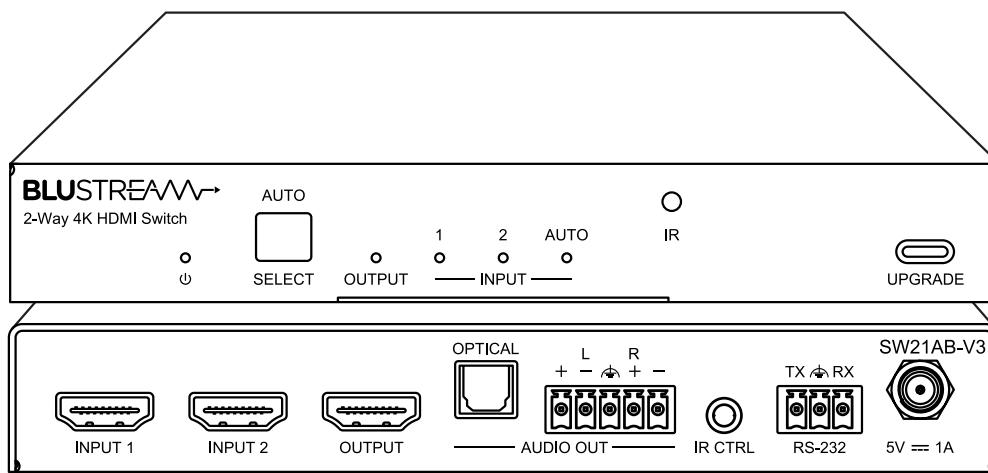




► SW21AB-V3

User Manual

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.



Surge Protection Device Recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.



Eco Friendly Packaging

This product has been packaged with fully recyclable materials, including compostable bags. Please help us to help the environment.

Safety and performance notice

Do not substitute or use any other power supply other than approved Blustream power supplies.

Do not disassemble the device for any reason. Doing so will void the manufacturer's warranty.

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Introduction

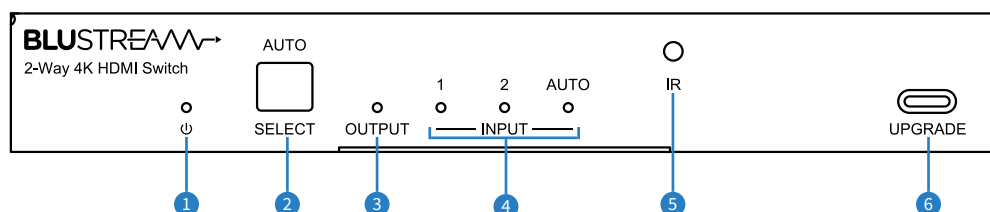
The SW21AB-V3 is a professional 2-input HDMI switch designed to simplify source management in meeting rooms, classrooms and commercial AV or residential environments. Supporting HDMI 2.0 and HDCP 2.2, it delivers flawless 4K 60Hz 4:4:4 video performance while providing flexible source selection through front panel controls, IR, RS-232 or network-based IP control for seamless integration into modern control systems.

Built with professional installations in mind, the SW21AB-V3 features both optical (S/PDIF) and balanced / unbalanced analogue audio breakout via phoenix connectors, making it easy to integrate with external amplifiers, DSPs and audio systems. Optional auto switching further enhances usability by automatically selecting the active source, reducing user interaction and ensuring a smooth presentation experience.

FEATURES:

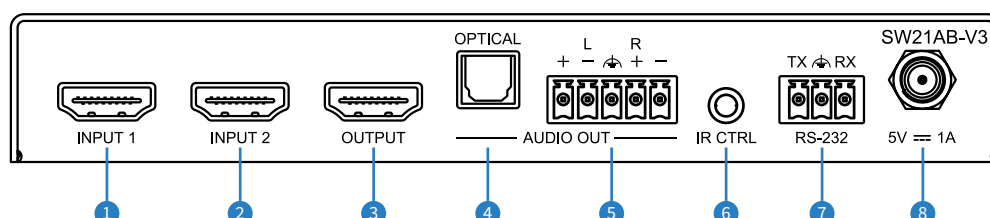
- Features 2 x HDMI inputs which can be switched to single HDMI output
- Supports full HDMI 2.0 specification 4K UHD video (4K 60Hz 4:4:4) with HDR
- HDCP 2.2 compliant
- Supports 3D signal display
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K
- Auto or manual switching capabilities. Auto switching from TMDS or 5V HPD
- Supports bitstream passthrough of multichannel surround sound including object-based audio formats in line with HDMI specifications
- HDMI audio breakout to phoenix balanced / unbalanced analogue audio and optical (S/PDIF) digital outputs concurrently
- Control via RS-232, front panel, and IR
- Advanced EDID management
- Auto-standby mode

Front Panel Description



- ❶ Power Status LED
- ❷ SELECT button — source selection
- ❸ Output LED — lit when HDMI output is connected
- ❹ Input LED — corresponds to currently selected source
- ❺ IR Receiver Window
- ❻ USB Upgrade port — upgrade firmware

Rear Panel Description



- ❶ HDMI Input 1
- ❷ HDMI Input 2
- ❸ HDMI Output 1
- ❹ Optical Audio Out — S/PDIF / Toslink connector
- ❺ Analogue Audio Out — balanced 5-pin phoenix connector
- ❻ 3.5mm IR Control Port — 5V
- ❼ Serial 3-pin Phoenix Connector — RS-232
- ❽ Power Supply Input

Resetting the SW21AB-V3

To reset the SW21AB-V3 back to factory defaults, press and hold the SELECT button on the front panel for 30 seconds. The INPUT and AUTO LEDs will blink for 3 seconds.

The reset process takes approximately 30 seconds.

Operation and Connections

Operation of the SW21AB-V3 can be achieved directly from the front panel. After connecting the HDMI inputs and the HDMI output, press the SELECT button to switch between the available HDMI input sources.

Auto switching is a feature that changes the active HDMI input based on TMDS activity or a 5V Hot Plug Detect signal. Auto switching can be enabled or disabled by pressing and holding SELECT for 5 seconds.

- The AUTO LED will blink for 3 seconds to indicate that the mode has changed.
- The AUTO LED remains illuminated while auto switching is enabled.

The front panel can be locked or unlocked by pressing and holding SELECT for 10 seconds.

- All INPUT LEDs will blink sequentially for 3 seconds to confirm the mode change.

CEC passthrough can be enabled or disabled by pressing and holding SELECT for 20 seconds.

- INPUT LED 1 and the AUTO LED will blink together for 3 seconds to confirm the change.

HDMI output audio can be extracted through the following ports:

- Optical TOSLINK (S/PDIF)
- Balanced 5-pin Phoenix terminal

Advanced control is supported via the 3-pin Phoenix serial port.

IR Control

Infrared (IR) control is available via the IR Control 3.5mm jack. This allows control from third-party control systems or direct control using an IR remote.

Please note: All Blustream-supplied IR cabling is rated for 5V operation.

IR-CAB - IR Cable 3.5mm Mono to 3.5mm (optional)

Blustream IR 3.5mm Mono (TS) to 3.5mm Stereo (TRS) Cable for linking third party control solutions to Blustream products

12V to 5V step down conversion

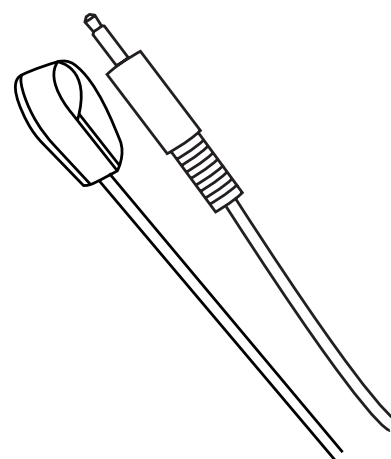
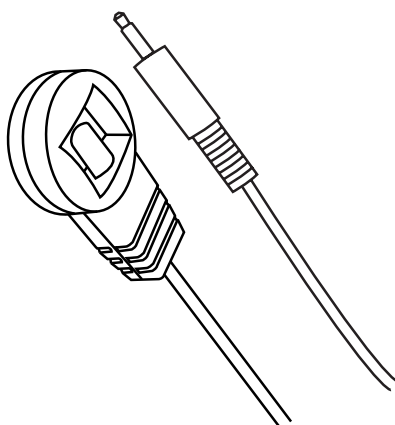
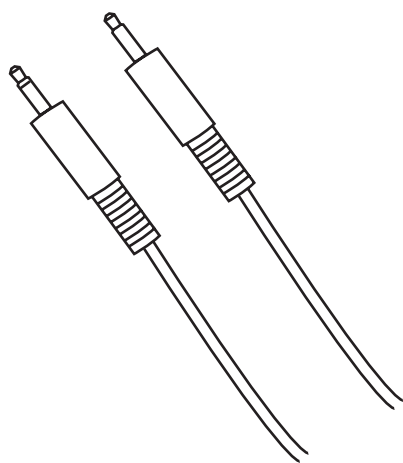
Please note: Cable is directional as indicated

IRR - IR Receiver Stereo 3.5mm Jack (included)

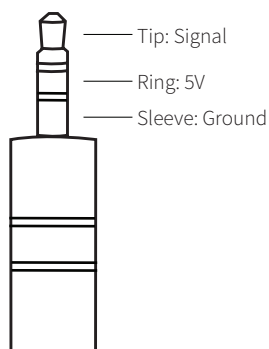
Blustream 5V IR Receiver 3.5mm stereo (TRS) jack to receive an IR signal and distribute through Blustream products

IRE - IR Emitter Mono 3.5mm Jack (optional)

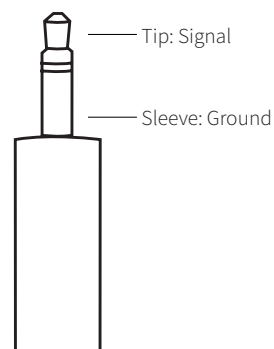
Blustream 5V IR Emitter 3.5mm mono (TR) jack to emit an IR signal for discreet IR control



IR Stereo (TRS) 3.5mm Pinout:



IR Mono (TS) 3.5mm Pinout:



Remote Control

Power On / Power Off:

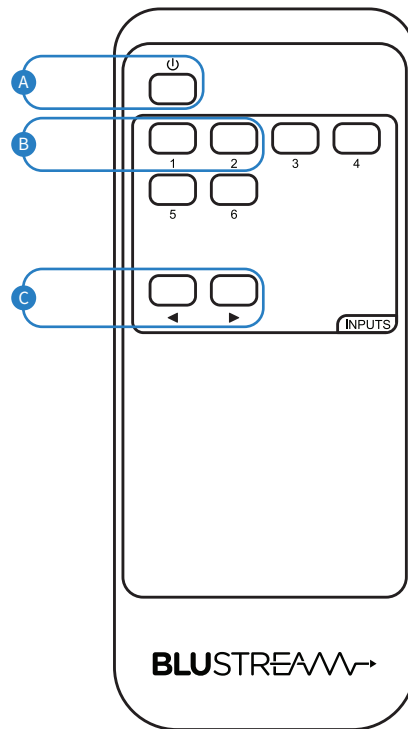
A Press the power button

Input Selection:

B Select the input to display on the output
(Numbers 1 - 2 correspond to inputs 1 - 2)

Switch Inputs:

C Press < or > to cycle through the inputs



IR Commands

COMMAND	NEC IR CODE	HEX IR CODE
Last Input (Input 2,1,2...)	0x50	0000 006C 0000 0022 015B 00AD 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0041 0016 0041 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0679
Next Input (Input 1,2,1...)	0x55	0000 006C 0000 0022 015B 00AD 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0679
Input 1	0x09	0000 006C 0000 0022 015B 00AD 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0041 0016 0041 0016 0041 0016 0041 0016 0679
Input 2	0x1D	000 006C 0000 0022 015B 00AD 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0041 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0041 0016 0041 0016 0679
Power on/off	0x14	0000 006C 0000 0022 015B 00AD 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0016 0016 0041 0016 0016 0016 0016 0016 0041 0016 0016 0016 0041 0016 0016 0016 0016 0016 0016 0041 0016 0041 0016 0016 0016 0041 0016 0016 0016 0041 0016 0041 0016 0041 0016 0016 0679

EDID Management

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display. By pre-determining the video resolution and audio format of the source and display device you can reduce the time needed for EDID hand shaking thus making switching quicker and more reliable.

Configuration of SW21AB-V3 EDID settings can be achieved by:

- 1 Using control commands via RS-232
- 2 Using the EDID dipswitches

RS-232:

Configuration of the EDID settings for each input can be achieved using the following control commands to specify the required EDID:

```
EDID xx DF zz Set Input:xx EDID To Default EDID:zz
xx=00: Select All Input Port
xx=[01...04]: Select One Input Port
yy=[01...02]: Select One Output Port
zz=00: HDMI 1080p@60Hz, Audio 2CH PCM
zz=01: HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY
zz=02: HDMI 1080p@60Hz, Audio 7.1CH DTS/DOLBY/HD
zz=03: HDMI 1080i@60Hz, Audio 2CH PCM
zz=04: HDMI 1080i@60Hz, Audio 5.1CH DTS/DOLBY
zz=05: HDMI 1080i@60Hz, Audio 7.1CH DTS/DOLBY/HD
zz=06: HDMI 1080p@60Hz/3D, Audio 2CH PCM
zz=07: HDMI 1080p@60Hz/3D, Audio 5.1CH DTS/DOLBY
zz=08: HDMI 1080p@60Hz/3D, Audio 7.1CH DTS/DOLBY/HD
zz=09: HDMI 4K@30Hz 4:4:4, Audio 2CH PCM
zz=10: HDMI 4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY
zz=11: HDMI 4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD
zz=12: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 2CH PCM
zz=13: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY
zz=14: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD
zz=15: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 2CH PCM
zz=16: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 5.1CH DTS/DOLBY
zz=17: HDMI 4K@60Hz 4:4:4, 8-bit, Audio 7.1CH DTS/DOLBY/HD
zz=18: HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 2CH PCM
zz=19: HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 5.1CH DTS/DOLBY
zz=20: HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 7.1CH DTS/DOLBY/HD
zz=21: HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 2CH PCM
zz=22: HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 5.1CH DTS/DOLBY
zz=23: HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 7.1CH DTS/DOLBY/HD
zz=24: HDMI 4K@60Hz 4:4:4, HDR 10-bit (Inc DV), Audio 2CH PCM
zz=25: HDMI 4K@60Hz 4:4:4, HDR 10-bit (Inc DV), Audio 5.1CH DTS/DOLBY
zz=26: HDMI 4K@60Hz 4:4:4, HDR 10-bit (Inc DV), Audio 7.1CH DTS/DOLBY/HD
zz=27: HDMI 4K@60Hz 4:4:4, HDR 12-bit (Inc DV), Audio 2CH PCM
zz=28: HDMI 4K@60Hz 4:4:4, HDR 12-bit (Inc DV), Audio 5.1CH DTS/DOLBY
zz=29: HDMI 4K@60Hz 4:4:4, HDR 12-bit (Inc DV), Audio 7.1CH DTS/DOLBY/HD
zz=30: DVI 1280x1024@60Hz, Audio None
zz=31: DVI 1920x1080@60Hz, Audio None
zz=32: DVI 1920x1200@60Hz, Audio None
zz=33: HDMI 1920x1200@60Hz, Audio 2CH PCM/6CH PCM
zz=34: User EDID 1
zz=35: User EDID 2
zz=36: EDID pass-through (Copy from Sink 1)
```

EDID DIP Switches:

To configure the global EDID for all inputs via the DIP switch, use the settings below.

Please note: EDID DIP switch settings will override and disallow any EDID settings configured via RS-232.

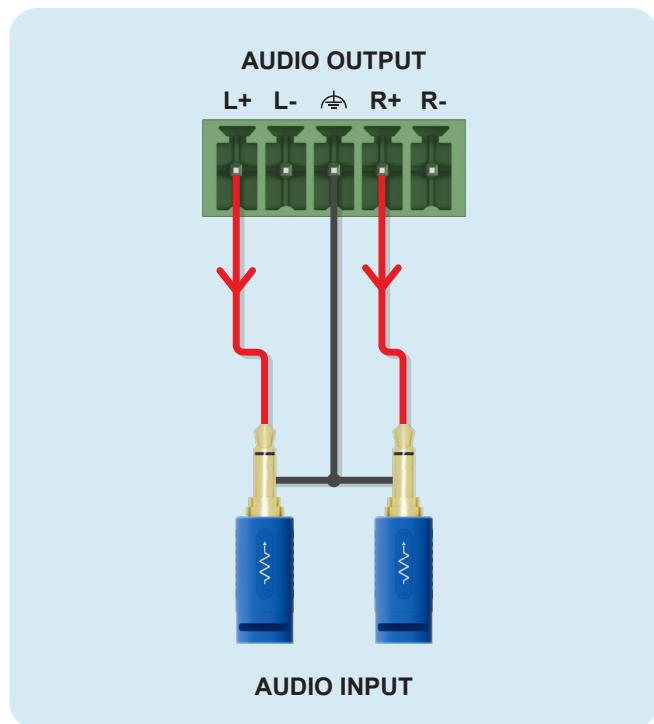
3	2	1	0	EDID Type
DIP Positions				
0	0	0	0	1080p@60Hz, 2ch PCM (default)
0	0	0	1	1080p@60Hz, 5.1ch PCM/DTS/DOLBY
0	0	1	0	1080p@60Hz, 7.1ch PCM/DTS/DOLBY/HD
0	0	1	1	4K@60Hz 4:2:0 / 4K@30Hz 4:4:4, 2ch PCM
0	1	0	0	4K@60Hz 4:2:0 / 4K@30Hz 4:4:4, 5.1ch PCM/DTS/DOLBY
0	1	0	1	4K@60Hz 4:2:0 / 4K@30Hz 4:4:4, 7.1ch PCM/DTS/DOLBY
0	1	1	0	4K@60Hz 4:4:4, 8-bit, 2ch PCM
0	1	1	1	4K@60Hz 4:4:4, 8-bit, 5.1ch PCM/DTS/DOLBY
1	0	0	0	4K@60Hz 4:4:4, 8-bit, 7.1ch PCM/DTS/DOLBY
1	0	0	1	4K@60Hz 4:4:4, 10-bit HDR, 2ch PCM
1	0	1	0	4K@60Hz 4:4:4, 10-bit HDR, 5.1ch PCM/DTS/DOLBY
1	0	1	1	4K@60Hz 4:4:4, 10-bit HDR, 7.1ch PCM/DTS/DOLBY
1	1	0	0	DVI 1920x1080@60Hz, Audio None
1	1	0	1	DVI 1920x1200@60Hz, Audio None
1	1	1	0	EDID pass-through (Copy from Output 1)
1	1	1	1	EDID Software

Audio Wiring Configuration

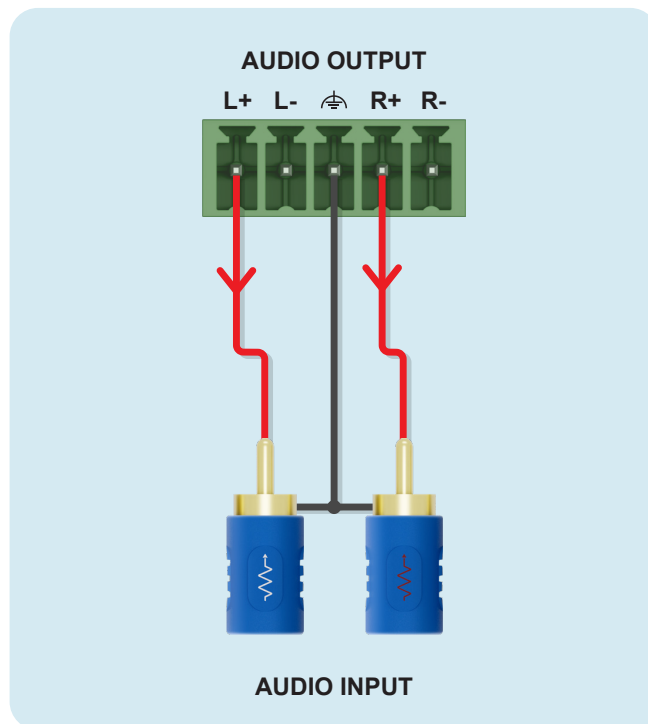
The Audio Output connections provides analogue stereo audio through a balanced Phoenix connector. Use the appropriate wiring configuration below when connecting the output to balanced or unbalanced audio equipment.

Please note: A balanced-to-unbalanced connection may result in a lower gain compared with a balanced-to-balanced connection.

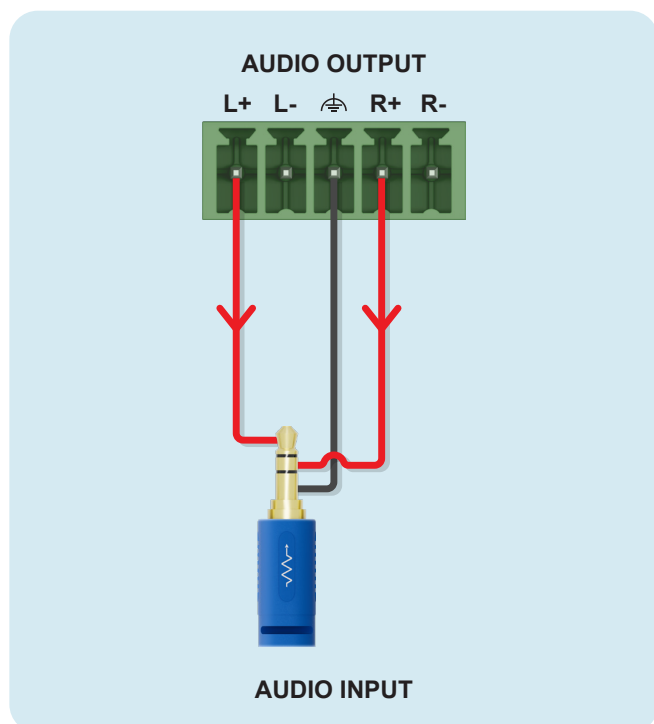
Balanced Phoenix Output to Unbalanced TS Input



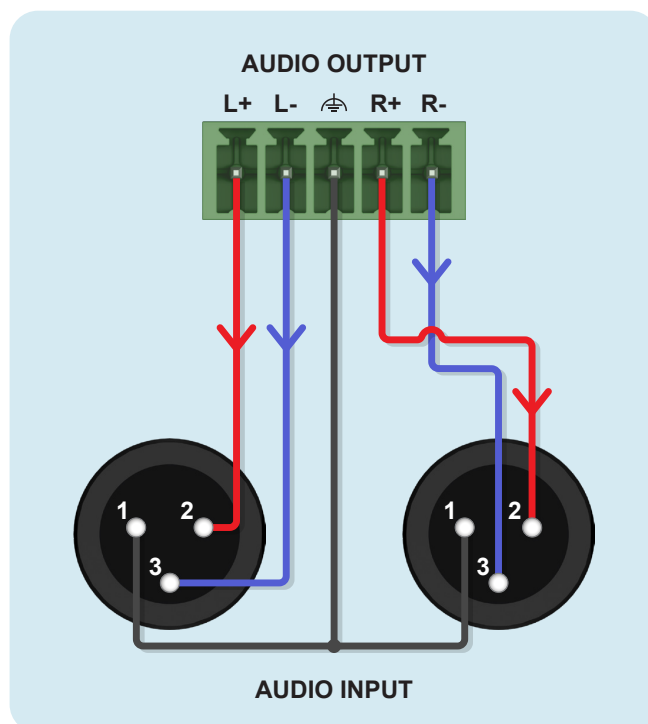
Balanced Phoenix Output to Unbalanced RCA Input



Balanced Phoenix Output to Unbalanced TRS Input



Balanced Phoenix Output to Balanced XLR Input



Specifications

- **Video Input Connectors:** 2 x HDMI Type A, female
- **Video Output Connectors:** 1 x HDMI Type A, female
- **Audio Output Connectors:** 1 x Optical (S/PDIF) & 1x 5-pin Phoenix analogue audio
- **IR Input Ports:** 1 x 3.5mm stereo jack (5V)
- **Casing dimensions (W x H x D):** 234mm x 23mm x 94mm
- **Dimensions including connections (W x H x D):** 234mm x 32mm x 99mm
- **Shipping weight:** 0.8kg
- **Operating temperature:** 32°F to 104°F (0°C to 40°C)
- **Storage Temperature :** -4°F to 140°F (-20°C to 60°C)
- **Power Supply:** 5V/1A DC, screw barrel

NOTE: Specifications are subject to change without notice. Weights and dimensions are approximate.

Package Contents

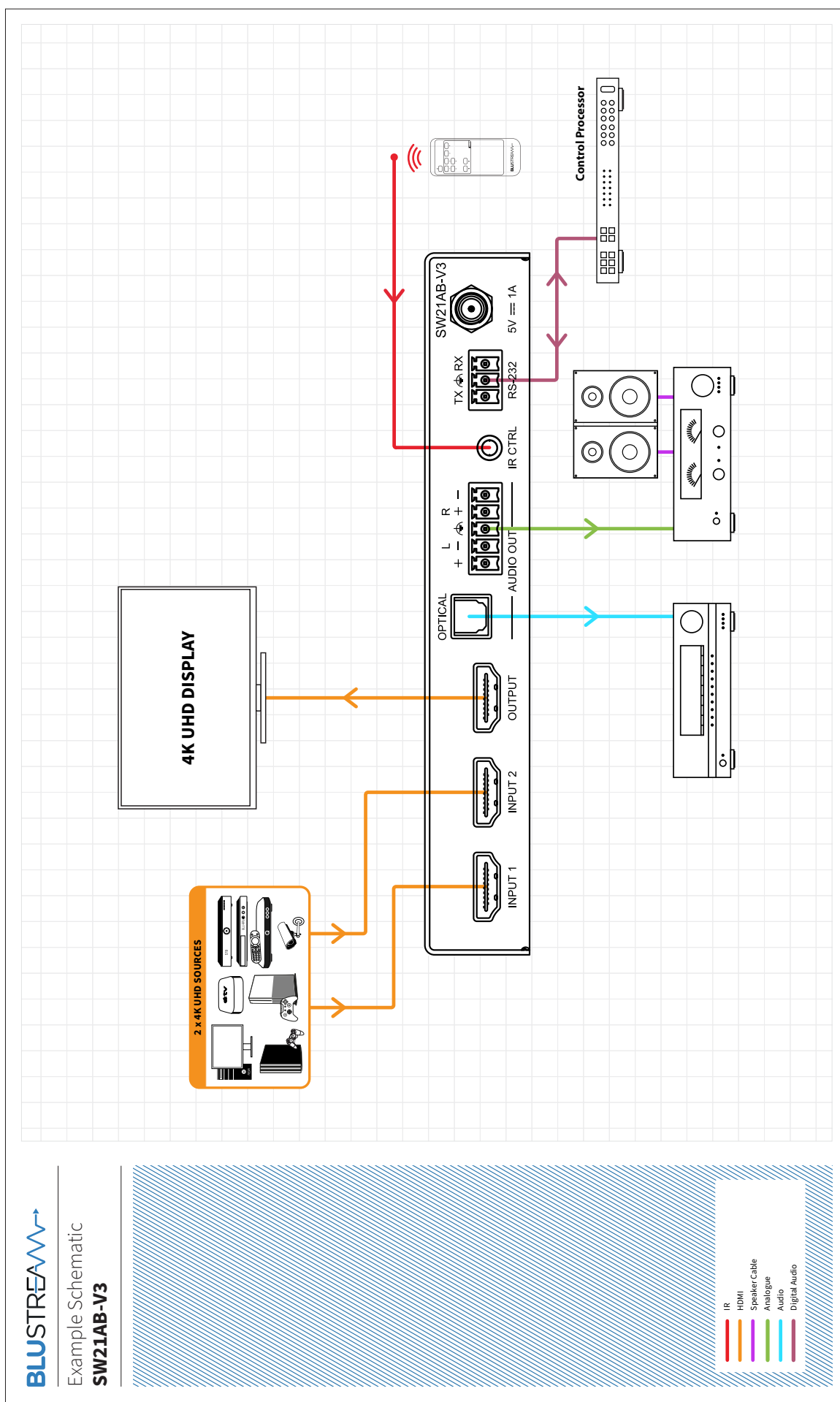
- 1 x SW21AB-V3
- 1 x REMSW41V3 (no battery)
- 1 x 5V/1A DC power supply
- 1 x IRR - IR receiver (5V)
- 1 x Quick Reference Card

Maintenance

Clean this device with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this device.

Connection Schematic

BLUSTREAM

 Example Schematic
SW21AB-V3


Communication Protocols and Commands

The SW21AB-V3 can be controlled via serial (RS-232) commands.

The default RS-232 communication settings are:

- **Baud rate:** 57600
- **Data bits:** 8
- **Stop bits:** 1
- **Parity bit:** none

The following pages lists all available control commands.

Commonly Used Serial Commands:

There are several commands that are commonly used for control and testing:

STATUS Status will give feedback on the ACM1000 and connected AVoIP devices.

OUTxxFRyy Set Output xx from Input yy
Example: OUT00FR01 (This would set the Output to Input 1)

Common Mistakes:

- Control Character
 - Serial terminal applications and control software vary in how they handle command termination. Some applications automatically append a Carriage Return CR and/or Line Feed LF character when transmitting a command. Other applications transmit the command string exactly as entered, requiring control characters to be added manually.
 - Blustream products require a Carriage Return (CR, 0D, /r) + Line Feed (LF, 0A, /n) at the end of each serial command. Commands that are not terminated with a CR character will not be recognized.
 - Before troubleshooting serial communication issues, confirm how the application handles command termination and ensure a CR and LF character is appended to every transmitted command.
- Spaces
 - Blustream commands do not require space between commands unless specified. There may be some applications that require spacing in order to work.
 - How the string should look is as follows: OUTON
 - How the string may look if spaces are required: OUT{Space}ON
- Baud rate or other serial protocol settings not correct

Communication Protocols and Commands (continued)

COMMAND	ACTION
?/HELP	Print Help Information
STATUS	Print System Status And Port Status
INSTA	Print All Input Status
OUTSTA	Print All Output Status
OUT xx DIAG	Get Output xx Diagnostics Status xx = [00-02] : 00 : All Outputs, Output 1
IN xx DIAG	Get Input xx Diagnostics Status xx = [00-02] : 00 : All Inputs, Input 1 - 2
FWVER	Print FW Version
REBOOT	Print FW Version
PON/OFF	Set System Power On Or Off
KEY ON/OFF	Set System Key Control On Or Off
IR ON/OFF	Set System Front Panel IR Control On Or Off
RESET	Reset System To Default Setting (Type ""Yes"" To Confirm, Or Send Other Command To Discard)
DIAGPRINT ON/OFF	Enable Or Disable Diagnostics Log Print
SYSTEMLOG ON/OFF	Enable Or Disable System Log Print
AUTO STANDBY ON/OFF	Enable Or Disable Auto Standby)
AUTO STANDBY DLY XX	Set Auto Standby Delay Time to xx seconds xx = 30-1800
ENSIGDET	Enable signal detect (auto switching)
DISSIGDET	Disable signal detect (manual switching)
PRIORITY ON/OFF	Enable Or Disable Auto Priority mode
FALLBACK ON/OFF	Enable Or Disable Auto Fallback mode
IN xx SIGTRG yy	Set Input xx Auto Switch trigger mode to yy xx = 00 : All Inputs xx = [01-02] : Input 1 - 2 yy = 1 : HDMI(5V Hot Plug) yy = 2 : HDMI(TMDS Video)
IN xx PRIORITY	Set Input xx As Priority Input xx = [01-02] : Input 1 - 2
IN xx FALLBACK	Set Input xx As Fallback Input xx = [01-02] : Input 1 - 2
OUT xx ON	Set Output xx On xx = 00 : All Outputs xx = [01] : Output 1
OUT xx OFF	Set Output xx Off xx = 00 : All Outputs xx = [01] : Output 1
OUT xx FR yy	Set Output xx From Input yy xx = 00 : All Outputs xx = [01] : Output 1 yy = [01-02] : Input 1 - 2

COMMAND	ACTION
EDID xx DF zz	Set Input xx EDID To Default EDID zz xx = Input On Product (00 Refers To ALL Inputs, 02 = Input 2 Etc) zz = 00 : HDMI 1080p@60Hz, Audio 2CH PCM (Default) 01 : HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY 02 : HDMI 1080p@60Hz, Audio 7.1CH DTS/DOLBY 03 : HDMI 1080i@60Hz, Audio 2CH PCM 04 : HDMI 1080i@60Hz, Audio 5.1CH DTS/DOLBY 05 : HDMI 1080i@60Hz, Audio 7.1CH DTS/DOLBY/HD 06 : HDMI 1080p@60Hz/3D, Audio 2CH PCM 07 : HDMI 1080p@60Hz/3D, Audio 5.1CH 08 : HDMI 1080p@60Hz/3D, Audio 7.1CH DTS/DOLBY/HD 09 : HDMI 4K@30Hz 4:4:4, Audio 2CH PCM 10 : HDMI 4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY 11 : HDMI 4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY 12 : HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 2CH PCM 13 : HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY 14 : HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD 15 : HDMI 4K@60Hz 4:4:4, 8-bit, Audio 2CH PCM 16 : HDMI 4K@60Hz 4:4:4, 8-bit, Audio 5.1CH DTS/DOLBY 17 : HDMI 4K@60Hz 4:4:4, 8-bit, Audio 7.1CH DTS/DOLBY/HD 18 : HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 2CH 19 : HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 5.1CH DTS/DOLBY 20 : HDMI 4K@60Hz 4:4:4, HDR 10-bit, Audio 7.1CH DTS/DOLBY/HD 21 : HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 2CH 22 : HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 5.1CH DTS/DOLBY 23 : HDMI 4K@60Hz 4:4:4, HDR 12-bit, Audio 7.1CH DTS/DOLBY/HD 24 : HDMI 4K@60Hz 4:4:4, HDR 10-bit(Inc DV), Audio 2CH PCM 25 : HDMI 4K@60Hz 4:4:4, HDR 10-bit(Inc DV), Audio 5.1CH DTS/DOLBY 26 : HDMI 4K@60Hz 4:4:4, HDR 10-bit(Inc DV), Audio 7.1CH DTS/DOLBY/HD 27 : HDMI 4K@60Hz 4:4:4, HDR 12-bit(Inc DV), Audio 2CH PCM 28 : HDMI 4K@60Hz 4:4:4, HDR 12-bit(Inc DV), Audio 5.1CH DTS/DOLBY 29 : HDMI 4K@60Hz 4:4:4, HDR 12-bit(Inc DV), Audio 7.1CH DTS/DOLBY/HD 30 : DVI 1280x1024@60Hz, Audio None 31 : DVI 1920x1080@60Hz, Audio None 32 : DVI 1920x1200@60Hz, Audio None 33 : HDMI 1920x1200@60Hz, Audio 2CH PCM/6CH 34 : User EDID 1 35 : User EDID 2 36 : EDID pass-through (copy from Sink 1)
EDID xx CP yy	Copy EDID From Output yy To Input xx xx = 00 : All Inputs xx = [01-02] : 00 : All Inputs, Input 1 - 2 yy = 00 : All Outputs yy = [01] : Output 1

Communication Protocols and Commands (continued)

COMMAND	ACTION	COMMAND	ACTION
EDID SAVE xx TO yy	Save External EDID xx Into Slot yy xx = 00 : EDID Via RS232 Send To Matrix xx = [01] : EDID Copy Output 1 yy = 00 : All User EDID yy = [01] : User EDID 1	INxx CEC FWD	FORWARD On Input xx
AUD DEC ON/OFF	Set Audio Decode On or Off	INxx CEC BWD	BACKWARD On Input xx
OUTxx CEC ENABLE	Enable CEC Control On Output xx	INxx CEC POFF	POWER OFF On Input xx
OUTxx CEC DISABLE	Disable CEC Control On Output xx	INxx CEC PON	POWER ON On Input xx xx= 00: All Input Port xx= [01- 02]: Input 1 - 2
OUTxx CEC OK	Confirm Operation (Enter) On Output xx	CECUSERCMD <u8DevID u8Addr u8Opcode pu8Operand[MAX]>	CEC User Command u8DevID: 00 Select All CEC Input Port u8DevID: [01-02] Input 1 - 2 u8DevID: F0 Select All CEC Output Port u8DevID: [F1] Output 1 pu8Operand[MAX] : MAX 0 - 14 Eg:CECUSERCMD <F0 40 44 41 > (ALL OUT CEC VOLUP) Eg:CECUSERCMD <F0 40 44 42 > (ALL OUT CEC VOLDOWN)
OUTxx CEC UP	UP On Output xx	RS232BAUD z	Set RS232 Baud Rate To z z = 1 2400, 2 4800, 3 9600, 4 19200, 5 38400, 6 57600 (Default), 7 115200
OUTxx CEC DOWN	DOWN On Output xx	RS232ONOUT y:z:a	Send y Type Of Command a Stored In Local RS232 Whose Baud Rate Is z y = a ASCII, h HEX z = 1 2400, 2 4800, 3 9600, 4 19200, 5 38400, 6 57600 (Default), 7 115200 a = RS232 Command
OUTxx CEC LEFT	LEFT On Output xx		
OUTxx CEC RIGHT	RIGHT On Output xx		
OUTxx CEC RETURN	RETURN On Output xx		
OUTxx CEC EXIT	EXIT On Output xx		
OUTxx CEC VOLUP	VOLUME UP On Output xx		
OUTxx CEC VOLDOWN	VOLUME DOWN On Output xx		
OUTxx CEC MUTE	Toggle Audio MUTE Status On Output xx		
OUTxx CEC PLAY	PLAY On Output xx		
OUTxx CEC STOP	STOP On Output xx		
OUTxx CEC PAUSE	PAUSE On Output xx		
OUTxx CEC RECORD	RECORD On Output xx		
OUTxx CEC INPUTyy	Input Channel yy Selection On Output xx, The Operation Needs To Wait For TV Communication To Succeed xx= 00: All Output Port xx= [01]: Output 1 yy= [00]: Current HDMI Input yy= [01-04]: TV's HDMI Input 1 - 4 yy= []:(No Parameter) Will Show Input Select Menu If TV Support		
OUTxx CEC POFF	POWER OFF On Output xx		
OUTxx CEC PON	POWER ON On Output xx xx= 00: All Output Port xx= [01]: Output 1		
INxx CEC ENABLE	Enable CEC Control On Input xx		
INxx CEC DISABLE	Disable CEC Control On Input xx		
INxx CEC OK	Confirm Operation (Enter) On Input xx		
INxx CEC UP	UP On Input xx		
INxx CEC DOWN	DOWN On Input xx		
INxx CEC LEFT	LEFT On Input xx		
INxx CEC RIGHT	RIGHT On Input xx		
INxx CEC RETURN	RETURN On Input xx		
INxx CEC EXIT	EXIT On Input xx		
INxx CEC VOLUP	VOLUME UP On Input xx		
INxx CEC VOLDOWN	VOLUME DOWN On Input xx		
INxx CEC PLAY	PLAY On Input xx		
INxx CEC STOP	STOP On Input xx		
INxx CEC PAUSE	PAUSE On Input xx		
INxx CEC RECORD	RECORD On Input xx		
INxx CEC REWIND	REWIND On Input xx		
INxx CEC FF	FAST FORWARD On Input xx		

Certifications

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

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

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Correct Disposal of this product

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.





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