



BK-931

**8K HDMI™ or eARC Audio Extractor
(eARC, 3.5mm, Optical)**

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USER MANUAL

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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 service life of your equipment.

Registration Page

Please activate your warranty by registering our product through the link below - **<https://www.orei.com/register>**

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Introduction

The BK-931 eARC audio extractor is a flexible solution for home theatre setups that need to extract audio from a media source when using a non-eARC TV with an eARC soundbar or non-eARC amplifier. It is HDMI 2.1 and HDCP 2.3 compliant, supporting 48Gbps FRL and 18Gbps TMDS video bandwidth. It handles video resolutions up to 8K@60Hz and 4K@120Hz, with HDR10+ and Dolby Vision compatibility. It also supports HDMI 2.1 features like VRR, ALLM, QMS, QFT, and SBTM. Audio outputs include HDMI eARC, HDMI audio-only, Optical, and 3.5mm jack. CEC control lets your eARC TV control the source and soundbar. Its compact size makes it perfect for any home theatre environment.



Features & Package Contents

Features

1. HDCP 2.3 compliant
2. Video resolutions up to 8K@60Hz, and 4K@120Hz
3. 48Gbps FRL & 18Gbps TMDS video bandwidth
4. HDR10+ & Dolby Vision
5. VRR, ALLM, QMS, QFT, and SBTM support
6. LPCM 7.1CH, Dolby TrueHD, Dolby Atmos and DTS-HD Master, DTS:X Audio supported
7. Extract audio from a media source or an ARC/eARC TV
8. Optical, 3.5mm, HDMI eARC and HDMI Audio-only outputs for audio extraction
9. CEC control from an eARC TV to the source and eARC soundbar
10. Advanced EDID management

Package Contents

1.	BK-931	1pcs
2.	Power Adapter	1pcs
3.	User Manual	1pcs

Specifications

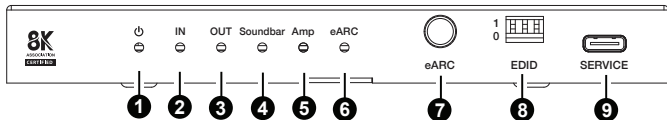
Technical	
HDMI Compliance	HDMI 2.1
HDCP Compliance	HDCP 2.3
Video Bandwidth	48Gbps FRL and 18Gbps TMDS
Video Resolution	Up to 8K@60Hz 4:2:0 12bit, 4K@120Hz 4:4:4 12bit
Color Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Color Depth	8/10/12bit
Audio Formats	HDMI Input/Output: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DSD, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X eARC Audio Out: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DSD, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X Amp AUDIO OUT: LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DSD, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X Audio De-embedded Output: Optical: PCM 2.0CH/Dolby/DTS 5.1CH Analog: PCM 2.0CH
HDR	HDR, HDR10, HDR10+, Dolby Vision, HLG
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)

Specifications

Connection				
Input	1 × Source IN [HDMI Type A, 19-pin female]			
Output	1 × TV(eARC) OUT [HDMI Type A, 19-pin female] 1 × Soundbar eARC OUT [HDMI Type A, 19-pin female] 1 × Amp AUDIO OUT [HDMI Type A, 19-pin female] 1 × OPTICAL [S/PDIF] 1 × L/R [3.5mm Stereo Mini-jack]			
Control	1 × SERVICE [USB Type C, Update port]			
Mechanical				
Housing	Metal Enclosure			
Color	Black			
Dimensions	L: 145mm / 5.70in W: 68mm / 2.67in H: 18mm / 0.70in			
Weight	262g / 9.24oz			
Power Supply	Input: AC100-240V 50/60Hz, Output: DC 5V/2A (US/EU standards, CE/FCC/UL certified)			
Power Consumption	5.2W (Max)			
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F			
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F			
Relative Humidity	20-90% RH (non-condensing)			
Recommended HDMI Cable				
Video Resolution	8K	4K60	4K24	1080P
HDMI Cable Length (HDMI IN/OUT)	3m/10ft (Ultra HDMI 2.1)	8m/26ft	12m/39ft	15m/49ft
The use of "Premium High Speed HDMI" cable is highly recommended.				

Operation Controls and Functions

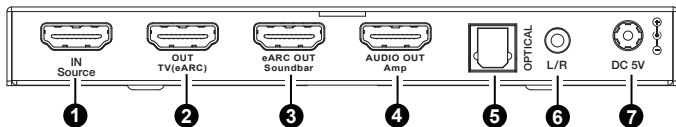
Front Panel



No.	Name	Function Description
1.	Power LED	Red LED turns on when the device is working.
2.	IN LED	Green LED turns on when the device detects a signal from the input source.
3.	OUT LED	Green LED turns on when the HDMI OUT port is connected to a display and sending a signal.
4.	Soundbar LED	Green LED turns on when a soundbar is connected.
5.	Amp LED	Green LED turns on when an amplifier or AVR is connected.
6.	eARC LED	▪ On: ARC/eARC is on and working properly with CEC communication. ▪ Flashing: ARC/eARC is on, but not working properly with CEC communication. ▪ Off: ARC/eARC is turned off.
7.	eARC switch	Press the button to turn on/off the ARC/eARC function.
8.	EDID DIP switch	Use the DIP switch to set EDID. [DIP]=111: Copy OUT port sink EDID (as factory default) [DIP]=110: Copy video EDID of sink and audio EDID of Soundbar [DIP]=101: FRL12G_8K_HDR, 2.0CH [DIP]=100: FRL12G_8K_HDR, 5.1CH [DIP]=011: FRL12G_8K_HDR, 7.1CH [DIP]=010: FRL10G_8K_HDR, 2.0CH [DIP]=001: FRL10G_8K_HDR, 5.1CH [DIP]=000: FRL10G_8K_HDR, 7.1CH
9.	SERVICE	For firmware update and serial commands control.

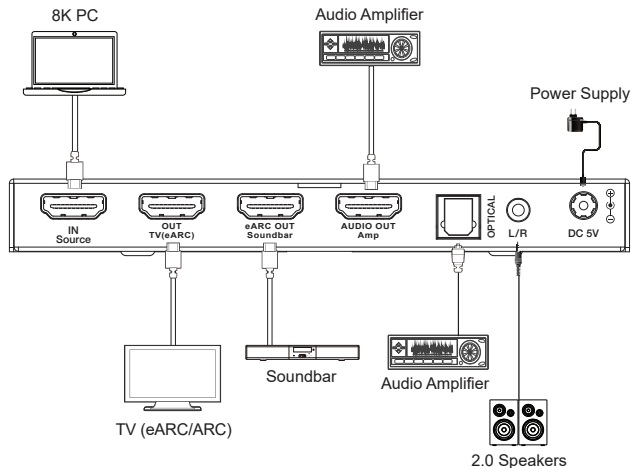
Operation Controls and Functions

Rear Panel



No.	Name	Function Description
1.	Source IN	Connect a media device such as DVD player, streaming device, etc.
2.	TV(eARC) OUT	Connect a display device such as TV, monitor, etc. You can also connect an ARC/eARC supporting TV to extract audio from it.
3.	Soundbar eARC OUT	Connect an audio device with an ARC/eARC port such as a Soundbar, AVR, etc.
4.	Amp AUDIO OUT	Connect an audio device with an HDMI input such as an AVR, AMP, etc.
5.	OPTICAL	Connect an audio device with an Optical input such as AVR, AMP, Soundbar, etc.
6.	L/R	Connect an audio device with a 3.5mm input such as AVR, AMP, headphones, etc.
7.	DC 5V	Connect the included power adapter.

Application Example



Note:

When eARC/ARC mode is enabled, the audio signal of Amplifier/Soundbar is the audio returned from the TV. When eARC/ARC mode is disabled, the audio signal of Amplifier/Soundbar is from the HDMI input source.



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FAQ & Troubleshooting

1. Unable to get audio from the soundbar.

- Turn off the eARC LED on the front if you are extracting audio from a media source and not an eARC TV.
- Make sure you use HDMI 2.1 cable to connect to the soundbar.
 - Check if the Soundbar LED on the front is lighting up.
- Try changing the audio format from the media source settings.

2. Can I get audio from the Soundbar, AMP, Optical and L/R at the same time?

Yes, you can. However, the audio will have to be in the lowest common audio format, which in this case, would be 2CH or Stereo. You will have to manually change the audio to stereo from the media source or eARC TV settings.

3. No audio output when I wake up the system.

Some Sonos soundbars may have this issue where they do not output audio when you start all the devices, and you may have to restart them to get the audio working. Try this startup sequence for the Sonos soundbars. Turn off everything first and then turn it back on but turn on the Sonos soundbar at the very end. This should establish a handshake with BK-931 and should resolve the problem.

Still have some questions?

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