

H48 Dimmer Interface

4/8 Series
Dimmer Interface
H48/Q96 Link
N/A

Each H48 dimmer interface controls up to 48 wired *Maestro* local controls and is available in two configurations: either integral to a *HomeWorks* wired processor or as a stand-alone component. See Table 1, pg. 90 for processor details.

STAND-ALONE DIMMER INTERFACE (MODEL # HWI-H48)

Each stand-alone dimmer interface (model # HWI-H48) expands the capacity of the *HomeWorks* wired processor by providing control of up to 48 additional wired *Maestro* local controls. Each stand-alone dimmer interface installs in either a 32-inch (81 cm) low-voltage enclosure (model # HWI-LV32-120) with a processor or in a 17-inch (43 cm) low-voltage enclosure (model #HWI-LV17-120).

INTEGRAL H48 DIMMER INTERFACE

Certain *HomeWorks* wired processors contain integral H48 dimmer interfaces, allowing up to 48 wired *Maestro* local controls to be connected directly to the processor. Processors with integral dimmer interfaces may be installed in either a 59-inch (150 cm) remote power panel (model # HWI-PNL-8) or in a 32-inch (81 cm) low-voltage enclosure (model # HWI-LV32-120). The integral H48 dimmer interface is always address "1," and wired to Link 4.

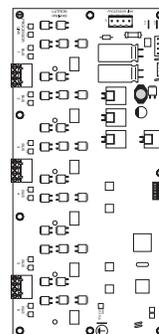
LOCAL LIGHTING CONTROL COMMUNICATIONS

Each H48 dimmer interface has six communication buses that are used to communicate with the wired local controls. Each of the six buses support a maximum of eight uniquely-addressed wired *Maestro* local controls. Each *Maestro* bus may have a max 500 ft (152.5 m) per wire run but may not exceed 1000 ft (305 m) total per bus. Buses may be wired in a daisy-chain, home run, star, or T-tap configuration.

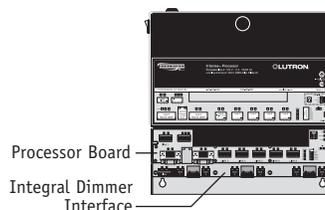
CONNECTION TO WIRED PROCESSOR

Each *HomeWorks* wired processor has configurable links, each capable of controlling up to four dimmer interfaces, one of which may be integral to the processor. No more than four dimmer interfaces can be connected to a single

processor. All dimmer interfaces must be connected to the same configurable link. This connection requires two pair – one pair #18 AWG (1.0 mm²), one pair #18-22 AWG (1.0-0.5 mm²) twisted shielded – Class 2 wire. Lutron® wire model # GRX-CBL-346S-500 may be used. The maximum cable length is 1000 ft (305 m), and this link must be wired in a daisy-chain configuration.



**Stand-Alone Dimmer Interface
(HWI-H48)**



**Integral Dimmer Interface - shown in 8 Series processor
(H8P5-H48-120, H8P5-MI-H48-120,
H4P5-H48-120, or H4P5-H48-HRL-120)**

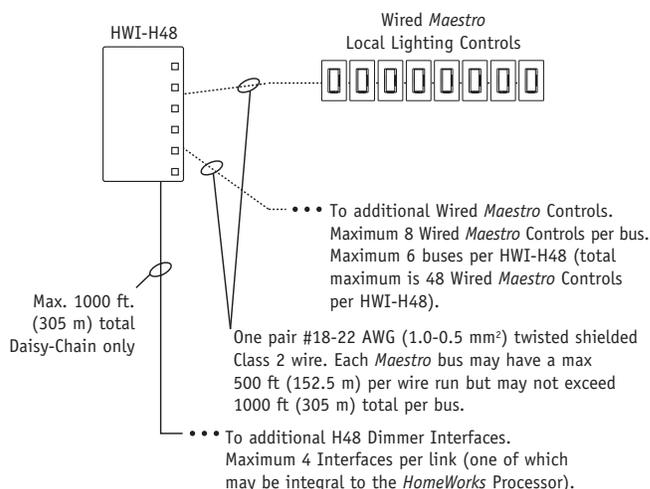


Figure 1 – Communication Wiring

H48 Dimmer Interface (cont.)

Specifications apply to HWI-H48 Stand-Alone Dimmer Interface and to Dimmer Interface integral to processors

Model Numbers	HWI-H48-120: Stand-Alone H48 Dimmer Interface. H8P5-H48-120: 8 Series Wired Processor with integral H48 Dimmer Interface. H8P5-MI-H48-120: 8 Series Wired Processor with integral Module Interface and H48 Dimmer Interface. H4P5-H48-120: 4 Series Wired Processor with integral H48 Dimmer Interface. H4P5-H48-HRL-120: 4 Series Wired Processor with integral H48 Dimmer Interface and Hybrid Repeater Link.
Capacity	Controls up to 48 wired Maestro® local lighting controls.
Input Voltage	Stand-alone: 12 V \sim from power supply in the HWI-LV17-120 or HWI-LV32-120. Integral: Pre-wired in processor from factory.
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Low-Voltage Wire Type	Processor to H48 wire: Two pair – one pair #18 AWG (1.0 mm ²), one pair #18-22 AWG (1.0-0.5 mm ²) twisted shielded – Class 2 wire. Lutron® wire model # GRX-CBL-346S-500 may be used. H48 to wired <i>Maestro</i> local control wire: One pair #22 AWG (0.5 mm ²) twisted shielded Class 2 wire.
Low-Voltage Wiring Configuration	Between processor and H48s: Daisy-chain only. Termination required if total cable length exceeds 50 feet (15 m). Total length of wire on any link cannot exceed 1000 feet (305 m). Maximum four H48s per processor link that has been configured for Dimmer Interfaces H48/Q96. Between H48 and wired <i>Maestro</i> local controls: Daisy-chain NOT required (star, T-tap, daisy-chain, etc. all permitted). Termination not required. Each <i>Maestro</i> bus may have a max 500 feet (152.5 m) per wire run but may not exceed 1000 feet (305 m) total per bus. Maximum eight <i>Maestro</i> local controls per H48 <i>Maestro</i> bus. Maximum six dimmer buses per H48. See Fig. 1, pg. 132.
Low-Voltage Connections	Wired Processor: One 4-pin removable terminal block. Terminal block will accept up to two #18 AWG (1.0 mm ²) wires. Wired <i>Maestro</i> local control: Six 2-pin removable terminal blocks. Each terminal will accept up to two #18 AWG (1.0 mm ²) wires.
Addressing	Stand-alone: Via DIP Switch. Counts as 1 of 4 H48 addresses. See Fig. 3, pg. 134. Integral: Factory-set to address 1.
Diagnostics	Dimmer and processor communications, heartbeat, and power LEDs.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Miswire Protection	<i>Maestro</i> buses are miswire-protected against gray-violet shorts. H48 buses are non-polarized.
Dimensions	5¼ in (13.3 cm) x 11¼ in (28.6 cm)
Mounting	Stand-alone: Mount inside HWI-LV32-120 or HWI-LV17-120. Integral: Pre-mounted in wired processor H8P5-H48-120, H8P5-MI-H48-120, H4P5-H48-120, or H4P5-H48-HRL-120.
Shipping Weight	1 lb. (0.45 kg)

BACK ROOM

H48 Dimmer Interface (cont.)

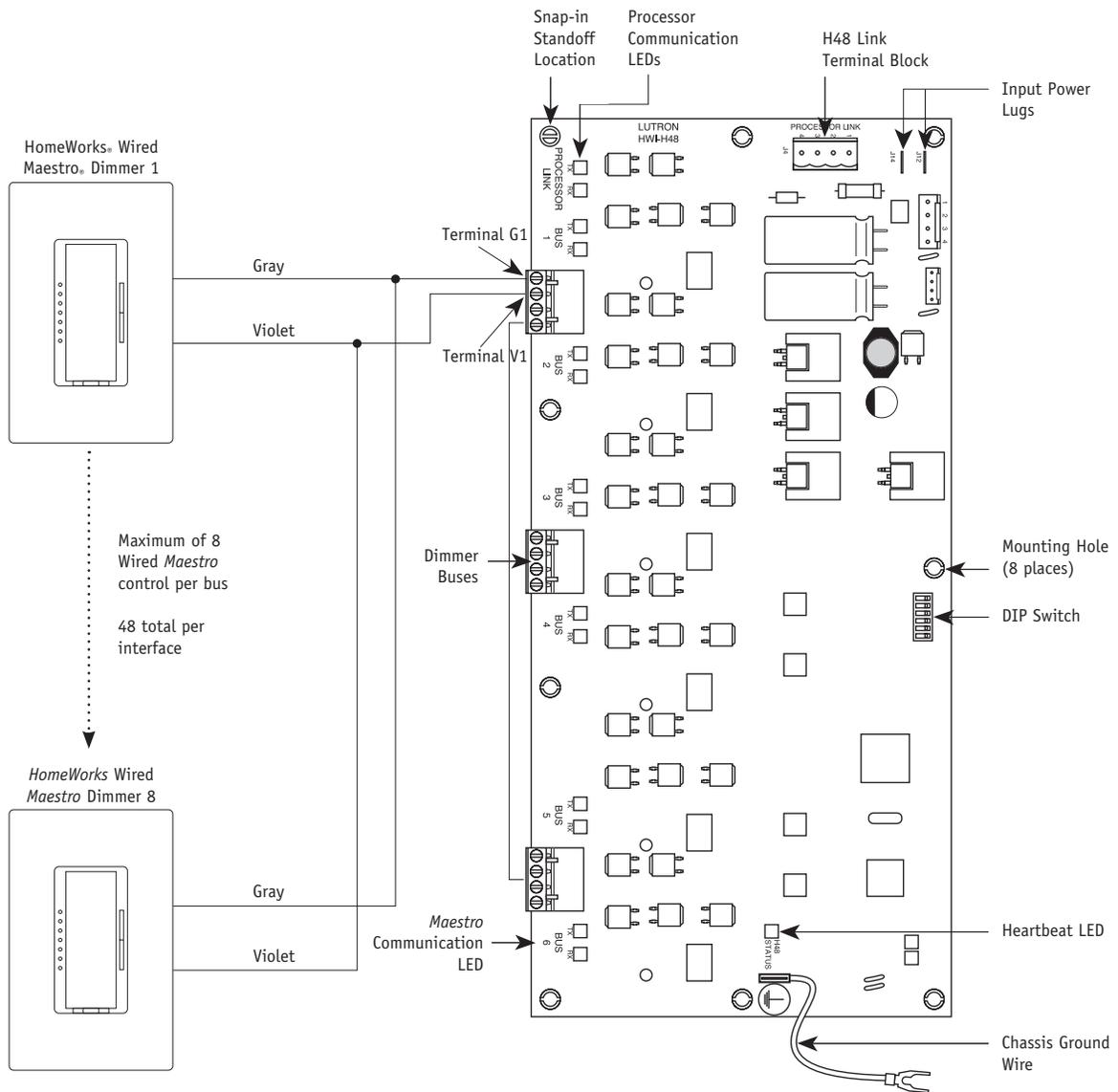


Figure 2 – Wiring Callouts

Address Number and Switch Setting

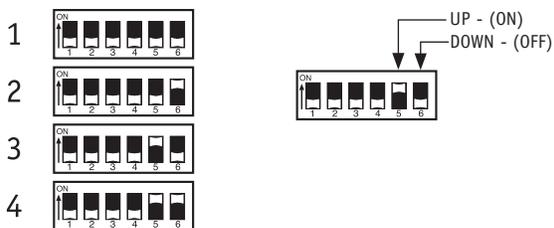
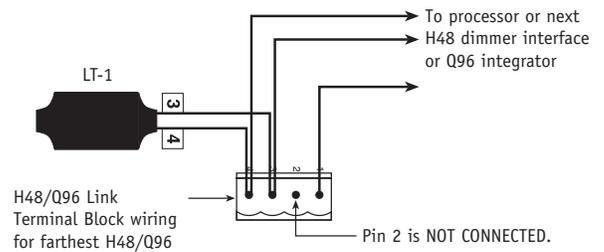


Figure 3 – DIP Switch Settings



Note: Do not use an LT1 on a Dimmer Bus Link.

Figure 4 – LT1 Installation