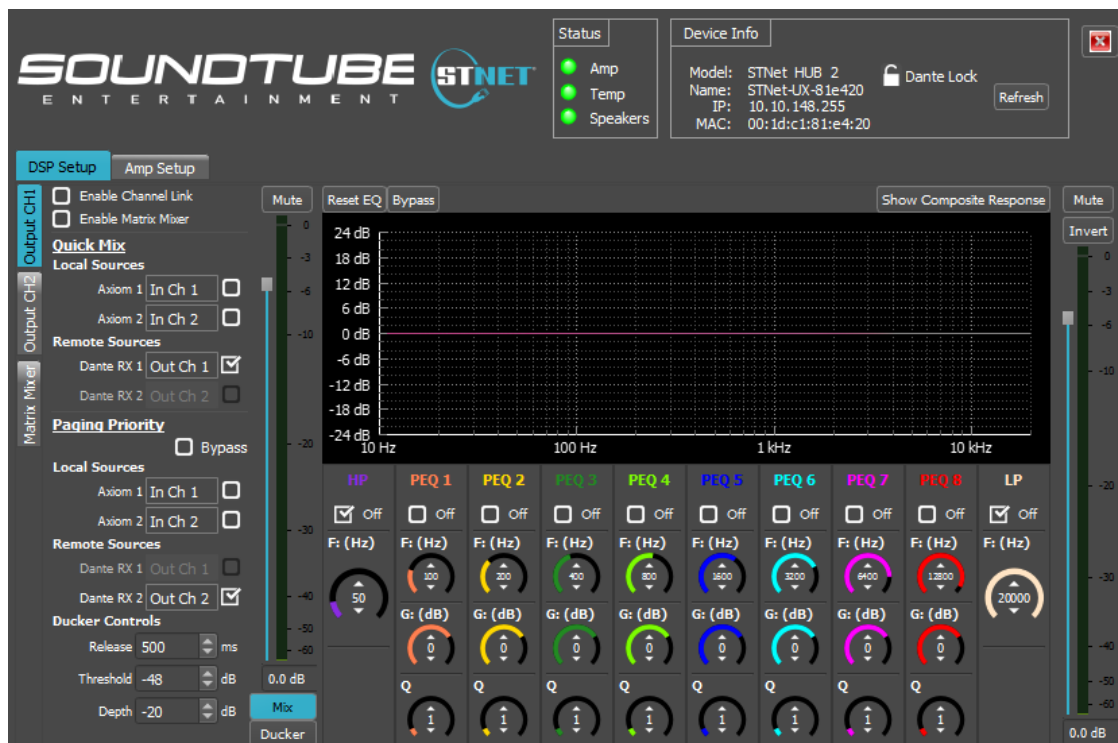


STNet Control Center

IPD-Hub 2 Configuration



User Manual

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The configuration form for the IPD-Hub 2 is organized into three key sections:

- Status - Various status indications for the connected device
- DSP Setup
- Amp Setup

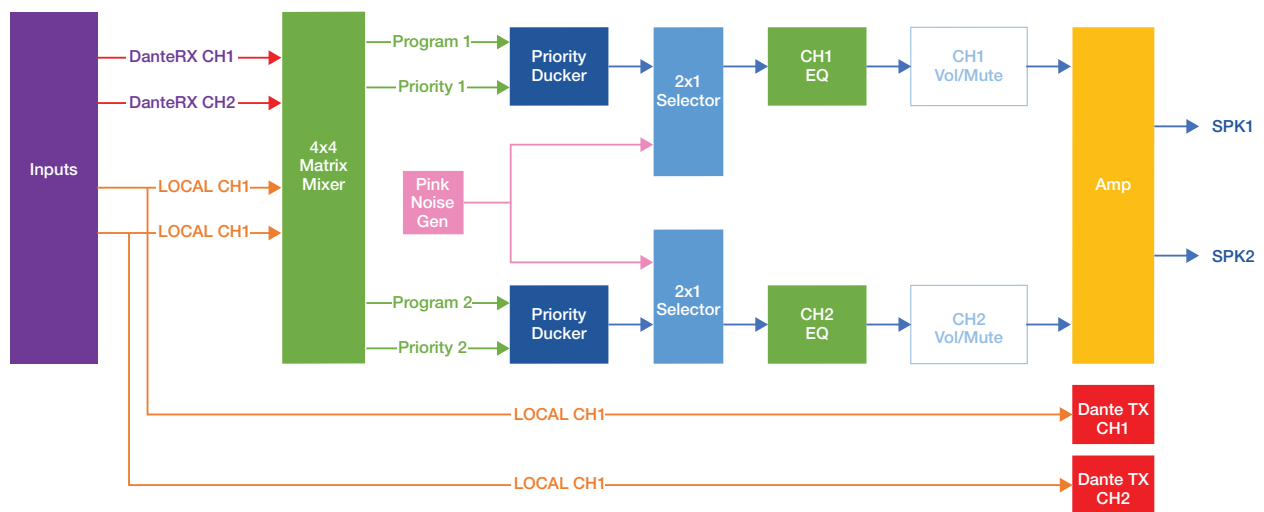
1 – Status

The status section shows indications of the overall state of the device. A red indicator means there is a problem as follows:

- Amp - Problem with the amp such as a short circuit on one of the outputs
- Temp - Amplifier has exceeded its maximum temperature
- Speakers - If impedance testing is turned on, impedance testing results show possible speaker fault

2 – DSP Setup

The diagram below shows the DSP blocks the IPD-Hub 2 implements.



2.1 – Enable Channel Link

Each output channel has its own set of DSP controls. If the same settings need to be applied to both outputs, the two sets of channel controls can be “linked” so there is only one set of controls which applies equally to both channels. The “Enable Channel Link” toggles between individual channel settings and linked channel settings.

2.2 – Enable Matrix Mixer

The matrix mixer can be configured in two ways.

1. Using the Quick Mix controls which set the internal mixer cross points to either their maximum or minimum value
2. Use the “Matrix Mixer” knob controls for more granular settings

The “Enable Matrix Mixer” control switches the matrix mix control options between using the Quick Mix controls and the full Matrix Mixer controls.

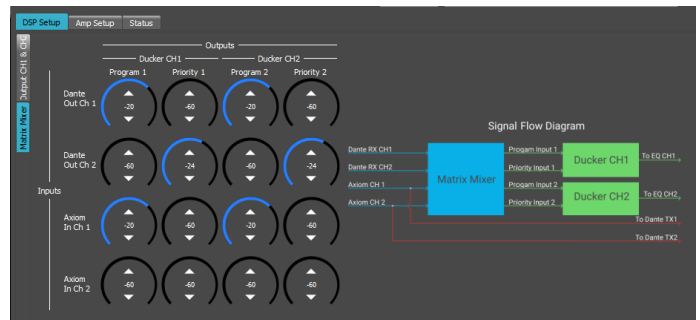
***Note:** Although both the Quick Mix and Matrix Mixer settings are applied to the same internal mixer controls, the control settings are independently maintained and will retain whatever they were set to when switching between mixer control modes.

2.3 – Quick Mix Controls

The “Quick Mix” set of controls allows selection of which audio input is mixed in for the selected output. The mix can be made up from any combination of local sources (audio from devices connected to the Local/AXIOM port) or remote sources (audio received over the network). Enabling any channel using the quick mix controls turns the internal matrix mixer cross point knob to its maximum, while deselecting it turns the knob to its minimum.

2.4 – Matrix Mixer

The Matrix Mixer allows control of audio from the local and remote inputs to the program and priority audio streams of both Channel 1 and Channel 2. If an output channel’s controls are disabled within the Matrix Mixer tab, “Matrix Mixer” mode has not been selected under that channel’s “Output CH_” tab.



2.5 – Paging Priority

Selects the channel’s mix for the priority page audio from both available local sources (audio from devices connected to the Local/AXIOM port) and remote sources (audio received over the network).

***Note:** Any audio used as part of the main output audio cannot be used as part of the priority paging channel audio. Any input that is selected under Quick Mix cannot also be selected under Paging Priority, and vice versa. A particular input can only be ducked by another input which is not already selected under the Local or Remote Sources section.”

Other controls are as follows:

2.5.1 – Bypass - Allows the Paging Priority function to be turned on or off as required

2.5.2 – Release - Time the paging audio must remain below the threshold that triggers switching back to the main audio channel

2.5.3 – Threshold - Level at which the paging audio activates the priority paging ducker

2.5.4 – Depth - Level the main channel is reduced by when the priority paging ducker activates

2.6 – Pre-EQ Gain

This is a gain control applied after the mixer/ducker. This control also has an associated mixer that can be switched to show the meter values for the main channel audio of the priority paging audio instead. This level can be adjusted by an external control such as the SoundTube RVC-1.

2.7 – EQ Controls

The output EQ consists of a high-pass filter, eight bands of parametric EQ, and a low-pass filter. Each individual filter is fully configurable and individual filters can be turned on or off using the “Off” control. The results of the filtering are shown in the response graph. Other EQ controls are as follows:

2.7.1 – Reset EQ - Resets all EQ settings back to default (flat response)

2.7.2 – Bypass - Bypasses the entire EQ section without erasing previously-configured EQ settings

2.7.3 – Show Composite Response - Toggles graph between individual EQ responses (color coded) and overall response

2.8 – Save Presets

Using the Save Presets button at the top ribbon/toolbar allows the current settings to be saved to a preset in non-volatile memory on the selected device. Use the dropdown list to select which preset the current settings will be stored to, then click the “Save to Device” button. On all SoundTube devices, the “Default” preset option is used to store the power-on defaults. Any settings stored in the “Default” preset will be re-loaded upon the speaker powering up (like in the event of a system reboot or power drop). The power-on defaults can be reset back to factory settings with the “Restore Defaults” button.

***WARNING: Use this with care!**

3 – Amp Setup

DSP Setup **Amp Setup**

Save Settings

Power Mode ☐ 40W Enable

Power Source

☐ DC ☒ PoE+ ☐ PoE

Impedance Monitor Configuration

☐ Speaker 1 ☒ Speaker 2 **Status** ☒ ☒

RVC Setup Status: **Uncalibrated** **Calibrate**

Link to: **None**

RVC Min: 0.00 RVC Max: 1.66

Zone Assignment: **None**

Axiom Port - Local Input / Dante TX Channel Labels **Dante RX Channel Labels**

Channel 1: **In Ch 1** Channel 1: **Out Ch 1**

Channel 2: **In Ch 2** Channel 2: **Out Ch 2**

Pink Noise

☐ Enable

Level: 0.0dB

Preset Select

☐ Enable

Preset Assignment: **Preset 1**

3.1 – Power Mode

Indicates the current method being used to power the device: 24V DC Power Supply (local power), PoE, or PoE+. The 40W Enable option allows the SoundTube STNet Switch II's proprietary 40W per channel to be toggled on or off.

3.2 – Impedance Monitoring

Allows enabling/disabling of impedance monitoring for each speaker output with an indication of the current monitoring state.

3.3 – RVC Setup

These are controls related to the optional SoundTube RVC-1 device that can be used.

3.3.1 – Status - Current status of the calibration

3.3.2 – Calibrate - Button used to initiate calibration of connected RVC device. The RVC must be calibrated when first connected to the IPD-HUB 2

3.3.3 – Link To - Select the output channel the RVC will control. Can be set to Amp Output 1, Amp Output 2, or Both Amp Outputs

3.3.4 – RVC Min/Max - Indicates the measured values when the RVC was previously calibrated

3.4 – Zone Assignment

Allows selection of a zone. All IPD-HUB 2's in a zone are controlled by the RVC in that zone for Volume and Preset selection.

The optional IPD-Hub 2 Extender Box (IPD-EXT BOX) allows a single local audio input to be sent to multiple IPD-Hub 2 units within a zone. An additional Extender Box is required when sending audio to more than five IPD-Hub 2 units.

3.5 – Pink Noise

Allows configuration of the internal pink noise generator in the DSP

3.5.1 – Enable - When enabled, pink noise generator audio will replace the regular audio on both outputs

3.5.2 – Level - Sets level of the pink noise being generated

3.6 – Preset Select

Another control used in conjunction with the SoundTube RVC-1 allowing the RVC to switch device settings between the default settings and the values stored in the preset assignment section of the Amp Setup window. Toggling the “Enable” button under Preset Select allows the RVC to toggle between the “Default” preset and the preset selected in the Preset Assignment section of the Amp Setup tab.

3.6.1 – Enable - Changing the state to ON switches the configuration to use the alternative preset settings. Switching back to OFF returns the settings to power-on defaults.

3.6.2 – Preset Assignment - Select the alternative preset used when this function is activated.

3.7 – Save Settings

Clicking the “Save Settings” button will save all settings and configuration changes made on the Amp Setup page ONLY. Use the “Save Presets” feature to save changes that were made in the DSP Setup page.

4 – RDL Cable (AC-HUB2-CBL-RDL)

4.1 – Installation - The RDL adapter cable must be used when an RDL Format A sender is used with an RVC and IPD-Hub 2. The cable converts a Format A sender’s twisted pair B and C to the RVC and Hub 2’s channel A and B inputs. Format A twisted pair A is not used with the RVC and IPD-Hub 2.

1. Set the RDL Format A sender to twisted pair B and/or C (Do not use twisted pair A).
2. Connect the white end of the adapter to the RDL sender.
3. Connect the yellow end of the adapter to the RVC input.
4. Connect the RVC output to the IPD-Hub 2.

Note: To connect the RDL sender directly to the IPD-Hub 2, connect the yellow end of the adapter to the yellow input port on the IPD-Hub 2. Use an off-the-shelf female-to-female coupler to extend the adapter cable if needed.



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