## SPECIFICATION SUBMITTAL

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### www.lutron.com/novat

Thin-profile slic	le dimmer.		Description	Maximum Capacity	Model #
		DIMMER	S		
	Select	$\bigcirc$	Incandescent		
	light level		Slide-to-Off Dimmers	1	
APT	- with slider; slide down to off		Small Control Single pole Single pole Single pole	600W 1000W 1800W	NT-600-AU- NT-1000-AU- NT-1800-AU-
Slide-to-off Dimmer			Magnetic Low	Voltage	
			Slide-to-Off Dimmers	1	
<ul> <li>Aesthetically pleasing linear-slide dimmer</li> <li>Linear-slide position directly corresponds to the light level perceived by the eye</li> <li>Heavy duty components for surge protection and long product life</li> </ul>			SMALL CONTROL Single pole Single pole LARGE CONTROL	600VA (450W) 1000VA (800W)	NTLV-600-AU- NTLV-1000-AU
<ul> <li>wangang wanplate</li> <li>custom color match</li> <li>Precise color match</li> </ul>	ing complete a coordinated look			1300VA (1200W	) NTLV-1300-A0-
		=))	Fluorescent		
			<u>Slide-to-Off Dimmer<sup>2</sup></u>	2	
DIMENSIONS			Small Control Single pole	8A	NTF-10-AU-
Front	Front		Note: Use with Lutron Hi voltage control Electroni for 60Hz units.	-lume or Eco-10 (EC c Dimming Ballasts	CO-Series) line only. Contact Lutro
Small Control	Large Control Profile				
116mm	(.30")	LINEAR-	SLIDE SWITCH	ES	
$\begin{bmatrix} 1 \\ (4.56") \\ (4.56") \\ (2.75") \\ \end{bmatrix} \begin{bmatrix} 70mm \\ (2.75") \\ (2.75") \\ (2.75") \\ \end{bmatrix}$		General Purpose Switching of All Sources and Motor Loads			
70mm (2.75")	116mm (4.56") *some models up to 43.4mm (1.71")		<u>Linear-Slide Switch</u> Small Control 1 or 2 way	16A	NT-2WS-AU-
CONTROLS		T☆ SWIT	CHBOXES		
Slide-to-Off Dir	nmers		<u>Gangable Switch Box</u> 1-gang		241-218-
Small Large	Switch	1 Control must t 2 Requires neut	be ganged without removin ral wire connection.	ng side sections.	
Control Control					
SPECIFICATI STANDARD F	ON SERIES EATURES	JOB NAME		AREA CONTRO	DLLED
Voltage compensation     Power-failure memory     Superior BEL suppression		LOCATION		JOB NUMBER	
Lutron controls are rated at 220-240 VAC, 50 Hz unless otherwise noted.		TITLE		PAGE NO.	
<b>②LUT</b> F		Have	Questions? Call the	Lutron Hotline	800-523-946

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To order—Call Lutron Customer Service 610-282-3800

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### STANDARD COLORS/FINISHES

Matte Finishes (Ships in 3-5 days)		
Add color/finish suffix to model number to order. Example: NT-600-AU- <b>WH</b>		
WH	White	
BE	Beige	
IV	lvory	
GR	Gray	
BR	Brown	
BL	Black	
TP	Taupe	

#### WIRING DIAGRAMS



Neutral	L Ground
*or Screw Terminal **or Green Screw Terminal	Wire Connectors

#### SPECIAL ORDER MULTIGANG AND METAL WALLPLATES

Multigang and metal wallplates are available. When ordering product for use with metal wallplates, the product and wallplate must be ordered separately. See below for complete list of metal finishes.

Metal Finishes (Ships in 4-6 weeks)		
SB	Satin Brass	
BB	Bright Brass	
BC	Bright Chrome	
Special I	Metal Finishes	
QB	Antique Brass	
QZ	Antique Bronze	
~~	0 11 01	

SC	Satin Chrome
SN	Satin Nickel
BN	Bright Nickel

#### Anodized Aluminum Finishes

CLA	Clear Anodized Aluminum
BLA	Black Anodized Aluminum
BRA	Brass Anodized Aluminum

#### Wiring Diagram 2 Single-Pole Wiring



## NOVA T CONTROLS AND ACCESSORIES

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Scope: Provide, install and test all switches, dimmers and related devices as specified herein for the areas indicated on the drawings, specifications, and load schedules.
- B. Related Sections: Section 16580 (Ballasts), Section 16570 (Dimming Systems).

#### **1.02 REFERENCES**

A. UL 20, UL 1472, IEEE, ISO 9001, ASTM D4674-89

#### **1.03 System Description and Operation**

- A. Permanently installed, wallbox mounted switches and dimmers
- B. Screwless, seamless wallplates

#### **1.04 SUBMITTALS**

A. Submit manufacturer's standard catalog data giving all application, wiring, and installation information on basic components and wallplate kits. Provide test data and/or samples as required to demonstrate conformance with PART 2 of this specification.

#### **1.05 QUALITY ASSURANCE**

- A. Manufacturer shall have a minimum of 10 years continuous experience in manufacturing wallbox dimming products.
- B. Dimmers and switches shall be UL listed specifically for each required load (i.e., tungsten, magnetic low-voltage transformer, and fluorescent). Manufacturer shall provide declaration of conformity upon request. Universal load-type dimmers shall not be acceptable.
- C. Manufacturer shall maintain ISO 9001 certification and provide a copy of the certificate upon request.

#### 1.06 WARRANTY

A. All devices shall be covered by a minimum one-year warranty.

## PART 2 – EQUIPMENT

#### 2.01 Acceptable Manufacturers

- A. Lutron Electronics Co., Inc.
- B. Unless otherwise noted, all basic components (dimmer, switch) and wallplate kits shall be provided by one manufacturer.

#### 2.02 EQUIPMENT

- A. Controls Lutron Nova T & Style
  - 1. Performance
    - a. Dimmers shall provide full-range, continuously variable control of light intensity. Dimmers shall provide a vertical slider allowing the light level to be set by the user. Dimmers shall use the vertical slider to turn the dimmer on and off.
    - b. Dimmer on/off function must be accomplished utilizing a mechanical air-gap switch to totally disconnect power from the load during "off" condition, no leakage current shall be present at the fixture(s).
    - c. Controls shall be capable of operating at the rated capacity; this includes modified capacities for ganging configurations which require the removal of fins. Operation at rated capacity shall be possible across the full ambient temperature range, without shortening design lifetime.
    - d. Controls shall operate in an ambient temperature range of 0°C (32°F) to 40°C (104°F).
    - e. Controls shall incorporate power-failure memory. Should power be interrupted and subsequently returned, the lights will come back on to the same levels set prior to the power interruption. Restoration to some other default level is not acceptable.
    - f. Controls shall not be susceptible to damage or loss of memory due to static discharge experienced during normal use.
    - g. Dimmer shall provide smooth and continuous Square Law dimming curve, for the full slider travel, on their rated load per The IESNA Lighting Handbook, 9th edition, p. 27-4.

## Model #

NTF-10-AU -

L Ground

Note:

required.

Wire Connectors

Rapid-start lamp sockets are

Must burn in lamps at full

light output for 100 hours to

achieve optimum dimming

performance and lamp life.

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- Dimmers shall meet the applicable requirements of UL20 and UL 1472, referring to the inclusion of a visible, accessible air-gap off switch and the limited short circuit test.
- i. Slider shall be captured behind wallplate.
- Controls shall be able to have their visible plastic parts replaced, for color changes in the field, without removing the body of the control from the wall and with requiring special tools.
- k. Dimmers shall meet IEEE Std. C62.41-1980, tested to withstand voltage surges of up to 6000V and current surges of up to 200A.
- Within rated capacity, dimmers shall be available for direct control of incandescent, magnetic low voltage, and fluorescent.
- Dimmer shall include voltage compensation to compensate light output for variation in the AC line-voltage. Dimmers in which the light output is not held constant with varying AC line-voltage shall not be acceptable.
- n. Contractors shall install all backboxes with a minimum wallbox depth of 63mm (2.5 inches).
- 2. Incandescent Dimmers
  - a. Provide incandescent dimmers for direct control of up to 1800 Watts.
- 3. Magnetic Low Voltage (MLV) Transformer Dimmers
  - a. Dimmers shall contain circuitry specifically designed to control and provide a symmetrical AC waveform to the input of magnetic low voltage transformers per UL 1472 section 5.11.
  - b. Provide MLV dimmers for direct control of up to 1500VA of magnetic low voltage load.
  - c. Dimmers shall not cause a magnetic low voltage transformer to operate above the transformer's rated operating current or temperature.
- 4. Fluorescent Dimming Ballast Dimmers
  - a. Dimmers shall be designed to operate the following ballasts. Dimmers and ballasts shall be produced by the same manufacturer to ensure proper ballast/control compatibility:
    - 1) Hi-lume<sub>®</sub> Architectural Dimming Ballasts (1% 3-wire)
    - Hi-lume<sub>®</sub> Compact<sub>™</sub> Lamp Dimming Ballasts (5% 3-wire)
    - Eco-10<sup>™</sup> Lighting Management Dimming Ballasts (10% 3-wire)
- 5. Switches:
  - a. Switches shall provide on/off control of any 240/277 VAC load up to 16A.

- B. Wallplates Lutron Nova T☆ Style
  - Wallplates shall be manufactured from durable polycarbonate plastic with matte finish, and shall attach to the basic components without using exposed hardware or screws.
  - Multigang wallplates shall provide a continuous, seamless cover for control and/or accessory combinations with no exposed hardware or screws. Custom wallplate configurations shall be available.
  - 3. Multigang wallplates shall include snap in auto-align adapter plate for proper device alignment and wallplate attachment.
  - 4. Control, accessory and wallplate profiles shall not exceed 6mm (.30") from wall surface to faceplate front surface.
  - To ensure a precise color match between all plastic parts, color variation of any matte finish control or wallplate shall not exceed delta E of 1, CIE L\*a\*b\* color units.
  - 6. Visible parts of any control or any wallplate shall exhibit ultraviolet stability when tested with multiple actinic light sources as defined in ASTM D4674-89.

#### 2.03 SOURCE QUALITY CONTROL

A. All dimming controls shall be 100% function tested at the time of manufacture. Statistical sampling plan shall not be acceptable.

## PART 3 - EXECUTION

#### **3.01** INSTALLATION

- A. Contractor shall furnish all devices (dimmers, switches and wallplate kits), labor and other services necessary for the proper installation of the devices as indicated on the drawings and specified herein.
- B. Contractor shall be responsible for derating dimmer capacity if side sections are removed.
- C. Contractor shall run separate neutral wires in 220/380 VAC installations.
- D. Devices shall be installed utilizing manufacturer's recommended application, wiring and installation instructions.
- E. Contractor to provide seamless wallplate covers per specification 2.02 for all devices ganged in a common box. Contractor shall provide barriers within the box where required by code.

#### 3.02 FIELD QUALITY CONTROL

- A. Twenty-four hours a day, seven days a week, global customer service and technical hotline available.
- B. Supplemental information shall be provided by manufacturers Internet site.

