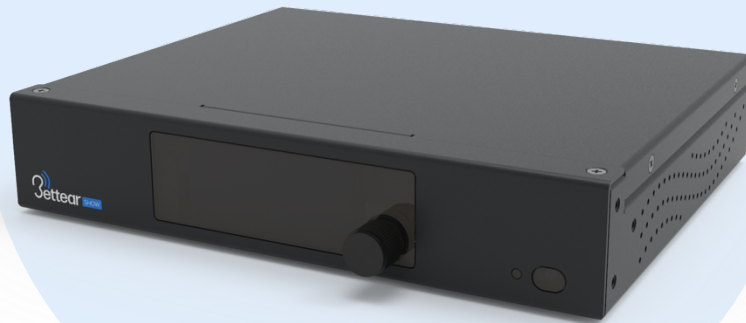




## Bettear **SHOW** | User Manual

Real-time audio streaming system

[www.bettear.com](http://www.bettear.com)



### Highlights:

- Low Latency Performance
- Personalized Sound
- Automatic Wi-Fi Connection
- Dynamic Visual and Textual Contents
- Automatic Gain Control (AGC)
- Local and Cloud Based Management
- Connections Monitoring
- Remote Assistance and Maintenance
- Remote Content Updates
- Live Transcription

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## OVERVIEW

The B-SHOW audio over Wi-Fi streaming platform, allows to efficiently sample and stream Hi-Fi audio in real-time and enables personalized listening experience for the hard-of-hearing in various daily settings. Through the free Bettear app, users can connect and enjoy live audio content customized to their preferences, delivered through their earphones, cochlear implants, hearing aids, or induction loop receiver. The B-SHOW streamer combines state-of-the-art technology with user-friendly design, making it a top-of-the-line product that is easy for anyone to operate.

The app enables on-the-fly audio customization with ease and offers an optional advanced sound calibration process to optimize and enhance the listening experience even further.

The B-SHOW's user-friendly web management dashboard enables the customization of each show's appearance on the Bettear app. Textual and visual content can be easily uploaded to be displayed on the Bettear app to enhance the user experience. Accessible both locally and remotely via the Bettear cloud, the web management dashboard maximizes control and monitoring capabilities, ensuring a high level of support and maintenance.



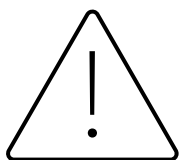
## SAFETY PRECAUTIONS

### HEARING SAFETY

This product is designed to amplify audio to a high-volume level which could potentially cause hearing damage if used improperly. To protect your hearing make sure the volume is turned down before putting on the headset, then adjust the volume up to the minimum setting required to hear clearly. Do not allow children or other unauthorized individuals to have access to this product without supervision.

### MEDICAL DEVICE SAFETY

Before using the B-SHOW streamer with an implantable or other medical device, consult your physician or implant manufacturer or other medical device manufacturer. Always make sure you are using this product in accordance with the safety guidelines established by your physician or the implantable device manufacturer.



#### Warning

Always observe standard safety precautions during installation, operation, and maintenance of this product. Only qualified and authorized service personnel should carry out adjustment, maintenance, or repairs to this product. No installation, adjustment, maintenance, or repairs should be performed by either the operator or the user.

Respectez toujours les standards de sécurité durant l'installation, l'opération et la maintenance de ce produit. Seul le personnel de service qualifié et autorisé devrait effectuer l'ajustage, la maintenance ou les réparations de ce produit. Aucune opération d'installation, d'ajustage, de maintenance ou de réparation ne devrait être effectuée par un opérateur ou l'utilisateur.

## INTRODUCING THE B-SHOW

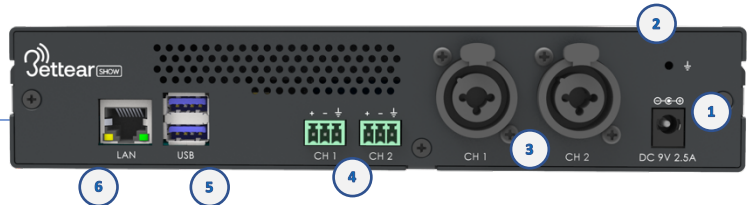
### FRONT PANEL

1. Power ON/OFF Button
2. Blue POWER-ON LED Indicator
3. Clickable Rotary Menu Button
4. Display



### BACK PANEL

1. DC Power Input
2. Ground Screw
3. Two Analog Inputs: Combo Jack (XLR+PL 1/4") (balanced XLR and unbalanced PL 1/4")
4. Analog audio inputs: Terminal Block (Balanced)
5. 2x USB 3.0 Ports - Used for:
  - Bettear Upgraders to enable access to the internet
  - Audio input extension using B-EX4
6. Gigabit Ethernet



**Note:** Inputs referenced in sections 3 and 4 are wired in parallel. Do not use them simultaneously.

### B-SHOW'S INTEGRATED MENU

Press and hold the rotary button for 3 seconds to turn on the B-SHOW's screen.

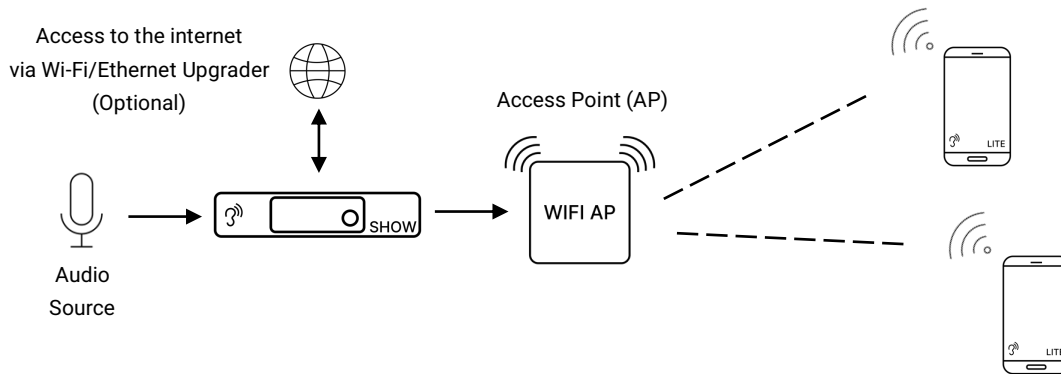


- Under the 'Audio Input Mode', 'MIX' mode allows manual mix adjustment between the two input channels for a mono stream to both earpieces.
- Scroll to the IP section, click the rotary button, and rotate to display additional self-assigned IP obtained by B-UPGRADERS, if available.

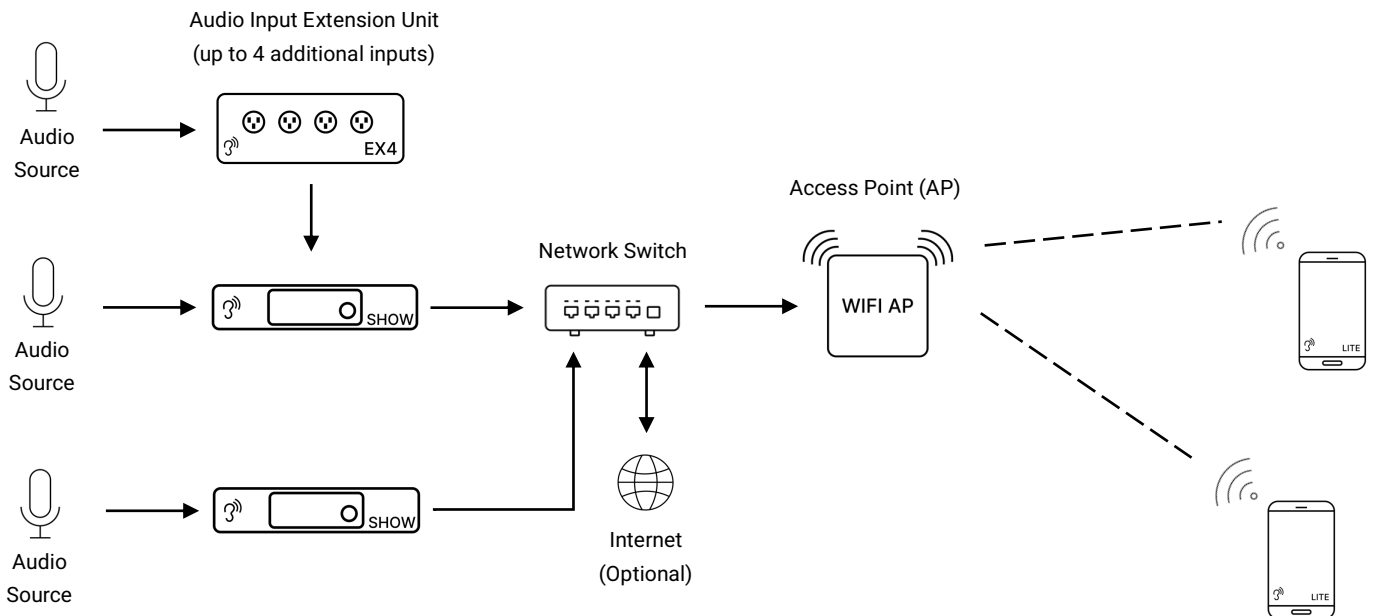
## NETWORK CONNECTION TOPOLOGY

B-SHOW devices can be installed in a variety of configurations:

### Diagram A - Basic configuration:



### Diagram B - Advanced configuration:



**Internet access is required for firmware updating and cloud services.**

**Internet connection can be either wired or wireless:**

- Wireless internet access requires a Bettgear Wi-Fi Upgrader
- Wired internet access requires a Bettgear Ethernet Upgrader or using a network switch

\*Utilize VLAN to restrict end-user access to the internet when the internet is connected through a network switch.

\* Internet access can be tested by clicking “TEST” on the B-SHOW menu.

A single network may contain multiple B-SHOW units connected simultaneously as independent broadcasters (“rooms”).

An extension device (B-EX4) can be connected to the B-SHOW system providing additional 2 stereo/4 mono inputs as independent broadcasters (“rooms”).

**\*A unique address identifier is required for each broadcast channel (“room”) on the same network (Address range 1-250, can be configured via the web management interface)**

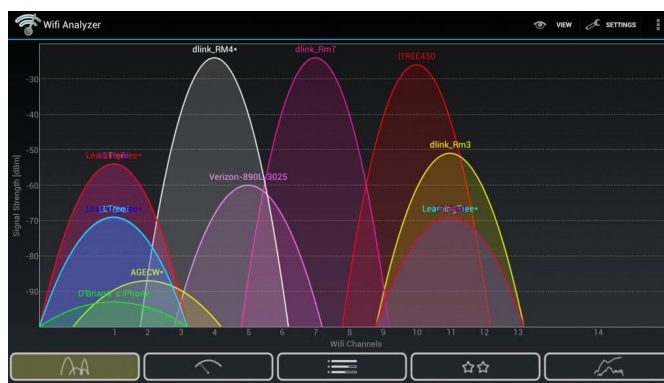
## SPECIFICATIONS

|                                   |   |
|-----------------------------------|---|
| IP Address                        | DHCP, Reserved  |
| Users Per Unit                    | Multicast: up to 1,000   Unicast: up to 100   |
| Prioritization                    | QoS   |
| Bandwidth Per User                | 250 kbps  |
| Latency                           | 40ms - 110ms<br>* May vary with network and mobile device   |
| Processor                         | Quad Core Cortex-A55 (ARM v8.2-A) 64-bit @1.5GHz  |
| Memory                            | 4GB   |
| App Support                       | iOS/Android   |
| Offline Management Panel          | Yes   |
| Cloud Management                  | Yes (if connected to internet)  |
| Content Management System (Cloud) | Yes (if connected to internet)  |
| Audio Input Channels              | 1 Stereo/2 Mono<br>Note: mix-down (sum) configuration is available on "stereo" mode (controlled via B-SHOW device menu).  |
| Maximum Input Voltage             | 2.1Vrms (4.2Vrms for balanced input)  |
| ADC Signal-to-Noise Ratio         | 110dB   |
| DAC Signal-to-Noise ratio         | 112dB   |
| ADC THD+N                         | -90dB   |
| DAC THD+N                         | -93dB   |
| Frequency Response                | 10Hz-22kHz  |
| Input Gain                        | -12dB to 32dB   |
| Automatic Gain Control (AGC)      | Yes   |
| Audio Filter                      | HPF and LPF   |
| Sample Rate                       | 48kHz   |
| Bit Depth                         | 32 bits   |
| Rackmount 19" Compatible          | Yes   |
| Power Supply                      | 9 VDC (Positive polarity), 2.5A<br>Use AC/DC adapter which is safety approved according to IEC/EN 60950-1 or IEC/EN 62368-1 with rated voltage of 9Vdc and which certified as Limited Power Source (LPS).<br><br>Usage d'adaptateur AC/DC (courant alternatif/courant continu) avec sécurité approuvée par IEC/EN 60 ou IEC/EN 62368-1, avec une tension nominale de 9Vdc et certifiée comme source d'alimentation limitée (LPS). |
| Operating Temperature             | 0 °C – 55 °C  |
| Regulatory                        | FCC, CE, cUL  |

## NETWORK CONFIGURATION

|  |   |              |               |
|--|---|--------------|---------------|
| Wi-Fi Signal Strength  | RSSI > -75dBm   |              |               |
| WMM  | Enabled   |              |               |
| Multicast to Unicast   | Enabled<br>*Required if unicast is disabled on the B-SHOW   |              |               |
| Client Isolation   | Enabled (optional)  |              |               |
| QoS  | Enabled (DSCP tag: 46)  |              |               |
| mDNS   | Enabled (service: _bettear_stream._tcp)   |              |               |
| Multicast Address  | 239.238.237.0/24  |              |               |
| Port   | 5000-6000 (UDP)   |              |               |
| Bandwidth Per User   | 250 kbps  |              |               |
| Wi-Fi Channel Width  | 2.4GHz: 20MHz   5GHz: 40MHz / 80MHz<br>Note: It is recommended to use UNII-1 Wi-Fi channels<br>*Not all edge devices support other channels |              |               |
| Minimum Bitrate  | 12Mb/s  |              |               |
| <b>SSID Configuration for Auto Connection</b>  |   |              |               |
| <b>SSID</b>  | <b>Security Type</b>  | <b>Radio</b> | <b>Hidden</b> |
| BETTEAR  | Open  | 2.4GHz       | Yes           |
| BETTEAR_5  | Open  | 5GHz         | Yes           |
| *It is possible to set another SSID setting. (In this case, end-users must manually connect to the Wi-Fi network). |   |              |               |

- Do not use range extenders, mesh networks, or multi-hop networks. Doing so may increase latency, as well as cause interruptions and/or audio drops.
- Multicast-to-Unicast must be supported and enabled by the network components.
- Firmware updating requires port 123 (TCP/UDP) of the network to be enabled.
- For effectively deployment of APs and optimized performances, use models that suit the installation type – wall-mounted or ceiling-mounted configurations.
- To avoid audio drops, scan and analyze for radio interference and manually configure the Wi-Fi Radio settings.  
**Note:** It is recommended to use a professional Wi-Fi and RF Analyzer rather than a simple application to detect RF interferences in the air that are not caused by foreign Wi-Fi networks.



## QUICK START

### 1. CONNECT TO AUDIO

Connect the desired audio source to one of the inputs in the B-SHOW streamer's rear panel.

Use the combo XLR and PL inputs or the terminal inputs.

\*XLR and terminal are both balanced inputs | PL input is unbalanced.

### 2. CONNECT TO NETWORK

Use an Ethernet cable to connect the B-SHOW to the local area network (LAN).

Make sure your network is properly configured (see "Network Configuration" section on page 8).

\*Enable DHCP setting from the B-SHOW menu if no other DHCP server is running on your network.

### 3. PLUG IN THE POWER CABLE

A blue power LED on the front panel indicates that the B-SHOW is turned on. After a few seconds an "initializing" message will appear on the display, followed by the Betttear logo. Finally, the display will turn black indicating that the system is ready for use.

Pressing the clickable rotary menu button for 3 seconds will activate the B-SHOW display. Use the button to control the device settings.

\*The display turns off automatically after 20 seconds if no user engagement was detected.

\*In case of power outage, the B-SHOW will automatically turn on once the power is back

\*To manually power off the B-SHOW use the power button on the front panel.

\*If the system does not respond, press the power button for 10 seconds to force power off.

### 4. MANAGEMENT DASHBOARD

For advanced settings enter the local management dashboard or the cloud-based dashboard at

[cloud.betttear.com](https://cloud.betttear.com) (see the 'ACCESSING THE MANAGEMENT DASHBOATRD' at page no.10 for more details).

## ACCESSING THE MANAGEMENT DASHBOARD

B-SHOW devices can be managed either locally or remotely via the Bettgear cloud. A device that is configured for cloud management will be managed via the Bettgear cloud only, unless it's being removed from the cloud and re-configured into local management (see ‘

REMOVING B-SHOW DEVICE FROM THE CLOUD’ at page no.19 ).

## ACCESSING THE LOCAL MANAGEMENT DASHBOARD

1. Wirelessly or wired, connect your management device (computer or smartphone) to the B-SHOW network via the LAN port on the B-SHOW rear panel:
  - a. **Wired connection:** Connect Ethernet cable between B-SHOW LAN port and management device
  - b. **Wireless connection:** Connect management device to the Wi-Fi network connected via the B-SHOW
2. Open a web browser and enter the B-SHOW's IP address, as shown on the B-SHOW's built-in screen, at the address bar (default IP address: 192.168.0.1).  
Note: It's recommended to use Google Chrome.
3. The B-SHOW local management dashboard is now displayed and ready for use

## ACCESSING B-SHOW CLOUD MANAGEMENT

1. Connect your management device to both a network with access to the internet and the B-SHOW network, either wirelessly or via wired connection.  
(for more information, refer to the ‘CONNECTING TO B-SHOW AND THE INTERNET’ section at page no.21)
2. Open a web browser, access the Bettgear cloud portal at: [cloud.bettgear.com](https://cloud.bettgear.com) and sign-in with Bettgear Account.  
Note: It's recommended to use Google Chrome
4. Click ‘Device Setup’, on the left menu
5. In the ‘IP Address’ text field, Type the B-SHOW address as shown on its built-in screen and click ‘Scan’

**Device Setup**

You can set up a new cloud-powered device or configure an existing one.  
If you wish to set up a standalone device, you should access its internal web-based configuration interface.

---

Make sure you are on the same network as your Bettgear Show device

6. When accessing a device for the first time, certificates should be manually approved. If is necessary, the following message will be displayed after clicking ‘Scan’

Taking too long... try visiting [API](#) to approve certificate and retry, and make sure you have network access to this device.

click ‘API’ to proceed.

7. A new tab will open. Approve to proceed to an unsecured website, return to the Bettgear cloud tab and ‘Scan’ again

8. The B-SHOW management dashboard is now displayed and ready for use via Bettgear cloud

## B-SHOW ACTIVATION

The B-SHOW series must be installed by an authorized vendor only, to ensure that, an initial activation of each device is required.

The first time a device is turned on, 'DEACTIVATED' will be displayed on its built-in screen, indicating that the device is deactivated.



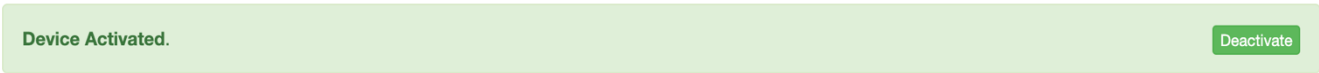
**Note:** while deactivated, the usage of the B-SHOW is limited.

### ACTIVATING A B-SHOW

1. Access the B-SHOW management dashboard via Bettgear cloud  
(for more information, refer to the 'ACCESSING B-SHOW CLOUD MANAGEMENT' at page no.10)
2. Click 'Activate'. The device will automatically restart to complete the activation process



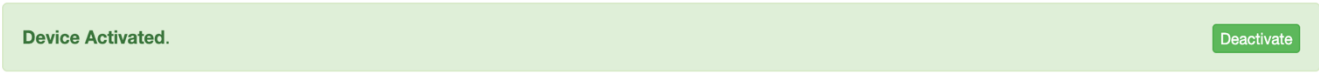
3. The B-SHOW is now activated and ready for setup



**Note:** Clicking 'Apply' from the cloud management dashboard configures the B-SHOW to be managed via Bettgear cloud. If the device should be locally managed, after activating it, close the cloud management tab, and access the local management dashboard to proceed. for more information, refer to the 'ACCESSING THE LOCAL MANAGEMENT DASHBOARD' at page no. 10.

### DEACTIVATING A B-SHOW

1. Access the B-SHOW management dashboard via Bettgear cloud  
(for more information, refer to the 'ACCESSING B-SHOW CLOUD MANAGEMENT' section at page no. 10)
2. Click 'Deactivate'. The device will automatically restart to complete the deactivation process



3. The B-SHOW is now deactivated and unable for use



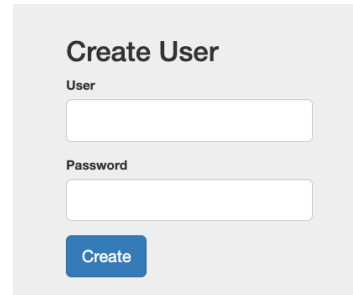
**Note:** Removing a device from the Bettgear cloud will automatically deactivate it.

## MANAGEMENT DASHBOARD

Accessing the B-SHOW management dashboard either locally or via Bettgear cloud, allows its configuration:

### CREATE USER

The first time you access the management panel, configure a username and password for future access.



The 'Create User' form contains two input fields: 'User' and 'Password'. Below the fields is a blue 'Create' button.

### VENUE CONFIGURATION

'Pick a venue to continue' opens a list of venues added to the Bettgear cloud account.

Pick a venue to continue ▾

Pick a venue to assign the connected device to it. By completing the configuration process and clicking 'Apply', the device is associated with the selected venue and is remotely managed through it.

**Note:** \*This section appears on the cloud management dashboard only.  
\*Multiple B-SHOWs can be assigned to each venue.

### SUMMARY

Presents information about the B-SHOW device, including its serial number, firmware version, and the local B-LITE version available.

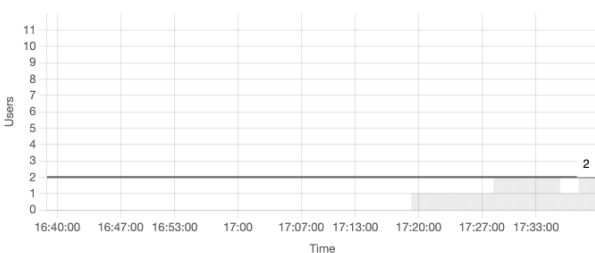
**Summary**

**Firmware Version**  
484

**Serial Number**  
BSH223061276

**B-Lite version**  
1.0.8

### CONNECTED USERS



Presents the number of active users listening to the streamed audio during the last hour.

An expanded view of this section, which allows for viewing the connection history over the past three months is available from the remote maintenance section on the Bettgear cloud referred at 'INTRODUCING THE REMOTE MAINTENANCE PANEL' page no.19.

### WIRELESS CONNECTIVITY

Maintenance and automatic firmware updates require the B-SHOW to have access to the internet.

This feature enables to connect the B-SHOW to a secondary Wi-Fi network exists on-site, with access to the internet where a wired connection is not available.

Enter the SSID and password of the desired Wi-Fi network available and click 'Apply'.

**Note:** \*This feature functions only if a WiFi Upgrader is connected to the B-SHOW.  
\*The internet access is dedicated for the B-SHOW only and is not accessible for end-users.

**SSID**

Hidden

**Security**

## MANAGEMENT VLAN

This section enables the use of a VLAN separated from the default VLAN used for the audio streaming, for firmware updates and remote access from the Bettear cloud.

To set up a management VLAN:

1. Enable the VLAN checkbox
2. Enter the required VLAN value (1-4096)
3. Click 'Apply'

Enable 'Internet sharing' to bridge an external network, connected through Bettear Wi-Fi / Ethernet Upgrader to the accessibility network interface (the integrated LAN port on the B-SHOW). The shared network is tagged with the selected VLAN.

**Note:** This will make this device a DHCP server on the VLAN selected.

### A Common use case for this feature:

When using a cloud-managed Access Point connected directly to the B-SHOW. By enabling this feature and setting up the Access Point management VLAN to match the one selected on the B-SHOW, it's possible to manage both the B-SHOW and the Access Point remotely, without sharing internet access with end-users.

#### VLAN

Enabled 1

Internet sharing via NAT

## DHCP CONFIGURATION

Use this section to switch between various optional modes for allocating or obtaining IP addresses over the built-in LAN port. Manually modifying DHCP server settings is optional.

Note: Another DHCP configuration panel will appear below if an Ethernet Upgrader is connected to the B-SHOW.

DHCP Server  
 DHCP Client  
 Static

**IP Address**  
192.168.0.1

**Range**  
From 192.168.0.20 To 192.168.0.254

**Subnet Mask**  
255.255.255.0

**Router**

**DNS**

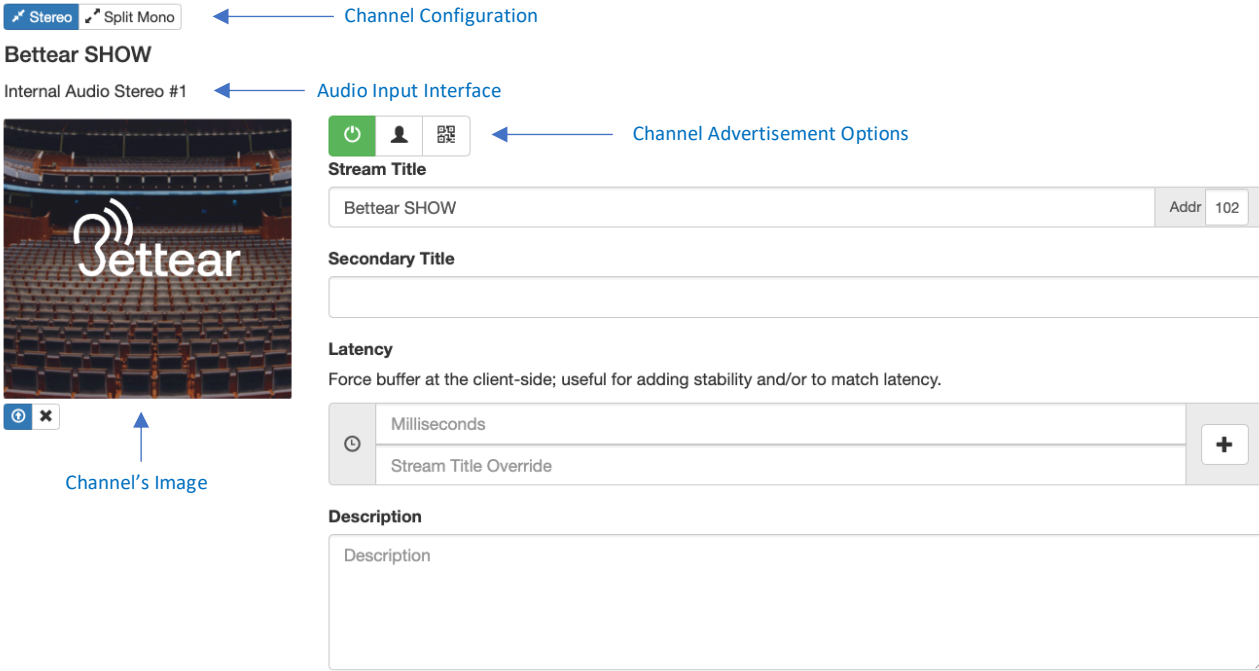
## LIVE CAPTIONS

Use this section to easily launch the transcriber or the caption projection panels.

For more information, see the 'INTRODUCING TRANSCRIPTION PANEL' section at page no.22 and 'CAPTION PROJECTION DISPLAY' section at page no.25.

## STREAM CONFIGURATION


This section enables the configuration of audio input channels modes (stereo, mono, etc.) and the adding of context for each stream.





**Channel Configuration** – Allows the configuration of every two adjacent channels as a single stereo channel or as two separate mono channels delivered with different textual and visual contents.

**Audio Input Interface** – An ID that distinguishes between the built-in audio input interface and those added by connecting an extension B-EX4 device.

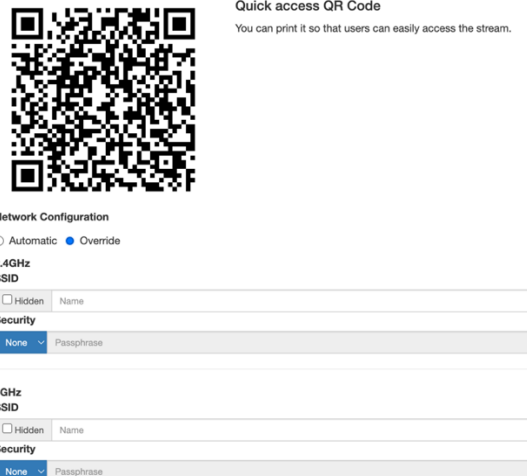
**Channel Advertisement Options** - 

 Enable this button to advertise the selected channel over mDNS. This will allow the selected channel to be detected and accessed via the Bettear App.

 Enable this button to allow the selected channel to play simultaneously with another channel, but with a higher priority. This means that if a guide or an announcement system is connected to a channel with this feature enabled, whenever a voice is detected, the playback level of any other channel will be reduced (ducked) until it becomes quiet again (supported only in B-ART licensed devices).

 Clicking this button generates a QR code related to the selected channel. Scanning this QR code at the Bettear app enables quick access to a specific channel.  
Useful for sites with multiple streams.

Click 'Override' to override the default Wi-Fi settings and seamlessly connect to a channel on a foreign Wi-Fi network by simply scanning a QR code.



**Stream Title** – Enter the stream name to be displayed to the end-user on the Bettear app.

**Secondary Title** – Enter a secondary title to be displayed to the end-user on the Bettear app (optional).

**Description** – Enter additional text to be displayed to the end-user on the Bettear app at the info dialog (optional).



**Channel's Image** – Upload and adjust an image to be displayed for each channel.

Supported image formats: JPEG, PNG

Recommended image ratio: 1:1

**Latency section** – Allows the adding of latency for each stream to improve streaming stability and ensure a synchronized listening experience. (default value: empty).

Click the '+' button to add streams distribute the same audio source but with different titles and latencies, allowing listeners to easily select the desired stream to connect in accordance with their location.

This enables coverage of large areas with streams that are synchronized with the sound coming from the loudspeakers, regardless of the listener's distance from the loudspeakers.

**Note:** a stream can be duplicated multiple times.

**Latency**

Force buffer at the client-side; useful for adding stability and/or to match latency.

|   |              |   |
|---|--------------|---|
| ⌚ | Milliseconds | ✕ |
|   | Golden Ring  |   |
| ⌚ | 120          | ✕ |
|   | V.I.P Area   |   |
| ⌚ | 160          | + |
|   | North Stand  |   |

## FIRMWARE UPDATE

The current firmware version running is displayed under the 'Summary' section of the management panel and on the built-in screen of the B-SHOW device, in the top right corner of its main screen.

## AUTOMATIC UPGRADES

While connected to the internet, the B-SHOW automatically checks for new firmware versions and updates to the latest one during each reboot.

**Note:** Ensure that port 123 is enabled on the network for upgrade purposes, or the system cannot be automatically updated. After the installation, it is recommended to test the B-SHOW connectivity by clicking the "TEST" button in the device's built-in menu.

To enable or disable automatic upgrades, check or uncheck the 'Enable' button in the 'Automatic Upgrades' section of the management panel.

## MANUAL FIRMWARE UPLOAD

From the management panel, click 'Upload' to manually upload and install B-SHOW firmware.

Once the flashing process begins you will see an indication on the device's display.

Upload...

## UNICAST MODE

By default, the B-SHOW is configured to stream audio in 'Multicast' mode, enabling maximum efficiency and scalability in the number of simultaneous listeners, depending on the number of Access Points deployed.

In some cases, it is possible to configure the B-SHOW to stream audio in 'Unicast' mode.

Enable or disable 'Unicast Mode' as needed in the 'Unicast Mode' section of the management panel.

Note: Unicast mode limits the number of listeners on a single B-SHOW to maximum of 100, depending on the network components' capabilities.

## BACKUP

Backup the device settings, including media, network and audio stream configurations by clicking 'create backup'. This will download a backup that you can later restore by clicking 'Restore from backup'.

Restore from Backup... Create Backup

## USER

In this section, you can sign out from the management panel or reset your user authentication settings (username and password) as desired.

Sign Out

Reset User/Password

## BETTEAR CLOUD

The Bettar cloud enables remote device management, textual and graphical content update, and monitoring of B-SHOW device usage.

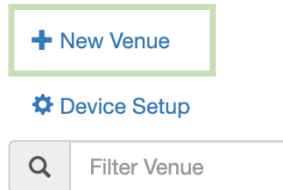
Register the B-SHOW to Bettar cloud and provide it with access to the internet to manage it remotely.

### REGISTERING B-SHOW TO BETTEAR CLOUD

#### CREATING A NEW VENUE

1. Open a web browser, access the Bettar cloud portal at: [cloud.bettar.com](https://cloud.bettar.com) and sign-in with Bettar Account (it's recommended to use Google Chrome)

2. Click 'New Venue' on the left menu



3. Enter a name associated with the venue to be added and click 'Create'.

This name is used as a display name on the Bettar cloud management panel

Name

Required

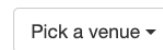
Create

4. The new venue is created and is ready for use.  
You can now start assigning B-SHOW devices to this venue to be managed via the cloud

#### ASSIGNING B-SHOW DEVICE TO A VENUE

1. Access the B-SHOW management dashboard via Bettar cloud (for more information, refer to the 'ACCESSING B-SHOW CLOUD MANAGEMENT' section at page no.10)

2. Click 'Pick a venue' under the 'Site Configuration' section to display the list of venues available. Then select the desired venue for assignment



3. Configure the settings according to the installation needs and click 'Apply'.  
From that moment on, the configuration process is similar to the local one. For more details, refer to the 'MANAGEMENT DASHBOARD' section at page no.12)

4. The device is now assigned to the selected site on the cloud and ready for use



**Note:** A B-SHOW configured via the cloud is now in 'cloud mode' and its settings and content can only be modified via the cloud unless it is removed from the cloud. Any configuration modified locally under the 'Stream Configuration' section will be overridden every time the device is restarted.

## REMOTE CONTENT UPDATE


Visual and textual content displayed for the end-users on the Bettgear app can be remotely updated for devices that are managed via the Bettgear cloud.

To remotely update content:


1. Open a web browser, access the Bettgear cloud portal at: [cloud.bettgear.com](https://cloud.bettgear.com) and sign-in with Bettgear Account (it's recommended to use Google Chrome)
2. On the left menu, select a venue for content updating. A list of devices associated with that venue is displayed

3. Click the edit icon   that appears next to the device name to be updated

4. You can now easily update the image and textual content displayed on the Bettgear app to your liking

Internal Audio Stereo #1 < 


Thumbnail



Choose Image...
✖ Clear

Stream Title

Secondary Title



**Quick access QR Code**

You can print it so that users can easily access the stream.

**Network Configuration**

Automatic  Override

Description

Close
Reset
Apply

5. Click 'Apply' to complete the update



**Note:** the updated content will be fetched to the B-SHOW next time it will be rebooted. It is possible to manually reboot the device remotely. For more information regarding remote rebooting of a device, refers to the '

6. *INTRODUCING THE REMOTE MAINTENANCE PANEL'* at page no.19.

## REMOTE MAINTENANCE

### ACCESS B-SHOW REMOTE MAINTENANCE PANEL

1. Open a web browser, access the Bettgear cloud portal at: [cloud.bettgear.com](https://cloud.bettgear.com) and sign-in with Bettgear Account (it's recommended to use Google Chrome)
2. Select a site from the sites list appears on the left. A list with the devices associated with that site will be displayed

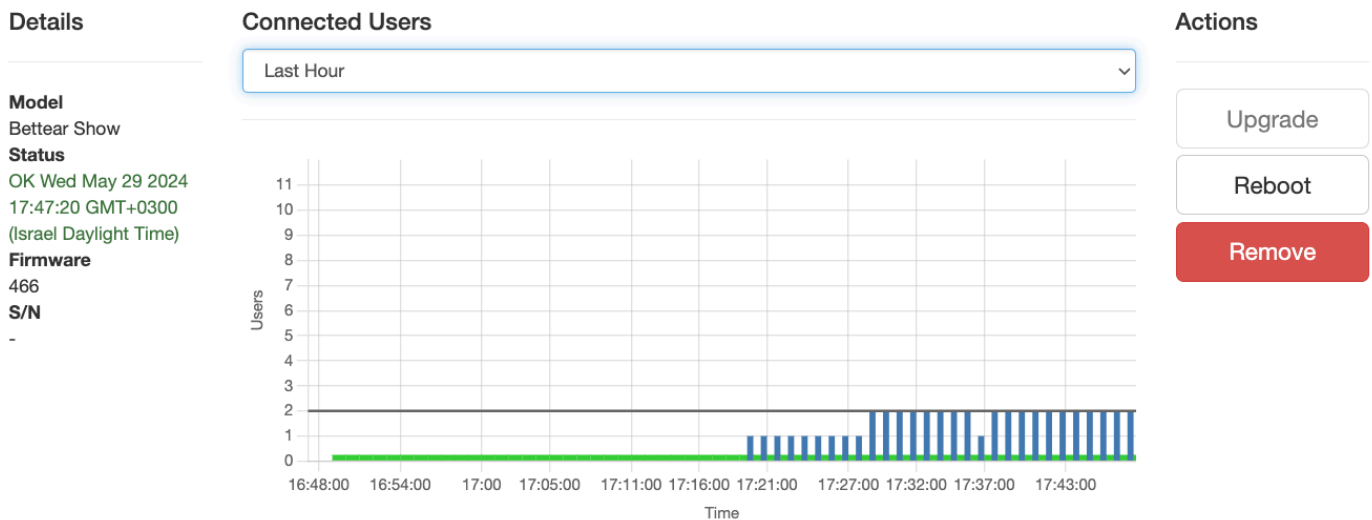
3. Click the device icon   that appears next to the device name you want to maintain

## INTRODUCING THE REMOTE MAINTENANCE PANEL

The remote maintenance panel on the Bettar cloud enables users to:

- View B-SHOW device activity, including ‘Connected Users’ over time and device activity time.
- Access details such as the current firmware version running on the device and the last time it was active.
- Execute remote actions, such as upgrading a device, rebooting a device, removing a device from the cloud, and deactivating it.

**Note:** remote maintenance of a device is enabled, provided that the device is on and that it has access to the internet.




## REMOVING B-SHOW DEVICE FROM THE CLOUD

Removing a device from the Bettar cloud, is necessary in the following cases:

1. Reassigning a device to another site
2. Deactivating a device remotely
3. Changing a device’s management configuration into local

### REMOVE A DEVICE FROM THE CLOUD

To remove a B-SHOW device from the Bettar cloud:

1. Access the maintenance panel on the Bettar cloud of the device you are willing to remove. See ‘ACCESS B-SHOW REMOTE MAINTENANCE PANEL’ instructions at page no.18
2. Click the ‘Remove’ button  under the ‘Actions’ section
3. A confirmation dialog for removal will appear. Click ‘Confirm’ to complete the removal process


**Note:** the next time the device is rebooted with internet access it will be deactivated. To instantly deactivating a device, click ‘Reboot’ (from the ‘Actions’ section) and then click ‘Remove’

4. It is now possible to re-activate this device, registering it to another venue or to manage it locally

## REMOVE A VENUE

Removing a venue from the Bettear cloud will de-assign and deactivate every B-SHOW device associated with the venue.

To remove a venue from the Bettear cloud:

1. Open a web browser, access the Bettear cloud portal at: [cloud.bettear.com](https://cloud.bettear.com) and sign-in with Bettear Account (it's recommended to use Google Chrome)
2. On the left menu, select the venue that you are willing to remove
3. Click the 'Remove Venue' button 
4. A confirmation dialog for removal will appear. click 'Confirm' to complete the removal process.

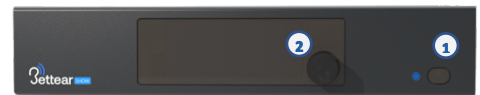
**Note:** the next time the devices associated with the removed venue rebooted with internet access, they will be deactivated.

5. It is now possible to re-activate those devices, registering them to other venues or to manage them locally

## CONFIGURATION RESET

To reset a B-SHOW device configuration to default:

1. Press and hold the B-SHOW's power button (1)
2. While holding the power button, press and hold the rotary button (2) as well.
3. Keep holding both buttons for 15 seconds until a 'Reset' message is displayed on the B-SHOW's built-in screen.
4. The device will reboot with default configurations.



## CHANGING DHCP MODE

Changing DHCP mode can be done from the B-SHOW device itself using its built-in rotary button and display:

1. Press and hold the rotary button on the B-SHOW front panel for 3 seconds to turn the screen on
2. Scroll to 'DHCP' -> click the rotary button to modify its value
3. Scroll to select the required DHCP mode (server / client / static) -> click the rotary button to confirm

Or, from the local management panel under the 'DHCP Configuration' section.

**Note:** it's important to ensure that only a single DHCP server is running on a network.

## CONNECTING TO B-SHOW AND THE INTERNET

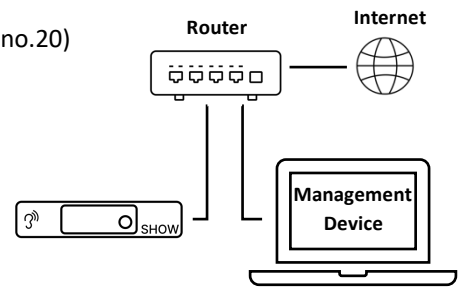
Simultaneous access of a management device to the B-SHOW and the internet can be achieved in several methods and is required for:

1. Initial activation of a B-SHOW
2. Initial configuring a B-SHOW to be managed via the Bettar cloud
3. Modifying the B-SHOW configuration if it's managed via the Bettar cloud

**Note:** access to the internet is not required for activated devices configured for local managing.

### Method 1 – Provide the B-SHOW network with internet access:

1. Change DHCP mode into DHCP CLIENT  
(for more information refer to the 'CHANGING DHCP MODE' below at page no.20)
2. Connect the LAN port on the B-SHOW rear panel to a network that has access to the internet.  
This can be achieved by using a network switch or router
3. A new IP address is now displayed on the B-SHOW screen, obtained from the DHCP server on the network connected
4. You can now wirelessly or wired connect your management device to the same network as the B-SHOW to access both the internet and the B-SHOW

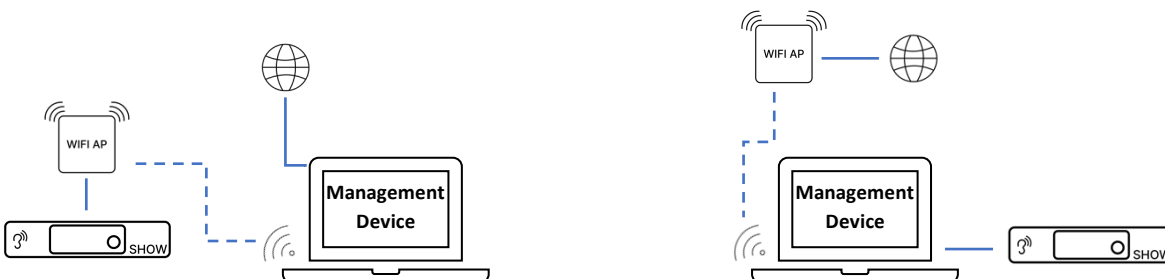


### Method 2 – Connect via a device that has multiple network interfaces:

Management devices, such as computers, smartphones, and tablets may be able to run several network interfaces simultaneously, for instance Wi-Fi and LAN interfaces, two LAN interfaces, Wi-Fi and cellular, etc.

1. Change DHCP mode into DHCP SERVER (this mode is a default)  
(for more information refer to the 'CHANGING DHCP MODE' at page no.20).
2. Connect the LAN port on the B-SHOW rear panel to either a LAN interface on your management device or to a network accessible via Wi-Fi.
3. Connect the second available network interface on your management device to access the internet via Wi-Fi, wired LAN or cellular connection.

**Note:** iOS devices can seamlessly communicate via cellular and other network interfaces simultaneously. This feature is not supported for all Android devices.



Management Device -> Internet (via LAN wired connection)  
Management Device -> B-SHOW (via Wi-Fi)

Management Device -> Internet (via Wi-Fi)  
Management Device -> B-SHOW (via LAN wired connection)

## LIVE TRANSCRIPTION

The B-SHOW allows live transcription to be delivered to the Bettear app in real-time, so any end-user can effortlessly enjoy a textual experience of the show, in addition to the high-quality audio listening experience.

Transcription with B-SHOW system can be done in three ways:

- Human-based transcription (supports multiple transcribers simultaneously)
- Cue-based transcription (pre-created/pre-loaded) (supports multiple languages simultaneously)
- Automatic transcription – Speech-to-Text (AI based) – upcoming

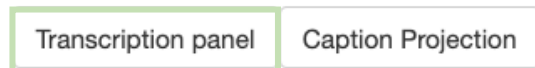
**Note:** Live transcription is a premium feature and is available for use under licensing only.

### ACCESSING TRANSCRIPTION PANEL

Whether a B-SHOW is configured locally or via the Bettear cloud, it is most convenient to access its transcription panel from the local management panel.

1. Access the local management panel. For more information, refer the 'ACCESSING THE LOCAL MANAGEMENT DASHBOARD' in page no.10
2. Under 'Live Captions' section, click the 'Transcription panel' button

#### Live Captions



**Note:** It's highly recommended to use a wired connection between the transcriber's device (laptop, PC, etc.) and the B-SHOW's network.

### INTRODUCING TRANSCRIPTION PANEL

1. Help – Displays an assistant dialog
2. Contrast – Toggles between dark/light mode
3. Export – Stores the session for later use
4. Import – Loads a pre-stored file
5. Stop Cue Mode – Stops the cueing mode (if it is running)
6. Start Cue Mode – Starts the cueing mode
7. Remove Language – Removes a language (if multiple languages were added)
8. Hide/Unhide Language Strip – Hides or unhides a language strip (preview/edit)
9. Language Strip Indicator – Indicates which language strip is selected (colored in blue if selected)
10. Add Language – Adds a new language for broadcasting
11. Transcription Box – A text box for transcribing



### Restore Transcription Session

When opening the transcription panel, you may be asked if you'd like to restore the last session or start a new one. This feature allows the restoration of a transcribing session after the web browser has been accidentally closed.



## Live Transcribing

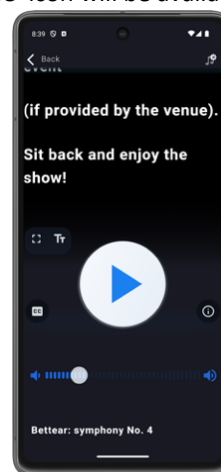
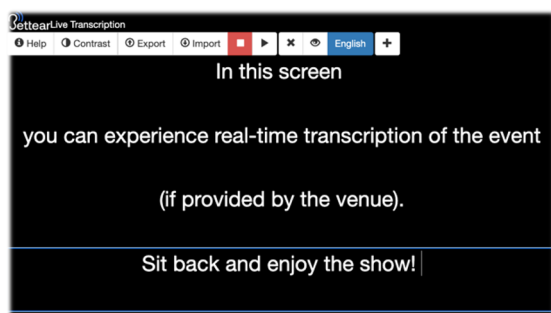
For live transcribing by an on-site transcriber:

1. Connect a computer designated for transcribing purposes to the Bettear network via an Ethernet cable
2. Access the transcription panel (refer to 'ACCESSING TRANSCRIPTION PANEL' on page 22)
3. Start typing in the transcription box to display text for end-users
4. The 'CC' icon will now appear on the Bettear App. By tapping this button, any words typed by the transcriber will be displayed on the screen

### Notes:

- Text typed in the transcription panel will be delivered to the app with each 'Space' or 'Enter' key press.
- For better readability by the end-users, it is recommended to use 'Enter' after each sentence.
- When transcribing in a single language, **do not** modify the default transcription language set in the transcription panel. Only modify the language when multiple languages are required simultaneously.

**Important:** Ensure the transcription panel is loaded prior to the show, so the 'CC' icon will be available for users who have already opened the Bettear app.



## MULTI-LANGUAGES LIVE TRANSCRIPTION

Multiple transcribers may simultaneously transcribe in multiple languages. To achieve that:

1. Connect each transcriber's computer to the Bettear network via Ethernet cables
2. Access the transcription panel in each computer (refer to 'ACCESSING TRANSCRIPTION PANEL' on page 22)
3. In each computer, click the '+' button and select the transcription language to be provided by it



4. Remove any unused language by clicking the 'X' button in each language section



5. The 'CC' icon will now appear on the Bettear App. By tapping this button, any words typed by the transcriber will be displayed on the screen
6. In the caption section in the Bettear app a new language icon appears. Click this icon to select the captions' language to be displayed






**Important:** Ensure that all the transcription panels are loaded prior to the show, so the 'CC' and the language icons will be available for users who have already opened the Bettear app.

## PER-LOADED TRIGGERED CAPTIONS

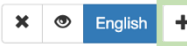

In scenarios where the text is pre-determined, utilizing the ‘Triggered Captions’ system can be highly beneficial. By using the ‘Transcription Panel’ you can prepare the entire event text in advance. During the event, the captions will smoothly progress, sentence by sentence with the press of ‘Enter’. Additionally, the system supports triggering captions in multiple languages.

### CAPTIONS PREPERATION

1. Access the transcription panel (refer to ‘ACCESSING TRANSCRIPTION PANEL’ on page 22)
2. Click the ‘+’ button and select the language you would like to start preparing first   
(If the selected language is English, proceed to step 4)
3. For convenience, remove the English strip by clicking the ‘X’ button 
4. In the text box below the selected language strip, type the text to be displayed in response to the first trigger, and then click ‘Enter’
5. A new text field will appear. Type the next text to be triggered in this field. Repeat this step for all the required text
6. To start triggering the captions, click the ▶ button 
7. On cue, click ‘Enter’ to trigger the next pre-programmed text for display
8. Once triggered, the text will be displayed in the Bettear app on end-devices

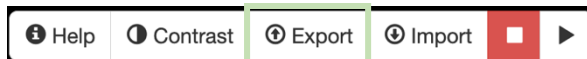
### MULTIPLE-LANGUAGES TRIGGERING

Multiple-language captions can be prepared in advance so that each trigger advances the displayed captions in every language accordingly.

1. Prepare captions for the first language, following the steps outlined in the ‘CAPTIONS PREPERATION’ section (steps 1-5)
2. Click the ‘+’ button to add another optional language that well be triggered simultaneously 
3. Populate the text under the new language section to match the content of the first language added presented in the same line.  
It’s vital to note that every line in the triggered captions editor will be displayed simultaneously to the end-user based on their selected language
4. Optionally, toggle the hide/unhide button in each language section for your convenience.  
Note: Hidden language will still be triggered and displayed to the end-user
5. To start triggering the captions, click the ▶ button 

### BACKUP AND RESTORE

Use the ‘Export’ button to save the current transcription displayed in the ‘Transcription Panel’. It can be stored for later use or for documentation purposes.



Use the ‘Import’ button to reload and reuse previously stored transcription.



## CAPTION PROJECTION DISPLAY

The Bettear SHOW system features a web-based interface for caption projection on any device running a web browser. This enables live captions to be displayed on screens, tablets, TVs, etc.,

Accessing 'Caption Projection':

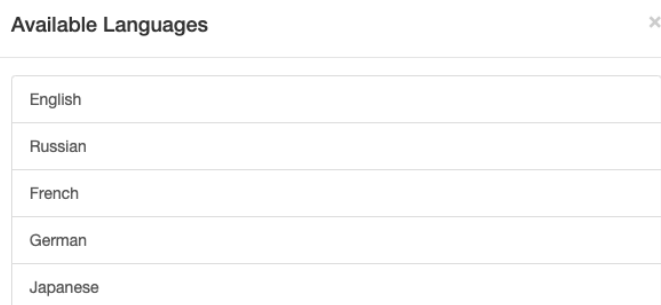
1. Connect the required projection device to the Bettear's network. You can use wired or wireless connection, at your convenience
  - Wired connection – simply connect the projection device to the same network switch as the B-SHOW device
  - Wireless connection – Provided that your projection device supports Wi-Fi connectivity, access its Wi-Fi connection management panel and manually connect to the BETTEAR\_5 or BETTEAR hidden, open network
3. Open a web-browser on your projection device and access the B-SHOW local management panel. For more information, refer the 'ACCESSING THE LOCAL MANAGEMENT DASHBOARD' in page no.10
4. Under 'Live Captions' section, click the 'Caption projection' button

### Live Captions



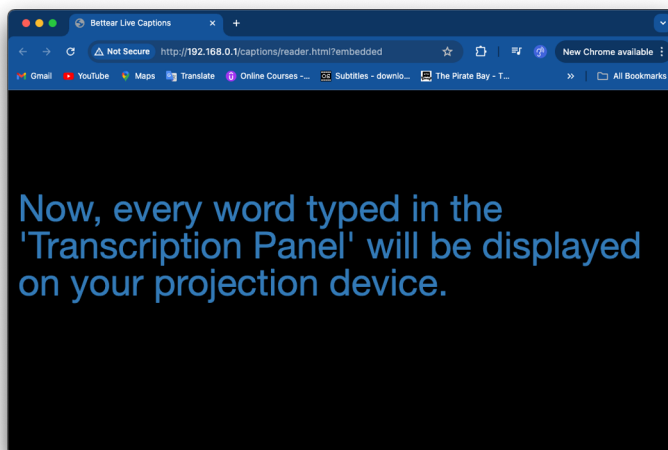
**Note:** You can alternatively access the projection panel by manually typing its address in the web browser: '[http://\[IP\]/captions/reader.html?embedded](http://[IP]/captions/reader.html?embedded)' (replace the [IP] with the B-SHOW's IP as displayed on its built-in screen

5. From the menu displayed, select the language you wish to project.



**Note:** if only a single language is available, the selection menu will not be displayed, and you will be directly redirect to the projection screen.

6. Now every word typed in the 'Transcription Panel' will be displayed on your projection device.
  - Use the 'Zoom In' and 'Zoom Out' functionality of the web browser to adjust the font size
  - For a better watching experience, it is recommended to run your web browser in Full-Screen mode



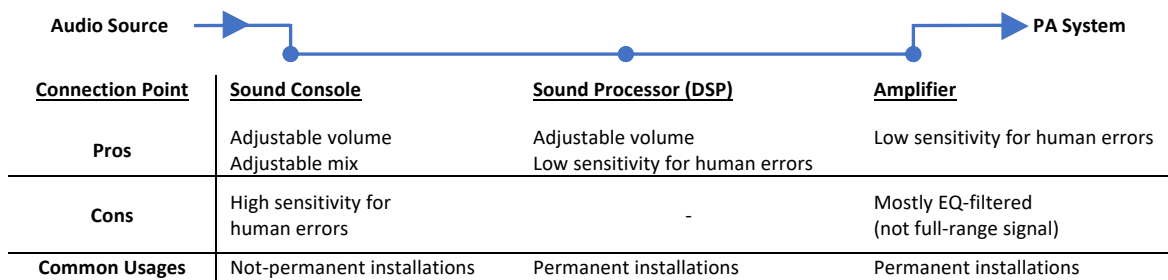
## TIPS AND RECOMMENDATIONS

### AUDIO CONNECTION RECOMMENDATIONS

1. Use balance connection (through the XLR / Terminal Block on the B-SHOW's rear panel) if available, especially for long distance wiring.
2. Connect to a stereo audio source (if available) to maximize the listening experience.
3. Connect to a full frequency range feed, without any filter applied (HPF, LPF).
4. Ensure that no delay is added to the connected audio feed.
5. To minimize human errors and ensure proper audio output from the B-SHOW system, utilize a reliable connection point to the audio source, such as an audio processor output or a parallel input of the main PA amplifier.

**Note:** "Reliable connection point" refers to the connection of the audio to a strategy point in the audio system's signal flow. This ensures that if audio is coming from the PA system, it is simultaneously delivered to the B-SHOW as well.

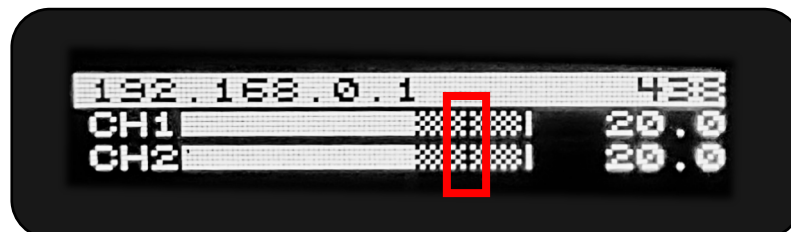
#### Typical audio system's signal-flow:



**Note:** When connecting to a sound console, use a stereo MATRIX send or a LR parallel output (it is not recommended to use AUX sends)

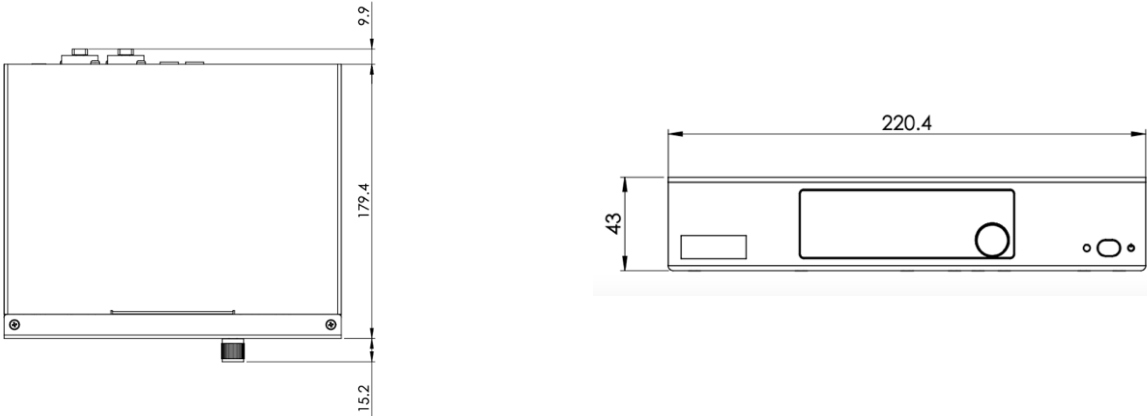
### OPTIMIZING THE AGC OPERATION

1. Disable AGC.
2. Set the B-SHOW channels' level to 5-15dB.
3. After setup, play music from the venue's loudspeakers. Adjust the volume to the level of typical use.
4. Adjust the output level of the audio source (sound console, digital processor etc.) until the signal meters on the B-SHOW display will be in proximity to the vertical black line shown on the dotted meters area.
5. Re-enable AGC.



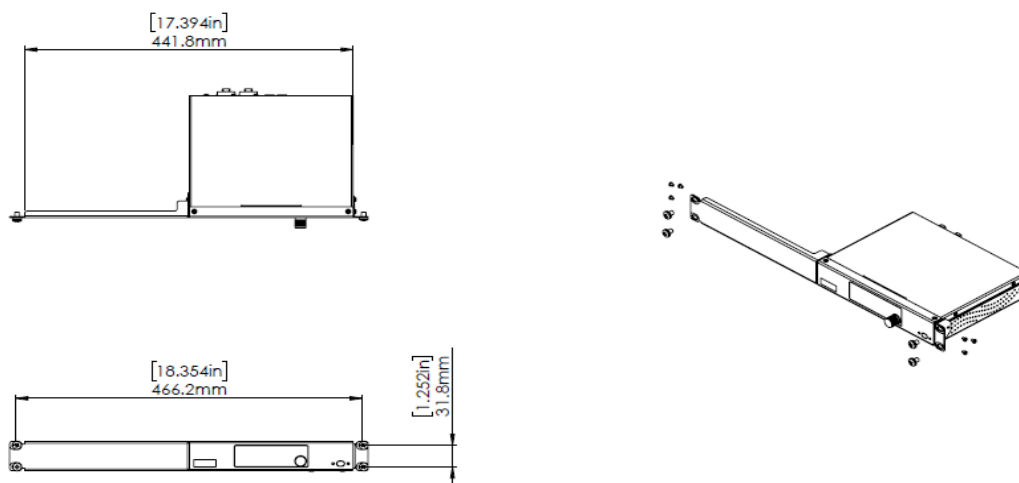
## PHYSICAL

|                        |  |
|------------------------|--|
| Weight                 | 1.3kg (2.86 lbs) unit weight<br>1.7 kg (3.74 lbs) package weight |
| Dimensions (H x W x D) | 43mm x 220.4mm x 179.4mm   |

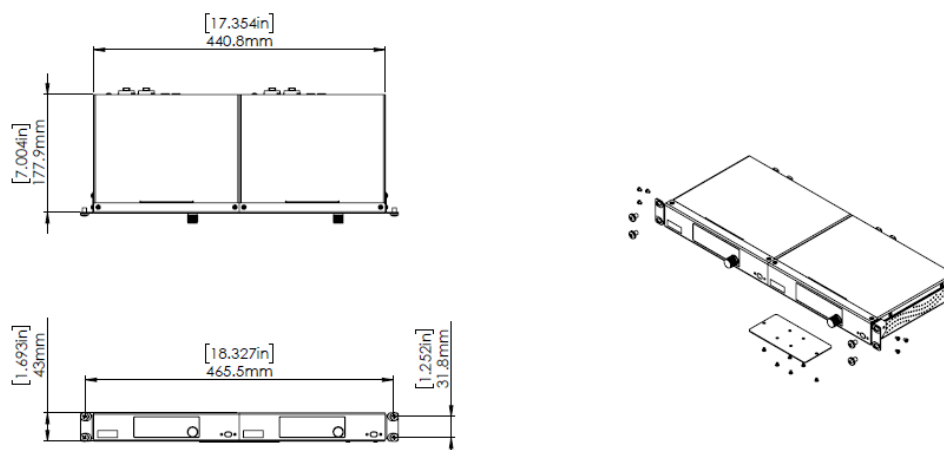


## RACK MOUNT INSTALLATION

### One Device



### Two Device



Note: Maximum installation height: 200cm (Hauteur maximale d'installation 200cm).

## ACCESSORIES / ADD-ONS

|  |                          |
|--|--------------------------|
| <b>1U Expander</b><br>Rack mounting kit for B-SHOW   | Included                 |
| <b>Twin Mounting Adapter</b><br>Rack mounting kit for 2 B-SHOWs in 1U                          | Not included             |
| <b>B-LITE</b><br>Dedicated hand-held Receiver (for those without personal smartphones)         | Supported (not included) |
| <b>B-EX4</b><br>Expansion of a single B-SHOW with additional 4 mono/2 stereo channels          | Supported (not included) |
| <b>Wi-Fi Upgrader</b><br>Additional Wi-Fi interface for management and firmware upgrades       | Supported (not included) |
| <b>Ethernet Upgrader</b><br>Additional Ethernet interface for management and firmware upgrades | Supported (not included) |

## TROUBLESHOOTING

### The Bettear app installed on a smartphone is unable to find and connect to a B-SHOW device:

- Manually connect to the desired Wi-Fi network. Verify that the device is successfully connected. If the connection failed, recheck network configuration (for more information see '*NETWORK CONFIGURATION*' at page no.8).
- Enter the cloud-based local management dashboard and verify that the B-SHOW streams are enabled.

### The B-SHOW device is deactivated:

- In this case, the B-SHOW device is locked.
- Contact the device provider to activate it.

### Poor audio quality: interruptions, audio cuts out, distorted sound, high latency, or background noise:

- Check the sound source for noise, distortion, or inappropriate volume level. (see '*TIPS AND RECOMMENDATIONS*' at page no.26).
- Try using balanced inputs to get clearer sound and to avoid electrical interferences.
- Recheck the network configuration and use the Wi-Fi analyzer to select the best channel to use in your space. (For more information see '*NETWORK CONFIGURATION*' at page no.8).
- If using stereo audio, verify that two input cables (not only one) are connected to the input channels of the B-SHOW.



## WARRANTY

Please visit [www.bettar.com](http://www.bettar.com) for warranty and service information.

WARNING: Electrical Shock Hazard. No user serviceable parts inside. To reduce the risk of electrical shock, do not remove or open the cover. Please contact Bettar for assistance.

## PRIVACY POLICY

Please visit [www.bettar.com](http://www.bettar.com) for privacy policy and service information.

## SUPPORT

Habarzel 33, Tel-Aviv, Israel

Website: [www.bettar.com](http://www.bettar.com)

Email: [info@bettar.com](mailto:info@bettar.com)

Phone: +972-3-777-8630