



software firmware

The MCXD Desktop User Station



The Green-GO MCXD Desktop Station provides direct access to up to 32 high quality, low latency channels or functions over two pages of 18 fields. Controlled via 3 color TFT touchscreens indicating the name, volume level, and status of a channel or function. With 18 associated multicolor push-buttons controlling each channel's screen features; Talk, Listen, Call, or Cue depending on which function is selected. A multifunction encoder allows for easy volume adjustments and menu control.

Audio is presented through a front mounted XLR3F MIC connector (stalk microphone not included) and integrated loudspeaker or rear mounted XLR4M HEADSET connector (headset not included). The back panel includes two Ethernet LAN ports with an internal 10/100 Mbps switch and PoE power input, a 12V DC connector for an optional power supply, a set of 4-wire (1x in, 1x out) and a D-SUB 9 GPIO connection (2x in, 2x out).

The additional Green-GO [MCXEXT Rack Extension](#) or [MCXDEXT Desktop Extension](#) operates as a slave device to the MCXD. Up to 9 Green-GO Multi-Channel Rack or Desktop Extensions can be daisy-chained to one MCXD Desktop Station.

What's in the Box?

The Green-GO MCXD Desktop Station comes with the following package contents:

- 1 x Green-GO MCXD desktop station
- 1 x Printed quickstart guide



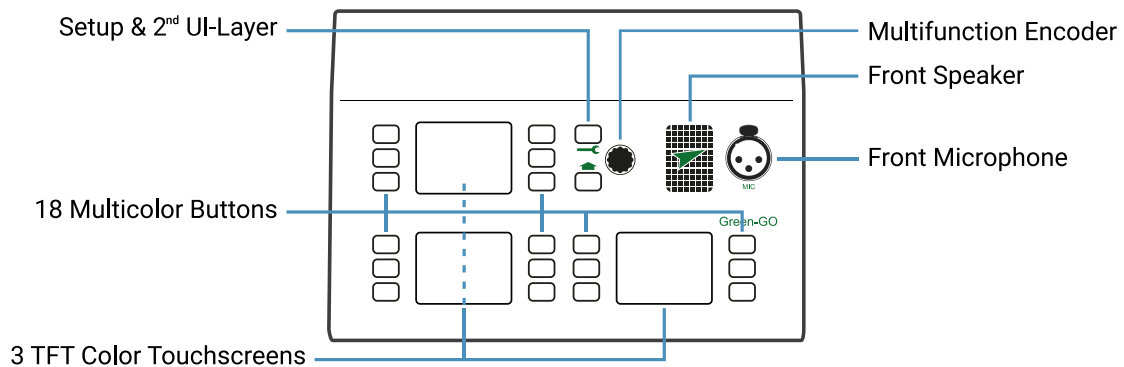
Optional Green-GO accessories



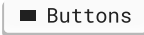
- Green-GO 12V DC power supply
- Green-GO GNM300 & GNM430 goose-neck microphone
- Green-GO HS200S single ear & HS200D dual ear headset
- Green-GO PoE network switches

Device overview

Front panel



18 Multicolor Buttons

The 18 multicolor  Buttons are primarily used to open a channel for voice communication or to control a function. As a secondary function, the multicolor buttons serve as a status indicator with their back-light.

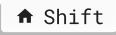
3 TFT Touchscreens

Status information on channels or functions is presented to the user in a clear and compact manner on three full-color TFT touchscreens. Each display provides easy access to a bank of six freely configurable channels or functions.

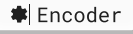
1 Setup Button

The  Setup button mainly provides easy access to the setup menu.

1 Shift Button

The  button accesses a second layer for channel or function operation.

1 Multifunction Encoder

The multifunction  allows for rotation and clicks and is mainly used to navigate the setup menu or control specific functions like volume control.

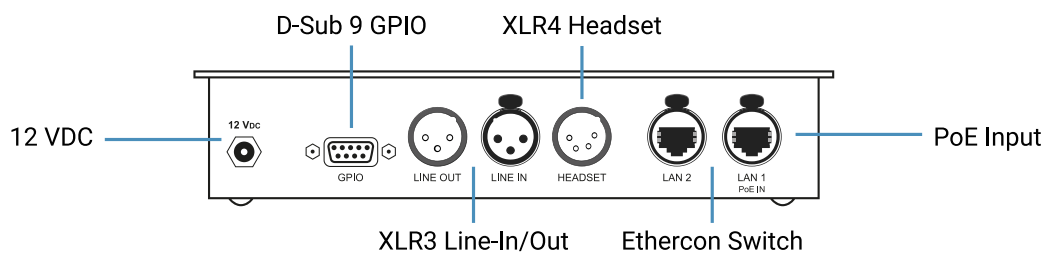
1 Front Speaker

The MCXD desktop station comes with an internal 2-watt loudspeaker.

1 Neutrik XLR3-Female Microphone Connector

The XLR3 female microphone connector optionally supplies microphones with up to 10 V of power.

Back panel



1 12V DC Barrel Connector

The 12V DC barrel connector serves as the secondary power input and can be used with an optional power supply.

1 D-Sub 9 GPIO Connector

A [GPIO](#) D-Sub9 connector serves two in- and outputs for external control interfacing.

1 Neutrik XLR3-Female Line-Input

The balanced XLR3 male line-input connector allows injecting analog audio signals via [groups](#) into a Green-GO intercom system.

1 Neutrik XLR3-Male Line-Output

The balanced XLR3 female line-output connector allows extracting analog audio signals from a [group](#) to external receivers.

1 Neutrik XLR4-Male Headset Connector

It is possible to connect any headset to the XLR4 male connector. The built-in amplifier supports an impedance range from 32 to 600 Ω.

1 2-Port 10/100 Mbps Neutrik EtherCON Switch

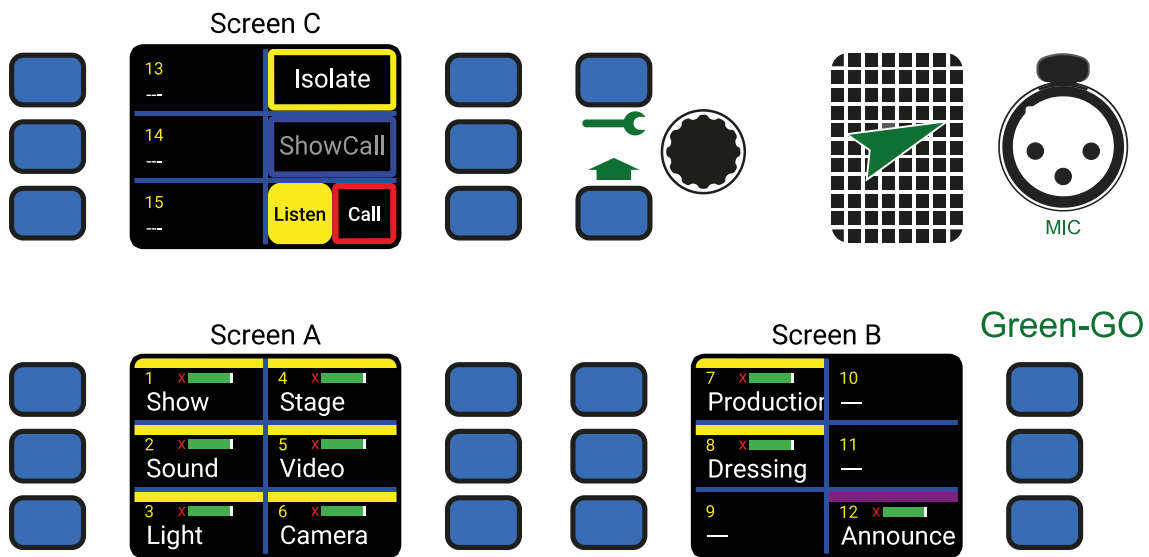
A 2-port 10/100 Mbps network switch with Neutrik EtherCON connectors. The first network port LAN 1 accepts [PoE \(IEEE 802.3af\)](#) and is the primary power input for the device.

The user interface

To explain the user interface, you can divide and present it into three main areas: Channel and function control, setup and layer control, and lastly, the audio hardware consisting of the speaker and connectors for a microphone and headset.

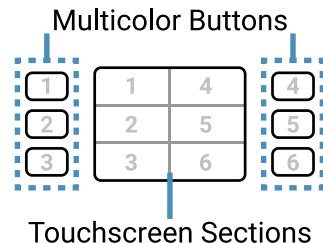
Tip: Please check our [quickstart guide](#) to find a detailed description on *how to use or quickly set up* this device in a Green-GO system.

Channel and function control



The first and most prominent area comprises the three blocks consisting of six [Touchscreen](#) sections and six [Buttons](#).

Each button and corresponding touchscreen section are directly linked and show channel or function information and status.



The button and related touchscreen section's function is freely configurable to accommodate every user or situational need.











⚠ Attention: Be aware that the arrangement of the displays differs from the **MCX rack station**.
The third display is on the top right on the MCXD desktop station.




Channel status colors



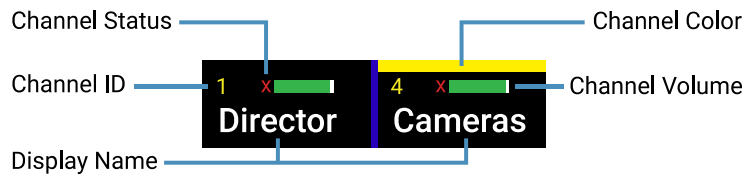
With the factory default settings, the multicolor  signal the channel status as follows:

| Color | State | Status | Description |
|---|----------|---------------|---|
|  | Solid | Free | The channel has no communication target <u>assigned</u> . |
|  | Solid | No Member | No remote device or user is available on this channel. |
|  | Solid | Idle | The channel is assigned and idle. |
|  | Solid | Active | A remote user or device has <u>activated</u> the channel talk but is not transmitting audio. |
|  | Solid | Active VOX | The channel is <u>receiving vox communication</u> . |
|  | Blinking | Active Muted | The channel is <u>muted</u> but also <u>receiving vox communication</u> . |
|  | Solid | Talk | The channel has been <u>manually opened</u> and will transmit any audio from the active input. |
|  | Solid | Autotalk | The channel has been <u>automatically opened</u> and will transmit any audio from the active input. |
|  | Solid | Call | The channel received a short <u>call</u> signal. |
|  | Blinking | Alert Call | The channel is receiving or <u>sending an alert call</u> signal. |
|  | Blinking | Cue Attention | The channel is receiving or <u>sending a cue attention</u> signal. |
|  | Solid | Cue GO | The channel is <u>receiving or sending a cue GO</u> signal. |

| Color | State | Status | Description |
|---|-------|--------------|--|
|  | Solid | GPIO Control | The channel is transmitting a GPIO Control signal. |

Channel display

When linked to a channel, the touchscreen section displays the following information:



Channel Status

The red X indicates that the Green-GO Engine can't reach any remote device for the configured channel target.

Channel ID

This shows the ID of the channel. Usually, a user has access to channels 1 through 32.

Display Name

The name or display name of the channel target ([user](#) or [group](#)).




Channel Color

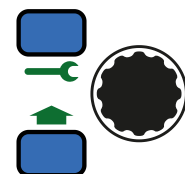
The channel color is defined by the channel target ([user](#) or [group](#)).




Channel Volume

The current channel volume level.

Setup and layer control

Next are the  Setup button,  Shift button, and multi-function  Encoder. All serve in one way or another the function of configuring the device or user interface.

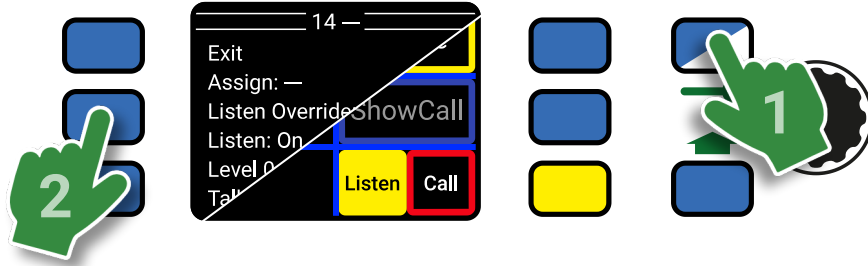


The  Setup button gives direct access to the [setup menu](#). The  Shift button's main function is to switch between two operational layers of channel and function control. The multi-function  Encoder allows to adjust the volumes, navigate the menus of the device, and more.

Configuring the user interface

The MCX rack and MCXD desktop station user interface is highly configurable: Any **function** or channel can be assigned to any **Button** and its designated **Touchscreen** section.

Configure a function



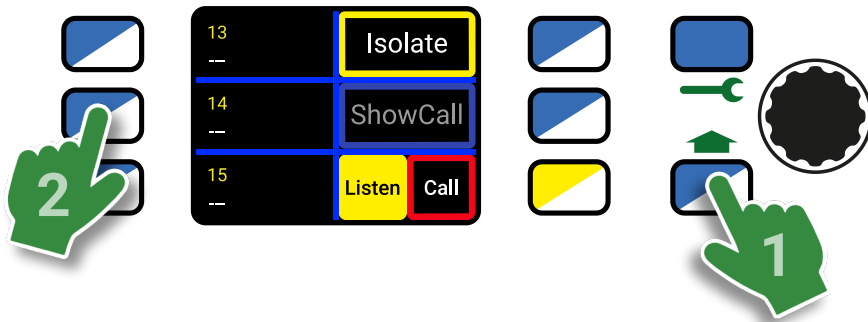
It's possible to quickly adjust the configuration of any channel or function on the user interface by using the following button combination:

1. Hold down the **Setup** button until it starts blinking.
2. Press the desired multicolor **Button** you want to configure.

This button combination brings up the corresponding setup menu page on the third screen.

Please be aware that some functions don't have any configuration menu and therefore don't work with this button combination.


Button assignment



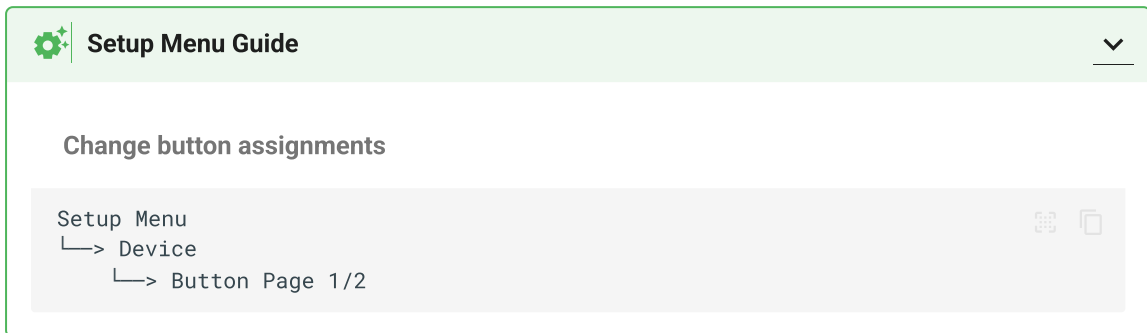
A quick change of the assignment can be done with the following **Button** combination:


1. Hold down the **Shift** button until all 18 multicolor buttons, and the shift button start blinking.
2. Press the desired multicolor **Button** you want to change.

This brings up a selection menu with all the user's **standard functions** and 32 channels. Selecting any entry will change the function of the corresponding multicolor **Button** and

 Touchscreen section.

Alternatively, the UI assignments can be changed in the setup menu.

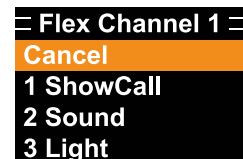


 **Tip:** It's now possible to easily save all locally made changes into the configuration file or pre-programming the UI using the [Green-GO Control](#) software.

The channel Flexlist

The [Flexlist](#) is a new UI concept introduced with Green-GO 5.

The function essentially enables the user to quickly change a channel's communication target to a set of 20 pre-defined destinations (users and groups). This allows comfortable and easy control over more channels on devices with limited or cramped user interfaces.



The Flexlist items can be added and configured either directly in a device's [User Settings](#) setup menu or with the help of the [software](#).

The Flexlist is enabled on a per-channel basis by configuring a channel's [Channel Mode](#) to [Flex](#). Doing so on multiple channels gives independent access to the same Flexlist.

⚙️ **Setup Menu Guide** ▼

Configure a device's Flexlist

```

Setup Menu
├─> User
│   └─> Settings
│       ├──> ...
│       └─> Flexlist # (1)!
│           ├──> ...
│           └─> - Add - # (2)!
          
```

1. This setting allows to configure the device's Flexlist.
2. Up to 20 items can be added to the device's Flexlist. Existing items can be removed by selecting them and choosing the option `None`.

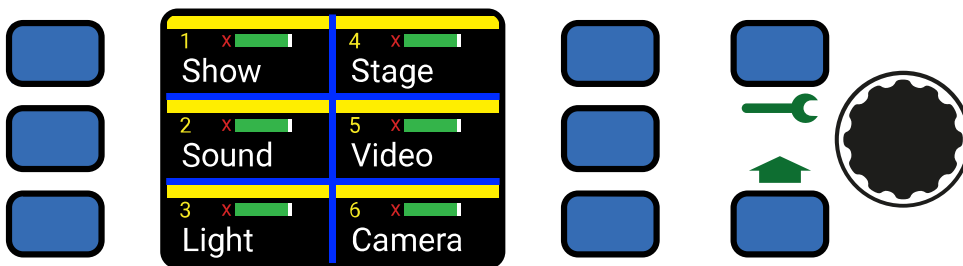
Configure a channel's mode to `Flex`

```

Setup Menu
├─> User
│   └─> Channels
│       └─> CH #
│           ├──> ...
│           └─> Channel Mode: Flex # (1)!
          
```

1. The Flexlist becomes available as soon as a channel's mode is set to `Flex`.

Changing a channel's destination



Changing a channel's destination with the flex by touching the channel's 🖱️ Touchscreen section while the `Screen Function` is set to `Listen`.

This brings up the Flexlist selection menu that can be navigated by *rotating* the ⚙️ Encoder. A new channel destination is chosen by *clicking* the ⚙️ Encoder.

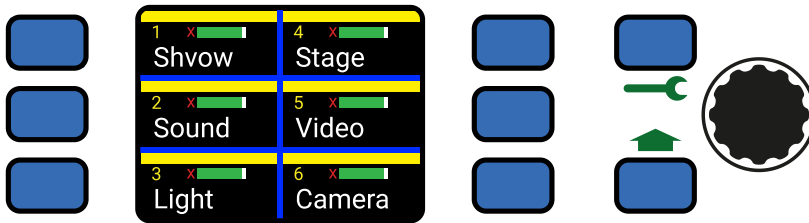
⚠ Warning: Please be aware that a channel with `Channel Mode: Flex` configured can't be muted by simply touching the `Touchscreen` section. Muting only works by clicking the `Encoder` while pressing the channel's `Touchscreen` section.

Functions

The MCXD desktop station comes with a set of useful default functions that can be assigned to any `Button` and its `Touchscreen` section.

General functions

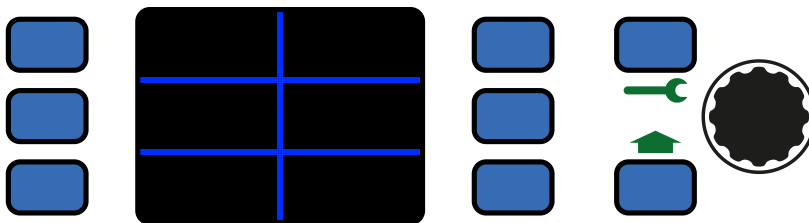
Channel 1 - 32



The channel functions enable custom

arrangements of the user's channel configuration on a device.

No Function



This function can be used to completely clear a `Button` and its

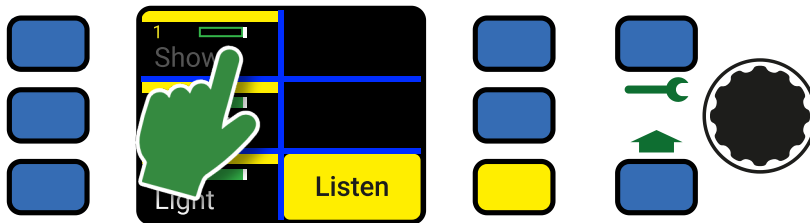
`Touchscreen` section to prevent accidental operation.

Screen function switches

The MCX rack and MCXD desktop station can be operated in three modes that primarily dictate a `Touchscreen` section's operation. These functions allow for switching between the three modes of operation: Listen, Call, and Cue.

⚠ Warning: The multicolor buttons normally open a channel for voice communication, regardless of the active operation mode. Toggling between modes will only affect the buttons function if the option **Button Mode** is set to **Mode**.

Listen Mode



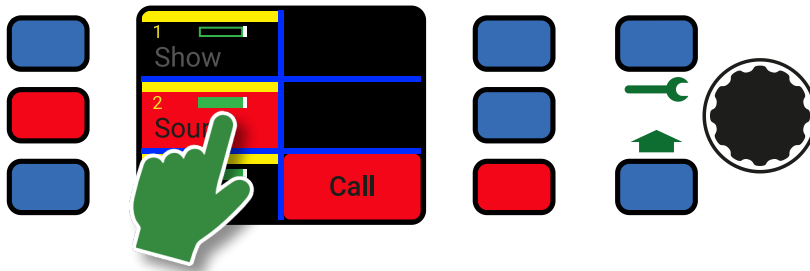
This function switches the mode of operation to voice

communication.

When active, the **Touchscreen** section of any assigned channel can be tapped to mute or unmute it. Pressing the **Touchscreen** and rotating the **Encoder** adjusts the channel volume.

💡 Tip: Please be aware that this mode enables the talk function for the multicolor buttons, should the option **Button Mode** be set to **Mode**.

Call Mode



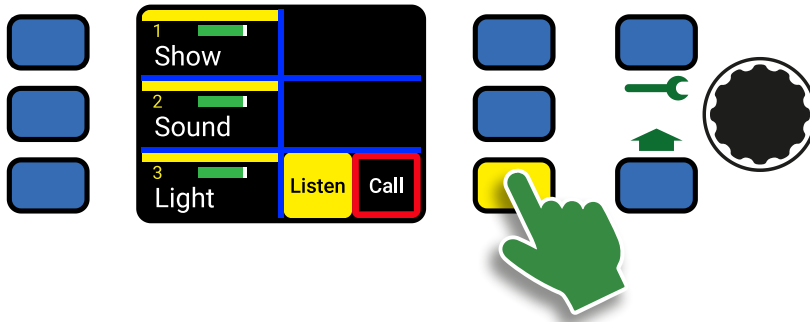
This function switches the mode of operation to call signals. When activated the

Touchscreen section of any assigned channel can be tapped to send a call signal.

When pressed for more than 3 seconds, an **Alarm Call** will be sent until the touchscreen section is rereleased.

Listen / Call Mode

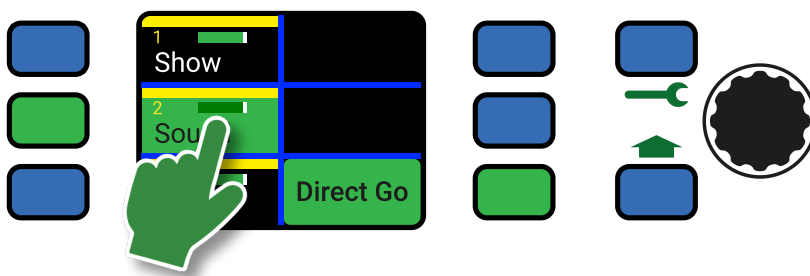
This function serves as a toggle to switch between the communication modes **Listen** and **Call**.



The Listen function will be prioritized when

(re-)activating the function with the multicolor ■ Button.

Cue Mode



This function switches the mode of operation to cue signals. When activated the

👆 Touchscreen section of any assigned channel can be tapped to initiate a cue signal.

The action that is performed when touching the 👆 Touchscreen section can be changed. Normally, an ● attention cue signal is sent to the selected channel. Tapping the touch screen again progresses the cue phase.

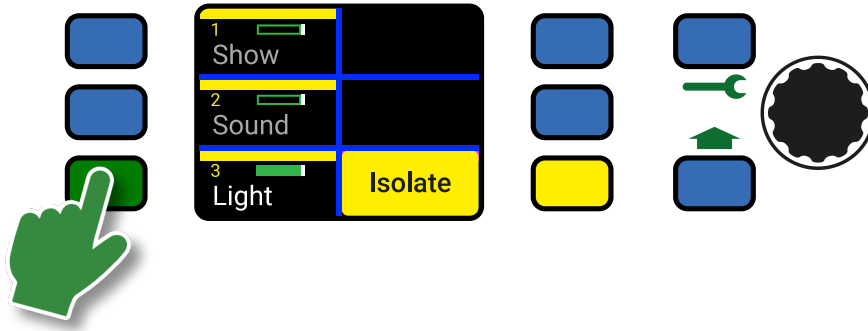
This behavior can be changed to sent ● direct GO cue signals by pressing the touchscreen section of the function itself. Which mode of the function is currently active is displayed in the function itself:

1. Cue GO is the normal operation, described above.
2. Direct GO directly sends a go signal to the selected channel. This skips the ● attention and ● ready phase.

⚠ **Warning:** Please be aware that outgoing cues can only be manipulated while the screen function cue mode is active. Outgoing cue signals will still be shown but can't be cleared or progressed when using other screen functions (listen or call).

Communication controls

Isolate



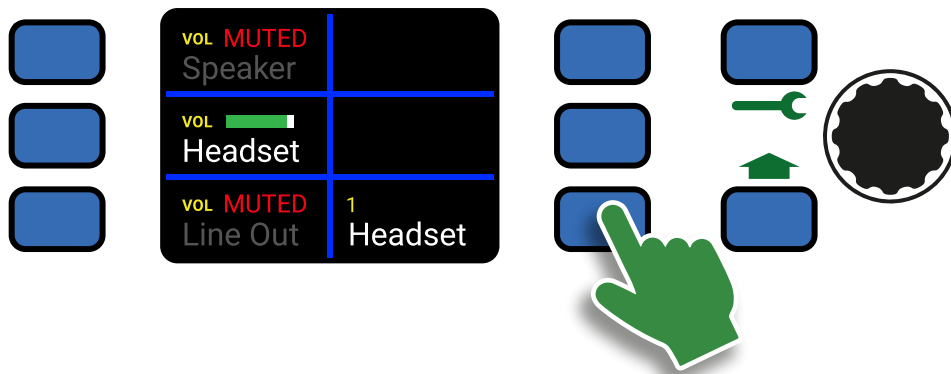
This function mutes all channels that do not have an active talk enabled. Channels will be unmuted

as soon as no channel has the talk function enabled.

This function is helpful to control incoming audio in hectic systems. It limits the received audio to active user communications.

⚠ Warning: Please be aware that utilizing the `Isolate` function will cut off all channels except the channels that the user currently talks on. You will only be reachable through call or cue signals on muted channels.

Audio Profile Select

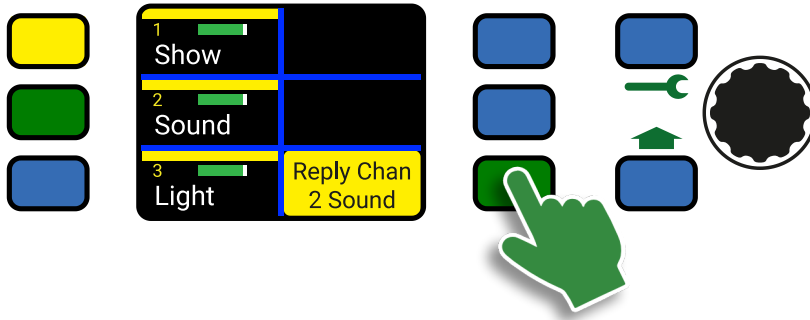


This function works as a toggle for the two device audio profiles, allowing for a quick switch.

An audio profile contains the configuration for the active input and stores the levels for the available outputs.

💡 Tip: Using the `Setup` button combination, the configuration for both audio profiles is only a click away.

Answer/Reply



This function enables the user to answer incoming voice

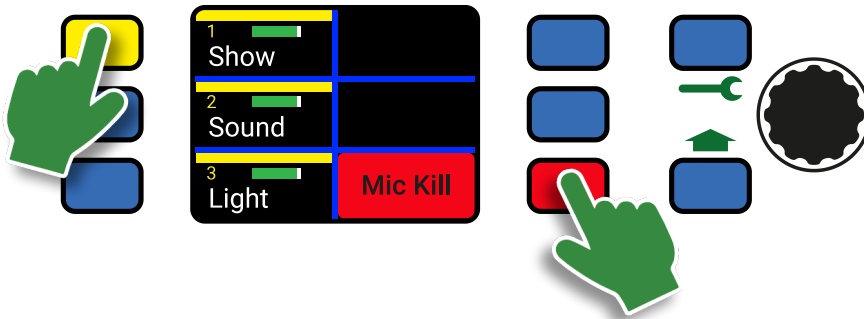
communication. The function will always act as a momentary switch, only allowing for push-to-talk style communications.

The display will either show the linked user or the channel (s) it will reply to.

Depending on the Reply Mode setting's configuration, this function will only reply to the **last opened channel** or all current ongoing voice transmissions.

⚠ Warning: Be aware that this function will stay active after the last received transmission. The delay is configured with the Active Time setting.

Mic Kill



This function acts as a remote switch, disabling the talk function on all currently

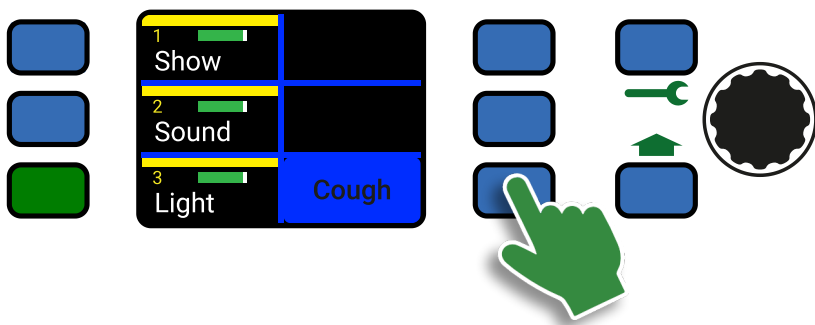
active users on a channel.

The Mic Kill function works with groups and users as channel targets.

⚠ Warning: Use this function with care, as it can disrupt ongoing user communication.

Cough Mute

This function allows to temporarily mute the currently active user input.

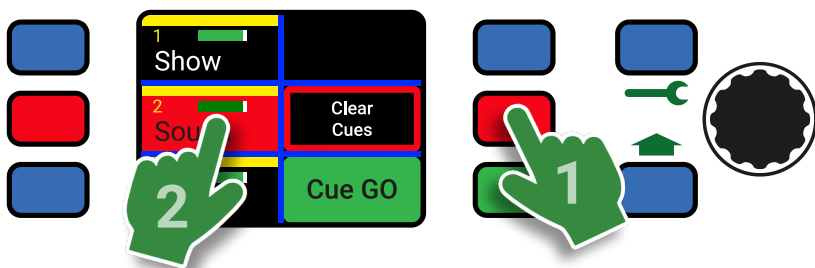


The microphone will be muted for the duration of the or

press (momentary).

Channels will keep their ● talk enabled while the function is active.

Cue Cancel



This function allows aborting either all or selected outgoing cue signals.

The functions multicolor must be pressed together with the section of the channel to **abort a selective** cue signal.

The and section of the function itself must be pressed to **abort all** currently outgoing cue signals.

🗨 **Tip:** If Button Mode is configured to Mode the of a channel can be used to abort a cue signal as well.

Volume controls

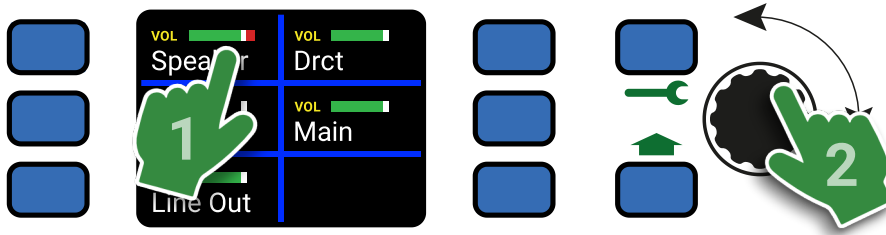
These functions generally allow for volume control with the help of the .

Speaker Level

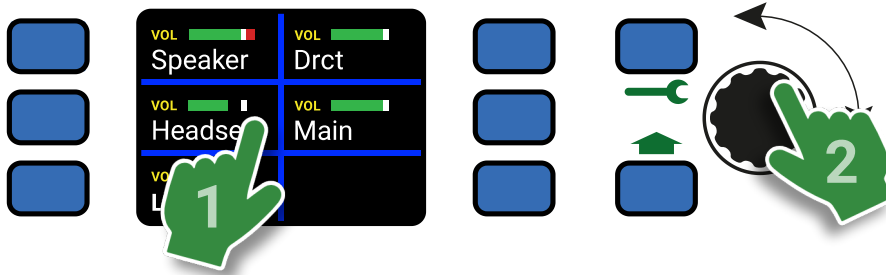


This function allows for quick adjustment of the volume of the internal speaker.

The configured volume is stored in the currently active Audio Profile.



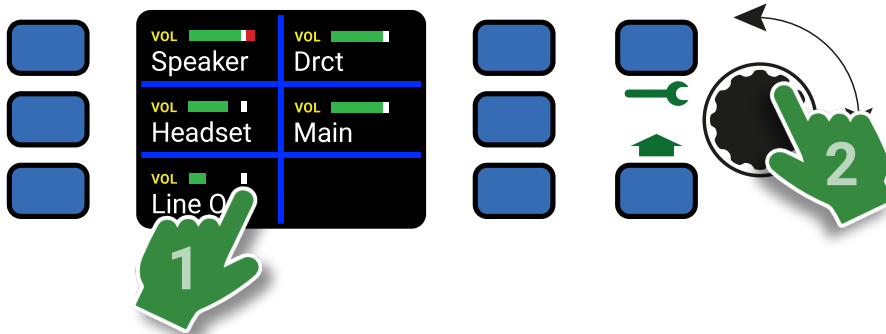
Headset Level



This function allows for quick adjustment of the volume of a connected headset.

The configured volume is stored in the currently active Audio Profile.

Line-Output Level

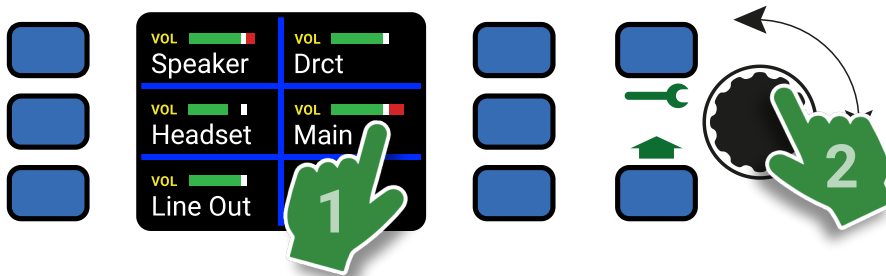


This function allows for quick adjustment of the audio level for the XLR3 line output connector on

the backside.

The configured volume is stored in the currently active Audio Profile.

Main Level

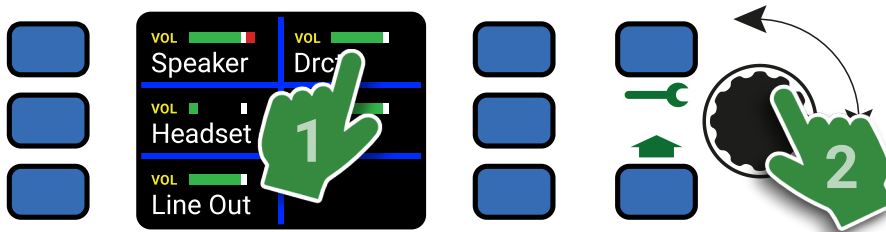


This function is intended to provide status information over the device's

current main volume.

This function doesn't need to be used to adjust the main volume!

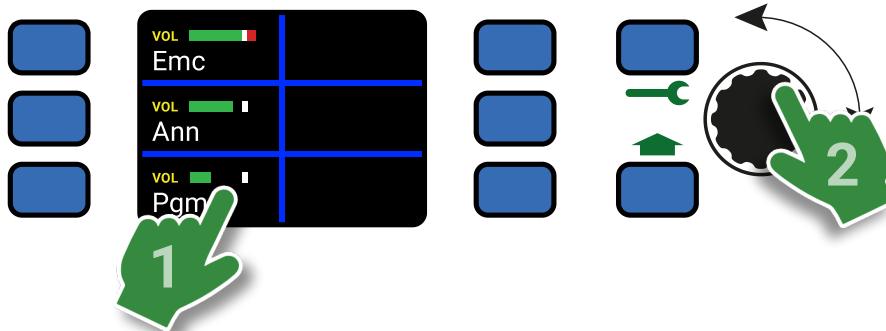
Direct Level



This function allows for quick adjustment of the volume for the

special direct channel.

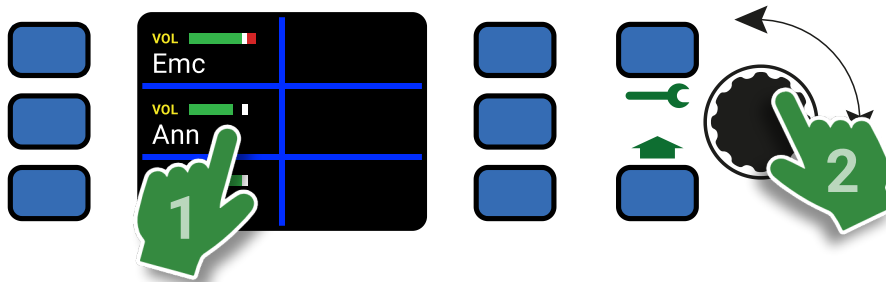
Program Audio Level



This function allows for quick adjustment of the volume for the special program audio

channel.

Announcement Level

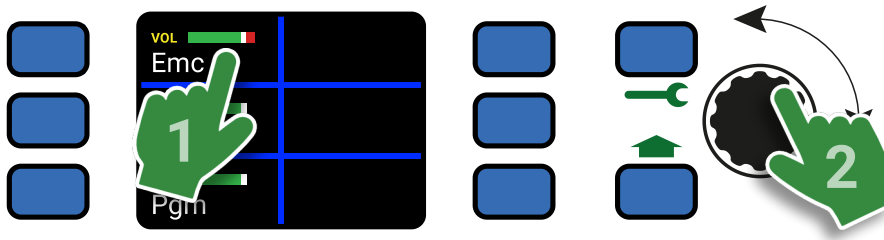


This function allows for quick adjustment of the volume for the special announceme

nts channel.

Emergency Level

This function allows for quick adjustment of the volume for the special emergency channel.



The line in-/out engine

The MCXD desktop station comes with a secondary general purpose [Green-GO Engine](#) for the line in- and output that provides independent operation with a limited function set.

The line in- and output can be used to import external audio to a [group](#) or export a group to the line output.

Alternatively, the line in- and output can be used for the in- and output of the [user's](#) Green-GO Engine.

⚠ Warning: The XLR3 line-in and line-out ports generally work with limited functionality when compared to a standard Green-GO audio interface.

While integrations are possible with [groups](#); extended functionality like GPIO control, cue and call signals, etc., are missing when used independently from the user.

Line Input

The line-input allows for transmitting audio through a [group](#) to other users in the system. A simple use case for the analog audio line-input on the back of the device would be [external analog program audio](#) that needs to be transmitted to multiple users in the system without the need for a dedicated audio interface.

The audio settings and destination (group) of the audio signal can be configured in the [device settings](#).

Setup Menu Guide

Line Input

```
Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line In
            └─> Assign # (1)!
            └─> Gain # (2)!
            └─> Compressor # (3)!
            └─> Gate Threshold # (4)!
            └─> Gate Hold # (5)!
```

1. Defines the target (group) of the input.
2. Defines the input gain of the signal.
3. Configure a compressor on the input signal.
4. Configure a noise gate on the input signal.
5. Configure the gate hold timings.

Line-In as User Input

```
Setup Menu
└─> Audio
    └─> Audio Profile 1/2
        └─> ...
        └─> Source: Line In # (1)!
        └─> ...
```

1. Defines the line-in as the user input source.

Configure the line-input

Set the destination

To use the line-input to import an external audio source into the Green-GO system, we need to assign a Group that transmits the audio signal.

Setup Menu Guide
▼

```

Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line In
            └─> Assign: # (1)!
            └─> ...

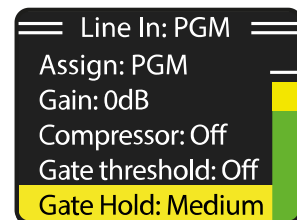
```

1. Assigns a group to the line-input.

Level the input signal

Next, the input signal should be leveled to a peak value around the 0dB mark using the VU-meter on the right side of the line-in setup menu.

It is highly recommended to disable the `Gate Threshold` and the `Compressor` during this process to achieve the best results.



Setup Menu Guide
▼

```

Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line In
            └─> ...
            └─> Gain # (1)!
            └─> Compressor: Off # (2)!
            └─> Gate Threshold: Off # (3)!
            └─> ...


```

1. Defines the input gain of the signal.
2. Disable the compressor when leveling the input signal.
3. Disable the noise gate when leveling the input signal.

Compressor and gate

The `Compressor` can be enabled if the dynamic input signal range is too high and the signal clips regularly.

The `Gate Threshold` acts as a noise-gate and can be activated to avoid transmitting background noise. Adjust this setting carefully to avoid blocking voice communication.

 Setup Menu Guide
▼

Configure the Compressor

```

Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line In
            ├──> ...
            ├──> Compressor # (1)!
            └─> ...
          
```

1. Configure a compressor on the input signal.

Configure the Gate

```


Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line In
            ├──> ...
            ├──> Gate Threshold # (1)!
            └─> Gate Hold # (2)!
          
```

1. Configure a noise gate on the input signal.
2. Configure the gate hold timings.

Configure the line-in as user input

It's possible to use the line input as user audio input. This can be useful to integrate an external microphone or audio source in the user's workflow.

To achieve this, we have to adjust the `Source` in one of the two available audio profiles. When configured, the input will be routed to the user's input and a potentially configured group.

 Setup Menu Guide
▼

```

Setup Menu
└─> Audio
    └─> Profile (n)
        ├──> ...
        ├──> Source: Line In # (1)!
        └─> ...
          
```

1. Configure the line input as user's input source.

Line output

The line output allows to output the communications of a [group](#) to an external receiver. A simple use case could be an announcement channel that needs to be transmitted via external speakers to a larger audience.

In addition, the line output can be used to connect a more powerful active speaker as the user's output.

Setup Menu Guide
▼

Line Output

```

Setup Menu
└─> Device
    └─> Line In/Out
        └─> Line Out
            ├──> Assign # (1)!
            ├──> Level # (2)!
            ├──> Limiter # (3)!
            └─> Loopback # (4)!
          
```

1. Defines the source (group) for the line-output.
2. Configure the signal level for the line-output.
3. Configure a limiter for the output signal.
4. Route the signal of the line-input to the line-output.

Line-Out as User Output

```

Setup Menu
└─> Audio
    └─> Audio Profile n
        ├──> ...
        ├──> Line Out Level # (1)!
        └─> ...
          
```

1. Routes the user's channel mix to the line output of the device.

Configure the line-output

The configuration for the line-output can be done in the `Device` setup menu.

Set the source

We need to `Assign` a [group](#) to route its communications to the line-output.

Additionally, we can route the signal of the line-input to the line-output using the `Loopback` setting.

Setup Menu Guide
▼

```

Setup Menu
├─> Device
│   └─> Line In/Out
│       └─> Line Out
│           ├──> Assign # (1)!
│           ├──> ...
│           └─> Loopback # (2)!

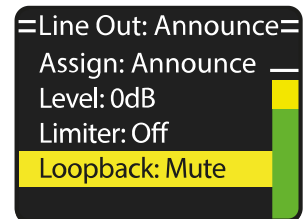
```

1. Defines the source (group) for the line-output.
2. Route the signal of the line-input to the line-output.

Level the output signal

Next, the output signal needs to be leveled to a peak value around the 0dB mark using the VU-meter on the right side of the line-out setup menu..

It is highly recommended to disable the `Limiter` during this process to achieve the best results.



Setup Menu Guide
▼

```

Setup Menu
├─> Device
│   └─> Line In/Out
│       └─> Line Out
│           ├──> ...
│           ├──> Level # (1)!
│           ├──> Limiter: Off # (2)!
│           └─> ...

```

1. Configure the signal level for the line-output.
2. Disable the limiter while leveling the output signal.

Configure the line-out as user output

It's possible to route the user's channel mix via the line-output. This can be useful for connecting more powerful speakers or integrating the device into existing setups.

To route the user's channel mix to the line-output, we have to adjust one of the user's audio profiles. The routing can be configured by modifying the property `Line Out Level`.

⚠ Warning: The user's channel mix will be mixed with a potentially configured source group.

⚙ **Setup Menu Guide** ▼

```

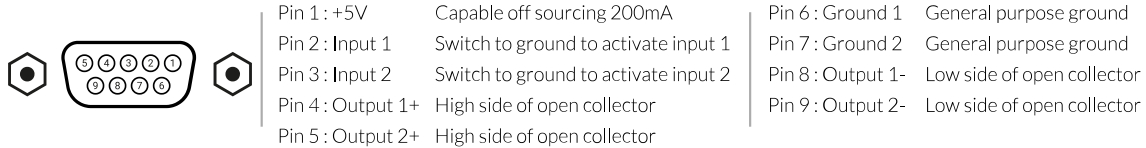
Setup Menu
├─> Audio
│   └─> Audio Profile n
│       ├──> ...
│       ├──> Line Out Level # (1)!
│       └─> ...
            
```

1. Routes the user's channel mix to the line output of the device.

The general purpose input/output

The rear panel GPIO connector enables external switches to initiate commands on the linked Green-GO Engine and also allows the device to set off external switch-controlled events using conditions such as active, talk, call, cue, etc.

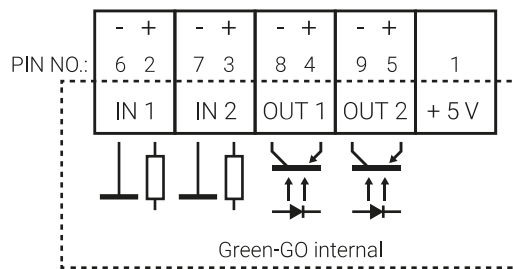
The *D-Sub 9* GPIO connector features two inputs and two outputs with the following pin-outs:



Each *D-Sub 9* GPIO connector is directly linked to one Green-GO Engine and its associated user.

Pin 1 offers 5 Volts of power with a maximum output current of 200mA.

Pins 6 and 7 offer common general-purpose ground.




General purpose inputs

Using the general-purpose inputs, it is possible to trigger local commands on the users' Green-GO Engine. Allowing for external control over the users' channels and communication.

The inputs can be set to either Normally Open or Normally Closed. If set to Normally Open, the configured function will be executed whenever the switch is closed. If set to Normally Closed, the configured function will be executed whenever the switch is open.

The inputs actuate with contact to the ground, with a max. +5V open voltage.

 Setup Menu Guide
▼

GPIO Input

```

Setup Menu
├─> Device
│   └─> GPIO
│       └─> Input 1/2
│           ├──> Function # (1)!
│           ├──> Channel # (2)!
│           ├──> Normaly # (3)!
│           └─> Status # (4)!

```

1. Defines the function that is triggered with the GPIO input.
2. Defines the target/channel for the function.
3. Defines if the input is normally open or closed.
4. Lists the current state of the configured input.

Available input functions

Talk

Opens a defined channel for outgoing ● voice communications. This function will actuate for as long as the contacts are not in the normal state (momentary).

Call

Allows sending a ● call signal to a defined channel. This function will actuate for as long as the contacts are not in the normal state (momentary).

Cue Acknowledge

Allows replying to an incoming ● attention cue signal on any or on a defined channel with an acknowledgment, setting the cue signal to ● *ready*. This function will trigger with the first pulse on the input (toggle).

Cue Abort

Allows aborting any outgoing cue signal on any or a defined channel. This function will trigger with the first pulse on the input (toggle).

Cue Attention

Allows to send an ● attention cue signal to a defined channel. This function will trigger with the first pulse on the input (toggle).

Cue GO

Allows to sent a ● *direct GO cue signal* to a defined channel. This function will trigger with the first pulse on the input (toggle).

Cue Clear

Allows clearing an outgoing GO *cue signal* on any or a defined channel. This function will trigger with the first pulse on the input (toggle).

Mic Kill

Acts as a remote switch to kill any active microphone on a defined channel (single user or all users in a group). This function will trigger with the first pulse on the input (toggle).

⚠ **Warning:** Configure this carefully as it will interrupt ongoing user communication.

GPIO Control

Sends a ● *GPIO Control signal* on a defined channel to trigger a remote GPIO integration.

Answer/Reply

Answers incoming communication on any or a defined channel. This function will actuate for as long as the contacts are not in the normal state (momentary).

💡 **Tip:** Depending on the setting *Reply Mode* this function either answers the **last** incoming voice communication or **all** ongoing voice communications.

Cough Mute

Mutes the currently active user input. This function will actuate for as long as the contacts are not in the normal state (momentary).

General purpose outputs

Using the general-purpose outputs, it is possible to trigger and control external devices or relays with a set of functions and or states. Allowing to extend the control outside of the Green-GO network.



The general-purpose output is a floating optocoupler. When activated, it's capable of passing 8mA with a maximum of 50 Volts. It can be used to switch third-party logic inputs directly, a signal-led, or with some extra circuitry drive bigger loads like relays.

As with the inputs, the outputs can be set to either Normally Open or Normally Closed, controlling the configuration's idle state.

Setup Menu Guide
▼

GPIO Output

```

Setup Menu
├─> Device
│   └─> GPIO
│       └─> Output
│           ├──> Function # (1)!
│           ├──> Channel # (2)!
│           ├──> Normaly # (3)!
│           └─> Test # (4)!

```

1. Defines the function that triggers the output.
2. Defines the source/channel for the function.
3. Defines if the output is normally open or closed.
4. Allows testing the configuration manually.

Available output functions

Channel Active

Activates as soon as any or one defined channel has the state ● active but isn't yet transmitting. The output actuates for the duration of this state (momentary).

? **Tip:** Be aware that this function is influenced by the user setting Active Time. A channel will stay ● active for the configured duration after no signal is received.

Channel Vox

Activates as soon as any or one defined channel of the user receives ● active voice communication. The output actuates for the duration of this state (momentary).

? **Tip:** Be aware that this function is influenced by the user setting Active Time. A channel will stay ● active for the configured duration after no signal is received.

Talk Enabled

Activates as soon as any or one defined channel of the user is manually opened to transmit ● voice communication. The output actuates for the duration of this state

(momentary).

Call

Activates as soon as any or one defined channel receives a ● call signal. The output actuates once as soon as the state changes (toggle).

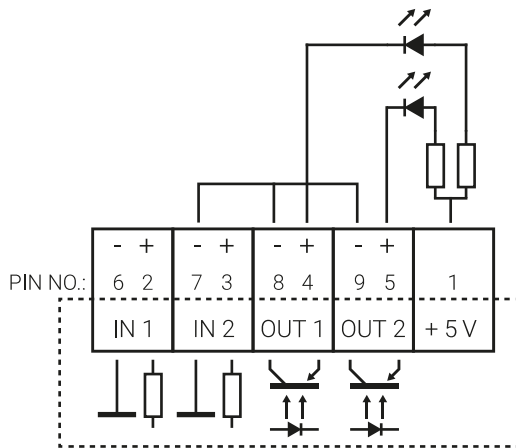
Alert Call

Activates as soon as any or one defined channel receives an ○ alert call signal. The output actuates once as soon as the state changes (toggle).

GPIO Control

Activates as soon as any or one defined channel receives an ● GPIO Control signal. The output actuates once as soon as the state changes (toggle).

Driving an LED



A signal LED can be driven directly with one GPIO output, utilizing pin 1 as a 5 Volt power supply.

A series of resistors must be added to the circuit to limit the current to a maximum of 5mA. The resistor needed depends on the LED used.

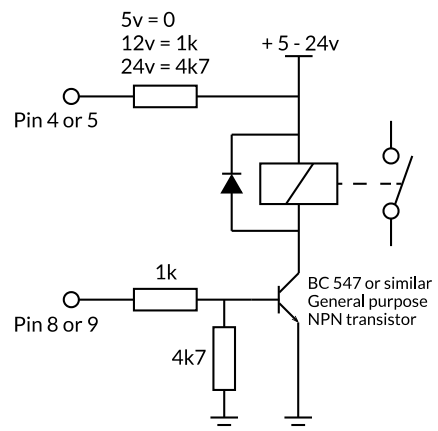
Your circuit for this application could look like the schematics to the left.

Driving a relay

A simple circuit with a transistor is needed to drive an external relay with a current higher than 5mA through a GPIO output.


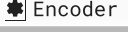
The schematics to the right can be used as an example.

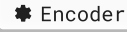
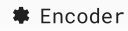

⚠ Warning: Please be aware that the resistor between the power supply and pin 4 or 5 is dependent on the voltage of the power supply used!




The setup menu

The setup menu allows *local* access to almost all user and device configuration properties. All changes in the setup menu are done and stored locally on the device but can be easily synced back into the configuration file using the Green-GO Control software. These settings are also persistent on the device unless overwritten.

The setup menu is accessed with the dedicated  **Setup** button. The multi-function  **Encoder** is used to navigate the menu lists:

- The  **Encoder** *rotation* moves a selection or changes a selected value.
- A *click* of the  **Encoder** enters submenus and allows to change values.
- A submenu can be exited either with the menu entry **Exit** or **Cancel**, and alternatively with the  **Setup** button.

Access to the setup menu can be restricted by configuring the security options of a configuration file or user with the help of the Green-GO Control software. In restrictive security configurations, the user may be asked to enter the **Tech Pincode** before access is given.

 **Tip:** More information on security options can be found [here](#).



User

The **User** submenu holds settings for user-relevant configuration like:

- [The user that is linked to the device.](#)
- [The channel configuration.](#)
- [Configuration for the four special channels.](#)
- [The user's Flexlist.](#)
- [General user settings \(color, communication settings, etc.\).](#)
- [Script management.](#)

Select User

AVAILABLE USERS

This menu lists all available [users](#) of the active configuration file.

| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | User ▶ Select User |
| ◁ ▷ Option range: | Defined by configuration file |
| ↻ Default: | <i>Unset</i> |

Channels

Channel 1 – 32

The following is available for each of the 32 channels.

ASSIGN

This menu allows selecting a communication target for the channel. Entering this menu will bring up a pre-filter that provides easy access to the active configuration file's available groups and users.

| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Assign |
| ◁ ▷ Option range: | None, Groups, Users |
| ↻ Default: | <i>Unset</i> |

LISTEN OVERRIDE

This option allows defining a separate listen source for the channel. The user talks to the primary target [assigned](#) but listens to the group defined here.

| | |
|--------------------------|--|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Listen Override |
| ◁ ▷ Option range: | None, Groups |
| ↻ Default: | <i>Unset</i> |

LISTEN

A channel can be enabled or muted independently from the set channel [Level](#). The `Listen` state of the channel can be easily toggled on or off without losing the set channel level.

This option may be influenced by the [Listen Mode](#).

| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Listen |
| ◁ ▷ Option range: | Muted, On |
| ↻ Default: | On |

LEVEL

This option defines the output level for the channel.

| | |
|-------------------------|-----------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Level |
| ◁> Option range: | -40 dB – +12 dB (1 dB increments) |
| ↻ Default: | 0 dB |

TALK MODE

The **Talk Mode** defines how a channel can be ● activated for vox communications with the talk button.

| Mode | Description |
|-----------|---|
| Disabled | This option disables the talk function on the channel. |
| Momentary | This option allows for a push-to-talk style of operation. |
| Latch | This option acts as a toggle: The first press enables talk, the second press disables talk. |
| Latch/Mom | This option allows for a mixed operation. Short presses act as a latch toggle, and long button presses allow for momentary communication. |

| | |
|-------------------------|---------------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Talk Mode |
| ◁> Option range: | Disabled, Momentary, Latch, Latch/Mom |
| ↻ Default: | Latch/Mom |

PRIORITY

A channel can be configured with one of three priorities. For example, when a higher priority channel transmits, communication with lower priority can be attenuated ([Priority Dim](#)).

| | |
|-------------------------|---------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Priority |
| ◁> Option range: | Low, Normal, High |
| ↻ Default: | Normal |

OUTPUT

The **Output** property allows routing the channel's output to a specific hardware output of the device. This is helpful when using devices with stereo outputs or multiple mono outputs.

| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Output |
| ◁ ▷ Option range: | Both, Headset, Speaker |
| ↻ Default: | Both |

LISTEN MODE

The [Listen](#) state defines a muted or unmuted channel. The [Listen Mode](#) options define if and how the channel's listen state is toggled.

| Mode | Description |
|-------------------|--|
| Listen On Talk | This mode enables the Listen state of the channel (unmutes), as soon as the ● talk is active on the channel. Disabling talk on the channel will disable the Listen state again (mute). |
| No Listen On Talk | An active talk doesn't affect the Listen state of the channel, but the channel respects the Isolate function. |
| Ignore Isolate | This mode ignores the Isolate function. |
| Fixed | This mode doesn't change the Listen state. |

| | |
|--------------------------|--|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Listen Mode |
| ◁ ▷ Option range: | Listen On Talk, No Listen On Talk, Isolate Ignore, Fixed |
| ↻ Default: | Listen On Talk |

CALL MODE

This option defines if [call signals](#) can be sent and/or received on the channel.

| Mode | Description |
|-----------|---|
| Disabled | This option disables all call signals on the channel. |
| Recv Only | Call signals can be received on the channel. |
| Send Only | Call signals can be sent to the channel. |
| Send/Recv | This mode enables the sending and receiving of call signals on the channel. |

| | |
|-------------------------|---|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Call Mode |
| ◁> Option range: | Disabled, Recv Only, Send Only, Send/Recv |
| ↻ Default: | Send/Recv |

CUE MODE

The `Cue Mode` defines how an incoming cue signal is handled.

| Mode | Description |
|-------------|---|
| Normal | This option allows for a three-staged <u>cue signal</u> with a manual ready reply. |
| Auto Answer | This option automatically answers incoming <u>cue signals</u> on this channel, reducing the effective stages to ready and go. |
| Ignore | This option ignores incoming <u>cue signals</u> . Cue signals sent may be answered by other devices. |

| | |
|-------------------------|---------------------------------|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Cue Mode |
| ◁> Option range: | Normal, Ignore, Auto Answer |
| ↻ Default: | Normal |

CHANNEL MODE

The `Channel Mode` allows for simple automation that enables complex channel configurations. Things like automatic replies and GPIO control can be configured here.

| Mode | Description |
|--------------|--|
| Normal | This is the default setting. The channel takes no action when voice communication is received. |
| No Reply | This option disables the <u>Answer/Reply</u> function on the channel. |
| Reply Direct | With this option set, the <u>Answer/Reply</u> function will only reply to the last active member of a group. |
| Auto Reply | This option automatically activates the talk function on the channel as soon as voice communication is received. |

| Mode | Description |
|--------------|--|
| Autotalk | This option automatically opens the channel as soon as the enabled input becomes active. |
| Solo Talk | This option automatically disables the talk function on any other channel when the talk function of the channel itself is set to active. |
| Flex | <p>This option enables the user's Flexlist on the channel and allows for a quick channel destination change.</p> <p>The Flexlist is called by the Listen Screen Function by pressing the Touchscreen section of a channel.</p> |
| GPIO Control | This sends a special GPIO control data packet on the channel and disables the talk function for the channel. |

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Channels ▶ ID ▶ Channel Mode |
| ◁ ▷ Option range: | Normal, No Reply, Reply Direct, Auto Reply, Autotalk, Solo Talk, Flex, GPIO Control |
| ↻ Default: | Normal |

Special Channels

Each user has, in addition to the 32 normal channels, four additional *special channels*.

- [The temporary duplex channel for private communications.](#)
- [The passive program audio channel.](#)
- [The passive announcements channel.](#)
- [The passive emergency channel.](#)

Direct

The direct channel is temporary and functions bi-directional.

The channel gets created as soon as any remote user who isn't configured on any of the 32 channels *contacts* the user linked to this device (voice communication, [call signal](#), [cue signal](#)).

LEVEL

This option defines the output level for the channel.

| | |
|-------------------------|--|
| ✦ Setup menu: | User ▶ Special Channels ▶ Direct ▶ Level |
| ◁> Option range: | Mute, -40 dB – +12 dB (1 dB increments) |
| ↻ Default: | 0 dB |

OUTPUT

The `Output` property allows routing the audio of the channel to a specific hardware output. This is helpful when using devices with stereo outputs or multiple mono outputs.

| | |
|-------------------------|--|
| ✦ Setup menu: | User ▶ Special Channels ▶ Direct ▶ Pan |
| ◁> Option range: | Both, Headset, Speaker |
| ↻ Default: | Both |

PRIORITY

A channel can be configured with one of three priorities. For example, when a higher priority channel transmits, communication with lower priority can be attenuated ([Priority Dim](#)).

| | |
|-------------------------|---|
| ✦ Setup menu: | User ▶ Special Channels ▶ Direct ▶ Priority |
| ◁> Option range: | Low, Normal, High |
| ↻ Default: | Normal |

CUE MODE

The `Cue Mode` defines how an incoming [cue signal](#) is handled.

| Mode | Description |
|-------------|--|
| Normal | This option allows for a three-staged cue signal with a manual ready reply. |
| Auto Answer | This option automatically answers incoming cue signals on this channel, reducing the effective stages to ready and go. |
| Ignore | This option ignores incoming cue signals . Cue signals sent may be answered by other devices. |

| | |
|-------------------------|---|
| ✦ Setup menu: | User ▶ Special Channels ▶ Direct ▶ Cue Mode |
| ◁> Option range: | Normal, Auto Answer, Ignore |
| ↻ Default: | Normal |

Program

The channel for program audio is passive (listen-only), meaning the user can only receive audio on this channel. The channel receives audio through a group, has independent volume control, and supports dimming when the user receives an audio signal on any of his 32 regular channels.

ASSIGN

This menu allows selecting a communication target for the channel. Entering this menu will bring up a pre-filter that provides easy access to the active configuration file's available groups and users.

| | |
|--------------------------|--|
| ✦ Setup menu: | User ▶ Special Channels ▶ Program ▶ Assign |
| ◁ ▷ Option range: | None, Groups |
| ↻ Default: | None |

LEVEL

This option defines the output level for the channel.

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Special Channels ▶ Program ▶ Level |
| ◁ ▷ Option range: | Mute, -40 dB – +12 dB (1 dB increments) |
| ↻ Default: | 0 dB |

DIM

The program audio channel can automatically attenuate as soon as any of the other channels is active.

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Special Channels ▶ Program ▶ Dim |
| ◁ ▷ Option range: | Mute, -24 dB – -6 dB, Off (6 dB increments) |
| ↻ Default: | Off |

OUTPUT

The `Output` property allows routing the audio of the channel to a specific hardware output. This is helpful when using devices with stereo outputs or multiple mono outputs.

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Special Channels ▶ Program ▶ Pan |
| ◁ ▷ Option range: | Both, Headset, Speaker |
| ↻ Default: | Both |

Announce

The announcement channel is a passive channel (*listen-only*) that transmits with a higher priority as regular channels. Incoming audio transmissions on this channel can attenuate communication on any of the regular channels, depending on the `Priority Dim` setting.

The announcement channel receives its audio through a group. To send audio to this channel, the configured group needs to be assigned to one of the 32 regular channels of a user.

⚠ Warning: Please configure talking access to the source group of the announcement channel carefully, as any communication through the group may interrupt ongoing user communication.

ASSIGN

This menu allows selecting a communication target for the channel. Entering this menu will bring up a pre-filter that provides easy access to the active configuration file's available groups and users.

✚ **Setup menu:** User ▶ Special Channels ▶ Announce ▶ Assign
 <> **Option range:** None, Groups
 ↻ **Default:** None

LEVEL

This option defines the output level for the channel.

✚ **Setup menu:** User ▶ Special Channels ▶ Announce ▶ Level
 <> **Option range:** Mute, -40 dB – +12 dB (1 dB increments)
 ↻ **Default:** 0 dB

OUTPUT

The `Output` property allows routing the audio of the channel to a specific hardware output. This is helpful when using devices with stereo outputs or multiple mono outputs.

✚ **Setup menu:** User ▶ Special Channels ▶ Announce ▶ Pan
 <> **Option range:** Both, Headset, Speaker
 ↻ **Default:** Both

Emergency

The emergency channel is a passive channel (*listen-only*) that transmits with the highest priority. Incoming audio transmissions on this channel will mute any communication on any of the 32 regular channels.

The emergency channel receives its audio through a group. To send audio to this channel, the configured group needs to be assigned to one of the 32 regular channels of a user.

⚠ Warning: Please configure talking access to the source group of the emergency channel carefully, as any communication through the group may interrupt ongoing user communication.

ASSIGN

This menu allows selecting a communication target for the channel. Entering this menu will bring up a pre-filter that provides easy access to the active configuration file's available groups and users.

✚ **Setup menu:** User ▶ Special Channels ▶ Emergency ▶ Assign
 <> **Option range:** None, Groups
 ↻ **Default:** None

LEVEL

This option defines the output level for the channel.

✚ **Setup menu:** User ▶ Special Channels ▶ Emergency ▶ Level
 <> **Option range:** Mute, -40 dB – +12 dB (1 dB increments)
 ↻ **Default:** 0 dB

OUTPUT

The `Output` property allows routing the audio of the channel to a specific hardware output. This is helpful when using devices with stereo outputs or multiple mono outputs.

✚ **Setup menu:** User ▶ Special Channels ▶ Emergency ▶ Pan
 <> **Option range:** Both, Headset, Speaker
 ↻ **Default:** Both

Flexlist

This menu allows customizing the user's `Flexlist`.

ADD

The entry `- Add -` at the bottom of the menu allows you to add up to 20 users or groups. Selecting an existing assignment enables one to change or remove it.

| | |
|-------------------------|----------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Flexlist |
| ◁> Option range: | Add, Flexlist entries |
| ↻ Default: | Unset |

Settings

The user settings configure global communication functions. These settings affect communication on all channels and are not adjustable on a per-channel basis.

ACTIVE TIME

The `Active Time` defines a delay that keeps the channel ● active after the last voice transmission has been received. The main use for this is to give users a chance to identify the transmitting channel before it goes inactive again.

⚠ **Warning:** This setting directly influences some functions on a [Green-GO engine](#) like `Answer/Reply` by setting the state `Answer` to active.

| | |
|-------------------------|---|
| ✦ Setup menu: | User ▶ Settings ▶ Active Time |
| ◁> Option range: | 0.5 sec, 1 sec, 2 sec, 5 sec, 30 sec, 60 sec, 120 sec |
| ↻ Default: | 5 seconds |

REPLY MODE

The `Reply Mode` defines the behavior of the `Answer/Reply` function.

| Mode | Description |
|----------|---|
| Disabled | This option disables the <code>Answer/Reply</code> function. |
| Active | This option enables the <code>Answer/Reply</code> function to answer all currently ongoing voice communication. |
| Last | This option enables the <code>Answer/Reply</code> function to only answer the last opened channel . |

| | |
|--------------------------|------------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Reply Mode |
| ◁ ▷ Option range: | Disabled, Active, Last |
| ↻ Default: | Last |

ISOLATE

This function mutes all channels that do not have an ● *active talk* enabled. Channels will be unmuted as soon as no channel has the talk function enabled.

This function is helpful to control incoming audio in hectic systems. It limits the received audio to active user communications.

| | |
|--------------------------|---------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Isolate |
| ◁ ▷ Option range: | Disabled, Enabled |
| ↻ Default: | Disabled |

TONE LEVEL

The `Tone Level` defines the loudness for all alarm signals like cue signals and the Alert Call.

| | |
|--------------------------|---------------------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Tone Level |
| ◁ ▷ Option range: | Mute, -24 dB – 0 dB (6 dB increments) |
| ↻ Default: | -12 dB |

ALERT TONE

This settings defines the alarm signal type for things like Alert Call or cue signals.

| | |
|--------------------------|------------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Alert Tone |
| ◁ ▷ Option range: | Fast, Slow, Pulse |
| ↻ Default: | Fast |

ROOM

This setting assigns a user to a room, available in the configuration file.

| | |
|--------------------------|------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Room |
| ◁ ▷ Option range: | None, Available Rooms |
| ↻ Default: | <i>Unset</i> |

ROOM DIM

The `Room Dim` option configures if and how the audio signals from the [configured room](#) should be attenuated. The output affected by this setting is defined by the option [Room Output](#).

| | |
|--------------------------|--|
| ✦ Setup menu: | User ▶ Settings ▶ Room Dim |
| ◁ ▷ Option range: | Mute, -24db – -6 dB (6 dB increments), Off |
| ↻ Default: | Off |

ROOM OUTPUT

The option `Room Output` defines the hardware output on which audio signals from the [configured room](#) will be attenuated. The attenuation itself is configured by the setting [Room Dim](#).

🔔 **Tip:** In the case of an external speaker connected to the line-out of the device and configured to output the user's channel mix ([Line Out Level](#)), the property `Speaker` attenuates both: Internal and external speakers.

| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | User ▶ Settings ▶ Room Output |
| ◁ ▷ Option range: | Both, Headset, Speaker |
| ↻ Default: | Both |

PRIORITY DIM

The property `Priority Dim` defines the amount channels with lower [priority](#) get attenuated as soon as audio is being transmitted on higher priority channels. Each of the 32 generic channels can have one of three priorities.

Activating this setting and defining channel priorities will help to manage user stations with high communication traffic.

⚠ **Warning:** This setting does not affect the behavior of the [special channels](#) [Emergency](#) or [Program Audio](#).

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Settings ▶ Priority Dim |
| ◁ ▷ Option range: | Mute, -24 dB – -6 dB (6 dB increments), Off |
| ↻ Default: | Off |

POPUP

This setting defines if and what popups are shown to the user.

| Mode | Description |
|---------------------|--|
| System Only | This is the bare minimum. System popups for system events like joining a configuration, etc., will always be shown. |
| Cue | This option will show popups for system notifications and incoming cue signals . |
| Cue+Direct | This option enables popups for system events, cue signals , and communications on the special channel for temporary direct communication. |
| Cue/Direct/Extended | This option enables popups for system events, cue signals , direct channel communications, and communications on channels that are not directly available through the UI (hidden). |

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Settings ▶ Popup |
| ◁ ▷ Option range: | System Only, Cue, Cue+Direct, Cue/Direct/Extended |
| 🔄 Default: | Cue/Direct/Extended |

CUE TIMEOUT

This setting defines the *hold-time* for an outgoing GO [cue signal](#).

| | |
|--------------------------|---|
| ✦ Setup menu: | User ▶ Settings ▶ Cue Timeout |
| ◁ ▷ Option range: | 0.5 sec, 1 sec, 2 sec, 5 sec, 30 sec, 60 sec, 120 sec |
| 🔄 Default: | 5 sec |

Script

Loaded Script

This menu shows the currently loaded script and allows to load any script stored in the configuration.

AVAILABLE SCRIPTS

This submenu is available by clicking on the currently loaded script and lists all scripts stored in the configuration file.

| | |
|-------------------------|------------------------------|
| ✦ Setup menu: | User ▶ Scripts ▶ Script Name |
| <> Option range: | Available scripts |
| ↻ Default: | Unset |

Status

This property shows the current status of the currently loaded script.

Audio

The `Audio` submenu holds all settings relevant for the user's audio input and outputs.

Two audio profiles are available on devices like the MCX rack or MCXD desktop station to quickly switch between inputs. Each audio profile stores all settings relevant to the user's audio input and output(s)

Audio Profile 1|2

SIDETONE

The property `Sidetone` configures the amount of the user's input fed back into its headset output(s). When activated, the sidetone is never routed to a device's front speaker to prevent signal feedback.

| | |
|-------------------------|---------------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Sidetone |
| <> Option range: | Mute, -40 dB – 0 dB (1 dB increments) |
| ↻ Default: | 0 dB |

GAIN

The input `Gain` configures the amplification of the input signal. The range of this setting depends on the [input source](#) chosen.

| | |
|-------------------------|--|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Gain |
| <> Option range: | <i>Headset:</i> +30 dB – +60 dB (1 dB increments) <i>Front Mic:</i> +10 dB – +50 dB (1 dB increments) <i>Line-In:</i> -6 dB – +24 dB (1 dB increments) |
| ↻ Default: | none |

COMPRESSOR

This is a simple `Compressor` that can be enabled with this setting. It reduces the dynamic range of the input signal by attenuating the louder parts of the signal, making it less likely to

transmit distorted audio. When this setting is enabled, the timings of the compressor can be adjusted.

| | |
|-------------------------|------------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Compressor |
| ◁> Option range: | Off, Fast, Med, Slow |
| ↻ Default: | Med |

GATE THRESHOLD

The option `Gate Threshold` defines the threshold for the noise-gate to *open* the microphone. Audio signals below the configured threshold will be cut out and not transmitted.

| | |
|-------------------------|--|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Gate Threshold |
| ◁> Option range: | -50 dB – -25 dB (5 dB increments), Off |
| ↻ Default: | -50 dB |

GATE HOLD

The property `Gate Hold` defines the hold time after which the noise-gate *closes* again after being activated once.

| | |
|-------------------------|-----------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Gate Hold |
| ◁> Option range: | Short, Medium, Long, Xlong |
| ↻ Default: | Medium |

SOURCE

The menu `Source` allows selecting one of the device's audio inputs or a *test tone* as the user's input source.

| | |
|-------------------------|--|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Source |
| ◁> Option range: | Headset, Front Mic, Line In, 375Hz, 1kHz, 1.2kHz, 2.5kHz |
| ↻ Default: | Headset |

HEADSET BIAS

The option `Headset Bias` allows to supply up to 2.5 V of power to an electret or condenser microphone on a headset connected to the XLR4 connector.

| | |
|-------------------------|--------------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Headset Bias |
| ◁> Option range: | Off, On |
| ↻ Default: | Off |

MIC POWER

The option `Mic Power` allows to supply up to 10 V of power to an electret or condenser microphone connected to the XLR3 front microphone connector.

| | |
|-------------------------|-----------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Mic Power |
| ◁> Option range: | Off, On |
| ↻ Default: | Off |

OUTPUT LIMITER

The option `Output Limiter` allows configuring a simple limiter for the user's audio output(s). The limiter attenuates the loudest part of the user's channel mix to prevent potential signal clipping.

| | |
|-------------------------|--|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Output Limiter |
| ◁> Option range: | -24 dB – -6 dB (6 dB increments), Off |
| ↻ Default: | -6 dB |

HEADSET LEVEL

The `Headset Level` defines the loudness of the headset volume.

| | |
|-------------------------|---------------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Headset Level |
| ◁> Option range: | Mute, -40 dB – 0 dB (1 dB increments) |
| ↻ Default: | 0 dB |

SPEAKER LEVEL

The `Speaker Level` defines the loudness of the built-in speaker volume.

| | |
|-------------------------|---------------------------------------|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Speaker Level |
| ◁> Option range: | Mute, -40 dB – 0 dB (1 dB increments) |
| ↻ Default: | 0 dB |

SPEAKER DIM

The property `Speaker Dim` configures an automatic attenuation of the built-in front speakers in case of an open microphone. The configured attenuation will take effect as soon as the user activates a talk on any channel.

| | |
|--------------------------|---|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Speaker Dim |
| ◁ ▷ Option range: | Mute, -24 dB – -6 dB (6 dB increments), Off |
| ↻ Default: | Off |

LINE OUT LEVEL

The option `Line Out Level` allows routing the user's channel mix to the device's line output connector.

⚠ Warning: Be aware that the user's channel mix may be mixed with the group of the line output's [configuration](#).

| | |
|--------------------------|--|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Line Out Level |
| ◁ ▷ Option range: | Mute, -40 dB – 0 dB (1 dB increments) |
| ↻ Default: | Mute |

MAIN LEVEL

The `Main Level` acts as a master for all device outputs. It allows to quickly lower or raise all the output levels simultaneously.

| | |
|--------------------------|---|
| ✦ Setup menu: | Audio ▶ Audio Profile ▶ Main Level |
| ◁ ▷ Option range: | Mute, -40 dB – +12 dB (1 dB increments) |
| ↻ Default: | 0 dB |

Device

The `Device` submenu holds setting for the device-relevant configuration like:

- [Device configurations \(buttons, displays, backlight, etc.\)](#)
- [Configuration for the Line In/Out connectors.](#)
- [Configuration for the GPIO connector.](#)
- [Function assignments for touchscreen and buttons.](#)

Device Settings

BUTTON

The option `Button` configures the linked action of the physical `Buttons` next to each touchscreen.

| Action | Description |
|-----------|---|
| Talk Only | The physical buttons will always act as talk toggle, <i>ignoring</i> the active screen function . |
| Mode | The physical button's function will follow the currently active screen function . |

| | |
|--------------------------|-----------------------------------|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Button |
| ◁ ▷ Option range: | Talk Only, Mode |
| ↻ Default: | Talk Only |

SCREEN FUNCTION

The option [Screen Function](#) primarily sets the action linked to the [Touchscreen](#) sections of channels and/or functions.

Changing this option will change the action of the [Touchscreen](#) sections as follows:

| Function | Description |
|----------|---|
| Listen | <p>The Listen function changes the mode of operation for the Touchscreen sections to channel control and enable the following actions:</p> <ol style="list-style-type: none"> 1. Simply tapping a Touchscreen section will toggle the listen state of a channel. Muting the channel output in the user's channel mix. 2. Pressing and holding a Touchscreen section allows to adjust the channel volume by rotating the multifunction Encoder. 3. Tapping the Touchscreen section of a channel with Channel1 Mode set to Flexlist will bring up a selection dialog to switch the channel target. <p>The Listen function will enable the ● Talk functionality for the physical buttons should the setting Button be set to Mode.</p> |
| Call | <p>The Call function changes the mode of operation for the Touchscreen sections to call signals and enables the following actions:</p> |

| Function | Description |
|----------|---|
| | <ol style="list-style-type: none"> Simply tapping a Touchscreen section will send a ● Call signal to the respective channel target(s). Pressing and holding a Touchscreen section sends an ○ Alert signal. <p>The Call function will enable the ● Call functionality for the physical buttons should the setting Button be set to Mode .</p> |
| Cue | <p>The Cue function changes the mode of operation for the Touchscreen sections to cue control and enable the following actions:</p> <ol style="list-style-type: none"> Simply tapping a Touchscreen section will either initiate an ● Attention signal or advance a currently ongoing cue signal to the next stage. Enable further cue control together with channel functions like Cancel Cue & Cue Mode . <p>The Cue function will enable the ● Cue functionality for the physical buttons should the setting Button be set to Mode .</p> |

💡 Tip: Switching between the available modes is also possible by [assigning](#) one or more of the [screen function switches](#) to your user interface.

⚠ Attention: If the [Button](#) option is configured with the [Mode](#) setting, this function also affects the action of the physical buttons.

✚ **Setup menu:** Device ▶ Device Settings ▶ Screen Function
 <> **Option range:** Listen, Call, Cue
 ↻ **Default:** Listen

STARTUP

The option [Startup](#) defines the default [Screen Function](#) that is being loaded after the device's power-up.

| Option | Description |
|--------|---|
| Last | Stores and recalls the last active <code>Screen Function</code> on a power-cycle of the device. |
| Listen | Always sets the <code>Screen Function</code> to <code>Listen</code> after power-up. |
| Call | Always sets the <code>Screen Function</code> to <code>Call</code> after power-up. |
| Cue | Always sets the <code>Screen Function</code> to <code>Cue</code> after power-up. |

| | |
|--------------------------|------------------------------------|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Startup |
| ◁ ▷ Option range: | Last, Listen, Call, Cue |
| ↻ Default: | Last |

SECOND PAGE

The property `Second Page` defines the function of the `Shift` button. Disabling this setting will make the second page of an MCX rack or MCXD desktop station unavailable.

| | |
|--------------------------|--|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Second Page |
| ◁ ▷ Option range: | Disabled, Enabled |
| ↻ Default: | Enabled |

PAGE

The option `Page` sets the current active (visible) `page` of a MCX rack or MCXD desktop station.

| | |
|--------------------------|---------------------------------|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Page |
| ◁ ▷ Option range: | 1, 2 |
| ↻ Default: | 1 |

BUZZER

The option `Buzzer` defines if alarm tones like the alarm call or cue signals are transmitted via the built-in speaker.

| | |
|--------------------------|-----------------------------------|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Buzzer |
| ◁ ▷ Option range: | Disabled, Enabled |
| ↻ Default: | Enabled |

SCREEN BRIGHTNESS

The option `Screen Brightness` controls the brightness of all device screens.

| | |
|-------------------------|--|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Screen Brightness |
| ◁> Option range: | Min, 1 – 6 (1 increments), Max |
| 🔄 Default: | 5 |

SCREEN TIMEOUT

The option `Screen Timeout` configures a timer that turns off all displays when the device is idle. Any user action or communication received will restart the timer and reactivate the displays.

| | |
|-------------------------|---|
| ✦ Setup menu: | Device ▶ Device Settings ▶ Screen Timeout |
| ◁> Option range: | Always On, 1 Minute, 10 Minutes, 1 Hour, 10 Hours |
| 🔄 Default: | 1 Hour |

LED INTENSITY

The option `LED Intensity` controls the brightness of the status and button backlights.

| | |
|-------------------------|--|
| ✦ Setup menu: | Device ▶ Device Settings ▶ LED Intensity |
| ◁> Option range: | Min, 1 – 6 (1 increments), Max |
| 🔄 Default: | 4 |

LED TIMEOUT

The option `LED Timeout` defines if the status and button backlights of the device will be controlled by the [Screen Timeout](#).

| | |
|-------------------------|--|
| ✦ Setup menu: | Device ▶ Device Settings ▶ LED Timeout |
| ◁> Option range: | Disabled, Enabled |
| 🔄 Default: | Disabled |

Line In/Out

This submenu provides configuration for the XLR3 line in- and output connectors.

Line In

ASSIGN

The property `Assign` defines the destination (group) of the input signal.

| | |
|-------------------------|---|
| ✦ Setup menu: | Device ▶ Line In/Out ▶ Line In ▶ Assign |
| ◁> Option range: | Available groups |
| ↻ Default: | Unset |

GAIN

The input `Gain` configures the amplification of the line input signal.

| | |
|-------------------------|---------------------------------------|
| ✦ Setup menu: | Device ▶ Line In/Out ▶ Line In ▶ Gain |
| ◁> Option range: | -6 dB – +24 dB (1 dB increments) |
| ↻ Default: | 0 dB |

COMPRESSOR

A simple `Compressor` that can be enabled and configured by this setting. The compressor reduces the dynamic range of the input signal by attenuating the louder parts of the signal, making it less likely to transmit distorted audio into the Green-GO system. When this setting is enabled, the timings of the compressor can be adjusted.

| | |
|-------------------------|---|
| ✦ Setup menu: | Device ▶ Line In/Out ▶ Line In ▶ Compressor |
| ◁> Option range: | Off, Fast, Med, Slow |
| ↻ Default: | Med |

GATE THRESHOLD

The option `Gate Threshold` defines the threshold for the noise-gate to open the line input. Audio signals below the configured threshold will be cut out and not transmitted.

| | |
|-------------------------|---|
| ✦ Setup menu: | Device ▶ Line In/Out ▶ Line In ▶ Gate Threshold |
| ◁> Option range: | -50 dB – -25 dB (5 dB increments), Off |
| ↻ Default: | -50 dB |

GATE HOLD

The option `Gate Hold` defines the hold time after which the noise-gate closes again after being activated once.

| | |
|-------------------------|--|
| ✦ Setup menu: | Device ▶ Line In/Out ▶ Line In ▶ Gate Hold |
| ◁> Option range: | Short, Medium, Long, Xlong |
| ↻ Default: | Medium |

Line Out

ASSIGN

The property `Assign` defines the source (group) of the output signal.

⚠ Attention: If the option `Line Out Level` is configured in the user's audio profile(s), the user's channel mix will be routed to the line output as well!

✚ **Setup menu:** Device ▶ Line In/Out ▶ Line Out ▶ Assign
 <> **Option range:** Available groups
 ↻ **Default:** Unset

LEVEL

The option `Level` configures the loudness of the output signal.

✚ **Setup menu:** Device ▶ Line In/Out ▶ Line Out ▶ Level
 <> **Option range:** -36 dB – +12 dB (1 dB increments)
 ↻ **Default:** 0 dB

LIMITER

The option `Limiter` allows configuring a simple limiter for the line output. The limiter attenuates the loudest part of the audio signal to prevent potential signal clipping.

✚ **Setup menu:** Device ▶ Line In/Out ▶ Line Out ▶ Limiter
 <> **Option range:** -6 dB – -24 dB (6 dB increments), Off
 ↻ **Default:** Off

LOOPBACK

The property `Loopback` defines the amount of signal from the `line input` fed back into the line output.

✚ **Setup menu:** Device ▶ Line In/Out ▶ Line Out ▶ Loopback
 <> **Option range:** Mute, -62 dB – 0 dB (1 dB increments)
 ↻ **Default:** Mute

GPIO







The GPIO connector enables external switches to initiate commands on the linked `Green-GO Engine` and also allows the device to set off external switch-controlled events using conditions such as `active`, `talk`, `call`, `cue`, etc.

 **Tip:** Please check the [GPIO chapter](#) for more technical details on GPIO.

Input 1|2

FUNCTION

The GPIO input `Function` defines the action that is executed on the device should the configured conditions be met.

| Function | Description |
|-----------------|---|
| No Function | Disables the general purpose input. |
| Talk | Opens a defined channel for outgoing  voice communications . This function will actuate for as long as the contacts are not in the normal state (momentary). |
| Call | Allows sending a  call signal to a defined channel. This function will actuate for as long as the contacts are not in the normal state (momentary). |
| Cue Acknowledge | Allows replying to an incoming  attention cue signal on any or on a defined channel with an acknowledgment, setting the cue signal to  ready . This function will trigger with the first pulse on the input (toggle). |
| Cue Abort | Allows aborting any outgoing cue signal on any or a defined channel. This function will trigger with the first pulse on the input (toggle). |
| Cue Attention | Allows to send an  attention cue signal to a defined channel. This function will trigger with the first pulse on the input (toggle) |
| Cue GO | Allows to sent a  direct GO cue signal to a defined channel. This function will trigger with the first pulse on the input (toggle). |
| Cue Clear | Allows clearing an outgoing GO cue signal on any or a defined channel. This function will trigger with the first pulse on the input (toggle). |
| Mic Kill | Acts as a remote switch to kill any active microphone on a defined channel (single user or all users in a group). This function will trigger |

| Function | Description |
|--------------|---|
| | with the first pulse on the input (toggle). |
| GPIO Control | Sends a ● GPIO control signal on a defined channel to trigger a remote GPIO integration. |
| Answer/Reply | Answers incoming communication on any or a defined channel. This function will actuate for as long as the contacts are not in the normal state (momentary). |
| Cough Mute | Mutes the currently active user input. This function will actuate for as long as the contacts are not in the normal state (momentary). |

| | |
|--------------------------|---|
| ✦ Setup menu: | Device ▶ GPIO ▶ Input ▶ Function |
| ◁ ▷ Option range: | No Function, Talk, Call, Cue Acknowledge, Cue Abort, Cue Attention, Cue GO, Cue Clear, Mic Kill, GPIO Control, Answer/Reply, Cough Mute |
| ↻ Default: | No Function |

CHANNEL

The option `Channel1` defines the target for the configured input `Function`.

| | |
|--------------------------|---------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Input ▶ Channel |
| ◁ ▷ Option range: | None, 1 – 248 (increments of 1) |
| ↻ Default: | None |

NORMALLY

The option `Normally` defines the *idle state* of the general purpose input.

If set to `Open`, the configured input `Function` will be executed whenever the input is closed.

| | |
|--------------------------|----------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Input ▶ Normally |
| ◁ ▷ Option range: | Open, Closed |
| ↻ Default: | Open |

STATUS

The menu entry `Status` displays the current status of the general purpose input.







The status is determined by comparing the setting `Normally` to the current state of the input.

| | |
|--------------------------|--------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Input ▶ Status |
| ◁ ▷ Option range: | Not Active, Active |
| ↻ Default: | Not Active |

Output 1|2

FUNCTION

The GPIO output `Function` defines the local conditions that trigger the output.

| Function | Description |
|----------------|---|
| Disabled | Disables the general purpose output. |
| Channel Active | Activates as soon as any or one defined channel has the state  <u>active</u> but isn't yet transmitting. The output actuates for the duration of this state (momentary). |
| Channel Vox | Activates as soon as any or one defined channel of the user receives  <u>active</u> voice communication. The output actuates for the duration of this state (momentary). |
| Talk Enabled | Activates as soon as any or one defined channel of the user is manually opened to transmit  <u>voice communication</u> . The output actuates for the duration of this state (momentary). |
| Call | Activates as soon as any or one defined channel receives a  <u>call signal</u> . The output actuates once as soon as the state changes (toggle). |
| Alert Call | Activates as soon as any or one defined channel receives an  <u>alert call signal</u> . The output actuates once as soon as the state changes (toggle). |
| GPIO Control | Activates as soon as any or one defined channel receives an  GPIO control signal. The output actuates once as soon as the state changes (toggle). |

| | |
|--------------------------|---|
| ✦ Setup menu: | Device ▶ GPIO ▶ Output ▶ Function |
| ◁ ▷ Option range: | Disabled, Channel Active, Channel Vox, Talk Enabled, Call, Alert Call, GPIO Control |
| ↻ Default: | Disabled |

CHANNEL

The option `Channel1` defines the target for the configured output `Function`.

| | |
|--------------------------|----------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Output ▶ Channel |
| ◁ ▷ Option range: | Any, 1 – 248 (increments of 1) |
| ↻ Default: | Any |

NORMALLY

The option `Normally` defines the *idle state* of the general purpose output.

If set to `Open`, the configured output `Function` will close the output.

| | |
|--------------------------|-----------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Output ▶ Normally |
| ◁ ▷ Option range: | Open, Closed |
| ↻ Default: | Open |

TEST

The property `Test` allows to test the output and connected electronics without the need of meeting the `configured` conditions.


| | |
|--------------------------|-------------------------------|
| ✦ Setup menu: | Device ▶ GPIO ▶ Output ▶ Test |
| ◁ ▷ Option range: | Off, Active, Not Active |
| ↻ Default: | Off |


Buttons Page 1|2


This submenu gives access to the function assignments for the user interface (buttons, touchscreens). Alternatively, the assignments can be `changed directly` on the user interface itself.


BUTTON 1 - 18

The option `Button 1 - 18` defines the function of a physical `Button` and the respective `Touchscreen` section.

 **Tip:** Please check out the [functions](#) chapter for more information on what each function does.

 **Setup menu:** Device ▶ Button Page ▶ Button


 **Option range:** No Function, Side Tone, Emergency Level, Announcement Level, Program Audio Level, Direct Level, Line Out Level, Speaker Level, Headset Level, Main Level, Audio Profile Select, Cough Mute, Mic Kill, Isolate, Answer/Reply, Listen/Call Mode, Listen Mode, Cue Cancel, Cue Mode, Call Mode, Channel 1 – 32

 **Default:** -

Connection

The connection menu allows changing the connection mode used by the Green-GO Engine. This allows connecting an engine to either a local or a remote network.

- [Local connection mode](#)
- [Direct IP connection mode](#)
- [Cloud ID connection mode](#)

 **Notice:** Selecting one of the above modes will change the menu layout.

Mode

Local

This is the *default* connection mode, allowing for communication with the local network.

This mode doesn't need any configuration. Instead, devices will start to communicate as soon as they are in the same local network and members of the same configuration file.

Direct IP




The direct IP connection mode allows connecting the Green-GO Engine to a remote Green-GO BridgeX. This mode will require correct routing and potential port forwarding in case a NAT is used on the receiving end.

This mode is mainly thought out to be used for locally routed connections like a connection via WiFi access points.

 **Tip:** Please check out the guide on [bridging connections](#) to find out more about this connection mode.


IP ADDRESS




The IP address defines the external or public IPv4 address of the remote [Green-GO BridgeX](#).

 **Setup menu:** Connection ▶ Mode: Direct IP ▶ IP Address
 **Option range:** IPv4 address-space
 **Default:** Unset

UDP PORT


The UDP port defines the target bridge port for the remote connection.




 **Tip:** Keep in mind that each bridge port can accept and serve only one connection.

 **Setup menu:** Connection ▶ Mode: Direct IP ▶ UDP Port
 **Option range:** Auto, 00000 - 99999
 **Default:** Auto

PASSWORD


This defines the authentication password needed for a connection to a bridge port.

 **Notice:** The password is *always* eight characters long!

 **Setup menu:** Connection ▶ Mode: Direct IP ▶ Password
 **Option range:** 8 characters: A - Z, a - z, 0 - 9, +, -
 **Default:** Unset

SEND BUFFER

The send buffer is used to buffer potential jitter on the outgoing connection.

 **Tip:** This setting usually only requires configuration in case of a bad or high latency connection.

| | |
|--------------------------|--|
| ✦ Setup menu: | Connection ▶ Mode: Direct IP ▶ Send Buffer |
| ◁ ▷ Option range: | 10 ms, 20 ms, 30 ms, 40 ms |
| ↻ Default: | 10 ms |

RECEIVE BUFFER

The receive buffer is used to buffer potential jitter on the incoming connection.

💡 **Tip:** This setting usually only requires configuration in case of a bad or high latency connection.

| | |
|--------------------------|---|
| ✦ Setup menu: | Connection ▶ Mode: Direct IP ▶ Receive Buffer |
| ◁ ▷ Option range: | 20 ms - 200 ms (10 ms increments) |
| ↻ Default: | 20 ms |

DIAGNOSTICS

The diagnostics menu contains a number of useful statistics for the incoming and outgoing connections.

| | |
|----------------------|--|
| ✦ Setup menu: | Connection ▶ Mode: Direct IP ▶ Diagnostics |
|----------------------|--|

Cloud ID

The cloud ID connection mode provides an easy way to connect your devices over the internet utilizing the *hole punching* technique to establish a direct connection through firewalls or routers using NAT.

The cloud ID is provided and generated by a hosted service and can be used to connect and dynamically assign multiple clients. A cloud ID can be requested and used for free by filling out our request form over [here](#).

⚠ **Warning:** This service is not live.

💡 **Tip:** Check out our guide on [bridge connections](#) to find out more about the cloud ID connection mode.

ID

The eight-character cloud ID defines the session for the connection and is needed to authenticate with the cloud service.

 **Tip:** The cloud ID is generated by the public cloud service.

† Setup menu: Connection ▶ Mode: Cloud ID ▶ ID
<> Option range: 8 characters: A - Z, a - z, 0 - 9, +, -
↻ Default: Unset

PASSWORD


The eight-character password is needed to authenticate with the cloud service.

 **Tip:** The cloud ID is generated by the public cloud service.

† Setup menu: Connection ▶ Mode: Cloud ID ▶ Password
<> Option range: 8 characters: A - Z, a - z, 0 - 9, +, -
↻ Default: Unset

SEND BUFFER


The send buffer is used to buffer potential jitter on the outgoing connection.

 **Tip:** This setting usually only requires configuration in case of a bad or high latency connection.

† Setup menu: Connection ▶ Mode: Cloud ID ▶ Send Buffer
<> Option range: 10 ms, 20 ms, 30 ms, 40 ms
↻ Default: 10 ms

RECEIVE BUFFER

The receive buffer is used to buffer potential jitter on the incoming connection.

 **Tip:** This setting usually only requires configuration in case of a bad or high latency connection.

| | |
|-------------------------|--|
| ✦ Setup menu: | Connection ▶ Mode: Cloud ID ▶ Receive Buffer |
| ◁> Option range: | 20 ms - 200 ms (10 ms increments) |
| ↻ Default: | 20 ms |

DIAGNOSTICS

The diagnostics menu contains a number of useful statistics for the incoming and outgoing connections.

| | |
|----------------------|---|
| ✦ Setup menu: | Connection ▶ Mode: Cloud ID ▶ Diagnostics |
|----------------------|---|

Config

The **Config** submenu allows loading configurations onto the device without the use of the Green-GO Control software.

💡 **Tip:** The currently used configuration can be viewed in the **Info** submenu.

Join Config

This submenu lists all *active* configurations in a local network. However, the configuration currently used by the device will not be shown.

AVAILABLE CONFIGURATIONS

Clicking on any entry will bring up a confirmation screen. Pressing the option **Join** will load the configuration onto the device.

⚠ **Notice:** Depending on the **security setup** of a configuration, you may be asked to provide a *config password* before being allowed to join.

| | |
|----------------------|---|
| ✦ Setup menu: | Config ▶ Join Config ▶ Configuration Name |
|----------------------|---|

Default Configuration

This submenu allows loading a *custom* default configuration.

💡 **Tip:** You can **define a custom configuration** with the help of the Green-GO Control software.

LOAD

The *custom default* configuration file will be loaded by clicking the 'Load' property.

✚ **Setup menu:** Config ▶ Default Configuration ▶ Load

Factory Default

This submenu allows loading the *factory default* configuration file.

LOAD

The *factory default* configuration file will be loaded by clicking the 'Load' property.

✚ **Setup menu:** Config ▶ Factory Default ▶ Load

Network

The **Network** submenu allows to configure the network interface of the device. The configuration supports two modes (IPv4):

Dynamic: Yes

Dynamic: Yes autoconfigures the network interface, either listening to a local DHCP server or autoconfiguring a `169.254.0.0/16` IPv4 address.

Dynamic: No

Dynamic: No allows for manual network configuration.

ADDRESS

The option **Address** defines the private IPv4 address of the device.

✚ **Setup menu:** Network ▶ Dynamic: No ▶ Address
 <> **Option range:** 0.0.0.0 - 255.255.255.255
 ↻ **Default:** Unset

NETMASK

The option **Netmask** defines the local subnet of the device.

✚ **Setup menu:** Network ▶ Dynamic: No ▶ Netmask
 <> **Option range:** 0.0.0.0 - 255.255.255.255
 ↻ **Default:** Unset

GATEWAY

The option `Gateway` defines the local network gateway.

| | |
|--------------------------|---------------------------------|
| ✚ Setup menu: | Network ▶ Dynamic: No ▶ Gateway |
| ◁ ▷ Option range: | 0.0.0.0 - 255.255.255.255 |
| 🔄 Default: | <i>Unset</i> |

Info

The `Info` submenu makes the essential configuration settings available to view in one place. Some of the options available provide tools for debugging the device or system.

Name

This option shows the device name.

| | |
|----------------------|-------------|
| ✚ Setup menu: | Info ▶ Name |
|----------------------|-------------|

Config

This submenu shows the information regarding the current configuration file used by the device.

The provided information can be useful when debugging problems regarding devices that are out of sync.

NAME

This option shows the name of the currently active configuration file.

| | |
|----------------------|----------------------|
| ✚ Setup menu: | Info ▶ Config ▶ Name |
|----------------------|----------------------|

STAMP

This option shows the timestamp of the currently active configuration file.

| | |
|----------------------|-----------------------|
| ✚ Setup menu: | Info ▶ Config ▶ Stamp |
|----------------------|-----------------------|

SAMPLE RATE

This option shows the sample rate used by the currently active configuration file.

| | |
|----------------------|-----------------------------|
| ✚ Setup menu: | Info ▶ Config ▶ Sample Rate |
|----------------------|-----------------------------|

MULTICAST IP

This option shows the currently set multicast IP of the configuration file.

✚ **Setup menu:** Info ▶ Config ▶ Multicast IP

ID

This option shows the *unique ID* of the currently active configuration file.

✚ **Setup menu:** Info ▶ Config ▶ ID

IP

This submenu shows the current IP address of the device and allows to ping a remote IPv4 target to verify the current network connection.

PING

This option allows defining an IPv4 target to be pinged.

✚ **Setup menu:** Info ▶ IP ▶ Ping

PACKETS

This option allows initiating the ping script, sending out 10 consecutive pings to the defined target. Also, this option acts as a total packets counter, showing how many packets have been sent.

💡 **Tip:** Activating this option again will restart the script.

✚ **Setup menu:** Info ▶ IP ▶ Packets

Packet Statistics

Lost

Counter showing the numbers of packets lost during the last run of the ping script.

Avg

The average response time recorded for the last run of the ping script.

Min

The minimum response time recorded for the last run of the ping script.

Max

The maximum response time recorded for the last run of the ping script.

⚠ Warning: On a local Green-GO network, the response times shouldn't exceed 1ms!

Firmware

This submenu displays the device's firmware version. It's also possible to update connected [MCX rack](#) or [MCXD desktop](#) extensions via the `Scan` option.

✚ Setup menu: Info ▶ Firmware

SCAN

This option allows to scan for connected [MCX rack](#) or [MCXD desktop](#) extensions and update their firmware to the version of the device.

✚ Setup menu: Info ▶ Firmware ▶ Scan

Serial

This option displays the device's serial number.

✚ Setup menu: Info ▶ Serial

Reset To Defaults

This submenu allows resetting the complete device or parts of the configuration back to the *factory defaults*.

RESET NETWORK

This option allows resetting the [network configuration](#) back to the *factory defaults*.

✚ Setup menu: Info ▶ Reset to Defaults ▶ Reset Network

RESET DEVICE

This option allows resetting the [device configuration](#) back to the *factory defaults*.

✚ Setup menu: Info ▶ Reset to Defaults ▶ Reset Device

RESET AUDIO

This option allows resetting the [audio configuration](#) back to the *factory defaults*.

✦ **Setup menu:** Info ▶ Reset to Defaults ▶ Reset Audio

RELOAD USER

This option allows reloading the current [user](#) and all its settings.

✦ **Setup menu:** Info ▶ Reset to Defaults ▶ Reload User

FACTORY RESET

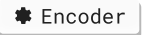
This option allows resetting the complete device back to *factory defaults*.

✦ **Setup menu:** Info ▶ Reset to Defaults ▶ Factory Reset

Reset the memory cache




🔔 **Tip:** You **will** lose any device configuration by clearing the memory cache of your device.

While it is not necessary to reset a device's memory cache after updating a version 5 firmware, it may help to resolve issues after an update process has been completed. Resetting a device's memory cache is done in the *forced* [Boot Mode](#):

1. Power down your device.
2. While powering up your device, press the  Encoder
3. You can release the button after the device booted into the *forced* [Boot Mode](#).
4. Press and hold the button identified in step two again for approximately 30 seconds.
5. While resetting, devices with a display will show a countdown.
6. Release the button after the countdown has run down.
7. Restart your device.

Technical specifications

General

| | |
|------------------------------|--|
| Connectors (Neutrik): | 1 x XLR4M, 2 x XLR3F, 1 x XLR3M, 2 x RJ45 etherCON (10/100 Mbps), 1 x D-Sub 9 GPIO, 1 x 12 V DC barrel |
| User controls: | 3 x  Touchscreen, 20 x  Buttons (backlit), 1 x  Encoder |
| Displays: | 3 x 2,2" TFT-touchscreen (color) |
| Displays resolution: | 240 x 320 pixel, 33 x 44 mm (H/W) |
| Power inputs: | <i>Power over Ethernet:</i> IEEE 802.3af 48-56 Vdc <i>Barrel connector (optional):</i> 2.1 mm 12 Vdc |
| Power usage: | 5 Watt <i>typical</i> , 13 Watt <i>max.</i> |
| Dimensions (H/W/D): | 52 x 220 x 155 mm |
| Weight: | 1,11 kg |
| Environmental: | <i>Ambient temperature:</i> 0° – +55° C |

Audio inputs

Headset connector

| | |
|-----------------------------|--|
| Connector (Neutrik): | XLR4M (pin 1 & 2) |
| Type: | Unbalanced |
| Bias power: | Max. 2.5 V |
| Amplification range: | +30 dB – +60 dB |
| Noise: | -70 dBu – -55 dBu |
| Wired Latency: | <i>Headset to headset:</i> ~10 ms |
| Wireless Latency: | <i>Headset to headset:</i> ~22 ms (one wireless hop) |

FrontMic connector

| | |
|-----------------------------|-----------------|
| Connector (Neutrik): | XLR3F |
| Type: | Balanced |
| Phantom power: | Max. 10 V |
| Amplification Range: | +10 dB – +50 dB |

Noise: -70 dBu – -55 dBu
Latency: *Front mic to headset: ~10 ms (wired)*

Line input

Connector (Neutrik): XLR3F
Type: Balanced
Amplification Range: -6 dB – +24 dB
Noise: -70 dBu – -55 dBu
Latency: *Line-in to headset: ~10 ms (wired)*

Audio outputs

Headset connector

Connector (Neutrik): XLR4M (pin 3 & 4)
Nominal level: 0 dBu
Max output: +20 dBu
Impedance: 120 Ω

Internal speaker

Nominal level: 0 dBu
Max output: 2 Watt
Impedance: 80 Ω

Line output

Connector (Neutrik): XLR3M
Nominal level: 0 dBu
Max output: +12 dBu
Impedance: 240 Ω

GPIO

General purpose inputs

Connector: D-Sub 9 (pins: 2/6, 3/7)

Type: Dry contact

Channels (per connector): 2

Detection voltage (max): 5 V (pins: 2/6, 3/7)

General purpose outputs

Connector: D-Sub 9 (pins: 4/8, 5/9)

Type: Floating optocoupler

Channels (per connector): 2

Output voltage: 5 V (pin 1)




Output current (max): 5 mA (pin 1)

Switching voltage: 50 V (pins: 4/8, 5/9)




Switching current (max): 8 mA (pins: 4/8, 5/9)

Downloads

Firmware

-  [Latest firmware \(ZIP archive\)](#) 
-  [Firmware archive](#) 

Other

-  [Technical drawings \(ZIP archive\)](#) 
-  [CE-Certificate \(PDF\)](#)

 May 26, 2024  February 1, 2021  [Chad Phelps, Henk-Jan Blok, Timo Toups](#)