

Important Notes:

Please read before installing.

- For applications using more than 450 W, contact the Lutron® Technical Support Center at 1.800.523.9466 for new product updates and application assistance.
- This product should not be used** to control magnetic transformer-supplied, low-voltage lighting. Magnetic transformers are often larger and heavier than electronic transformers and have different control requirements. To dim magnetic transformer low-voltage lighting, use *Lutron* low-voltage products available in Nova T★®, Nova®, Skylark®, and Glyder® families.
- Some fixture manufacturers do not recommend dimming their solid-state transformers. To determine if a fixture may be dimmed, consult the fixture manufacturer.
- In multi-phase applications, use a separate neutral for each phase containing a dimmed circuit.
- This dimmer is overload-protected. If more than the rated wattage is applied, power to the circuit will reduce until dimmer cools. If this happens, remove excess load from circuit.
- When no "ground means" exists within the wallbox, then NEC® 2005 Article 404-9 exception to (b) allows a dimmer without a ground connection to be installed as a replacement. For this type of installation, cap or remove the green dimmer ground wire. A dimmer installed under this exception (NEC2005 Article 404-9 exception to (b)) must be provided with a plastic, noncombustible, UL® listed wallplate.
- For use where ambient temperatures range from 32 °F to 104 °F (0 °C to 40 °C).
- Dimmers must be mounted vertically.
- Wipe with a clean damp cloth. **Do Not** use any chemical cleaning solutions.

Preparing for Installation

Check circuitry for shorts with a switch before installing control.

1 Turning Power OFF

Turn circuit breaker OFF or remove fuse. Dimmer may only be installed when power is OFF.

2 Wiring and Installation

2a Strip the Wallbox Wires

When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connectors. Twist wire connector tight, making sure that no bare wire is exposed.

Note: Wire connectors provided are suitable for copper wire only. For aluminum wire, consult an electrician.

Small:

- Strip insulation 3/8 in for #14 AWG wire.
- Strip insulation 1/2 in for #16 AWG or #18 AWG wire.
- Use to join one #14 AWG supply wire with one #16 AWG or #18 AWG control wire.

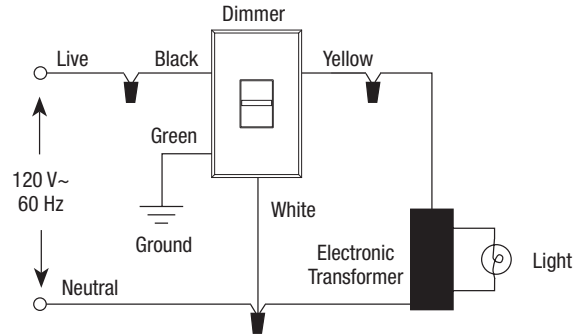
Large:

- Strip insulation 1/2 in for #10 AWG, #12 AWG, or #14 AWG wires.
- Strip insulation 5/8 in for #16 AWG or #18 AWG wires.
- Use to join one or two #12 AWG or #14 AWG supply wires with one #10 AWG, #12 AWG, #14 AWG, #16 AWG, or #18 AWG control wire.



2b Wire the Dimmer

- Connect the green ground wire on the dimmer to the green or bare copper ground wire in the wallbox.
- Connect the black lead to the 120 V~ lead.
- Connect the yellow lead to one transformer primary lead.
- Connect the white lead to neutral, along with the other transformer primary lead.



2c Remove the Faceplate

Remove the faceplate and slider to expose the mounting holes.

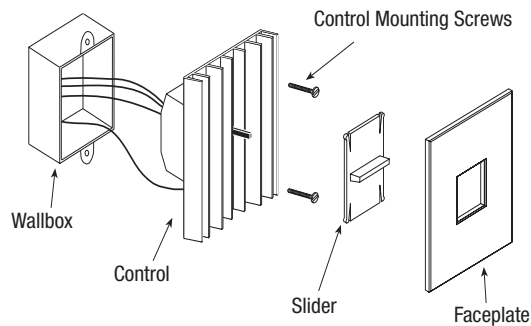
2d Mount the Dimmer

Push the wires back into the box, taking care to allow room for the Dimmer to be inserted.

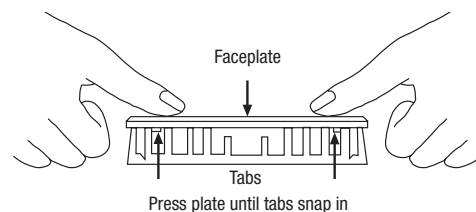
Mount the Dimmer to the wallbox using the two screws provided (the Dimmer must be mounted vertically).

Install the slider and snap on the faceplate.

Installation Diagram



Faceplate Installation



3 Turning the Power ON

Turn the power ON at the circuit breaker (or replace the fuse).

Pushing the slider up increases the light intensity, pushing it down decreases the light intensity and turns the Dimmer off.

4 Ganging and Special Faceplates

Nova controls can be ganged with other *Nova* dimming controls. Use chart below to determine the number of wallboxes required for mounting various configurations. For a retrofit installation, side sections can be removed to fit existing wallboxes; this will require lamp derating as determined using the Capacity Derating Chart below.

Wallboxes Necessary for Ganging Chart

No Side Sections Removed	Number of Small Controls							
	0	1	2	3	4	5	6	
Number	0	1	1+1	4	4+1	7	1+7	
of Large	1	1	3	5	6	8	9	
Controls	2	4	6	7	9	10	12	
	3	6	8	10	11	13	14	
	4	9	11	12	14	15	17	

All Inside Side Sections Removed	Number of Small Controls							
	0	1	2	3	4	5	6	
Number	0	1	2	3	4	5	6	
of Large	1	1	3	4	5	6	7	
Controls	2	3	5	6	7	8	9	
	3	5	7	8	9	10	11	
	4	7	9	10	11	12	13	

To maintain a smooth, clean installation, one-piece multi-gang faceplates are available. If multi-gang faceplates are not used, pre-cut faceplates can be ordered to fit individual controls with side sections removed.

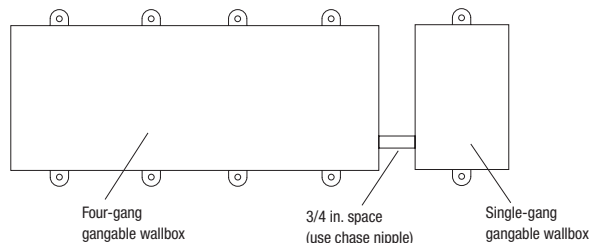
Capacity Derating Chart

Model Number	Maximum Capacity		
	No side sections removed	One side section removed	Two side sections removed
NELV-450	450 W	400 W	350 W

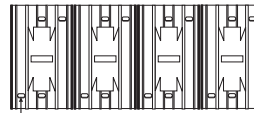
5 Notes for Ganging

- When ganging any combination of small and large controls, place a small control on one end of the gang and a large control on the other end of the gang.
- When ganging an even number of small controls with side sections intact, space an additional wallbox 3/4 in apart from the other wallbox(es), as shown in Wallboxes Necessary for Ganging Chart. A 3/4 in chase nipple is recommended between the wallboxes.

Ganging four small controls with side sections intact is shown below.

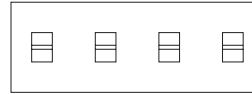


- Assemble controls using offset mounting holes.



Offset Mounting Hole

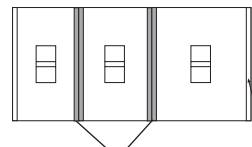
- Complete the gang with a *Nova* multi-gang faceplate. A four-gang installation is shown below.



- Masonry multi-gang wallboxes are recommended for better looking installations.

6 Removing Side Sections

- Carefully pull off plastic faceplate. To remove faceplate, pull up at top and bottom edges. Faceplate will snap off.
- When removing side sections, remove only inner side sections. Do not remove side section on outer ends of the gang; see below.



- Using pliers, bend side section of dimmer down as far as you can and then back to its original position. The side sections will break off. Use a file or sandpaper to remove any burrs or excess metal.

Worldwide Technical and Sales Assistance

For 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 +1.610.282.3090

Visit our web site at 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.

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