A 3109 8K 4x2 HDMI Matrix Switcher

Altronic Distributors warrants this product for one year from date of purchase from Altronics or its resellers to the consumer. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier.

For repair or service please contact your **PLACE OF PURCHASE**.

If this item was purchased directly from Altronics please make a warranty claim by:

1. FOR MAIL ORDER CUSTOMERS (includes school and trade orders),

a) Calling your nearest store location and quoting your tax invoice number.

b) Upon contacting Altronics, we will issue an R.A. (Return Authorisation). As Altronics have a number of service agents throughout Australia, a copy of the R.A. will be emailed, faxed or mailed to you with full instructions of how and where to send the goods. The freight for shipping goods back to Altronics for all repairs is at the customers expense.

c) A copy of the R.A. form, (or at the very minimum, the R.A. number) must accompany the goods to effect the repair.

d) Altronics will pay the return freight to the customer where the warranty claim has been accepted.

e) Please quote the R.A. number in any correspondence to us.

2. FOR OVER THE COUNTER PURCHASES to make a warranty claim, please return the goods to us in any of our stores, with a copy of your proof of purchase (tax invoice).

a) Upon leaving the goods at one of our stores, an R.A. number will be issued to you.

b) Once repaired, you will be contacted, advising that the goods are ready to be collected from the store.

It is at Altronics discretion as to whether the goods will be repaired or replaced (whilst under warranty); and as to whether identical goods will be used to replace the item due to changes of models / products.

Note: Under no circumstances should you attempt to repair the device yourself or via a non-authorised Altronics service centre, as this will invalidate the warranty!

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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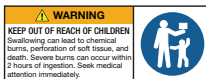
DYNALINK

A 3109

8K 4x2 HDMI Matrix Switcher with eARC

Operating Instructions

Features

- HDMI 2.1 and HDCP 2.3 compliant
- 40Gbps video bandwidth
- Supports video resolution up to 8K@60Hz 4:2:0 10bit, 8K@30Hz 4:4:4 10bit, 4K@120Hz 4:4:4 10bit
- VRR, FVA, ALLM supported
- Support HDR, HDR10, HDR10+, Dolby Vision, HLG pass through
- Support HDMI audio formats: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
- INPUTS 1 port and OUT 1 port support eARC/ARC function
- Allows HD audio up to Dolby Atmos, DTS:X over TrueHD from ANY
- external HDMI source to any eARC/ARC sound system
- Support audio de-embedding function (output through the optical and analog port)
- Built-in EDID DIP switch supports advanced EDID management
- 8K->4K, 8K/4K->2K downscaler support
- Support IR remote control and front panel button switching
- Built-in Equalizer, Retiming and Driver
- Compact design for easy and flexible installation

⚠ **WARNING**

KEEP OUT OF REACH OF CHILDREN
Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.

Overview

Allows four HDMI 8K V2.1 sources to be switched to two outputs/screens. This compact switcher brings together your HDMI sources for easy switching via front panel or IR remote control. eARC HDMI output allows simple connection to HDMI equipped soundbars. S/PDIF and 3.5mm stereo jack outputs are provided for connection to amplifier/speakers. Front panel provides access to switching configuration (pass through/scaler/splitter/switcher) and EDID DIP switches. Power supply included. HDCP 2.3. Size: 200 x 85 x 21mm.

Box Contents

1 × 8K HDMI 4x2 Matrix
1 × 5V/2A Multinational Power Supply
1 × IR Remote
1 × User Manual

HDMI Cable Selection

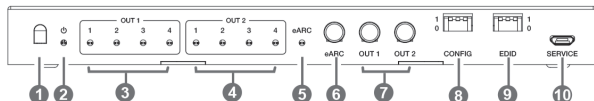| Recommended HDMI Cable				
Video Resolution	8K	4K60	4K24	1080P
HDMI Cable Type	Ultra HDMI 2.1	HDMI 2.0	HDMI 1.4	HDMI 1.4
HDMI Cable Length (HDMI IN / OUT)	3m	8m	12m	15m
The use of "Premium High Speed HDMI" cable is highly recommended.				

Notes:
- To ouput 8K, Ultra HDMI 2.1 cables must be used.
- If HDMI 2.1 cable is used, then a video resolution of 1080p can be carried up to 20m without flicker
- If the HDMI splitter is used to output signals of 4K @ 120Hz or 8K, please ensure that the HDMI cable, HDMI signal source and HDMI display all support this video resolution. See EDID DIP switch settings for more information.
- If the HDMI cables connected to either end of the switcher are too long then the output video may flicker or drop out.
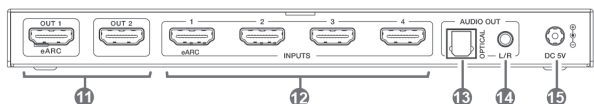
Specifications

Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	40Gbps
Video Resolution	Up to 8K@60Hz 4:2:0 10bit, 8K@30Hz 4:4:4 10bit, 4K@120Hz 4:4:4 10bit
Audio Formats	**HDMI input/output:** LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD **Audio de-embedding output:** Optical: Up to LPCM/Dolby/DTS 5.1 CH Analog: LPCM 2.0 CH
Colour Depth	8-bit,10-bit,12-bit
Colour Space	RGB_4:4:4, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
ESD Protection	Human body model — ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Input Ports	4×HDMI IN Type A (19-pin female)
Output Ports	2×HDMI OUT (Type A, 19-pin female) 1×OPTICAL (S/PDIF) 1×L/R (3.5mm Stereo Mini-jack)
Control	1×SERVICE (Micro USB, Update port)
Mechanical	
Housing	Metal Enclosure
Silkscreen Colour	Black
Dimensions	200W × 85D × 21Hmm
Weight	411g
Power Supply	Input: AC100 - 240V 50/60Hz, Output: DC 5V/2A
Power Consumption	2.05W (Max)
Operation Temperature	-0°C to 40°C
Storage Temperature	-20°C ~ 60°C
Relative Humidity	20~90% RH (non-condensing)

Operation Controls and Functions
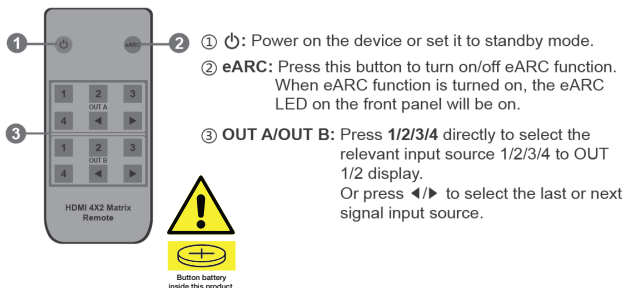
Front Panel

Rear Panel

No.	Name	Function Description
1	IR Window	IR input signal receiving window.
2	POWER LED	The power LED lights in green when the device is working, and red when the device is in standby.
3	OUT 1 LED (1~4)	When the INPUTS 1/2/3/4 port is selected as the signal source input channel for OUT 1 port, the corresponding green LED 1/2/3/4 will be on.
4	OUT 2 LED (1~4)	When the INPUTS 1/2/3/4 port is selected as the signal source input channel for OUT 2 port, the corresponding green LED 1/2/3/4 will be on.
5	eARC LED	The eARC LED will be on when you turn on the eARC function.
6	eARC button	Press the button to turn on/off eARC function.
7	OUT 1~2 button	Used to select signal source for OUT 1/2 port. Pressing the button OUT 1/2 will allow the device to switch any of the four HDMI input signals and distribute it to the corresponding output port.

8	CONFIG DIP switch	Use the DIP switch to set working mode (x means 1 or 0). **1xx** Matrix mode **0xx** Splitter mode **x11** OUT 2 pass-through mode **x10** OUT 2 scaler mode (8K->4K) **x01** OUT 2 scaler mode (8K/4K->1080P) **x00** OUT 2 pass-through mode
9	EDID DIP switch	Use the DIP switch to set EDID. **111** Copy OUT1 port sink EDID (as factory default) **110** HDMI 1080p@60Hz, Audio 2ch PCM **101** HDMI 4K@60Hz 4:4:4, Audio 2ch PCM **100** HDMI 4K@60Hz 4:4:4, Audio 5.1ch PCM/DTS/ DOLBY **011** HDMI 4K@60Hz 4:4:4, Audio 7.1ch PCM/DTS/ DOLBY/HD **010** HDMI 8K@60Hz 4:2:0+8K@30Hz 4:4:4, Audio 2ch PCM **001** HDMI 8K@60Hz 4:2:0+8K@30Hz 4:4:4, Audio 5.1ch PCM/DTS/DOLBY **000** HDMI 8K@60Hz 4:2:0+8K@30Hz 4:4:4, Audio 7.1ch PCM/ DTS/DOLBY/HD Note: If EDID is set for 8K TVs and one of the connected TVs is only 4K/1080p resolution, there will be no signal on the lower resolution screens.
10	SERVICE	Firmware update and debug port.
11	OUT (1~2) port	HDMI signal output port, connected to HDMI display device such as TV or Monitor with an HDMI cable. Note: When the eARC function is turned off, connect the "OUT 1 (eARC)" port to HDMI display device to work as an output port; When the eARC function is turned on, you can connect the "OUT 1 (eARC)" port to an HDMI TV with eARC function.

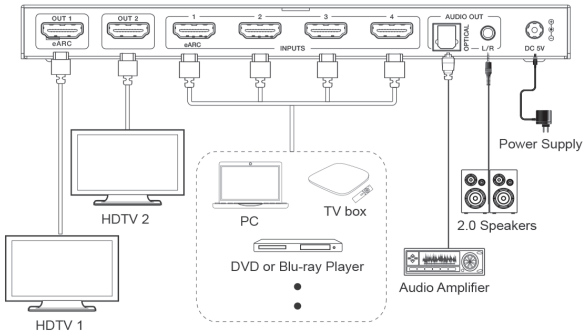| 12	INPUTS (1~4) port	HDMI signal input port, connected to HDMI source device such as DVD or PS5 with an HDMI cable. Note: When the eARC function is turned off, connect the "INPUTS 1 (eARC)" port to HDMI source device to work as an input port; When the eARC function is turned on, connect the "INPUTS 1 (eARC)" port to soundbar to output the audio signal returned from the "OUT 1 (eARC)" port.
13	OPTICAL	Optical fiber audio output port. Note: When the eARC function is turned on, this port is muted.
14	L/R	Analog audio output port. Note: When the eARC function is turned on, this port is muted.
15	5V DC	DC 5V/2A Power input port.

IR Remote

① ⏻: Power on the device or set it to standby mode.

② **eARC:** Press this button to turn on/off eARC function. When eARC function is turned on, the eARC LED on the front panel will be on.

③ **OUT A/OUT B:** Press **1/2/3/4** directly to select the relevant input source 1/2/3/4 to OUT 1/2 display.
Or press ◄/► to select the last or next signal input source.

Button battery inside this product.

Application Diagrams

Situation 1:
When the eARC function is turned off, the connection diagram is as following.

HDTV 2

PC

TV box

2.0 Speakers

DVD or Blu-ray Player

Audio Amplifier

HDTV 1

Power Supply

Situation 2:
When the eARC function is turned on, connect the "INPUTS 1 (eARC)" port to a Soundbar to output the audio signal returned from the "OUT 1 (eARC)" port, the INPUTS 1 LED for OUT 1 lights on, the connection diagram is as following.
Note:
(1) If the HDTV supports eARC/ARC function, the Soundbar will receive the audio signal returned from the HDTV, and then emit the sound; otherwise it will not emit sound.
(2) If the HDTV supports eARC/ARC function, but the Soundbar only supports ARC function, please turn off the eARC function of the HDTV.

HDTV with eARC/
ARC function

Projector

Soundbar

Power Supply