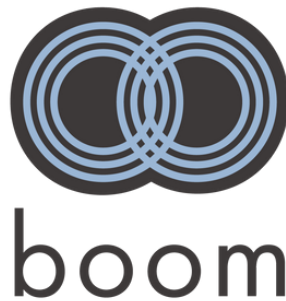# Boom ARC

the smart bridge for seamless host switching

boom

Boom ARC is a dual-host 4K video conferencing switcher designed to simplify connectivity in modern meeting rooms. With USB-C, HDMI, and USB 3.2 Gen 1 support, it enables seamless transitions between multiple hosts and devices—all in one compact unit.

What's in the box?

1x Boom ARC
2x Mounting Ears with 4 Screws
4 x Rubber feet
1x RS232 Cable (3-pin to DB9)
1 x 5-pin phoenix connector
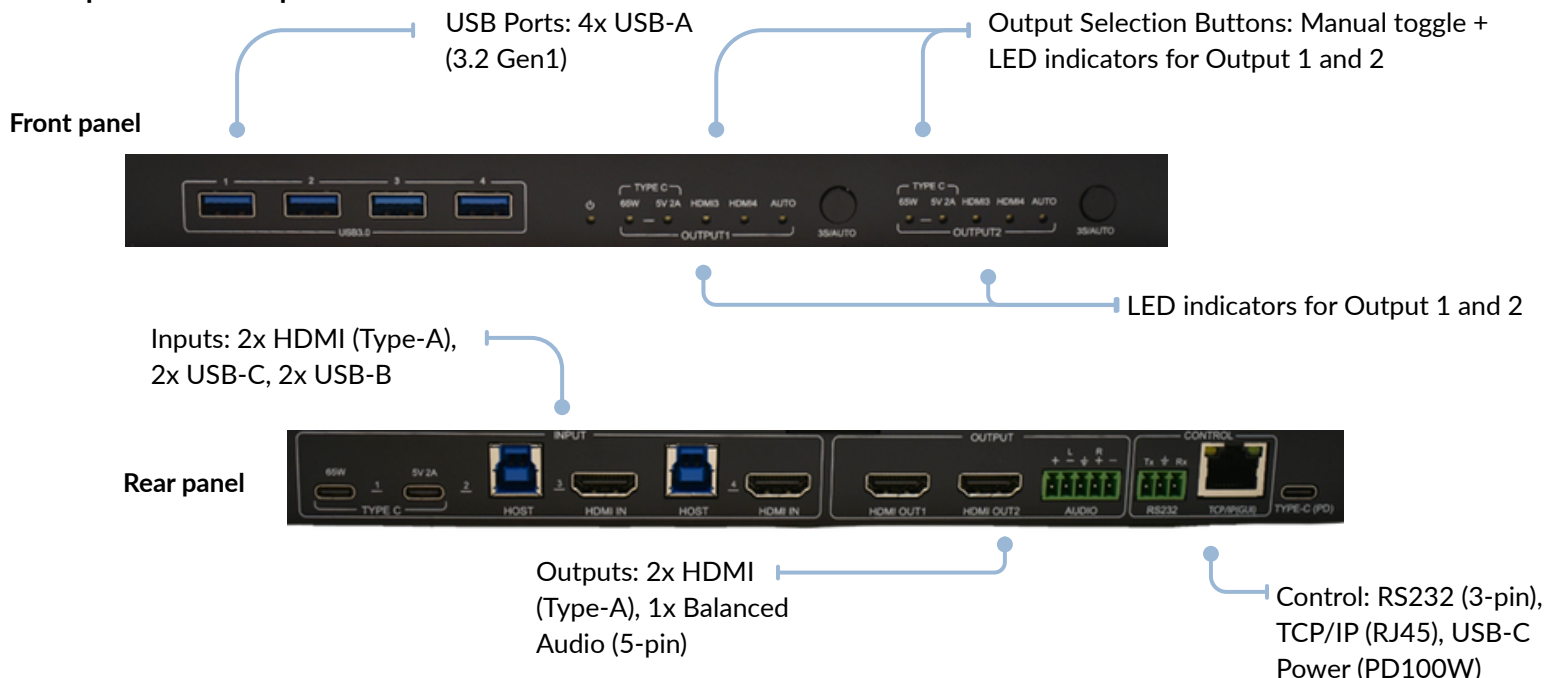1x 100Watt USB-C Power Supply (20V 5A)
1 x User Manual

Features at a glance

- KVM Switching
- 4x2 HDMI Matrix Switching
- USB Host Auto Switching
- MST/DP1.4 Support
- EDID Management
- CEC Control
- Manual, Auto, Conference & Mirror Modes for any room setup

Let's get started

1: Place Boom ARC in your meeting space. Attach rubber feet or mounting ears as needed.

2: Connect host devices with USB-C to laptop or Host + HDMI cables to compute or other host source to the rear panel. *For USB-C, use the leftmost port for devices that need charging (65W PD).

3: Connect peripherals - Plug in USB cameras, speakerphones, touchscreen into front USB-A ports. **Boom ARC automatically supports KVM switching**. Connected peripherals will follow the active host (laptop or in-room PC) based on source selection.

4: Connect displays via HDMI cables from the ARC's outputs to your monitors or projectors.

5: Add control/network (optional) with RS232 cable if using third-party control. Connect ethernet cable for GUI access via web browser (GUI access details p3).

6: To power on, plug in the 100W USB-C power adapter. Ensure the power LED on the front panel lights up.

7: Select input mode using manual toggle buttons on front panel to cycle through sources, or leave on Auto Mode (default) for automatic source switching.

8: Ensure your USB peripherals and displays are recognized and active. Adjust display and audio settings on your connected device as needed.

Inputs & Outputs

USB Ports: 4x USB-A (3.2 Gen1)

Output Selection Buttons: Manual toggle + LED indicators for Output 1 and 2

Front panel

LED indicators for Output 1 and 2

Inputs: 2x HDMI (Type-A), 2x USB-C, 2x USB-B

Rear panel

Outputs: 2x HDMI (Type-A), 1x Balanced Audio (5-pin)

Control: RS232 (3-pin), TCP/IP (RJ45), USB-C Power (PD100W)

Manual vs Auto Mode

(input selection mode - who controls the source)

Mode	What it does	When to use
Auto	Automatically switches to the most recent connected source	Ideal for BYOD or self-serve setups
Manual	Lets you cycle sources using the front panel buttons	Best for fixed setups or third-party control systems

LED Tips:

- Auto mode LED glows blue in auto mode
- Input 1-4 LEDS show the currently selected input for each output
- Power LED is solid green when device is powered

Common Scenarios

Scenario	What to do	Which Mode
Dual USB-C laptops	Plug into both USB-C ports (BYOM)	Conference Mode (auto-switch)
HDMI-only setup	Connect laptop via HDMI+USB-B (if USB needed)	Matrix or Manual
Monitor + Projector	Use both HDMI + USB-B outputs from ARC	Mirror
Control System (Crestron/Extron/etc)	Use Manual Mode via RS232 or TCP/IP	Conference Mode + Follow USB Host
Camera & speakerphone sharing	Connect USB peripherals to ARC front ports	Any mode
Zoom Room + BYOM	Connect Zoom Room PC via HDMI+USB-B and BYOM laptop via USB-C	Conference Mode Set USB switching to Follow Output

GUI Access & Mode Selection

Access the GUI

- Connect device to the same LAN as your PC (via Ethernet)
- Open browser → go to Default IP 192.168.1.239
- Login: admin / admin

> **Do I need to use the GUI?**
> No: if you're using default Auto Mode with USB-C and basic HDMI, you're good to go.
> Yes: If you want to lock inputs/outputs manually, use matrix or mirror modes, set EDID/CEC, change USB host behavior

Select Operating Mode

Go to the "Video Switch" tab and choose one:

Mode	Behavior	Best For
Conference	USB-C overrides HDMI	BYOD, hybrid meetings, MTR, Zoom Room
Mirror	Same image sent to both screens	Projector + monitor or similar setups
Matrix	Route any input source to any output	Flexible rooms
Manual	Use buttons or control system only. No auto switching.	Controlled systems

> *Note for TCP/IP default IP settings
> IP address: 192.168.1.239
> Subnet mask: 255.255.255.0

Operating Modes Summary

(system display mode - how displays behave)

Mode	Use Case	Behavior
Auto	BYOD, plug-and-play rooms	Switches to newest connected device
Manual	Fixed setups with control system	Use buttons to change inputs
Mirror	1 to 2 (monitor + projector)	Duplicates one source to both displays
Matrix	Flexible input/output routing	Assigns specific inputs to outputs

*Installation & Precautions: Install in a clean, dry, temperature-controlled environment. Connect all devices before powering on. Ensure proper insulation for all cables and power cords. Use high quality cables for best performance.

Troubleshooting tips

Problem	Possible Cause	Suggested Fix
No output	Loose cable/bad connection	Reconnect securely, ensure high quality cables
No image	Input/output device not active	Check signal with multimeter or test monitor
No response	Power issue	Verify power supply and cord connection
RS232 not working	Wrong COM settings or cable	Confirm parameters: 9600/8/N/1, check connections

Need Help? Contact Boom support or your authorized reseller
- Support: boom.co/support or support@boom.co
- For advanced config options: EDID, CEC, RS232, firmware upgrades and more, consult the complete user manual at boom.co

Additional setup options

GUI Access (via Browser)
Default IP: 192.168.1.239
Username/Password: admin/admin
Use web browser to navigate to IP and log in

Modes Available:
- Conference Mode: USB-C takes priority. Ideal for BYOD. MST support for dual displays.
- Manual Mode: Full control via third-party systems
- Mirror Mode: Duplicates one source to both displays
- Matrix Mode: 4 inputs share 2 outputs. Input priority determines display assignment

Audio Setting
Choose which output (1 or 2) sends audio to the 5-pin terminal
Supports LPCM 7.1, Dolby, DTS (pass-through); PCM 2.0 for analog

Configuration Options
- EDID Management: Copy from outputs or upload custom .bin files
- Down-scaling: Enable 4K to 1080p on Output 1
- Working Status: Set standby time (0–30 mins)

CEC Control (if supported by devices)
- Source and display control via GUI
- Optional user-defined commands
- Timed CEC command triggers (up to 30 mins delay)

USB Host Switching
- Modes: Auto, Manual, or Follow Output

Network Settings
- Static IP or DHCP options
- Change IP, Subnet, Gateway via GUI

RS232 Commands
- Common control protocols for integration
- Includes video/audio switching, EDID settings, CEC commands, etc.
- Full command list available in Appendix

Firmware Upgrade
- Upload .fwn file via GUI under "Access Settings"
- Follow on-screen steps for upload and installation

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