### **Multigang Installation**

Multiple controls can be installed in a multigang wallbox or a series of interconnected wallboxes for a clean, consolidated appearance. Lutron® multigang faceplates are available to complete the installation. Refer to instruction sheet supplied with multigang faceplates for installation.

For new installations, controls can be ganged without removing side sections, but, to reduce the size of the multigang installation or to fit existing wallboxes, inner side sections must be removed. Because side sections are designed to dissipate heat, removing them derates the capacity of the control.

Note: When ganging any combination of small and large controls, place all small controls on one end of the gang and all large controls on the other. Use the chart below to determine the size and rating of

### **Control Size and Derating Chart**

	GUIILI	ui size aiiu l	Jerauny Gna	I L
	Control	No Sides	1 Side	2 Sides
Model	<u>Size</u>	Removed	Removed	Removed
NT-600	S	600 W	500 W	300 W
NT-1000	S	1000 W	900 W	700 W
NT-1500	L	1500 W	1250 W	1000 W
NT-2000*	L	1950 W	_	_
NT-603P	S	600 W	500 W	300 W
NT-1003P	S	1000 W	900 W	700 W
NT-1503P	L	1500 W	1250 W	1000 W
NT-1PS	S	20 A	20 A	20 A
NT-3PS	S S	20 A	20 A	20 A
NT-4PS	S	20 A	20 A	20 A
NTLV-600	S	600 VA/450 W	500 VA/400 W	300 VA/200 W
NTLV-600-277	S	600 VA/450 W	500 VA/400 W	300 VA/200 W
NTLV-1000	S	1000 VA/800 W	900 VA/700 W	700 VA/550 W
NTLV-1000-277	S	1000 VA/1200 W	900 VA/1000 W	700 VA/800 W
NTLV-1500	L	1500 VA/1200 W	1250 VA/1000 W	1000 VA/800 W
NTLV-603P	S	600 VA/450 W	500 VA/400 W	300 VA/200 W
NTLV-1003P	S	1000 VA/800 W	900 VA/700 W	700 VA/550 W
NTLV-1503P	L	1500 VA/1200 W	1250 VA/1000 W	1000 VA/800 W
NTELV-300	S	300 W	300 W	250 W
NTELV-600	S	600 W	500 W	400 W
NTFS-6E	S	6 A	4.2 A	2.5 A
NTFS-12E	L	12 A	10 A	8.3 A
NTFSQ	S	1.5 A	1.5 A	1.5 A
NTF-10	S	16 A	16 A	16 A
NTF-10-277	S	8 A	8 A	8 A
NTF-103P	S	8 A	8 A	8 A
NTF-103P-277	S	6 A	6 A	6 A
NTFTU-5A	S	5 A	4 A	3.3 A
NTFTU-5A-277	S	5 A	4 A	3.3 A
NTFTU-3AP-277	S	3 A	3 A	3 A

<sup>\*</sup>NT-2000 cannot have side sections removed.

Note: The Wallbox Requirement Charts on this sheet do not apply for the T-2000. See the NT-2000 instruction sheet for the appropriate requirements.

If you have questions concerning the installation or operation of Advance® Mark X® ballasts, call the Advance® Technical Support Center, +1.800.372.3331 - U.S.A. and Canada (Monday - Friday, 8 am - 6 pm ET) www.advance.philips.com

### **Worldwide Technical and Sales Assistance**

If you have questions concerning the installation or operation of these products, 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 website at www.lutron.com

#### **Side Sections Removed**

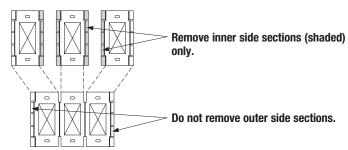
(Derating Required)



#### **Wallbox Gang Size Requirement Chart**

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

Remove inner side sections from controls. Using pliers, bend side sections up and down until they break off.



#### No Side Sections Removed

(Derating Not Required)

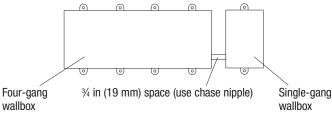


#### **Wallbox Gang Size Requirement Chart**

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

**Note:** When ganging an even number of small controls with side sections intact, use gangable 3 in x 2 in (76 mm x 51 mm) wallboxes. Space an additional wallbox 3/4 in (19 mm) apart from the other wallboxes. A ¾ in (19 mm) chase nipple is recommended as a spacer between wallboxes.

**Example:** Wallbox arrangement required for ganging 4 small controls with no side sections removed:



### 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 maintacture 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 REINSTAL-LATION, OR DAMAGE RESULTING FROM MISUSE, ABUSE, OR DAMAGE FROM IMPROPER WIRING OR INSTALLATION. THIS WARRANTY DOES NOT COVER INCIDENTAL OR CONSE. QUENTIAL 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.
© 2012 Lutron Electronics Co., Inc.

Lutron Electronics Co., Inc. 7200 Suter Road Coopersburg, PA 18036-1299 U.S.A. P/N 0301630 Rev. B 10/2012





# **Installation Instructions** Please Leave for Occupant

Please read before installing.

# Important Notes

1. Install in accordance with national and local electrical codes. NOTICE: To avoid damage to dimmer and/or equipment, use only approved loads. See table for details.

- 2. When no "grounding means" exists within the wallbox for an existing switch or dimmer, the 2011 National Electrical Code (NEC<sub>®</sub>) allows a switch/dimmer to be installed as a replacement as long as 1) a nonmetallic, noncombustible faceplate is used with nonmetallic attachment screws or 2) the circuit is protected by a ground fault circuit interrupter. The 2008 NEC® has the same allowances but does not contain the requirement for nonmetallic attachment screws. When installing a switch/ dimmer according to any of these methods, cap or remove the green wire before screwing the switch/dimmer into the wallbox.
- **3.** These controls are designed to operate in ambient temperatures from 32 °F to 104 °F (0 °C to 40 °C)
- 4. Strip wallbox wires. **Important:** 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.
- **5.** Some dimmers require a neutral wire in the wallbox. If a neutral wire is not present, contact a licensed electrician for installation. See wiring diagrams and table for details.
- **6.** Check for short circuits in new installations before wiring controls. With power OFF, use standard switch and connect to lamp and voltage line. Turn power ON, If breaker trips, a short is present. Correct wiring and check circuit again. Install control only when short is no longer present.
- 7. Multiphase applications: Use a separate neutral for each phase containing a control circuit. For more information, refer to Application Note 17. "Common Neutral Interaction." P/N 360283. at www.lutron.com.
- 8. For best dimming performance, fluorescent lamps may need to be operated at full light output for a specified amount of time prior to dimming. Contact the lamp manufacturer for their specific recommendations concerning lamp seasoning.
- 9. To clean, wipe with a clean damp cloth. **DO NOT** use any chemical cleaning solutions.

# Installation

P/N 0301630

**Incandescent Dimmers NT-Series** 

Fan-Speed Controls NTFS-Series

**Quiet Fan-Speed Controls NTFSQ-Series** 

Magnetic Low-Voltage Dimmers NTLV-Series

**Electronic Low-Voltage Dimmers NTELV-Series** 

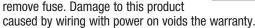
Fluorescent Dimmers NTF- and NTFTU- Series

If more than one control is to be installed in the same wallbox, review the Multigang Installation section before beginning. Lutron® multigang faceplates are available for ganging multiple units.

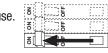


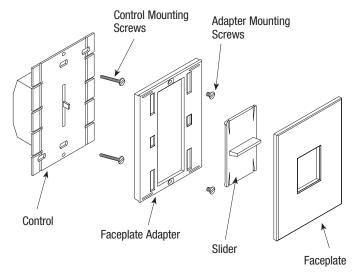
### **WARNING: Shock Hazard. May** result in serious injury or death.

Turn power OFF at circuit breaker or • remove fuse. Damage to this product



- 2. Remove faceplate and faceplate adapter (if applicable) from control to prevent damage and to access mounting holes. Pull from top of faceplate to remove. Unscrew faceplate adapter. Set aside.
- **3.** Wire control per appropriate wiring diagram (see table on next page) using wire connectors provided.
  - Note: Color names refer to the wire colors on the control.
- **4.** Push wires into wallbox, allowing room for control to be inserted. Do not pinch wires between wallbox and control.
- **5.** Mount control to wallbox using control mounting screws provided. Controls must be mounted vertically. See stamp on control for correct positioning.
- 6. Mount adapter plate with adapter mounting screws provided (see
- 7. Snap on slider and faceplate.
- **8.** Turn power ON at circuit breaker or replace fuse.





# **Operation**

Slide-to-Off Controls: Raise slider to increase light intensity. Lower slider to decrease light intensity and turn off.

**Preset Dimmers:** Push button in center of slider to alternately turn lights on to preset level (set by slider) or turn lights off. Raise slider to increase light intensity. Lower slider to decrease light intensity. Push button again to turn lights off.

**3-Way and 4-Way Switches:** When switching power from remote location, lights will turn on to level set on dimmer (by slider), or turn off. Move slider up or down to turn lights on or off. Note, use only one dimmer per circuit.

Minimum Light Level Adjustment: Dimmers are factory calibrated. Some dimmers have the ability for low-end adjustment, which is not normally required. If lamps flicker or drop out at the minimum dimming level there may be an installation error. Continued use of the system in this mode will cause premature lamp failure. If this is occurring, call the **Lutron Technical Support Center** at: 1.800.523.9466.



Original is a registered trademark of Hunter Fan Company, Memphis, Tennessee.

NEC is a registered trademark of the National Fire Protection Association, Quincy, Massachusetts.

Advance and Mark X are registered trademarks of Philips Electronics North America Corporation.

Lutron and Nova Ta are registered trademarks of Lutron Electronics Co., Inc. The design of this product may be covered by one or more of the following U.S. trademark registrations: 1,617,349; 1,626,714; 1,624,489; 1,624,490; and 1,638,913. © 2012 Lutron Electronics Co., Inc.

				Approved Load(s)						
Model Number(s)	Control Type	Voltage/ Rating	Wiring Diagram	Incandescent/ Halogen	Magnetic Low-Voltage	Electronic Low-Voltage	Solid-State Fan	Ceiling Paddle Fan	Lutron⊚ 3-wire fluorescent ballasts or LED drivers	Advance® Mark X® Series Electronic Fluorescent Dimming Ballasts
NT-600 NT-1000 NT-1500 NT-2000	Incandescent Dimmers	120 V~ 60 Hz	1	Х						
NT-1PS NT-3PS NT-4PS	Incandescent Switches	120 V~ 60 Hz	1	Х						
NT-603P NT-1003P NT-1503P	Incandescent Dimmers	120 V~ 60 Hz	2 (single pole) 3 (3-way) 4 (4-way)	Х						
NTLV-600 NTLV-1000 NTLV-1500	Magnetic Low-Voltage Dimmers	120 V~ 60 Hz	1	Х	Х					
NTLV-603P NTLV-1003P NTLV-1503P	Magnetic Low-Voltage Dimmers	120 V~ 60 Hz	2 (single pole) 3 (3-way) 4 (4-way)	Х	Х					
NTLV-600-277 NTLV-1000-277	Magnetic Low-Voltage Dimmers	277 V~ 60 Hz	8	Х	Х					
NTELV-300 NTELV-600	Electronic Low-Voltage Dimmers	120 V~ 60 Hz	8	Х		Х				
NTFS-6E NTFS-12E	Fan-Speed Controls	120 V∼ 60 Hz	5				Х			
NTFSQ	Quiet Fan-Speed Control	120 V~ 60 Hz 1.5 A	1					Х		
NTF-10	Fluorescent Dimmers	120 V∼ 60 Hz	6						Х	
NTFTU-5A	Fluorescent Dimmers	120 V∼ 60 Hz	1						Х	
NTF-10-277	Fluorescent Dimmer	277 V∼ 60 Hz	6						Х	
NTF-103P	Fluorescent Dimmer	120 V~ 60 Hz 8 A	6						Х	
NTF-103P-277	Fluorescent Dimmer	277 V~ 60 Hz 6 A	6 (single pole) 7 (3-way)						Х	
NTFTU-5A-277	Fluorescent Dimmer	277 V~ 60 Hz 5 A	8							Х
NTFTU-3AP-277 (contact customer service for availability)	Fluorescent Dimmer	277 V~ 60 Hz 3 A	9							Х

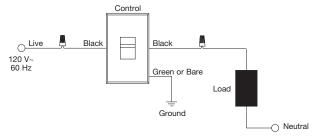
#### Notes

- Magnetic low-voltage dimmers: For more informtaion, see Application Note 19: "Guide to Dimming Low-Voltage Lighting," P/N 048019, at www.lutron.com. Operation
  of a dimmed low-voltage circuit with all lamps removed or inoperative may result in current flow in excess of normal levels. To avoid possible transformer failure, Lutron
  strongly recommends the following: Do not operate dimmed low-voltage circuits without operative lamps in place; replace burned-out bulbs immediately; and use
  transformers that incorporate thermal protection or fused transformer primary windings in order to prevent transformer failure caused by excess current.
- Electronic low-voltage dimmers: These dimmers are overload-protected. If more than the rated load is applied, power to the circuit will shut off until the dimmer cools. If this happens, remove excess load from the circuit.
- Fan-Speed controls: Use with fans marked "Suitable for use with solid-state fan-speed controls only." Set multi-speed fans to their highest setting before installing controls.
   Quiet fan-Speed controls: Do not wire into a circuit with a GFCl breaker or receptacle. Set multi-speed fans to their highest setting before installing controls. Not
- · For LED loads, please see the "Report Cards" at www.lutron.com/hilumeled for proper loading of the dimmer.

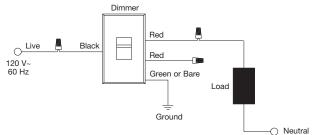
recommended for use with Hunter Original Series fans; contact Lutron Customer Service department for suitable controls.

# **Wiring Diagrams**

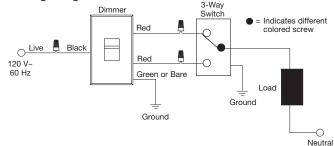
### **Wiring Diagram 1**



### Wiring Diagram 2

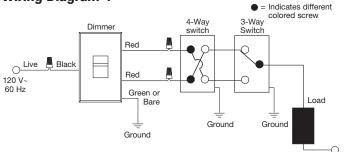


### **Wiring Diagram 3**



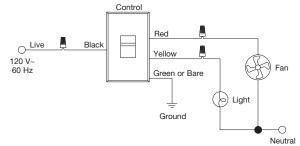
**NOTE:** Dimmers may be wired on either the line side or the load side of the switch.

# Wiring Diagram 4

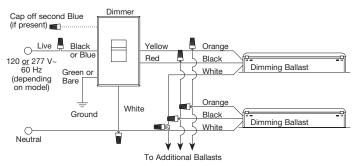


**NOTE:** Dimmers may be wired on either the line side or the load side of the switch(es).

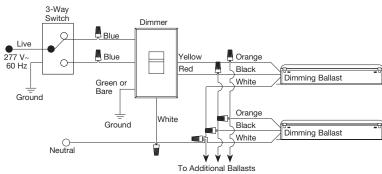
### Wiring Diagram 5



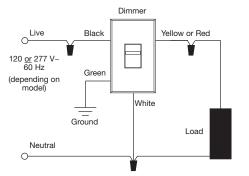
### **Wiring Diagram 6**



### **Wiring Diagram 7**



### Wiring Diagram 8



# **Wiring Diagram 9**

