1 if, for a given set of bits, the count is odd.
Even	Party will be set to 1 if, for a given set of bits, the count is even.

Stop bit
Sets the stop bit. Stop bits are sent at the end of each character, allowing the client to detect the end of a character stream. The following options are available: 1 or 2.

Save
Click this button to save all changes to the RS-232 settings.

OSD Menu



Position
Sets the position of the OSD on the display. The following options are available. Left Top, Right Top, Right Bottom, Left Bottom, Center.

Transparency
Adjusts the transparency setting of the OSD. Range: 5 to 100.

Info Timer
The duration, in seconds, of how long the Display Info screen is displayed.

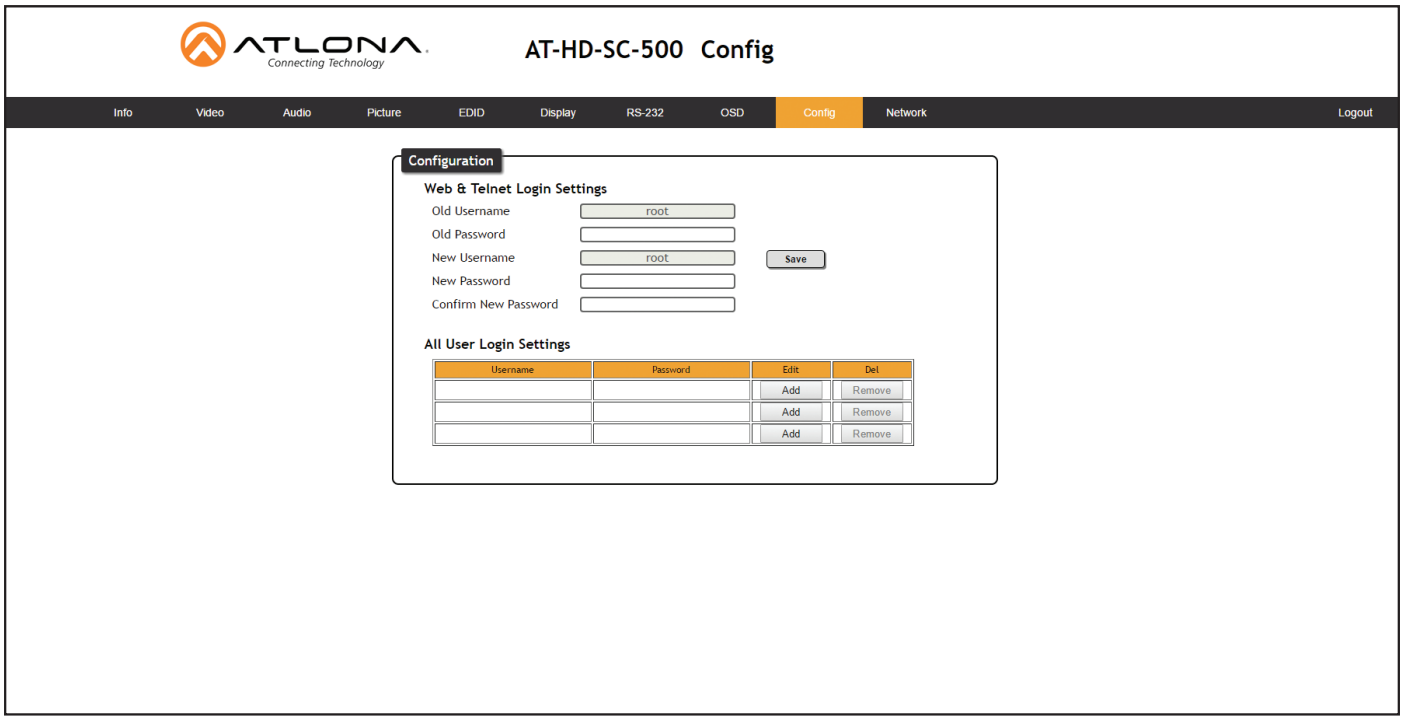
Menu Timer
The duration, in seconds, of how long the OSD remains on the screen after no activity.

Info. Display
Adjusts the display settings of the Info Display screen, which indicates the input and output resolution. The following options are available:

Setting	Description
Auto	Automatically displays the Info Display screen when a change is made to the input or output signal. The screen will automatically be hidden after approximately five seconds.
Off	Prevents the Info Display screen from being displayed.
On	The Info Display screen is always displayed.

Background
Sets the background color of the OSD. The following options are available: Grey, Cyan, Magenta, Yellow.

Config Menu



Old Username
This field cannot be changed. "root" is the administrator user.

Old Password
Enter the current password for the "root" username in this field. The default password is "Atlona".

New Username
This field cannot be changed.

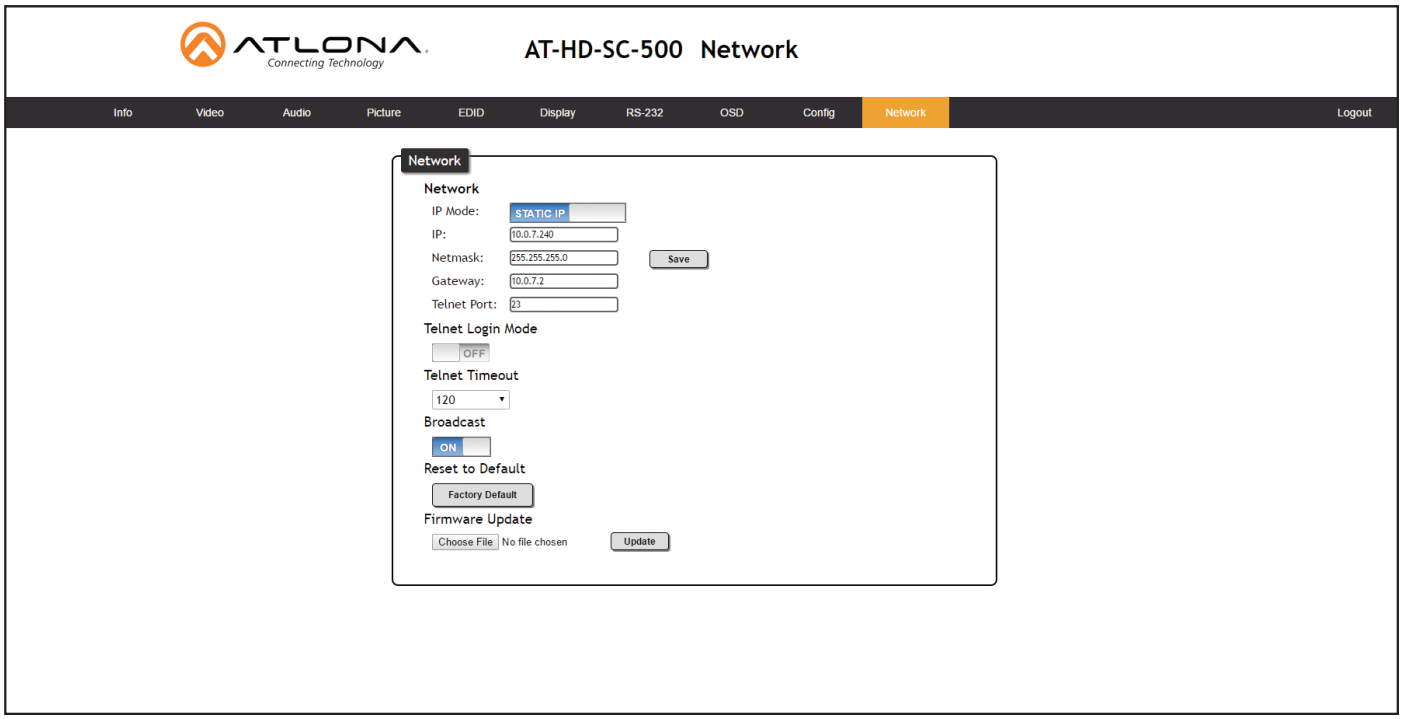
Save
Click this button to save all changes.
New Password
Enter the new password fro the "root" username in this field.

Confirm New Password
Verify the new password by retyping it in this field.

All User Login Settings

- **Username**
  Displays the username.
- **Password**
  Displays the password for the associated username.
- **Edit**
  Click the **Add** button, in this column, to edit the username and password in the row.
- **Del**
  Click the **Remove** button to delete the user in the row. This button will only be available if a username and password have been created.

Network Menu



IP Mode
Click this toggle to set the IP mode of the AT-HD-SC-500. By default, the AT-HD-SC-500 is set to DHCP mode.

IP
Enter the IP address of the AT-HD-SC-500 in this field. This field will only be available if **IP Mode** is set to **STATIC IP**.

Netmask
Enter the subnet mask in this field. This field will only be available if **IP Mode** is set to STATIC IP.

Gateway
Enter the gateway (router) address in this field. This field will only be available if **IP Mode** is set to STATIC IP.

Telnet Port
Enter the Telnet port in this field.

Telnet Login Mode
Click this toggle to set the login mode to ON or OFF. If this feature is set to on, then the AT-HD-SC-500 will prompt for both the username and password. Use the same credentials as the web GUI.

Telnet Timeout
Click this drop-down list to select the timeout interval, in seconds, before the Telnet connection is automatically closed after no activity.

Broadcast
By default, broadcast mode is set to off. When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between web GUI and Telnet, set this feature off.

Factory Default
Sets the AT-HD-SC-500 to factory-default settings.

Choose File
Click this button to select the firmware file, when upgrading the firmware on the AT-HD-SC-500.

Save
Click this button to save all changes to the network settings.

Update
Click this button to begin the upgrade procedure. Refer to Updating the Firmware (page 81) for more information.

Commands

The following tables provide an alphabetical list of commands available on the AT-HD-SC-500. All commands are case-sensitive and must be entered as documented.

Command	Description
AnaGain	Sets the gain of the analog audio input
ASPBGRND	Sets the matte color for the bars used in viewing letterbox formats
Aspect	Sets the aspect ratio of the output signal
ASwOutTime	Sets period of time after loss of signal before auto switching to the selected fallback input
ASwPrePort	Sets the default fallback input for auto-switching
AudioSrc	Set audio source for the HDMI inputs
AutoDispOff	Enables / disables display auto-off
AutoDispOn	Enables / disables display auto-on
AutoPwrMode	Set the display mode for auto power on and off
AutoSW	Enable/Disable auto switching or display auto switching status
Bass	Increases / decreases the amount of bass on the output
Broadcast	Enables / disables broadcast mode
BRT	Sets the picture brightness
BTNVol	Defines the behavior of the VOL+, VOL-, and MUTE buttons
CliIPAddr	Sets the IP address of the Telnet client
CliMode	Sets the login mode of the Telnet client
CliPass	Sets the password for the Telnet client
CliPort	Sets the listening port for the Telnet client
CliUser	Sets the username for the Telnet client
CMDFMT	Sets the display format for commands
CSpara	Sets the baud rate, data bits, stop bits, and parity for the serial device
CtlType	Sets the communication protocol used to send the on/off command
CTRST	Sets the picture contrast
DisWarmUp	Sets the Display power-on time interval when locking the DISPLAY button
DispBtn	Simulates pressing the DISPLAY button on the front panel
Down	Scrolls the cursor down on position in the OSD
HDCPSet1	Sets the HDCP reporting mode for HDMI IN 1

Command	Description
HDCPSet2	Sets the HDCP reporting mode for HDMI IN 2
HDMIAUD	Enables / disables audio on the HDMI output
Help	Displays the list of available commands
HUE	Sets the picture hue
HZoom	Sets the horizonal zoom (overscan) for the output image
INFOOSD	Enables / disables the OSD info screen
INFOTMR	Sets the time interval for the info screen before it is hidden
Input	Sets the active input
IPAddUser	Adds a user for Telnet control
IPCFG	Displays the current network settings for the AT-HD-SC-500
IPDelUser	Deletes the specified Telnet user
IPDHCP	Enables / disables DHCP mode on the AT-HD-SC-500
IPLogin	Enables / disables login credentials when starting a Telnet session
IPPort	Sets the Telnet listening port for the AT-HD-SC-500
IPQuit	Terminates the Telnet session
IPStatic	Sets the static IP address, subnet mask, and gateway for the AT-HD-SC-500
IPTimeout	Specifies the time interval of inactivity before the Telnet session is closed
LampCool	Sets the cool-down interval before the projector can be powered-off
Lock	Locks the buttons on the front panel
LRAUD	Enables / disables the L/R audio output
MENUTMR	Specifies the time interval of inactivity before the OSD menu is hidden
MirrorV	Vertically mirrors the video
Mreset	Resets the AT-HD-SC-500 to factory-default settings
OSD	Sets the location of the OSD menu on the screen
OSDAlpha	Sets the transparency of the OSD menu
OSDBGRND	Sets the background color of the OSD menu
PicReset	Resets all picture settings
PTIMGHDMI	Sets the preferred HDMI input timing
PTIMGVGA	Sets the preferred VGA input timing
PWLock	Locks / unlocks the DISPLAY key on the front panel

Command	Description
QOSD	Exits the OSD menu
RAtlMac	Displays the MAC address of the AT-HD-SC-500
SATRT	Sets the picture color saturation
Select	Confirms the selection in the OSD
SetCmd	Assigns an RS-232 or IP command to the specified button on the front panel
SetCmdFB	Sets the feedback string for the specified command key
SetCS	Sets the output color space
SetEnd	Sets the end-character of the specified command
SetOff	Sets the time perdio to place the unit in standby
SHARP	Sets the picture sharpness
System	Displays system information about the AT-HD-SC-500
Treble	Increases / decreases the treble on the output
TrigCEC	Triggers the stored CEC command
TrigIP	Triggers the stored IP commands to the Telnet client
TrigRS	Triggers the stored command from Rs-232 or IP
UARTPara	Sets the baud rate, data bits, parity, and stop bits for the serial port
Unlock	Unlocks the buttons on the front panel
Up	Scrolls up the cursor, in the OSD menu, one position
Version	Displays the current firmware version of the At-HD-SC-500
VGAAuto	Automatically adjusts the clock and phase of the VGA signal
VidOutRes	Sets the video output resolution
VOUT1	Increases / decreases the audio volume
VOUTMute1	Mutes / unmutes the audio
VOUTOSD	Enables / disables the volume bar in the OSD
VZoom	Adjusts the vertical zoom (overscan) of the output image
x1$	Enables / disables the HDMI video output
Zoom	Enables / disables overscan

AnaGain

Sets the gain of the analog input.

Syntax
AnaGain X

Parameter	Description	Range
X	Audio gain	0 ... 16

Example
AnaGain 1

Feedback
AnaGain 1

ASPBGRND

Sets the matte color when viewing an image that has been processed in “letterbox” format. The default setting is grey.

Syntax
ASPBGRND X

Parameter	Description	Range
X	Matte color	0 = Grey 1 = Black

Example
ASPBGRND 1

Feedback
ASPBGRND 1

Aspect

Sets the aspect ratio of the output signal. The default setting is **Full**.

Syntax
Aspect X

Parameter	Description	Range
X	Aspect ratio	0 = Full 1 = 16:9 2 = 16:10 3 = 4:3 4 = Keep Ratio

Example
Aspect 1

Feedback
Aspect 1

ASwOutTime

Sets the time interval after loss of signal occurs, before automatically switching to the selected fallback input. Execute the ASwPrePort command to set the fallback input.

Syntax
ASwOutTime X

Parameter	Description	Range
X	Time (in seconds)	1 ... 600

Example
ASwOutTime 15

Feedback
ASwOutTime 15

ASwPrePort

Sets the fallback input when auto-switching is enabled. Use the **sta** argument to return the current fallback input. To always return the AT-HD-SC-500 to the last active input, use the **Prev** argument.

Syntax
ASwPrePort X

Parameter	Description	Range
X	Port	HDMI1, HDMI2, VGA, Prev, sta

Example
ASwPrePort HDMI1

Feedback
ASwPrePort HDMI1

AudioSrc

Sets the audio source for the each HDMI input. Parameter X specifies the HDMI port. Parameter Y specifies the type of audio that will be used.

Syntax
AudioSrcX Y

Parameter	Description	Range
X	Port	HDMI1, HDMI2, VGA, Prev, sta
Y	Audio type	auto = Automatically selects the audio type dig = Digital audio only ana = Analog audio from the AUDIO IN port is embedded on the output.

Example
AudioSrc1 ana

Feedback
AudioSrc1 ana

AutoDispOff

Sends the command to power-off the display when an A/V signal is no longer present. Use the **on** argument to enable this feature. Use the **sta** argument to return the current **AutoDispOff** setting.

Syntax
AutoDispOff X

Parameter	Description	Range
X	Value	on, off, sta

Example
AutoDispOff on

Feedback
AutoDispOff on

AutoDispOn

Sends the command to power-on the display when an A/V signal is detected. Use the **on** argument to enable this feature. Use the **sta** argument to return the current **AutoDispOff** setting.

Syntax
AutoDispOn X

Parameter	Description	Range
X	Value	on, off, sta

Example
AutoDispOn on

Feedback
AutoDispOn on

AutoPwrMode

Sets the display mode for auto-power on and off.

Syntax
AutoPwrMode X

Parameter	Description	Range
X	Value	DISPAVON, DISPAVSW, AVSW, sta

Example
AutoPwrMode DISPAVON

Feedback
AutoPwrMode DISPAVON

AutoSW

Enables / disables auto switching or display auto switching status.

Syntax
AutoSW X

Parameter	Description	Range
X	Value	on, off, sta

Example
AutoSW on

Feedback
AutoSW on

Bass

Increases / decreases the amount of bass on the **output**. In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the bass by 1 value, respectively.

Syntax
Bass X

Parameter	Description	Range
X	Value	-12 ... 15, sta

Example
Bass -5
Bass +

Feedback
Bass -5
Bass -4

Broadcast

Enables / disables broadcast mode. By default, broadcast mode is set to off. When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP. To separate control between web GUI and Telnet, set this feature off. on = enables broadcast mode; off = disables broadcast mode; sta = displays the current Broadcast setting.

Syntax
Broadcast X

Parameter	Description	Range
X	Value	on, off, sta

Example
Broadcast on

Feedback
Broadcast on

BRT

Sets the picture brightness. Use the sta argument to display the current brightness setting.

Syntax
BRT X

Parameter	Description	Range
X	Value	0 ... 100, sta

Example
BRT 60

Feedback
BRT 60

BTNVol

Defines the behavior of the VOL+, VOL-, and MUTE buttons, on the front panel. AudOut = buttons will control volume level of the output, RS232 = buttons will send the commands using RS-232 to compatible extenders and displays, IP = buttons will send the commands over Ethernet using the LAN connection, sta = displays the current BTNVol setting.

Syntax
BTNVol X

Parameter	Description	Range
X	Value	AudOut, RS232, IP, sta

Example
BTNVol RS232

Feedback
BTNVol RS232

CliIPAddr

Sets the IP address of the Telnet client. The IP address must be specified in dot-decimal notation. Use the sta argument to display the IP address of the Telnet client. DHCP must be disabled before using this command. Refer to the IPDHCP (page 64) command for more information.

Syntax
CliIPAddr X

Parameter	Description	Range
X	IP address	0 ... 255 (per byte)

Example
CliIPAddr 192.168.1.61

Feedback
CliIPAddr 192.168.1.61

CliMode

Sets the login mode of the Telnet client. login = requires login credentials, non-login = no login credentials required, sta = displays the current CliMode setting.

Syntax
CliMode X

Parameter	Description	Range
X	Value	login, non-login, sta

Example
CliMode login

Feedback
CliMode login

CliPass

Sets the password for the Telnet client. Execute the CliPass command without arguments to display the current password. The default password is Atlona.

Syntax
CliPass X

Parameter	Description	Range
X	Password	20 characters (max)

Example
CliPass R3ind33r

Feedback
CliPass R3ind33r

CliPort

Sets the listening port for the Telnet client. Use the sta argument to display the current listening port. The default port is 23.

Syntax
CliPort X

Parameter	Description	Range
X	Port	0 ... 65535

Example
CliPort 30

Feedback
CliPort 30

CliUser

Sets the username for the Telnet client. Execute the CliUser command without arguments to display the current username.

Syntax
CliUser X

Parameter	Description	Range
X	Username	20 characters (max)

Example
CliUser BigBoss

Feedback
CliUser BigBoss

CMDFMT

Sets the display format for commands. ascii = ASCII format, hex = hexadecimal format, sta = displays the current command format.

Syntax
CMDFMT X

Parameter	Description	Range
X	Format	ascii, hex, sta

Example
CMDFMT ascii

Feedback
CMDFMT ascii

CSpara

Sets the baud rate, data bits, parity bit, and stop bits for the serial device. Use the sta argument to display the current serial port settings. Each argument must be separated by a comma; no spaces are permitted. Brackets must be used when executing this command.

Syntax
CSpara[W,X,Y,Z]

Parameter	Description	Range
W	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	None, Odd, Even
Z	Stop bits	1, 2

Example
CSpara[115200,8,0,1]
CSpara[sta]

Feedback
CSpara[115200,8,0,1]
CSpara [115200,8,0,1]

CtlType

Sets the communication protocol used to send the on/off command. rs232 = command set over rs232, IP = command sent over IP, CEC = command sent using CEC, sta = displays the current CtrlType setting.

Syntax
CtrlType X

Parameter	Description	Range
X	Protocol	rs232, IP, CEC, sta

Example
CtrlType IP

Feedback
CtrlType IP

CTRST

Sets the picture contrast. Use the sta argument to display the current contrast setting.

Syntax
CTRST X

Parameter	Description	Range
X	Contrast	0 ... 100, sta

Example
CTRST 65

Feedback
CTRST 65

DisWarmUp

Sets the time interval, in seconds, between when the display is powered on and when the **DISPLAY** button, on the front panel, will be locked. Use the sta argument to display the current time interval.

Syntax
DisWarmUp X

Parameter	Description	Range
X	Time interval	0 ... 300, sta

Example
DisWarmUp 120

Feedback
DisWarmUp 120

DispBtn

Simulates pressing the **DISPLAY** button on the front panel, activating the display mode and RS-232/CEC/IP display control commands. On = simulates pressing the DISPLAY button to the “on” state, Off = simulates pressing the DISPLAY button to the “off” state, Tog = reverses the current state of the DISPLAY button, Sta = displays the current DispBtn setting.

Syntax
DispBtn X

Parameter	Description	Range
X	Setting	On, Off, Tog, Sta

Example
DispBtn on

Feedback
DispBtn on

Down

Scrolls down the cursor, in the OSD menu, one position.

Syntax
Down

This command does not require any parameters

Example
Down

Feedback
Down

HDCPSet1

Set the HDCP reporting mode of the **HDMI IN 1** port. Some computers will send HDCP content if an HDCP-compliant display is detected. Setting this value to off, will force the computer to ignore detection of HDCP-compliant displays. Disabling this feature will *not* decrypt HDCP content. on = enables HDCP detection; off = disables HDCP detection; sta = displays the current HDCPSet1 setting.

Syntax
HDCPSet1 X

Parameter	Description	Range
X	Value	on, off, sta

Example
HDCPSet1 on

Feedback
HDCPSet1 on

HDCPSet2

Set the HDCP reporting mode of the **HDMI IN 2** port and performs the same type of function as the HDCPSet1 command. on = enables HDCP detection; off = disables HDCP detection; sta = displays the current HDCPSet2 setting.

Syntax
HDCPSet2 X

Parameter	Description	Range
X	Value	on, off, sta

Example
HDCPSet2 off

Feedback
HDCPSet2 off

HDMIAUD

Enables / disables audio on the HDMI output. on = enables HDMI audio output; off = disables HDMI audio output; sta = displays the current HDMIAUD setting.

Syntax
HDMIAUD

Parameter	Description	Range
X	Value	on, off, sta

Example
HDMIAUD off

Feedback
HDMIAUD off

Help

Displays the list of available commands. To obtain help on a specific command, enter the **Help** command followed by the name of the command.

Syntax
Help X

Parameter	Description	Range
X	Command name	Optional

Example
Help

Feedback
Command List

Help
IPCFG
...
CliIPAddr
CliPort

HUE

Sets the picture hue. Use the sta argument to display the current HUE value.

Syntax
HUE X

Parameter	Description	Range
X	Value	0 ... 100, sta

Example
HUE 40

Feedback
HUE 40

HZoom

Set the horizontal zoom for the output image. Use the sta argument to display the current HZoom value.

Syntax
HZoom X

Parameter	Description	Range
X	Value	0 ... 50, sta

Example
HZoom 10

Feedback
HZoom 10

INFOOSD

Enables / disables the OSD info screen. on = info screen always on, off = info screen is off, auto = info screen is displayed when a resolution change is made, then is automatically hidden, sta = displays the current INFOOSD setting.

Syntax
INFOOSD X

Parameter	Description	Range
X	Value	on, off, sta

Example
INFOOSD on

Feedback
INFOOSD on

INFOTMR

Sets the time interval (in seconds) of the info screen, before it is hidden. Use the sta argument to display the current INFOTMR value.

Syntax
INFOTMR X

Parameter	Description	Range
X	Time interval	5 ... 100, sta

Example
INFOTMR 60

Feedback
INFOTMR 60

Input

Sets the active input. Use the sta argument to display the currently active input.

Syntax
Input X

Parameter	Description	Range
X	Input	HDMI 1, HDMI 2, VGA, sta

Example
Input HDMI 2

Feedback
Input HDMI 2

IPAddUser

Adds a user for Telnet control. This command performs the same function as adding a user within the **Config** page of the web GUI. Refer to Config Menu (page 46) for more information.

Syntax
IPAddUser X Y

Parameter	Description	Range
X	User name	20 characters (max)
Y	Password	20 characters (max)

Example
IPAddUser BigBoss b055man

Feedback
IPAddUser BigBoss b055man
TCP/IP user was added

IPCFG

Displays the current network settings for the AT-HD-SC-500.

Syntax
IPCFG

This command does not require any parameters

Example
IPCFG

Feedback
IP Addr : 192.168.1.38
Netmask : 255.255.255.0
Gateway : 192.168.1.1
Telnet Port: 23
Http Port: 80

IPDelUser

Deletes the specified TCP/IP user. This command performs the same function as removing a user within the **Config** page of the web GUI. Refer to the Config Menu (page 46) for more information.

Syntax
IPDelUser X

Parameter	Description	Range
X	User	User name

Example
IPDelUser BigBoss

Feedback
IPDelUser BigBoss
TCP/IP user was deleted

IPDHCP

Enables / disables DHCP mode on the AT-HD-SC-500. on = enables DHCP mode; off = disables DHCP mode; sta = displays the current IPDHCP setting. If this feature is disabled, then a static IP address must be specified for the AT-HDR-M2C. Refer to the IPStatic (page 66) command for more information.

Syntax
IPDHCP X

Parameter	Description	Range
X	Value	on, off, sta

Example
IPDHCP on

Feedback
IPDHCP on

IPLogin

Enables / disables the use of login credentials when starting a Telnet session on the AT-HD-SC-500. If this feature is set to on, then the AT-HD-SC-500 will prompt for both the username and password. Use the same credentials as the web GUI. on = login credentials required; off = no login required; sta = displays the current IPLogin setting.

Syntax
IPLogin X

Parameter	Description	Range
X	Value	on, off, sta

Example
IPLogin off

Feedback
IPLogin off

IPPort

Sets the Telnet listening port for the AT-HD-SC-500. Use the sta argument to display the current port setting.

Syntax
IPPort X

Parameter	Description	Range
X	Port	0 ... 65535, sta

Example
IPPort 23

Feedback
IPPort 23

IPQuit

Terminates the Telnet session.

Syntax
IPQuit X

This command does not require any parameters

Example
IPQuit

Feedback
IPQuit

IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDR-M2C. Before using this command, DHCP must be disabled on the AT-HDR-M2C. Refer to the IPDHCP (page 64) command for more information. Each argument must be entered in dot-decimal notation and separated by a space. The default static IP address is 192.168.1.254.

Syntax
IPStatic X Y Z

Parameter	Description	Range
X	IP address	0 ... 255 (per byte)
Y	Subnet mask	0 ... 255 (per byte)
Z	Gateway (router)	0 ... 255 (per byte)

Example
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

Feedback
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

IPTimeout

Specifies the time interval of inactivity before the Telnet session is automatically closed.

Syntax
IPTimeout X

Parameter	Description	Range
X	Interval (in seconds)	0 ... 60000

Example
IPTimeout 300

Feedback
IPTimeout 300

LampCool

Sets the cool-down interval, in seconds, before the projector can be powered-off. During this time interval, the projector will not accept any commands until the “power off” command has been processed and the projector lamp has completed the cool-down cycle. Use the sta argument to display the current port setting.

Syntax
LampCool X

Parameter	Description	Range
X	Interval (in seconds)	0 ... 300, sta

Example
LampCool 120

Feedback
LampCool 120

Lock

Locks the buttons on the front panel. This function is useful to prevent accidental activation of the front-panel buttons in a busy environment. Use the Unlock (page 76) command to unlock the button on the front panel.

Syntax
Lock

This command does not require any parameters

Example
Lock

Feedback
Lock

LRAUD

Enables / disables the L/R audio output. on = enables L/R audio out, off = disables L/R audio out, sta = displays the current LRAUD setting.

Syntax
LRAUD X

Parameter	Description	Range
X	Value	on, off, sta

Example
LRAUD off

Feedback
LRAUD off

MENUTMR

Sets the time interval before the OSD menu system is automatically hidden after no activity. Use the sta argument to display the current MENUTMR setting.

Syntax
MENUTMR X

Parameter	Description	Range
X	Interval (in seconds)	5 ... 100, sta

Example
MENUTMR 60

Feedback
MENUTMR 60

MirrorV

Vertically mirrors the video. on = enables vertical mirroring, off = disables vertical mirroring, sta = displays the current MirrorV setting.

Syntax
MirrorV

Parameter	Description	Range
X	Value	on, off, sta

Example
MirrorV on

Feedback
MirrorV on

Mreset

Resets the AT-HD-SC-500 to factory-default settings.

Syntax
MReset

This command does not require any parameters

Example
Mreset

Feedback
Mreset

OSD

Sets the location of the OSD menu on the screen. 0 = Left-Top, 1 = Right-Top, 2 = Right-Bottom, 3 = Left-Bottom, 4 = Center, sta = displays the current OSD setting.

Syntax
OSD X

Parameter	Description	Range
X	Position	0 ... 4, sta

Example
OSD 2

Feedback
OSD 2

OSDAlpha

Sets the transparency of the OSD menu. Use the sta argument to display the current OSDAlpha setting.

Syntax
OSDAlpha X

Parameter	Description	Range
X	Opacity	0 ... 15, sta

Example
OSDAlpha 2

Feedback
OSDAlpha 2

OSDBGRND

Sets the background color of the OSD menu. 0 = grey, 1 = cyan, 2 = magenta, 3 = yellow, sta = displays the current OSDBGRND setting.

Syntax
OSDBGRND X

Parameter	Description	Range
X	Color	0 ... 3, sta

Example
OSDBGRND 2

Feedback
OSDBGRND 2

PicReset

Resets all picture settings.

Syntax
PicReset

This command does not require any parameters

Example
PicReset

Feedback
PicReset

PTIMGHDMI

Sets the preferred HDMI input timing. This setting is applied to both **HDMI IN 1** and **HDMI IN 2** ports. Use the sta argument to display the current PTIMGHDMI setting.

Syntax
PicReset

Parameter	Description	Range
X	Timing	0 ... 7, sta

Preferred Timing List
0 = 800 x 600
1 = 1024 x 768
2 = 1280 x 720
3 = 1280 x 800
4 = 1366 x 768
5 = 1680 x 1050
6 = 1920 x 1080
7 = 1920 x 1200

PTIMGVGA

Sets the preferred VGA input timing. Use the sta argument to display the current PTIMGVGA setting.

Syntax
PTIMGVGA X

Parameter	Description	Range
X	Timing	0 ... 7, sta

Example
PTIMGVGA 3

Feedback
PTIMGVGA 3

PWLock

Locks / unlocks the **DISPLAY** key on the front panel. on = enables DISPLAY lock, off = disables DISPLAY lock button, sta = displays the current PWLock setting.

Syntax
PWLock

Parameter	Description	Range
X	Value	on, off, sta

Example
PWLock on

Feedback
PWLock on

QOSD

Exits the OSD menu.

Syntax
QOSD

This command does not require any parameters

Example
QOSD

Feedback
QOSD

RAtlMac

Displays the MAC address of the AT-HDR-M2C.

Syntax
RAtlMac

This command does not require any parameters

Example
RAtlMac

Feedback
b8-98-b0-01-21-7c

SATRT

Sets the picture color saturation value. Use the sta argument to display the current SATRT setting.

Syntax
SATRT X

Parameter	Description	Range
X	Saturation	0 ... 100, sta

Example
SATRT 50

Feedback
SATRT 50

Select

Confirms the current selection in the OSD. Use the Up (page 77) and Down (page 60) commands to select (highlight) the desired option within the OSD.

Syntax
Select

This command does not require any parameters

Example
Select

Feedback
Select

SetCmd

Assigns an RS-232 or IP command to the specified button on the front panel.

Syntax
SetCmd X[Y]

Parameter	Description	Range
X	Button	on, off, vol+, vol-, mute
Y	Command	Command string

Example
SetCmd mute[Select]

Feedback
SetCmd mute[Select]

SetCmdFB

Sets the feedback string for the specified command key.

Syntax
SetCmdFB X

Parameter	Description	Range
X	Feedback string	Feedback string

Example
SetCmdFB mute[Selected]

Feedback
SetCmdFB mute[Selected]

SetCS

Sets the output color space. 0 = RGB, 1 = YUV, sta = displays the current SetCS setting.

Syntax
SetCS

Parameter	Description	Range
X	Color space	0, 1, sta

Example
SetCS 0

Feedback
SetCS 0

SetEnd

Sets the end-character of the specified command. Refer to the RS-232 / IP Commands (page 43) section for more information.

Syntax
SetEnd X[Y]

Parameter	Description	Range
X	Command	on, off, vol+, vol-, mute, fbkon, fbkoff, fbkmute
Y	EOL character	None, CR, LF, CR-LF, Space, STX, ETX, null

Example
SetEnd off[CR-LF]

Feedback
SetEnd off[CR-LF]

SetOff

Sets the time period (in seconds) to place the unit in standby. Use the sta argument to display the current SetOff setting.

Syntax
SetOff X

Parameter	Description	Range
X	Time interval	5 ... 240, sta

Example
SetOff 60

Feedback
SetOff 60

SHARP

Sets the picture sharpness.

Syntax
SHARP X

Parameter	Description	Range
X	Sharpness	0 ... 100, sta

Example
SHARP 70

Feedback
SHARP 70

System

Displays system information about the AT-HD-SC-500. The sta argument must be specified.

Syntax
System X

Parameter	Description	Range
X	Status	sta

Example
System sta

Feedback
Model: AT-HD-SC-500
MAC Addr: b8-98-b0-01-21-7c
Address Type: DHCP
Netmask: 255.255.255.0
Gateway: 10.0.1.1
HTTP Port: 80
Telnet Port: 23
Firmware: 1.3.10
On/Up Time(dd HH:mm:ss): 0 4:57:29
Power Status: PWON

Treble

Increases / decreases the amount of treble. In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the amount of treble by 1 value, respectively. To display the current value, use the sta argument.

Syntax
TREBLE1 X

Parameter	Description	Range
X	Value	-12 ... 15, sta

Example
Treble 7
Treble -

Feedback
Treble 7
Treble 6

TrigCEC

Triggers the stored CEC command.

Syntax
TrigCEC X

Parameter	Description	Range
X	Value	on, off, vol+, vol-, mute

Example
TrigCEC on

Feedback
TrigCEC on

TrigIP

Trigger the stored IP commands to the Telnet client.

Syntax
TrigIP X

Parameter	Description	Range
X	Value	on, off, vol+, vol-, mute

Example
TrigIP vol+

Feedback
TrigIP vol+

TrigRS

Triggers the stored commands from RS-232 or IP.

Syntax
TrigRS X

Parameter	Description	Range
X	Value	on, off, vol+, vol-, mute

Example
TrigRS mute

Feedback
TrigRS mute

UARTPara

Sets the baud rate, data bits, parity, and stop bits for the serial port. Each argument must be separated by a comma with no spaces.

Syntax
UARTPara X

Parameter	Description	Range
W	Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200
X	Data bits	7, 8
Y	Parity bit	0, 1, 2 (None, Odd, Even)
Z	Stop bits	1, 2

Example
UARTPara 115200,8,0,1

Feedback
UARTPara setting ok!

Unlock

Unlocks the buttons on the front panel. Use the Lock (page 67) command to lock the buttons on the front panel.

Syntax
Unlock

This command does not require any parameters

Example
Unlock

Feedback
Unlock

Up

Scrolls up the cursor, in the OSD menu, one position.

Syntax
Up

This command does not require any parameters

Example
Up

Feedback
Up

Version

Displays the current firmware version of the AT-HD-SC-500.

Syntax
Version

This command does not require any parameters

Example
Version

Feedback
1.3.10

VGAAuto

Executes the VGA auto-adjust. This command automatically adjusts the phase and clock of the VGA signal. A VGA display must be connected to the AT-HD-SC-500 when executing this command. Otherwise, the command will fail.

Syntax
VGAAuto

This command does not require any parameters

Example
VGAAuto

Feedback
VGAAuto

VidOutRes

Sets the video output resolution. Use the sta argument to display the current video output resolution.

Syntax
VidOutRes

Parameter	Description	Range
X	Value	0 ... 27, sta

Output Resolution List
0 = 800x600p60
1 = 1024x768p60
2 = 1280x800p60
3 = 1280x1024p60
4 = 1366x768p60
5 = 1400x1050p60
6 = 1600x900p60
7 = 1600x1200p60
8 = 1680x1050p60
9 = 1920x1200pRB
10 = 1280x720p25
11 = 1280x720p29
12 = 1280x720p30
13 = 1280x720p50
14 = 1280x720p59
15 = 1280x720p60
16 = 1920x1080i50
17 = 1920x1080i59
18 = 1920x1080i60
19 = 1920x1080p23
20 = 1920x1080p24
21 = 1920x1080p25
22 = 1920x1080p29
23 = 1920x1080p30
24 = 1920x1080p50
25 = 1920x1080p59
26 = 1920x1080p60
27 = NATIVE

Example
VidOutRes 26

Feedback
VidOutRes 26

VOUT1

Increases / decreases the audio output volume. In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the volume by 1 value, respectively. To display the current value, execute the VOUT1 command without any arguments.

Syntax
VOUT1

Parameter	Description	Range
X	Value	-80 ... 6

Example
VOUT1 4
VOUT1 +

Feedback
VOUT1 4
VOUT1 5

VOUTMute1

Mutes / unmutes the audio. on = enables muting; off = disables muting; sta = displays the current VOUTMute1 setting.

Syntax
VOUTMute1 X

Parameter	Description	Range
X	Value	on, off, sta

Example
VOUTMute1 on

Feedback
VOUTMute1 on

VOUTOSD

Enables / disables the volume bar in the OSD. on = displays volume bar; off = hides volume bar; sta = displays the current VOUTOSD setting.

Syntax
VOUTOSD X

Parameter	Description	Range
X	Value	on, off, sta

Example
VOUTOSD on

Feedback
VOUTOSD off

VZoom

Adjusts the vertical zoom (overscan) of the output image. Use the sta argument to display the current VZoom setting.

Syntax
VZoom X

Parameter	Description	Range
X	Value	0 ... 50, sta

Example
VZoom 10

Feedback
VZoom 10

x1$

Enables / disables the HDMI video output. on = enables HDMI output, off = disables HDMI output, sta = displays the current x1$ setting.

Syntax
x1$ X

Parameter	Description	Range
X	Value	on, off, sta

Example
x1$ off

Feedback
x1$ off

Zoom

Enables / disables overscan. on = enables overscan; off = disables overscan; sta = displays the current Zoom setting.

Syntax
Zoom X

Parameter	Description	Range
X	Value	on, off, sta

Example
Zoom on

Feedback
Zoom off

Appendix

Updating the Firmware

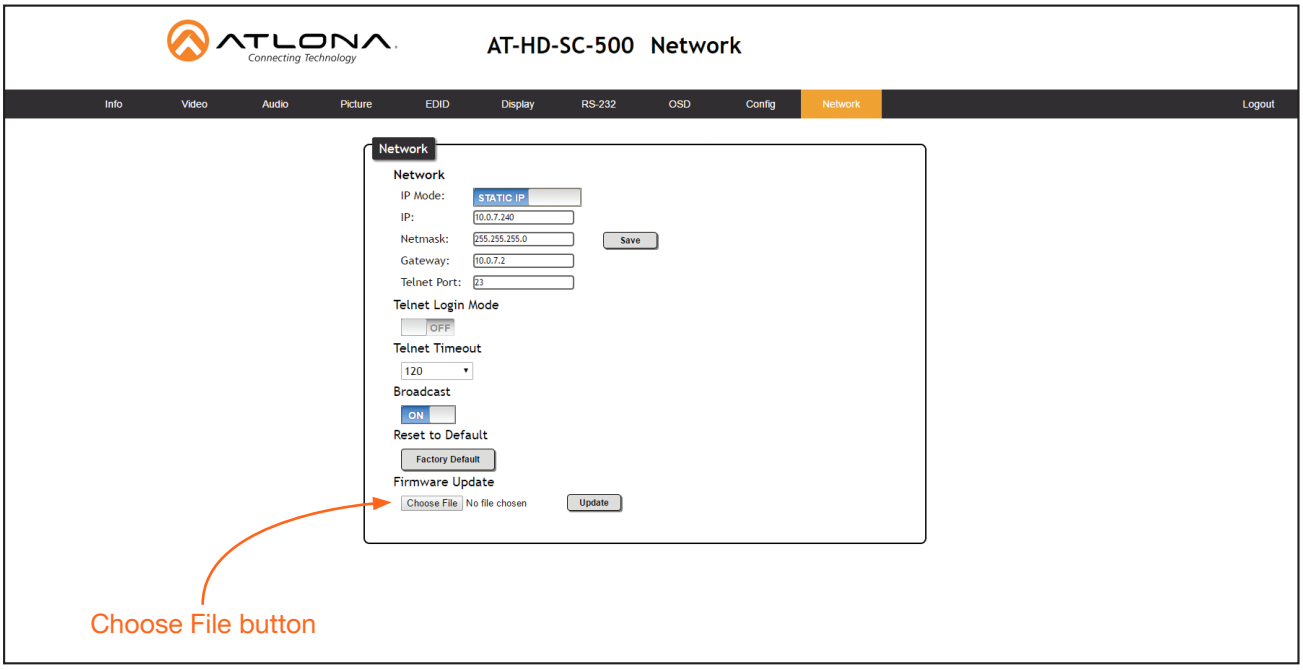
Updating the firmware can be completed using either the USB interface or the web GUI. Atlona recommends using the web GUI for updating the firmware. However, If a network connection is not available, the AT-HD-SC-500 firmware can be updated using a USB-A to USB mini-B cable.

Using the Web GUI

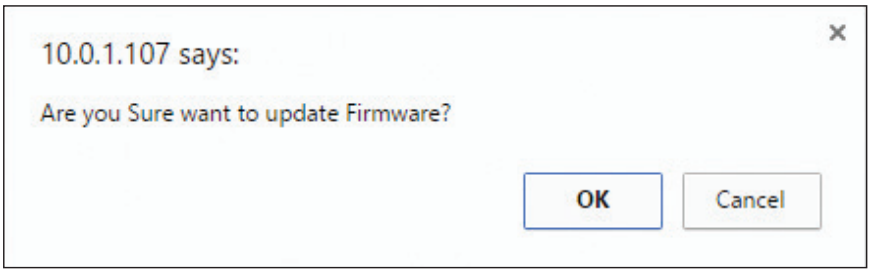
Requirements

- AT-HD-SC-500
- Firmware file
- Computer

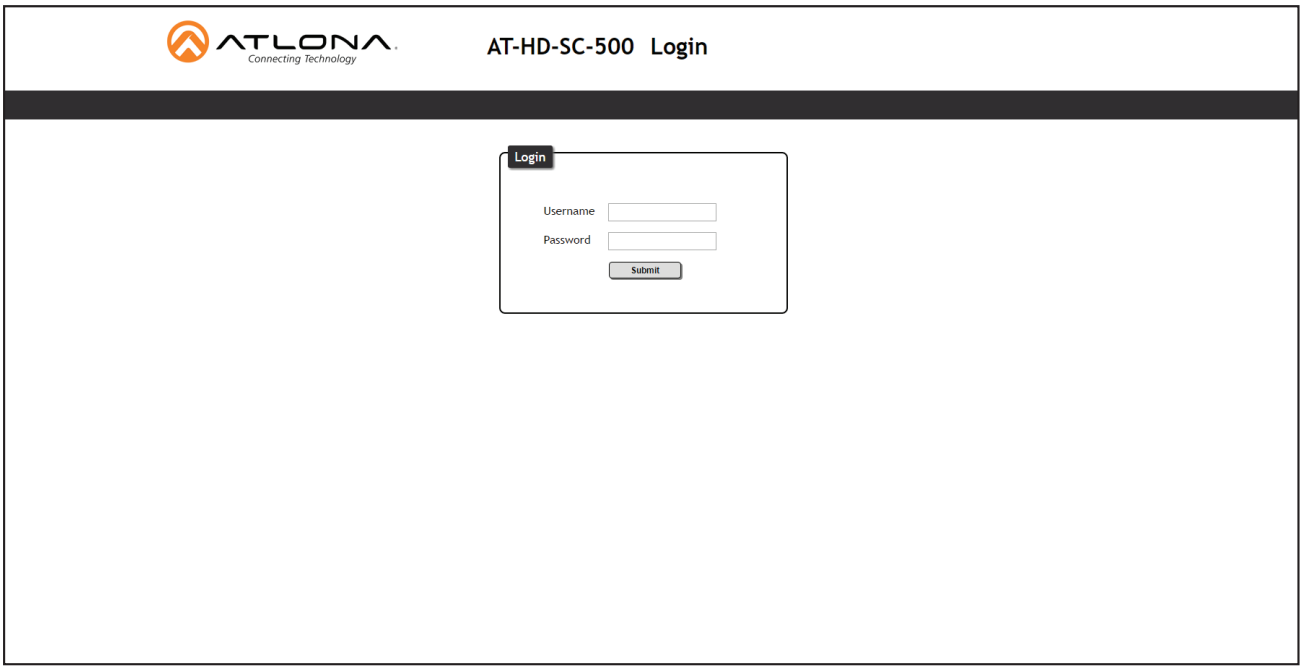
1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-HD-SC-500 is connected.
2. Go to the Network Menu (page 47) in the web GUI.



3. Click the **Choose File** button, under the **Firmware Update** section.
4. Browse to the location of the firmware file, select it, and click the **Open** button.
5. Click the **Update** button.
6. The following dialog will be displayed.



7. Click the **OK** button to begin the firmware update process. Click the **Cancel** button to cancel the process.
8. The update process will take approximately 60 seconds and will automatically reboot the AT-HD-SC-500.
9. After the firmware update process is complete, the **Login** screen will be displayed.

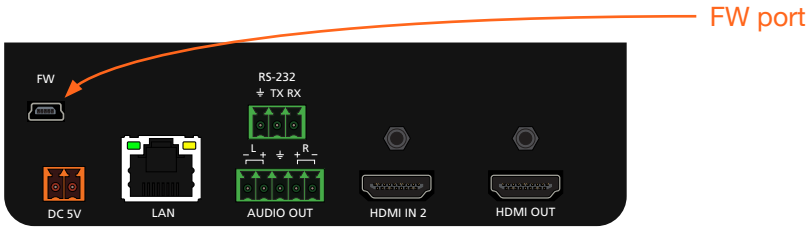


Using USB

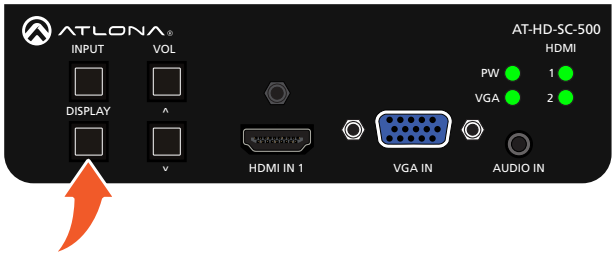
Requirements

- AT-HD-SC-500
- Firmware file: HDSC-500-FW-[version].BIN
- Computer running Windows
- USB-A to USB mini-B cable

1. Disconnect power from the AT-HD-SC-500.
2. Connect the USB-A to USB mini-B cable from the computer to the **FW** port on the AT-HD-SC-500.

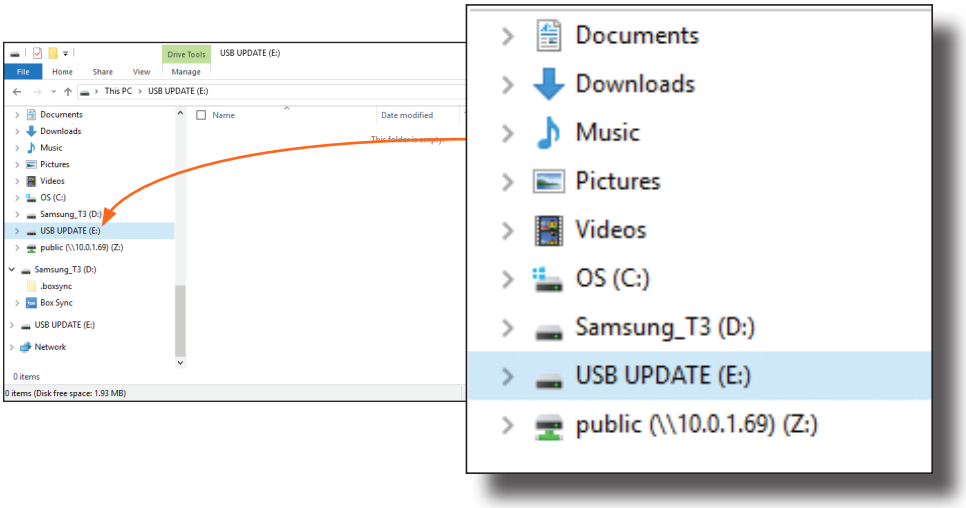


3. Press and hold the **DISPLAY** key, on the front panel, while connecting power to the AT-HD-SC-500.



4. The USB UPDATE folder will be displayed.

   If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer.

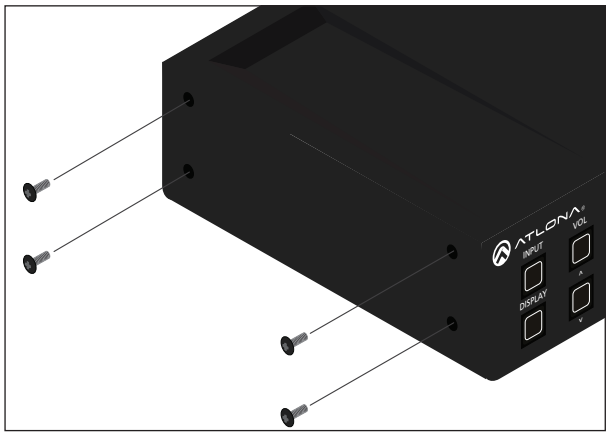


7. Delete all files from the USB UPDATE drive, if any are present.
8. Drag-and-drop the HDSC-500-FW-[version].BIN firmware file to the drive.
9. After the file has been copied, disconnect the USB cable from both the computer and the AT-HD-SC-500.
10. Power-cycle the AT-HD-SC-500 by disconnecting then reconnecting the power supply.
11. The firmware update process is complete.

Mounting Instructions

The AT-HD-SC-500 includes two mounting brackets, which can be used to attach the unit to any flat surface. Use the enclosure screws, on the sides of the unit to attach the mounting brackets.

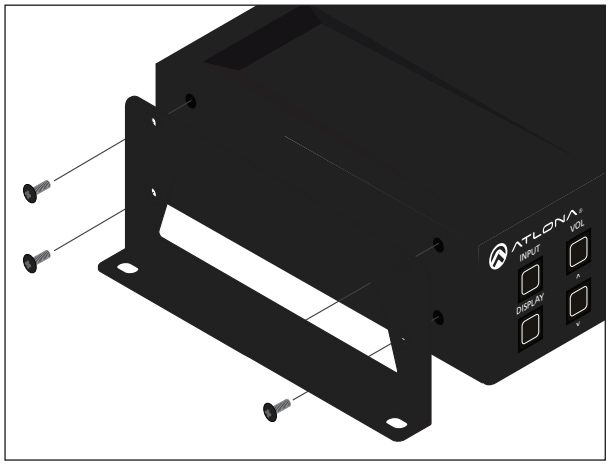
1. Using a small Phillips screwdriver, remove the four screws from the left side of the enclosure.

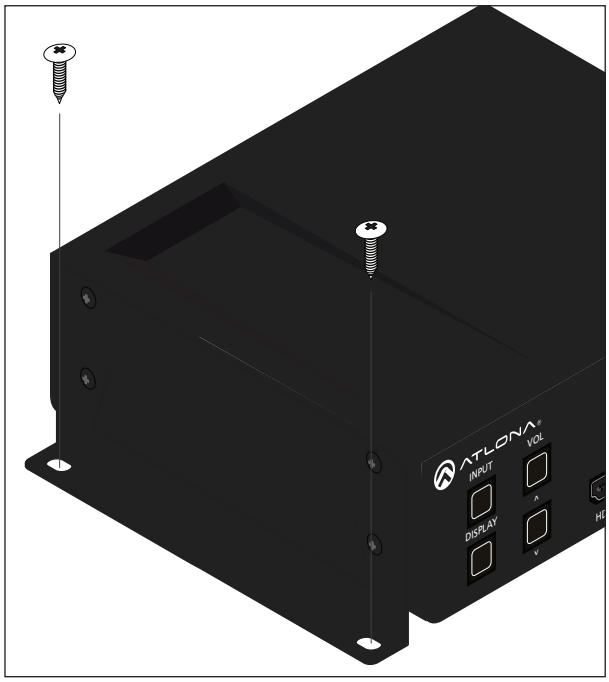


2. Position one of the mounting brackets, as shown below, aligning the holes on the side of the enclosure with one set of holes on the mounting bracket.

3. Repeat steps 1 and 2 to attach the second mounting bracket to the opposite side of the unit.

4. Mount the unit to a flat surface using the oval-shaped holes, on each mounting bracket. If using a drywall surface, a #6 drywall screw is recommended.





NOTE: Mounting brackets can also be inverted to mount the unit under a table or other flat surface.

Default Settings

The following tables list the factory-default settings for the AT-HD-SC-500.

Feature	Settings	
Video	Input Selection	HDMI 1
	Auto Switch mode	ON
	Fallback Port	Previous
	Fallback Time (Sec)	5
	Output Resolution	1280x720p60
	Color Space	RGB
	Aspect	Full
	Overscan	Off
	Mirror-V	Off
	ASP Background	Grey
Audio	HDMI 1	Auto
	HDMI 2	Auto
	Mute	OFF
	HDMI Audio	On
	L/R Audio	On
	Output Volume	-10
	Output Bass	0
	Output Treble	0
Picture	Brightness	64
	Contrast	64
	Saturation	64
	Hue	64
	Sharpness	32
EDID	HDMI Preferred Timing	1280x800
	VGA Preferred Timing	1280x800
	HDMI1 HDCP	compliant
	HDMI2 HDCP	compliant
Display	Display Power On	DISABLED
	Display Power Off	DISABLED
	Power Button Lock	DISABLED
	Lamp cool down timer (sec)	0
	Display Warm Up Timer (sec)	0
	Auto Power Off Timer (sec)	15
	Control Type	RS-232
	Feedback Verify	OFF
	Display Mode	DispSW AVon
	Volume / Mute	AudOut
	IP Mode	Non-Login
	IP Address	0.0.0.0
	Port	23
	Username	root
	Password	Atlona
	Send Mode	ASCII

Feature	Settings	
System	IP Mode	DHCP
	Static IP Address (default)	192.168.1.254
	Netmask	255.255.255.0
	Gateway	192.168.1.1
	Telnet Port	23
	Telnet Login Mode	Off
	Telnet Timeout	120 (seconds)
	Broadcast	On
RS-232	Baud Rate	115200
	Data Bit	8
	Parity	None
	Stop bit	1
OSD	Position	Left-Top
	Transparency	12
	Info. Timer	10
	Menu Timer	20
	Info. Display	Auto
	Background	Grey
Network	IP Mode	DHCP
	IP	assigned by DHCP server
	Netmask	255.255.255.0
	Gateway	assigned by DHCP server
	Telnet Port	23
	Telnet Login Mode	Off
	Telnet Timeout	120
	Broadcast	On

Specifications

Video	
HD/SD Resolutions (input)	1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i, 1920×1200, 1680×1050, 1600×1200, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×800, 1280×768, 1152×864, 1024×768, 800×600, 640×480
HD/SD Resolutions (output)	1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60, 720p@25/29.97/30/50/59.94/60, 1920×1200, 1680×1050, 1600×1200, 1600×900, 1400×1050, 1366×768, 1280×1024, 1280×800, 1024×768, 800×600
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2
Color Depth	8-bit, 10-bit, 12-bit

Audio	
Analog In	3.5mm stereo jack, -10 dBu nominal input
Analog Out	Balanced, +4 dBu nominal analog output. Max output +18 dBu (only from 2Ch PCM sources)
HDMI IN / OUT	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, Dolby Digital Plus, Dolby TrueHD, DTS® 5.1, DTS-HD Master Audio™, DTS:X™, Dolby Atmos®
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

Resolution / Distance	Feet	Meters
HDMI IN/OUT @ 1080p	30	10

Signal	
Bandwidth	6.75 Gbps
CEC	Yes
HDCP	Switchable – Compliant/Non-compliant

Temperature	Fahrenheit	Celsius
Operating	32 to 122	0 to 50
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 90%, non-condensing	

Power	
Consumption	10.4 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 5 V DC, 3.6 A

Dimensions	Inches	Millimeters
H x W x D	1.5 x 5 x 4.02	38 x 127 x 102

Weight	Pounds	Kilograms
Unit	0.60	0.27

Certification	
Power Supply	CE, TUV, RCM, RoHS, FCC
Product	CE, FCC

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