



Presentation Switcher - HDBaseT, 4 x 1

User Manual



Contact Information

Order toll-free in the U.S. or for FREE Technical Support:
Call 877-877-BBOX (outside U.S. call 724-746-5500)
www.BlackBox.com • info@blackbox.com

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FEDERAL COMMUNICATIONS COMMISSION AND
INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

Normas Oficiales Mexicanas (NOM)
Electrical Safety Statement
INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.

4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.

16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

Safety Precautions

Safety Precautions

1. Do not expose this apparatus to rain, moisture, dripping or splashing water and do not place objects filled with liquids, such as vases, on the apparatus.
2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Make sure the unit is well ventilated.
3. To prevent risk of electric shock or fire hazard caused by overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.
4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
5. Do not place sources of flames, such as lighted candles, on the unit.
6. Clean this apparatus only with a dry cloth.
7. Unplug this apparatus during lightning storms or when unused for long periods of time.
8. Protect the power cord from being walked on or pinched particularly at plugs.
9. Only use attachments/accessories specified by the manufacturer.
10. Refer all servicing to qualified service personnel.

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1. Specifications

Video	
Input Connectors	(2) HDMI, (1) DisplayPort, (1) VGA IN, (1) Stereo audio (embedded with VGA inputs)
Input Signal Type	HDMI 1.4
Input Resolution Support	VESA: 640 x 480 @ 60 Hz, 800 x 600 @ 60 Hz, 1024 x 768 @ 60 Hz, 1280 x 768 @ 60Hz, 1280 x 800 @ 60Hz, 1280 x 960 @ 60Hz, 1280 x 1024 @ 60 Hz, 1360 x 768 @ 60 Hz, 1366 x 768 @ 60 Hz, 1440 x 900 @ 60 Hz, 1600 x 900 @ 60 Hz, 1600 x 1200 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1200 @ 60 Hz, 1920 x 1200 @ 60 Hz; SMPTE: 720 x 480 @ 60 Hz, 720 x 576 @ 50 Hz, 1280 x 720 @ 50/60 Hz, 1920 x 1080 @ 50/60 Hz, 3840 x 2160 @ 30 Hz; <i>NOTE: Supports HDMI/DP input up to 4K @ 30 Hz; VGA input up to 1920 x 1200 @ 60 Hz.</i>
Input Video Level	0.5-1.2 V p-p
Output Signal Type	HDMI 1.4, HDBaseT
Output Resolution Support	VESA: 640 x 480 @ 60 Hz, 800 x 600 @ 60 Hz, 1024 x 768 @ 60 Hz, 1280 x 768 @ 60Hz, 1280 x 800 @ 60Hz, 1280 x 960 @ 60Hz, 1280 x 1024 @ 60 Hz, 1360 x 768 @ 60 Hz, 1366 x 768 @ 60 Hz, 1440 x 900 @ 60 Hz, 1600 x 900 @ 60 Hz, 1600 x 1200 @ 60 Hz, 1680 x 1050 @ 60 Hz, 1920 x 1200 @ 60 Hz, 1920 x 1200 @ 60 Hz; SMPTE: 720 x 480 @ 60 Hz, 720 x 576 @ 50 Hz, 1280 x 720 @ 50/60 Hz, 1920 x 1080 @ 50/60 Hz, 3840 x 2160 @ 30 Hz

Video (continued)	
Video Impedance	100 ohms
Deep Color	1080p: 48-bit, 4K: 24-bit
Audio	
Input	Stereo audio (embedded with VGA inputs)
Output	(1) balanced stereo audio output: 5-pin Phoenix connector
Format	HDMI OUT: PCM 2.0 and Dolby 5.1; HDBaseT OUT: Multichannel digital audio supporting up to 7.1 DTS Master HD and Dolby True HD; AUDIO OUT: PCM2.0
Control	
Control Method	RS-232, front-panel Buttons, contact closures
Electrical/Power	
ESD Protection	Human-body Model: ±8 kV (Air-gap discharge)/±4 kV (Contact discharge)
Surge Protection	Voltage: ±1 kV (Ten times respectively for the positive and negative voltage)
Electrical Fast Transient/ Burst	Data communication cord: 1 kV; Power cord : 2 kV
Power Supply	12 VDC, 3 A
Power Consumption (Maximum)	22 W
Environmental	
Operating Temperature	32 to 113° F (0 to 45° C)
Storage Temperature	-4°F to +158° F (-20 to +70° C)
Humidity	10% to 90%, non-condensing
Mechanical	
Dimensions	0.83"H x 8.66"W x 6.46"D (2.1 x 16.42 x 22 cm)
Weight	1.8 lb. (0.82 kg)
Rack Space Required	1/2 U height
Approvals	CE, FCC

2. Overview

2.1 Introduction

The Presentation Switcher - HDBaseT, 4 x 1 is an advanced four-input, multi-format converter, switcher, scaler, and extender with built-in 4K scaling, in a compact 1U half-rack enclosure. It offers two HDMI inputs, one DP input, one VGA input with stereo audio, an HDMI with HDBaseT mirrored output to allow signal extension over CATx cable to reach a remote display, or an additional HDBaseT signal management system. One balanced stereo audio breaks out from HDMI output.

NOTE: Scaling is only supported on HDMI output. For scaling on HDBaseT output, please use with VX-1003-TX scaling receiver.

The Switcher supports auto switching and has a built-in 4K @ 30 Hz scaler in HDMI output, with rotary switch scaler adjustment, and allows seamless switching to enhance presentations. Its built-in CEC controller automatically turns the display on/standby by auto-detecting the input signal status. You can also control the Switcher via pushbuttons on the front panel, contact closures, and RS-232 API.

The Switcher simplifies classroom and small office system integration, for installation beneath conference tables and in lecterns, to provide localized presentation switching support.

2.2 Features

- Has (1) VGA + Stereo, (1) DP, and (2) HDMI inputs, and (1) HDMI and (1) HDBaseT mirrored outputs.
- Supports HDMI and DP input up to 4K @ 30 Hz and HDCP 1.4, and VGA input up to 1920 x 1200 @ 60 Hz.
- Provides HDMI out with a 4K @ 30 Hz scaler built-in and de-embedded balanced stereo audio out.
- Mirrors out HDBaseT, and supports PoH with PSE module to power the remote HDBaseT receiver.
- HDMI out supports seamless and fast switching within 2–3 seconds, and the last frame is frozen.
- Switches automatically to the latest input when it detects that any input is connected or disconnected.

- A CEC controller is built-in to turn the display on/off by auto-detecting inputs status, with delay adjustment.
- Pushbuttons and contact closures enable you to switch sources or turn the display on/standby manually.
- DIP switch provided to adjust automatic or manual operation mode.
- Rotary switch provided to adjust auto-scaler or fixed resolutions out.
- Control the device via RS-232 and front panel buttons.
- Includes complete API commands for the third-party control system for integration.
- A 12-VDC, 3-A universal power supply powers the switcher.
- 1/2 rack unit high.

2.3 What's Included

Your package should contain the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- Presentation Switcher - HDBaseT, 4 x 1 (AVSC-0401H)
- (1) 12-DC, 3-A power adapter.
- (3) Phoenix male connector (3.5 mm, 3 pins)
- (3) Phoenix Male Connector (3.5 mm, 5 pins)
- (1) pair of mounting brackets
- This user manual

2.4 Hardware Description

Figures 2-1 and 2-2 show the front and back panels of the switcher. Tables 2-1 and 2-2 describe their components.

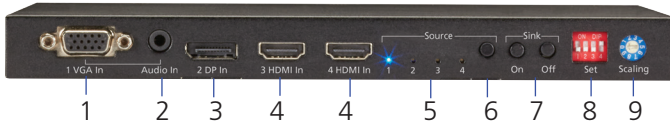


Figure 2-1. Front panel.

Table 2-1. Front-panel components.

Number in Figure 2-1	Name	Description
1	VGA IN	Connects to VGA source device.
2	Audio IN	Stereo audio (embedded with VGA inputs).
3	DisplayPort IN	Connects to DisplayPort source device.
4	HDMI IN	Connects to HDMI source device.
5	Source Selection LEDs	LED: Lights on if the corresponding source is selected.
6	Source Selection Button	Selection button: press the button to select source 1 to 4 as input in turn.
7	Sink Selection Button	On: Turn on the TV by CEC. Off: Turn off the TV by CEC. <i>NOTE: Used for TV that supports CEC</i>
8	4-Pin DIP switch	Pin 1: Audio De-embedded; Pin 2: Source Switch; Pin 3: CEC Control Mode; Pin 4: Control Mode
9	Scaler	Toggles the switch to manage the output scaler.

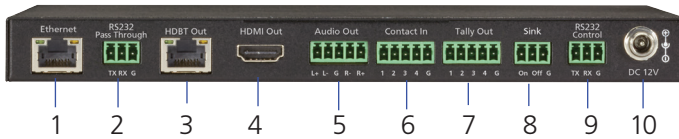


Figure 2-2. Back panel.

Table 2-2. Back panel components.

Number in Figure 2-2	Component	Description
1	Ethernet port	Used for Ethernet passthrough to an HDBaseT receiver.
2	RS-232 passthrough	Connects to an RS-232 controller or RS-232 controllable device to pass through an RS-232 command.
3	HDBaseT OUT port	Connects to an HDBaseT receiver.
4	HDMI OUT port	Connects to an HDMI display device.
5	AUDIO OUT Ports	Connects to an audio output device such as an amplifier, a speaker, or an earphone for HDMI audio de-embedding output.
6	Contact IN ports	Connects to a keypad for input source switching. No.1: Press this button to select VGA IN. No.2: Press this button to select DP IN. No.3: Press this button to select HDMI1 IN. No.4: Press this button to select HDMI2 IN. G: Connects to Ground.
7	Tally OUT ports	Connects to LEDs on the keypad to indicate the selected source.
8	Sink ports	Connects to keypad to control the display device power ON/OFF. <i>NOTE: The display devices must support CEC and CEC is enabled.</i>
9	RS-232 control	Connects to a PC or a third-party control system to control this device via API commands.
10	Power input	Connect to a 12 VDC, 3-A power supply.

2.5 Typical Application

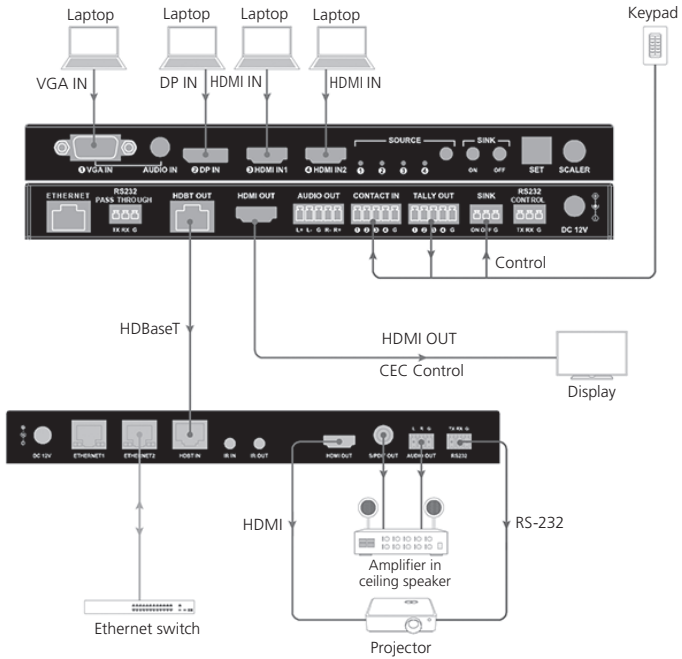


Figure 2-3. System Diagram.

3. RS-232 Connection

1. Connect the matrix to a PC via a UART-to-USB cable.
2. Run the UART tool on the PC, and configure the serial port as described in the following table.

Table 3-1. Serial port settings.

Serial Parameter	Setting
Baud rate	57600 bps
Data bits	8 bits
Parity bits	None
Stop bits	1 bit
Flow Control	None

NOTE: The data format is ASCII.

3.1 API Commands

IDX	Function	Command	Response	Parameters Description	Example
1	Set API command ON/OFF	SET API_ONOFF prm [CR/LF]	API Mode: prm [CR/LF]	prm = {on,off}	Command: SET API_ONOFF on [CR/LF] Response: API Mode: on [CR/LF]
2	Get API Status	GET API_STATUS[CR/LF]	API Mode: prm [CR/LF]	prm = {on,off}	Command: GET API_STATUS[CR/LF] Response: API Mode: on [CR/LF]
3	Set Auto Switch on/off	SET AUTOSW_ONOFF prm [CR/LF]	Auto Switch: prm [CR/LF]	prm = {on,off}	Command: SET AUTOSW_ONOFF on [CR/LF] Response: Auto Switch: on [CR/LF]
4	Set Auto Switch Mode	SET AUTOSW_MODE prm [CR/LF]	Auto Switch: prm [CR/LF]	prm = {on,off}	Command: SET AUTOSW_ONOFF on [CR/LF] Response: Auto Switch: on [CR/LF]
5	Switch to Next Source	SET SW_NEXT[CR/LF]	Source Select: prm[CR/LF]	prm = {vga,dp,hdmi1,hdmi2}	Command: SET SW_NEXT[CR/LF] Return: Source Select: DP[CR/LF]
6	Switch Input for Output	SET SW prm[CR/LF]	Source Select: prm[CR/LF]	SW is short for Swtich prm = {vga,dp,hdmi1,hdmi2}	Command: SET SW dp[CR/LF] Response: Source Select: dp[CR/LF]
7	Get Channel Switch State	GET SW_STATUS[CR/LF]	Source Select: prm1[CR/LF] Switch Mode: prm2[CR/LF]	prm1 = {vga,dp,hdmi1,hdmi2} prm2={Manual Mode, Automatic(Last Connected) Mode, Automatic(priority) Mode}	Command: GET SW_STATUS[CR/LF]Response: Source Select: dp[CR/LF]Switch Mode: Manual Mode[CR/LF]Description: prm1 = {vga,dp,hdmi1,hdmi2}prm2={Manual Mode, Automatic(Last Connected) Mode, Automatic(priority) Mode}
8	Set CEC functio	SET CECCMD_ONOFF prm[CR/LF]	CEC: prm[CR/LF]	prm = {on, off}	Command: SET CECCMD_ONOFF on[CR/LF] Response: CEC: on[CR/LF]

Chapter 3: RS-232 Connection

IDX	Function	Command	Response	Parameters Description	Example
9	Set CEC AUTO POWER ON/OFF	SET CECAUTO_ONOFF prm[CR/LF]	Auto CEC: prm[CR/LF]	prm = {on, off}	Command: SET CECAUTO_ONOFF on[CR/LF] Response: Auto CEC: on[CR/LF]
10	Set CEC POWER Delay Time	SET CECAUTO_DELAY prm[CR/LF]	Auto CEC Delay Value: prm Min[CR/LF]	CECAUTO_DELAY is short for CEC auto Power Delay Timing prm = {0,1,2,3,...} // according to the actual time counter, 1 means 1 minute, 2 means 2 minutes Default wait time is 2 minutes off means when no active signal, the unit will not auto power off. 0 means when no active signal, the unit auto power off immediately.	Command: SET CECAUTO_DELAY 3[CR/LF] Response: CECAUTO_DELAY 3 Min[CR/LF]
11	Set CEC POWER ON/OFF	SET CECPWR_ONOFF prm[CR/LF]	Send CEC cmd: HDMI TV prm[CR/LF] Send CEC cmd: HDBaseT TV prm[CR/LF]	CECPWR_ONOFF will control sink power on or off prm = {on, off}	Command: SET CECPWR_ONOFF on[CR/LF] Response: Send CEC cmd: HDMI TV OFF[CR/LF] Send CEC cmd: HDBaseT TV OFF[CR/LF]
12	Get CEC Status	GET CEC_STATUS[CR/LF]	CEC: prm1[CR/LF] Auto CEC: prm1[CR/LF] Auto CEC Delay Value: prm2 Min[CR/LF]	prm1 = {on, off} prm2 = {0-100}	Command: GET CEC_STATUS[CR/LF] Response: CEC: ON[CR/LF] Auto CEC: ON[CR/LF] Auto CEC Delay Value: 2 Min [CR/LF]
13	Set Input HDCP Support ON/OFF	SET HDCPSUPPORT_ONOFF in prm1[CR/LF]	in: HDCP Supported[CR/LF]	in={hdmi1, hdmi2, dp} prm1 = {on, off}	Command: SET HDCPSUPPORT_ONOFF hdmi1 on[CR/LF] Response: HDMI1:HDCP Supported[CR/LF]
14	Get Status Whether HDMI1/HDMI2 Input Support HDCP Info.	GET HDCP_STATUS[CR/LF]	in:prm1[CR/LF] in:prm1[CR/LF] HDMI OUT HDCP Status: prm2[CR/LF]	in={hdmi1, hdmi2} prm1 = {HDCP Supported, HDCP Not supported} prm2={Non Encryption, Encryption}	Command: GET HDCP_STATUS[CR/LF] Response: HDMI1:HDCP Supported[CR/LF] HDMI2:HDCP Supported[CR/LF] HDMI OUT HDCP Status: Non Encryption[CR/LF]
15	Set Input EDID	SET EDID in prm[CR/LF]	in EDID: prm[CR/LF]	in = {vga,dp,hdmi1,hdmi2}; VGA: prm={fix0, fix1, fix2, fix3, fix4} fix0: 1280x800@60Hz fix1: 1920x1200@60Hz fix2: 1920x1080@60Hz fix3: 1280x720@60Hz fix4: 1024x768@60Hz DP/HDMI1/HDMI2: prm={fix0, fix1, fix2, fix3, fix4, fix5, fix6, fix7} fix0: copy fix1: 4K@30Hz 2CH fix2: 1920x1080@60Hz fix3: 1280x720@60Hz fix4: 1920x1200@60Hz fix5: 1280x800@60Hz fix6: 1920x1080@60Hz Dolby 5.1	Command: SET EDID hdmi1 fix1[CR/LF] Response: hdmi1 EDID: fix1[CR/LF]

IDX	Function	Command	Response	Parameters Description	Example
16	Get Input EDID Status	GET EDID_STATUS[CR/LF]	VGA EDID: prm[CR/LF] DP EDID: prm[CR/LF] HDMI1 EDID: prm[CR/LF] HDMI2 EDID: prm[CR/LF]	VGA: prm={fix0, fix1, fix2, fix3, fix4} fix0: 1280x800@60Hz fix1: 1920x1200@60Hz fix2: 1920x1080@60Hz fix3: 1280x720@60Hz fix4: 1024x768@60Hz DP/HDMI1/HDMI2: prm={fix0, fix1, fix2, fix3, fix4, fix5, fix6, fix7} fix0: copy fix1: 4K@30Hz 2CH fix2: 1920x1080@60Hz fix3: 1280x720@60Hz fix4: 1920x1200@60Hz fix5: 1280x800@60Hz fix6: 1920x1080@60Hz Dolby 5.1	Command: GET EDID_STATUS[CR/LF] Response: VGA EDID: fix0[CR/LF] DP EDID: fix2[CR/LF] HDMI1 EDID: fix2[CR/LF] HDMI2 EDID: fix2[CR/LF]
17	Volume Gain Adjust	SET VOLGAIN_DATA aout prm[CR/LF]	VOLGAIN_DATA aout prm[CR/LF]	VOLGAIN is volgain aout = {audioout}; prm = {0-100}	Command: SET VOLGAIN_DATA audioout 50[CR/LF] Response: VOLGAIN_DATA audioout 50[CR/LF]
18	Audio Mute cmd	SET MUTE aout prm[CR/LF]	MUTE aout prm[CR/LF]	aout = {audioout}; prm = {on, off} // on means mute; off means not audio mute	Command: SET MUTE audioout on [CR/LF] Response: MUTE audioout on [CR/LF]
19	Set Output Resolution	SET RESOLUTION out prm[CR/LF]	RESOLUTION out prm[CR/LF]	prm = {3840x2160@30, 1920x1200@60, 1920x1080@60, 1600x1200@60, 1366x768@60, 1280x1024@60, 1280x720@60, 1280x800@60, 1024x768@60, auto} out = {hdmioout};	Command: SET RESOLUTION hdmioout auto[CR/LF] Response: RESOLUTION hdmioout auto[CR/LF]
20	Set Standby on/off	SET STANDBY_ONOFF prm[CR/LF]	STANDBY_ONOFF prm[CR/LF]	prm = {on, off}	Command: SET STANDBY_ONOFF on[CR/LF] Response: STANDBY_ONOFF on [CR/LF]
21	Get Scaler Mode Status	GET SCALER_STATUS[CR/LF]	Scaler Info: STANDBY_status prm1[CR/LF] RESOLUTION hdmioout prm2[CR/LF] HDCP hdmioout prm1[CR/LF] MUTE audioout prm1[CR/LF] VOLGAIN_DATA audioout prm3[CR/LF]	prm1 = {on, off} prm2={3840x2160@30, 1920x1200@60, 1920x1080@60, 1600x1200@60, 1366x768@60, 1280x1024@60, 1280x720@60, 1280x800@60, 1024x768@60, auto} prm3={0-100}	Command: GET SCALER_STATUS[CR/LF] Response: Scaler Info: STANDBY_status off[CR/LF] RESOLUTION hdmioout auto[CR/LF] HDCP hdmioout on[CR/LF] MUTE audioout off[CR/LF] VOLGAIN_DATA audioout 35[CR/LF]
22	Factory Reset	RESET[CR/LF]	/	/	Command: RESET[CR/LF]
23	System Reboot	REBOOT[CR/LF]	/	/	Command: REBOOT[CR/LF]
24	Get System Status	GET SYS_STATUS[CR/LF]	Response all system status information	/	Command: GET SYS_STATUS[CR/LF] Response: ... Response all system status information
25	Upgrade Module	UPG[CR/LF]	Enter ICP Mode... [CR/LF]	/	Command: UPG CR/LF Response: Enter ICP Mode.....[CR/LF]

3.2 Auto Mode

Auto Mode 1 (priority mode): VGA->DP->HDMI1->HDMI2

1. When you power on the switcher, it defaults to the VGA channel if no source is active or connected. If some sources are already connected and then you power on the switcher, it will detect their priority and auto switch to the active source with the highest priority.
2. When you connect a new source after power on, the switcher might automatically switch, depending on the priority. It will auto-switch to the new source if that source has higher priority than currently selected source, otherwise, it will not auto-switch.
3. When the currently selected source is removed, the switcher might auto-switch, depending on the status of other sources connected and their priority. It will auto switch to the source active with highest priority, or remain on the current input channel if no source is active.
4. Manual switching is also valid in Priority Mode. Press the button on the front panel to switch among active sources. You can manually switch via contact closures or API commands, depending on the source status. The unit will switch if the source manually selected is active, otherwise , an LED indicator will flash twice to indicate that a source is not active and does not switch the source.

Auto Mode 2 (Last Connected):

1. When you power on the switcher, the VGA channel remains the default if no source is active or connected. If some sources are already connected and then you power on the switcher, it will detect their priority and auto switch to the active source with the highest priority.
2. When you connect a new source after power on, the switcher will detect and auto-switch to this source.
3. When you remove a currently selected source, the switcher might automatically connect to a source, depending on the status of other sources connected and their priority. It will auto switch to the source active with highest priority, or remain connected to the current input channel if no source is active.
4. Manual switching is also valid in Priority Mode. Press the front-panel button on the front panel to switch among active sources. You can manually switch between sources via contact closures or API commands depending on the source status. It will switch if the source manually selected is active, otherwise, the LED indicator will flash twice to indicate the source is not active and does not switch.

4. Set and Scaler

4.1 Set

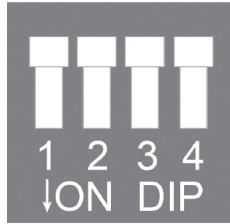


Figure 4-1. 4-Pin DIP switch.

Table 4-1. DIP switch settings.

DIP Switch Position	Function	Settings
Pin 1	Audio de-embedded	UP: Audio out de-embedded from HDMI output (Default). DOWN: Reserved.
Pin 2	Source Switch Mode	UP: Enable Auto-Switch and Manual Switch (Default). DOWN: Manual Switch only.
Pin 3	CEC Control	UP: Enable Auto-CEC Control and Manual CEC Control (Default) DOWN: Manual CEC Control only
Pin 4	Control Mode	UP: Enable API control and manual control (Default). DOWN: Manual Control only.

4.2 Scaler

HDMI output supports scaler output.



Figure 4-2. Rotary switch.

Table 4-2. Rotary switch settings.

Position	Function
0	Auto Scaler
1	Select 1024 x 768 @ 60 Hz as native video.
2	Select 1280 x 720 @ 60 Hz as native video.
3	Select 1280 x 800 @ 60 Hz as native video.
4	Select 1366 x 768 @ 60 Hz as native video.
5	Select 1600 x 1200 @ 60 Hz as native video.
6	Select 1920 x 1080 @ 60 Hz as native video.
7	Select 1920 x 1200 @ 60 Hz as native video.
8	Select 3840 x 2160 @ 30 Hz as native video.
9	API Control

Black Box Tech Support: FREE! Live. 24/7.

Tech support the
way it should be.



Great tech support is just 60 seconds away at
724-746-5500 or blackbox.com.



About Black Box

Black Box provides an extensive range of networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches all supported by free, live 24/7 Tech support available in 60 seconds or less.

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