



Quad 4-wire Quick Start Guide

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Quick Start Guide

The Green-GO Quad 4-wire allows you to interface with external audio systems. And connect up to 4 General purpose Audio line in/outs. This is ideal for purposes like program audio and announcements or complete user-based engines with 32 channels and program audio, announcement, emergency and GPIO

Features

- 4x 4-wire port
- 4x 3 pin XLR line in port
- 4x 3 pin XLR line out port
- 4x 9 pin sub-D GPIO
- 2x etherCON RJ45 port
- 2.2-inch color display
- Powered by PoE (802.3af-2003 standard).

Setup menu navigation

Pressing the encoder will open the setup menu of the Green-GO Quad 4-wire. Once in the menu, the encoder will allow you to navigate through the menu and set a parameter. Pushing the encoder will confirm your selection.

Setup menu overview

The setup menu offers a range of different settings to modify your device. The menu sections and their supplementary options are described in detail below.

Set up a 4-wire port

To Set up a 4-Wire port first select the mode to use. Select a port and scroll down to Set User/Mode.

4-wire Port x

Set User/Mode:

- | | |
|--------------------|--|
| Line in/out | → Set up this port as General-Purpose Input and Output. this mode is used for interfacing with more static systems like a program audio input which is always active or an external announcement speaker system |
| Mode: User | → Set this port as a full User based port. Audio can be sent into and out of this port to other communication systems, using GPIO in-and outputs to trigger routing, calls and cues. Select one of the users from the current config to load all channel settings for this user. |

Set up a 4wire port as General-purpose line In/Out

Set up a 4-wire port as General-purpose Line in/out. This is a simple Line in and out to feed audio lines into and out of the Green-GO network. for example, Program audio or an Announcement system.

Mode: Line in/out

In → Set up the Input of this 4-wire port.

Group → Select a group from your config to which this input will be assigned.

AutoGain → Set the dynamic amplification to avoid distortion. Available settings are Slow/Med/Fast/Off. If AutoGain is turned off the Max Gain becomes gain.

MaxGain → Set the maximum gain of the input signal - range is from -12 to 28 dB.

Threshold → Set the gate function for this input. The threshold is the level required for the input signal to be transmitted – editable range is from -45 to -20dB or turned Off.

Hold → Set up the Gate hold time for this input. Options: Fast / Med / Long / XLong

Bandwidth → Set up the used bandwidth for this input

Normal → 7kHz bandwidth is used for this input

Enhanced → 14kHz bandwidth is used for this input

In → Set up the input source for this input. Line In or a 125 Hz to 4 kHz test tone

Out → Set up the output of this 4-wire port.

Group → Select a group from the config to which the output will be assigned.

Output → Set the output level of the Line Output. Available range is MUTE, -42 to 6 dB.

LoopBack → Set the level of the LoopBack from 0 to -39 dB or turn it off

Set up a 4wire port as User based port

Set up a 4-wire port as User based Audio in and output. Audio can be sent from and received by multiple channels simultaneously. Routing, cues and calls can be triggered via GPIO.

Mode: User

Channels → set up and alter individual channels for this 4-wire port.

1-32 → Select one of the 32 available channel to assign a user or group to.

ID → ID of the user or group assigned to the channel
Group → Assign a group to the channel
User → Assign a user to the channel
None → Remove assigned group/user from the channel

Set Label → Set a different label for the channel

Group → Select a group label
User → Select a user label
Clear → Clear the label set

Talk → Set talk mode for this channel.

Disable → talk is disabled for this channel

Momentary → talk is enabled as long as a corresponding trigger is active

Latch → talk is toggled between enabled or disabled when a trigger becomes active

Latch/Momentary → A combination of latch and momentary. A short activation will toggle the Latch and a long activation will act Momentary.

Listen → Toggle the Listen on this channel on or off.

Volume → Set the volume for this channel. The range -24 dB through 12 dB.

Priority → Set the priority level of the channel - see also **Priority dim** in the Options menu

Call Send → Enable or disable the possibility to send calls from this channel

Call Receive → Enable or disable the possibility to receive calls on this channel

Bandwidth → Set up the used bandwidth for this input

Normal → 7kHz bandwidth is used for this input

Enhanced → 14kHz bandwidth is used for this input

An → Assign group to be handled as Announce Channel

Em → Assign group to be handled as Emergency Channel

Program Audio → Set up the Program Audio channel for this 4-wire port.

Mode → Select Normal or Local IFB. Normal mode will allow you to select .

one of the available Groups in the Green-GO network on the Program audio channel. Local IFB will send the input of the 4-wire port to the Program audio of this port. This audio stream is not Available on the Green-GO network.

- Src** → Select the Group as program audio source. Not available in Local IFB
- Vol** → Set the volume of the program audio. The range Mute, -36 dB through 12 dB
- Dim** → This will Attenuate the program audio whenever one of the Channels including announcement and emergency is active. range is from 0 dB to -24 dB and MUTE option.

Audio In/Out

- Output** → Set the output level of the Audio Output. Range is MUTE, -42 to 6 dB.
- LoopBack** → Set the ratio of audio feed back from the input back to the output. range is 0 to -39 dB or turn it off.
- AutoGain** → Set the dynamic amplification to avoid distortion. Available settings are Slow/Med/Fast/Off. If AutoGain is turned off the Max Gain becomes gain.
- MaxGain** → Set the maximum gain of the input signal - range is from -12 to 28 dB.
- Threshold** → Set the gate function for this input. the threshold is the level required for the input signal to be transmitted – editable range is from -45 to -20dB or turned Off.
- Hold** → Set up the Gate hold time for this input. Options: Fast/Med/Long/XLong
- In** → Set up the input source for this input. Line In or a 125 Hz to 4 kHz test tone

Set up General Purpose In- and Outputs

In the GP input/output menu you can set up the GPIO of this 4-wire port to interface with and trigger external communication systems. Each 4-wire port has a 9-pin sub D connector available with 2 inputs and 2 outputs.

In x → Set up one of the two inputs.

Func → Set up the function that is triggered by this input

Talk → Set up this input to trigger A talk.

Call → Set up this input to trigger a Call

Cue → Set up this input to Acknowledge or send an Attention, Hold or GO

Option → Set up on which channel this trigger is active.

Func: Talk → Either Answer the current active channels or select one specific channel.

Func: Call → Select the channel to call

Func: Cue → Select which cue signal to send

Acknowledge → Send an acknowledge to the incoming cue

Send ATT Chn → Send an attention to one specific channel

Send Hold Chn → Send a hold signal to one specific channel

Send GO Chn → Send a GO signal to one specific channel

Normally → Set up the NOT active state of this input.

Out x → Set up one of the two outputs

Func → Set up the function that will trigger this Output

Active → An active channel will activate this output

Call → A call will activate this output

Cue Receive → Set up an output to be active when a Cue is received.

Talk → A local active talk will activate the output

Option → Set up on which channel this trigger is active.

Func: Active → Either Any channel or select a specific channel

Func: Call → Either Any channel or select a specific channel

Func: Cue Rec → Select which cue signal will trigger the output

Hold → Output is active when a Hold is active

Hold Blink → Output is blinking when a Hold is active

Att → Output is active when an Attention is active

Att Blink → Output is blinking when an Attention is active

GO → Output is active when a GO is active

Go Blink → Output is blinking when a GO is active

Hold /Att Blink → Output is active when a Hold is active and blinking when an Attention is Active

Hold Blink /Att → Output is blinking when a Hold is active and active when an Attentions active

Hold /GO → Output is active when a Hold or GO is active

Att / GO → Output is active when an Attention or GO is

active

Normally → Set up the NOT active state of this Output.

Test → Manually set the current output temporarily open or closed

GPIO pinout

Pin 1 :	+5v	Capable off sourcing 200mA
Pin 2 :	Input 1	Switch to ground to activate input 1
Pin 3 :	Input 2	Switch to ground to activate input 1
Pin 4 :	Output 1+	High side of open collector capable of 5mA
Pin 5 :	Output 2+	High side of open collector capable of 5mA
Pin 6 :	Ground 1	General purpose ground
Pin 7 :	Ground 2	General purpose ground
Pin 8 :	Output 1-	Low side of open collector capable of 5mA
Pin 9 :	Output 2-	Low side of open collector capable of 5mA

Set up Port Options

In the Options menu generic port set up is done. You can set up active channel priority and cue/call volumes

- Options** → Set up port specific settings
- Active Time** → Set the time for a channel to be active after the last audio activity. Range is from 0.5 to 45.0 seconds.
 - Tone** → Set the level of the audio signal used for Alert, Cue, Connection Status and Battery status. Range is MAX, -1dB to -48dB, MUTE.
 - Priority Dim** → Set Attenuation of a lower priority channel if a higher priority channel becomes active. Range is 0dB to -24db, MUTE.
 - Direct Priority** → Set priority for direct channels; Low / Normal / High
 - Direct Volume** → Set volume for direct channels. Range is 12db to -36dB, MUTE.
 - AutoTalk** → Enable AutoTalk on channel 1 through 32 or turn it off.
When AutoTalk is activated, available audio will be sent to the selected channel if no other sends are active.
 - Cue Mode** → Set up the way the port responds to Cues.
 - Normal** → the port does not reply to a incoming call
 - Auto answer** → the port automatically replies with a Hold to a call
 - Ignore** → the port ignores incoming calls

Set up the connection type of a 4-wire port

- Connection** → Set up the connection for this 4-wire port
- Local connection** → Set up this port as a normal Green-Go device in a local network.
 - Remote connection** → Set up this port as the passive side of a bridge connection.
 - Password** → Set up a password for this connection. The password needs to be identical on both sides of the connection. and is always 8 characters long.
 - Generate Password** → Automatically generate a random 8-character password
 - Local Port** → Set up a TCP port for the connection. This port needs to be the same on both sides of the connection. A different and free port needs to be used for each connection
 - SndBuf** → Set up the size of the audio packages being sent from this port. A connection with high jitter in latency needs a larger Buffer
 - RecvBuf** → Set up the size of the buffer for the incoming audio packages. A connection with high jitter in latency needs a larger Buffer
 - Save** → Save all changes made on this port connection, This will cause a reboot of the device.
 - Cancel** → Discard all changes made on this port connection

Generic device settings

Configuration cloning

All devices on the local Green-GO network need to have the same configuration to be able to communicate with each other.

- Clone Config** → Clone a configuration file from the network
 - Configuration File A → Load configuration file A
 - Configuration File B → Load configuration file B
 - etc.
- Factory Default** → Load the factory default configuration file

Set up Network

In the Network menu you can set up the Network setting of the Internal Green-GO network.

- Dynamic** → Select the connection mode.
 - ON** → Use a dynamic IP. If an DHCP server is on the network this will supply an IP address to the device. If there is no DHCP server the device will self-assign a Link local IP.
 - OFF** → Use a static IP
 - IP address** → Set the IP address to be used
 - Netmask** → Set the netmask to be used
 - Gateway** → Set the gateway to be used
- Save** → Save the current network setup
- Cancel** → Discard current network changes

Device options

Device specific settings can be modified in this menu.

Device Options

- Exit** → leave this menu range is 0.5 – 5.0 seconds.
- Backlight** → Set the time out of the display. Always on, or a range from 10 seconds through 4 hours.
- Display** → Set the Intensity of the display to dark or bright.

Device information

Info → Shows general information about the Quad 4-wire

Config : → The current config of the Quad 4-wire

SN: xxx → Serial number of the Quad 4-wire

4-wire 4a61 → Firmware information

4-wire 4a61 → Firmware version

Nov 16 2018 → Date of firmware build

09:32:09 → Time of firmware build

IP: xxx.xxx.xxx.xxx → IP address of the Quad 4-wire

Mac: xx:xx:xx:xx:xx:xx → Mac address of the Quad 4-wire

Reset All Settings → Resets all IP, Audio, User and Channel settings
(configuration file is not changed)

Technical specifications

Power: Power over Ethernet (IEEE 802.3af)
Dimensions: 483mm (19") x 44mm (1U) x 165 mm
Weight: 2480 gr.

General safety instructions

Read all instructions - especially the safety requirements - in the user manual before use. Save these instructions - the safety and operating instructions should be retained for future reference. Carefully follow all instructions.

Cleaning

Disconnect all connected supply and signal cables before cleaning the unit. Clean with a dry cloth. Do not use any liquids or aerosols on the unit.

Usage

Do not use the unit near water or moisture. - Do not block any ventilation openings, they are necessary for the essential airflow within the unit and protect it against overheating. - Install in accordance with the manufacturer's instructions. - Do not insert any objects through the ventilation slots of the unit, as these could come in contact with live parts or could cause short circuits. This could cause electric shock and/or fire. - Do not install near any heat sources such as radiators, stoves or other apparatus (including amplifiers) that produce heat. - Unplug this apparatus during lightning storms or when unused for long periods of time. Do not place the unit on unstable surfaces.

Servicing

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as; damage to the power supply cord or plug, spillage of liquids, objects falling into the apparatus, exposure to rain or moisture, abnormal operation or falling damage. In all of the previous conditions, disconnect the main plug immediately and call your distributor or technical support!

WARNING

**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE**

We,

Manufacturers name: ELC lighting b.v.

Manufacturers address: Weerijds 8
5422 WV Gemert
the Netherlands

Herewith take the full responsibility to confirm that the product

Product Category: Communication equipment

Name of product: Quad 4-wire

Which refer to this declaration are manufactured in the Netherlands and complies with the following product specifications and harmonized standards:

Safety : LVD (Low Voltage Directive) 2014/35/EU, EN62368-1

EMC : 2014/30/EG, EN55032

ROHS (II): 2011/65/EU

With the presumption that the equipment is used and connected according to the manual, supplied with the equipment. All signal input- and output connections must be shielded and the shielding must be connected to the ground of the corresponding plug.

Gemert, 20 January 2019

ing. Joost van Eenbergen

