

## Dimmer Hub

HWI-H48

12 V~, 50/60 Hz, 1.0 A max.

### Installation Instructions



**Danger** - Locate and lock supply breaker in the OFF position before installing HWI-H48.

- 1. Install HWI-H48 in the enclosure (HWI-LV32 or HWI-LV17).** Consult enclosure instructions to determine the correct location. Press the standoff in the upper left hand corner of the board through the pink label marked "48". A 1/4" (7mm) nutdriver can be used to help press in the standoff. Using the #8 x 1/2" screws provided, attach the board through the remaining mounting holes.



**Caution** - Minimize bending of the board during installation.



**Caution** - Board components are sensitive to electrostatic discharge.

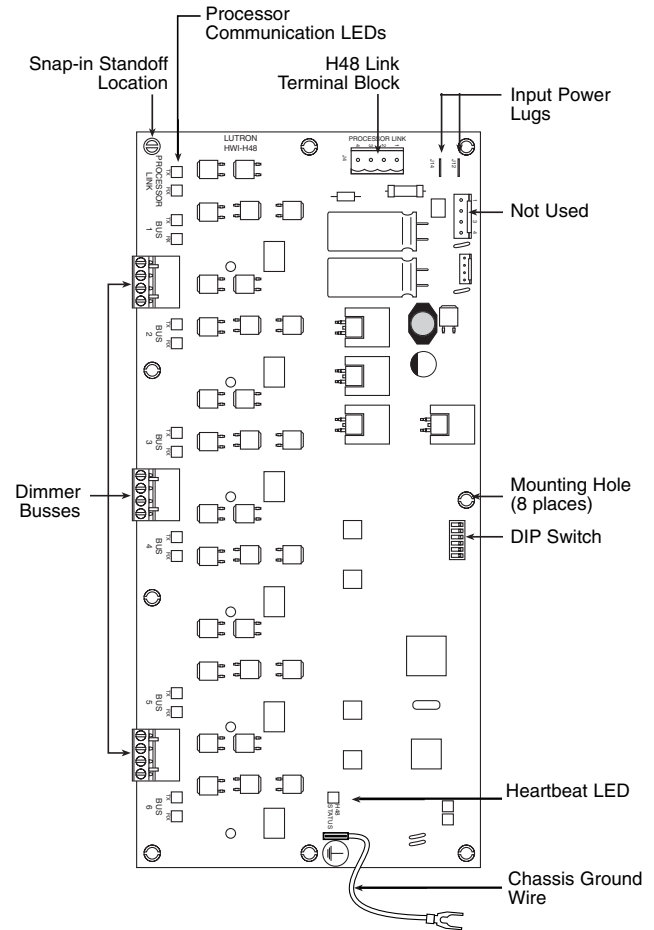
- 2. Connect Chassis Ground Wire.** Using the #8 x 1/4" screw provided, connect the ground wire to the enclosure in any convenient location.
- 3. Set Address.** Set the address on the DIP switch to the address assigned to this HWI-H48 by the *HomeWorks* Utility. Use Table 1 (next page) to determine the switch settings. Each HWI-H48 must have a unique address.
- 4. Connect *HomeWorks* dimmers and switches.** Connect the wiring to the appropriate bus (buses 1-6, 8 devices per bus). Gray and violet connections are marked on the printed circuit board (See Figure 3). Use Class 2, 1-pair twisted/shielded 22-18 AWG (0.5mm<sup>2</sup>-1.0mm<sup>2</sup>) cable. Wire in a star, T-tap or daisy chain configuration.



**Danger** - Do not connect high voltage wiring to the HWI-H48.

- 5. Connect the H48 Link.** For HWI-H48s in HWI-LV17 and HWI-LV32 enclosures, only connect pins 1, 3, and 4 using the terminal block provided. Do not connect pin 2 (+15V).
- 6. Terminate the H48 link.** If any of the HWI-H48s are located more than 50 feet from the processor, the last H48 on the chain must utilize a link terminator across terminals 3 and 4. LT-1 link terminators that are included with the processor may be used for this application. (See Figure 2). If LT-1s are unavailable, a 1/2 Watt resistor between 100 and 150 Ohms may be placed from pin 3 to pin 4 to provide termination. Termination at the processor end of the chain is also required; a second LT-1 or resistor should be wired from pin 3 to pin 4 on the processor terminal block. (See Figure 2.)

Figure 1 - *HomeWorks* Dimmer Hub Board



- 7. Connect the input power.** For HWI-H48s in HWI-LV17 or HWI-LV32 enclosures only, connect the two leads from the transformer to the lugs on the HWI-H48. (See Figure 2.)



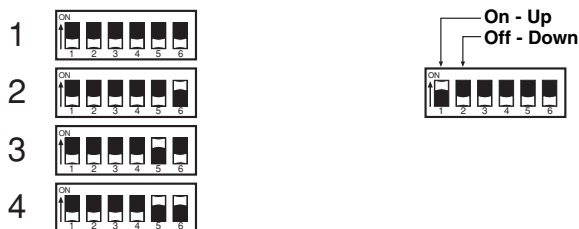
**Caution** - Connecting a transformer other than the one provided by Lutron in the HWI-LV17 or HWI-LV32 may result in blowing the fuse on the HWI-H48. Do not connect other transformers to the HWI-H48.

- 8. Turn power ON.** Return the supply breaker to the ON position. Confirm that the processor is powered ON as well.
- 9. Check for heartbeat:** Check the Heartbeat LED. It should be flashing. If it is off, check the power connections (see step 7). If power is present and the Heartbeat LED is still OFF, turn power OFF and back ON. If this condition persists, contact Lutron.

10. **Check for processor communications.** Check the Processor Communications LEDs. They should be on or blinking. If it is off, communications from the processor have been interrupted. Check the connections at the H48 link terminal block on the HWI-H48 and on the processor. Verify the processor is powered. Verify the link terminator is installed properly.
11. **If the connected *HomeWorks* dimmer units function intermittently, check bus wiring and HWI-H48 termination.** (See step 4 and step 6.)
12. For *HomeWorks* dimmer units that appear to be wired correctly but do not function, verify that the service switch is in the ON position.

**Table 1 - DIP Switch Settings**

Address Number and Switch Setting



**World Headquarters**  
Lutron Electronics Co., Inc.  
7200 Suter Road  
Coopersburg, PA 18036-1299, U.S.A.  
**TOLL FREE:** (800) 523-9466 (U.S.A., Canada and the Caribbean)  
Tel: (610) 282-3800; International 1 610 282-3800  
Fax: (610) 282-3090; International 1 610 282-3090

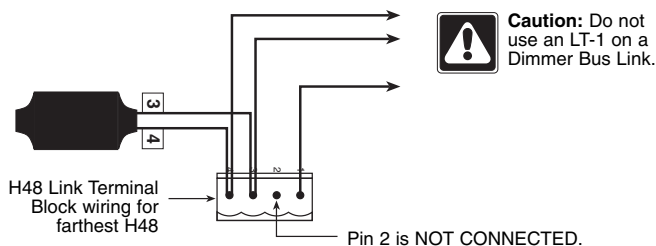
**European Headquarters**  
Lutron EA LTD  
Lutron House  
6 Sovereign Close  
Wapping  
London, E1 9HW England  
**FREEPHONE:** (0800) 28 21 07 (U.K.)  
Tel: (171) 702-0657; International 44 171 702-0657  
Fax: (171) 480-6899; International 44 171 480-6899

**Asian Headquarters**  
Lutron Asuka Co., Ltd.  
No. 16 Kowa Bldg. 4F  
1-9-20 Akasaka  
Minato-ku, Tokyo  
107-0052 Japan  
**TOLL FREE:** (0120) 083 417 (Japan)  
Tel: 03-5575-8411; International 81-3-5575-8411  
Fax: 03-5575-8420; International 81-3-5575-8420

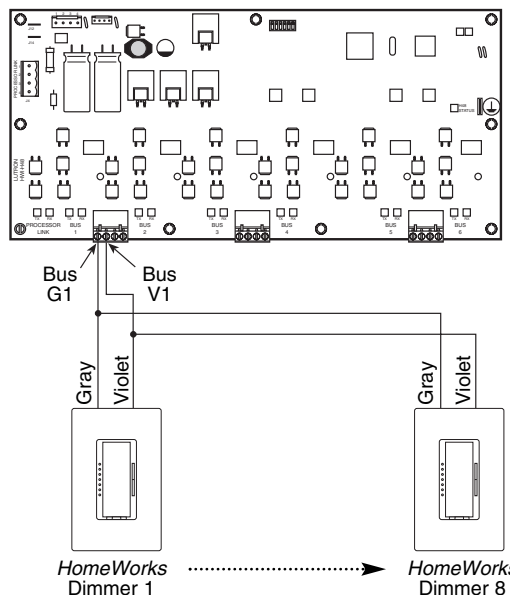
**Hong Kong Sales Office**  
Tel: 2104-7733; International 852-2104-7733  
Fax: 2104-7633; International 852-2104-7633

**Singapore Sales Office**  
Tel: 487-2820; International 65-487-2820  
Fax: 487-2825; International 65-487-2825

**Figure 2 - LT-1 Installation**



**Figure 3 - HWI-H48 to *HomeWorks* Dimmer Wiring**



**Technical and Sales Assistance**

If you need assistance, call the toll-free **Lutron Technical Support Center**. Please provide exact model number when calling.  
(800) 523-9466 (U.S.A., Canada and the Caribbean)  
Other countries call:  
Tel: (610) 282-3800  
Fax: (610) 282-3090  
Visit our web site at [www.lutron.com](http://www.lutron.com)

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