

INSTRUCTION/INSTALLATION SHEET

lyriQ™ High Performance Keypad Volume Control With IR

IS-0369 REV. O

1. Introduction

The lyriQ™ High Performance Keypad Volume Control with IR, P/N AU1000-xx (see **Figure 1**), is an integral part of the lyriQ™ Multi-Room Audio System. It is a component which, when combined with other essential components and your source equipment (receiver, CD player, etc.), creates a versatile whole-house audio system that will fill your rooms with high-quality sound for years to come. It uses Category 5 wiring to distribute audio signals, control information and IR for remote control. The High Performance Keypad has two on-board 20 Watt per channel class D amplifiers to provide a rich level of clean sound even in outdoor or large room applications. It also contains a full set of features, including the integrated ability to control all other keypad volume controls in the house.

2. Description

The front panel of the lyriQ™ High Performance Keypad Volume Control with IR, PN AU1000-xx (see **Figure 1**), looks almost identical to the standard lyriQ™ Keypad Volume Control with IR (F7394-xx). It also has push buttons for VOLUME UP/DOWN (with five associated green Volume Bar Graph LEDs), SOURCE (with four green Source Selection LEDs) and MUTE (with one red status LED). There is also an IR target window and tri-colored status LED. The visual cue from the front panel that this is a High Performance Volume Control are the parenthesis surrounding the music note in the lower right hand corner.

You'll have no problem telling that this is a lyriQ™ High Performance Keypad Volume Control from the rear of the keypad (see **Figure 2**). The first thing you'll notice is that the Category 5 connection is now an RJ45 jack (J1) rather than a 110 style punch down strip. The TB2 speaker output connections (left and right, plus and minus) are spring loaded and designed to support up to 14 gauge wire. The TB3 Line Out connections (plus and minus) are also spring loaded and designed to support up to 14 gauge wire. This mono-summed output is designed for powered sub-woofers and as such is filtered through an 80Hz low pass filter. The other terminal block on the rear (TB1) is used for powering the keypad. Up to 14 gauge speaker wire may be used for this purpose, and this speaker wire (two conductor or four conductor) is run from a power distribution module (P/N AU1001) in the enclosure to the volume control. We recommend 16/4 speaker wire, since it is available paired with Category 5 from a variety of sources. Again, the TB1 connections are spring loaded (plus and minus) with the two plus connections on the red portion of TB1 and the two minus connections on the black portion of TB1. For ease of installation, connect the red wire and white wire to the red (plus) portion of TB1 and the black and green wire to the black (minus) portion of TB1.

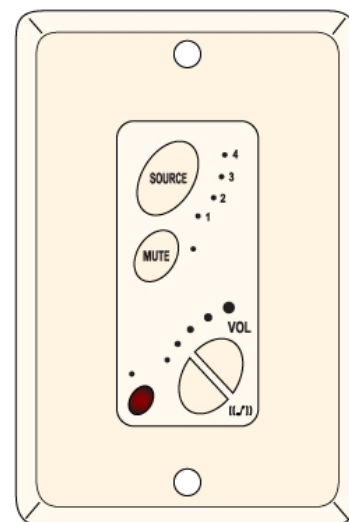


Figure 1

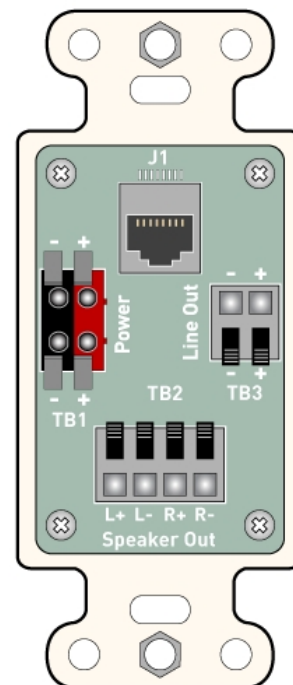


Figure 2



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301 Fulling Mill Road, Suite G
Middletown, PA 17057
Phone (800) 321-2343 / Fax (717) 702-2546
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3. Installation

Installation of the lyriQ™ High Performance Keypad Volume Control with IR is best accomplished at multiple times during new construction, at "Rough-in" before the drywall is installed, and at "Trim-out" after the drywall is installed and painted.

NOTE: Before connecting the volume controls: Make sure that power supplies are not connected to the lyriQ™ Audio and Power Distribution Modules. For instructions on pre-wiring and installing other components of the lyriQ™ Audio System, please see the Instruction Sheets included with those components.

NOTE: All wiring should be terminated to the T568A wiring standard. Failure to follow the correct wiring standard could result in damaged equipment.

A. "Rough-in" steps:

- 1) A single Category 5 cable and 16/4 speaker wire should be run from the enclosure location to a single gang outlet box or mud ring at each Volume Control location.

B. "Trim-out" steps:

- 1) Connect the volume control by terminating the pre-wired Category 5 cable from the enclosure with an RJ45 plug, following the T568A wiring standard and insert this plug into jack J1 (see **Figure 2**).
- 2) For the power connection (TB1) strip 3/8" of insulation from each of the four conductors and insert the red and white wires into the red (plus) portion of TB1. Insert the stripped black and green wires into the black (minus) portion of TB1 (see **Figure 2**).

NOTE: The two red connections are tied together, as are the two black connections. They are provided in pairs to provide flexibility of wiring.

NOTE: Electricians may prefer to think of the black and red wires as plus and the green and white wires as minus. That wiring will also work, as long as it is also followed at the other end of the cable (at the Power Distribution Module in the enclosure).

- 3) Speaker/Line Out/Sub-Woofer connections (see **Figure 2**):

NOTE: Polarity and channels are clearly marked (L+, L-, R-, R+) for proper identification during installation.

- a) Use TB2 to connect your evōQ™ audio speakers to the volume control.
- b) Use TB3 to connect your evōQ™ powered sub-woofer or an external amplifier to the volume control. These connection terminals do not provide any amplification but the volume control on the keypad controls the output level of this connection.

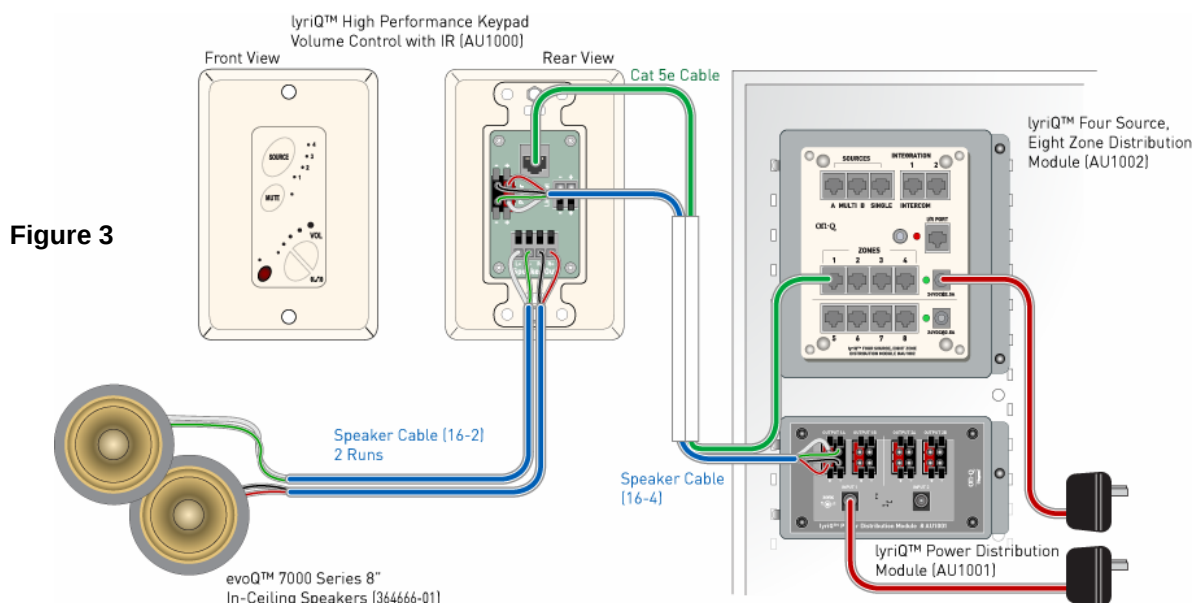
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4) Connections in the enclosure (see **Figure 3**):

- a) The Category 5 cable that was run to each volume control location should be terminated with an RJ45 plug according to the T568A wiring standard and inserted into one of the zone output jacks of the associated lyriQ™ audio distribution module.



- b) For the 16/4 speaker wire power cable that was run to each volume control location, strip 3/8" of insulation from each of the four conductors and insert the red and white wires into the red (plus) portion of TB1. Insert the stripped black and green wires into the black (minus) portion of TB1.

NOTE: As noted before, Electricians may prefer to think of the black and red wires as plus and the green and white wires as minus. That wiring will also work, as long as it is also followed at each end of the cable.

- 5) Keypad Mounting: check all connections and test the system's operation before installing the volume controls into the wall. Use the included screws to install the volume control and wall plate into a standard single gang box.

NOTE: If not using a low voltage mounting ring, a 20 in.³ or greater single gang box is recommended.

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4. Operation

- A. ON/OFF:
Keypad – Press any button for ON / Press and hold MUTE button for OFF (see **Figure 4**).
Remote – Press POWER button to toggle ON or OFF (see **Figure 5**).
- B. SOURCE select:
Keypad – Press SOURCE button multiple times (see **Figure 4**).
Remote – Press SOURCE 1, 2, 3, or 4 button (see **Figure 5**).

NOTE: Upon source change, volume ramps down and then back up automatically.

- C. Volume Steps: Keypad or Remote – Press VOLUME UP or DOWN button (40 steps).
- D. Mute: Keypad or Remote – Tap MUTE button.
- E. Back Light Level Adjust:
Keypad – Press and hold VOLUME UP and DOWN buttons simultaneously. The button back lights will flash to indicate they may be adjusted. Press VOLUME UP or DOWN button to adjust back light level. Press SOURCE or MUTE button to exit or wait for 10 second time out (see **Figure 4**).

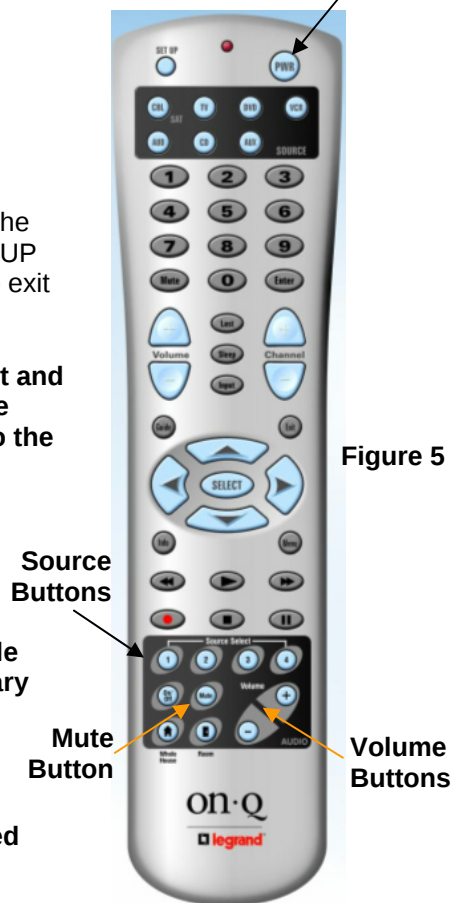
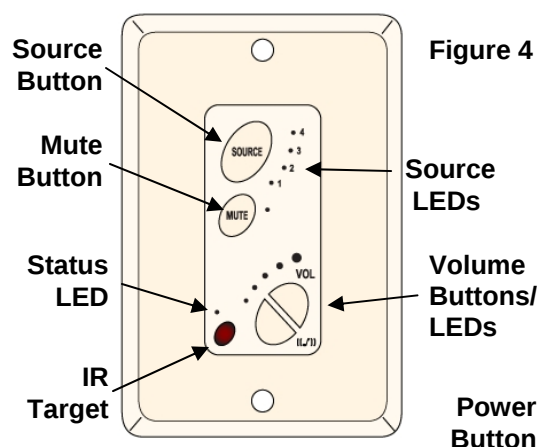
NOTE: When any Keypad button is tapped, back light level goes to full bright and returns to the adjusted level when activity ceases. For Remote operation, the back light goes to full bright when an IR command is received and returns to the adjusted level when activity ceases.

- F. Temporary Do Not Disturb (DND):
Keypad – Double tap MUTE button, Status/IR LED glows dim RED (see **Figure 4**).

NOTE: When Keypad is in temporary DND mode, it will NOT respond to whole house commands from other locations. Press any button to disable temporary DND mode.

- G. Whole-House Source Control/Party Mode (see **Figure 4**):

NOTE: In this mode, every operation performed on this keypad will be relayed to all keypads in the system (like Whole House Mode on the Remote).



Keypad – Press the MUTE and SOURCE buttons simultaneously and the IR/Status LED should blink orange.



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NOTE: The other keypads that are on and not in DND mode momentarily flash their Volume Bar Graph LEDs (indicating they are under Whole House control). Their IR /Status LED also blinks orange.

In this mode, all functions performed on the local keypad such as Volume Up/Down, Mute, Source selection, or Power Up/Down are relayed to and performed on all active keypads in the system.

NOTE: There are also two special SOURCE commands that may be issued In this mode as described below.

- 1) When in Whole-House Source Control Mode and the SOURCE button is pressed and held, a command will be issued for all keypads to turn on and go to the selected source.
- 2) When in Whole-House Source Control Mode and the SOURCE button is double tapped, a command will be issued for all active keypads to go to the source that the local keypad is currently on. This is handy to get everyone sync'd to the same source without going through all the selections. Remember, if I'm listening to a source let's say #3 for example and want to perform Whole House commands to get everyone else there, if I simply go into Whole-House Source Control mode and press the SOURCE button it will cause everyone to go to #4 and then #1 and then #2 and finally to #3, while double tapping it will cause every active keypad to go directly to Source #3.

NOTE: The Whole-House Source Control mode will be exited when the user fails to press a key within 10 seconds or by pressing and holding the MUTE and SOURCE buttons simultaneously as before.

5. Important Safety Precautions:

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING THE lyriQ™ AUDIO SYSTEM.

- **Do not** attempt to service, move or change any component of this system unless you are qualified to do so.
- This system should be installed by a qualified installer and must conform to all local building and electrical codes.
- **Do not** apply power to the lyriQ™ Audio System until all components have been installed and all wiring has been properly terminated.
- **Do not** attempt to terminate, change or un-install any wiring without first turning off power at the lyriQ™ Audio System which is located in the enclosure. Unplug the power transformer/s that is/are powering the lyriQ™ Audio System from the power outlet before proceeding with wiring terminations or changes.
- Install each component of this system away from heat sources such as HVAC ducts/registers, stoves or any other heat source.
- **Do not** expose any component that was designed for indoor use to moisture. Doing so can create electrical hazards or render the component unusable. Exposure to moisture will also void the warranty on the system.
- Only use a damp cloth to clean the cover plates of the system components. Do not use vacuum cleaners, liquid or aerosol cleaners.



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6. Installer Configuration

A. Installer Mode (see **Figure 4**):

Keypad – Press and hold all four buttons (VOLUME UP, DOWN, MUTE and SOURCE) for @ 5 seconds (Status LED will continually flash green then red while in Installer Mode).

- 1) Permanent DND – Press SOURCE to light LED #1

NOTE: With Source LED #1 lit, Press VOLUME buttons to adjust permanent DND (Volume Bar Graph LED #1 ON = DND enabled or Volume Bar Graph LED #2 ON = DND disabled).

- 2) Turn On Volume – Press SOURCE to light LED #2

NOTE: With Source LED #2 lit, Volume Bar Graph lights indicate Turn On Level. Press VOLUME buttons to adjust. If Volume is adjusted all the way up (bottom three LEDs lit) and you keep pressing VOLUME UP, the top LED and bottom LED only will light = Turn On to last volume level.

- 3) Maximum Volume – Press SOURCE to light LED #3

NOTE: With Source LED #3 lit, Press VOLUME buttons to adjust maximum volume level. The user will then not be able to exceed this volume level.

- 4) IR Receiver Adjust – Press SOURCE to light LED #4

NOTE: With Source LED #4 lit, Press VOLUME buttons to adjust IR functionality. Volume Bar Graph LED #1 ON = Normal IR functionality. Volume Bar Graph LED #2 ON = IR output disabled (Remote controls only this volume control). Volume Bar Graph LED #3 ON = IR Target disabled (useful for ganged volume controls – may not want to control volume of outside speakers along with inside speakers).

- 5) Balance – Press SOURCE to light LED #1 and LED #2

NOTE: With Source LED #1 and #2 lit, Center Volume Bar Graph LED is On. Press VOLUME buttons to adjust left/right balance.

- 6) Back Light Mode – Press SOURCE to light LED #1 and LED #3

NOTE: With Source LED #1 and #3 lit, Press VOLUME buttons to adjust Back Light Mode (Volume Bar Graph LED #1 ON = Back Light ON or Volume Bar Graph LED #2 ON = Back Light OFF).

- 7) Default Settings – Press SOURCE to light LED #1 and LED #2 and LED #3 and LED #4

NOTE: With Source LED #1 and #2 and #3 and #4 lit, Press VOLUME UP or DOWN button to reset the volume control to factory default settings.

B. Firmware Version (see **Figure 4**):

Keypad – With the volume control on, press the following sequence: MUTE, VOLUME DOWN, VOLUME UP, VOLUME UP – repeat 3 times.

NOTE: After pressing this sequence, the current firmware revision will be displayed on the Source LEDs and Volume Bar Graph LEDs. For example, if we are at firmware revision 1.1, Source LED #1 and the bottom Volume Bar Graph LED will be lit.