AC-SC1-AUHD

18GBPS UP/DOWN SCALER, EDID MANAGER, AUDIO DE-EMBEDDER & IMAGE ENHANCER

QUICK START GUIDE

Thank you for purchasing the AC-SC1-AUHD. This tool is the ideal solution for integrators who need to distribute a signal to a variety of displays and keep an optimal picture. Integrators will enjoy the versatility of not only being able to control up/down scaling, but handling EDID issues (including 4K HDR EDIDs), image enhancement, being able to extract audio from the signal, and troubleshoot with built in test patterns. This scaler is ready for future content as well as it's able to distribute 18Gbps signals. If you have 1080p displays the AC-SC1-AUHD will make sure it's getting the right picture. The AC-SC1-AUHD serves a variety of purposes:

- Up/Down scaler
- EDID manager
- Image enhancer
- Troubleshooting
- Audio De-embedding
- Legacy Product Pass-through

HOW TO INSTALL:
First connect the SC1 in line with the HDMI signal chain after the source. The output from the source connects to the input of the SC1, and the output of the SC1 continues down the signal path. Connect power to the SC1 with the supplied USB to mini USB cable. The SC1 can be powered 2 different ways, with a device (such as the TV) that has an unused USB connection port that you can plug into or the supplied AC power adapter.

HOW TO CONTROL:
There are 3 buttons located on one side of the SC1. These buttons will control settings for EDID, scaling, and image enhancement. All available settings are printed on the top of the unit. To control the device simply press the corresponding button on the side of the device to toggle through the settings. To indicate what your current setting is use the lights on the top. The number "1" indicates the light is on and "0" indicates the light is off. For example, in the photo to the right, the settings selected are:

- 2K→4K Video Enhancement: *Weak*
- Scaler: *4K→2K*
- EDID Setting: *1080P_3D_2CH(PCM)*

There is a free PC interface that will allow you to control and program the SC1

1. Download the PC software from the AC-SC1-AUHD product page on AVProEdge.com (https://www.avproedge.com/4K-updown-scaler.html)
2. Plug the Micro USB cord in from the PC to the SC1, this will provide power and install a COM Port.
3. Open the software
4. Click "search machine"
5. You are now connected to the SC1
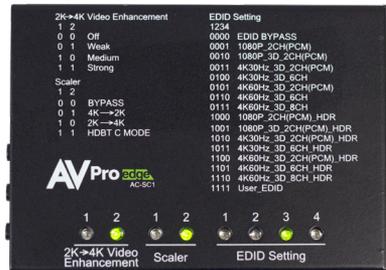
Here are 2 screenshots of the PC software. There are 2 tabs, one labeled "Settings" and one labeled "EDID management". You can set anything you'd like via the buttons on the SC1 or the PC software.

The SC1 can also be controlled with ASCII commands over the USB connection. Refer to the owner's manual for a full list of commands.
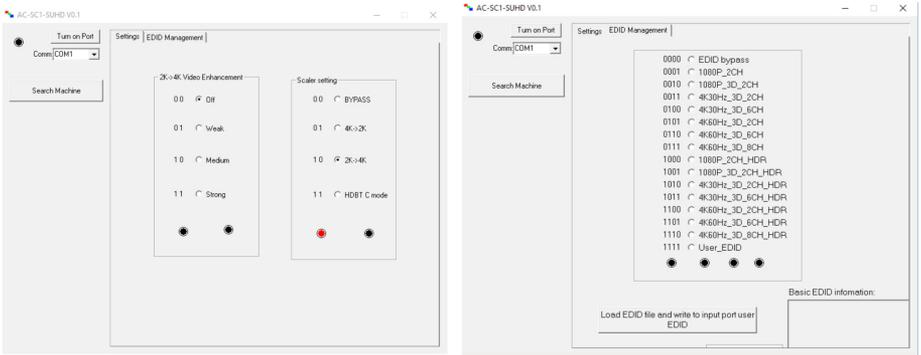
SCALING:
With this device you are able to scale 1080p to 4K or 4K to 1080p. To do that use the buttons or PC software to make your scaling selection.

IMAGE ENHANCEMENT:
The Image Enhancement feature will give legacy signals an extra boost in sharpness. This is helpful in situations where you have large screens or the viewer is sitting further away from the display than usual. The Image Enhancer has 4 settings:
1. Off - No enhancement added
2. Weak - Ideal for 1080p signals in a 4K display
3. Medium - Ideal for poor quality sources
4. Strong - Ideal for extra long viewing distances

NOTE: Image Enhancement is only available when upscaling from 1080p to 4K. See the owner's manual for an in depth explanation of each specific setting.

TROUBLESHOOTING:
The SC1 has 2 different test patterns built in. This can help you confirm that you are getting signal to the desired sink or with general troubleshooting. To enable and disable press and hold the "Enhance" and "EDID" buttons for 2 seconds.

Press and hold the first time will enable the 1080p test pattern (3 sets of color bars).

Press and hold to again will disable the test pattern.
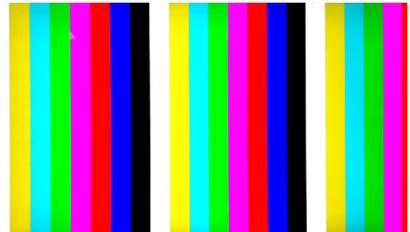
Press and hold a third time will enable the 4K test pattern (5 sets of color bars).

Press and hold a fourth time will disable the test pattern.
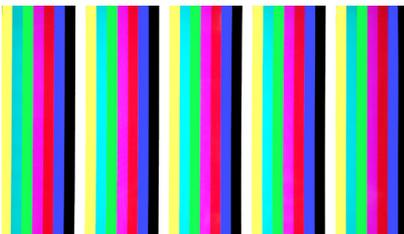
LOCKING THE SC1:
The SC1 has a lock function so that settings cannot be changed by mistake. Press and hold the "ENHANCE" and "SCALER" buttons for 2 seconds. All the lights will flash twice and the device is now locked. Repeat to unlock

AUDIO DE-EMBEDDING:
The SC1 features audio de-embedding. This is helpful in situations where you need to extract the audio from the HDMI stream for an audio distribution system or to an audio amplifier. Plug a 3.5mm to RCA cable into the 3.5mm TRS connector on the side of the SC1.

NOTE: In order to get 2 CH audio you MUST set your source to PCM audio.

AUDIO DE-EMBEDDING / UPSCALING
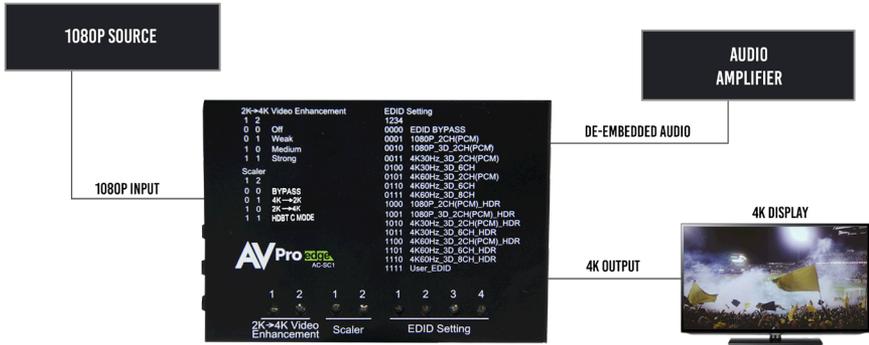
WITH THE AC-SC1-AUHD YOU ARE ABLE TO DE-EMBED AUDIO AND UPSCALE A SIGNAL AT THE SAME TIME.

LEGACY PRODUCT PASSTHROUGH:
If you are retrofitting a 4K source and display into an environment that only has a 10.2Gbps infrastructure, you can use (2) SC1s to get a 4K/HDR/WCG signal to the display. The SC1 uses a technology called Invisible Compression Technology (ICT) to ensure that the picture is as pristine as possible without any visible artifacts.

NOTE: In order for this to work, you must set the scaler on the SC1 to setting 5 (not listed on the SC1) "HDBT C Mode 2". This mode will flash both scaler LEDs on the SC1.

RETRO-FITTING ICT

DISTRIBUTE 18GBPS BANDWIDTH THROUGHOUT A PRE-EXSISTING A/V INFRASTRUCTURE WITH AVPRO EDGE'S ICT (INVISIBLE COMPRESSION TECHNOLOGY)
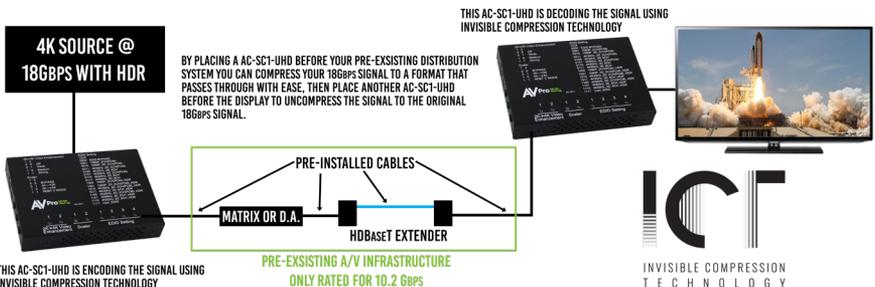
HAVE A QUESTION OR NEED ASSISTANCE?
DON'T HESITATE TO CONTACT US!

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USA TOLL FREE: 877-886-5112
EMAIL: SUPPORT@AVPROEDGE.COM

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