## Nova Tぶ Controls

This series of classic thin－profile linear－slide dimmers and switches offers the following standard features：
－Square Law Dimming
－Voltage compensation（not applicable to NTCL－250）
－Power－failure memory
－Superior RFI suppression
－Captive linear slider
－Accessible air－gap switch
－Electrostatic discharge tested
－Precise color matching
－Heavy－duty components for surge protection and long product life
－100\％factory tested

## Product Family Features

－Available for 120－277 V～line voltage switching （sink－only control）0－10 V＝－－LED drivers and ballasts （power pack not required for loads up to 8 A）
－Excellent for residential or commercial applications
－Intuitive operation；easy to use
－Slide－to－off and preset models available
－Enclosed heat sink for aesthetically pleasing appearance
－Multi－gang alignment for quick and easy installation
－Full family of products for most lighting sources，plus matching accessories and wallplates
－Rated at $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ ，unless noted otherwise
－Custom products（CPN）are available to meet specific customer needs．Please contact Lutron Customer Assistance at 1．844．LUTRON1（588．7661） for availability．

## Regulatory Approvals

－UL® Listed
－CSA certified
－NOM

## Colors and Finishes

When ordering product for use with metal wallplates， the product and wallplate must be ordered separately．See the＂Architectural Wallplates and Accessories＂section of Volume 1：Basic Devices and Single－Space Systems Catalog（P／N 367－1746） for ordering procedure．See table to the right for complete list of metal finishes．
Custom color matching is available for all Nova T／今 products．A swatch or sample is all that is required．Call customer service to arrange for a color－matched control．



Slide－to－Off Controls Select light level with slider； slide down to OFF


Preset Controls
Select light level with slider； press ON／OFF

Engraving is available for all Nova T能 products． Engraving schedules are available at www．lutron．com／engraving or through Customer Assistance at 1．844．LUTRON1 （588．7661）．

## Available Colors and Finishes

Matte Finishes
To order，add color／finish suffix code to model number．Example：NT－600－WH

| Code | Color |
| :--- | :--- |
| WH | White |
| TP | Taupe |
| AL | Almond |
| BL | Black |


| Code | Color |
| :--- | :--- |
| GR | Gray |
| IV | Ivory |
| LA | Light Almond |


| Code | Color |
| :--- | :--- |
| BE | Beige |
| SI | Sienna |
| BR | Brown |

## Special Order

To order，add color／finish suffix code to model number．Example：NT－600－BB
Metal Finishes

| Code | Color |
| :--- | :--- |
| SB | Satin Brass |
| BC | Bright Chrome |


| Code | Color |
| :--- | :--- |
| BB | Bright Brass |

Special Metal Finishes

| Code | Color |
| :--- | :--- |
| QB | Antique Brass |
| SC | Satin Chrome |
| BN | Bright Nickel |


| Code | Color |
| :--- | :--- |
| QZ | Antique Bronze |
| SN | Satin Nickel |

Anodized Aluminum Finishes

| Code | Color |
| :--- | :--- | :--- | :--- | :--- |
| CLA | Clear | | Code | Color |
| :--- | :--- | :--- |
| BLA | Black |$\quad$| Code | Color |
| :--- | :--- | :--- |


| Job Name： |
| :--- |
| $\square$ |
| Job Number：$\quad \square$ |

Model Numbers：

## Dimensions

Measurements shown as: in (mm)


## Available Controls and Accessories (Summary)

For specific uses, capacities, and model numbers, see the following pages.

## Controls

Slide-to-Off Dimmers


Small Control


Large Control

Preset Dimmers


Small Control


Large Control

Linear-Slide Switches


Small
Control

Slide-to-Off Fan-Speed Controls


Small Control Control

Control Specifications

| Incandescent Dimmers：Slide－to－Off |  |  |  |
| :--- | :--- | :--- | :--- |
| 目 Small Control | Description | Maximum Capacity | Model Number |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 600 W | $\mathrm{NT}-600-\mathrm{XX}$ |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1000 W | $\mathrm{NT}-1000-\mathrm{XX}$ |
| $\boxminus$ | Large Control | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1500 W |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1950 W | $\mathrm{NT}-1500-\mathrm{XX}$ |

－The NT－2000－XX does not have removable side sections；it can be ganged but must be kept intact．
－The NT－2000－XX requires a 2－gang wallbox．
Incandescent Dimmers：Preset

| Small Control | Description | Maximum Capacity | Model Number |
| :--- | :--- | :--- | :--- |
|  | Single－pole／3－way／4－way $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 600 W | NT－603P－XX |
|  | Single－pole／3－way／4－way $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1000 W | NT－1003P－XX |
| Large Control | Single－pole／3－way／4－way $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1500 W | NT－1503P－XX |

－For 3－way or 4－way switching，use NT－3PS－XX（3－way），NT－4PS－XX（4－way），or other mechanical switches．

## C•L Dimmers：Slide－to－Off

| 目 | Small Control | Description | Maximum Capacity | Model Number |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Dimmable LED／CFL Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 250 W | NTCL－250－XX |
|  |  | Incandescent／Halogen Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 1000 W |  |
|  |  | Hi－lume 1\％2－Wire LTE LED driver Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 400 W （maximum of 10 drivers） |  |
|  |  | Mixed bulb type Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | See Derating：Maximum Capacities in Multigang Installations |  |

## Application requirements：

－When dimming LEDs or CFLs，only bulbs marked or rated as dimmable and on the recommended list may be used．
－For a complete list of recommended dimmable LEDs and CFLs please visit www．lutron．com／dimcflled．For questions call 1．844．LUTRON1．
－Some dimmable LEDs and CFLs require a minimum number of bulbs for proper operation．For details and the bulb list，visit www．lutron．com／dimcflled
－For LED product selection tool，visit www．lutron．com／ledtool
Features：
－Low－end adjustment to accommodate a wide range of bulbs．
－HEDT Technology：Advanced Lutron dimming circuitry designed for compatibility with most high efficacy light bulbs．
－NEMA SSL－7A Type 2 compliant．
Electronic Low－Voltage（ELV）Dimmers：Slide－to－Off

| Small Control | Description | Maximum Capacity | Model Number |
| :--- | :--- | :--- | :--- |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 300 W | NTELV－300－XX |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 600 W | NTELV－600－XX |

－Maximum capacity is permitted lamp wattage．
－Requires neutral wire connection．
－For larger capacity ELV loads（up to 1000 W），use Nova TA今 fluorescent dimmers（NTF－10－XX or NTF－103P－XX）with a PHPM－WBX interface．
－Minimum Load： 5 W Incandescent／Halogen or 1 ELV transformer．ELV transformer must be loaded per manufacturer＇s recommendations．

Job Name：

Job Number：

Control Specifications（continued）


| $\square$ |
| :--- |
| Job Number：$\quad \square$ |

$\square$

Control Specifications（continued）

| ，\％everse－Phase Electronic Low－Voltage（ELV）Dimmer：Slide－to－Off |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| も | Small Control | Description | Maxim | pacity | Model Number |
|  |  | Dimmable LED／CFL； Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 250 W |  | NTRP－250－XX |
|  |  | Incandescent／Halogen Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 600 W |  |  |
|  |  | ELV with Halogen Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 600 W |  |  |
| －For the best performance，use a bulb that is on the Lutron LED Report Card Tool at www．lutron．com／ledtool For questions call 1．877．DIM．LED8． <br> －When dimming LEDs or CFLs，only bulbs marked or rated as DIMMABLE WITH REVERSE－PHASE OR UNIVERSAL DIMMERS may be used． <br> －For recommended ELV transformers and compatible MR16 LED bulbs，please see Lutron Application Note \＃559 at www．Iutron．com／TechnicalDocumentLibrary／048559．pdf．Always follow the transformer and bulb manufacturer instructions for allowable loading． <br> －Not compatible with magentic low－voltage（MLV）transformers or magnetic LED transformers／drivers <br> －Dimmer is not compatible with bulbs rated only for forward－phase type dimmers． <br> －Minimum Load： 1 compatible CFL／LED bulb or 5 W Incandescent／Halogen or 1 ELV transformer．ELV transformer must be loaded per the manufacturer＇s recommendation． |  |  |  |  |  |
| 0－10 V＝－－Dimmers for Electronic Ballasts or LED Drivers：Slide－to－Off |  |  |  |  |  |
| 目 | Small Control | Description | Maximum Capacity＊ |  | Model Number |
|  |  | Single－pole 0－10 V＝－＝120－277 V～ | Load | 0－10 V＝－－Sink | NTSTV－DV－XX |
|  |  |  | 8 A | 30 mA |  |

－Power pack not required for loads up to 8 A．May use Lutron power pack（model PP－DV or PP347H；see Lutron P／N 369544）for higher load current applications or for Class 2 installations．
－Works with all ballasts and drivers that provide a current source compliant to IEC 60629 Annex E．2，and whose inrush current does not exceed NEMA410 standards for electronic ballast／driver loads of 8 A steady－state current．Refer to LED driver and ballast manufacturer＇s specification for $0-10 \mathrm{~V}=-=$ sink currents．
－Control has a high and low end trim to adjust the $0-10 \mathrm{~V}=-=$ output for optimal dimming performance．
＊Limited by whichever rating is achieved first．
$\Rightarrow \boxtimes$ Fluorescent Dimmers for Tu－Wire Electronic Ballasts：Slide－to－Off

| 目 Small Control | Description | Maximum Capacity | Model Number |
| :--- | :--- | :--- | :--- |
|  | Single－pole $120 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 5 A | NTFTU－5A－XX |
|  | Single－pole $277 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 5 A | NTFTU－5A－277－XX |

－Use with Lutron Tu－Wire line voltage control electronic dimming ballasts only．
－To determine the number of ballasts that can be controlled by Nova TA fluorescent dimmer，divide the control capacity by the ballast current．
－Compatible with Advance® Mark X® and Sylvania Powersense® ballasts．
$\Rightarrow \square$ Fluorescent Dimmers for Advance ${ }_{\odot}$ Mark X® VEZ series 277 V～Ballasts：Preset

| 目 Small Control | Description | Maximum Capacity | Model Number |
| :--- | :--- | :--- | :--- |
|  | 3－way $277 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 3 A | NTFTU－103P－277－XX－CPW0196 |

－For control of permanently installed Advance® Mark X® VEZ series 277 V～ballasts only．
－Install on load side only．
－No derating required．
－To determine the number of ballasts that can be controlled by Nova Tis fluorescent dimmer，divide the control capacity by the ballast current．

Linear－Slide Switches for General Purpose：All Sources and Motor Loads

| $⿴ 囗 ⿱ 一 一 心$ | Small Control | Description | Maximum Capacity |
| :--- | :--- | :--- | :--- |
|  | Single－pole $120 / 277 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 20 A | Model Number |
|  | 3－way $120 / 277 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 20 A | NT－1PS－XX |
|  | 4－way $120 / 277 \mathrm{~V} \sim 60 \mathrm{~Hz}$ | 20 A | NT－3PS－XX |

No derating required．

## Job Name：

$\square$ Model Numbers：
$\square$
$\square$

Control Specifications (continued)

$\square$

## Derating：Maximum Capacities in Multigang Installations＊

When installing more than one dimmer in the same wallbox，it may be necessary to remove some side sections prior to wiring（see diagram below）．Removal of side sections may reduce maximum wattage，as shown in the charts below．
Mixing bulb types（using a combination of LED／CFL and incandescent／halogen bulbs）will also affect the maximum ratings，as shown in the charts below． Example：If one set of side sections is removed and you have eight 9 W LED bulbs installed（Total LED Wattage $=72 \mathrm{~W}$ ），you may add up to 500 W of incandescent or halogen lighting with the $\mathrm{C} \bullet \mathrm{L}$ control or 300 W with the Reverse－Phase control．

|  | gle Units |
| :---: | :---: |
|  | Full capacity． |
| 日 | No side sections removed |



Incandescent Controls

| 600 W | 500 W | 300 W |
| :--- | :--- | :--- |
| 1000 W | 900 W | 700 W |
| 1500 W | 1250 W | 1000 W |
| 1950 W | - | - |

－NT－2000－XX controls（for 1950 W capacity）must be ganged without removing side sections．


Do not remove outside sections（shaded areas below）


Each control has inside sections removed


Middle control has two side sections removed

| C－L Controls |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Q Maximum Allowable Incandescent／Halogen Wattage |  |  | ＋ | Total LED／CFL Wattage Installed （Wattage per bulb $\times$ number of bulbs） |
| 1000 W | 800 W | 600 W | ＋ | O W |
| 800 W | 600 W | 500 W | ＋ | $1 \mathrm{~W}-40 \mathrm{~W}$ |
| 600 W | 500 W | 400 W | ＋ | $41 \mathrm{~W}-80 \mathrm{~W}$ |
| 500 W | 400 W | 300 W | ＋ | 81 W－ 120 W |
| 400 W | 300 W | 200 W | ＋ | $121 \mathrm{~W}-160 \mathrm{~W}$ |
| 300 W | 200 W | 100 W | ＋ | 161 W－200 W |
| OW | O W | O W | ＋ | 201 W－250 W |

－No derating is required for multigang installations if only LED bulbs are used or if no fins are broken．
Reverse－Phase Electronic Low－Voltage（ELV）Controls

| § Maximum Allowable Incandescent／Halogen Wattage |  |  | ＋ | Total LED／CFL Wattage Installed （Wattage per bulb $\times$ number of bulbs） |
| :---: | :---: | :---: | :---: | :---: |
| 600 W | 500 W | 400 W | ＋ | 0 W |
| 500 W | 400 W | 300 W | ＋ | $1 \mathrm{~W}-40 \mathrm{~W}$ |
| 400 W | 300 W | 200 W | ＋ | $41 \mathrm{~W}-80 \mathrm{~W}$ |
| 300 W | 200 W | 100 W | ＋ | 81 W－120 W |
| 200 W | 100 W | 50 W | ＋ | 121 W－160 W |
| 100 W | 50 W | 0 W | ＋ | 161 W－200 W |
| 0 W | 0 W | O W | ＋ | 201 W－ 250 W |

－No derating is required for multigang installations if only LED bulbs are used or if no fins are broken．
For more information on multigang installations，visit www．lutron．com／en－US／Service－Support／Pages／Technical／InstallationInstructions／Ganging－Derating／ GangingDerating．aspx

| Job Name： |
| :--- |
| $\square$ |
| Job Number：$\quad \square$ |

Model Numbers：
$\square$

## Derating: Maximum Capacities in Multigang Installations* (continued)



* For more information on multigang installations, visit www.lutron.com/en-US/Service-Support/Pages/Technical/Installationlnstructions/Ganging-Derating/ GangingDerating.aspx

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## Wiring Diagrams: Single Location

## Single-Pole Control



Models:

- NT-600-XX
- NTCL-250-XX
- NTLV-1500-XX
- NT-1000-XX
- NTLV-600-XX
- NT-1PS-XX
- NT-1500-XX
- NTLV-1000-XX
- NTFSQ-XX
- NT-2000-XX


## 3-Way Control



Models:

- NT-603P-XX
- NT-1003P-XX
- NTLV-1003P-XX
- NT-1503P-XX
- NTLV-1503P-XX
- NT-3PS-XX
- NTLV-603P-XX

Single-Pole Control with Neutral


Models:

- NTELV-300-XX**
- NTELV-600-XX**
- NTLV-600-277-XX
- NTLV-1000-277-XX
** Use NTELV- models with 120 V~ only

Key
$\perp$ Ground
[1] Wire connector
Wire or brass/ gold screw terminal*
${ }^{2}$ Wire or green screw terminal*
${ }^{3}$ Wire or copper/ black screw terminal*

* Dimmers have wires; switches have screw terminals

Fan Control


Models:

- NTFS-6E-XX
- NTFS-12E-XX
** Switched full-voltage only


## Fan/Light Control



## Models:

- NTFS-6E-XX
- NTFS-12E-XX
** Switched full-voltage only



## Wiring Diagrams：Multi－Location

3－Way Control


## 4－Way Control



Models：
－NT－603P－XX • NTLV－603P－XX • NT－3PS－XX
－NT－1003P－XX • NTLV－1003P－XX • NT－4PS－XX
－NT－1503P－XX • NTLV－1503P－XX
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## Wiring Diagrams: NTF- Controls

Single-Pole Control


3-Way Control
Single-Pole


Key
$\perp$ Ground
(4) Wire connector
(1) Typical 4-wire connection
a Yellow/Blue or Yellow/Green wire when used with magnetic dimming ballasts
${ }^{\text {b }}$ Must use lamp disconnect sockets with magnetic dimming ballasts
${ }^{1}$ Wire or brass/ gold screw terminal*

2 Wire or green screw terminal* ${ }^{\star}$
${ }^{3}$ Wire or copper/ black screw terminal*

* Dimmers have wires; switches have screw terminals


## Load Side



## Models:

- NTF-103P-XX
- NTF-103P-277-XX


## Model Numbers:

## Wiring Diagrams: NTFTU- Controls

## Single-Pole Control



Model:

- NTFTU-5A-XX



## Model:

- NTFTU-5A-277-XX


## 3-Way Control

Single-Pole


- NTFTU-103P-277-XX-CPW0196

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$\perp$ Ground
(1) Wire connector
${ }^{1}$ Wire or brass/ gold screw terminal*
${ }^{2}$ Wire or green screw terminal ${ }^{\star}$
${ }^{3}$ Wire or copper/ black screw terminal*

* Dimmers have wires; switches have screw terminals


| Job Name: |  | Model Numbers: |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |
| Job Number: $\quad \square$ | $\square$ | $\square$ |

## Wiring Diagrams: NTSTV- Controls

- The total $0-10 \mathrm{~V}=-=$ control signal wiring for this control should not exceed $500 \mathrm{ft}(152.4 \mathrm{~m})$.
- Do not use wire smaller than 20 AWG ( $0.75 \mathrm{~mm}^{2}$ ).
- For Class 1 installations, $0-10 \mathrm{~V}=-=$ wires must be run in conduit or approved cable per NEC® or local jurisdiction.
- For Class 2 installations, conduit is typically not required (local code may apply).
- For application with excessive electrical noise, $0-10 \mathrm{~V}==-$ wires should be run in separate conduit from the mains.

Class 1 Installation


- NTSTV-DV-XX

Class 2 Installation
ON/OFF control using Power Pack (PP-DV or PP-347H)
Neutral

* Whichever comes first.

Key
$\stackrel{1}{ \pm}$ Ground
[1] Wire connector

- Wire connector
(1) Typical 4-wire connection
a Do NOT connect to line voltage
b 18 AWG (1.0 mm²) red wires are interchangeable. Connect to either line or load side
c Green wire may be capped for Class 2 installations ONLY

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[^0]- Lutron is not liable for damage due to miswiring $0-10 \mathrm{~V}=-$ control signal wires with line voltage.
- Do not run Class 2 wires and line voltage conductors together in the same conduit.
- NTSTV-DV-XX

This wire/terminal may be gray on older products or in retrofit applications.

** See PP- and UPP-Series Power Packs spec submittal, Lutron P/N 369544

## Wiring Diagrams: NTCL- Controls

Hi-lume 1\% 2-Wire LTE LED Driver Installation


Model:

- NTCL-250-XX

Key
$\pm$ Ground

- Wire connector
a Enclosure and junction box must be grounded in accordance with local and national electrical codes. Ground provided by grounding of junction box or by using the green ground wire connection
b For maximum driver-to-LED light engine wire length, see Hi-lume 1\% 2-Wire LED Driver (P/N 369543)

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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

## Model Numbers:


[^0]:    Model Numbers:

