RANE

ZONETECH

User Guide

(English)

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Introduction

Thank you for purchasing the Zonetech. At Rane, performance and reliability mean as much to us as they do to you. That's why we design our equipment with only one thing in mind—to make your performance the best it can be.

Box Contents

Zonetech

(1) 6-pin 3.8 mm Euroblock inputs (green, for audio inputs)

(3) 6-pin 3.8 mm Euroblock outputs (orange, for zone outputs)

(1) 3-pin 3.8 mm Euroblock outputs (orange, for zone outputs)

(1) 3-pin 3.8 mm Euroblock inputs (black, for logic input)

Bluetooth® Antenna

Power Cable

Quickstart Guide

Safety & Warranty Manual

Support

For the latest information about this product (documentation, technical specifications, system requirements, compatibility information, etc.) and product registration, visit **rane.com**.

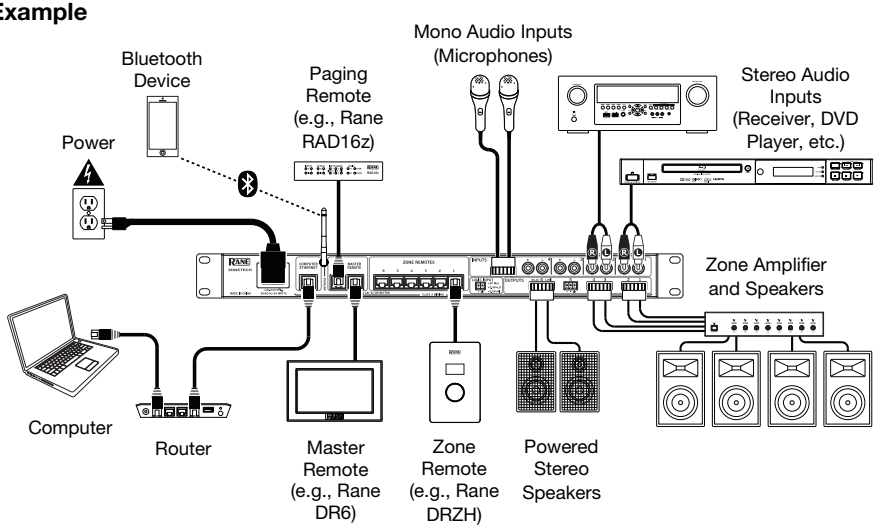
For additional product support, visit **rane.com/support**.

Setup

Items not listed under ***Introduction*** > ***Box Contents*** are sold separately.

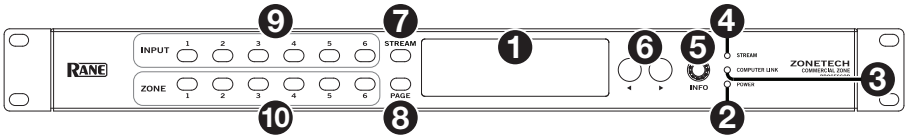
1. Use the included Euroblock connectors or stereo RCA cables to connect the **inputs** on the rear panel to your audio sources.
2. Use the included Euroblock connectors to connect the **outputs** on the rear panel to your zone amplifiers or powered loudspeakers.
3. Use shielded Cat5e or Cat6 RJ45 cables to connect optional remotes or paging devices (e.g., Rane DR6, Rane DRZH, Rane RAD devices) to the **Master Remote Port**, **Zone Remotes Ports**, and **Pager Port** on the rear panel.
4. Attach the Bluetooth antenna (included) to the **Bluetooth antenna connector** on the rear panel. For best results, place Zonetech and the Bluetooth antenna so that it is not obstructed by walls, furniture, etc.
5. Use standard Ethernet cables to connect the **Computer Ethernet port** on the rear panel to a DHCP-enabled router or similar access point, and then connect your computer to another port on the same router or access point.
6. Power on all of your audio sources (media players, stereos, microphones, amplifiers, etc.).
7. Use a standard IEC cable (included) to connect the **power input** to a power outlet.
8. Power on all of your audio outputs.

Example



Features

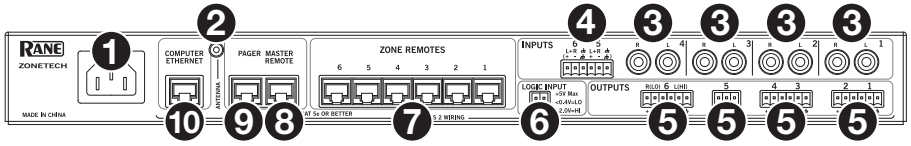
Front Panel



1. **Display**: This display shows information about Zonetech's current status and options.
2. **Power Light**: This light is on when Zonetech is powered on.
3. **Computer Link Light**: This light is on when the **Computer Ethernet port** on the rear panel is connected to a computer (powered on). You can then use the computer to control Zonetech remotely using a web-based interface.
4. **Stream Light**: When the **Stream Source** is set to **Bluetooth**, this light will flash to indicate Zonetech is in Pairing Mode and be lit solidly when Zonetech is paired with an active Bluetooth device. When the **Stream Source** is set to **AirPlay** or **UPnP/DLNA**, this light will be lit solidly to indicate a successful connection. You can then send the device's audio signal to Zonetech wirelessly.
5. **Info**: Press this knob to cycle through the **Info** pages shown in the **display**. Turn this knob to adjust the value of each setting in the **display**.
6. **Left/Right** (◀/▶): Press each of these buttons to select the previous or next option (respectively) shown in the **display**.

   Note: To reset Zonetech to factory default settings, press and hold both **Left/Right** (◀/▶) buttons while powering on. Keep holding the buttons until the factory reset message appears on the display, then release the buttons to continue.
7. **Stream**: Press this button to show the Stream settings in the display.
8. **Page**: Press this button to show the Pager settings in the display.
9. **Input 1–6**: Press each of these buttons to select the corresponding input. Its information will appear in the **display**. You can then use the **Info** knob and **Left/Right** (◀/▶) buttons to edit its settings.
10. **Zone 1–6**: Press each of these buttons to select the corresponding zone. Its information will appear in the **display**. You can then use the **Info** knob and **Left/Right** (◀/▶) buttons to edit its settings.

Rear Panel



1. **Power Input** (IEC): Use a standard IEC cable to connect this input to a power outlet.

2. **Bluetooth Antenna Connector** (SMA): Connect the included Bluetooth antenna here.

   Important: For compliance, you must use the included antenna only. No substitutions or modifications to the antenna are permitted.

3. **Inputs** (stereo RCA): Connect audio sources to these stereo input pairs.

4. **Inputs** (Euroblock): Connect balanced or unbalanced audio sources to these mono inputs.

5. **Outputs** (Euroblock): Connect line-level (-10 dBV to +4 dBu) devices to these balanced outputs. The outputs for Zones 1–5 are mono; the Zone 6 output is stereo. Alternatively, you can configure the Zone 6 output for mono use with a subwoofer (connected to the **R**(**LO**) output) and main loudspeaker (connected to the **L**(**HI**) output).

6. **Logic Input** (Euroblock): Connect normally open external control contacts (relay or equivalent) to these terminals. When the terminals are connected to each other (i.e., when the switch is closed), all outputs will be muted. This would typically be used with a fire alarm system to silence audio output during an emergency.

   Note: When this mute function is active, all front-panel controls will be locked. **Mute** will appear in the **display** with a red background.

7. **Zone Remotes Ports** (RJ45, shielded Cat5e or Cat6 cables): Connect optional Rane DRZH devices to these ports, which will allow you to select sources and adjust levels for the zones remotely.

8. **Master Remote Port** (RJ45, shielded Cat5e or Cat6 cables): Connect an optional Rane DR6 remote control to this port, which will allow you to select sources and adjust levels for all zones remotely.

9. **Pager Port** (RJ45, shielded Cat5e or Cat6 cables): Connect an optional Rane RAD device (e.g., RAD16z, RAD26, etc.) to provide analog audio and logic inputs. Available functions will depend on the RAD model. Please see **rane.com/zonetech** for additional information.

   Note: When using the pager function, make sure to activate the 1 logic input on your connected RAD to allow the audio to pass.

   Note: If you do not need the pager function, you can connect an optional Rane DR6 to this port instead. This will provide the same functions as a DR6 connected to the **Master Remote port** (see #**8** above).

10. **Computer Ethernet Port** (Ethernet): Connect this port to a router or similar access point during setup. After Zonetech is properly configured, you can connect a computer to another port on the same router or access point, allowing you to use a web browser to access an interface to control Zonetech. See ***Operation*** > ***Controlling Zonetech Remotely*** for more information.

Operation

Editing Input Settings

You can use Zonetech's **display**, **Info** knob, and **Left**/**Right** (◀/▶) buttons to edit the settings of each input.

To select an input to edit, press the corresponding **Input** button (**1**–**6**) or the **Stream** button. The display will indicate which input is selected: **Input 1**–**6** or **Stream**.

To show the previous or next setting for the selected input, use the **Left**/**Right** (◀/▶) buttons (respectively). Turn the **Info** knob to adjust the value of each setting.

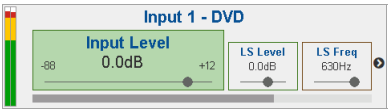
Note: **To control the input settings remotely**, you can also use a web-based interface on your computer (connected to the **Computer Ethernet port**), or up to two Rane DR6 master remote controls (connected to the **Master Remote** and **Pager port**).

These are the editable input settings. The abbreviated name (shown when the setting is not selected) is in parentheses.

Input Level (**Level**)

This is the volume level at the input stage: **-88.0** to **+12.0 dB**.

Tip: If you are unsure of what this level should be, it is better to use a lower setting to allow for headroom and to prevent clipping/distortion.



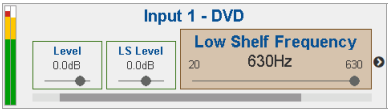
Low Shelf Level (**LS Level**)

This is the amount of "boost" (increase) or "cut" (decrease) of the low-frequency shelving filter: **-15.0** to **+8.0 dB**.

Low Shelf Frequency (**LS Freq**)

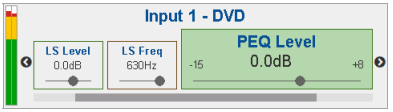
This is the center frequency of the low-frequency shelving filter: **40**–**630 Hz** (default: **630 Hz**).

Tip: Higher values allow you to boost bass frequencies more but also require more amplifier power.



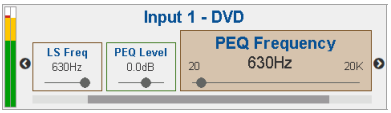
PEQ Level

This is the amount of "boost" (increase) or "cut" (decrease) of the mid-range parametric equalization band: **-15.0** to **+8.0 dB**.



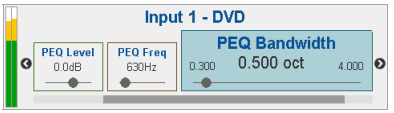
PEQ Frequency (**PEQ Freq**)

This is the center frequency of the mid-range parametric equalization band: **40 Hz – 16 kHz** (default: **630 Hz**).



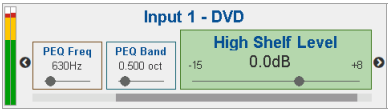
PEQ Bandwidth (**PEQ Band**)

This is the width of the mid-range parametric equalization band: **0.300–4.000 oct** (octaves) (default: **0.500 oct**).



High Shelf Level (**HS Level**)

This is the amount of "boost" (increase) or "cut" (decrease) of the high-frequency shelving filter: **-15.0** to **+8.0 dB**.



High Shelf Frequency (**HS Freq**)

This is the center frequency of the high-frequency shelving filter: **630 Hz – 16 kHz** (default: **630 Hz**).

Tip: Lower values allow you to boost treble frequencies more but increases the risk of overdriving the tweeters.

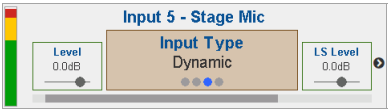
Input Type (**Type**) (Inputs 5 and 6 only)

This is the type of device connected to **Input 5** and **Input 6**: **Dynamic** (microphone), **Condenser** (microphone), **Unbalanced Line+**, **Balanced Line** (default: **Balanced Line**).

Note: Phantom power is enabled only when **Condenser** is selected.

Tip: **Unbalanced Line+** sums two unbalanced signals (such as left and right RCA lines) when one is connected to the positive (**+**) input and one is connected to the negative (**-**) input.

Tip: **Balanced Line** is a typical fully balanced line-level input (e.g., TRS or XLR) as used with commercial audio equipment.



Stream Source (**Source**)

This is the source from which Zonetech will play streamed audio: **None** (off), **Bluetooth**, **AirPlay**, **UPnP/DLNA**.

Stream

In addition to the six audio inputs on the rear panel, you can send an audio signal wirelessly through Zonetech to any zone using Bluetooth®, AirPlay®, UPnP and DLNA®. This signal uses its own input channel.

Bluetooth

To pair/connect your Bluetooth device to Zonetech:

1. On Zonetech, press the **Stream** button to access the Stream settings.
2. Use the **Left/Right** (◀/▶) buttons to select the **Stream Source** (**Source**) setting. Then, turn the **Info** knob to select the **Bluetooth** option.
3. Use the **Left/Right** (◀/▶) buttons to select the **Bluetooth Pairing** (**Pairing**) setting. Then, turn the **Info** knob to select **Enabled**. Zonetech's **Stream Light** will begin flashing.
4. On your Bluetooth device, enter its Bluetooth settings, find **Zonetech** and connect to it. The **Stream Light** will be solid blue when it is connected.

Notes:

- **IMPORTANT:** Bluetooth and WiFi may not both be in use at the same time. When Bluetooth is enabled, WiFi will be disabled.
- If your device requires a passcode or PIN, enter **0000**.
- If your Bluetooth device is not able to connect to Zonetech, set the **Stream Source** (Source) to **None** to disconnect previous Bluetooth connections, and try the above steps again.
- If you experience trouble connecting or playing music, make sure your Bluetooth device's operating system is up to date.

To unpair/disconnect your Bluetooth device from Zonetech, set the **Stream Source** (**Source**) setting to **None**. Zonetech will disconnect from your Bluetooth device. Alternatively, disconnect using the Bluetooth settings on your device.

To stream the Bluetooth audio signal to an output on Zonetech:

1. On Zonetech, press the **Stream** button to access the Stream settings.
2. Follow the directions ***above*** to pair your Bluetooth device to Zonetech.
3. Press and release the **Zone** button (**1**–**6**) for the zone where you want to send the Bluetooth audio signal.
4. Use the **Left/Right** (◀/▶) buttons to select the **Input Source** (**In Source**) setting.
5. Turn the **Info** knob to select the **Stream** option. That zone is now receiving the audio signal from your Bluetooth device.

AirPlay

Select this option to connect a device to Zonetech using Apple AirPlay.

1. Make sure your AirPlay-enabled Apple device and Zonetech are powered on and connected to the same network.
2. On Zonetech, press the **Stream** button to access the Stream settings.
3. Use the **Left**/**Right** (◀/▶) buttons to select the **Stream Source** (**Source**) setting. Then, turn the **Info** knob to select the **AirPlay** option.
4. On your Apple device, select the AirPlay icon, then select **Zonetech**. When the connection is established, the **Stream light** will be lit solidly.
5. Begin playback on your device.

UPnP and DLNA

Select this option to use Zonetech as a DLNA (Digital Living Network Alliance) Digital Media Renderer (DMR). This allows you to stream media directly to Zonetech from a PC (or other device) on the same network. Directions for setting up a DLNA media server may differ depending on your computer's operating system and the program you would like to use. Consult your media server's documentation to find out how to set up media streaming.

1. Make sure the PC and Zonetech are powered on and connected to the same network.
2. On your PC, open a DLNA compatible media server. Windows Media Player is recommended for most users, but other software can be used.
3. On Zonetech, press the **Stream** button to access the Stream settings.
4. Use the **Left**/**Right** (◀/▶) buttons to select the **Stream Source** (**Source**) setting. Then, turn the **Info** knob to select the **UPnP/DLNA** option.
5. In Windows Media Player, right-click the track you would like to play. Navigate to **Play To** and select **Zonetech**. When the connection is established, the **Stream light** will be lit solidly.

   Note: If Zonetech does not appear in your list of devices, make sure your PC has been set to allow media streaming access for Zonetech.
6. A Play To menu will appear where you can add and remove tracks and control the playback on Zonetech.

Editing Output (Zone) Settings

You can use Zonetech's **display**, **Info** knob, and **Left**/**Right** (◀/▶) buttons to edit the settings of each output (zone):

To select a zone to edit, press the corresponding **Zone** button (**1**–**6**). The display will indicate which zone is selected: **Zone 1**–**6**.

To show the previous or next setting for the selected zone, use the **Left**/**Right** (◀/▶) buttons (respectively). Turn the **Info** knob to adjust the value of each setting.

Note: **To control the zone settings remotely**, you can also use a web-based interface on your computer (connected to the **Computer Ethernet port**), one Rane DRZH remote control per zone (connected to the **Zone Remotes ports**), or up to two Rane DR6 master remote controls (connected to the **Master Remote** and **Pager port**). See ***Controlling Zonetech Remotely*** for more information.

These are the editable zone settings. The abbreviated name (shown when the setting is not selected) is in parentheses.

Output Level (**Level**)

This is the output volume level: **-30.0** to **+12.0 dB** (default: **0.0 dB**). This is the master volume of the zone.

Input Source (**In Source**)

This is the audio source of the zone: **Input 1**–**6** or **Stream**.

Priority Source (**Pr Source**)

This is the audio source that will play automatically when an incoming signal is detected: **Input 1**–**6** or **Stream**.

Tip: Enabling this feature is ideal for automatic switching between audio sources, such as ducking background music when a television is turned on.

Priority Hold Time (**H Time**)

This determines how long it will take (in seconds) for the output to switch back to the original audio source after the priority source signal falls below the threshold: **1**–**60 Sec** (default: **3 Sec**).

Tip: Avoid setting this value too low, which can cause unintended switching between signals.

Low Shelf Level (**LS Level**)

This is the amount of "boost" (increase) or "cut" (decrease) of the low-frequency shelving filter: **-15.0** to **+8.0 dB**.

Low Shelf Frequency (**LS Freq**)

This is the center frequency of the low-frequency shelving filter: **40**–**630 Hz** (default: **630 Hz**).

Tip: Higher values allow you to boost bass frequencies more but also require more amplifier power.

PEQ Level

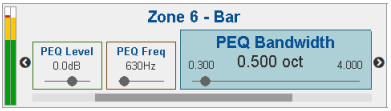
This is the amount of “boost” (increase) or “cut” (decrease) of the mid-range parametric equalization band: **-15.0** to **+8.0 dB**.

PEQ Frequency (**PEQ Freq**)

This is the center frequency of the mid-range parametric equalization band: **40 Hz** – **16 kHz** (default: **630 Hz**).

PEQ Bandwidth (**PEQ Band**)

This is the width of the mid-range parametric equalization band: **0.300–4.000 oct** (octaves) (default: **0.500 oct**).



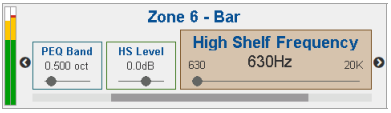
High Shelf Level (**HS Level**)

This is the amount of “boost” (increase) or “cut” (decrease) of the high-frequency shelving filter: **-15.0** to **+8.0 dB**.

High Shelf Frequency (**HS Freq**)

This is the center frequency of the high-frequency shelving filter: **630 Hz** – **16 kHz** (default: **630 Hz**).

Tip: Lower values allow you to boost treble frequencies more but increases the risk of overdriving the tweeters.



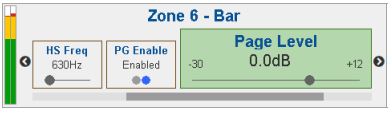
Page Enable (**PG Enable**)

This feature determines whether or not the zone will receive an audio signal from the pager: **Enabled** (on), **Disabled** (off).

Note: If this feature is on, remember to set the **Output Paging Level**, which is independent of the normal Zone Output Level.

Page Level (**PG Level**)

This is the output volume level of the pager: **-30.0** to **+12.0 dB** (default: **0.0 dB**).



Page Ducker Depth (**PG Duck**)

This determines how much the pager, when activated, will attenuate the normal output signal: **0.0** to **-85.0 dB** (default: **-12.0 dB**).

Tip: Setting this to **-85.0 dB** will completely mute the normal output signal when the pager is on.

Limiter Threshold (**Threshold**)

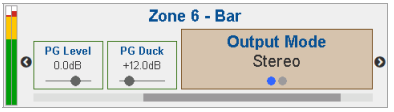
The limiter ensures the output audio signal does not exceed this volume level: **-60.0** to **0.0 dB** (default: **0.0 dB**).

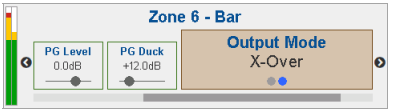
Note: If a device (e.g., a power amplifier) later in the signal path than Zonetech is using a limiter, the limiter with a lower threshold will determine the maximum level.

Output Mode (**Mode**) (Zone 6 only)

This determines whether Zone 6's output signal is stereo (left and right) (**Stereo**) or mono with two-way crossover (**X-Over**).

Tip: If you are using a subwoofer and main loudspeaker with this zone, use the mono setting, and use the **X-Over Freq**, **Low Level**, and **High Level** settings to manage the signal.





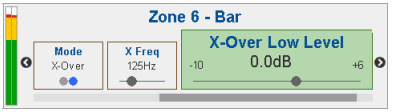
X-Over Frequency (**X Freq**) (Zone 6 only)

This determines the frequency at which the low frequencies and high frequencies are split between the subwoofer and main loudspeaker: **80–300 Hz** (default: **125 Hz**).

X-Over Low Level (**XL Level**) (Zone 6 only)

This is the output volume level of the audio frequencies below the crossover frequency: **-10.0** to **+6.0 dB**.

Tip: This is essentially the master volume of the Zone 6 subwoofer.



X-Over High Level (**XH Level**) (Zone 6 only)

This is the output volume level of the audio frequencies above the crossover frequency: **-10.0** to **+6.0 dB**.

Tip: This is essentially the master volume of the Zone 6 main loudspeaker.

Paging

You can use Zonetech's **display**, **Info** knob, and **Left**/**Right** (◀/▶) buttons to edit the paging settings.

To view Paging settings, press the **Page** button.

To edit the Paging settings, use the **Left**/**Right** (◀/▶) buttons to show the previous or next setting (respectively). Turn the **Info** knob to adjust the value of each setting.

Note: **To control the page settings remotely**, you can also use a web-based interface on your computer (connected to the **Computer Ethernet port**), or an optional Rane RAD device (e.g., RAD16z, RAD26, etc.) connected to the **Pager port**.

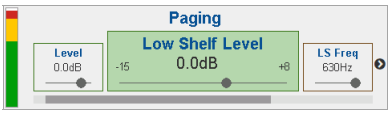
These are the editable pager settings. The abbreviated name (shown when the setting is not selected) is in parentheses.

Input Level (**Level**)

This is the pager volume level: **-88.0** to **+12.0 dB**. This is independent of the pager's chime volume level (see ***below***) and independent of the Zone level.

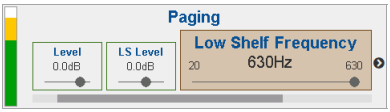
Low Shelf Level (**LS Level**)

This is the amount of "boost" (increase) or "cut" (decrease) of the low-frequency shelving filter: **-15.0** to **+8.0 dB**.



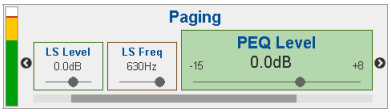
Low Shelf Frequency (**LS Freq**)

This is the frequency of the low-frequency shelving filter: **40–630 Hz** (default: **630 Hz**).



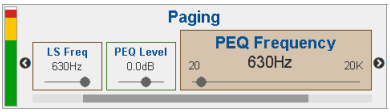
PEQ Level

This is the amount of "boost" (increase) or "cut" (decrease) of the mid-range parametric equalization band: **-15.0** to **+8.0 dB**.



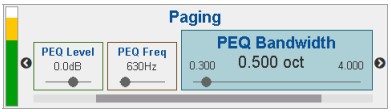
PEQ Frequency (**PEQ Freq**)

This is the frequency of the mid-range parametric equalization band: **40 Hz – 16 kHz** (default: **630 Hz**).



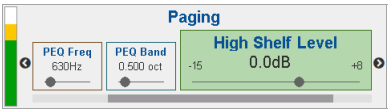
PEQ Bandwidth (**PEQ Band**)

This is the bandwidth of the mid-range parametric equalization band: **0.300–4.000 oct** (octaves) (default: **0.500 oct**).



High Shelf Level (**HS Level**)

This is the amount of “boost” (increase) or “cut” (decrease) of the high-frequency shelving filter: **-15.0** to **+8.0 dB**.



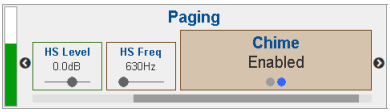
High Shelf Frequency (**HS Freq**)

This is the frequency of the high-frequency shelving filter: **630 Hz** – **16 kHz** (default: **630 Hz**).

Chime

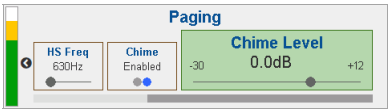
This determines whether the pager’s chime sound is on (**Enabled**) or off (**Disabled**). The chime will be mixed with the paging output signal.

Tip: If this setting is on when you use the pager, we recommend waiting a brief moment for the chime to end before making an announcement.



Chime Level (**CH Level**)

This is the volume level of the pager’s chime sound: **-30.0** to **+12.0 dB** (default: **0 dB**). This is independent of the pager’s overall volume level.



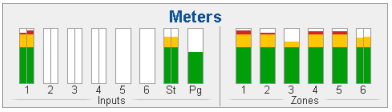
Info

You can use Zonetech's **display** to view additional Zonetech system settings. Press the **Info knob** to cycle through the following information pages.

These are the viewable Info settings.

Meters

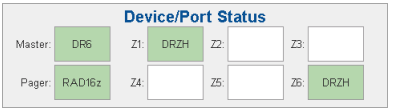
This view shows multicolor level meters for all inputs and zones.

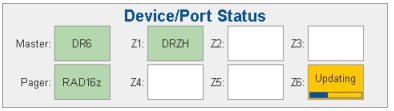


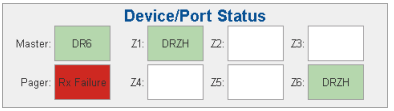
Device/Port Status

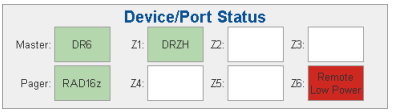
This view shows information about the devices currently connected to Zonetech and their current operations. Use this view to evaluate system faults, hardware errors, and other issues.

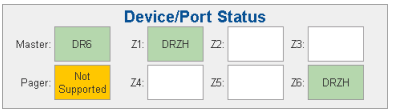
Important: When diagnosing or troubleshooting your system, always begin by reviewing this information.







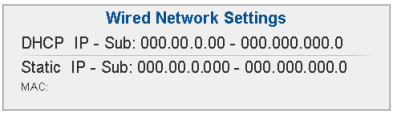




Wired Network Settings

This view shows the wired network address, subnet, and status.

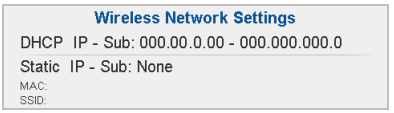
Important: When diagnosing or troubleshooting your system, always begin by reviewing this information and the **Wireless Network Settings**.



Wireless Network Settings

This view shows the wireless network address, subnet, and status.

Important: When diagnosing or troubleshooting your system, always begin by reviewing this information and the **Wired Network Settings**.



Zonetech Device Information

This view shows information about Zonetech: the name of the location (**Venue name**), the current firmware version (**Firmware Version**), and serial number of the unit (**Serial Number**).

Controlling Zonetech Remotely

There are a few different ways to control various Zonetech functions remotely:

- You can use a computer to access a web-based interface to control all Zonetech functions. See ***Computer*** below.

  Note: Some controls are only available through the web interface.

- You can use a Rane DR6 remote device to control all input levels, output (zone) levels, and zone source selections. See ***Master Remote*** below.
- You can use a Rane DRZH to control the output (zone) functions. See ***Zones*** below.

Computer

You can use a web-based interface on your computer to control Zonetech remotely.

To set up Zonetech for use with its web interface:

1. Use standard Ethernet cables to connect Zonetech's **Computer Ethernet port** to a DHCP (Dynamic Host Configuration Protocol)-enabled router or similar access point, and then connect your computer to that same router or access point.
2. Once connected to a network, Zonetech will automatically acquire a dynamic IP address that you can use. This may take a few seconds.
3. Press the **Info** button on Zonetech until the **Wired Network Settings** appear on the **display**, and then make note of the **DHCP IP** address (e.g., **10.10.10.182**).

To open the Zonetech web interface:

1. Open a web browser on your computer.
2. In the browser, enter the **DHCP IP** address shown in Zonetech's **Wired Network Settings** (e.g., **http://10.10.10.182**) to load the web interface.
3. Press the **Login** button, and then enter the password for **Full** access mode. The default password is **admin**.

To use the web interface, log-in to either the **Full** or **Limited** access options using your password. If no password has been set, users will be logged in automatically at that access level. By default, Zonetech is shipped in Full access mode.

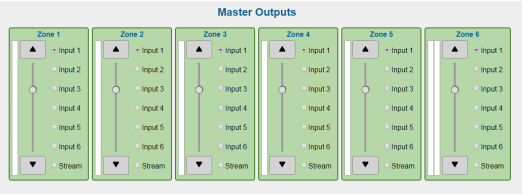
If you need to switch between Full and Limited access modes, use the **Logout** button in the top left corner of the page.

To edit settings in either mode, click the arrows or move the slider to adjust a value, or click a radio button to select an option.

These are the editable settings for **Limited** access mode:

Master Outputs

This page provides controls for output volume level and input audio source.



In **Full** access mode, click the tabs at the top of your web browser to navigate between pages.

These are the editable settings for each tab in **Full Access** mode:

Input 1–6, Stream, and Page

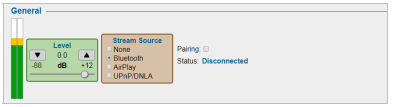
General

Level: This is the volume level at the input stage.

Input Type (Input 5 and 6 Tabs)**:** This is the type of device connected to **Input 5** and **Input 6**.

Stream Source (Stream Tab)**:** This is the source from which Zonetech will play streamed audio. Select **None**, **Bluetooth**, **AirPlay**, or **UPnP/DLNA**.

Pairing and **Status** (Stream Tab)**:** When the **Stream Source** is set to **Bluetooth**, click the **Pairing** checkbox to enter Pairing mode and connect your Bluetooth device. The **Status** shows the current state of Bluetooth.

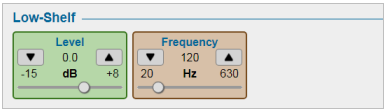


Input 1–6, **Stream**, and **Page** (continued)

Low Shelf

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the low-frequency shelving filter.

Frequency: This is the center frequency of the low-frequency shelving filter.

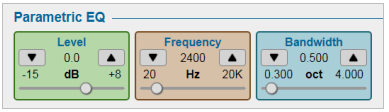


Parametric EQ (PEQ)

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the mid-range parametric equalization band.

Frequency: This is the center frequency of the mid-range parametric equalization band.

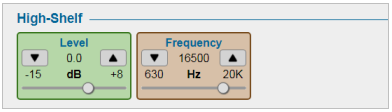
Bandwidth: This is the width of the mid-range parametric equalization band.



High-Shelf

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the high-frequency shelving filter.

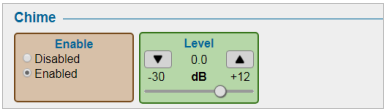
Frequency: This is the center frequency of the high-frequency shelving filter.



Chime (Page Tab)

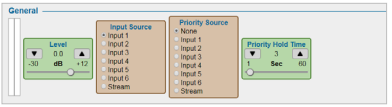
Enable: This determines whether the pager’s chime sound is on (**Enabled**) or off (**Disabled**). The chime will be mixed with the paging output signal.

Level: This is the volume level of the pager’s chime sound. This is independent of the pager’s overall volume level.



Zones (Outputs)

General



Level: This is the output volume level.

Input Source: This is the audio source of the zone.

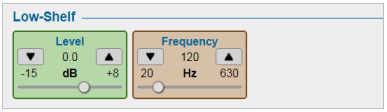
Priority Source: This is the audio source that will play automatically when an incoming signal is detected.

Priority Hold Time: This determines how long it will take (in seconds) for the output to switch back to the original audio source after the priority source signal falls below the threshold.

Low Shelf

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the low-frequency shelving filter.

Frequency: This is the center frequency of the low-frequency shelving filter.

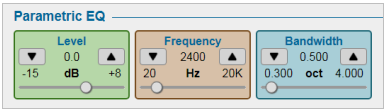


Parametric EQ (PEQ)

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the mid-range parametric equalization band.

Frequency: This is the center frequency of the mid-range parametric equalization band.

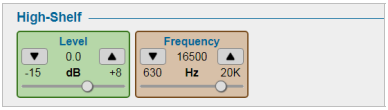
Bandwidth: This is the width of the mid-range parametric equalization band.



High-Shelf

Level: This is the amount of “boost” (increase) or “cut” (decrease) of the high-frequency shelving filter.

Frequency: This is the center frequency of the high-frequency shelving filter.



Paging

Enable: This feature determines whether or not the zone will receive an audio signal from the pager.

Level: This is the output volume level of the pager.

Ducker Depth: This determines how much the pager, when activated, will attenuate the normal output signal.

Zones (continued)

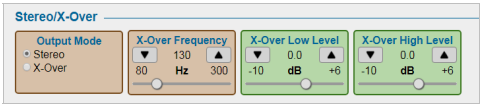
Stereo/X-Over (Zone 6 only)

Output Mode This determines whether Zone 6's output signal is stereo (left and right) (**Stereo**) or mono with two-way crossover (**X-Over**).

X-Over Frequency: This determines the frequency at which the low frequencies and high frequencies are split between the subwoofer and main loudspeaker.

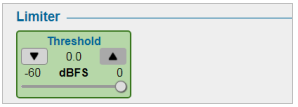
X-Over Low Level: This is the output volume level of the audio frequencies below the crossover frequency.

X-Over High Level: This is the output volume level of the audio frequencies above the crossover frequency.



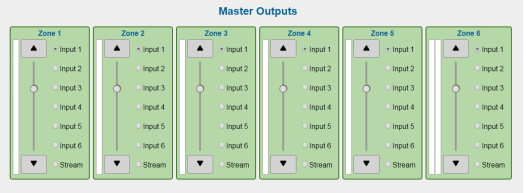
Limiter

Threshold: The limiter ensures the output audio signal does not exceed this volume level.



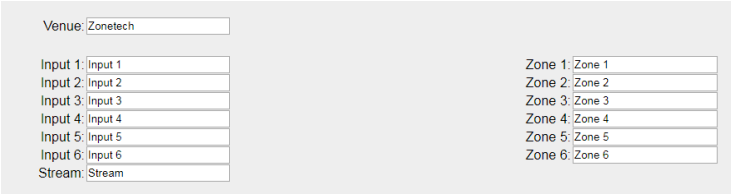
Master

This tab provides an overview of controls for output volume level and input audio source.



Naming

Use this tab to rename the **Venue**, **Inputs**, and **Zones**.



Important: When diagnosing or troubleshooting your system, always begin by reviewing the Wired Network Settings and Wireless Network Settings below.

Settings	
Device Information **Firmware Version:** This is current firmware version running on your Zonetech. **Serial Number:** This is the serial number of your Zonetech unit.	**Wired Network Settings** **DHCP IP and Subnet Mask:** This is the dynamic IP address and subnet mask assigned through DHCP (Dynamic Host Configuration Protocol), if supported by your network. **Static IP and Subnet Mask:** Enter a manually assigned IP address and subnet mask for the connected wired network. **MAC Address:** This displays the unique MAC (Media Access Control) address of your Zonetech device.
Wireless Network Settings **Enable:** This enables or disables wireless network connection. **SSID:** This is the name of the connected wireless network. **Password:** This is the password of the connected wireless network. **Connection Status:** This is the status of the current wireless network connection. **Available SSIDs:** These are the available wireless networks within range of your Zonetech. **DHCP IP and Subnet Mask:** This is the dynamic IP address and subnet mask assigned through DHCP, if supported by your network. **Static IP and Subnet Mask:** Enter a manually assigned IP address and subnet mask for the connected wireless network. **MAC Address:** This displays the unique MAC address of your Zonetech device.	**Security Levels** **Full Access Password:** This is the password used for entering Full access mode in the web interface. **Limited Access Password:** This is the password used for entering Limited access mode in the web interface. **Note:** When a password is empty, users will be logged in automatically at that level. **Front Panel Security:** This sets the access level for the front panel controls: **Full**, **View Only**, or **Limited**. **Note:** In **View Only** mode, no changes to any settings are permitted.

Settings (continued)	
Configuration **Save Settings:** This allows you to save your system settings to a **.zonetech** file. **Send Settings:** This allows you to send saved settings to a Zonetech device.	**Firmware Update** **Update Firmware:** This allows you to check for firmware updates and update your Zonetech.

Master Remote

You can use up to two Rane DR6 as master remote controls, allowing you to control all input levels, output (zone) levels, and zone source selections. Please visit **rane.com/HAL** and refer to the documentation for DR6 and the Halogen system to for additional information.

To set up Zonetech for use with a DR6, use a shielded Cat5e or Cat6 Ethernet cable to connect the DR6 to the **Master Remote port** on Zonetech. You can also connect a second DR6 to the **Pager port** if it is not in use. (Remember to connect your DR6 to a power outlet through a Rane RPI.)

Zones

You can use one to six Rane DRZH units to control the functions of one or more zones. Please visit **rane.com/HAL** and refer to the documentation for DRZH and the Halogen system for additional information.

To set up Zonetech for use with one or more DRZH units, use shielded Cat5e or Cat6 Ethernet cables to connect each DRZH to a **Zone Remotes port** on Zonetech.

Troubleshooting

If you encounter a problem, try doing these things first:

- Make sure all cables and other connected devices are properly and securely connected.
- Make sure you are using Zonetech as described in this user guide.
- Make sure your other devices or media are working properly.
- If you believe Zonetech is not working properly, check the following table for your problem and solution.

Problem:	**Solution**:	**Please see**:
Power does not turn on.	Make sure Zonetech's **power input** is properly connected to a power outlet using the included power cable.	***Setup***
Zonetech does not produce any sound, or the sound is distorted.	Make sure all cable and device connections are secure and correct. Make sure none of the cables are damaged. Make sure all devices connected to Zonetech are properly powered, connected, and supported. Check the hardware connections as well as the **Info** page. Make sure the settings on your Bluetooth device, loudspeaker, mixer, etc. are correct.	***Setup***, ***Operation*** > ***Info***
Audio from my Bluetooth device does not play through Zonetech.	Make sure WiFi is turned off. Bluetooth will be disabled when WiFi is active. Make sure you have properly paired your Bluetooth device. Improve the Bluetooth signal reception by moving your Bluetooth device closer to Zonetech. Also, remove obstacles (walls, furniture, etc.) so there is a clear line of sight between your Bluetooth device and Zonetech.	***Setup***, ***Operation*** > ***Stream*** > ***Bluetooth***
Pairing my Bluetooth device to Zonetech requires a PIN.	Enter **0000** as the PIN. (Some older Bluetooth devices may require you to enter a PIN.)	***Operation*** > ***Stream*** > ***Bluetooth***

Appendix

Technical Specifications

Audio Inputs	**Connectors**	(4) RCA stereo input pairs (1) 6-pin 3.8 mm Euroblock input (balanced mic/line level, green)
	Maximum Input Level	+20 dBu
Audio Outputs	**Connectors**	(3) 6-pin 3.8 mm Euroblock outputs (Zones 1–4 & 6, balanced line level, orange) (1) 3-pin 3.8 mm Euroblock output (Zone 5, balanced line level, orange)
	Impedance	200 Ω, each leg to ground
	Maximum Output Level	+20 dBu
Frequency Response	40 Hz – 16 kHz (+0/-3 dB)	
Dynamic Range	111 dB (A-weighted)	
THD+N	0.005% (+4 dBu output, 1 kHz)	
Bluetooth Specifications	**Version**	4.1
	Profile	A2DP
	Range	Up to 100 feet / 30.5 meters *
	Maximum Transmission Power	Class 1 (10 dBm max)
	Frequency	2402–2480 MHz
Display	**Type**	RGB TFT
	Dimensions	3.9” x 1.2” / 99 x 30 mm (width x depth) 4.1” / 104 mm (diagonal)
	Resolution	480 x 128

Other Connectors	(6) RJ45 ports (Zone 1–6 remote control via DRZH) (1) RJ45 port (master remote control) (1) RJ45 port (pager) (1) Ethernet port (computer) (1) 2-pin 3.8 mm Euroblock input (TTL [digital logic], black) (1) SMA antenna input (Bluetooth) (1) IEC power cable input	
Operating Temperature	32–95°F / 0–35°C (non-condensing)	
Power	**Connection**	IEC
	Voltage	100–240 VAC, 50/60 Hz
	Consumption	50 W
Dimensions (width x depth x height)	19” x 8.7” x 1.7” 482 x 220 x 44 mm	
Weight	6.06 lb. 2.75 kg	

Specifications are subject to change without notice. Bluetooth range is affected by walls, obstructions, and movement. For optimal performance, place the product in the center of the room so it is unobstructed by walls, furniture, etc.

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