June 2023

Installation and Operation Manual

Blackmagicdesign

ATEM Television Studio Switchers

ATEM Television Studio HD8
ATEM Television Studio HD8 ISO

Welcome

Thank you for purchasing an ATEM Television Studio HD8 switcher for your live production work!

If you're new to live production switchers, then you're about to become involved in the most exciting part of the television industry and that's live production! There is nothing like live production and it's so easy to become addicted to the adrenaline rush of editing in real time while the live event unfolds before your eyes. It's real television the way it should be!

Previously, broadcast quality live production has always been way too high in cost for most people to afford, while affordable switchers lacked broadcast features and quality. ATEM Television Studio HD8 switchers change this letting you create the most amazing professional live production results. We hope you get years of use from your switcher and have lots of fun creating live production!

This instruction manual should contain all the information you'll need for installing your ATEM Television Studio switcher.

Please check the support page on our web site at www.blackmagicdesign.com for the latest version of software for your ATEM switcher. Simply connect your computer to the ATEM switcher and the ATEM hardware control panel via USB to update software so you get all the latest features! When downloading software, please register with your information so we can keep you updated when new software is released. We are constantly working on new features and improvements, so we would love to hear from you!

Grant Petty
CEO Blackmagic Design

Contents

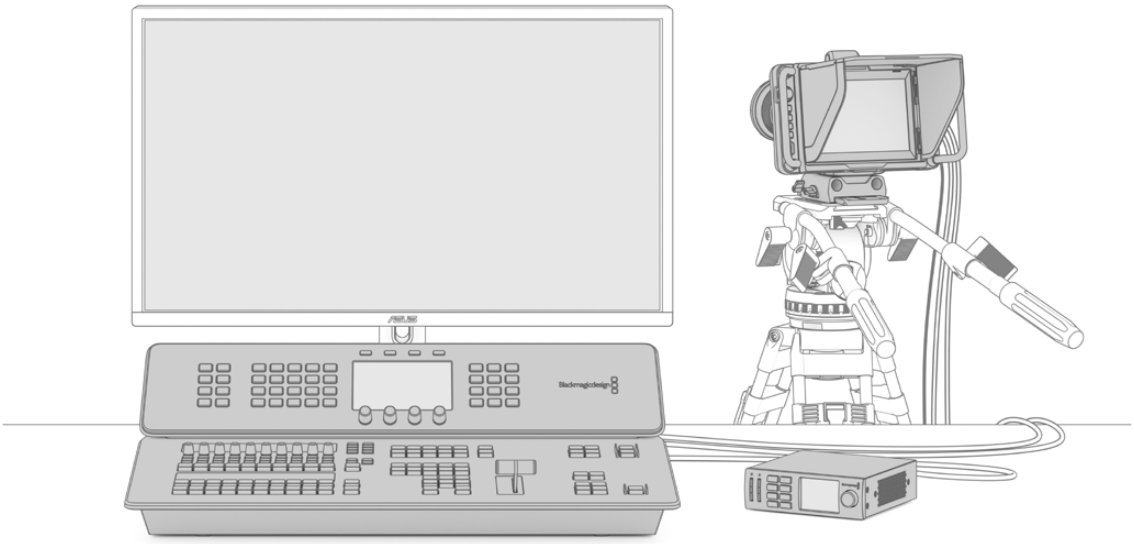
Introducing ATEM Television Studio HD8 6
What is an M/E Switcher? 7
What is an A/B Direct Switcher? 8
Understanding the ATEM Switcher 9
Getting Started 9
Plugging in Power 9
Connecting the Multiview 10
Plugging in Sources 10
Plugging in Audio 11
Performing a Transition 11
Setting Your Network 15
Using ATEM Television Studio HD8 16
Control Panel Overview 16
System Control 17
Changing Settings 19
Home 19
Settings 19
Talkback and Call Buttons 21
Mix Effects 23
Transition Control and Upstream Keyers 25
Downstream Keyers 27
Audio Mixer 28
Channel Strips 28
Mode Buttons 30
Channel and Modifier Buttons 31
Audio Controls Workflow Guide 32
Selection Buttons 33
Stream and Record Buttons 34
Storage Media 35
Preparing Storage via a Computer 35
Preparing Storage Using ATEM Television Studio HD8 36
Accessing Storage 37
Cloud Sync 38
Using the Multiview 40
ATEM Software Control 44
Switcher Control Panel 45
Preferences 46
Changing Switcher Settings 48
General Settings 48
Audio Settings 50
Multiview Settings 52
Sources 52
HyperDeck Settings 53
Remote Settings 54
Auxiliary Outputs 54
Audio Output Channel Mapping 55
Saving and Restoring Switcher Settings 56
Switching with ATEM Software Control 58
Using Keyboard Hot Keys 58
Mix Effects 59
Transition Control and Upstream Keyers 60
Downstream Keyers 61
Processing Palettes 62
Media Players Tab 63
Output Tab 63
Timecode Generator 66
ATEM Media Pool 67
Using the Audio Mixer 69
Using MADI 72
Headphones Settings 73
Advanced Fairlight Controls 74
6 Band Parametric Equalizer 74
Dynamics Controls 77
Using Camera Control 80
Camera Control Panel 81
DaVinci Resolve Primary Color Corrector 85
Operating your ATEM Switcher 88
Internal Video Sources 88
All Transition Types 89

Keying using ATEM Switchers 105
Understanding Keying 105
Luma Key 105
Linear Key 106
Pre multiplied Key 106
Chroma Key 109
Performing an Advanced Chroma Key 109
Pattern Key 112
DVE Key 114
Performing Upstream Keyer Transitions 117
Performing Downstream Keyer Transitions 119
Streaming 120
Getting a Stream Key 120
Direct Streaming by Sharing Your Computer Internet 121
Smartphone Tethering 122
Additional Features on ISO Models 123
Connecting Remote Sources over a Local Network 123
Connecting Remote Sources via the Internet 125
Recording ISO Files 127
Benefits of Editing a Live Project 129
Editing in DaVinci Resolve 132
Using Adobe Photoshop with ATEM 133
Using Macros 135
What is a Macro? 135
The Macros Window in ATEM Software Control 135
Recording Macros using ATEM Television Studio HD8 140
HyperDeck Control 142
Introducing HyperDeck Control 142
Controlling HyperDecks with ATEM Software Control 146
Controlling HyperDecks with ATEM Television Studio HD8 148
Using ATEM Camera Control Panel 149
Powering the Panel 150
Connecting the Panel to your Switcher 150
Changing Network Settings 151
Camera Control Panel Layout 153
Controlling Cameras 158
Using Tally 166
Sending Tally Signals via a GPI and Tally Interface 166
Using a Third Party Audio Mixer Control Surface 168
Using a DaVinci Resolve Micro Panel 170
Updating the Software 172
How to update the ATEM Software 172
Adapter Cables for Talkback and Camera Control 173
5 Pin XLR Talkback Headset Connector Pinout Diagram 174
Developer Information 175
Blackmagic SDI Camera Control Protocol 175
Example Protocol Packets 182
Blackmagic Embedded Tally Control Protocol 183
Help 185
Regulatory Notices 186
Safety Information 187
Warranty 188

Introducing ATEM Television Studio HD8

ATEM Television Studio HD8 switchers are professional broadcast grade digital production switchers capable of switching and processing a variety of video sources in live video production and broadcast environments. The switcher uses the current and familiar Mix Effects based design with software and hardware control options that provides an intuitive, fast and easy to use workflow for program/preview switching. If you're used to the older A/B direct switcher style, ATEM switchers also support A/B direct switching which makes it easy to get started.

You only need your ATEM switcher to get started as it has a built in control panel so you can switch your live production using just the switcher. However, if you want to add more control flexibility, you can also use ATEM Software Control, or even add one or more hardware control panels if you need a more advanced solution.



Setting up your ATEM Television Studio HD8 can be as simple as plugging the multiview output into a monitor, plugging in a camera and then connecting the program output to a recording deck