Omnia VOCO® 8

Powerful, networked mic processing for your entire facility.

Quick Start Setup Guide

For part numbers: 2001-00396-000, 2001-00421-000,
2001-00422-000, 2001-00423-000

ATTENTION!

This quick start guide is intended to aid with basic deployment of the VOCO 8.
For further support and/or questions please contact support@telosalliance.com

IMPORTANT SAFETY INFORMATION ABOUT YOUR NEW PRODUCT

We know you're eager to get your new gear up and running. But first, The Telos Alliance strongly suggests you use an Uninterruptible Power Supply (UPS), with power line filtering, to prevent damage in case of electrical storms or power surges. Your Product Warranty (found in the User Manual) does not cover lightning damage!

Information about lightning protection can be found at:
http://blogs.telosalliance.com/tech/surge-suppression-pointers

Telos Alliance Limited Warranty

This Warranty covers "the Products," which are defined as the various audio equipment, parts, software and accessories manufactured, sold and/or distributed by or on behalf of TLS Corp. and its affiliated companies, collectively doing business as The Telos Alliance (hereinafter "Telos").

With the exception of software-only items, the Products are warranted to be free from defects in material and workmanship for a period of five (5) years from the date of receipt of such Product by the end-user (such date of receipt the "Receipt Date"). Software-only items are warranted to be free from defects in material and workmanship for a period of 90 days from the Receipt Date. Telos will repair or replace (in its discretion) defective Products returned to Telos within the warranty period, subject to the provisions and limitations set forth herein.

This warranty will be void if the Product: (i) has been subjected, directly or indirectly, to Acts of God, including (without limitation) lightning strikes or resultant power surges; (ii) has been improperly installed or misused, including (without limitation) the failure to use telephone and power line surge protection devices; (iii) has been damaged by accident or neglect. As with all sensitive electronic equipment, to help prevent damage and or loss of data, we strongly recommend the use of an uninterruptible power supply (UPS) with all of our Products. Telos products are to be used with registered protective interface devices which satisfy regulatory requirements in their country of use.

This Warranty is void if the associated equipment was purchased or otherwise obtained through sales channels not authorized by Telos.

EXCEPT FOR THE ABOVE-STATED EXPRESS WARRANTY, TELOS MAKES NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE).

In no event will Telos, its directors, officers, employees, agents, owners, consultants or advisors (its "Affiliates"), or authorized dealers or their respective Affiliates, be liable for incidental or consequential damages, or for loss, damage, or expense directly or indirectly arising from the use of any Product or the inability to use any Product either separately or in combination with other equipment or materials, or from any other cause.

In order to invoke this Warranty, the Product must be registered via Telos' website (found at: http://telosalliance.com/legal/warranty) at time of receipt by end-user and notice of a warranty claim must be received by Telos within the above stated warranty period and warranty coverage must be authorized by Telos. Contact may be made via email: support@telosalliance.com or via telephone: (+1) 216-241-7225. If Telos authorizes the performance of warranty service, the defective Product must be delivered to: Telos, 1241 Superior Avenue, Cleveland, Ohio 44114 or other company repair center as may be specified by Telos at the time of claim.

Shipping Costs and Warranty Service:

If the date the customer's notice of warranty claim is received by Telos (such date the "Warranty Claim Notice Date") is within the first 90 days following the Receipt Date, Telos will pay the costs of shipping such warranted Product to and from the end user's location, and the cost of repair or replacement of such warranted Product.

If the Warranty Claim Notice Date occurs after the first 90 days following the Receipt Date and before the end of the second (2nd) year, the customer will pay the freight to return the warranted Product to Telos. Telos will then, at its sole discretion, repair or replace the warranted Product and return it to the end user at Telos' expense.

If the Warranty Claim Notice Date occurs between the end of the second (2nd) year following the Receipt Date and the completion of the fifth (5th) year, the customer will pay the costs of shipping such warranted Product to and from the end user's location. Telos will then, in its sole discretion, repair or replace the warranted Product at Telos' expense. Telos also reserves the right, if it is not economically justifiable to repair the warranted Product, to offer a replacement product of comparable performance and condition direct to the customer at a discounted price, accepting the failed warranted Product as a trade-in.

The end user will in all cases be responsible for all duties and taxes associated with the shipment, return and servicing of the warranted Product.

No distributor, dealer, or reseller of Telos products is authorized under any circumstances to extend, expand or otherwise modify in any way the warranty provided by Telos, and any attempt to do so is null and void and shall not be effective as against Telos or its Affiliates.

Out of warranty units returned to the factory for repair may be subject to a $500 evaluation fee, which fee must be prepaid prior to shipping the unit to Telos. If no repairs are required, the $500 fee will be retained by Telos as an evaluation charge. If repairs are required, the $500 fee will be applied to the total cost of the repair.

Quick Start Setup Guide

Introduction

Thank you for purchasing the Omnia VOCO® 8 microphone processor. This unit combines 8 studio-quality microphone preamps with up to 8 licensable channels of 3-band microphone processing (2 are included standard). Other key features include full Livewire+/AES67 Audio over IP (AoIP) connectivity, as well as analog and AES/EBU I/O, and a comprehensive IP remote control interface.

We know you're probably anxious to get up and running quickly, but there are a few tips in this short quick start guide that we hope will make the process a bit easier. If you're in a real hurry, skip ahead to the "Frequently Asked Questions" section of the guide.
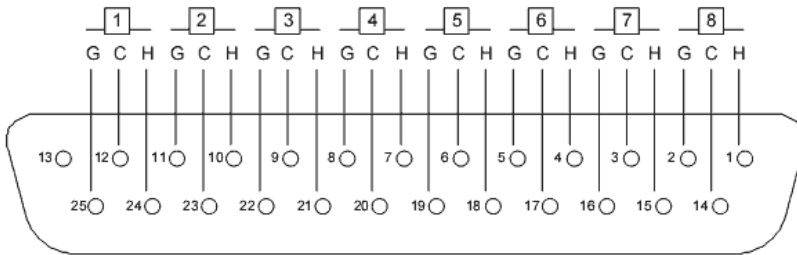

Installation

Choosing a Location

The VOCO 8 uses 2 RU of rack space and is approximately 14 ¾" deep. It should mount just fine in most standard 19" equipment racks but you will want to choose a location where you can access the front panel controls and ensure that you leave enough space behind the unit to accommodate the I/O connectors. Although it is not required, we recommend that you leave 1RU above and below the unit if possible to allow air circulation.

A temperature-controlled fan on the left hand side of the unit provides cooling. This fan (while relatively quiet during normal operation) may become audible if the internal temperature of the unit begins to rise as the fan speed increases. You may want to consider mounting the unit in an equipment closet adjacent to the studio if elevated temperatures in the mounting location could cause fan noise to become an issue.

Mic/Line Inputs and Outputs

Each of the 8 analog inputs can accept either a microphone level signal (with selectable Phantom power and pad) or a line level signal. Input connections are provided through a set of Neutrik "combo" connectors (pin 2 hot; tip hot). Analog inputs and outputs are also provided on a pair of female DB25 connectors conforming to the Tascam standard pinout.

```
    1      2      3      4      5      6      7      8
  G C H  G C H  G C H  G C H  G C H  G C H  G C H  G C H



  13O 12O 11O 10O  9O  8O  7O  6O  5O  4O  3O  2O  1O

  25O 24O 23O 22O 21O 20O 19O 18O 17O 16O 15O 14O
```

H = HOT
C = COLD
G = GROUND

Tascam standard DB25 pinout used for analog I/O
(Female connector on chassis, male connector on cable)

Input Status Indicator LEDs

Next to each of the combo connectors is an LED that indicates the status of Phantom power and the switchable -20 dB pad. These settings are controlled through the Remote Gateway software (see Chapter 13).

CAUTION:

Ensure Phantom power is only enabled on channels where it is necessary. Damage may result to microphones or sources not designed to accept Phantom power.

- Off: Phantom power off, pad disabled
- Red: Phantom power on, pad disabled
- Green: Phantom power off, pad enabled
- Orange: Phantom power on, pad enabled

These LEDs will all briefly illuminate orange at power up but should reflect the current status once the unit is fully operational.

Note:

Later software/hardware revisions changed the designation of the "Green" LED condition to indicate whether or not a channel is licensed for audio processing. As of software version 1.15, all channels should be available for basic preamp and I/O functions, regardless of whether or not processing functions are licensed.

AES/EBU I/O

The VOCO 8 provides 4 AES/EBU inputs and outputs on a female DB25 connector conforming to the Tascam AES/EBU pinout.

> **Each AES/EBU interface carries 2 channels of audio—Microphones 1 and 2 will feed the left and right channels of AES/EBU output 1, and so on. If your mixer or router will not "split" left and right from an AES/EBU feed, you may wish to use only the even or odd channels.**

Note that if you use a DB25 cable to directly connect this I/O to the AES/EBU DB25 port on another device, it MUST use the Tascam pinout (not Yamaha) and the cable MUST reverse the appropriate input and output pairs (input to output, output to input). Pre-manufactured cables are available which reverse the appropriate pairs and adaptors are available to convert between Tascam and Yamaha pinouts.
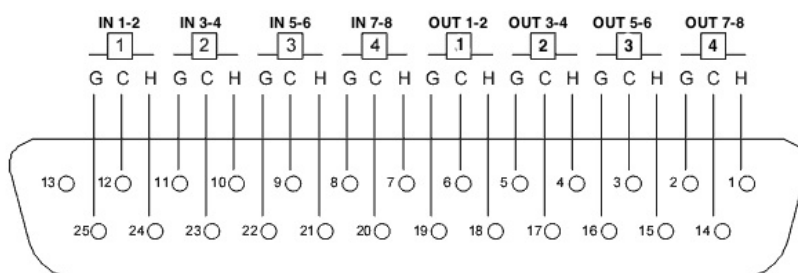
Tascam standard AES/EBU DB25 pinout
(Female connector on chassis, male connector on cable)

GPIO

A pair of 15 pin GPIO ports provides 5 opto-isolated inputs and 5 solid-state relay outputs per port. These ports are not currently implemented and are intended for future use (such as carrying GPIO traffic to and from an AoIP network).
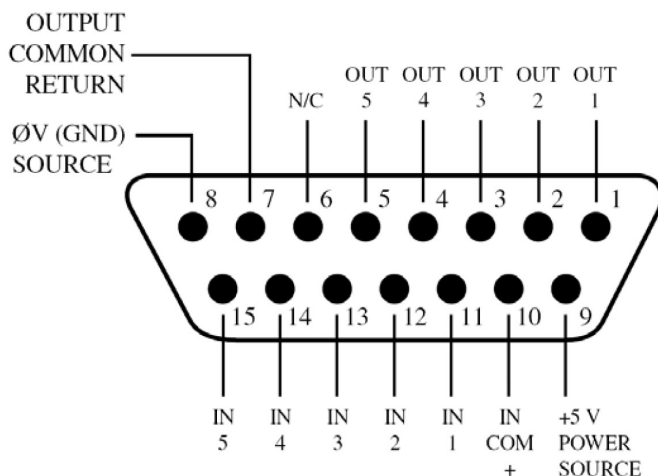
15 pin GPIO connectors using Axia pinout
(Female connector on chassis, male connector on cable)

Ethernet Connections

There are two 10/100 Ethernet ports on the rear panel; one interface is for control, the second is for Livewire+/AES67 AoIP. Connect these ports to your network switches as appropriate. If you do not connect the VOCO 8 to an existing network, you will need a cable connected from the control port directly to a Windows PC for initial configuration of the unit (see the "Remote Gateway Software" section of this Quick Start Guide for further details).

AC Power Connections

The VOCO 8 features redundant power supplies. This is to accommodate facilities with dual power feeds to each equipment rack fed from completely independent sources. Both inputs should be connected, preferably to completely separate AC power sources such as conditioned utility power and UPS/generator, or at the very least two different circuits in a rack. While the unit will still function with only one power supply connected, an error message will be displayed on the LCD and in the remote software.

Front Panel

Power LED

A (very stylish) blue LED in the lower left hand corner of the front panel indicates that AC power has been applied to one or both power supplies. There is no power switch. If this LED does not illuminate after you've plugged in the power cords (on both ends), ensure that the AC outlets are actually functional. If the outlets are providing power, try a different set of power cords. Power cords don't generally fail, but stranger things have happened. If you've verified that it's plugged in, tried multiple power cords, and the outlets are providing power but the unit still won't power up, contact The Telos Alliance for further instructions. We don't see very many dead units or outright power supply failures (let alone two in a single unit) but perhaps it was something you said while putting the unit in the rack. Try to be nicer next time.

LCD

What piece of broadcast equipment would be complete without a shiny front panel display? The VOCO 8 is no exception. A 4.3" LCD (in combination with the navigation control) provides access to preset selection, unit status, and basic configuration parameters (not to mention a very cool VOCO 8 screen saver). Please note—this is NOT a touchscreen. Don't poke. It isn't polite.

Navigation Control

Next to the LCD is a combination rotary encoder, navigation joystick, and pushbutton control. While it may seem complicated at first with so many functions in a single control, navigation is actually very straightforward once you start exploring the front panel interface.

- Slightly press the control up, down, left, or right to move around the interface. The highlighted item will have a white frame surrounding it.

- Press the control like a pushbutton to select the highlighted item.

- In some screens (generally sub-menus) you will need to rotate the control to choose values or menu items and then press to select.

By default, the LCD will display all 8 channels and their selected processing presets (if licensed). Highlight a channel and select it to choose the preset assigned to that channel. While the preamps are active on all 8 channels, presets can only be loaded on channels licensed for processing. The "More…" button at the top allows navigation to system configuration parameters and other information. "Back" will return to the main screen.

Headphones

Any input or output (in addition to the four internal mix buses) can be routed to the front panel headphone jack. Use the knob above the headphone jack to control the volume. To select the feed to the headphone jack, navigate to the "More…" menu from the main screen. Once in the "More…" menu, select "Headphone". Select the input, output, or mix bus that you wish to monitor. Select "Back" to return to the main screen.


"Settings" Menu

Controls various settings affecting behavior of the front panel display. See Chapter 4 of the manual for more details.

USB Port

The front panel USB port is primarily used for system software updates, but can also be used with a USB keyboard for entering preset titles or configuration information. It's also a handy place to charge your phone or attach a USB powered light.

Software Updates

Occasionally we may release software updates for the VOCO 8. Visit the Omnia VOCO 8 page at http://www.telosalliance.com/Omnia/Omnia-Voco-8 to check for the latest version. As of this writing, the latest software version is 1.15. Once downloaded, place the update file in the root directory of a FAT16, FAT32, or NTFS formatted USB drive. When the USB drive is connected to the VOCO 8, it should detect the update file and prompt you to select it for installation. If there are multiple update files on the USB drive, they will all appear in the list. The default password when prompted (unless it has been changed) is admin. Do not roll back to an older version unless directed by Telos Alliance technical support.
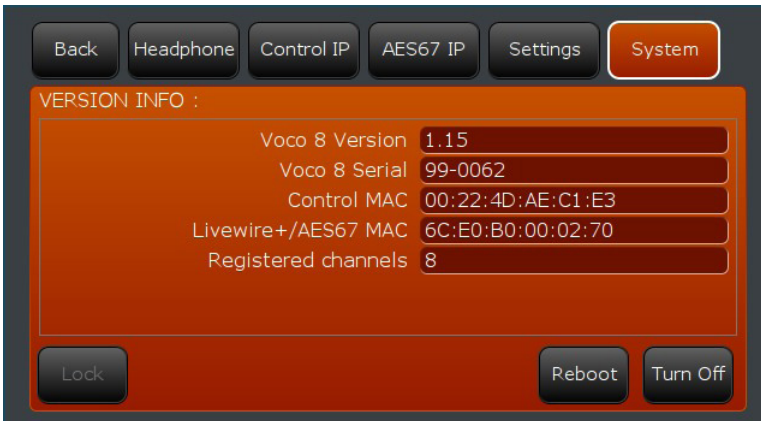
Initial Setup

Getting Started

Important:

While the unit can be controlled directly from the front panel using presets, you will not be able to access most of the more detailed control functions (including gain, pad, or Phantom power). You will need to configure the unit's "Control" IP address, the "AES67" IP address (if using AoIP), and download the "Remote Gateway" software.

Configuring the "Control" IP address

From the main screen, select "More…" then select "Control IP". By default, DHCP is enabled and the unit may have already pulled an IP address from the network if a DHCP server is available. If you wish to assign a static IP address (recommended), select DHCP, then select "Off". Change the hostname, IP address, subnet mask, gateway address, DNS servers, and broadcast address as appropriate. The broadcast address will be x.x.x.255 where x.x.x are the first three octets of your IP network address block (i.e. if the IP address is 192.168.1.10, the broadcast address will be 192.168.1.255). This value should be automatically calculated based on the IP address. If you are using an Ethernet cable direct to a PC to configure the VOCO 8, manually set both the PC and the VOCO 8 to different addresses in the same subnet using the same subnet mask (gateway and DNS are not necessary). Continue scrolling to the "Display Only" section of the menu to verify the settings.

Configuring the "AES67" IP address

If you plan to use the AoIP features of the VOCO 8, you will need to configure the "AES67" IP address—or at the very least disable DHCP to eliminate the error message if you don't plan to use AoIP. From the "More…" menu, navigate to "AES67 IP". As with the "Control IP", turn DHCP on or off as necessary, change the hostname, IP address, subnet mask, gateway address, DNS servers, and broadcast address as appropriate. Continue scrolling to the "Display Only" section of the menu to verify the settings. All other AoIP settings are performed within the "Remote Gateway" software.
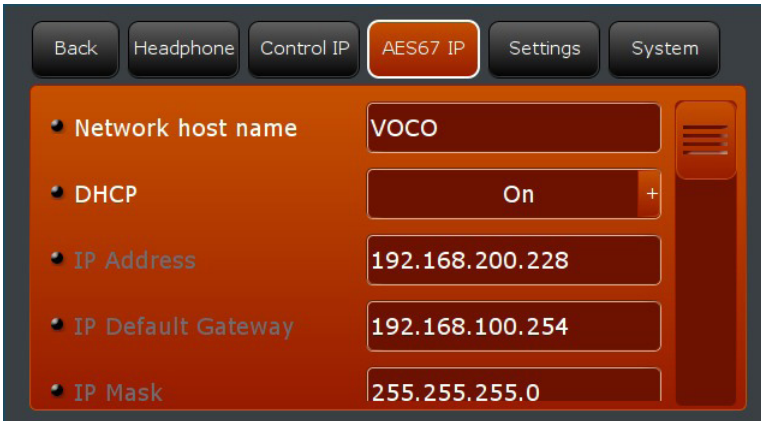
Remote Gateway Software

In order to configure the vast majority of the settings on the VOCO 8, you will need to download the "Telos Alliance Remote Gateway Installer". A link to download this software and review compatibility information is available from http://www.telosalliance.com/Omnia/Omnia-Voco-8.

Installing Remote Gateway

When installing the software, it will prompt you to ask which components you wish to install. The "server" and "driver" components can be de-selected. Only the actual "Remote Gateway" component is necessary for use with VOCO 8.
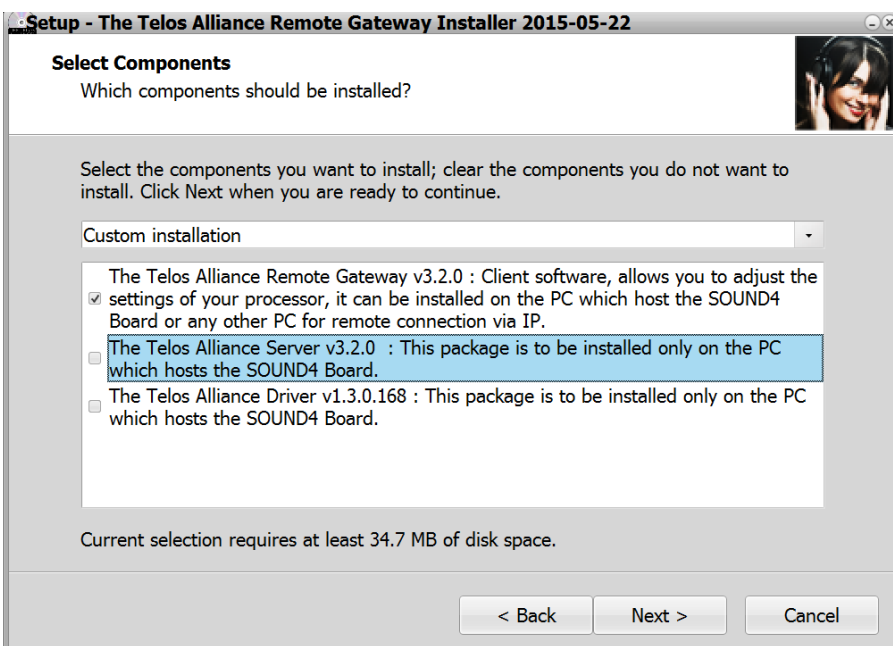
Adding the VOCO 8 to Remote Gateway

Once Remote Gateway is installed, you will need to add the VOCO 8 to the list of connections in Remote Gateway. Scan for units on the network by clicking "Scan".
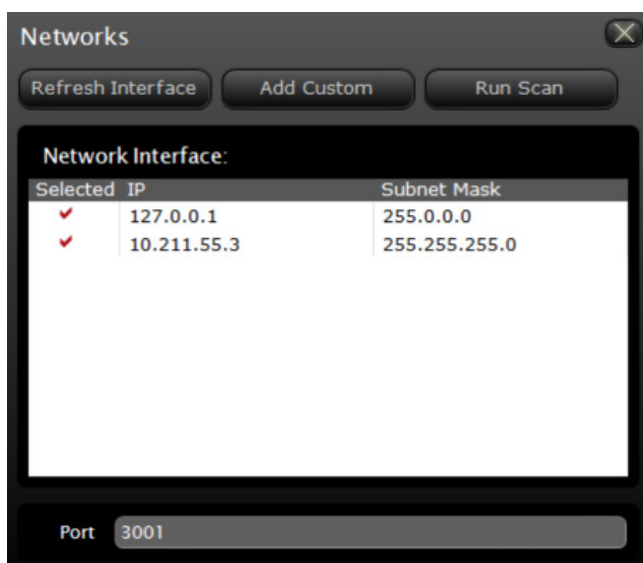
Select the interface attached to the same network as the VOCO 8 and click "Run Scan". You can also add an IP address block not listed by clicking "Add Custom". The default port for Remote Gateway communications with the VOCO 8 is 3001 and should only be changed if necessary. When the scan is complete, it should detect the VOCO 8. There will be multiple entries displayed for a single VOCO 8—this is due to the fact that there are multiple security levels and logins. You will need all three of them added to Remote Gateway.

If for some reason the VOCO 8 does not appear after scanning the network (due to firewall configuration, or for some other reason) you may need to add it manually. Click on "New" in the main Remote Gateway window.

Enter something useful in the "Connection Name", "Radio Name" and "City" fields. Enter the VOCO 8 "Control IP" address in the "Num / IP" field. Finally, enter the user name and password for the account this connection should use. Create one connection entry for each of the three default user names (described below).

User Names and Access Levels

Important:

There are three default user accounts on the VOCO 8—Each has a VERY different purpose. If you use the wrong one you will likely not find the controls you are looking for.

Admin

Used for managing user and studio rights, as well as certain global configuration settings. The default password for the admin account is admin.

Studio

This account is where the vast majority of configuration will take place—including all I/O configuration, processing settings, and preset management. There is no default password set.
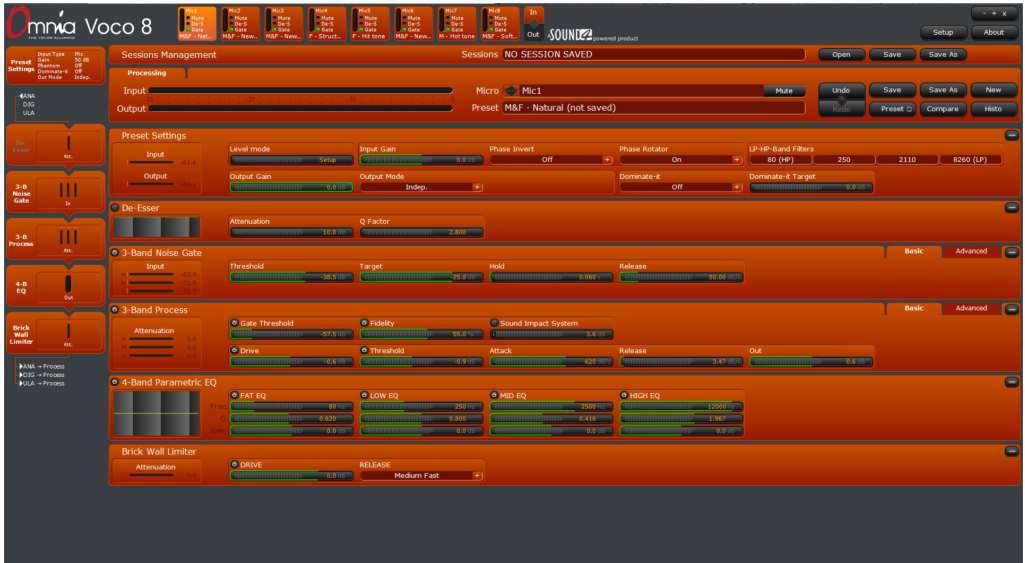
Live

The "Live" account essentially gives a Remote Gateway user access to the same functionality as the front panel (minus the IP configuration options). This account is ideal for granting operators access to basic functions such as loading sessions and presets, without giving them full control over all of the unit's parameters. Note that metering, gate/de-esser status, and mute controls can be enabled on both the front panel and the Remote Gateway "live" interface.

Frequently Asked Questions

Read this first if you don't have time to read anything else in this guide

I'm getting a PSU error on the screen. What does that mean?

You probably didn't attach power to both power supply connections on the rear panel. Double-check both AC power sources and connections.

But what if I don't want to connect both power cords?

Just do it. What have you got to lose (besides the pesky error message)? It isn't that we think a power supply will fail; it's designed to improve overall reliability in plants with dual power feeds to the racks.

I've cleared the PSU error, but I'm still getting a "Control IP" or "Livewire/AES67 IP" error on the screen.

This generally indicates that an interface is set for DHCP and the cable is unplugged. Double-check to ensure the interfaces are connected and that the IP address settings are correct. If you aren't planning to use the "Control IP" or "Livewire/AES67" Ethernet interface, disable DHCP on that interface to clear the error message.

I can't seem to find any controls besides preset selection and IP configuration— Where is everything?

Most of the configuration is done through the Remote Gateway software and not from the front panel. You'll need to configure the "Control IP" interface on the VOCO 8 and install the Remote Gateway software on a PC. If you want to disconnect the unit from the network after initial configuration, that's fine too—but it makes life a lot easier if you leave it on the network where a PC running Remote Gateway can control it.

I connected to the unit through Remote Gateway but I'm still not finding any controls. What gives?

There are three default login accounts on the VOCO 8; admin, studio, and live. The account that grants access to the majority of the controls is "studio". There is no default password for this account. Admin will only allow basic configuration and rights management, and live essentially gives the same level of access as the front panel.

User Name	Default Password	Function
admin	admin	Administers user rights and global configuration (no audio controls)
studio	<none>	Allows full control over I/O and processing parameters
live	<none>	Similar to front panel controls; Changes sessions and presets, limited control

How do I enable Phantom power on an input?

Under the "Studio" account in Remote Gateway, click on the + next to the "Input" section if it is not already expanded. Select "Mic" as the input if necessary. Settings for mic/line mode, pad, gain, and phantom power will appear. A level meter is provided for reference when adjusting preamp gain.

I'm using the AES/EBU output—Why am I only seeing audio on one channel?

Since there are 8 inputs and 4 (stereo) AES/EBU outputs, the inputs are mapped to one half of each stereo pair. Inputs 1 and 2 appear on AES/EBU output 1 Left and Right, and so on. If your mixer or router will not split AES/EBU pairs, or you want to use one microphone per AES/EBU output, you will need to use only the even or odd inputs.

Can I mount the VOCO 8 in a studio?

In most cases with a properly cooled facility, yes. There is a fan in the unit. If the unit's internal temperature begins to rise, the fan will increase in speed and may create enough noise to be audible. If this is an issue, mount the unit in an alternate location and use the Remote Gateway software for control.

I'm still lost. Now what?

Check our website at www.telosalliance.com for the latest updates and documentation.
If you still have questions, give our 24/7 tech support line a call at 216-622-0247 or e-mail support@telosalliance.com. We should be able to get you up and running quickly.

THIS PAGE
INTENTIONALLY
LEFT BLANK

THIS PAGE
INTENTIONALLY
LEFT BLANK

THIS PAGE
INTENTIONALLY
LEFT BLANK