

Omnia.ONE

Sticker shock. The good kind.



Quick Start Setup Guide

FM: Page 1 | SG: Page 3 | AM: Page 5 | Multicast/DAB/Studio Pro: Page 7

ATTENTION!

This quick start guide is intended to aid with basic deployment of the unit. For detailed product and operational information, please see the full manual at: <http://omniaaudio.com/manuals/one/download>. For a printed copy, please contact Omnia Support. Also, please check: <http://omniaaudio.com/software> periodically to access your product's latest software version information and to download updates when available.



Part: 1490-00111-001 QUICK START GUIDE

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:

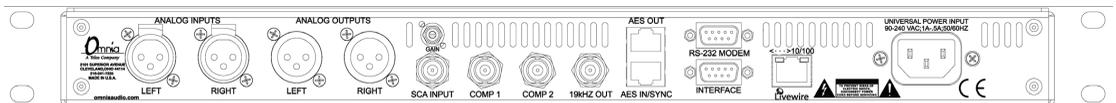
<http://blogs.telosalliance.com/tech/surge-suppression-pointers>

Omnia.ONE FM

Quick Start Setup Guide

We know that you're probably in a hurry to begin using your new Omnia.ONE FM. If you have technical expertise and previous knowledge of audio processor fundamentals, using this Quick-Start guide will get you up and running as quickly as possible. Please refer to the full User Manual for additional installation and setup information.

The following illustrations show the location of the various controls and connectors associated with the installation:



1. Install the Omnia.ONE in the equipment rack using at least two rack screws. If only two screws are used, they **MUST** be installed in the bottom holes of the rack ears!
2. Connect the audio inputs that are appropriate for your installation. The Omnia.ONE accepts balanced line-level analog audio via the XLR connectors, AES/EBU digital via the bottom RJ-45 jack (using the "StudioHub" standard pinout) or Livewire.

NOTE: Livewire audio I/O is only to be used if you have an existing Axia or other Livewire system. Otherwise, the Livewire Ethernet jack can be used to remote control the Omnia.ONE via its built-in webpage interface. See Appendix C in the full User Manual for details.

3. Connect the audio outputs in a manner that is appropriate for your installation. We suggest using the composite MPX BNC outputs (and therefore the Omnia's built-in MPX stereo generator) if at all possible for best performance.
4. Connect AC power to the unit (there is no power switch!)
5. Navigate to the Input/Output / Meter Select setting and select **Input**.
6. Navigate to the Input/Output / Input / Input Src setting and select the **Analog, AES/EBU** or **Livewire** input as appropriate for your installation. If your audio source is active, you should now see meter activity on the LED bargraph meters.

7. While driving the inputs with typical program material at normal operating level, navigate back up to the Input/Output / Input menu (by highlighting and clicking on the “<-EXIT” option) and adjust the appropriate input **Level** control until the peak-reading input bargraph meters are peaking up to at least -15 and up to -12 dBFS or a little higher.
8. Navigate to the Input/Output / Output / FM Options submenu and ensure that the **Pre-Emphasis**, **De-emphasis** and **BS-412** settings are correct for your system and your location. If you will not be using the Omnia’s built-in stereo generator, it is very important to ensure that the Omnia is the only device providing the FM pre-emphasis (**Pre-Emphasis ON** and **De-Emphasis OFF**) and that any link between the Omnia’s output and the input to the FM exciter is fully linear with no codecs. If this is not possible, the Omnia must be located at the transmitter site, driving the FM exciter directly.
9. If you are using the Omnia’s built-in stereo generator, navigate to the Input/Output / Stereo Generator menu and adjust the appropriate composite output level control (**Comp #1** or **Comp #2**) so that the station’s modulation level is correct. The 19kHz stereo pilot injection level is set using the **Pilot Lvl** (Level) control. This should be adjusted so that the pilot injection as read on the station’s stereo monitor is between 8% and 10%. A setting of 9.0% should be OK if you are not sure.

If you are using the AES/EBU output to feed pre-emphasized audio to your linear STL or digital exciter, navigate instead to the Input/Output / Output menu and adjust the appropriate output level control for the equipment that follows the Omnia.ONE. Ensure that any limiters, clippers and/or pre-emphasis in the exciter/transmitter are defeated.

10. Navigate back to the Main Menu, highlight **Preset:** and click. Rotate the jog wheel to display the preset you would like to start with and click to select it. Go through all of the presets and start with one that sounds best to you.
11. We suggest that each time you try a new factory preset, you adjust the **Clip Drive** in the Processing / Adjust Processing / Clipper menu as follows: Starting with the default setting for a preset, adjust it down in 0.5 dB steps until the loudness just drops below the desired level and then bring it up slightly from there. This should be the optimum setting for your station and market. With most presets, there should be room to turn it up a bit as well if a bit more loudness is needed. Turn it up just enough to achieve the desired loudness level. If you have to turn it up too much, to the point where distortion becomes obtrusive, it would probably be best to start with a more aggressive preset.
12. The Omnia.ONE Quick-Start Setup is now complete. For more detailed installation and operating instructions (including details about every control function) and to learn about some of the features that make the Omnia.ONE unique, please refer to the latest version of the full Omnia.ONE user manual available on the Omnia website here:

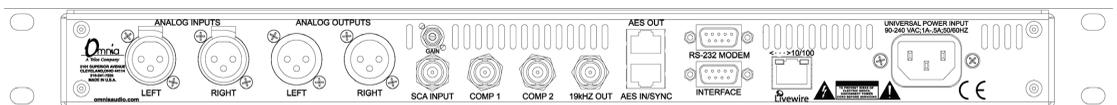
<http://omniaaudio.com/manuals>

Omnia.ONE SG

Quick Start Setup Guide

We know that you're probably in a hurry to begin using your new Omnia.ONE.SG. If you have technical expertise and previous knowledge of stereo generator fundamentals, using this 12-Point guide will get you up and running as quickly as possible. Please refer to the full User Manual for additional installation and setup information.

The following illustrations show the location of the various controls and connectors associated with the installation:



1. **Installation:** Install the Omnia.ONE.SG in the equipment rack using at least two rack screws. If only two screws are used, they **MUST** be installed in the bottom holes of the rack ears!
2. Connect the audio inputs that are appropriate for your installation. These should originate from an external FM audio processor and ideally should be pre-emphasized and fully band limited to 16kHz.
3. Connect the Omnia's composite MPX BNC output(s) as appropriate for your installation to your FM exciter's baseband composite MPX input or composite STL transmitter.
4. Connect AC power to the unit (there is no power switch!)
5. Navigate to the Discrete I/O / Meter Select setting and select **Input**.
6. Navigate to the Discrete I/O / Input / Input Src setting and select the **Analog, AES/EBU** or **Livewire** input as appropriate for your installation. If your audio source is active, you should now see meter activity on the LED bargraph meters.

Input Calibration: The Omnia ONE.SG is designed to accept pre-processed audio from an external FM audio processor. Ideally, this audio should be pre-emphasized and sourced only through a lossless link using Livewire or AES/EBU. Analog L/R XLR input can also be accepted. Since the Omnia ONE.SG includes a composite clipper, it is very important to calibrate the input level properly so that when the **Composite Clip Drive** control is set to 0.0, no composite clipping is taking place.

7. Using typical program material, turn up the main clipper drive on your external FM processor temporarily to provide a more steady “worst-case” level at the input of the Omnia ONE.SG. If using a digital output on the external FM processor, set its peak output level to -12.0dBFS if possible. If so, set the Omnia’s input Level control in the Discrete I/O / Input menu to 0.0dB to start.

NOTE: The Omnia ONE SG’s input meters are specially calibrated with higher resolution above -12dBFS for easy and precise input level calibration. The first yellow LED comes on at -12.1dBFS, the second at -11.9dBFS and subsequent ones every 0.2dB above that. The composite clip point (with 0.0dB drive setting) is -12.0dBFS.

8. In the Discrete I/O / Input submenu, adjust the appropriate input **Level** control until the peak-reading input bargraph meters are just lighting only the first one or two yellow LEDs. If there is some overshoot in the output of your external FM processor or the link between it and the Omnia ONE.SG, more than the first LED may light. This should be OK as long as there is not more than a dB or so of overshoot. If there is more overshoot than that, you may need to lower the input level a bit. Be sure in any case that the red “0”dBFS LED’s never light.
9. Ideally, the de-emphasis in the output of your external FM processor should be defeated so that the Omnia ONE.SG is receiving a pre-emphasized, 16kHz band-limited signal. If not, you can turn pre-emphasis and low-pass filtering on. Navigate to the Stereo Generator / Adjust SG submenu and ensure that the **Emph Std** (50us or 75us), **Pre-Emph (OFF or ON)** and **Input LPF (OFF or ON)** settings are correct for your system and your location.
10. Here in the Stereo Generator / Adjust SG submenu, navigate down to the **Comp #1** or **Comp #2** controls and adjust the appropriate one for 100% modulation on your station’s modulation monitor. Similarly, adjust the **Pilot Lvl** control so that the 19kHz stereo pilot level indicates between 8 and 10 percent as shown on your station’s stereo modulation monitor. If your modulation monitor does not show pilot injection but you are certain that the total modulation is correct at 100%, simply set the **Pilot Lvl** control to 9.0%
11. To save your settings as an SG Config preset, navigate to the **Save SG Config** setting in the Stereo Generator menu, click on “Name”; enter a preset name using the jog wheel, turn the jog wheel one more click clockwise and click on “Save”. Similarly, I/O configuration presets can also be saved from the Discrete I/O menu.
12. Remember to return your external FM processor’s main clipper drive control to its previous level.

NOTE: To engage the special single-sideband mode available in the Omnia ONE .SG, navigate to the Stereo Generator / Adjust SG submenu and set the **SB Mode** control to “SSB”. No other adjustments should be needed.

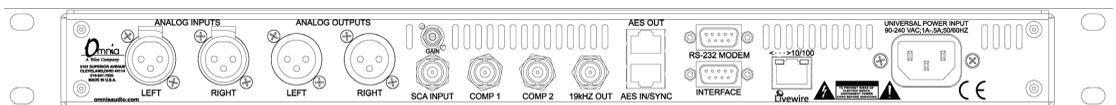
The Omnia.ONE Quick-Start Setup is now complete. For more detailed installation and operating instructions (including details about every control function) and to learn about some of the features that make the Omnia.ONE unique, please refer to the latest version of the full Omnia.ONE user manual available on the Omnia website here:

<http://omniaaudio.com/manuals>

Omnia.ONE AM Quick Start Setup Guide

We know that you're probably in a hurry to begin using your new Omnia.ONE. If you have technical expertise and previous knowledge of audio processor fundamentals, using our 12-Point Quick-Start will get you up and running as quickly as possible. Please refer to the full User Manual for additional installation and setup information.

The following illustrations show the location of the various controls and connectors associated with the installation:



1. Install the Omnia.ONE in the equipment rack using at least two rack screws. If only two screws are used, they **MUST** be installed in the bottom holes of the rack ears!
2. Connect the audio inputs that are appropriate for your installation. The Omnia.ONE accepts balanced line-level analog audio via the XLR connectors, AES/EBU digital via the bottom RJ-45 jack (using the "StudioHub" standard pinout) or Livewire.

NOTE: Livewire audio I/O is only to be used if you have an existing Axia or other Livewire system. Otherwise, the Livewire Ethernet jack can be used to remote control the Omnia.ONE via its built-in webpage interface. See Appendix C in the full User Manual for details.

3. Connect the audio outputs in a manner that is appropriate for your installation. Normally this will be mono balanced analog output to your AM transmitter using either the LEFT or RIGHT output XLR. If you have 2 transmitters, you can use one output for each transmitter and thus have separate level adjustments for each.
4. Connect AC power to the unit (there is no power switch!)
5. Navigate to the Input/Output / Meter Select setting and select **Input**.
6. Navigate to the Input/Output / Input / Input Src setting and select the **Analog, AES/EBU** or **Livewire** input as appropriate for your installation. If your audio source is active, you should now see meter activity on the LED bargraph meters.

7. If you will be running in mono, navigate to the Input/Output / Input / Mono Mode and select the desired mode. **Mono L** will feed the left channel input's audio to both output channels, **Mono R** the same for the right channel input. **Mono L+R** will sum the left & right inputs and feed the sum to both outputs.
8. While driving the input with typical program material at normal operating level, navigate to the Input/Output / Input menu and adjust the appropriate input **Level** control until the peak-reading input bargraph meters are peaking up to at least -15 and up to -12 dBFS or a little higher.
9. Navigate to the Input/Output / Output / AM Options submenu and ensure that the **Output Polarities, LPF Frequency, Asym Mod and Tilt** (normally only used for older plate-modulated transmitters) adjustments are correct for your system and your location. If you will be using asymmetrical modulation to increase your positive modulation above 100%, ensure that when the **Asym Mod** control is turned up, only the positive modulation peaks are increasing, not the negative peaks. If you find the opposite is true, select **Invert** for the appropriate output in the menu above.

NOTE: To help make setting modulation levels and positive peaks easier, temporarily set the Processing / Adjust Processing / Clipper / **Clip Drive** control to a high setting (such as 3.0dB).

10. Navigate to the Input/Output / Output menu and adjust the appropriate control so that the output level is correct for the equipment that follows the Omnia.ONE. Typically this will be the modulation level of your AM transmitter. Ensure that the negative peaks never hit full-cutoff (100%) and then, if desired, increase the asym mod control until positive peak modulation is between 120-125%.
11. Remember to return the **Clip Drive** control to its previous level.
12. Navigate back to the Main Menu, highlight **Preset:** and click. Rotate the jog wheel to display the preset you would like to start with and click to select it. Go through all of the presets and start with one that sounds best to you.

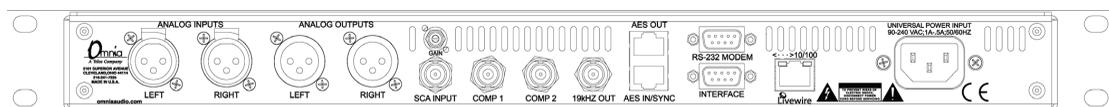
The Omnia.ONE Quick-Start Setup is now complete. For more detailed installation and operating instructions (including details about every control function) and to learn about some of the features that make the Omnia.ONE unique, please refer to the latest version of the full Omnia.ONE user manual available on the Omnia website here:

<http://omniaaudio.com/manuals>

Omnia.ONE Multicast / DAB / Studio Pro Quick Start Setup Guide

We know that you're probably in a hurry to begin using your new Omnia.ONE. If you have technical expertise and previous knowledge of audio processor fundamentals, using our 9-Point Quick-Start will get you up and running as quickly as possible. Please refer to the full User Manual for additional installation and setup information.

The following illustrations show the location of the various controls and connectors associated with the installation:



1. Install the Omnia.ONE in the equipment rack using at least two rack screws. If only two screws are used, they **MUST** be installed in the bottom holes of the rack ears!
2. Connect the audio inputs that are appropriate for your installation. The Omnia.ONE accepts balanced line-level analog audio via the XLR connectors, AES/EBU digital via the bottom RJ-45 jack (using the "StudioHub" standard pinout) or Livewire.

NOTE: Livewire audio I/O is only to be used if you have an existing Axia or other Livewire system. Otherwise, the Livewire Ethernet jack can be used to remote control the Omnia.ONE via its built-in webpage interface. See Appendix C in the full User Manual for details.

3. Connect the audio outputs in a manner that is appropriate for your installation. Choices are balanced line-level analog audio via the XLR connectors, AES/EBU digital via the top RJ-45 jack (using the "StudioHub" standard pinout) or Livewire. All outputs are active simultaneously.
4. Connect AC power to the unit (there is no power switch!)
5. Navigate to the Input/Output / Meter Select setting and select **Input**.
6. Navigate to the Input/Output / Input / Input Src setting and select the **Analog, AES/EBU** or **Livewire** input as appropriate for your installation. If your audio source is active, you should now see meter activity on the LED bargraph meters.

7. While driving the inputs with typical program material at normal operating level, navigate back up to the Input/Output / Input menu (by highlighting and clicking on the “<-EXIT” option) and adjust the appropriate input Level control until the peak-reading input bargraph meters are peaking up to at least –15 and up to –12 dBFS or a little higher.
8. Navigate to the Input/Output / Output menu and adjust the appropriate control so that the output level is correct for the equipment that follows the Omnia.ONE.
9. Navigate back to the Main Menu, highlight **Preset:** and click. Rotate the jog wheel to display the preset you would like to start with and click to select it. It is best to go through all of the appropriate presets and start with one that sounds best to you.

The Omnia.ONE Quick-Start Setup is now complete. For more detailed installation and operating instructions (including details about every control function) and to learn about some of the features that make the Omnia.ONE unique, please refer to the latest version of the full Omnia.ONE user manual available on the Omnia website here:

<http://omniaaudio.com/manuals>

If you'd like to contact our Customer Support department, personnel are available in the Cleveland, Ohio, USA office Monday through Friday between 9:00 A.M. and 5:00 P.M., Eastern Time by phone at +1.216.241.7225, via email to support@omniaaudio.com or via the customer support form on our website here:

<http://telosalliance.com/contact/>

After hours support is available 24/7 by phone at +1.216.622.0247.

If you are outside the U.S.A. and non-English speaking, please contact the dealer you purchased your Omnia from first.

Thank you for choosing Omnia!

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.

