

## Installation Instructions

### Please Leave for Occupant

## Incandescent Dimmers

### N-600, N-1000, N-1500, N-2000

#### 120 V~ 60 Hz

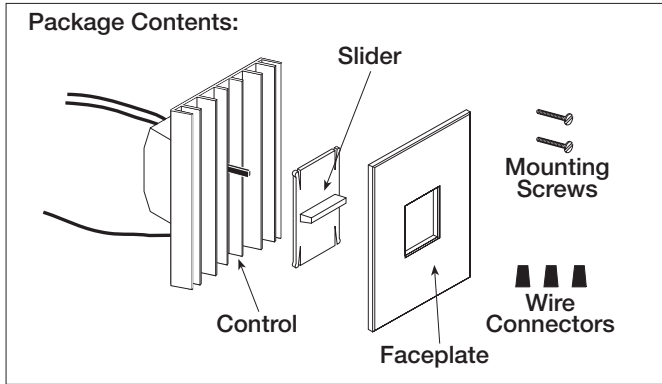
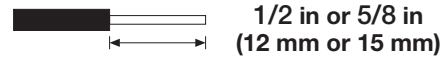
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**Multigang Installations:** A multigang faceplate is available to simplify and improve the appearance of your installation. A multigang mounting frame is provided with each standard multigang faceplate to ensure proper alignment of the dimmers, easy application of the faceplate, and a flat surface for the installation. Refer to instruction sheet supplied with multigang faceplates.

### Single Unit Installation

- 1. TURN POWER OFF.** Control must only be installed when power is turned OFF. Remove fuse or turn circuit breaker OFF. Damage to product caused by wiring with power on voids warranty.
- Remove faceplate from dimmer to access mounting holes. Pull out at top and bottom edges, plate will snap off.
- Strip insulation from dimmer wires and from wires in switchbox as follows:
  - 1/2 in for 10, 12 and 14 AWG (12 mm for 4, 2.5 and 1.5 mm<sup>2</sup>) supply wire.
  - 5/8 in for 16 and 18 AWG (15 mm for 1 and 0.75 mm<sup>2</sup>) control wire.



### Important Notes

#### Please Read Before Installation

**Lamp Type:** Use this product with incandescent and quartz lamps *only*--120 V~ 60 Hz. Do *not* connect to low-voltage lamps or any appliance.

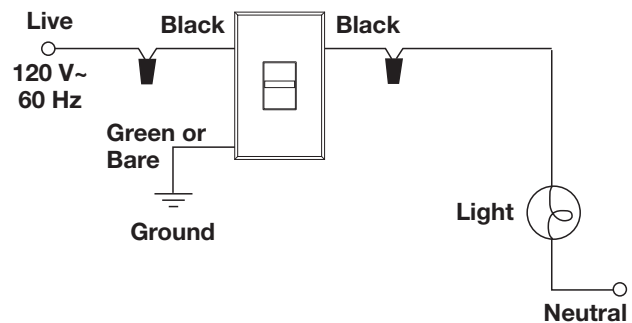
**Caution:** To avoid overheating and possible damage to other equipment, do not install this product to control receptacles, fluorescent lighting fixtures, motor-operated appliances, or transformer supplied appliances.

**Short Circuit Check:** Check new installation for short circuits prior to installation of dimmer by using a single pole switch and connecting the appropriate terminals to the hot wire and the lamp with power OFF. Turn power on. If lights do not work, or breaker trips, a short is present. Correct the wiring and check circuit again. Install dimmer only when short is no longer present.

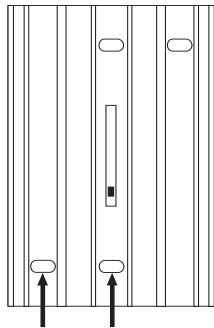
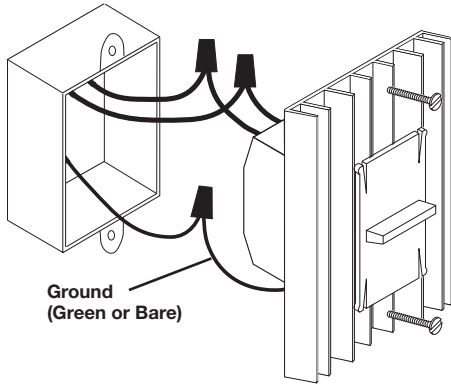
**Wire Connectors:** Wire connectors provided can be used to join one 10, 12, 14, 16, or 18 AWG (4, 2.5, 1.5, 1, or 0.75 mm<sup>2</sup>) wire with one or two 12 or 14 AWG (2.5 or 1.5 mm<sup>2</sup>) wires. Use them with copper wire *only*.

**Switchbox and Location:** A single-gang switchbox, 3 in high x 2 in wide x 2 1/2 in deep (76 x 5 x 63 mm), will service all individual Nova dimmers. These dimmers are designed to operate in ambient temperatures from 32 °F to 104 °F (0 °C to 40 °C). Allow a minimum space in the wall of 4 1/2 in (114 mm) above and below the dimmers for proper heat dissipation.

- Using the wire connectors provided:
  - Connect the green or bare ground wire on the dimmer to the green or bare copper ground wire in the wallbox. **Note:** When “no grounding means” exists within the wallbox, then the NEC® 2008, Article 404.9 allows a switch without a grounding connection to be installed as a replacement, as long as a plastic, noncombustible wallplate is used. For this type of installation, cap or remove the green ground wire from the switch and use an appropriate wallplate such as a Nova® series wallplate by Lutron.
  - Connect one of the black wires on the dimmer to either one of the wires removed from the switch. Be sure no bare wire is exposed.
  - Connect the other black wire on the dimmer to the remaining wire removed from the switch. Be sure no bare wire is exposed.

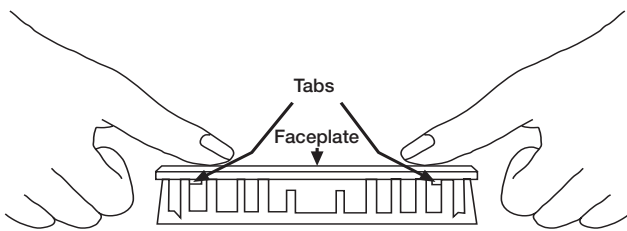


- Push wires into switchbox, allowing room for dimmer backbox to be inserted.
- Mount dimmer to switchbox using the 2 provided screws in the center mounting holes (offset mounting holes are for multigang installation). Unit *must* be mounted vertically.



Offset Mounting Holes      Center Mounting Holes

- Snap faceplate on dimmer.



Press plate Until Tabs Snap In

- Turn power ON. Push slider up to increase light and down to decrease light. Full "down" position will turn light off.

## Multigang Installation- No Side Sections Removed (No Derating Required)

In multigang installations, several dimmers or controls are grouped horizontally in one ganging switchbox or in a series of connected switchboxes. Multigang faceplates are available to simplify and improve the appearance of this installation. A multigang mounting frame is provided with standard multigang faceplates which ensures proper alignment of dimmers, easy application of the faceplate, and a flat surface for the installation. Refer to instruction sheet (supplied with multigang faceplate) when using these components. Installation of dimmers without removing side sections allows operation at full capacity (no derating). Follow instructions below. For retrofit installations side sections can be removed to fit existing switchboxes. This requires derating and is described in "Multigang Installation - Side Sections Removed" on page 3.

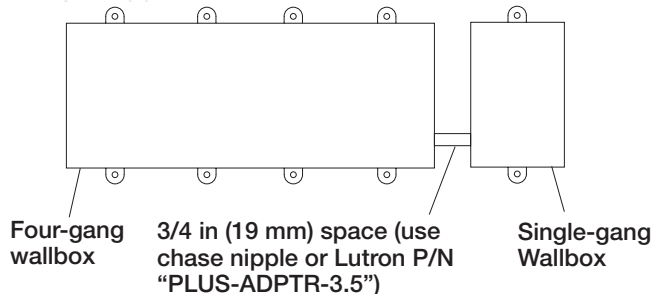
- Determine the number of switchboxes necessary by using the Switchbox Requirement Chart (Table A). When ganging any combination of small dimmers (N-600, N-1000) and large dimmers (N-1500, N-2000), keep all small dimmerstogether at one end of the gang and all large dimmers together at the other end of the gang.

Table A. Switchbox Requirement Chart  
No Side Sections Removed

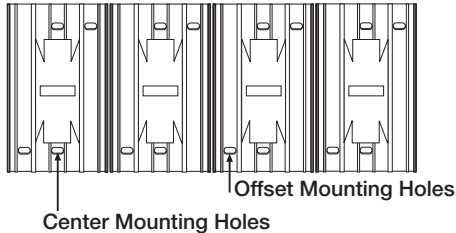
	Number of Small Controls						
	0	1	2	3	4	5	6
	Number of Switchboxes Required						
Number	0	1	1+1*	4	4+1*	7	7+1*
of Large	1	3	5	6	8	9	11
Controls	2	4	6	7	9	10	12
	3	6	8	10	11	13	14
	4	9	11	12	14	15	17
							18

\*See item #2

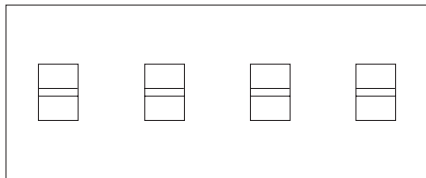
- When ganging an even number of small controls use gangable switchboxes with tapped ears. Do not use plaster rings or gangbox covers. One switchbox in addition to the total number of controls is required in order to provide space for faceplates (e.g. 4 dimmers require 5 switchboxes). Place additional switchboxes 3/4 in (19 mm) apart from other switchbox(es) to provide space for faceplate(s).



- Turn power OFF. Wire each dimmer according to steps 3 and 4 in "Single Unit Installation".
- Install controls in switchbox(es). Use center mounting holes for first unit, then use offset mounting holes as required for proper alignment. Allow 1/32 in (.79 mm) between controls for ease in attaching faceplates.



- Just snap on multigang faceplate (or multiple single faceplates) and adjust up or down for snug fit. Multigang faceplates (with mounting frames and instructions) are available in a variety of colors and sizes to simplify and beautify your installation.



### Multigang Installation-- Side Sections Removed (Derating Required)

In multigang installations several dimmers or controls are grouped horizontally in one ganging switchbox or in a series of connected switchboxes. Multigang faceplates are available to simplify and improve the appearance of this installation. A multigang mounting frame is provided with standard multigang faceplates which ensures proper alignment of dimmers, easy application of the faceplate, and a flat surface for the installation. Refer to instruction sheet (supplied with multigang faceplate) when using these components.

- Derating is necessary when side sections are removed. Use Derating Chart (Table B) to determine maximum wattage of lamps safely dimmed when side sections are removed. Match the dimmer model number and the number of side sections removed to determine the maximum load that can be controlled.

Table B. Derating Chart - Maximum Wattage

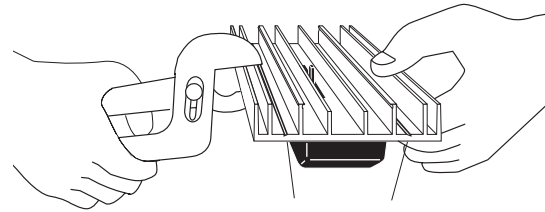
Model	Control Size	No Sides Removed	1 Side Removed	2 Sides Removed
N-600	S	600 W	600 W	500 W
N-1000	S	1000 W	900 W	700 W
N-1500	L	1500 W	1250 W	1000 W
N-2000	L	2000 W	1800 W	1500 W

- Determine the number of switchboxes necessary by using the Switchbox Requirement Chart (Table C). When ganging any combination of small dimmers (N-600, N-1000) and large dimmers (N-1500, N-2000), place all small dimmers together at one end of the gang and all large dimmers at the other end of the gang.

Table C. Switchbox Requirement Chart  
Side Sections Removed

		Number of Small Controls						
		0	1	2	3	4	5	6
		Number of Switchboxes Required						
Number of Large Controls	0	0	1	2	3	4	5	6
	1	1	3	4	5	6	7	8
	2	3	5	6	7	8	9	10
	3	5	7	8	9	10	11	12
	4	7	9	10	11	12	13	14

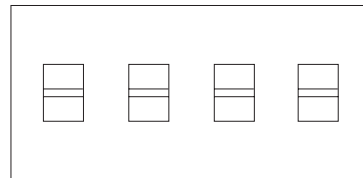
- Remove only inner side sections. Using pliers, bend side sections as far as you can and then back to their original positions. Repeat several times until side sections break off.



Side section break-off points

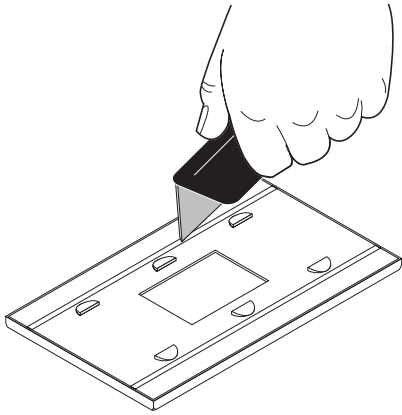
Note: Do not remove outer side sections of the two dimmers which are on the ends of the gang.

- Turn power OFF. Wire each dimmer according to steps 3 and 4 in "Single Unit Installation". Grounds need to be common.
- Install controls in switchbox(es). Use center mounting holes. (With large controls, you can use offset mounting holes as required for proper alignment). Allow 1/32 in (.79 mm) between controls for ease in attaching faceplates.
- Just snap on a multigang faceplate or multiple single faceplates (see "Faceplate Cutting" on next page) and adjust up or down for snug fit. Multigang faceplates (with mounting frames and instructions) are available in a variety of colors and sizes to simplify and beautify your installation.



## Faceplate Cutting

Some faceplates will need to be cut if removing side sections of dimmers and not using a multigang faceplate. Position faceplate on a soft cloth face down. Press firmly and score the groove on the back of faceplate with a razor-sharp knife, using vertical side groove to keep knife on straight course. Bend section back and forth to break it off. Smooth edges by placing fine-grained sandpaper on a flat surface and rub edge of the faceplate over the sandpaper a few times. Hold faceplate steady as you rub to keep a true edge.



Multigang faceplates, which eliminate the need to cut individual faceplates, are available from Lutron in a variety of colors to simplify and beautify your installation.

## Worldwide Technical and Sales Assistance

If you have questions concerning the installation or operation of this product, call the **Lutron Technical Support Center**. Please provide exact model number when calling.

1.800.523.9466 (U.S.A., Canada, and the Caribbean)

Other countries call +1.610.282.3800

Fax +1.610.282.6311

Visit our web site at [www.lutron.com](http://www.lutron.com)

## LIMITED WARRANTY

(Valid only in U.S.A., Canada, Puerto Rico, and the Caribbean.)

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage pre-paid.

**THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, AND THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO ONE YEAR FROM PURCHASE. THIS WARRANTY DOES NOT COVER THE COST OF INSTALLATION, REMOVAL OR REINSTALLATION, OR DAMAGE RESULTING FROM MISUSE, ABUSE, OR DAMAGE FROM IMPROPER WIRING OR INSTALLATION. THIS WARRANTY DOES NOT COVER INCIDENTAL OR CONSEQUENTIAL DAMAGES. LUTRON'S LIABILITY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, OR USE OF THE UNIT SHALL NEVER EXCEED THE PURCHASE PRICE OF THE UNIT.**

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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