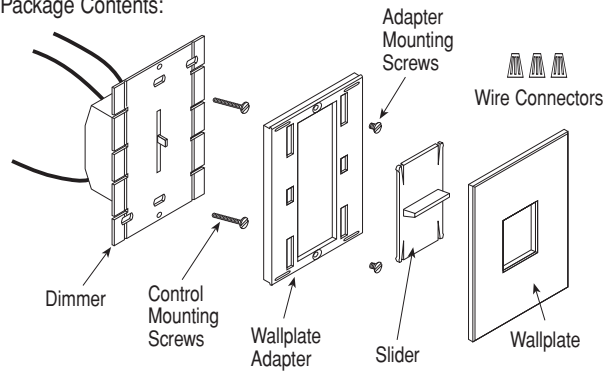


Package Contents:



Important Notes

Please Read Before Installation

IMPORTANT: For best performance use with Lutron *Tu-Wire* line-voltage control electronic fluorescent dimming ballasts. For other applications please contact Lutron Technical Support. **Note:** For proper dimming performance, lamps must be operated at full intensity for 100 hours prior to dimming.

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

Short Circuit Check: Check new installation for short circuits prior to installation of control 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 control 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 wire with one or two 12 or 14 AWG wires. Use them with copper wire *only*.

Wallbox and Location: A single-gang wallbox (3" high x 2" wide x 2 1/2" deep (76 mm high x 51 mm wide x 64 mm deep)) will service all individual Nova T[☆] controls. These controls are designed to operate in ambient temperatures from 0 °C to 40 °C (32 °F to 104 °F). Allow a minimum of 4 1/2" (114 mm) free space above and below the controls for proper heat dissipation.

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

Cleaning Instructions: To clean, wipe with a clean damp cloth. DO NOT use any chemical cleaning solutions.

Single Unit Installation

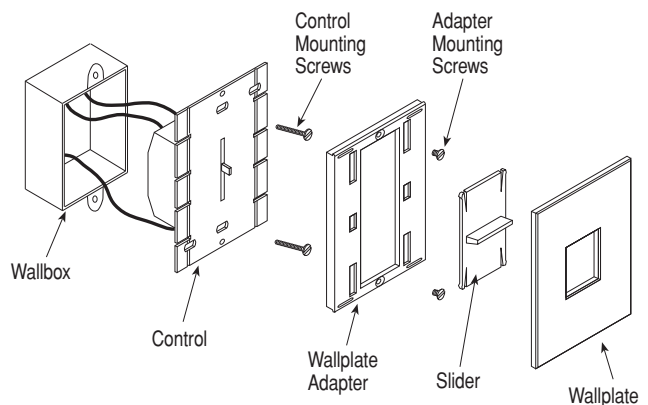
1. Turn power OFF at fusebox or circuit breaker. Wiring with power on can result in personal injury. Damage to product caused by wiring with power on voids the warranty.
2. Remove wallplate and wallplate adapter from control to prevent damage and to access mounting holes. Pull from top of wallplate to remove. Unscrew wallplate adapter. Set aside.
3. Strip insulation from control wires and from wires to which control is to be connected as follows:

- 1/2" (13 mm) for 10, 12, and 14 AWG supply wire
- 5/8" (16 mm) for 16 and 18 AWG control wire



4. Using the wire connectors provided, make connections following the appropriate wiring diagrams for your control. **Note:** If a bare copper or green ground connection is not available in the wallbox, contact a licensed electrician for installation.
5. Push wires into wallbox, allowing room for control backbox to be inserted.
6. Mount control to wallbox using screws provided. Controls must be mounted vertically. See stamp on control for correct positioning.
7. Mount adapter plate with mounting screws provided (see Figure A).

Figure A. Control Mounting



8. Snap on slider and wallplate.
9. Turn power ON. **Note:** For proper dimming performance, lamps must be operated at full intensity for 100 hours prior to dimming.

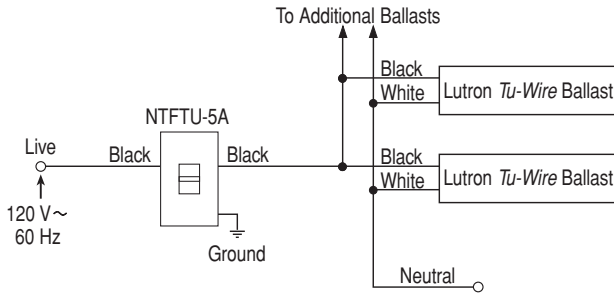
Operation

Slide-to-Off Dimmers

Raise slider to increase light intensity. Lower slider to decrease light intensity and turn off.

Wiring

Single Pole - NTFTU-5A



Multigang Installation-

No Side Sections Removed (No Derating Required)

In multigang installations several dimmers or controls are grouped horizontally in one ganging wallbox or in a series of connected wallboxes. Multigang wallplates are available to simplify and improve the appearance of this installation. Refer to instruction sheet (supplied with multigang wallplate).

Installation of controls 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 wallboxes. This requires derating and is described in "Multigang Installation - Side Sections Removed" on page 3.

1. Determine the number of wallboxes necessary by using the Wallbox Requirement Chart (Table A). When ganging any combination of small controls (NTFTU-5A) and large controls, keep all small controls together at one end of the gang and all large controls together at the other end of the gang.

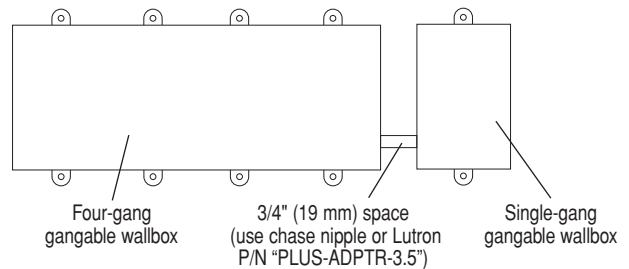
Table A. Wallbox Requirement Chart
No Side Sections Removed

	Number of Small Controls						
	0	1	2	3	4	5	6
Number of	0	1	1+1*	4	4+1*	7	1+7*
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

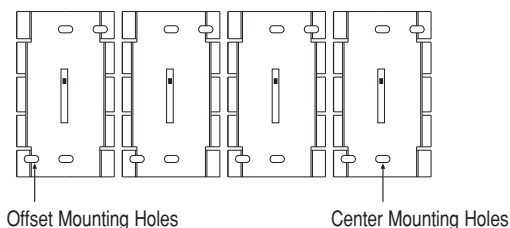
2. When ganging an even number of small controls use gangable wallboxes with tapped ears. Do not use plaster rings or gangbox covers. One wallbox in addition to the total number of controls is required in order to provide space for wallplates (e.g. 4 controls require 5 wallboxes). Place additional wallboxes 3/4" (19 mm) apart from other wallbox(es) to provide space for wallplate(s). See Figure B.

Figure B. Wallbox Ganging



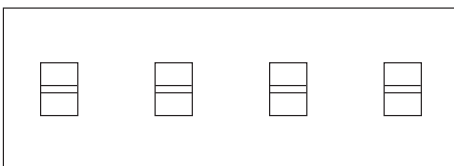
3. Turn power OFF. Wire each control according to step 3 in “Single Unit Installation” on page 1.
4. Install controls in wallbox(es). Use center mounting holes for first unit, then use offset mounting holes as required for proper alignment (see Figure C). A space between controls allows for attaching the wallplate adapter.

Figure C. Front View - Four-Gang Installation



5. Reattach the wallplate adapters and sliders. Snap on multi-gang wallplate (or multiple single wallplates). Multigang wallplates (with mounting frames and instructions) are available in a variety of colors and sizes to simplify and beautify your installation. See Figure D.

Figure D. Multigang Unit With Wallplate



Multigang Installation- Side Sections Removed (Derating Required)

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

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

Table B. Derating Chart - Maximum Load

Model	Control Size	No Sides Removed	1 Side Removed	2 Sides Removed
NTFTU-5A	S	5 Amps	4 Amps	3.3 Amps

To determine total ballast load, add the line current found on the ballast label for all ballasts in the circuit. This will indicate the total load for the control.

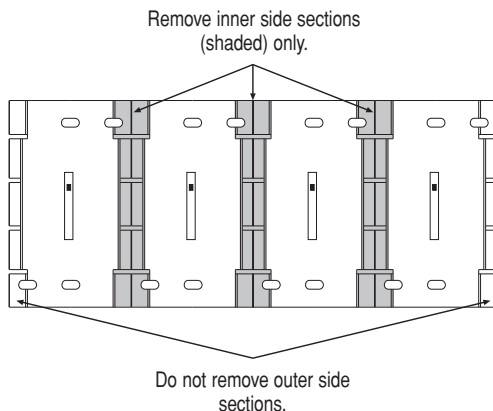
2. Determine the number of wallboxes necessary by using the Wallbox Requirement Chart (Table C). When ganging any combination of small controls (NTFTU-5A) and large controls, place all small controls together at one end of the gang and all large controls at the other end of the gang.

**Table C. Wallbox Requirement Chart
Side Sections Removed**

		Number of Small Controls						
		0	1	2	3	4	5	6
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 (see Figure E).

Figure E. Side Section Removal



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

- Turn power OFF. Wire each control according to step 3 in "Single Unit Installation" on page 1.
- Install controls in wallbox(es). Use center mounting holes. (With large controls, you can use offset mounting holes as required for proper alignment). See Figure C.
- Reattach the wallplate adapters and sliders. Snap on multigang wallplate (or multiple single wallplates). Multigang wallplates (with mounting frames and instructions) are available in a variety of colors and sizes to simplify and beautify your installation. See Figure D.

Technical 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 +1-610-282-3090

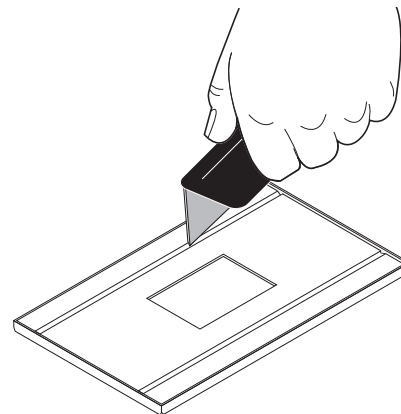
Internet: www.lutron.com

LUTRON®

Wallplate and Wallplate Adapter Cutting

Some wallplates and wallplate adapters will need to be cut if removing side sections of controls and not using a multigang wallplate. Position wallplate on a soft cloth face down. Press firmly and score the groove on the back of wallplate with a razor-sharp knife, using vertical side groove to keep knife on straight course (see Figure F). 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 wallplate over the sandpaper a few times. Hold wallplate steady as you rub to keep a true edge. Repeat process with the wallplate adapter.

Figure F. Cutting Wallplate



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

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 the exclusion or limitation of incidental or consequential damages, or limitation on how long an implied warranty may last, so the above limitations may not apply to you.

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