

Installation and Operation Manual

ATEM Camera Converter

ATEM Studio Converter

Blackmagicdesign 



Mac OS X™
Windows™
November 2011

Welcome



Welcome to ATEM Live Production!

Thank you for purchasing a Blackmagic Design converter for your live production work!

ATEM Camera Converter and ATEM Studio Converter allow you to extend your broadcast SDI and consumer HDMI cameras using low cost optical fiber! Imagine connecting to cameras at remote locations on racing tracks, live sporting venues or even massive golf courses! With ATEM Camera Converter you can have more cameras closer to the action for the most amazing shots in live production! ATEM Camera Converter not only converts your camera to optical fiber, but it also includes talkback, external microphone input, program return feed, tally and built in battery power source! You can place cameras in multiple locations miles away from your switcher while keeping full broadcast HD video quality!

With ATEM Studio Converter you get 4 independent bidirectional optical fiber SDI converters in a one rack unit chassis. ATEM Studio Converter can be used for general optical fiber SDI conversion or as the perfect partner for your ATEM Camera Converters where it allows internally distributed program output and talkback support. Multiple ATEM Studio Converters can be looped to allow talkback support to more than 4 cameras.

Blackmagic Converter Utility is used to change settings and update the internal software in your ATEM converter. The latest version of Converter Utility can always be downloaded from our website at www.blackmagic-design.com/support. We think it should take you approximately 5 minutes to complete installation. Before you install Converter Utility, please check our website and click the support page to download the latest updates to this manual and Converter Utility software. Lastly, please register your ATEM Camera Converter or ATEM Studio Converter when downloading software updates. We would love to keep you updated on new software updates and new features for your ATEM converters. Perhaps you can even send us any suggestions for improvements to the converters. We are constantly working on new features and improvements, so we would love to hear from you!

A handwritten signature in black ink that reads "Grant Petty". The signature is written in a cursive, flowing style.

Grant Petty
CEO Blackmagic Design

4 Getting Started

Introducing ATEM Converters	4
Plugging in Your Camera	5
Plugging in Your External Audio	5
Plugging in Your Headset	5
Plugging in Your Monitor	6
Plugging in and Reversing Optical Fiber Cables	6
Mounting ATEM Camera Converter	7
Standalone Converter Operation	7
Blackmagic Converter Utility	8
Installing Blackmagic Converter Utility on Mac OS X	8
Installing Blackmagic Converter Utility on Windows	8
Updating the Internal Software	8
Setting the Camera Number	9

10 Connection and Control Reference Guide

Connecting 1 Camera to a Switcher	10
Connecting Up to 4 Cameras to a Switcher	11
Connecting More than 4 Cameras to a Switcher	12
ATEM Camera Converter	13
Connectors	13
Status Indicators	14
Buttons	14
Mounts	14
ATEM Studio Converter	15
Converter Connectors	15
Expansion Connectors	15
Other Connectors	15

16 Help

17 Warranty Information



4 Getting Started



ATEM Camera Converter



ATEM Studio Converter

Introducing ATEM Converters

ATEM Camera and ATEM Studio Converters connect to switchers, including ATEM production switchers, and allow cameras to be connected over long distances using low cost, fiber optic cable.

ATEM Camera Converter connects to any camera with SDI or HDMI output. It is used to send video, audio, tally and talkback signals via optical fiber, between the camera unit and a remote unit, for connection to a switcher. It can be battery operated or run on mains power.

When only one camera is being used, a pair of ATEM Camera Converters is required to extend the camera over a long distance and provide talkback between the camera operator and the switcher operator.

When multiple cameras are being used, the ATEM Camera Converters can be partnered with an ATEM Studio Converter. Each ATEM Studio Converter supports connections to four ATEM Camera Converters. If the switcher operator needs to communicate with more than four cameras, additional ATEM Studio Converters can be linked together and connected to more ATEM Camera Converters. ATEM Studio Converter can also be used in a standalone manner to provide four, independent, bidirectional SDI to Optical Fiber converters in a 1 RU chassis less than four inches thick.

Single mode optical fiber cable with LC connectors is used to connect ATEM Camera Converter, ATEM Studio Converter and other optical fiber SDI products from Blackmagic Design.

When connecting an ATEM Camera or ATEM Studio Converter to a switcher, SDI or HDMI cables can be used. HDMI should only be used for short cables of around 6 feet or 2 meters. SDI should be used for longer cables of up to 100 meters.

5 Getting Started



Plugging in Your Camera

The first thing you'll want to do is to plug in your cameras! All you need to do is connect an HDMI or SDI cable from the camera video output and then connect it to an input on the ATEM Camera Converter. If your camera has both SDI and HDMI outputs, use an SDI cable as SDI is a more robust, industrial standard and can be reliably used with long cables of up to 300 feet or 100 meters in length.

If you are connecting a camera with an HDMI cable, try to use short cables that are no longer than 6 feet or 2 meters, and use good quality cables to help eliminate unwanted sparkles or glitches in your video.

Make sure your camera is set to output video in a format which is supported by your live production switcher. In particular, 1080p cameras will usually need to be adjusted to output either 1080i or 720p for broadcast. If you are connecting to an ATEM switcher, check the switcher video standard and then set the camera to the same video standard, e.g. 1080i59.94.



Plugging in Your External Audio

The ATEM Camera Converter supports 2 channels of camera audio. By default, ATEM Camera Converter uses the embedded audio from your camera's microphone. The two channels of embedded audio are carried on audio channels 1 & 2 of the optical fiber SDI cable.

If external audio equipment is connected to the ATEM Camera Converter, the external audio will be used instead of the embedded audio. The two, balanced 1/4" TRS connectors accept stereo, analog audio at microphone level. Microphone volume buttons are used to increase or decrease the external audio to the desired level. The two channels of external audio are carried on audio channels 1 & 2 of the optical fiber SDI cable.



Plugging in Your Headset

The ATEM Camera Converter includes headset jacks for talkback between the camera operator and the switcher operator.

You can use a headset with conventional, 3.5mm stereo analog microphone and headphone plugs.

The headphone jack supports iPhone-compatible headsets, where the microphone works via the headphone jack. If both an iPhone-compatible headset and external microphone are connected at the same time, the iPhone microphone will mute and the external microphone will be used instead.

The two channels of talkback audio are carried on audio channels 15 & 16 of the optical fiber SDI cable.

6 Getting Started



ATEM Camera Converter can show a red tally border, on an attached monitor, when the camera is on-air

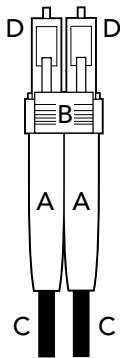


Illustration of a duplex optical fiber cable showing the rubber boot (A), yoke (B), cable (C), and LC connector (D).

Plugging in Your Monitor

If the camera operator wants to monitor the camera video or the program video from the switcher, connect a monitor to the SDI or HDMI outputs of the ATEM Camera Converter. Both outputs show the same video so either can be used.

To switch between program video and camera video, press the PGM button on the ATEM Camera Converter.

If program video is being monitored, and a tally signal is received from the switcher, the SDI and HDMI outputs can display a red border on the attached monitor to make it obvious that the camera is on-air.

Plugging in and Reversing Optical Fiber Cables

Single mode, optical fiber cables with LC connectors are used to connect between ATEM Camera Converters and ATEM Studio Converter. Before connecting optical fiber cables between your ATEM converters, make sure the fibers have been reversed at one end, or use a patch bay to reverse them, otherwise you'll be connecting from In to In and from Out to Out which won't work!

Optical fiber cable is cheap and you can order the lengths you need from a local, electrical wholesaler. Usually you'll just want to buy duplex optical fiber as it costs less than the multi-fiber type that is designed for installation in walls and underground. You'll only need multi-fiber cables if you're connecting several cameras at the same location. Multi-fiber cables are thicker and stronger and typically contain up to 12 strands of fiber which would support 6 cameras. You could even ask the wholesaler to make up your cables with the connectors reversed at one end so you don't have to fiddle around and reverse them yourself.

If you have to reverse the cable ends yourself:

- Step 1.** Gently pull back the rubber boot (A) away from the plastic yoke (B) until the rubber boot slides freely along the cable (C). Twisting the rubber boot slightly may help to remove it.
- Step 2.** Repeat for the second cable in this duplex pair.
- Step 3.** Use your thumbnail or a flat-blade screwdriver to unclick the yoke from the connectors (D).
- Step 4.** Slide the connectors forward so that the exposed cable, between the connectors and their rubber boots, can slide out through the narrow openings in the underside of the yoke.
- Step 5.** Reverse the connectors, reinsert and click them in to the yoke and then reinstate the rubber boots by sliding them up the cable to the yoke.

Optical fiber cables can be very long and skinny, so it's a good idea to use a hose reel or something similar to wind up the cable so it does not always tangle.

7 Getting Started



ATEM Camera Converter can be clipped on to your belt, or mounted on a tripod arm, or rest on its rubber feet on a desk.

Mounting ATEM Camera Converter

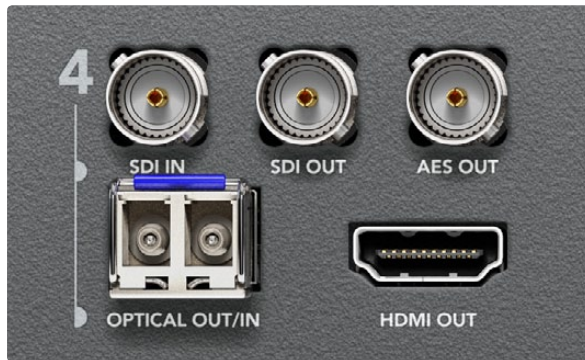
When your camera needs to be mobile, connect your cables to ATEM Camera Converter and then snap the integrated belt clip on to your belt. For stationary shots, ATEM Camera Converter can be mounted on a tripod arm with either of its standard 3/8" or 1/4" thread inserts. If you want to sit ATEM Camera Converter on a desk using its rubber feet, undo the two 2.5 hex socket screws and remove the belt clip.

Standalone Converter Operation

When not being used with ATEM Camera Converters, ATEM Studio Converter can be used as four, independent, bidirectional SDI to Optical Fiber converters. This might be more convenient than using four individual mini converters, each with their own external power supply.

When operating in a standalone manner, the ATEM Studio Converter will simultaneously convert SDI input to optical fiber SDI output and optical fiber SDI input to both SDI and HDMI output as well as AES/EBU audio output. The four converters are independent and can simultaneously convert different video formats. Within each of the four converters, the video format being converted must be the same in both directions of conversion.

Audio channels 1 & 2 can be converted between SDI and optical fiber SDI. The HDMI and AES/EBU connectors also output audio channels 1 & 2. Audio channels 15 & 16 are always reserved by the ATEM Studio Converter itself.



ATEM Studio Converter can be used as four, independent, bidirectional SDI to Optical Fiber converters

8 Getting Started



Blackmagic Converter Utility

Blackmagic Converter Utility is used to configure settings and update the internal software in your ATEM Camera and Studio Converters.

Installing Blackmagic Converter Utility on Mac OS X

After downloading the Converter Utility software and unzipping the downloaded file, open the resulting disk image to reveal its contents.

Drag the Blackmagic Converter Utility icon and drop it on to the Applications icon. If Mac OS X presents a warning message that an older version of Blackmagic Converter Utility exists, choose to replace the older version. Blackmagic Converter Utility is now installed.

To remove Blackmagic Converter Utility from your Mac, simply drag its icon from the Applications folder to the Trash and then choose to Empty Trash.

Installing Blackmagic Converter Utility on Windows

After downloading the Converter Utility software and unzipping the downloaded file, you should see a Converter Utility folder containing this PDF manual and the Converter Utility installer.

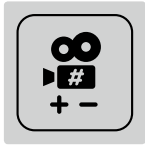
Double-click the installer and follow the onscreen prompts to complete the installation. When the installation has finished, it will prompt you to restart the computer. The restart will load a USB driver for Converter Utility so that it can communicate with any ATEM Converter. Click "restart" to complete the installation process. Once the computer has restarted, Blackmagic Converter Utility will be fully installed and ready to use.

To remove Blackmagic Converter Utility from Windows 7, go to the Programs and Features control panel, select Blackmagic Converter Utility and click on Uninstall.

Updating the Internal Software

After installing Blackmagic Converter Utility on your computer, connect a USB cable between the computer and the ATEM Converter. Launch Blackmagic Converter Utility and follow any onscreen prompt to update the internal software in your ATEM Converter. If no prompt appears, the internal software is up to date and there is nothing further you need to do.

9 Getting Started



The Camera Number button on ATEM Camera Converter



The Camera Number setting in Blackmagic Converter Utility

Setting the Camera Number

If you want your ATEM Camera Converter to receive tally signals from an ATEM switcher, you'll need to set the number of the associated camera so the switcher sends the tally signal to the correct ATEM Camera Converter.

To set the camera number with the camera number button, press and hold the button until its button light flashes 3 times. This will reset the camera number to camera 1. Each subsequent press of the button will increment the camera number by 1. If you want to set your camera to number 5, reset the camera number to 1 and then add 4 button presses to make it camera number 5.

To test if the camera number is set correctly, have the ATEM switcher operator select your camera to be the program output of the switcher. In this example, camera number 5 should be sent to the program output of the switcher. If the camera number is set correctly, the tally lights will illuminate on your ATEM Camera Converter.

Similarly if you want to work out to what camera number your ATEM Camera Converter is set, ask the ATEM switcher operator to successively send camera inputs to the program output of the ATEM switcher until the tally lights illuminate on your unit. The switcher operator can then tell you your camera number.

As well as showing tally lights, you might also like to display a tally border on an SDI or HDMI monitor connected to the output of your ATEM Camera Converter. This option is set using Blackmagic Converter Utility and you can also set the camera number at the same time.

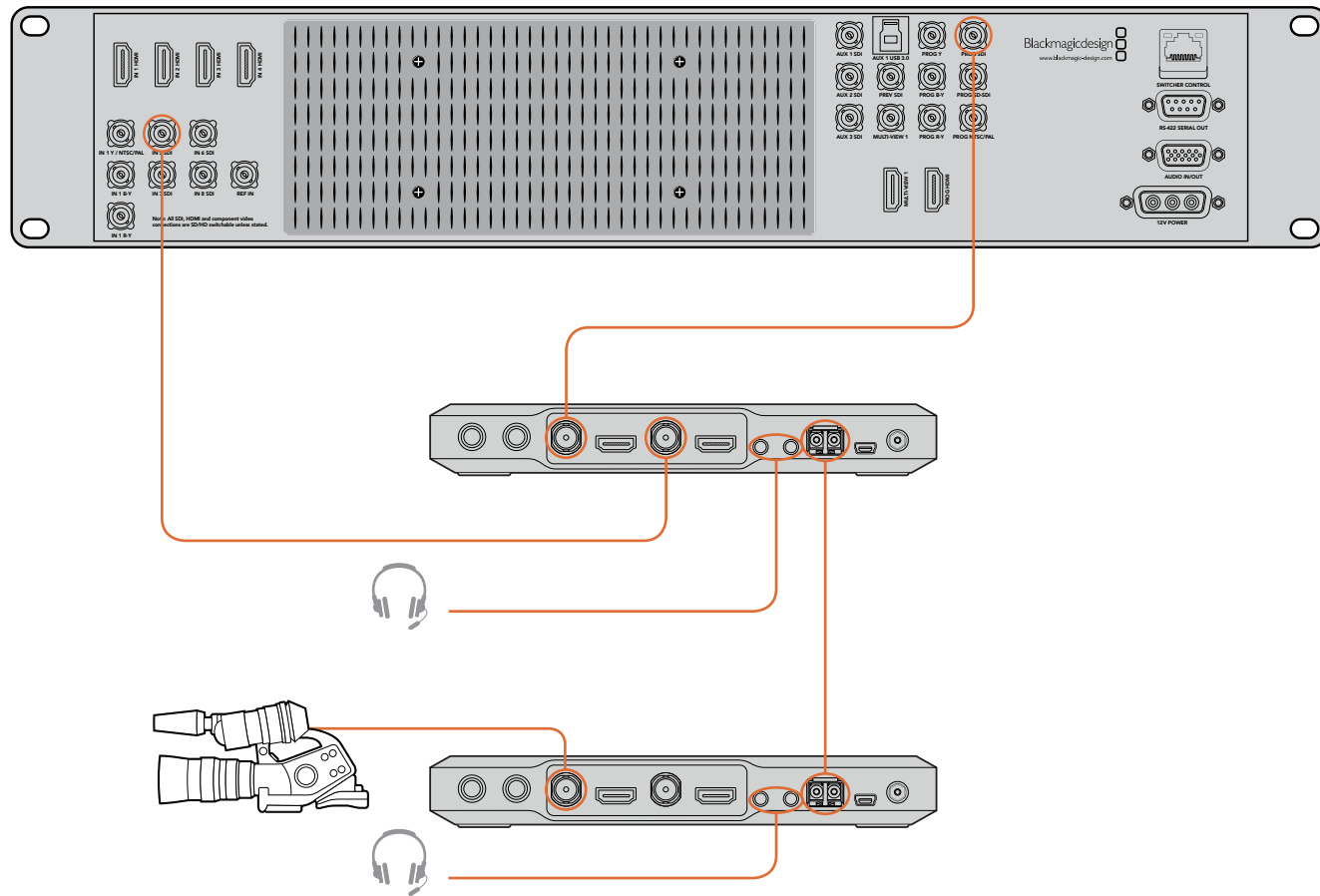
- Step 1.** Connect an ATEM Camera Converter to your computer via USB 2.0.
- Step 2.** Launch Blackmagic Converter Utility and click the Settings tab.
- Step 3.** Set the camera number and also choose whether to show a tally border on the monitor attached to the ATEM Camera Converter. Quit from Blackmagic Converter Utility.

If you chose not to display a tally border, the tally lights on the ATEM Camera Converter will still illuminate when your camera is live on the program output of the ATEM switcher.

10 Connection and Control Reference Guide

Connecting 1 Camera to a Switcher

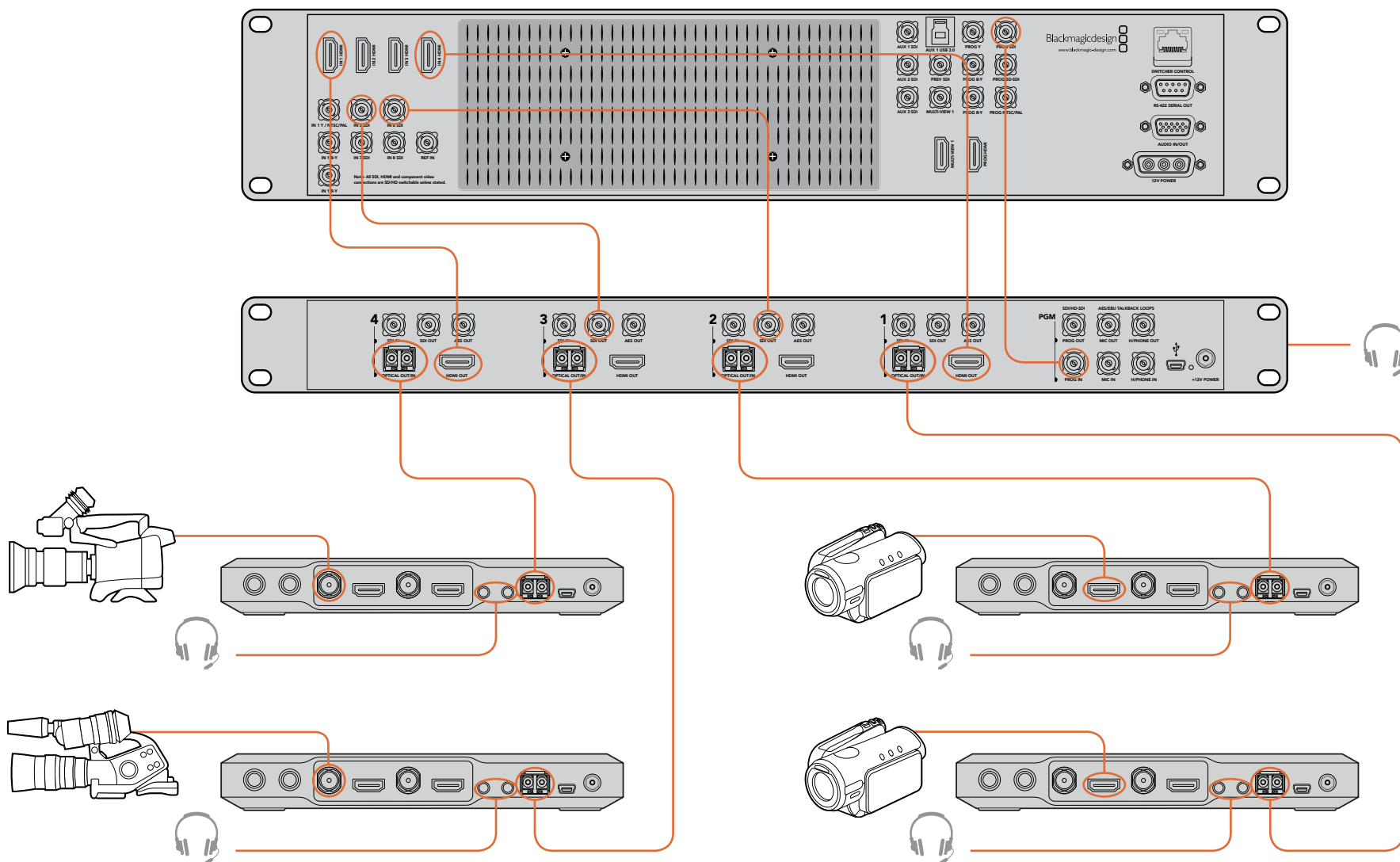
This example shows a single camera connected to a switcher via a pair of ATEM Camera Converters. This arrangement should only be considered for connecting one or two cameras via optical fiber. An audio de-embedder can be attached to the SDI output, of the upper ATEM Camera Converter, to send camera audio to a mixer and then to the audio input of the switcher. If more cameras need to be connected via optical fiber, each ATEM Camera Converter should be connected to an ATEM Studio Converter rather than using pairs of ATEM Camera Converters.



11 Connection and Control Reference Guide

Connecting Up to 4 Cameras to a Switcher

This example shows four cameras connected to a switcher via four ATEM Camera Converters partnered with an ATEM Studio Converter. The AES/EBU outputs of ATEM Studio Converter can send camera audio to a mixer and then to the audio input of the switcher.

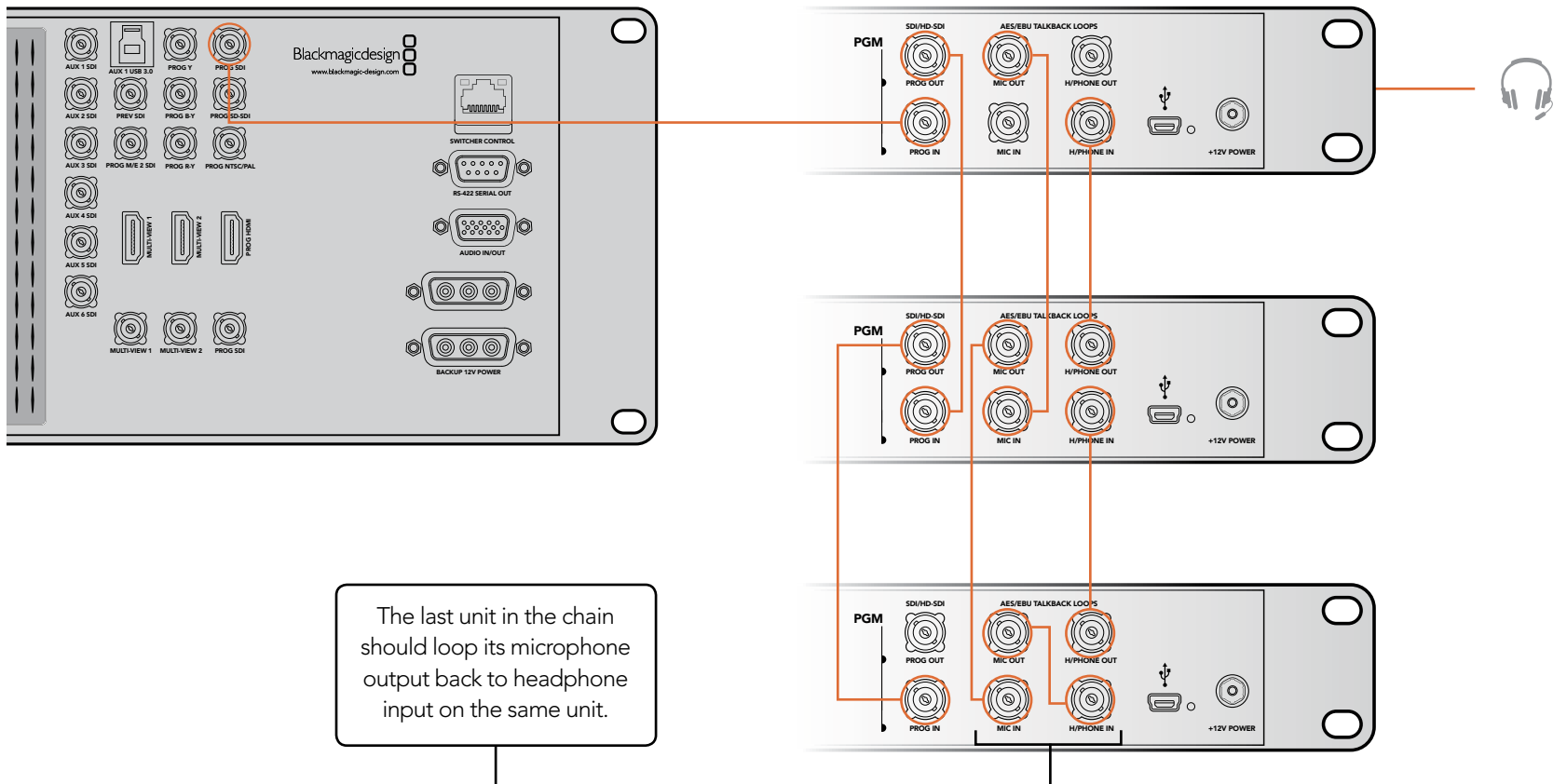


12 Connection and Control Reference Guide

Connecting More than 4 Cameras to a Switcher

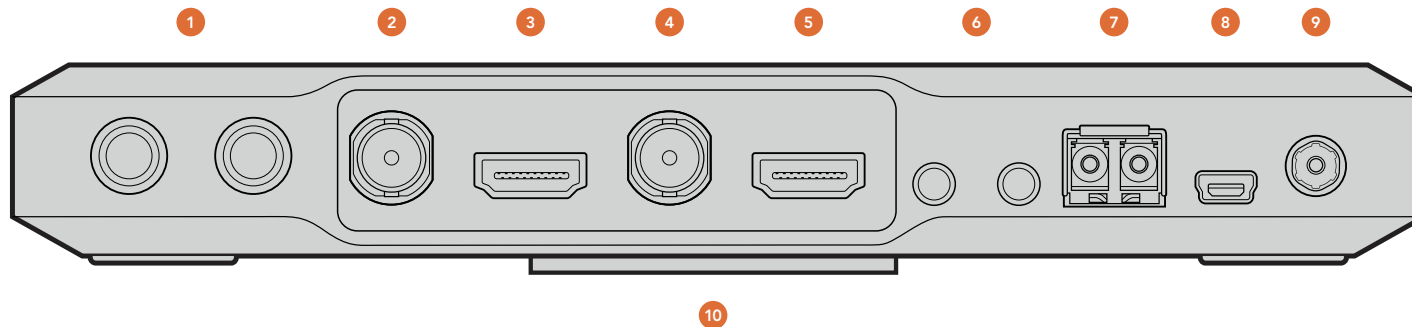
If you have over four cameras that need to be connected to your switcher, you can expand the number of camera connections by linking ATEM Studio Converters together. This example shows three ATEM Studio Converters connected together so up to 12 cameras can be used.

The first unit receives the program output from the switcher and the talkback headset should be connected to the front panel of this unit. The program and microphone outputs are then looped to the corresponding inputs of the next unit. The last unit in the chain should loop its microphone output back to headphone input on the same unit. The headphone output of each unit should be connected to the headphone input of each previous unit in turn, until the first unit is connected.



13 Connection and Control Reference Guide

ATEM Camera Converter



Connectors

1. AUDIO IN

Connect higher quality microphones, wireless microphones or mixing desks using the stereo balanced 1/4" TRS inputs. Microphone level audio is supported.

2. SDI IN

Connect your camera to this input if your camera has SDI output.

3. HDMI IN

Connect your camera to this input if your camera has HDMI output.

4. SDI OUT

Connect this output to an SDI monitor. Select between program video and camera video using the PGM button. A tally border can also be displayed by enabling a software setting.

5. HDMI OUT

Connect this output to an HDMI monitor. Select between program video and camera video using the PGM button. A tally border can also be displayed by enabling a software setting.

6. Talkback Headset

The talkback headset connectors are for talkback with the switcher operator. Connect a regular headset using the microphone and headphone jacks. An iPhone-compatible headset can be connected using only the headphone jack. If both an iPhone-compatible headset and external microphone are connected at the same time, the iPhone microphone will mute and the external microphone will be used instead.

7. OPTICAL OUT/IN

Connect single mode optical fiber cables to the included SFP module using LC connectors. The other end connects to an ATEM Studio Converter or another ATEM Camera Converter.

8. USB 2.0

Use the USB port for software configuration and updates.

9. POWER +12V

You can use the power adapter supplied with ATEM Camera Converter or power it from an external camera battery as the connector supports an input range of 12V to 31V. When a power source is connected, the built-in internal battery will also be charged.

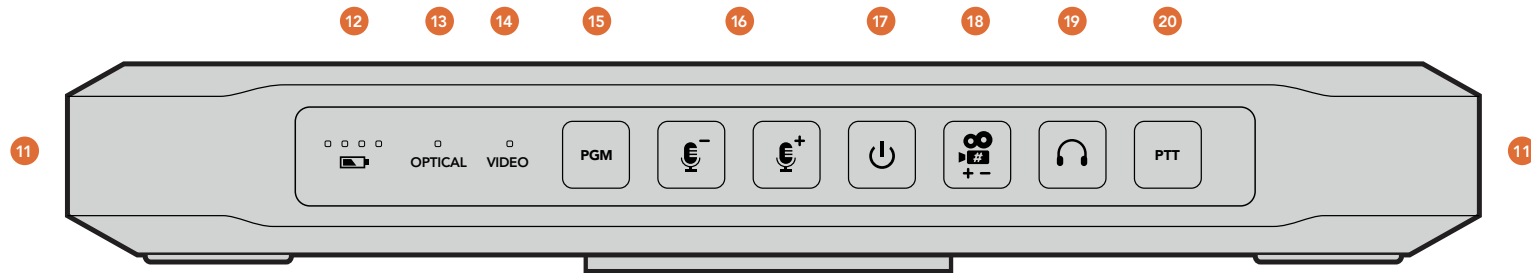
Mounts

10. Belt Clip or Camera Mount

For mobility, connect your cables to ATEM Camera Converter and then snap the integrated belt clip on to your belt. For stationary shots, ATEM Camera Converter can be mounted on a tripod arm with either of its standard 3/8" or 1/4" thread inserts. If you want to sit ATEM Camera Converter on a desk using its rubber feet, undo the two 2.5 hex socket screws and remove the belt clip.

14 Connection and Control Reference Guide

ATEM Camera Converter



Status Indicators

11. Tally lights

There are two red tally lights on opposite sides of the unit so the talent and camera operator can see the tally. These lights illuminate when a tally signal is received from the program output of the switcher.

12. Battery level

The four green battery indicators display the internal battery charge level. When all the LEDs start flashing, there's approximately 10 minutes of battery power left. So you should plug in an external power source or switch to another charged ATEM Camera Converter.

13. OPTICAL

The VIDEO indicator lights up when an optical fiber SDI video signal is detected by ATEM Camera Converter.

14. VIDEO

The VIDEO indicator lights up when an SDI or HDMI video signal is detected by ATEM Camera Converter.

Buttons

15. PGM

The program (PGM) button selects whether an attached monitor will display the switcher program video output or the camera video from the SDI/HDMI inputs.

16. Microphone Volume Down/Up

The microphone volume buttons provide a quick way to adjust external audio levels. Each press of the microphone volume buttons provides a smooth increase or decrease in volume over 1 second. When maximum or minimum microphone volume is reached, or if at maximum or minimum volume at power up, the relevant button will illuminate for 3 seconds. These buttons do not affect embedded SDI and HDMI audio levels received directly from the camera.

17. Power On/Off

Instantly power on. Hold for 1 second to power off.

18. Camera Number

Press the camera number button for 1 second to reset the camera number to "1". All LEDs will flash three times to indicate the camera number has been reset. This will reset the camera number to camera 1. Each subsequent press of the button will increment the camera number by 1. Refer to the section "Setting the Camera Number" for tips about using camera numbers and tally.

19. Talkback Headphone Volume

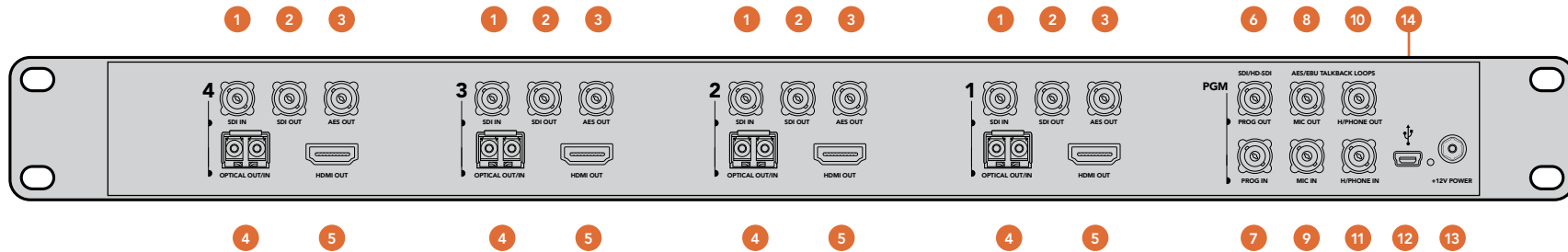
Press this button to increase the volume of the talkback headphones. When maximum volume is reached, or if at maximum volume at power up, the button will illuminate for 3 seconds. The next press will reduce the volume to minimum before the volume is increased again.

20. PTT

Press to talk (PTT) allows camera operators to talk to the switcher operator. The button is held down while talking. If the PTT is pressed twice in quick succession, it will stay on to allow hands free communication. If PTT is pressed again, it will revert to normal press-to-talk behavior.

15 Connection and Control Reference Guide

ATEM Studio Converter



Converter Connectors

1. SDI IN

Any SDI source connected to this port will be sent to the camera operator. This SDI input will override the program output signal which is received from the switcher. This port is also used for SDI to optical fiber conversion when using ATEM Studio Converter as a simple optical fiber converter.

2. SDI OUT

This output carries the video from the camera. Connect this output to the switcher. This port is also used for optical fiber to SDI conversion when using ATEM Studio Converter as a simple optical fiber converter.

3. AES OUT

This AES/EBU output carries audio channels 1 & 2 from the camera. Connect this output to an audio mixer and then to the switcher.

4. Optical Fiber SDI OUT/IN

Connect single mode optical fiber cables to the included SFP module using LC connectors. The other end connects to an ATEM Camera Converter. These ports are also used for SDI and optical fiber conversion when using ATEM Studio Converter as a simple optical fiber converter.

5. HDMI Out

This output carries the video and audio channels 1 & 2 from the camera. Connect this output to the switcher or to an HDMI monitor. This port is also used for optical fiber to HDMI conversion when using ATEM Studio Converter as a simple optical fiber converter.

Expansion Connectors

6. PROG OUT

If this is the only ATEM Studio Converter being used, you do not need to connect anything to this port. To connect more ATEM Studio Converters together, connect this PROG OUT to the PROG IN on the next unit. This will distribute the switcher's program output and tally information to the other ATEM Studio Converters.

7. PROG IN

If this is the only ATEM Studio Converter being used, connect the program output of your switcher to PROG IN. If you are using more than one ATEM Studio Converter together, connect the PROG OUT from the previous unit to this PROG IN.

8. MIC OUT

If this is the only ATEM Studio Converter being used, you do not need to connect anything to this port. To connect more ATEM Studio Converters together, connect this MIC OUT to the MIC IN of the next unit. If this is the last ATEM Studio Converter in a chain, connect this MIC OUT to the H/PHONE IN on the same unit.

9. MIC IN

If this is the first or only ATEM Studio Converter being used, you do not need to connect anything to this port. If you are using more than one ATEM Studio Converter together, connect the MIC OUT from the previous unit to this MIC IN.

10. H/PHONE OUT

If this is the first or only ATEM Studio Converter being used, you do not need to connect anything to this port. To connect more ATEM Studio Converters together, connect this H/PHONE OUT to the H/PHONE IN of the previous unit.

11. H/PHONE IN

If this is the only ATEM Studio Converter being used, you do not need to connect anything to this port. If you are using more than one ATEM Studio Converter together, connect the H/PHONE OUT from the next unit to this H/PHONE IN. If this is the last ATEM Studio Converter in a chain, connect this H/PHONE IN to the MIC OUT on the same unit.

Other Connectors

12. USB 2.0

Use the USB port for software updates.

13. +12V Power

You can use the power adapter supplied with ATEM Studio Converter or power it from an external camera battery as the connector supports an input range of 12V to 31V.

14. Talkback headset

The talkback headset connectors are for talkback with the camera operators. Connect a regular headset using the microphone and headphone jacks on the front panel. An iPhone-compatible headset can be connected using only the headphone jack. If both an iPhone-compatible headset and external microphone are connected at the same time, the iPhone microphone will mute and the external microphone will be used instead.

The screenshot shows the Blackmagic Design Support Center page for the ATEM 1 M/E Broadcast Panel for Mac OS X. The page features a navigation menu at the top with links for Products, Resellers, Support, Company, Events, Press, Community, and Post. The main content area includes a large orange and white lifebuoy graphic. Below this, there are sections for Downloads and Online Resources. The Downloads section lists the ATEM Operation Manual (08 August 2011, 9.69 MB) and Blackmagic ATEM Switchers 2.1 for Macintosh (24 August 2011, 101.41 MB). The Online Resources section includes Support Notes (N/A). A 'Still having trouble?' section provides contact information for technical support in the United States, including a telephone number (+1 408 554 0500) and a 'Send request' button. The footer contains copyright information and a link to change the location.

Getting Help

The fastest way to obtain help is to go to the Blackmagic Design online support pages and check the latest support material available for your ATEM converter.

Blackmagic Design Online Support Pages

The latest manual, software and support notes can be found at the Blackmagic Support Center at www.blackmagic-design.com/support.

Contacting Blackmagic Design Support

If you can't find the help you need in our support material, please use the "Send request" button, on the support page for your ATEM converter model, to email a support request. You can also call your nearest Blackmagic Design support office at www.blackmagic-design.com/company.

Checking the Version Currently Installed

To check which version of Converter Utility software is installed on your computer, open the About Converter Utility window.

- On Mac OS X, open Converter Utility from the Applications folder. Select About Converter Utility from the application menu to reveal the version number.
- On Windows 7, open Converter Utility from your Start menu. Click on the Help menu and select About Converter Utility to reveal the version number.

How To Get the Latest Updates

After checking the version of Converter Utility software installed on your computer, please visit the Blackmagic Support Center at www.blackmagic-design.com/support to check for the latest updates. While it is usually a good idea to run the latest updates, it is a wise practice to avoid updating any software if you are in the middle of an important project.

12 Month Limited Warranty

Blackmagic Design warrants that this product will be free from defects in materials and workmanship for a period of 12 months from the date of purchase. If a product proves to be defective during this warranty period, Blackmagic Design, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, you the Customer, must notify Blackmagic Design of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service center nominated by Blackmagic Design, with shipping charges pre paid. Customer shall be responsible for paying all shipping charges, insurance, duties, taxes, and any other charges for products returned to us for any reason.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Blackmagic Design shall not be obligated to furnish service under this warranty: a) to repair damage resulting from attempts by personnel other than Blackmagic Design representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non Blackmagic Design parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time or difficulty of servicing the product. THIS WARRANTY IS GIVEN BY BLACKMAGIC DESIGN IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. BLACKMAGIC DESIGN AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BLACKMAGIC DESIGN'S RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE WHOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER BLACKMAGIC DESIGN OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. BLACKMAGIC DESIGN IS NOT LIABLE FOR ANY ILLEGAL USE OF EQUIPMENT BY CUSTOMER. BLACKMAGIC IS NOT LIABLE FOR ANY DAMAGES RESULTING FROM USE OF THIS PRODUCT. USER OPERATES THIS PRODUCT AT OWN RISK.

© Copyright 2011 Blackmagic Design. All rights reserved. 'Blackmagic Design', 'DeckLink', 'HDLink', 'Workgroup Videohub', 'Multibrige Pro', 'Multibrige Extreme', 'Intensity' and 'Leading the creative video revolution' are registered trademarks in the US and other countries. All other company and product names may be trade marks of their respective companies with which they are associated.