Marshall

VAC-12HUC

HDMI Video / Audio to USB-C (USB3.0/2.0) Adapter

User Manual

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1. Introduction

The Marshall VAC-12HUC advanced USB-C (USB3.0/2.0) adapter easily connects video and audio sources to a computer for live streaming, video conferencing, video production and recording. Simple to use plug-and-play design seamlessly integrates professional video sources to your choice of PC-based applications.

The HDMI 2.0 input accepts video formats up to UHD. Active loop-through output keeps the source available for other purposes such as feeding monitors, recorders, etc.

UVC protocol support allows the host application to control video format, frame rate and other settings independent of the original source.

Setup couldn't be easier. The VAC-12HUC becomes fully functional within seconds after it is connected. Powered by the USB port on the host computer, there are no power adapters to fiddle with.

2. Features

- HDMI 2.0 INPUT with active loop-through OUTPUT (supports formats up to UHD)
- Stereo analog audio INPUT. Activates automatically when audio source is plugged in
- USB-C (USB3.0/2.0) computer interface with UVC control and scaling.
- Power provided via USB-C (USB3.0/2.0) from computer or laptop
- Plug-and-Play. Driver installation not required for most applications
- Compatible with popular applications such as: Zoom, Skype, OBS Studio and many more
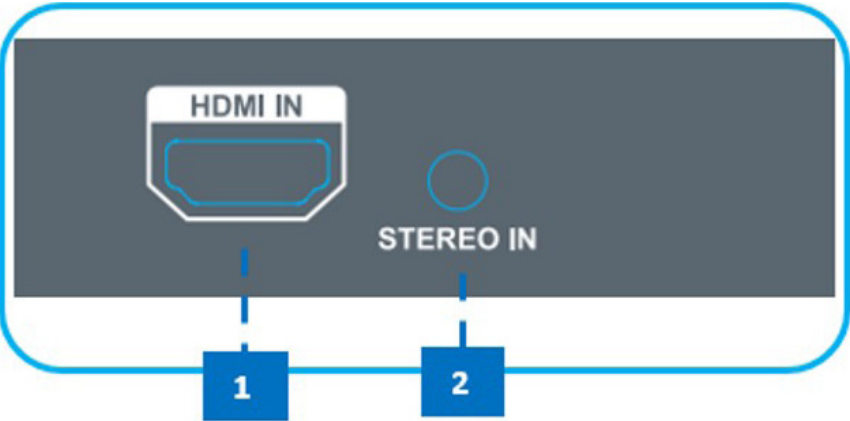
3. Package Contents

- (1) VAC-12HUC Unit
- (1) USB 3.0 "A - type" to "C - type" cable
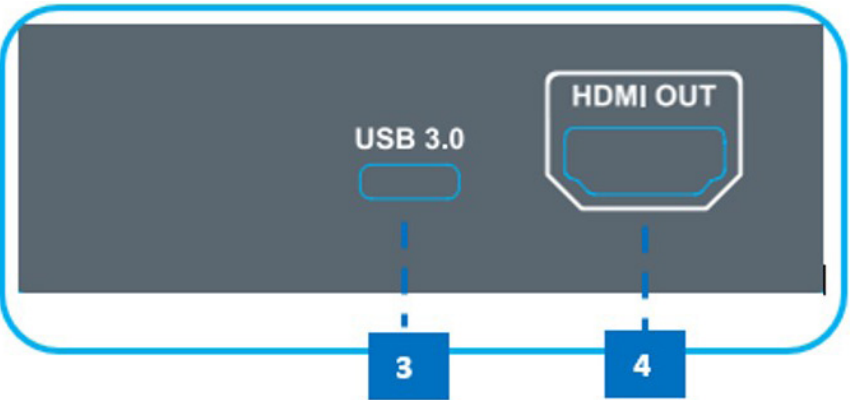- (2) Mounting brackets with 8 attachment screws

4. System Requirements

- Host computer with recent operating system, such as Windows 10 or Mac OS X
- Available USB 3.0 port (supports up to 3840 x 2160p30 to host computer) or,
- Available USB 2.0 port (supports up to 1280 x 720p30 to host computer)

5. Connections and Indicators
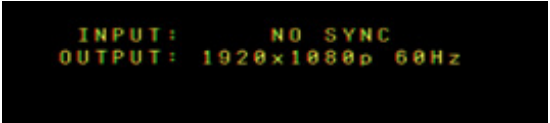
Input Side

Output Side

1. HDMI Input
2. Analog Stereo Line Input
3. USB-C Output to Computer
4. HDMI Loop Output
5. Power LED – USB Power Connected
6. Signal LED – HDMI Video Available

6. Setup and Quick Start

1. Computer should be powered and operating. Connect the VAC-12HUC to the host computer using the USB 3.0 cable provided. The first time the unit is used, please allow about one minute for the computer to identify the unit and setup the drivers. The red LED on Input Side of the unit will light after about 3 seconds.

2. Open an application such as Zoom, Skype, OBS Studio, etc. and select the Video and Audio devices. The VAC-12HUC adapter will identify itself as "MEI USB3.0 Capture Device". Depending on the application used, the unit may appear as a Camera or a Capture Device.

3. This message might display until a video source is connected. The Output resolution format and frame rate may be different depending on the application software.

4. Next, connect a video source. The green LED on the Input Side will light indicating that a compatible video source is attached. The on-screen message will change like the one below. This message will disappear after about 8 seconds

At this point, At this point, the VAC-12HUC is operating and ready to use! Control of the VAC-12HUC depends on the capabilities of the software being used for conferencing, recording, streaming, etc.

Note: Most video conferencing applications will automatically set the USB output format to 720p. This does not affect the HDMI loop through output which will remain the same as the input.

5. External audio (Optional). If desired, audio may be provided from a source other than the HDMI input. Simply plug the audio source into the 3.5mm audio jack on the unit. When the plug is fully inserted, the incoming HDMI audio will be muted and the new analog audio will take its place. This audio will appear at BOTH the USB output AND the HDMI output.

7. Specifications

HDMI Input and Output

- HDMI Conforms to HDMI 2.0 standard

- HDCP 1.4 and 2.2 compliant

- Video Frame Rates from 23.98 to 60.00

- Video Input Formats from 480i/p, 576i/p to 4096x2160p at 30 fps

USB-C (USB3.0/2.0) output backwards compatible to USB 2.0

- Actual video format and frame rate dependent on UVC control commands received from the host computer.

- Connected via USB 3.0, transfers formats up to 3840 x 2160p30 sent to host computer

- Connected via USB 2.0, transfers formats up to 1280 x 720p30 sent to host computer

- When connected to a USB 2.0 port, recommended input video source 720p or below

Audio Input

- Embedded audio from HDMI passed through to HDMI Out. Channels 1 & 2 are sent to USB

- External stereo analog line level input on 3.5mm stereo TRS jack. Switches on when plug is inserted. Replaces audio to HDMI Out and USB to computer
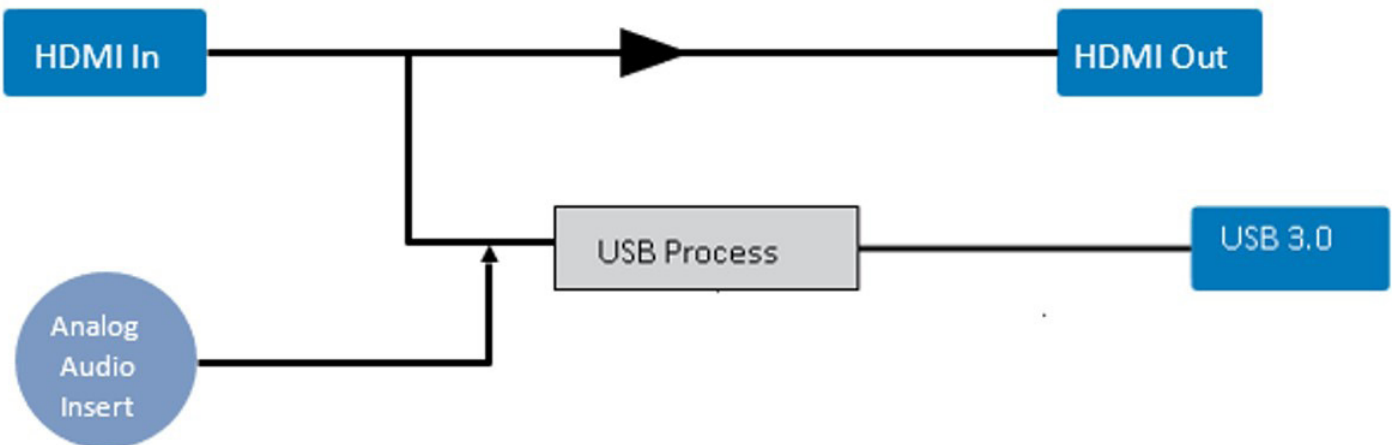
Operating Temperature

- 0~40°C (32~104°F

Power Rating

- 5V 1A

8. Block Diagram

VAC-12HUC Functional Block Diagram

9. Tips and Fixes

My computer says, "the USB device is not recognized" or "the device does not support the required parameters".

First, be sure to use the USB-C cable that was supplied with the VAC-12HUC. If it becomes lost or damaged, please replace it with a "USB 3.0 type A-to-C" cable which provides the power and bandwidth necessary for proper operation of the unit. When in doubt, try another cable.

Next, a similar message can also appear when the VAC-12HUC is connected to a USB 2.0 connector. This can be fixed by plugging into a USB 3.0 port on the host computer. USB 3.0 connections are usually identified by blue color inside the connector.
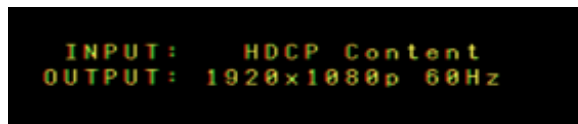
If only a USB 2.0 connection is available, lowering the source video format usually works. 720p is a good choice.

The video source is 1080p50 (or 60) but the computer says the incoming video is different (760p for example). Why isn't it the same as the source?

The VAC-12HUC is compatible with the USB industry standard UVC control protocol. This allows the host computer to adjust the format and frame rate independently from the incoming source. Many applications have controls that allow changing these parameters. Video conferencing applications typically do not have these controls and simply force the settings that work best. Please consult the instructions that are provided with the application for more information.

The VAC-12HUC HDMI output is connected to a video recorder. The recorder is getting a blank picture. OR……….

The HDMI output is connected to a video monitor and the picture is perfect, but the picture on the computer is black with the message "Input: HDCP Content". Can this be fixed?

```
INPUT:    HDCP Content
OUTPUT:  1920x1080p 60Hz
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This is almost always an HDCP issue. HDMI video contains a "copy protection" system called HDCP "High Bandwidth Digital Content Protection". The principle behind HDCP is that copyrighted content should be seen and heard but not recorded or transmitted. What this boils down to is that video containing an HDCP "flag" will only work with display devices: monitors, projectors and television sets. A common difficulty in professional applications is that consumer products such as DVD players, Blue Ray players and set top boxes (cable and satellite) typically force HDCP ON even when the material being played is not copyrighted. Video cameras, on the other hand, never use HDCP and should always work. Computer HDMI outputs may or may not use HDCP depending on the material being output. For details on HDCP, please visit www.hdmi.org.

I'm trying to use VLC to test the VAC-12HUC but the picture looks wrong and the video format is incorrect as well.

To connect with VLC, follow these steps:

Select the **MEDIA** tab then, select **OPEN CAPTURE DEVICE**

In the Window that appears, select **MEI USB 3.0 CAPTURE DEVICE** for the Video Device Name and Audio Device Name then click on **ADVANCED OPTIONS.**

In the next window, change Aspect Ratio to 16:9

If you are connected using USB 3.0, type YUY2 for Video Input Chroma Format.

If you are connected using USB 2.0 type MJPG for Video Input Chroma Format.

Now click OK. The window will close.

Click Play at the bottom of the remaining window. The incoming video and audio will appear.

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Warranty

Marshall warrants the VAC-12HUC HDMI to USB-C Converter to be free from defects in the material and workmanship for 1 year from the date of purchase from an authorized Marshall dealer. Should this product fail to be in good working order within 1-year warranty period, Marshall will, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those specified above will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Cables are limited to a 30-day warranty and cable must be free from any markings or scratches.

The content of this manual has been carefully checked and is believed to be accurate. However, Marshall assumes no responsibility for any inaccuracies that may be contained in this manual. Marshall will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or -omission in this manual, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the VAC-12HUC features and specifications is subject to change without further notice.

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