

Front Room Equipment

Wired Keypads

4/8 Series
Keypad
Keypad Link
Architectural & Designer-Style

HomeWorks® keypads, available in many styles, colors, and finishes, provide homeowners with a simple and elegant way to operate lights, shades, motorized screens, pumps, thermostats, and many other devices. Keypads have LEDs that provide real-time status indication. Lutron provides custom engraving to clearly identify each button's function.

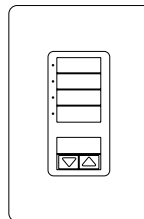
Keypads are available in a variety of button styles and button configurations. Since each button on every keypad model can be programmed to control any lighting load or device on the *HomeWorks* system, choosing a keypad for a particular location requires no more than choosing the desired style and number of buttons. Engraving can be added to any keypad. Please contact Lutron Customer Service or your local Lutron Representative for details.

Each *HomeWorks* wired processor has configurable links, each capable of controlling up to 32 wired keypads. See pg. 90 for processor details.

CONNECTION TO PROCESSOR

Up to 32 wired keypads can be connected to a configurable link on a *HomeWorks* wired processor using two pair — one pair #18 AWG (1.0 mm²), one pair #18-22 AWG (1.0-0.5 mm²) twisted shielded — NEC® Class 2 (IEC PELV) cable. Keypads may be wired in a daisy-chain, home run, star, or T-tap configuration. The maximum total cable length of any wire run is 1000 feet (305 m) with up to 10 keypads or interfaces. The maximum total cable length is 4000 feet (1220 m).

Designer-style

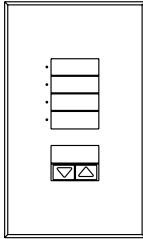


seeTouch®

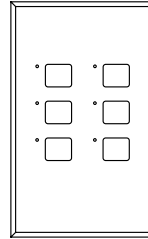
pg. 34

(RF models also available)

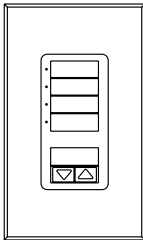
Architectural-style



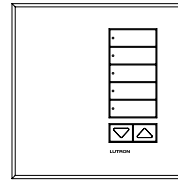
seeTouch® - No Insert
pg. 24



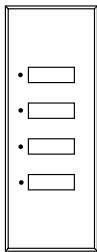
Large Button
pg. 29



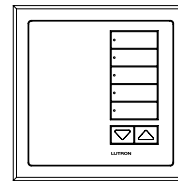
seeTouch - Insert
pg. 25



International seeTouch - Frameless
pg. 30



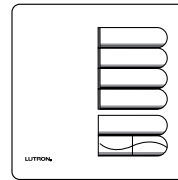
Signature Series™
pg. 26



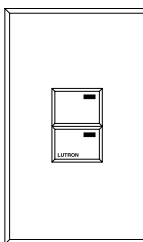
International seeTouch - Insert
pg. 31



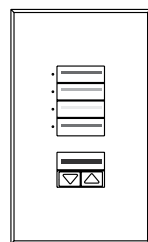
Architrave™
pg. 27



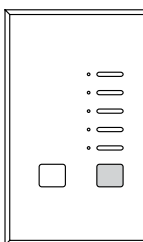
European-style
pg. 32



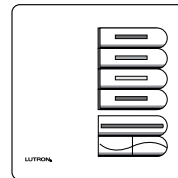
2-Button
pg. 28



seeTouch Bang & Olufsen®
pg. 33



Slim Button
pg. 29



European-style Bang & Olufsen®
pg. 33

FRONT ROOM

Wired Keypads - Architectural

Architectural seeTouch® KEYPADS

The Architectural-style *seeTouch* keypads feature large, easy-to-use buttons, plus a unique backlit engraving option that makes the keypads readable any time of the day or night. *seeTouch* buttons are rounded, allowing engraving to be displayed at an upward angle for increased readability. *seeTouch* keypads are available with one to seven buttons, allowing you to customize the number of functions to fit your needs.

The flexible design allows the number of buttons and the configuration of the buttons to be changed after the keypad is installed.

Wired *seeTouch* models have two contact closure inputs on the back of the unit which provide independent functions from the front buttons. Other options include configurations with infrared receiver and raise/lower buttons.

COLORS AND FINISHES

Architectural-style *seeTouch* keypads are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Button and insert color may differ. Refer to *seeTouch* Ordering Guide (367-571) for details. Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. Also see Appendix F: Colors & Finishes.

ORDERING METHODS

Temporary button labels for *seeTouch* keypads are available in Gray letters (GR) for light colored buttons, or in White letters (WH) for dark colored buttons. Order model number ST-LBL-GR (or WH) for 1 sheet, or model number ST-LBL25-GR (or WH) for a pack of 25 sheets.

a) Engraving will be decided after installation

- 1) Order keypad with buttons. A prepaid engraving certificate is included.
ST-Model-Color
- 2) After engraving is determined, redeem engraving certificate.
SK-Model-Color-E

b) Engraving will be decided before installation

- 1) Order keypad without buttons.
Non-IR: ST-NB-NONE
IR: ST-NBIR-NONE
- 2) Order engraved button kit.
SK-Model-Color-E

seeTouch - NO INSERT

1-Button



Keypad: ST-1B-NI-XX
Button/Faceplate: SK-1B-NI-XX-E
Description: 1-button - no insert

2-Button



Keypad: ST-2B-NI-XX
Button/Faceplate: SK-2B-NI-XX-E
Description: 2-button - no insert

3-Button



Keypad: ST-3B-NI-XX
Button/Faceplate: SK-3B-NI-XX-E
Description: 3-button - no insert



Keypad: ST-3BRL-NI-XX
Button/Faceplate: SK-3BRL-NI-XX-E
Description: 3-button with raise/lower - no insert

4-Button



Keypad: ST-4B-NI-XX
Button/Faceplate: SK-4B-NI-XX-E
Description: 4-button - no insert



Keypad: ST-4FS-NI-XX
Button/Faceplate: SK-4FS-NI-XX-E
Description: 4-button favorite scene - no insert



Keypad: ST-4S-NI-XX
Button/Faceplate: SK-4S-NI-XX-E
Description: 4-scene with raise/lower - no insert



Keypad: ST-4SIR-NI-XX
Button/Faceplate: SK-4SIR-NI-XX-E
Description: 4-scene with IR receiver and raise/lower - no insert

5-Button



Keypad: ST-5B-NI-XX
Button/Faceplate: SK-5B-NI-XX-E
Description: 5-button - no insert



Keypad: ST-5FS-NI-XX
Button/Faceplate: SK-5FS-NI-XX-E
Description: 5-button favorite scene - no insert






Keypad: ST-5BRL-NI-XX
Button/Faceplate: SK-5BRL-NI-XX-E
Description: 5-button with raise/lower - no insert







XX= Color Code

Wired Keypads - Architectural (cont.)









seeTouch® - NO INSERT (cont.)

- 6-Button**
-  Keypad: ST-6B-NI-XX
 Button/Faceplate: SK-6B-NI-XX-E
 Description: 6-button - no insert
-  Keypad: ST-6BRL-NI-XX
 Button/Faceplate: SK-6BRL-NI-XX-E
 Description: 6-button with raise/lower - no insert
- 7-Button**
-  Keypad: ST-7B-NI-XX
 Button/Faceplate: SK-7B-NI-XX-E
 Description: 7-button - no insert



seeTouch - INSERT

- 1-Button**
-  Keypad: ST-1B-I-XX
 Button/Faceplate: SK-1B-I-XX-E
 Description: 1-button - insert
- 2-Button**
-  Keypad: ST-2B-I-XX
 Button/Faceplate: SK-2B-I-XX-E
 Description: 2-button - insert
- 3-Button**
-  Keypad: ST-3B-I-XX
 Button/Faceplate: SK-3B-I-XX-E
 Description: 3-button - insert
-  Keypad: ST-3BRL-I-XX
 Button/Faceplate: SK-3BRL-I-XX-E
 Description: 3-button with raise/lower - insert
- 4-Button**
-  Keypad: ST-4B-I-XX
 Button/Faceplate: SK-4B-I-XX-E
 Description: 4-button - insert
-  Keypad: ST-4FS-I-XX
 Button/Faceplate: SK-4FS-I-XX-E
 Description: 4-button favorite scenes - insert

seeTouch - INSERT (cont.)

- 4-Button (cont.)**
-  Keypad: ST-4S-I-XX
 Button/Faceplate: SK-4S-I-XX-E
 Description: 4-scene with raise/lower - insert
-  Keypad: ST-4SIR-I-XX
 Button/Faceplate: SK-4SIR-I-XX-E
 Description: 4-scene with IR receiver and raise/lower - insert
- 5-Button**
-  Keypad: ST-5B-I-XX
 Button/Faceplate: SK-5B-I-XX-E
 Description: 5-button - insert
-  Keypad: ST-5FS-I-XX
 Button/Faceplate: SK-5FS-I-XX-E
 Description: 5-button favorite scene - insert
-  Keypad: ST-5BRL-I-XX
 Button/Faceplate: SK-5BRL-I-XX-E
 Description: 5-button with raise/lower - insert
- 6-Button**
-  Keypad: ST-6B-I-XX
 Button/Faceplate: SK-6B-I-XX-E
 Description: 6-button - insert
-  Keypad: ST-6BRL-I-XX
 Button/Faceplate: SK-6BRL-I-XX-E
 Description: 6-button with raise/lower - insert
- 7-Button**
-  Keypad: ST-7B-I-XX
 Button/Faceplate: SK-7B-I-XX-E
 Description: 7-button - insert

seeTouch - NO BUTTONS

- No-Button**
-  Keypad: ST-NB-NONE
 Description: No buttons
-  Keypad: ST-NBIR-NONE
 Description: No buttons with IR receiver

XX= Color Code

Wired Keypads - Architectural (cont.)

SIGNATURE SERIES™ KEYPADS

Signature Series keypads allow you to incorporate the functions of HomeWorks® keypads into a sleek, narrow-profile control that fits flush into a door trim, door jamb, or custom cabinetry. *Signature Series* keypads can also be used at standard switch locations throughout your home to add a unique and elegant look.

Keypads feature large, easy-to-use buttons, plus a unique backlit (blue or green) engraving option that makes them readable any time of the day or night. Buttons are rounded, allowing engraving to be displayed at an upward angle for increased readability. *Signature Series* keypads include 3- and 4-button configurations, available with blue or green status indicators.

Signature Series keypads may be mounted with or without a wallbox (WBOX-SA1-Q1).

FINISHES AND COLORS

Signature Series keypads ship with solid metal faceplates. See Appendix F: Colors & Finishes.

ORDERING METHOD

Temporary button labels for *seeTouch* keypads are available in Gray letters (GR) for light colored buttons, or in White letters (WH) for dark colored buttons. Order model number ST-LBL-GR (or WH) for 1 sheet, or model number ST-LBL25-GR (or WH) for a pack of 25 sheets.

- 1) Order keypad with buttons/faceplate. A prepaid engraving certificate is included.
HWS-Model-Color
- 2) After engraving is determined, redeem engraving certificate for engraved button kit with same number of buttons as control.
HKS-Model-Color-E

SIGNATURE SERIES KEYPADS

3-Button Monaco™ (Blue Status Indicators)



Keypad: HWS-3B-B-XX
Button Kit: HKS-3B-BL-E
Description: 3-button

4-Button Monaco (Blue Status Indicators)



Keypad: HWS-4B-B-XX
Button Kit: HKS-4B-BL-E
Description: 4-button

3-Button Monterey™ (Green Status Indicators)



Keypad: HWS-3B-G-XX
Button Kit: For white *Monterey* Keypads only
HKS-3B-WH-E

Button Kit: For non-white *Monterey* Keypads
HKS-3B-BL-E

Description: 3-button

4-Button Monterey (Green Status Indicators)

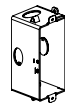


Keypad: HWS-4B-G-XX
Button Kit: For white *Monterey* Keypads only
HKS-4B-WH-E

Button Kit: For non-white *Monterey* Keypads
HKS-4B-BL-E

Description: 4-button

Wallbox



Model: WBOX-SA1-Q1
Description: *Signature Series* wallbox (1 metal box)
Dimensions: See pg. 87

XX= Color Code

Wired Keypads - Architectural (cont.)

ARCHITRAVE™ KEYPADS

Architrave keypads allow you to incorporate the functions of standard-size HomeWorks® keypads into a sleek, narrow-profile control that fits flush into a door trim, door jamb, or custom cabinetry. *Architrave* keypads can also be used at standard switch locations throughout your home, to add a unique and elegant look. *Architrave* keypads can be engraved, below each button, with names of your choosing. *Architrave* keypads may be mounted with or without a wallbox.

FINISHES AND COLORS

Architrave keypads are available with a White (WH) or Bright Brass (BB) metal faceplate. Other metallic finishes are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

ORDERING METHOD

- 1) Order keypad with buttons/faceplate. A prepaid engraving certificate is included.
HWI-Model-Color
- 2) After engraving is determined, redeem engraving certificate for engraved button kit with same number of buttons as control.
AR-M4-Model-Color
(Excludes HWI-LB5-DC1)

ARCHITRAVE KEYPADS

5-Button



Keypad: HWI-KP5-DN-XX
Faceplate only: AR-M4-DN-XX
Description: Door narrow 5-button with master on/off

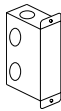


Keypad: HWI-KP5-DW-XX
Faceplate only: AR-M4-DW-XX
Description: Door wide 5-button with master on/off

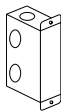


Keypad: HWI-LB5-DC1-XX
Faceplate only: Custom
Description: 5 large buttons with raise/lower

Wallboxes



Model: 241-399
Description: Wallbox for HWI-KP5-DW/DN (1 metal box)
Dimensions: See pg. 87



Model: 241-663
Description: Wallbox for HWI-LB5-DC1 (1 metal box)
Dimensions: See pg. 87

XX= Color Code

Wired Keypads - Architectural (cont.)

2-BUTTON KEYPAD

The design of this keypad features two large buttons. 2-button keypads are ideal for areas where intuitive control is required. Typical locations include: hallways, entrances, guest rooms, bathrooms, and children's rooms.

This keypad can be engraved on each button with names of your choosing. Engraving can be added by ordering a new faceplate with engraving. Two-button keypads have 2 contact closure inputs on the back of the unit which provide independent function from the front buttons.

FINISHES AND COLORS

Architectural-style 2-Button keypads ship with specified color faceplate. Keypads are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

2-BUTTON KEYPAD



2-Button

Keypad: HWI-2B-XX
Faceplate only: NT-T8-NFB-XX
Description: 2-button

XX= Color Code

Wired Keypads - Architectural (cont.)

SLIM BUTTON KEYPADS

Slim button keypads provide the largest number of buttons per gang, thereby maximizing control in minimal space. Slim button keypads feature multiple button columns and two large buttons which provide logical partitioning of keypad function.

These keypads can be engraved below each button with names of your choosing. Engraving can be added by returning the faceplate with an engraving schedule or ordering a new faceplate with engraving.

FINISHES AND COLORS

Architectural-style slim button keypads ship with a faceplate. Keypads are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

SLIM BUTTON KEYPADS

5-Button



Keypad: HWI-KP5-XX
Faceplate only: HW-B1-NFB-XX
Description: 5-button with master on/off

10-Button



Keypad: HWI-KP10-XX
Faceplate only: HW-B2-NFB-XX
Description: 10-button with master on/off

15-Button



Keypad: HWI-KP15-XX
Faceplate only: HW-B3-NFB-XX
Description: 15-button with master on/off

LARGE BUTTON KEYPADS

The design of this keypad features large, easy-to-use buttons. Large button keypads feature multiple button columns which provide logical partitioning of keypad functions.

These keypads can be engraved on or below each button with names of your choosing. Engraving can be added by returning the faceplate with an engraving schedule or ordering a new faceplate with engraving.

FINISHES AND COLORS

Architectural-style large button keypads ship with a faceplate. Keypads are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

LARGE BUTTON KEYPADS

6-Button



Keypad: HWI-KP-LB6-XX
Faceplate only: HWI-B4-NFB-XX
Description: 6-button

9-Button



Keypad: HWI-KP-LB9-XX
Faceplate only: HWI-B5-NFB-XX
Description: 9-button

XX= Color Code

Wired Keypads - Architectural (cont.)

INTERNATIONAL *seeTouch* KEYPADS

The International *seeTouch* keypads feature large, easy-to-use buttons, plus a unique backlit engraving option that makes the keypads readable any time of the day or night. *seeTouch* buttons are rounded, allowing engraving to be displayed at an upward angle for increased readability. *seeTouch* keypads are available with one to seven buttons, allowing you to customize the number of functions to fit your needs.

The flexible design allows the number of buttons — and the configuration of the buttons — to be changed after the keypad is installed.

Wired *seeTouch* models have two contact closure inputs on the back of the unit which provide independent functions from the front buttons. Other options include configurations with infrared receiver and raise/lower buttons.

FINISHES AND COLORS



International *seeTouch* keypads are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Button and insert color may differ. Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. Also See Appendix F: Colors & Finishes.

ORDERING METHODS

- 1) Order base unit.
Non-IR: HWIS-NB-NONE
IR: HWIS-NBIR-NONE
- 2) Order engraved button/faceplate kit.
HWIS-Model-Color-E


INTERNATIONAL *seeTouch* KEYPAD - BASE UNITS

Base units


	Keypad:	HWIS-NB-NONE
	Description:	Base unit with raise/lower - no buttons
	Keypad:	HWIS-NBIR-NONE
	Description:	Base unit with IR receiver and raise/lower - no buttons

INTERNATIONAL *seeTouch* FACEPLATE/BUTTON KITS - NO INSERT


2-Button

	Button/Faceplate:	HWIS-2B-F-XX-E
	Description:	2-button - no insert


3-Button


	Button/Faceplate:	HWIS-3B-F-XX-E
	Description:	3-button - no insert

4-Button


	Button/Faceplate:	HWIS-4B-F-XX-E
	Description:	4-button - no insert

5-Button


	Button/Faceplate:	HWIS-5BRL-F-XX-E
	Description:	5-button with raise/lower - no insert

	Button/Faceplate:	HWIS-5BIR-F-XX-E
	Description:	5-button with IR- no insert


6-Button


	Button/Faceplate:	HWIS-6BRL-F-XX-E
	Description:	6-button with raise/lower - no insert

7-Button


	Button/Faceplate:	HWIS-7BRL-F-XX-E
	Description:	7-button with raise/lower - no insert

8-Button

	Button/Faceplate:	HWIS-8BRL-F-XX-E
	Description:	8-button with raise/lower - no insert

	Button/Faceplate:	HWIS-8BIR-F-XX-E
	Description:	8-button with IR- no insert

10-Button

	Button/Faceplate:	HWIS-10BRL-F-XX-E
	Description:	10-button with raise/lower - no insert

XX= Color Code

Wired Keypads - Architectural (cont.)

INTERNATIONAL seeTouch® FACEPLATE/BUTTON KITS - INSERT

2-Button



Button/Faceplate: HWIS-2B-I-XX-E
Description: 2-button - insert

3-Button



Button/Faceplate: HWIS-3B-I-XX-E
Description: 3-button - insert

4-Button



Button/Faceplate: HWIS-4B-I-XX-E
Description: 4-button - insert

5-Button



Button/Faceplate: HWIS-5BRL-I-XX-E
Description: 5-button with raise/lower - insert



Button/Faceplate: HWIS-5BIR-I-XX-E
Description: 5-button with IR- insert

6-Button



Button/Faceplate: HWIS-6BRL-I-XX-E
Description: 6-button with raise/lower - insert

7-Button



Button/Faceplate: HWIS-7BRL-I-XX-E
Description: 7-button with raise/lower - insert

8-Button



Button/Faceplate: HWIS-8BRL-I-XX-E
Description: 8-button with raise/lower - insert



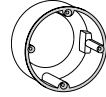
Button/Faceplate: HWIS-8BIR-I-XX-E
Description: 8-button with IR- insert

10-Button

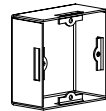


Button/Faceplate: HWIS-10BRL-I-XX-E
Description: 10-button with raise/lower - insert

Wallboxes



Model: EBB-15-RD
Description: Round plastic wallbox for International *seeTouch* Keypads (15 plastic wallboxes)
Dimensions: See pg. 87



Model: EBB-15-SQ
Description: Square metal wallbox for International *seeTouch* Keypads (15 metal wallboxes)
Dimensions: See pg. 87

XX= Color Code

Wired Keypads - Architectural (cont.)

EUROPEAN-STYLE KEYPADS

European-style keypads feature large, rounded buttons, and large LEDs to clearly show lighting status. The unique square shape of this keypad adds distinction to any installation. European-style keypads are available with master raise/lower and/or infrared receiver. Buttons are rounded, allowing engraving to be displayed at an upward angle for increased readability.

FINISHES AND COLORS

European-style keypads are available in Architectural Matte white & black colors only. Metal finish faceplates are sold separately. See Appendix F: Colors & Finishes.

ORDERING METHOD

- 1) Order keypad with buttons/faceplate. A prepaid engraving certificate is included.
HWI-Model-Color
- 2) After engraving is determined, redeem engraving certificate for engraved button/faceplate kit with same number of buttons as control.
EFP-Model-Color

EUROPEAN-STYLE KEYPADS

2-Button



Keypad: HWI-2SE-XX
Faceplate only: EFP-2B-SL-XX
Description: 2-scene

4-Button



Keypad: HWI-4SE-M-XX
Faceplate only: EFP-4SE-M-XX
Description: 4-scene with off and raise/lower



Keypad: HWI-4SE-IR-XX
Faceplate only: EFP-4SE-IR-XX
Description: 4-scene with off, raise/lower and IR receiver

8-Button

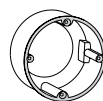


Keypad: HWI-8SE-M-XX
Faceplate only: EFP-8SE-M-XX
Description: 8-scene with off and raise/lower

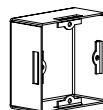


Keypad: HWI-8SE-IR-XX
Faceplate only: EFP-8SE-IR-XX
Description: 8-scene with off, raise/lower and IR receiver

Wallboxes



Model: EBB-15-RD
Description: Round plastic wallbox for International *seeTouch* Keypads (15 plastic wallboxes)
Dimensions: See pg. 87



Model: EBB-15-SQ
Description: Square metal wallbox for International *seeTouch* Keypads (15 metal wallboxes)
Dimensions: See pg. 87

XX= Color Code

Wired Keypads - Architectural (cont.)

Bang & Olufsen KEYPADS

The Architectural-style Bang & Olufsen (B&O) keypads feature large, easy-to-use buttons, plus unique color bars that correspond to commands built into the B&O Beo-4™ remote.

Architectural-style B&O models have two contact closure inputs on the back of the unit which provide independent functions from the front buttons. Other options include configurations with infrared receiver and raise/lower buttons.

FINISHES AND COLORS

Architectural-style and European-style B&O keypads are available in White (WH), Black (BL) matte finishes and Satin Nickel (SN) metal finish (with Black buttons). Custom finishes and paint matching are also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. Also See Appendix F: Colors & Finishes.

ORDERING METHOD

- 1) Order keypad with buttons/faceplate. A prepaid engraving certificate is included.
STBO-Model-Color or HWBO-Model-Color
- 2) After engraving is determined, redeem engraving certificate for engraved button/faceplate kit with same number of buttons as control.
SK-Model-Color or EFP-Model-Color

seeTouch Bang & Olufsen KEYPADS

Architectural-style 4-Button



Keypad: STBO-4SN-XX
Button/Faceplate: SK-4S-NI-XX-E
Description: 4-scene with raise/lower - no insert



Keypad: STBO-4SI-XX
Button/Faceplate: SK-4S-I-XX-E
Description: 4-scene with raise/lower - insert



Keypad: STBO-4SIRN-XX
Button/Faceplate: SK-4SIR-NI-XX-E
Description: 4-scene with IR receiver and raise/lower - no insert



Keypad: STBO-4SIRI-XX
Button/Faceplate: SK-4SIR-I-XX-E
Description: 4-scene with IR receiver and raise/lower - insert

European-style Bang & Olufsen KEYPADS

European-style 4-Button



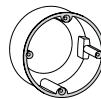
Keypad: HWBO-4SE-IR-XX
Faceplate only: EFP-4SE-IR-XX
Description: 4-scene with off, raise/lower and IR receiver

European-style 8-Button

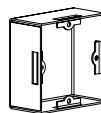


Keypad: HWBO-8SE-IR-XX
Faceplate only: EFP-8SE-IR-XX
Description: 8-scene with off, raise/lower and IR receiver

Wallboxes for European-style Keypads



Model: EBB-15-RD
Description: Round plastic wallbox for International *seeTouch* Keypads (15 plastic wallboxes)
Dimensions: See pg. 87



Model: EBB-15-SQ
Description: Square metal wallbox for International *seeTouch* Keypads (15 metal wallboxes)
Dimensions: See pg. 87

XX= Color Code

Wired Keypads - Designer

Designer *seeTouch*® KEYPADS

The Designer-style *seeTouch* keypads feature large, easy-to-use buttons, plus a unique backlit engraving option that makes the keypads readable any time of the day or night. *seeTouch* buttons are rounded, allowing engraving to be displayed at an upward angle and increasing readability. *seeTouch* keypads are available with one to seven buttons, allowing you to customize the number of functions to fit your need. The flexible design even allows the number of buttons — and the configuration of the buttons — to be changed after the keypad is installed.

All wired *seeTouch* models have two contact closure inputs on the back of the unit which provide independent functions from the front buttons. Other options include configurations with infrared receiver and raise/lower buttons.

FINISHES AND COLORS

Designer-style *seeTouch* keypads are available in Designer Gloss finishes and Satin Colors® Matte finishes. Button and insert color may differ. Refer to *seeTouch* Ordering Guide (367-571) for details. Also See Appendix F: Colors & Finishes.

ORDERING METHODS

Temporary button labels for *seeTouch* keypads are available in Gray letters (GR) for light colored buttons, or in White letters (WH) for dark colored buttons. Order model number ST-LBL-GR (or WH) for 1 sheet, or model number ST-LBL25-GR (or WH) for a pack of 25 sheets.

a) Engraving will be decided after installation

- 1) Order keypad with buttons. A prepaid engraving certificate is included.
STWD-Model-Color
- 2) After engraving is determined, redeem engraving certificate.
SKD-Model-Color-E

b) Engraving will be decided before installation

- 1) Order keypad without buttons.
Non-IR: ST-NB-NONE
IR: ST-NBIR-NONE
- 2) Order engraved button kit.
SKD-Model-Color-E

***seeTouch* KEYPADS**

1-Button



Keypad*: STWD-1B-XX
Button Kit: SKD-1B-XX-E
Description: 1-button

2-Button



Keypad*: STWD-2B-XX
Button Kit: SKD-2B-XX-E
Description: 2-button

3-Button



Keypad*: STWD-3B-XX
Button Kit: SKD-3B-XX-E
Description: 3-button



Keypad*: STWD-3BRL-XX
Button Kit: SKD-3BRL-XX-E
Description: 3-button with raise/lower

4-Button



Keypad*: STWD-4B-XX
Button Kit: SKD-4B-XX-E
Description: 4-button



Keypad*: STWD-4FS-XX
Button Kit: SKD-4FS-XX-E
Description: 4-button favorite scene



Keypad*: STWD-4S-XX
Button Kit: SKD-4S-XX-E
Description: 4-scene with raise/lower



Keypad*: STWD-4SIR-XX
Button Kit: SKD-4SIR-XX-E
Description: 4-scene with IR receiver

* Claro® Gloss and *Satin Colors* Matte Finishes wallplate sold separately.

XX= Color Code

Wired Keypads - Designer (cont.)

seeTouch® KEYPADS (cont.)

5-Button



Keypad*: STWD-5B-XX
Button Kit: SKD-5B-XX-E
Description: 5-button



Keypad*: STWD-5FS-XX
Button Kit: SKD-5FS-XX-E
Description: 5-button favorite scene



Keypad*: STWD-5BRL-XX
Button Kit: SKD-5BRL-XX-E
Description: 5-button with raise/lower

6-Button



Keypad*: STWD-6B-XX
Button Kit: SKD-6B-XX-E
Description: 6-button



Keypad*: STWD-6BRL-XX
Button Kit: SKD-6BRL-XX-E
Description: 6-button with raise/lower

7-Button



Keypad*: STWD-7B-XX
Button Kit: SKD-7B-XX-E
Description: 7-button

seeTouch - NO BUTTONS

No-Button



Keypad: ST-NB-NONE
Description: No buttons

Keypad: ST-NBIR-NONE
Description: No buttons with IR receiver

* Claro® Gloss and Satin Colors® Matte Finishes
wallplate sold separately.

XX= Color Code

Wired Keypads (cont.)

Model Number	All Wired Keypads.
Input Voltage	15 V $\overline{=}$ NEC \circledR Class 2 (IEC PELV)
Environment	Ambient operating temperature: 0 \circ C to 40 \circ C, 32 \circ F to 104 \circ F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Low-Voltage Wire Type	Two pair – one pair #18 AWG (1.0 mm 2), one pair #18-22 AWG (1.0-0.5 mm 2) twisted shielded – NEC \circledR Class 2 (IEC PELV) wire. Lutron \circledR wire model # GRX-CBL-346S-500 may be used.
Low-Voltage Wiring Configuration	Daisy-chain, star, T-tap. Termination not required. Total length of wire on any link cannot exceed 1000 feet (305 m) per wire run. Total length of wire on that link cannot exceed 4000 feet (1220 m). Maximum of 32 devices per processor link that has been configured for keypads. Maximum of 10 keypads per home run.
Low-Voltage Connections	One 4-pin removable terminal block. Terminal block will accept up to four #18 AWG (1.0 mm 2) wires per pin.
Addressing	Via DIP switch located on unit. Units should be addressed before mounting in wall.
Diagnostics	LEDs provide diagnostics for troubleshooting.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Miswire Protection	All terminal block inputs are over-voltage and miswire-protected against wire reversals and shorts.
Mounting	See Table 1, pg. 40.
Engraving	Engraving of keypads and/or keypad buttons available.
IR Keypads (except B&O)	Compatible with these Lutron IR transmitters: GRX-IT-WH, GRX-8IT-WH, SPS-4IT-RP, SPS-FSIT-RP, SP-HT-WH. See Appendix C: Infrared (IR) Integration.
B&O IR Keypads	Compatible with Bang & Olufsen \circledR Beo-4 \circledR IR transmitters.
Shipping Weight	0.4 lbs. (0.1 kg)
Keypad Link LED Count	See Table 1, pg. 40.

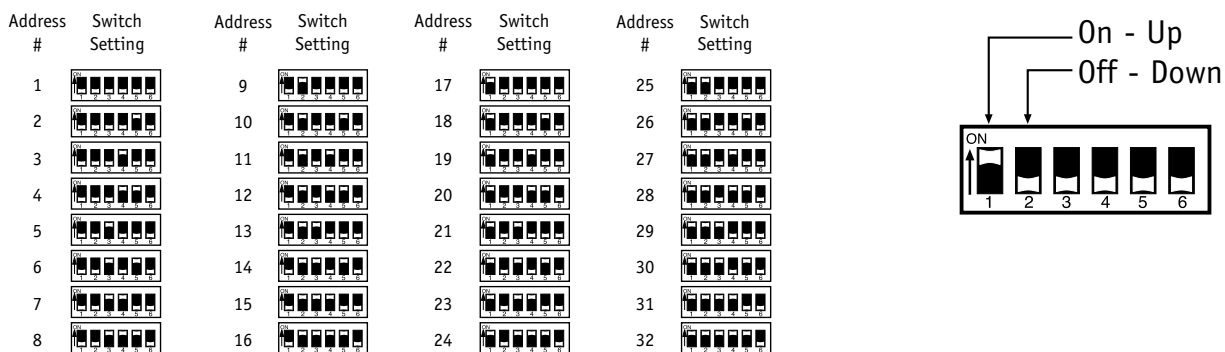
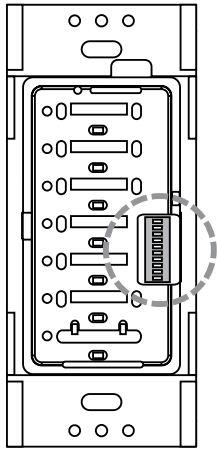
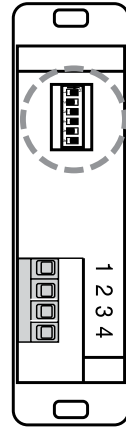


Figure 1 –Addressing DIP Switches

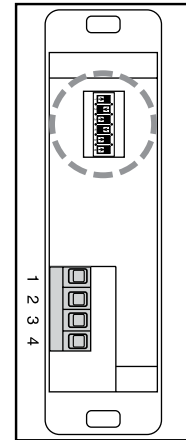
Wired Keypads – Addressing DIP Switch Locations



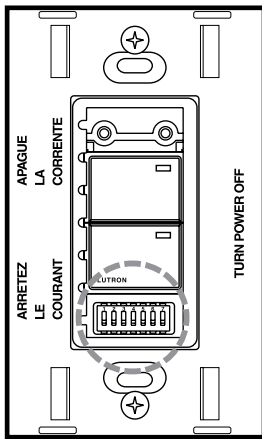
**Figure 2 – seeTouch® Keypads
Front View**



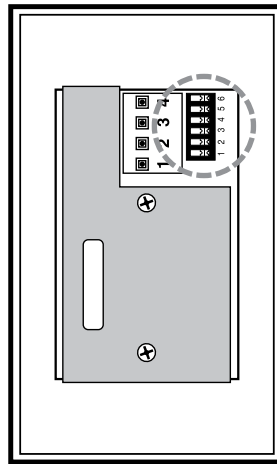
**Figure 3 – Signature Series™ Keypads
Rear View**



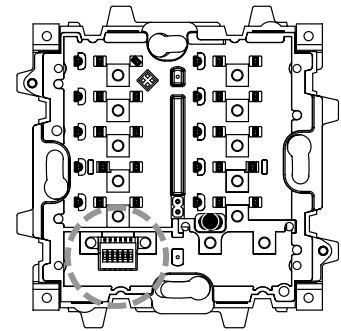
**Figure 4 – Architrave™ Keypads
Rear View**



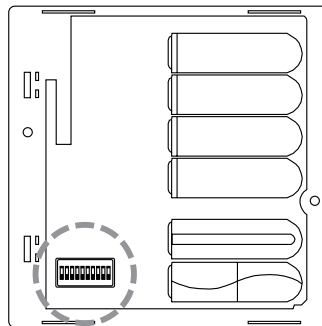
**Figure 5 – 2-Button Keypad
Front View**



**Figure 6 – Architectural-style Slim
and Large Button Keypads
Rear View**



**Figure 7 – International
seeTouch Keypads
Front View**

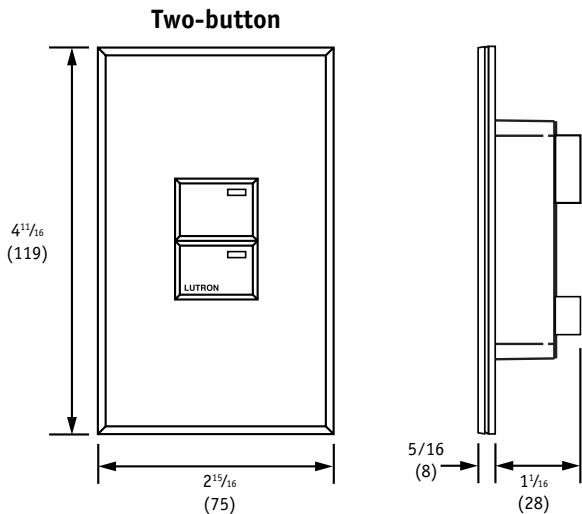
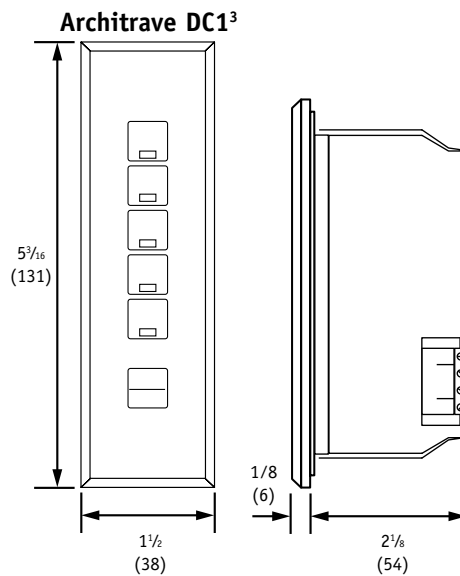
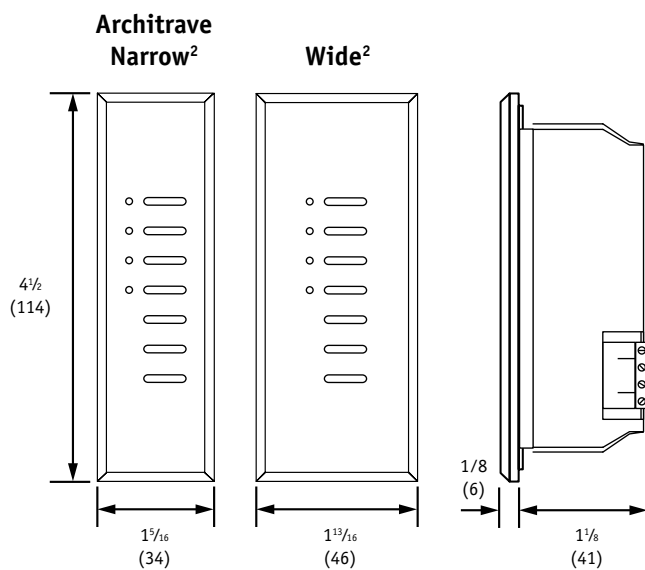
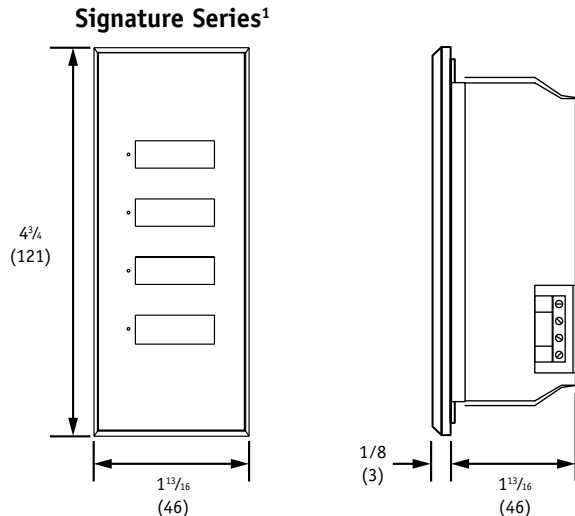
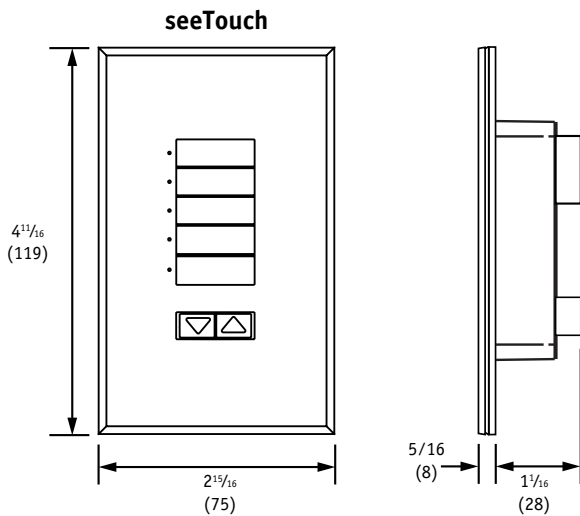


**Figure 8 – European-style Keypads
Front View**

FRONT ROOM

Wired Keypads – Dimensions

Architectural-style Keypads Dimensions - all dimensions are inches (mm)



Notes:

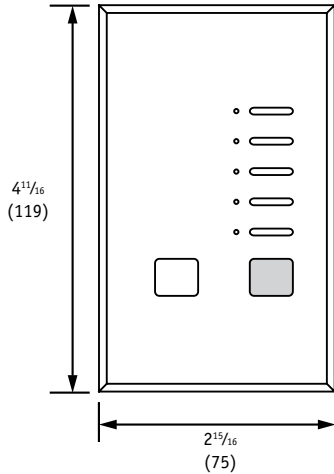
1. May be mounted without wallbox – opening dimensions: 3⁵/₈ in (91 mm) x 1⁷/₁₆ in (36 mm) – or use Lutron wallbox p/n WBOX-SA1-Q1 (see pg. 87).
2. May be mounted without wallbox – opening dimensions: 3¹/₂ in (90 mm) x 1¹/₄ in (32 mm) – or use Lutron wallbox p/n 241-399 (see pg. 87).
3. May be mounted without wallbox – opening dimensions: 4 in (102 mm) x 1¹/₈ in (29 mm) – or use Lutron wallbox p/n 241-663 (see pg. 87).

FRONT ROOM

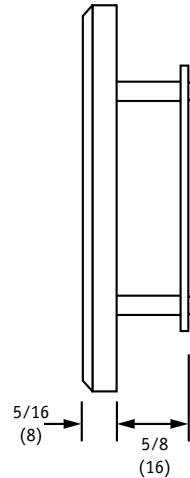
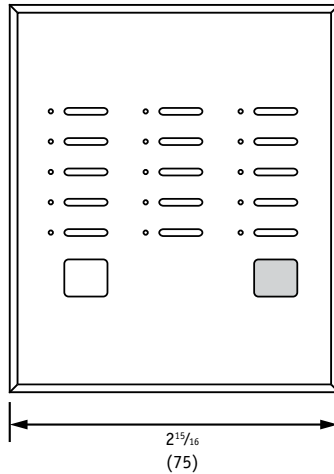
Wired Keypads – Dimensions (cont'd)

Architectural-style Keypads Dimensions - all dimensions are inches (mm)

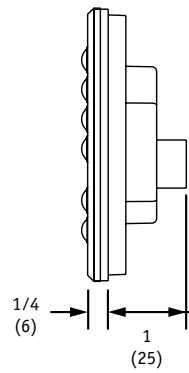
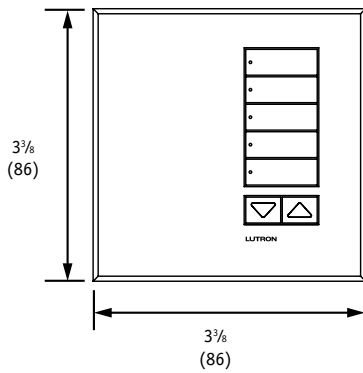
**Slim Button (5 & 10 button)
Large Button (6 button)
Two Button**



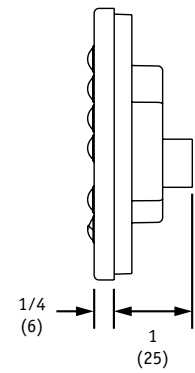
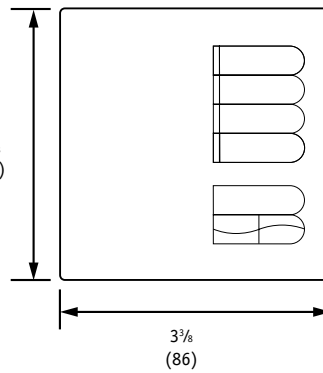
**Slim Button (15 button)
Large Button (9 button)**



International seeTouch®

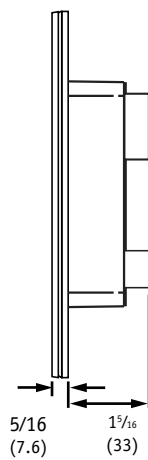
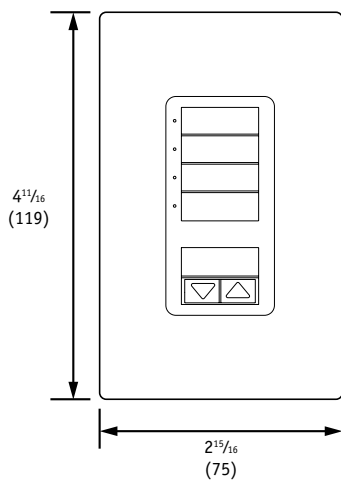


European-style



Designer-style Keypads Dimensions - all dimensions are inches (mm)

seeTouch®



FRONT ROOM

Wired Keypads – LED Count and Wallbox Sizes

Control	LED Count ¹	Wallboxes Required
HWI-KP5	5	1-gang US wallbox
HWI-KP10	10	1-gang US wallbox
HWI-KP15	15	2-gang US wallbox
HWI-LB5-DC1	5	Not Required or Lutron® # 241-663
HWI-LB6	6	1-gang US wallbox
HWI-LB9	9	2-gang US wallbox
HWI-KP5-DN	5	Not Required or Lutron # 241-399
HWI-KP5-DW	5	Not Required or Lutron # 241-399
HWI-2B	10	1-gang US wallbox
seeTouch® All models	15	1-gang US wallbox
International <i>seeTouch</i> All models	15	EBB-15-SQ/EBB-15-RD
HWI-2SE	3	EBB-15-SQ/EBB-15-RD
HWI-4SE	4	EBB-15-SQ/EBB-15-RD
HWI-8SE	8	EBB-15-SQ/EBB-15-RD
HWS-3B-G	10	Not Required or WBOX-SA1-Q1
HWS-4B-G	10	Not Required or WBOX-SA1-Q1
HWS-3B-B	10	Not Required or WBOX-SA1-Q1
HWS-4B-B	10	Not Required or WBOX-SA1-Q1
HWI-CCI-8	10	HWI-ENC-CC
HWI-CCO-8	10	HWI-ENC-CC
HWI-HHP-LD	45	N/A
Hybrid Repeater ²	15	N/A

Table 1 – Keypad LED Count and Wallbox Information

¹ Check the Processor LED Count specification in the processor section of this book to determine maximum LED count. If the amount of LEDs exceeds the processor's maximum LED count, then an Auxiliary Power Supply (see pg. 182) must be used to satisfy LED Count requirements.

² When powered by the processor, the Hybrid Repeater draws the equivalent of 15 LEDs. When powered by the supplied plug-in adapter, the Hybrid Repeater does not draw an LED count.

RF Keypads

Wireless Series
Keypad
RF Keypad Link-8.2
Designer-Style/Tabletop

HomeWorks® keypads, available in many styles, colors, and finishes, provide homeowners with a simple and elegant way to operate lights, shades, motorized screens, pumps, thermostats, and many other devices. Keypads have LEDs that provide real-time status indication. Lutron provides custom engraving to clearly identify each button's function.

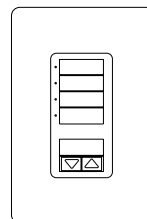
Keypads are available in a variety of button styles and button configurations. Since each button on every keypad model can be programmed to control any lighting load or device on the *HomeWorks* system, choosing a keypad for a particular location requires no more than selecting the desired style and number of buttons. Engraving can be added to any keypad. Please contact Lutron Customer Service or your local Lutron Representative for details.

Each *HomeWorks* RF link is capable of controlling up to 32 RF Keypads.

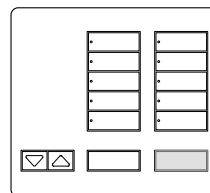
COMMUNICATION TO THE PROCESSOR

Up to 32 RF keypads communicate to an RF processor or an 8 or 4 Series processor with a hybrid repeater. Keypads must be located within 30 feet (9 m) of the RF processor or a hybrid repeater.

Designer-style



seeTouch®



Tabletop

RF Keypads (cont.)

Designer *seeTouch*® KEYPADS

Designer-style *seeTouch* keypads feature large, easy-to-use buttons, plus a unique backlit engraving option that makes the keypads readable any time of the day or night. *seeTouch* buttons are rounded, allowing engraving to be displayed at an upward angle, increasing readability. *seeTouch* keypads are available with one to seven buttons, allowing you to customize the number of functions to fit your need. The flexible design even allows the number of buttons and the configuration of the buttons to be changed after the keypad is installed.

Options include configurations with infrared receiver and raise/lower buttons.

COLORS AND FINISHES

Designer-style *seeTouch* keypads are available in Designer Gloss finishes and Satin Colors® Matte finishes. Button color may differ from insert color ordered. Refer to *seeTouch* Ordering Guide (367-571) for details. Also see Appendix F: Colors & Finishes.

ORDERING METHODS

Temporary button labels for *seeTouch* keypads are available in Gray letters (GR) for light colored buttons, or in White letters (WH) for dark colored buttons. Order model number ST-LBL-GR (or WH) for 1 sheet, or model number ST-LBL25-GR (or WH) for a pack of 25 sheets.

a) Engraving will be decided after installation

- 1) Order keypad with buttons. A prepaid engraving certificate is included.
STRD-Model-Color
- 2) After engraving is determined, redeem engraving certificate.
SKD-Model-Color-E

b) Engraving will be decided before installation

- 1) Order keypad without buttons.
Non-IR: STR-NB-NONE
IR: STR-NBIR-NONE
- 2) Order engraved button kit.
SKD-Model-Color-E

***seeTouch* KEYPADS**

1-Button



Keypad*: STRD-1B-XX
Button Kit: SKD-1B-XX-E
Description: 1-button

2-Button



Keypad*: STRD-2B-XX
Button Kit: SKD-2B-XX-E
Description: 2-button

3-Button



Keypad*: STRD-3B-XX
Button Kit: SKD-3B-XX-E
Description: 3-button



Keypad*: STRD-3BRL-XX
Button Kit: SKD-3BRL-XX-E
Description: 3-button with raise/lower

4-Button



Keypad*: STRD-4B-XX
Button Kit: SKD-4B-XX-E
Description: 4-button



Keypad*: STRD-4FS-XX
Button Kit: SKD-4FS-XX-E
Description: 4-button favorite scene



Keypad*: STRD-4S-XX
Button Kit: SKD-4S-XX-E
Description: 4-scene



Keypad*: STRD-4SIR-XX
Button Kit: SKD-4SIR-XX-E
Description: 4-scene with IR receiver

* Claro® Gloss and *Satin Colors* Matte Finishes wallplate sold separately.

XX= Color Code

RF Keypads (cont.)

seeTouch® KEYPADS (cont.)

5-Button



Keypad*: STRD-5B-XX
Button Kit: SKD-5B-XX-E
Description: 5-button



Keypad*: STRD-5FS-XX
Button Kit: SKD-5FS-XX-E
Description: 5-button favorite scene



Keypad*: STRD-5BRL-XX
Button Kit: SKD-5BRL-XX-E
Description: 5-button with raise/lower

6-Button



Keypad*: STRD-6B-XX
Button Kit: SKD-6B-XX-E
Description: 6-button



Keypad*: STRD-6BRL-XX
Button Kit: SKD-6BRL-XX-E
Description: 6-button with raise/lower

7-Button



Keypad*: STRD-7B-XX
Button Kit: SKD-7B-XX-E
Description: 7-button

seeTouch - NO BUTTONS

No-Button



Keypad: STR-NB-NONE
Description: No buttons, no IR receiver



Keypad: STR-NBIR-NONE
Description: No buttons with IR receiver



Keypad: STR-2G-NBIR-NONE
Description: 2-gang, no buttons with IR receiver

* Claro® Gloss and *Satin Colors* Matte Finishes wallplate sold separately.

XX= Color Code

RF Keypads (cont.)

RF Wall-Mounted Keypads

Model Numbers	All RF Wall-Mounted Keypads
Input Voltage	120 V \sim , 50/60 Hz
Regulatory Approvals	UL, CSA, NOM, FCC, IC
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Addressing	Via the HomeWorks® software, using unique device serial numbers. Units must be installed prior to addressing. Counts as 1 of the 32 keypad addresses on the Processor.
Diagnostics	LEDs provide diagnostics for troubleshooting.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Mounting	STRD-xx, STR-NB-NONE, STR-NBIR-NONE: 1-gang US wallbox STR-2G-NBIR-NONE: 2-gang US wallbox
Engraving	Engraving of keypads and/or keypad buttons available.
IR Keypads	Compatible with these Lutron IR transmitters: GRX-IT-WH, GRX-8IT-WH, SPS-4IT-RP, SPS-FSIT-RP, SP-HT-WH. See Appendix C: Infrared (IR) Integration.
Shipping Weight	0.3 lbs. (0.1 kg)
Keypad Link LED Count	0 (not applicable since not powered by keypad link)

FRONT ROOM

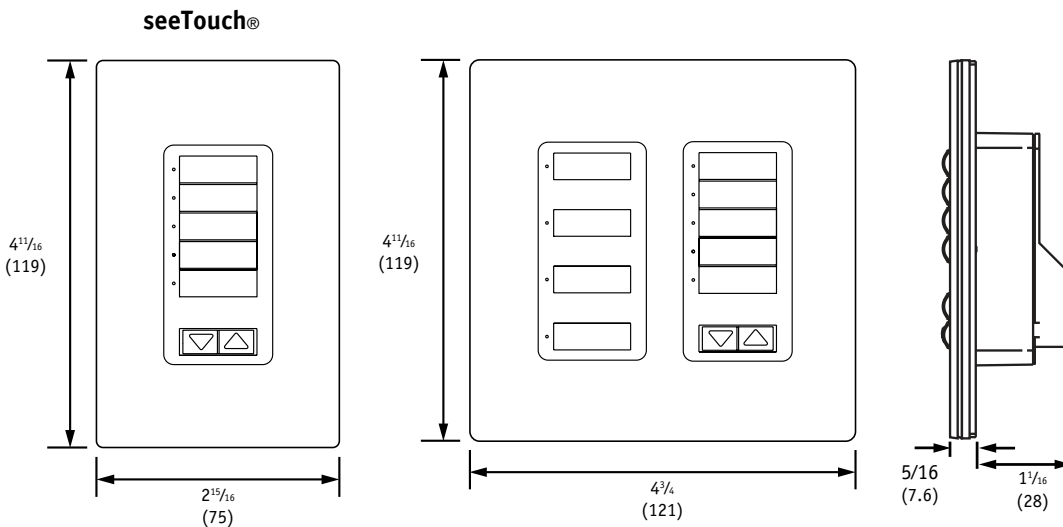


Figure 1 – Dimensions
all dimensions are shown as inches (mm)

RF Keypads (cont.)

SLIM AND LARGE BUTTON RF TABLETOP KEYPADS

HomeWorks® RF tabletop keypads provide maximum flexibility to locate the devices where the homeowner can conveniently monitor and control lighting, window treatments, and other home systems. Tabletop keypads are ideal for night stands, coffee tables, and kitchen counters. Keypad buttons are programmed to create a customized control that meets the individual needs of each home.

Keypads have LEDs that provide real-time status indication. Custom engraving is available to clearly identify each button's function. RF tabletop keypads can be part of any system design with RF capability.

The RF tabletop keypads are available with Large Button (5-, 6-, 10-, or 15-button) and Slim Button (5-, 10-, or 15-button) configurations. All of these models also include raise/lower buttons. All units are plug-in/battery combo units.

COLORS AND FINISHES

All RF tabletop keypads are available in Midnight (MN) and Snow (SW). Metal faceplates can be ordered separately keypads. See Appendix F: Colors & Finishes.

COMMUNICATION TO PROCESSOR

All RF tabletop keypads must be located within 30 feet (9 m) of an RF processor or a hybrid repeater. Each HomeWorks RF-capable processor can control up to 32 RF keypads. The tabletop keypad counts as one of the 32 RF keypads.

ORDERING METHOD

- 1) Order keypad with buttons/faceplate. Order a Midnight keypad if a metal faceplate will be used. A prepaid engraving certificate is included.
HRT-Model-Color
- 2) After engraving is determined, redeem engraving certificate for engraved faceplate with same number of buttons as control.
HKT-Model-Color-E

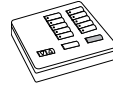
LARGE BUTTON

5-Button



Description: 5-button with raise/lower
Keypad: HRT-5S2RL-XX
Faceplate only: LBK-T5RL-XX-E

10-Button



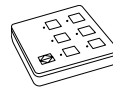
Description: 10-button with raise/lower
Keypad: HRT-10S2RL-XX
Faceplate only: LBK-T10RL-XX-E

15-Button



Description: 15-button with raise/lower
Keypad: HRT-15S2RL-XX
Faceplate only: LBK-T15RL-XX-E

6-Button



Description: 6-button with raise/lower
Keypad: HRT-6LRL-C-XX
Faceplate only: HKT-6LRL-XX-E

SLIM BUTTON

5-Button



Description: 5-button with master on/off and raise/lower
Keypad: HRT-5RL-C-XX
Faceplate only: HKT-5RL-XX-E

10-Button



Description: 10-button with master on/off and raise/lower
Keypad: HRT-10RL-C-XX
Faceplate only: HKT-10RL-XX-E

15-Button



Description: 15-button with master on/off and raise/lower
Keypad: HRT-15RL-C-XX
Faceplate only: HKT-15RL-XX-E

XX= Color Code

RF Keypads (cont.)

Model Numbers	All RF Tabletop Keypads.
Input Voltage	120 V \sim , 60 Hz (with plug-in 9 V \equiv transformer). 3 V \equiv (with two AAA batteries).
Regulatory Approvals	Plug-in low-voltage transformer: UL Listed for US and Canada, NOM; Keypads: FCC, IC
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Addressing	Via the HomeWorks [®] software, using unique device serial numbers. Units must be installed prior to addressing. Counts as 1 of the 32 RF keypad addresses on a processor.
Diagnostics	LEDs provide diagnostics for troubleshooting.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Dimensions	See Fig. 1, below.
Mounting	Units powered by plug-in transformer must be located within 5 feet (1.5 m) of a 120 V \sim receptacle. Unit must be placed within 30 feet (9 m) of an RF Processor or a Hybrid Repeater.
Shipping Weight	0.3 lbs. (0.1 kg)
Keypad Link LED Count	0 (not applicable since not powered by keypad link)

FRONT ROOM

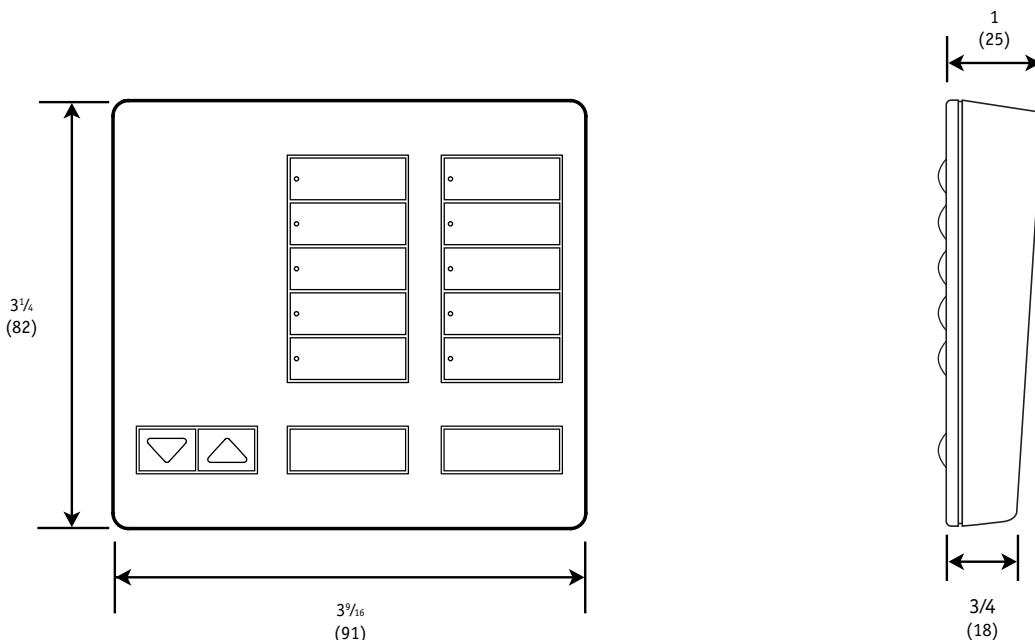


Figure 1 – Dimensions
 [all dimensions are shown as inches (mm)]
 Large Button Model shown - dimensions for all Tabletop Keypads are identical

RF Visor Controls

Wireless Series
Visor Interface
RF Keypad Link-8.2
Car Visor Controls

RF VISOR RECEIVER AND TRANSMITTER (MODEL # HR-VCRX-SW AND HR-VCTX-SW)

HomeWorks® RF visor controls provide control of lighting and other equipment from your car — with just the touch of a button. The RF visor receiver has four dry contact closure outputs that can be used for garage doors or gates. Turn lights on or off, set scenes, or turn on vacation mode from your car as you are leaving your home. Pre-printed labels are provided to clearly identify each button's function.

Each transmitter provides up to seven functions (3 buttons give seven total press combinations). Up to ten transmitters will work with one receiver. RF visor controls may be used in any system design with RF capability.

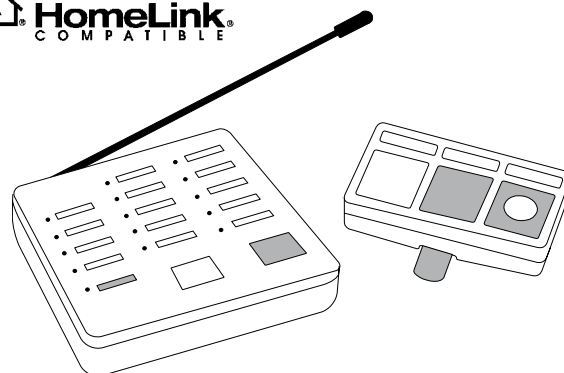
The RF visor receiver is a non-aesthetic control and is intended to be mounted in an unseen location.

COLORS AND FINISHES

RF visor controls are available in Snow (SW).

COMMUNICATION TO PROCESSOR

The RF visor receiver must be located within 30 feet (9 m) of an RF processor or a hybrid repeater. Each RF-capable processor can control up to 32 RF keypads. The RF visor receiver counts as one of the 32 RF keypads.



**RF Visor Receiver and Transmitter
(HR-VCRX-SW and HR-VCTX-SW)**

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RF Visor Controls (cont.)

Receiver

Model Number	HR-VCRX-SW: Visor Control Receiver
Input Voltage	120 V \sim , 60 Hz (with plug-in 9 V \equiv transformer).
Regulatory Approvals	Plug-in low-voltage transformer: UL Listed for US and Canada, NOM; Visor Control Receiver: FCC, IC
Line-Voltage Connections	Lutron provides a plug-in low-voltage transformer.
Mounting	Mount with wall bracket (provided) or place on tabletop.
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Outputs	Four low-voltage dry contacts. Max. voltage: NEC® Class 2 (IEC PELV) Max. current: 1 A @ 30 V \equiv

Transmitter

Model Number	HR-VCTX-SW: Visor Control Transmitter.
Input Voltage	6 V \equiv , two CR2032 coin cell batteries (3 V \equiv each; included).
Regulatory Approvals	Meets Society of Automotive Engineers (SAE) Standards. FCC, IC
Function	Provides up to seven functions from three buttons.
Mounting	Removable visor clip.
Range	150 feet (46 m) typical.
Environment	Ambient operating temperature: -40 °C to 113 °C, -40 °F to 235 °F Ambient operating humidity: 0-90% humidity, non-condensing.

All dimensions are shown as inches (mm)

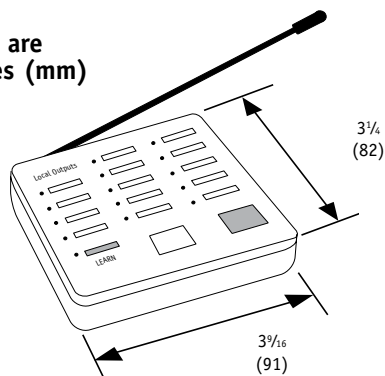


Figure 1 – HR-VCRX-SW Dimensions

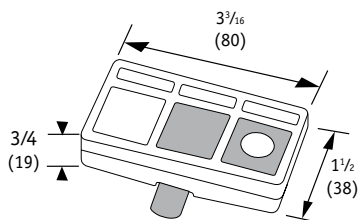


Figure 2 – HR-VCTX-SW Dimensions

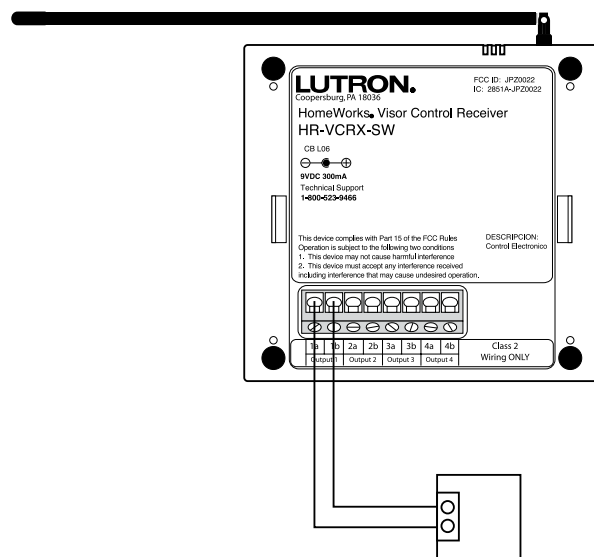


Figure 3 – Wiring to a CCO device

Wired Vareo® Local Lighting Controls

8 Series
Local Lighting Controls
D48 Bus
Architectural-Style

LOCAL LIGHTING CONTROLS

Wired *Vareo* local lighting controls function much like standard dimmers and switches, but can be controlled as part of the whole-house lighting control system. Local lighting controls are useful in locations where single circuits of lighting need to be dimmed or switched. Wired *Vareo* dimmers incorporate advanced features such as fade-on/fade-off, long fade-off, and rapid full-on. Wired *Vareo* local lighting controls include a Front Accessible Safety Switch (FASS™) for safe lamp replacement. HomeWorks® wired *Vareo* local lighting controls install in single-pole, 3-way, or 4-way applications.

ACCESSORY CONTROL

Remote switches (VETS-R) are used in conjunction with a wired *Vareo* local lighting control to provide 3-way and 4-way control. Use up to nine VETS-R controls with a single wired *Vareo* local lighting control for switching from up to ten locations.

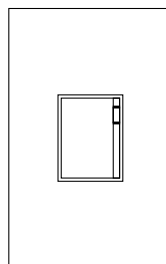
COLORS AND FINISHES

Vareo local lighting controls are available in Architectural matte finish plastic colors and Architectural metal finishes. Custom paint matching is also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

GANGING VAREO CONTROLS

Gang multiple *Vareo* controls together (mounted side-by-side behind a single faceplate) in a series of connected wallboxes for a cleaner look. A scored section or “fin,” along each side of the mounting plate is removed, to facilitate ganging of controls. The load rating for each control must be derated when a fin has been broken.

For ganging and derating information, see Table 1 pg. 54.

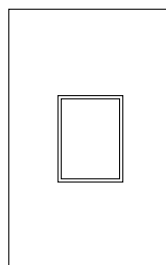


DIMMING CONTROL LOAD RATINGS

HWV-600D dims a single incandescent or magnetic low-voltage circuit up to 600 W/VA from one location.

HWV-1000D dims a single incandescent or magnetic low-voltage circuit up to 1000 W/VA from one location.

HWV-FDB-8A dims a single fluorescent circuit up to 8 A from one location when used with Lutron Hi-lume® and Eco-10® electronic fluorescent dimming ballasts.



SWITCHING CONTROL LOAD RATINGS

HWV-1000NS switches a single circuit of any lighting load type up to 1000 W/VA from one location. HWV-1000NS requires a neutral wire connection.

Note: For wattages exceeding those listed above or for load types other than those listed, a power booster or interface is required. See pg. 107 for more information.

INSTALLATION NOTE

Use 3½ in. (89 mm) deep wallboxes for ease of installation.

CONNECTION TO D48 DIMMER INTERFACE

All wired *Vareo* local lighting controls must be connected to a D48 dimmer interface. A dimmer interface is available as a stand-alone component (model # HWI-D48) or as an integral part of processors with model numbers containing “D48” (H8P5-D48-120 and H8P5-MI-D48-120). Each wired *Vareo* local lighting control communicates with a dimmer interface, via a one pair twisted shielded 18 AWG to 22 AWG (1.0 mm² to 0.5 mm²) cable.

See pg. 131.

FRONT ROOM

Wired Vareo® Local Lighting Controls (cont.)

All HomeWorks® Vareo Local Lighting Controls

Model Numbers	HWV-600D: 600 W/VA Dimming Control. HWV-1000D: 1000 W/VA Dimming Control. HWV-1000NS: 1000 W/VA Switching Control with Neutral Wire. HWV-FDB-8A: Fluorescent Dimming Control. VETS-R: 3- or 4-Way Accessory Control.
Input Voltage	120 V \sim , 50/60 Hz
Regulatory Approvals	UL, CSA, NOM
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Cooling Method	Passive cooling.
Low-Voltage Wire Type	One pair twisted shielded #18 AWG to #22 AWG (1.0 mm ² to 0.5 mm ²) NEC® Class 2 (IEC PELV) wiring.
Low-Voltage Wiring Configuration	Daisy-chain, star, T-tap, home run. Link terminator not required. Total length of wire on any Dimmer Interface bus cannot exceed 500 feet (150 m). Maximum of four devices per Dimmer Interface bus.
Low-Voltage Connections	Butt-splice (provided). <i>See Fig. 5, pg. 53.</i>
Addressing	Via DIP switch located on front of unit underneath the wallplate. The device may be addressed without removing it from the wall. Counts as 1 of 4 addresses on a Vareo bus. <i>See Fig. 1, pg. 52.</i>
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Air Gap	FASS™ (Front Accessible Service Switch). <i>See Fig. 4, pg. 53.</i>
Fail-Safe Operation	In the unlikely event that communication with the processor is interrupted, all Vareo Local Lighting Controls will still operate, offering local control.
Dimensions	<i>See Fig. 2, pg. 53.</i>
Mounting	Controls mount in standard US wallboxes. For easier installation, Lutron recommends using 3½ in. (89 mm) deep wallboxes. <i>See Fig. 6, pg. 53.</i>
Ganging	When ganging Vareo Local Lighting Controls, it is necessary to remove side fins and to derate the control. <i>See Table 1, pg. 54</i> for specific derating information. If mounting one control above another, leave at least 4½ in. (11.4 cm) vertical spacing between them.
Auxiliary Controls	Use only Vareo Auxiliary TapSwitches™ (VETS-R); mechanical 3- or 4-way switches will not work. Up to 9 VETS-R Auxiliary TapSwitches may be used with one Vareo Local Dimming or Switching Control.
Shipping Weight	0.6 lb. (0.3 kg)

Wired Vareo® Local Lighting Controls (cont.)

HWV-600D • 600 W Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ² (using ELVI-1000 Interface). Output is compatible with Lutron® NGRX-PB-WH and HP 2•4•6™ Power Boosters for dimming applications up to 30,000 W per dimmer.
Maximum Load	no fins broken: 600 W/VA one fin broken: 500 W/VA two fins broken: 300 W/VA
Minimum Load Required	40 W/VA
Line-Voltage Wiring	See Figs. 10, 12, 13 pg. 55. Standard single-pole and 3-way wiring.

HWV-1000D • 1000 W Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ³ (using ELVI-1000 Interface). Output is compatible with Lutron NGRX-PB-WH and HP 2•4•6 Power Boosters for applications up to 30,000 W.
Maximum Load	no fins broken: 1000 W/VA one fin broken: 900 W/VA two fins broken: 700 W/VA
Minimum Load Required	40 W/VA
Line-Voltage Wiring	See Figs. 10, 12, 13 pg. 55. Standard single-pole and 3-way wiring.

HWV-1000NS • 1000 W Switching Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ² , tungsten halogen, electronic low-voltage ² , fluorescent with magnetic ballasts ⁵ .
Maximum Load:	no fins broken: 1000 W/VA one fin broken: 700 W/VA two fins broken: 550 W/VA
Minimum Load Required	5 W/VA
Line-Voltage Wiring	See Figs. 11, 14, 15 pgs. 55, 56. Single-pole and 3-way wiring. Requires a neutral wire connection in the wallbox.

Wired Vareo® Local Lighting Controls (cont.)

HWV-FDB-8A • 8 A Fluorescent Dimming Control

Load Types ⁴	Lutron® Hi-lume® and ECO-10® Fluorescent Dimming Ballasts.
Maximum Load ⁵	no fins broken: 8 A, 20 ballasts one fin broken: 6 A two fins broken: 4.5 A
Minimum Load Required	1 ballast
Line-Voltage Wiring	See Figs. 16, 17 pg. 57. Requires a neutral wire connection in the wallbox.

VETS-R • 3- or 4-way Accessory Control

Compatible Controls	HWV-600D, HWV-1000D, HWV-1000NS and HWV-FDB-8A.
Maximum Load	See local lighting control.
Minimum Load	See local lighting control.
Line-Voltage Wiring	See Figs. 12, 13, 14, 15, 17 pgs. 55, 56, 57. Standard single-pole, 3-way, and 4-way wiring.

(1) To reduce the risk of overheating and possibly damaging other equipment, do not install HWV-600D or HWV-1000D to control receptacles, motor-operated appliances, fluorescent lighting, or electronic low-voltage transformer loads. Do not install HWV-1000NS to control receptacles or motor-operated appliances.

(2) Because low-voltage transformers vary widely in efficiency, the input VA of each transformer should be measured directly. If this is not possible, use the maximum lamp wattage figures for the transformer, which have a built-in safety margin.

(3) For low-voltage applications using the HWV-600D or HWV-1000D, core and coil (magnetic) low-voltage transformers must be used. Do not use any solid-state electronic low-voltage transformers. Operation of a low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Lutron strongly recommends the following:

- Do not operate low-voltage circuits without operative lamps in place.
- Replace burned-out lamps as soon as possible.
- Use transformers that incorporate thermal protection or fuse transformer primary windings to prevent transformer failure due to overcurrent.

(4) For proper dimming performance, fluorescent lamps must be operated at full intensity for 100 hours prior to dimming.

(5) To determine the maximum load, add the line currents listed on each ballast connected to this control. The total line current can not exceed the maximum load capacity rating of the control.
Warning: Do not exceed a maximum of 20 ballasts per control.

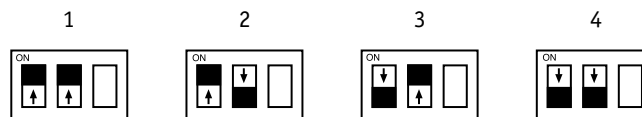
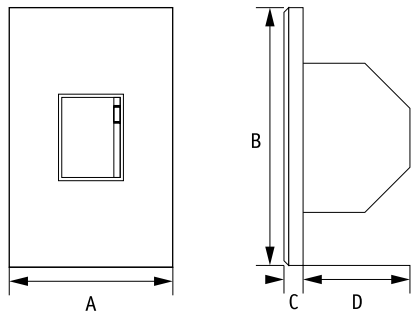


Figure 1 – DIP Switch Settings

Wired Vareo® Local Lighting Controls (cont.)



	Inches	mm
A	2 ³ / ₄	70
B	4 ¹ / ₂	114
C	5/16	7.6
D	1 ⁵ / ₁₆	32.7

Figure 2 – Dimensions

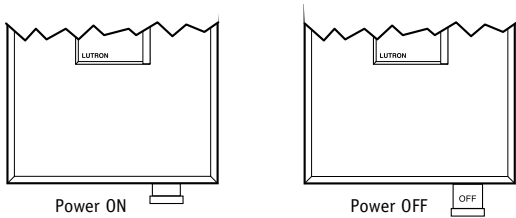


Figure 4 – FASS™ (Front-Accessible Service Switch)

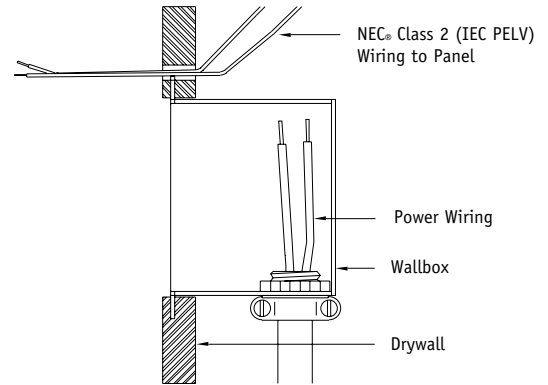


Figure 3 – Wire Installation*

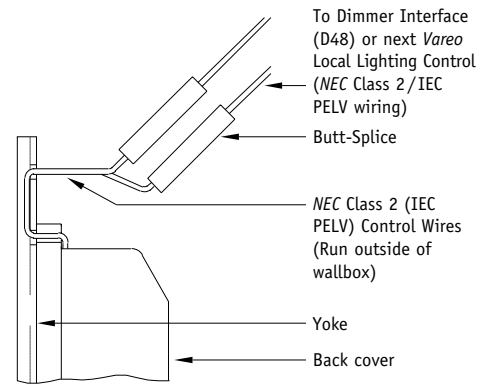


Figure 5 – Class 2 Wire Connection*

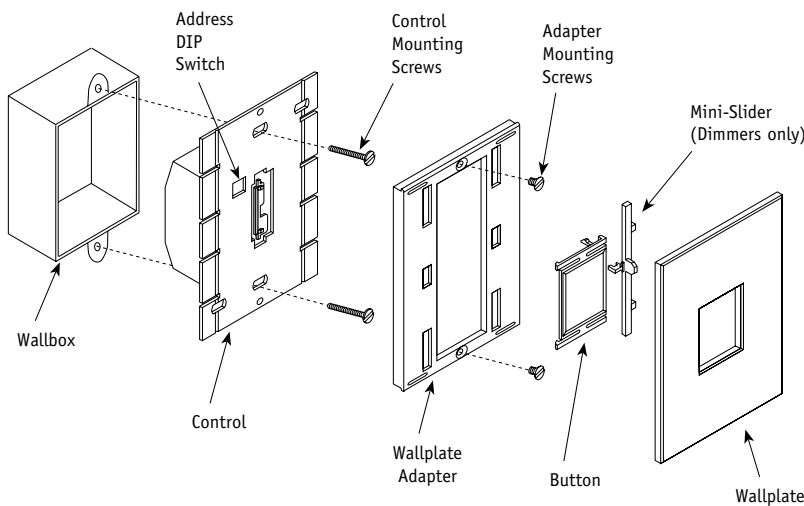


Figure 6 – Mounting and Parts Identification

* Consult HomeWorks Application Note #38 for alternative wiring methods.

FRONT ROOM

Wired Vareo® Local Lighting Controls (cont.)

Control	Load Type	Minimum Load	Maximum Load		
		All Cases	Single-Gang	End of Gang	Middle of Gang
HWV-600D	Incandescent	40 W/VA	600 W	500 W	400 W
	Magnetic Low Voltage	40 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA
HWV-1000D	Incandescent	40 W/VA	1000 W	800 W	650 W
	Magnetic Low Voltage	40 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA
HWV-1000NS	Magnetic Low Voltage	5 W/VA	800 W/1000 VA	550 W/700 VA	400 W/550 VA
	All other lighting	5 W/VA	1000 W	700 W	550 W
HWV-FDB-8A	Lutron Hi-lume or ECO-10 Fluorescent Dimming Ballasts	1 ballast	8 A	6 A	4.5 A
VETS-R	N/A*	N/A*	N/A*	N/A*	N/A*

* See local lighting control

Table 1 – Minimum and Maximum Load Ratings

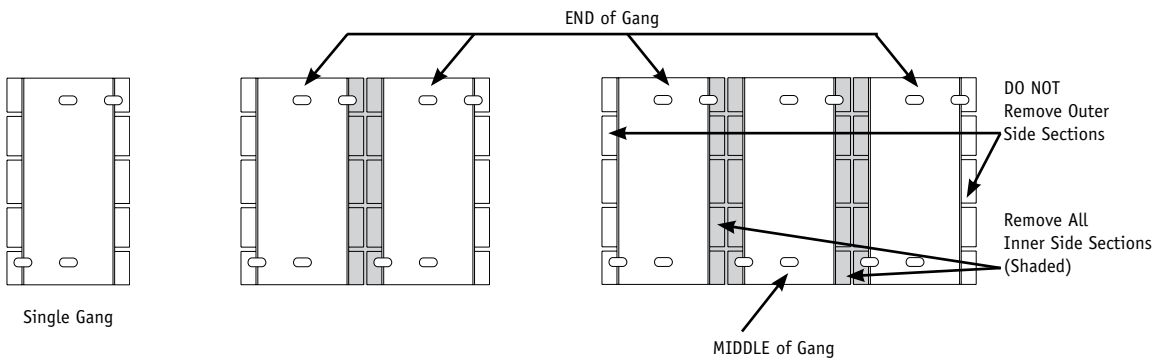


Figure 7 – Ganging Configuration and Derating Information

Wired Vareo® Local Lighting Controls (cont.)

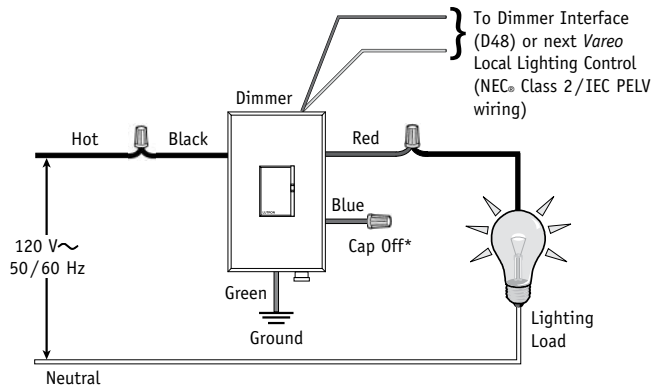


Figure 10 – HWV-600D and HWV-1000D Single-Location Wiring Diagram

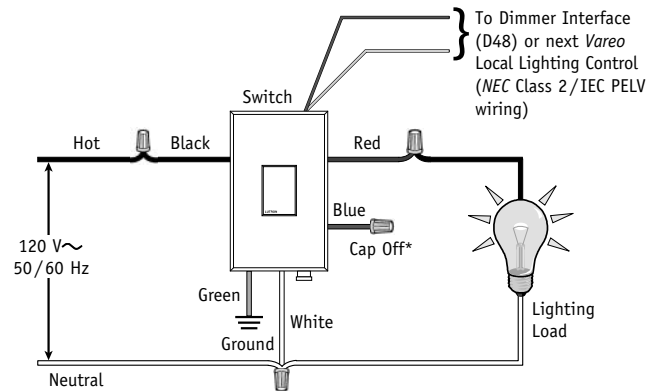


Figure 11 – HWV-1000NS Single-Location with Neutral Wiring Diagram

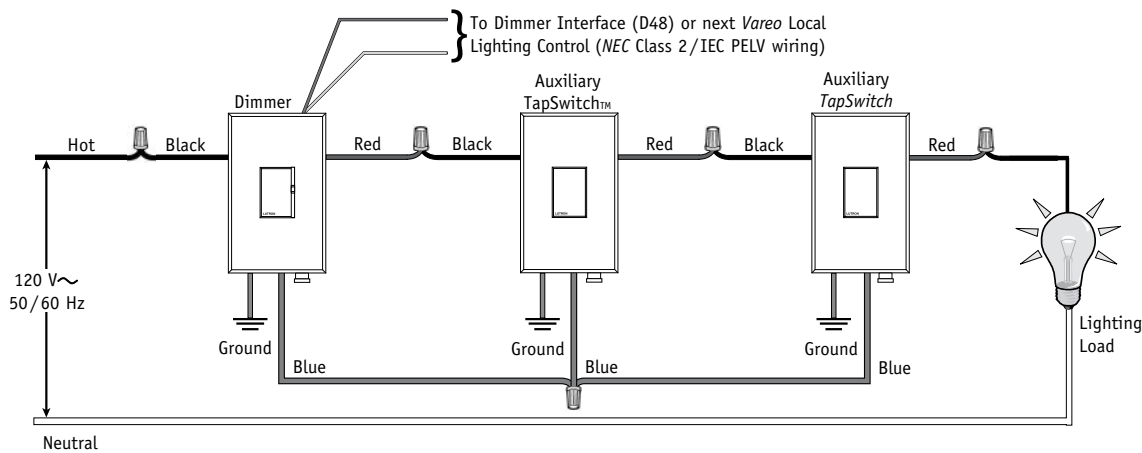


Figure 12 – HWV-600D and HWV-1000D Multi-Location Wiring Diagram (Control Line Side)

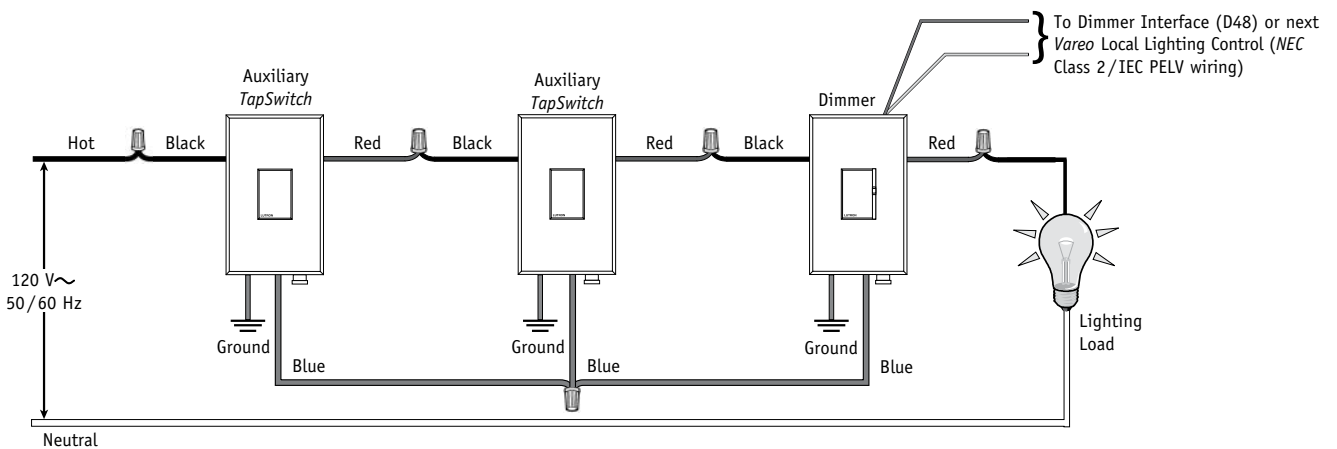


Figure 13 – HWV-600D and HWV-1000D Multi-Location Wiring Diagram (Control Load Side)

* When using controls in single-location installations, cut off the uninsulated portion of the control's multi-location wire (blue wire) and cap off using one of the provided wire connectors. **DO NOT** connect the blue wire to any other wiring or to ground.

Wired Vareo® Local Lighting Controls (cont.)

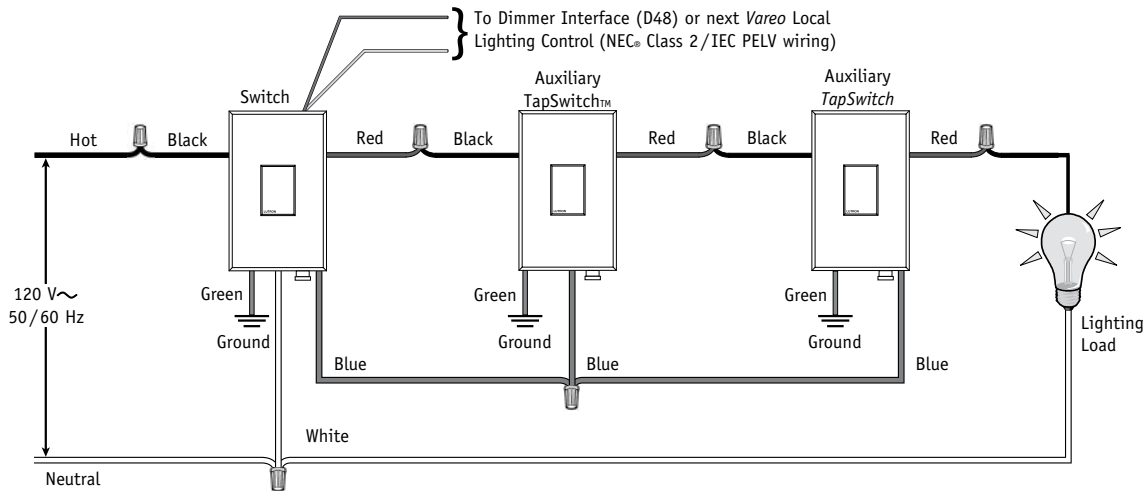


Figure 14 – HWV-100NS Multi-Location with Neutral Wiring Diagram (Control Line Side)

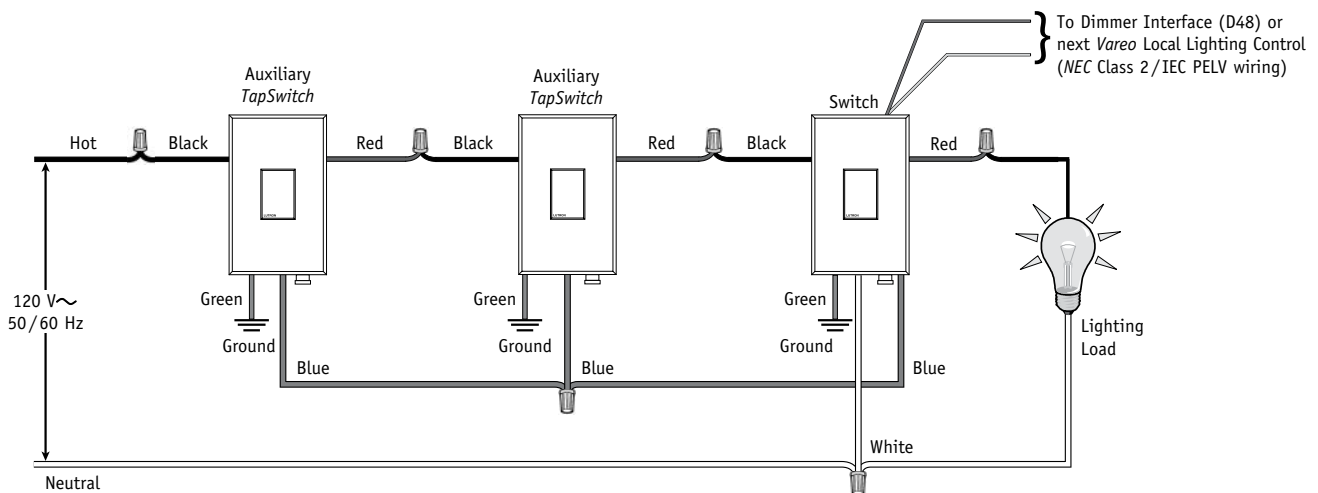


Figure 15 – HWV-100NS Multi-Location with Neutral Wiring Diagram (Control Load Side)

FRONT ROOM

Wired Vareo® Local Lighting Controls (cont.)

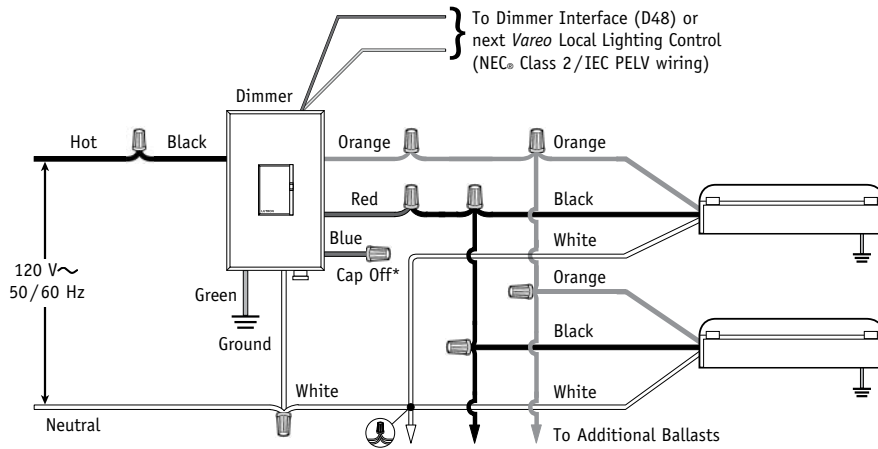


Figure 16 – HWV-FDB-8A Single-Location Wiring Diagram

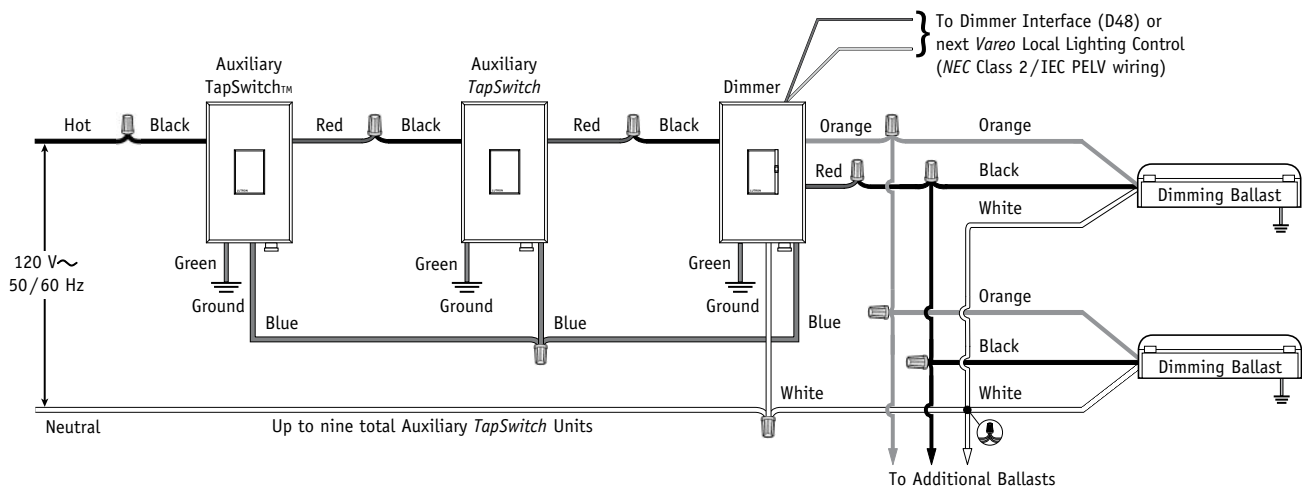


Figure 17 – HWV-FDB-8A Multi-Location Wiring Diagram

* When using controls in single-location installations, cut off the uninsulated portion of the control's multi-location wire (blue wire) and cap off using one of the provided wire connectors. **DO NOT** connect the blue wire to any other wiring or to ground.

Wired Maestro® Local Controls

4 Series / 8 Series
Local Controls
H48 Bus
Designer-Style

LOCAL CONTROLS

Wired *Maestro* local controls function much like standard dimmers and switches, but can be controlled as part of the whole-house lighting control system. Local lighting controls are useful in locations where single circuits of lighting need to be dimmed or switched. Local fan-speed controls are useful in locations where control of a single ceiling paddle fan is needed. Wired *Maestro* dimmers incorporate advanced features such as fade-on/fade-off, long fade-to-off, and rapid full-on. In addition, the local control may be programmed similar to a keypad button press with single and double tap functions, turning multiple lights on or off. Wired *Maestro* local controls include a Front Accessible Safety Switch (FASS™) for safe lamp replacement. HomeWorks® wired *Maestro* local controls install in single-pole, 3-way, or 4-way applications.

ACCESSORY CONTROLS

Remote dimmers (HD-RD) and remote switches (HD-RS) are used in conjunction with a wired *Maestro* local control to provide 3-way and 4-way control. Use up to nine HD-RD with a single wired *Maestro* dimmer/fan-speed control for dimming/speed control from up to ten locations. Use up to nine HD-RS with a single wired *Maestro* switch for switching from up to ten locations.

FINISHES AND COLORS

Maestro local controls are available in Designer Gloss and Satin Colors® matte finishes. See Appendix F: Colors & Finishes.

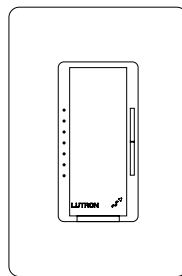
GANGING MAESTRO CONTROLS

Install multiple *Maestro* controls together (mounted side-by-side behind a single faceplate) in a multi-gang wallbox for a cleaner look. The load rating for each control must be derated when ganging with other controls.

For ganging and derating information, see Table 1 pg. 64.

INSTALLATION NOTE

Use 3½ inch (89 mm) deep wallboxes for ease of installation.

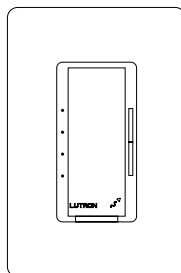


DIMMING CONTROL LOAD RATINGS

HWD-6D and HWD-6ND dim a single incandescent or magnetic low-voltage circuit up to 600 W/VA from one location. HWD-6ND requires a neutral wire connection.

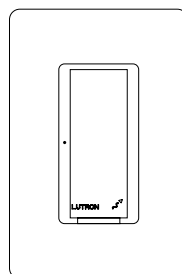
HWD-10D and HWD-10ND dim a single incandescent or magnetic low-voltage circuit up to 1000 W/VA from one location. HWD-10ND requires a neutral wire connection.

HWD-5NE dims a single incandescent or electronic low-voltage circuit up to 500 W from one location. HWD-5NE requires a neutral wire connection.



FAN-SPEED CONTROL (AVAILABLE 3Q08) LOAD RATINGS

HWD-2ANF controls a single ceiling fan up to 2 A from one location. HWD-2ANF requires a neutral wire connection.



SWITCHING CONTROL LOAD RATINGS

HWD-8ANS switches a single circuit of any lighting load type up to 8 A (or a motor load up to 5.8 A [1/4 HP]) from one location. HWD-8ANS requires a neutral wire connection.

Note: For wattages exceeding those listed above or for load types other than those listed, a neutral wire dimmer (HWD-6ND) and a power booster or interface is required. See pg. 107 for more information.

CONNECTION TO H48 DIMMER INTERFACE

All wired *Maestro* local controls must be connected to an H48 dimmer interface. A dimmer interface is available as a stand-alone component (model # HWI-H48) or as an integral part of processors with model numbers containing "H48". Each wired *Maestro* local control communicates with a dimmer interface via a one pair twisted shielded 22 AWG to 18 AWG (0.5 mm² to 1.0 mm²) cable.

Wired Maestro® Local Controls (cont.)

All HomeWorks® Wired Maestro Local Controls

Model Numbers	HWD-6D: 600 W/VA Incandescent/MLV Dimming Control. HWD-6ND: 600 W/VA Incandescent/MLV Dimming Control with Neutral Wire. HWD-10D: 1000 W/VA Incandescent/MLV Dimming Control. HWD-10ND: 1000 W/VA Incandescent/MLV Dimming Control with Neutral Wire. HWD-5NE: 500 W ELV Dimming Control with Neutral Wire. HWD-2ANF: 2 A Fan Speed Control with Neutral Wire. HWD-8ANS: 8 A Switching Control with Neutral Wire. HD-RD: Accessory Control/Remote Dimmer. HD-RS: Accessory Control/Remote Switch.
Input Voltage	120 V \sim 50/60 Hz
Regulatory Approvals	UL, CSA, NOM
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Cooling Method	Passive cooling.
Low-Voltage Wire Type	One pair twisted shielded #18-22 AWG (1.0-0.5 mm ²) NEC® Class 2 (IEC PELV) wiring.
Low-Voltage Wiring Configuration	Daisy-chain, star, T-tap, home run. Link terminator not required. Each <i>Maestro</i> bus may have a max 500 feet (152.5 m) per wire run but may not exceed 1000 feet (305 m) total per bus. Maximum of eight devices per Dimmer Interface bus.
Low-Voltage Connections	Butt-splice (provided). <i>See Fig. 4, pg. 63.</i>
Addressing	Via the <i>HomeWorks</i> software, using unique device serial numbers. Units must be installed prior to addressing. Counts as 1 of 8 addresses on a <i>Maestro</i> bus. The device may be addressed without removing it from the wall.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Air Gap	FASS™ (Front Accessible Service Switch).
Fail-Safe Operation	In the unlikely event that communication with the processor is interrupted, all <i>Maestro</i> Local Controls will still operate, offering local control.
Dimensions	<i>See Fig. 1, pg. 63.</i>
Mounting	Controls mount in standard US wallboxes. For easier installation, Lutron recommends using 3½ in. (89 mm) deep wallboxes.
Ganging	When ganging <i>Maestro</i> Local Controls, it is not necessary to remove side fins. However, the control must still be derated. See Table 1 on pg. 64 for specific derating information. If mounting one control above another, leave at least 4½ in. (11.4 cm) vertical spacing between them.
Auxiliary Controls	Use only Lutron® <i>HomeWorks Maestro</i> Remote Dimmers or Switches (HD-RD or HD-RS); mechanical 3- or 4-way switches will not work. Up to nine <i>HomeWorks Maestro</i> Remote Dimmers or Switches may be connected to the <i>HomeWorks Wired Maestro</i> Dimmer/Switch/Fan Control. Total length of wire used to connect blue terminals (-5NE: blue wire) may be up to 250 feet (76 m).
Shipping Weight	0.6 lb. (.3 kg)

Wired Maestro® Local Controls (cont.)

HWD-6D • 600 W Incandescent/MLV Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen.
Maximum Load	single-gang: 600 W/VA end gang: 500 W/VA middle gang: 400 W/VA
Minimum Load	50 W/VA
Line-Voltage Wiring	See Figs. 7, 9, pg. 65. Standard single-pole, 3-way, and 4-way wiring.

HWD-6ND • 600 W Incandescent/MLV Dimming Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ³ (using ELVI-1000 Interface), Lutron® Tu-Wire Fluorescent Dimming Ballasts, and Lutron Hi-Lume® and ECO-10® Fluorescent Dimming Ballasts (using GRX-FDBI-16A-120 or Hi-Power 2•4•6™) ^{4,5} . Output is compatible with Lutron NGRX-PB-WH and Hi-Power 2•4•6 Power Boosters for applications up to 30,000 W.
Maximum Load	single-gang: 600 W/VA end gang: 500 W/VA middle gang: 400 W/VA
Minimum Load	10 W/VA
Line-Voltage Wiring	See Figs. 8, 10, pg. 65. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HWD-10D • 1000 W Incandescent/MLV Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , and tungsten halogen.
Maximum Load	single-gang: 1000 W/VA end gang: 800 W/VA middle gang: 650 W/VA
Minimum Load	50 W/VA
Line-Voltage Wiring	See Figs. 7, 9, pg. 65. Standard single-pole, 3-way, and 4-way wiring.

Wired Maestro® Local Controls (cont.)

HWD-10ND • 1000 W Incandescent/MLV Dimming Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ³ (using ELVI-1000 Interface), Lutron® Tu-Wire Fluorescent Dimming Ballasts, and Lutron Hi-Lume® and ECO-10® Fluorescent Dimming Ballasts (using GRX-FDBI-16A-120 or Hi-Power 2•4•6™) ^{4,5} . Output is compatible with Lutron NGRX-PB-WH and Hi-Power 2•4•6 Power Boosters for applications up to 30,000 W.
Maximum Load	single-gang: 1000 W/VA end gang: 800 W/VA middle gang: 650 W/VA
Minimum Load	10 W/VA
Line-Voltage Wiring	See Figs. 8, 10, pg. 65. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HWD-2ANF • 2 A Fan Speed Control with Neutral Wire

Load Types ⁶	Single ceiling paddle fan ⁶ .
Maximum Load	single-gang: 2 A end gang: 2 A middle gang: 2 A
Minimum Load	0.08 A
Line-Voltage Wiring	See Figs. 8, 10, pg. 65. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HWD-5NE • 500 W ELV Dimming Control with Neutral Wire

Load Types	Incandescent and electronic low-voltage.
Maximum Load	single-gang: 500 W end gang: 450 W middle gang: 400 W
Minimum Load	40 W
Line-Voltage Wiring	See Figs. 8, 10, pg. 65. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HWD-8ANS • 8 A Switching Control with Neutral Wire

Load Types ¹	All lighting load types, motors.
Maximum Load	single-gang: 8 A lighting, 5.8 A (1/4 HP) motor end gang: 6.5 A lighting, 5.8 A motor middle gang: 5 A lighting, 5 A motor
Minimum Load	10 W/VA
Line-Voltage Wiring	See Figs. 8, 10, pg. 65. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

FRONT ROOM

Wired Maestro® Local Controls (cont.)

HD-RD • 3- or 4-way Remote Dimmer

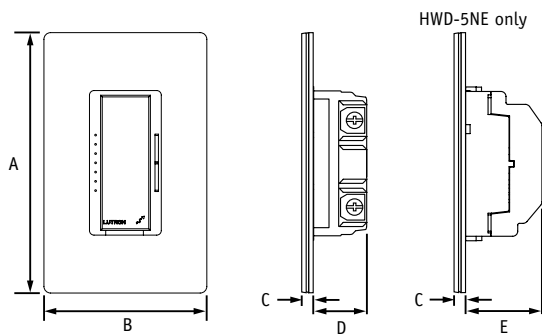
Compatible Controls	HWD-2ANF, HWD-6D, HWD-6ND, HWD-10D, HWD-10ND and HWD-5NE.
Maximum Load	See local control.
Minimum Load	See local control.
Line-Voltage Wiring	See Figs. 9, 10, pg. 65. Standard single-pole, 3-way, and 4-way wiring.

HD-RS • 3- or 4-way Remote Switch

Compatible Controls	HWD-8ANS
Maximum Load	See local lighting control.
Minimum Load	See local lighting control.
Line-Voltage Wiring	See Fig. 10, pg. 65. Standard single-pole, 3-way, and 4-way wiring.

- (1) To reduce the risk of overheating and possibly damaging other equipment, do not install HWD-6D, HWD-6ND, HWD-10D, or HWD-10ND to control receptacles, motor-operated appliances, fluorescent lighting, or electronic low-voltage transformer loads. Do not install HWD-8ANS to control receptacles. Do not install HWD-2ANF to control receptacles, motor-operated appliances (non-ceiling fan), or any type of lighting load.
- (2) Because low-voltage transformers vary widely in efficiency, the input VA of each transformer should be measured directly. If this is not possible, use the maximum lamp wattage figures for the transformer, which have a built-in safety margin.
- (3) For low-voltage applications using the HWD-6D, HWD-6ND, HWD-10D or HWD-10ND, use with core and coil (magnetic) low-voltage transformers only. Do not use any solid-state electronic low-voltage transformers. Operation of a low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Lutron strongly recommends the following:
 - a) Do not operate low-voltage circuits without operative lamps in place.
 - b) Replace burned-out lamps as soon as possible.
 - c) Use transformers that incorporate thermal protection or fuse transformer primary windings to prevent transformer failure due to overcurrent.
- (4) For proper dimming performance, fluorescent lamps must be operated at full intensity for 100 hours prior to dimming.
- (5) To determine the maximum load, add the line currents listed on each ballast connected to this control. The total line current can not exceed the maximum load capacity rating of the control. Warning: Do not exceed a maximum of 20 ballasts per control.
- (6) Fan Speed Control: Use to control a single paddle-type ceiling fan that has a permanent split-capacitor motor. Do not use to control shaded-pole type motors (i.e. exhaust fans) or lighting.

Wired Maestro® Local Controls (cont.)



	Inches	mm
A	4 ¹¹ / ₁₆	119
B	2 ¹⁵ / ₁₆	75
C	5 ¹ / ₁₆	7.6
D	1 ⁷ / ₈	29.8
E	1 ³ / ₈	34.8

Figure 1 – Dimensions

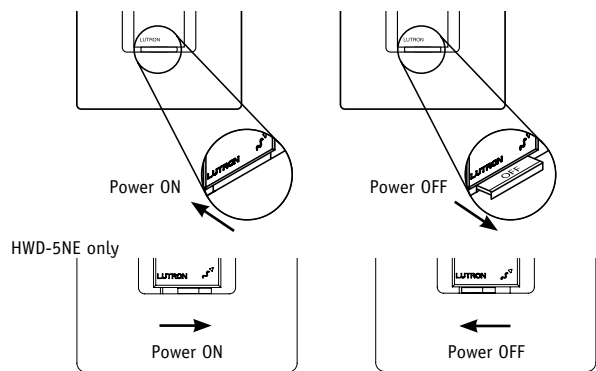


Figure 3 – FASS™ (Front-Accessible Service Switch)

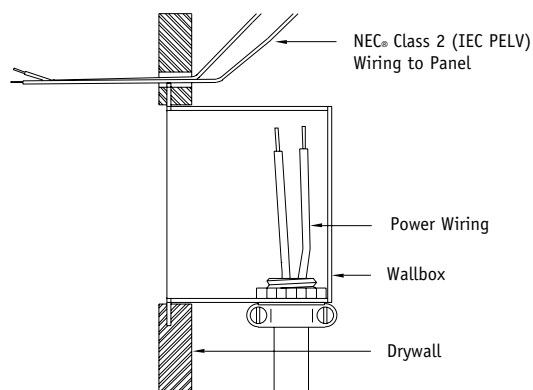


Figure 2 – Wire Installation*

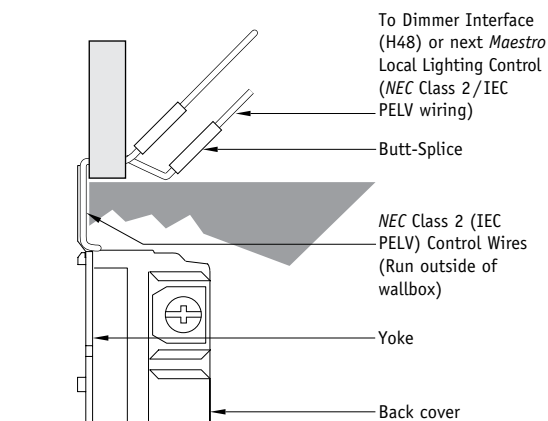


Figure 4 – Class 2 Wire Connection*

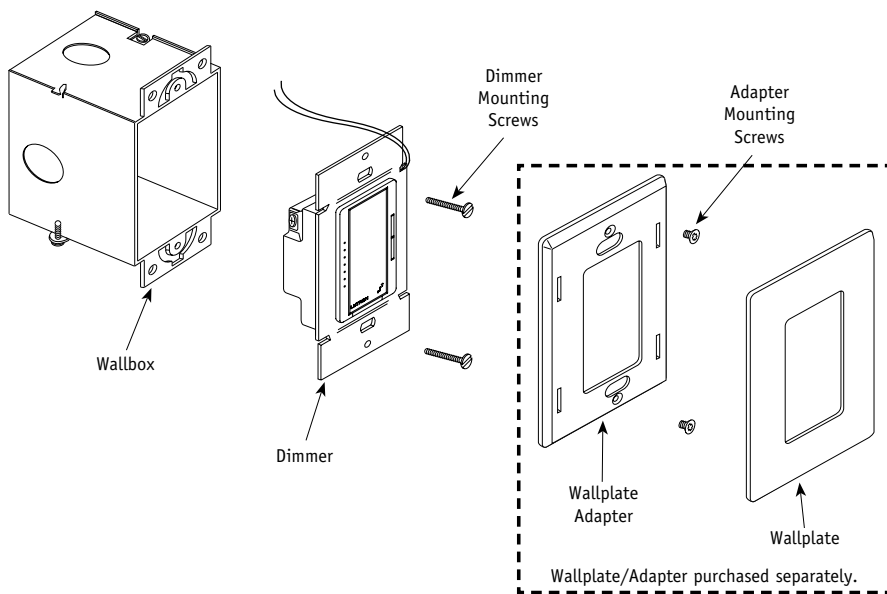


Figure 5 – Mounting and Parts Identification

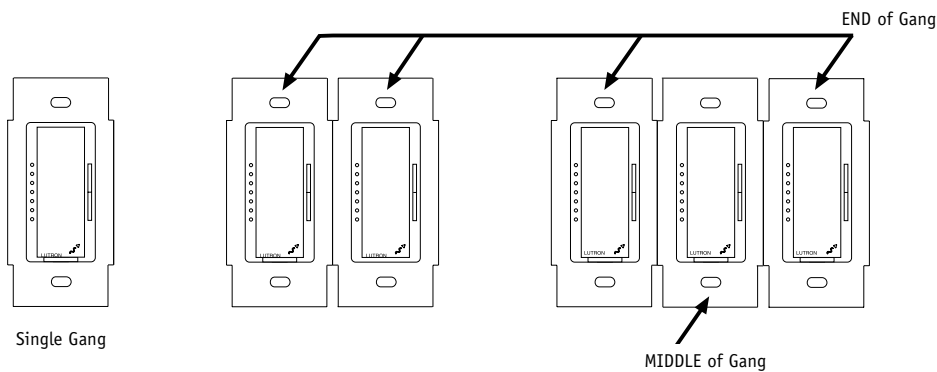
* Consult HomeWorks Application Note #38 for Alternate wiring methods.

Wired Maestro® Local Controls (cont.)

Control	Load Type	Minimum Load	Maximum Load		
		All Cases	Single-Gang	End of Gang	Middle of Gang
HWD-6D	Incandescent	50 W /VA	600 W	500 W	400 W
	Magnetic Low Voltage	50 W /VA	450 W / 600 VA	400 W / 500 VA	300 W / 400 VA
HWD-6ND	Incandescent	10 W /VA	600 W	500 W	400 W
	Magnetic Low Voltage	10 W /VA	450 W / 600 VA	400 W / 500 VA	300 W / 400 VA
HWD-10D	Incandescent	50 W /VA	1000 W	800 W	650 W
	Magnetic Low Voltage	50 W /VA	800 W / 1000 VA	600 W / 800 VA	500 W / 650 VA
HWD-10ND	Incandescent	10 W /VA	1000 W	800 W	650 W
	Magnetic Low Voltage	10 W /VA	800 W / 1000 VA	600 W / 800 VA	500 W / 650 VA
HWD-5NE	Electronic Low Voltage	40 W	500 W	450 W	400 W
HWD-8ANS	Lighting	10 W /VA	8 A	6.5 A	5 A
	Motor	0.083 A	5.8 A (1/4 HP)	5.8 A	5 A
HWD-2ANF	Ceiling Fan	0.083 A	2 A	2 A	2 A
HD-RD	N/A*	N/A*	N/A*	N/A*	N/A*
HD-RS	N/A*	N/A*	N/A*	N/A*	N/A*

* See local control

Table 1 – Minimum and Maximum Load Ratings



-8ANS Only:
-8ANS controls have fins that need to be removed for multigang installations.

Removing Fins

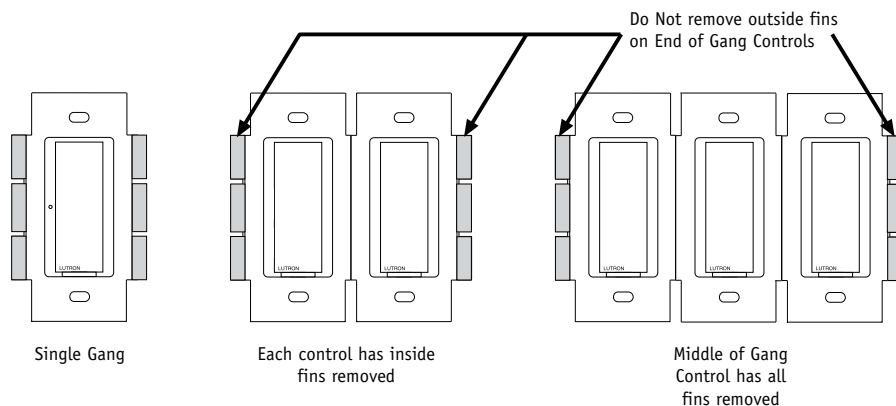
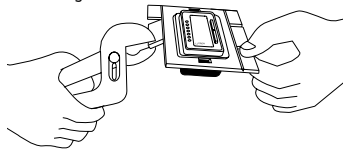


Figure 6 – Ganging Configuration and Derating Information

Wired Maestro® Local Controls (cont.)

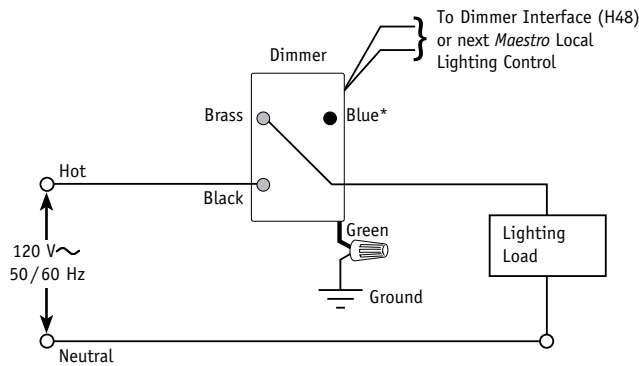


Figure 7 – HWD-6D and HWD-10D Single-Location Wiring Diagram

Terminal Color	Wire Color (-5NE)
Brass	Yellow
Silver	White
Blue	Blue
Black	Black

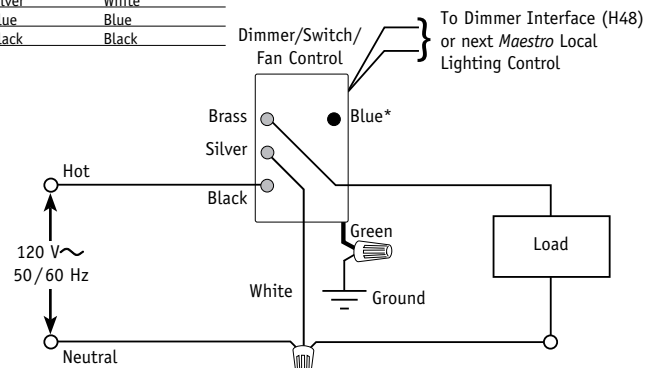


Figure 8 – HWD-2ANF, HWD-6ND, HWD-10ND, HWD-5NE, and HWD-8ANS Single-Location with Neutral Wiring Diagram

* When using controls in single-location installations, tighten the control's blue terminal (-5NE: cap off blue wire). **DO NOT** connect the blue terminal (-5NE: blue wire) to any other wiring or to ground.

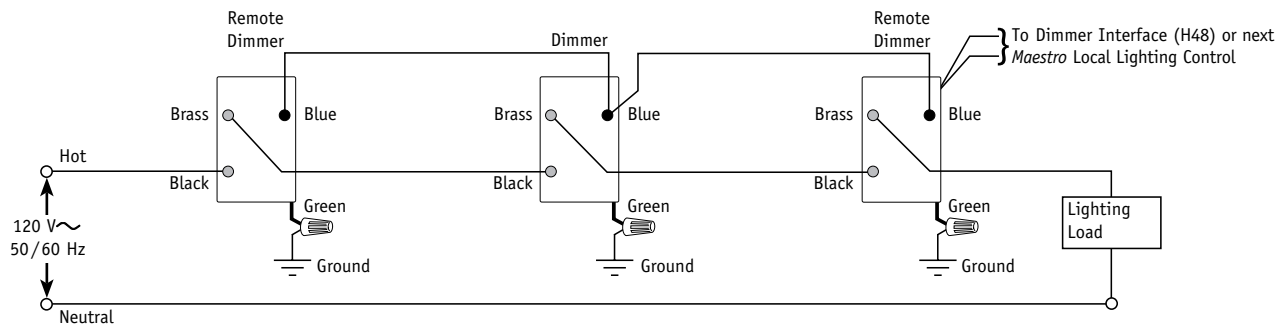


Figure 9 – HWD-6D and HWD-10D Multi-Location Installation¹

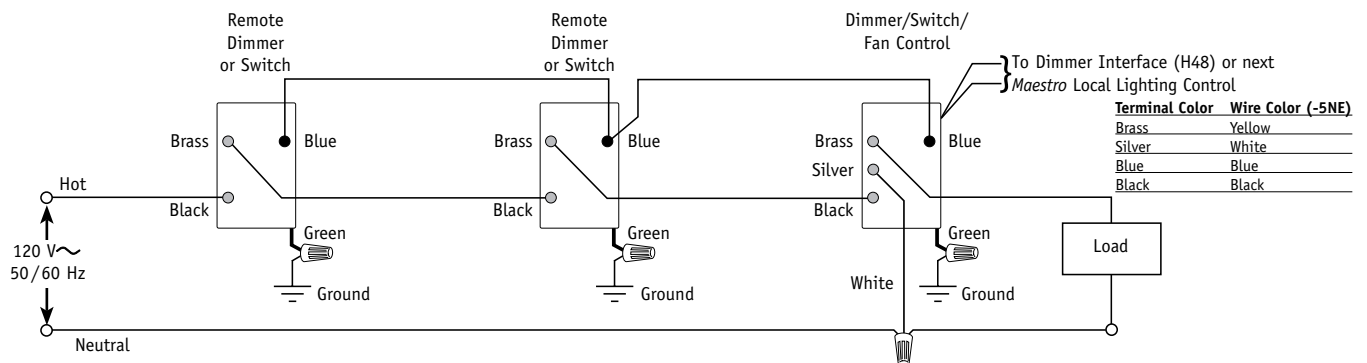


Figure 10 – HWD-2ANF, HWD-6ND, HWD-10ND, HWD-5NE, and HWD-8ANS Multi-Location Installation with Neutral^{1, 2}

¹ Up to nine HomeWorks® Maestro Remote Dimmers or Switches may be connected to the HomeWorks Wired Maestro Dimmer/Switch/Fan Control. Total length of wire used to connect blue terminals (-5NE: blue wire) may be up to 250 feet (76 m).

² Neutral wire Dimmers/Switches/Fan Controls must be connected on the lighting load side of a multi-location installation.

GRAFIK Eye® Multi-Zone Local Lighting Controls

4 Series / 8 Series
Local Lighting Controls
Grafik Eye/WPM Link
Architectural-Style

GRAFIK Eye preset local lighting controls allow you to easily create and recall multiple lighting scenes for the changing activities that occur in a room. Up to 16 preset scenes can be stored in each GRAFIK Eye control, making them ideal for home theaters, living rooms, and dining rooms. GRAFIK Eye preset scenes can be easily adjusted manually at the control at any time. GRAFIK Eye controls are available to dim or switch two, three, four, or six zones of incandescent, magnetic low-voltage, or neon/cold cathode lighting loads.

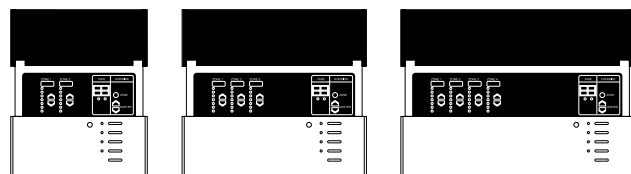
FINISHES AND COLORS

GRAFIK Eye preset local lighting controls are available in Architectural matte finish plastic colors, Architectural metal finishes, Satin Colors®, and select designer gloss colors. Custom paint matching is also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

CONNECTION TO WIRED PROCESSOR

HomeWorks® wired processors have configurable links (see pg. 90 for processor details), each capable of controlling up to eight GRAFIK Eye controls or Wallbox Power Modules. This connection requires two pair — one pair #18 AWG (1.0 mm²), one pair #18-22 AWG (1.0-0.5 mm²) twisted shielded — NEC® Class 2 (IEC PELV) wire. Lutron® wire model # GRX-CBL-346S-500 may be used. The maximum cable length is 2000 feet (610 m), and this link must be wired in a daisy-chain configuration.

INSTALLATION NOTES

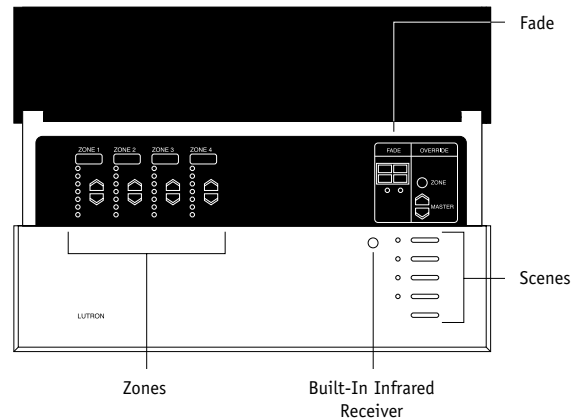


2-Zone
2-gang
US wallbox

3-Zone
3-gang
US wallbox

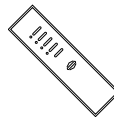
**4-Zone (pictured)
and 6-Zone**
4-gang
US wallbox

Note: Use 3½ inch (89 mm) deep masonry wallboxes for ease of installation of GRAFIK Eye Control Units. See pg. 68.

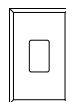


GRAFIK Eye Preset Local Lighting Control (GRX-IA-4 shown)

ACCESSORY CONTROLS



Hand-held Infrared Remote Control Transmitters
GRX-IT-WH, GRX-8IT-WH (White Only)
Controls four (or eight) scenes plus master raise/lower and off. Recalls or fine tunes light levels. Turns lighting on or off.



On/Off Doorway Control
NTGRX-1S
Switches lighting on or off from a remote wall location. Line/main voltage control (functions as 3-way switch).

GRAFIK Eye® Multi-Zone Local Lighting Controls (cont.)

Control Units

Model Numbers	GRX-IA-2, GRX-IA-3, GRX-IA-4, GRX-IA-6: Allows scene and zone control from HomeWorks®. GRX-MR-2, GRX-MR-3, GRX-MR-4, GRX-MR-6: Allows scene control from HomeWorks.
Input Voltage	120 V \sim , 50/60 Hz
Regulatory Approvals	UL, CSA, NOM
Load Types	Incandescent, magnetic low-voltage, neon/cold cathode, Lutron® Tu-Wire Fluorescent Dimming Ballasts, Lutron Hi-Lume® and ECO-10® Fluorescent Dimming Ballasts (requires GRX-FDBI-16A-120 or Hi-Power 2•4•6™), electronic low-voltage (requires ELVI-1000 or Hi-Power 2•4•6). Outputs are compatible with Lutron® NGRX-PB-WH, and Hi-Power 2•4•6 Power Boosters for higher wattage applications.
Maximum Load	2-zone: 1200 W/VA per control unit, 800 W/VA per zone. 3-zone: 1500 W/VA per control unit, 800 W/VA per zone. 4-zone: 1920 W/VA per control unit, 800 W/VA per zone. 6-zone: 1920 W/VA per control unit, 800 W/VA per zone.
Minimum Load	25 W/VA per zone.
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Cooling Method	Passive cooling.
Line-Voltage Connections	See Fig. 4, pg. 69.
Low-Voltage Wire Type	Two pair [one pair #18 AWG (1.0 mm ²), one pair #18-22 AWG (1.0-0.5 mm ²) twisted shielded] NEC® Class 2 (IEC PELV) wire. Lutron wire model # GRX-CBL-346S-500 may be used.
Low-Voltage Configuration	Maximum of 2000 feet (610 m) total. Must be wired in a daisy-chain configuration. See Fig. 5, pg. 69.
Low-Voltage Wiring Connection	One 4-pin removable terminal block. Each of the four terminals will accept up to two #18 AWG (1.0 mm ²) wires. Do not connect Terminal 2 on processor communication link connector.
Addressing	Via 7-segment display. Use 1 of 8 addresses on a GRAFIK Eye/WPM link.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Air Gap	Provided when all circuits are off.
Fail-Safe Operation	In the unlikely event that communication with the processor is interrupted, all GRAFIK Eye Preset Local Lighting Controls will still operate, offering local control.
Dimensions	See Fig. 1, pg. 68.
Mounting	2-zone: 2-gang US wallbox, 3-zone: 3-gang US wallbox, 4-zone: 4-gang US wallbox, 6-zone: 4-gang US wallbox, 2¾ in. (70 mm) deep minimum, 3½ in. (89 mm) deep recommended for ease of wiring. If mounting one control above another, leave at least 4½ in. (11.4 cm) vertical spacing between them.
Shipping Weight	2 lbs. (0.9 kg)

GRAFIK Eye® Multi-Zone Local Lighting Controls (cont.)

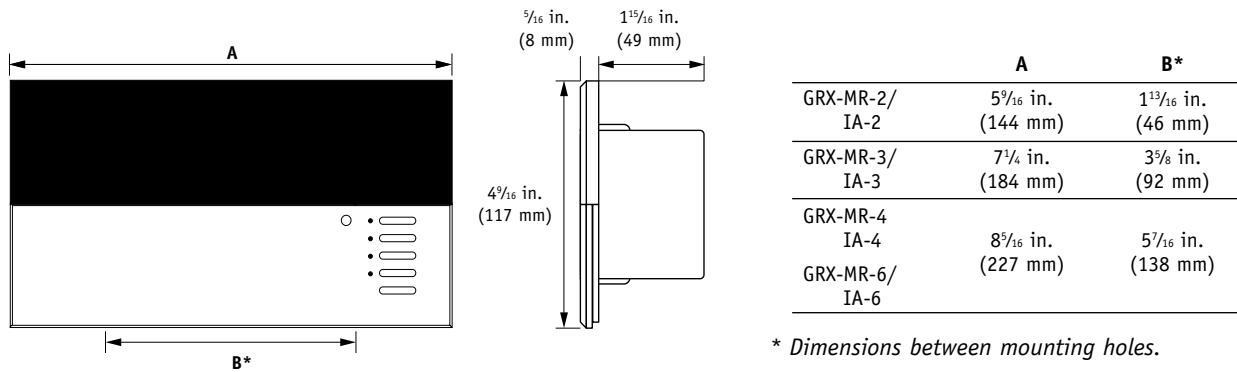


Figure 1 – Front and Side View Dimensions

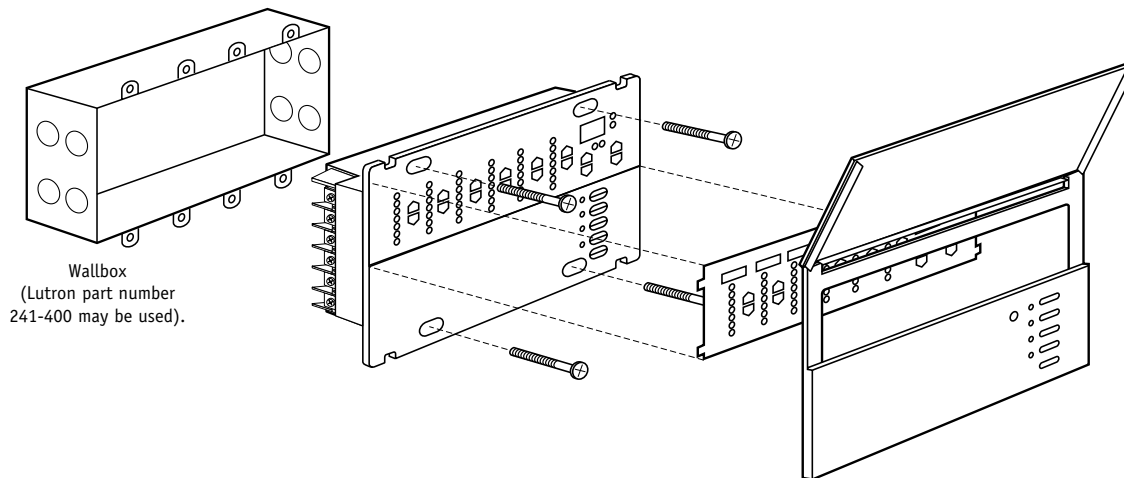


Figure 2 – Mounting

GRAFIK Eye® Multi-Zone Local Lighting Controls (cont.)

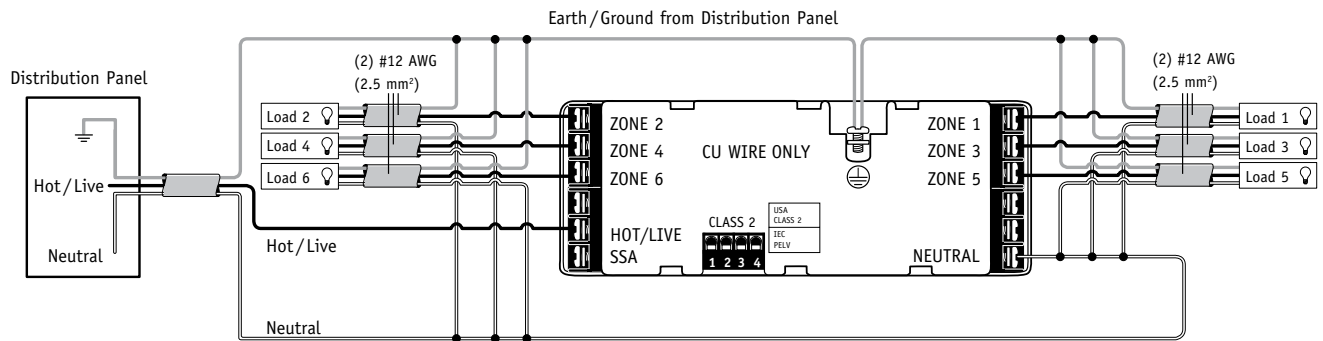
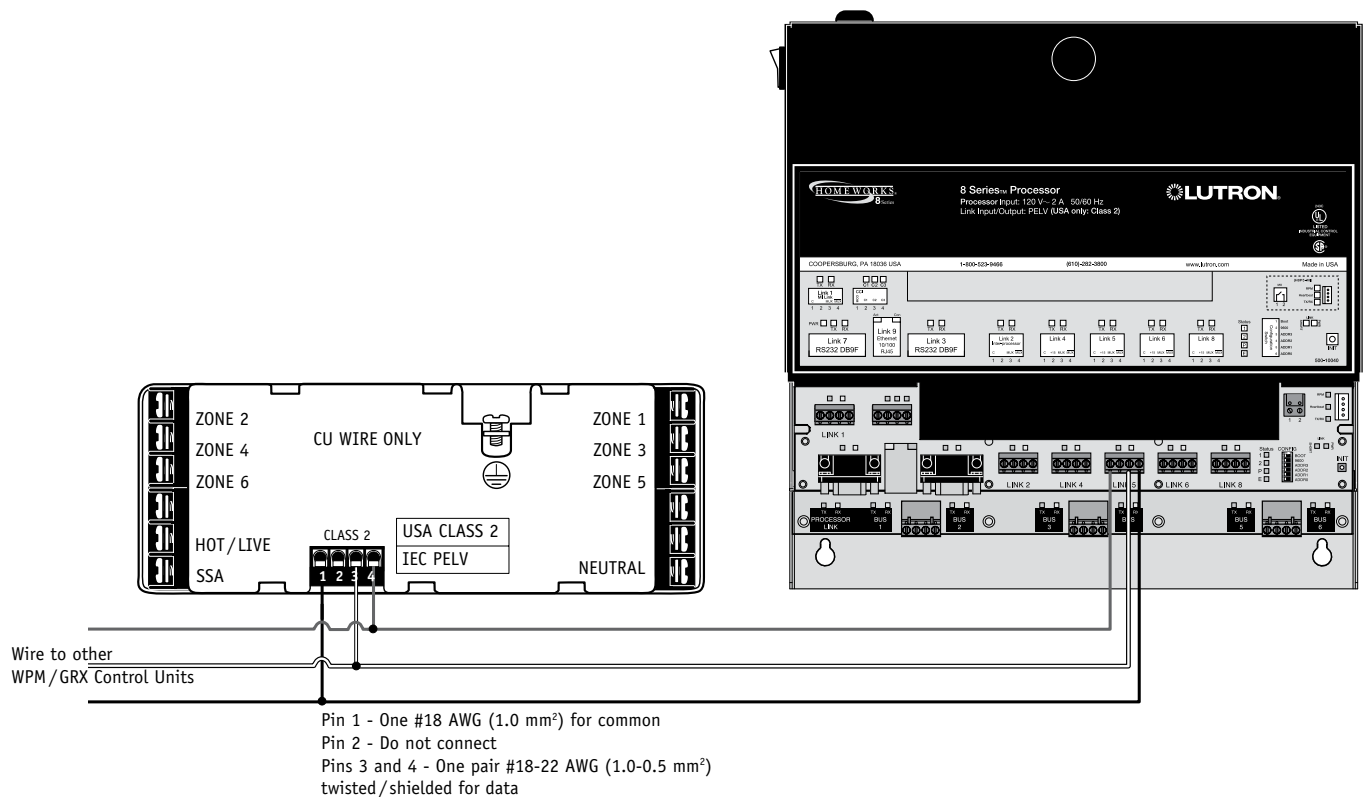


Figure 4 – Line-Voltage Wiring Diagram



NOTE: GRAFIK Eye Control Units can be connected to any of the configurable links.

Figure 5 – Connection to Wired Processor

RF Maestro® Local Controls

Wireless Series
Local Controls
RF Dimmer Link-8.1
Designer-Style

LOCAL CONTROLS

RF *Maestro* local controls function much like standard dimmers and switches, but can be controlled as part of the whole-house lighting control system. Local lighting controls are useful in locations where single circuits of lighting need to be dimmed or switched. Local fan-speed controls are useful in locations where control of a single ceiling paddle fan is needed. RF *Maestro* dimmers incorporate advanced features such as fade-on/fade-off, long fade-off, and rapid full-on. In addition, the local controls may be programmed similar to a keypad button press with single and double tap functions, turning multiple lights on or off. RF *Maestro* local controls include a Front Accessible Service Switch (FASS™) for safe lamp replacement. HomeWorks® RF *Maestro* local controls install in single-pole, 3-way, or 4-way applications.

ACCESSORY CONTROL

Remote dimmers (HD-RD) and remote switches (HD-RS) are used in conjunction with a RF *Maestro* local control to provide 3-way and 4-way control. Use up to nine HD-RD with a single RF *Maestro* dimmer/fan-speed control for dimming/speed control from up to ten locations. Use up to nine HD-RS with a single RF *Maestro* switch for switching from up to ten locations. See pg. 77.

FINISHES AND COLORS

Maestro local controls are available in designer gloss and Satin Colors® matte finishes. See Appendix F: Colors & Finishes.

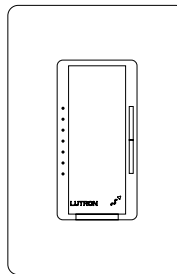
GANGING MAESTRO CONTROLS

Install multiple *Maestro* controls together (mounted side-by-side behind a single faceplate) in a multi-gang wallbox for a cleaner look. The load rating for each control must be derated when ganging with other controls.

For ganging and derating information, see Table 1 pg. 76.

INSTALLATION NOTE

Use 3½ inch (89 mm) deep wallboxes for ease of installation.

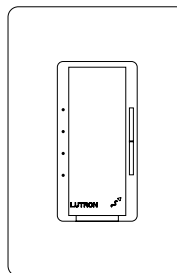


DIMMING CONTROL LOAD RATINGS

HRD-6D and HRD-6ND dim a single incandescent or magnetic low-voltage circuit up to 600 W/VA from one location. HRD-6ND requires a neutral wire connection.

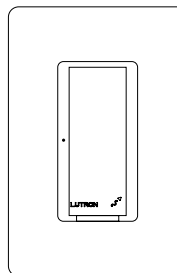
HRD-10D and HRD-10ND dim a single incandescent or magnetic low-voltage circuit up to 1000 W/VA from one location. HRD-10ND requires a neutral wire connection.

HRD-5NE dims a single incandescent or electronic low-voltage circuit up to 500 W from one location. HRD-5NE requires a neutral wire connection.



FAN-SPEED CONTROL LOAD RATINGS

HRD-2ANF controls a single ceiling fan up to 2 A from one location. HRD-2ANF requires a neutral wire connection.



SWITCHING CONTROL LOAD RATINGS

HRD-8ANS switches a single circuit of any lighting load type up to 8 A (or a motor load up to 5.8 A [1/4 HP]) from one location. HRD-8ANS requires a neutral wire connection.


Note: For wattages exceeding those listed above or for load types other than those listed, a neutral wire dimmer (HRD-6ND) and a power booster or interface is required. See pg. 107 for more information.

COMMUNICATION TO PROCESSOR

All RF *Maestro* local lighting controls must be located within 30 feet (9 m) of an RF processor or a hybrid RF/wired repeater. Each HomeWorks RF-capable processor can control up to 64 RF local controls.

RF Maestro® Local Controls (cont.)

All HomeWorks® RF Maestro Local Controls

Model Numbers	HRD-6D: 600 W/VA Incandescent/MLV Dimming Control. HRD-6ND: 600 W/VA Incandescent/MLV Dimming Control with Neutral Wire. HRD-10D: 1000 W/VA Incandescent/MLV Dimming Control. HRD-10ND: 1000 W/VA Incandescent/MLV Dimming Control with Neutral Wire. HRD-5NE: 500 W ELV Dimming Control with Neutral Wire. HRD-2ANF: 2 A Fan Speed Control with Neutral Wire. HRD-8ANS: 8 A Switching Control with Neutral Wire. HD-RD: Accessory Control/Remote Dimmer. HD-RS: Accessory Control/Remote Switch.
Input Voltage	120 V  50/60 Hz
Regulatory Approvals	UL, CSA, NOM, FCC, IC
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Cooling Method	Passive cooling.
Air Gap	FASS™ (Front Accessible Service Switch). <i>See Fig. 2, pg. 75.</i>
Addressing	Via the <i>HomeWorks</i> software, using unique device serial numbers. Units must be installed prior to addressing. Counts as 1 of the 64 dimmer addresses on the RF dimmer link.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Fail-Safe Operation	In the unlikely event that communication with the processor is interrupted, all <i>Maestro</i> local controls will still operate, offering local control.
Dimensions	<i>See Fig. 1, pg. 75.</i>
Mounting	Controls mount in standard US wallboxes. For easier installation, Lutron recommends using 3½" (89 mm) deep wallboxes. If mounting one control above another, leave at least 4½" (11.4 cm) vertical spacing between them. Unit must be placed within 30 feet (9 m) of a hybrid RF/wired repeater or an RF processor.
Ganging	When ganging RF <i>Maestro</i> local controls, it is necessary to derate the control. <i>See Table 1, pg. 76</i> for specific derating information.
Auxiliary Controls	Use only <i>Maestro</i> remote dimmers or switches (HD-RD or HD-RS); mechanical 3- or 4-way switches will not work. Up to nine <i>Maestro</i> remote dimmers or switches may be used with one <i>Maestro</i> local dimming/fan speed or switching control. <i>See pg. 77.</i>
Shipping Weight	0.6 lb. (0.3 kg)

FRONT ROOM

RF Maestro® Local Controls (cont.)

HRD-6D • 600 W Incandescent/MLV Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , and tungsten halogen.
Maximum Load	single-gang: 600 W/VA end gang: 500 W/VA middle gang: 400 W/VA
Minimum Load	50 W/VA
Line-Voltage Wiring	See Figs. 5, 7, pg. 77. Standard single-pole, 3-way, and 4-way wiring.

HRD-6ND • 600 W Incandescent/MLV Dimming Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ³ (using ELVI-1000 Interface), and Lutron® Hi-Lume® and ECO-10® Fluorescent Dimming Ballasts (using GRX-FDBI-16A-120 or Hi-Power 2•4•6™) ^{4,5} . Output is compatible with Lutron NGRX-PB-WH and Hi-Power 2•4•6 Power Boosters for applications up to 30,000 W.
Maximum Load	single-gang: 600 W/VA end gang: 500 W/VA middle gang: 400 W/VA
Minimum Load	10 W/VA
Line-Voltage Wiring	See Figs. 6, 8, pg. 77. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HRD-10D • 1000 W Incandescent/MLV Dimming Control

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , and tungsten halogen.
Maximum Load	single-gang: 1000 W/VA end gang: 800 W/VA middle gang: 650 W/VA
Minimum Load	50 W/VA
Line-Voltage Wiring	See Figs. 5, 7, pg. 77. Standard single-pole, 3-way, and 4-way wiring.

RF Maestro® Local Controls (cont.)

HRD-10ND • 1000 W Incandescent/MLV Dimming Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ^{2,3} , tungsten halogen, electronic low-voltage ³ (using ELVI-1000 Interface), and Lutron® Hi-Lume® and ECO-10® Fluorescent Dimming Ballasts (using GRX-FDBI-16A-120 or Hi-Power 2•4•6™) ^{4,5} . Output is compatible with <i>Lutron</i> NGRX-PB-WH and <i>Hi-Power</i> 2•4•6 Power Boosters for applications up to 30,000 W. See pg. 107.
Maximum Load	single-gang: 1000 W/VA end gang: 800 W/VA middle gang: 650 W/VA
Minimum Load	10 W/VA
Line-Voltage Wiring	See Figs. 6, 8, pg. 77. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HRD-2ANF • 2 A Fan Speed Control with Neutral Wire

Load Types ¹	Single ceiling paddle fan.
Maximum Load	single-gang: 2 A end gang: 2 A middle gang: 2 A
Minimum Load	0.083 A
Line-Voltage Wiring	See Figs. 6, 8, pg. 77. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HRD-5NE • 500 W ELV Dimming Control with Neutral Wire

Load Types	Incandescent and electronic low-voltage.
Maximum Load	single-gang: 500 W end gang: 450 W middle gang: 400 W
Minimum Load	40 W
Line-Voltage Wiring	See Figs. 6, 8, pg. 77. Single-pole, 3-way, and 4-way wiring. Requires a neutral wire connection in the wallbox.

HRD-8ANS • 8 A Switching Control with Neutral Wire

Load Types ¹	Incandescent, magnetic low-voltage ² , electronic low-voltage, fluorescent ³ , and motors.
Maximum Load	single-gang: lighting 8 A motor 5.8 A (1/4 HP) end gang: lighting 6.5 A motor 5.8 A middle gang: lighting 5 A motor 5 A
Minimum Load	lighting 10 W/VA motor 0.083 A
Line-Voltage Wiring	See Figs. 6, 8, pg. 77. Requires a neutral wire connection in the wallbox.

FRONT ROOM

RF Maestro® Local Controls (cont.)

HD-RD • 3- or 4-way Remote Dimmer

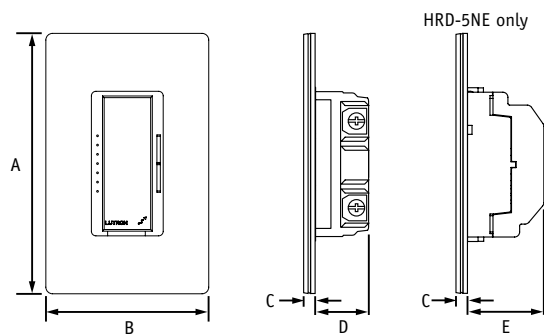
Compatible Controls	HRD-6D, HRD-6ND, HRD-10D, HRD-5NE, HRD-2ANF and HRD-10ND.
Maximum Load	See local control.
Minimum Load	See local control.
Line-Voltage Wiring	See Figs. 7, 8, pg. 77. Standard single-pole, 3-way, and 4-way wiring.

HD-RS • 3- or 4-way Remote Switch

Compatible Controls	HRD-8ANS
Maximum Load	See local control.
Minimum Load	See local control.
Line-Voltage Wiring	See Fig. 8, pg. 77. Standard single-pole, 3-way, and 4-way wiring.

- (1) To reduce the risk of overheating and possibly damaging other equipment, do not install HRD-6D, HRD-6ND, HRD-10D, or HRD-10ND to control receptacles, motor-operated appliances, fluorescent lighting, or electronic low-voltage transformer loads. Do not install HRD-8ANS to control receptacles. Do not install HRD-2ANF to control receptacles, motor-operated appliances (non-ceiling fan), or any type of lighting load.
- (2) Because low-voltage transformers vary widely in efficiency, the input VA of each transformer should be measured directly. If this is not possible, use the maximum lamp wattage figures for the transformer, which have a built-in safety margin.
- (3) For low-voltage applications using the HRD-6D, HRD-6ND, HRD-10D or HRD-10ND, use with core and coil (magnetic) low-voltage transformers only. Do not use any solid-state electronic low-voltage transformers. Operation of a low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Lutron strongly recommends the following:
- Do not operate low-voltage circuits without operative lamps in place.
 - Replace burned-out lamps as soon as possible.
 - Use transformers that incorporate thermal protection or fuse transformer primary windings to prevent transformer failure due to overcurrent.
- (4) For proper dimming performance, fluorescent lamps must be operated at full intensity for 100 hours prior to dimming.
- (5) To determine the maximum load, add the line currents listed on each ballast connected to this control. The total line current can not exceed the maximum load capacity rating of the control. Warning: Do not exceed a maximum of 20 ballasts per control.
- (6) Fan Speed Control: Use to control a single paddle-type ceiling fan that has a permanent split-capacitor motor. Do not use to control shaded-pole type motors (i.e. exhaust fans) or lighting.

RF Maestro® Local Controls (cont.)



	Inches	mm
A	4 ¹ / ₁₆	119
B	2 ¹⁵ / ₁₆	75
C	5 ⁵ / ₁₆	7.6
D	1 ¹ / ₈	35
E	1 ³ / ₈	34.8

Figure 1 – Dimensions

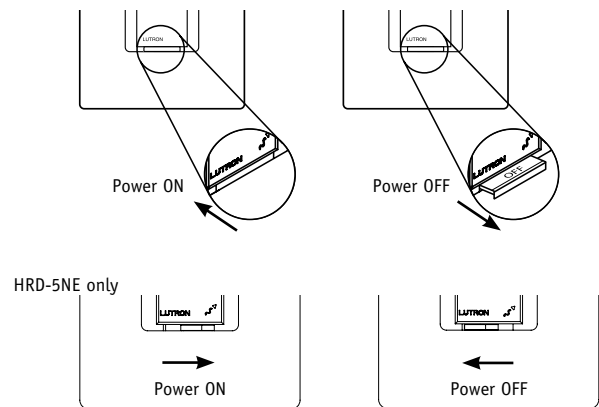


Figure 2 – FASS™ (Front-Accessible Service Switch)

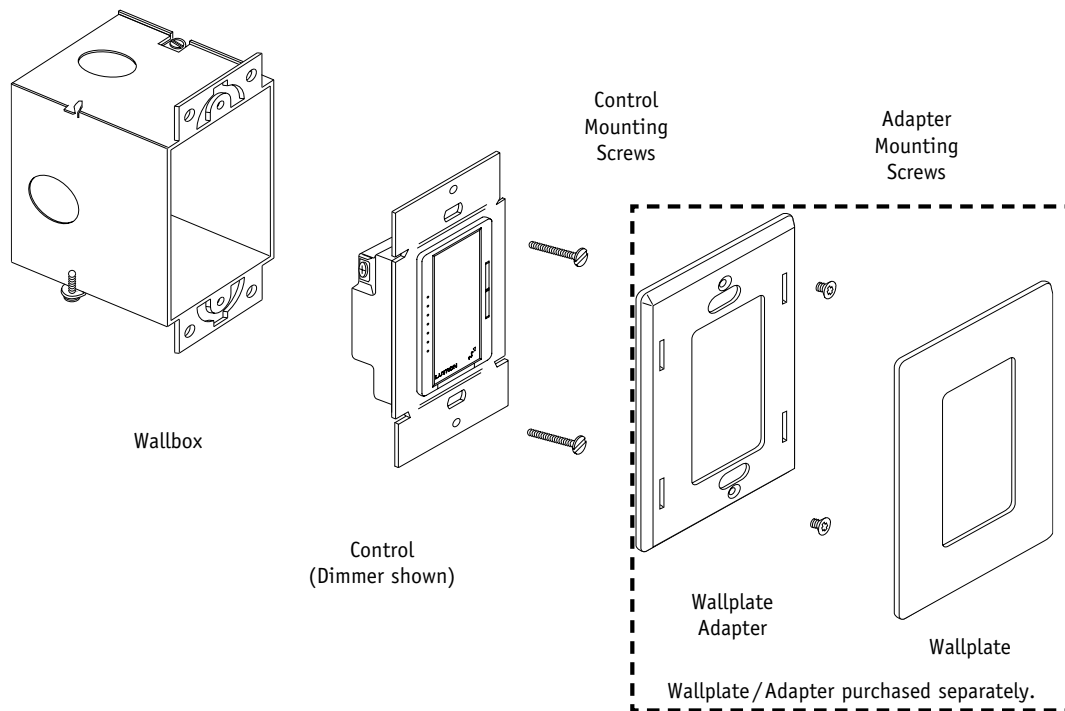


Figure 3 – Mounting and Parts Identification

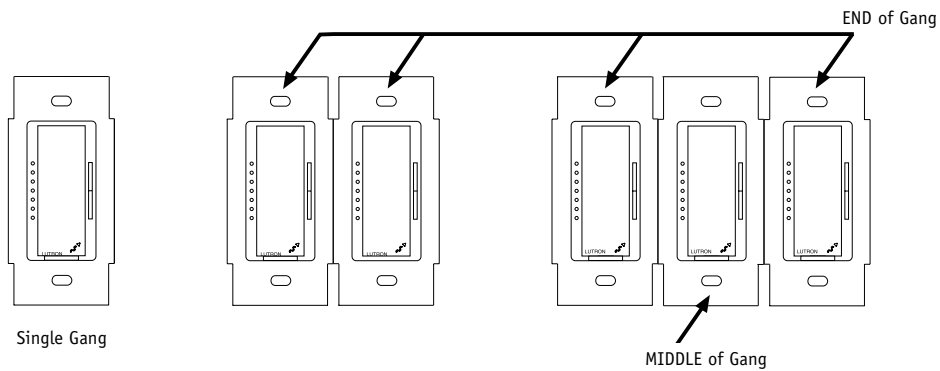
FRONT ROOM

RF Maestro® Local Controls (cont.)

Control	Load Type	Minimum Load	Maximum Load		
		All Cases	Single-Gang	End of Gang	Middle of Gang
HRD-6D	Incandescent	50 W/VA	600 W	500 W	400 W
	Magnetic Low Voltage	50 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA
HRD-6ND	Incandescent	10 W/VA	600 W	500 W	400 W
	Magnetic Low Voltage	10 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA
HRD-10D	Incandescent	50 W/VA	1000 W	800 W	650 W
	Magnetic Low Voltage	50 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA
HRD-10ND	Incandescent	10 W/VA	1000 W	800 W	650 W
	Magnetic Low Voltage	10 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA
HRD-5NE	Electronic Low Voltage	40 W	500 W	450 W	400 W
HRD-8ANS	Lighting	10 W/VA	8 A	6.5 A	5 A
	Motor	0.083 A	5.8 A (1/4 HP)	5.8 A	5 A
HRD-2ANF	Ceiling Fan	0.083 A	2 A	2 A	2 A
HD-RD	N/A*	N/A*	N/A*	N/A*	N/A*
HD-RS	N/A*	N/A*	N/A*	N/A*	N/A*

* See local control

Table 1 – Minimum and Maximum Load Ratings



-8ANS Only:
-8ANS controls have fins that need to be removed for multigang installations.

Removing Fins

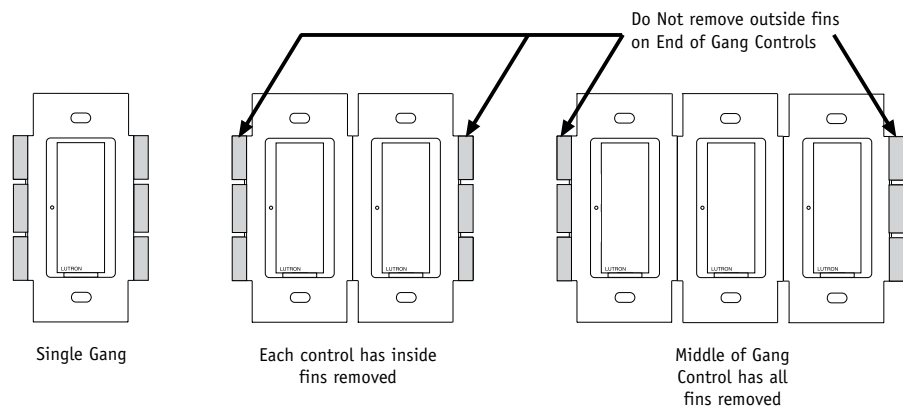
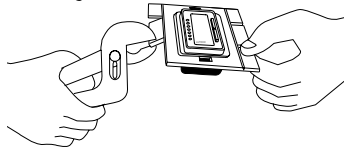


Figure 4 – Ganging Configuration and Derating Information

RF Maestro® Local Controls (cont.)

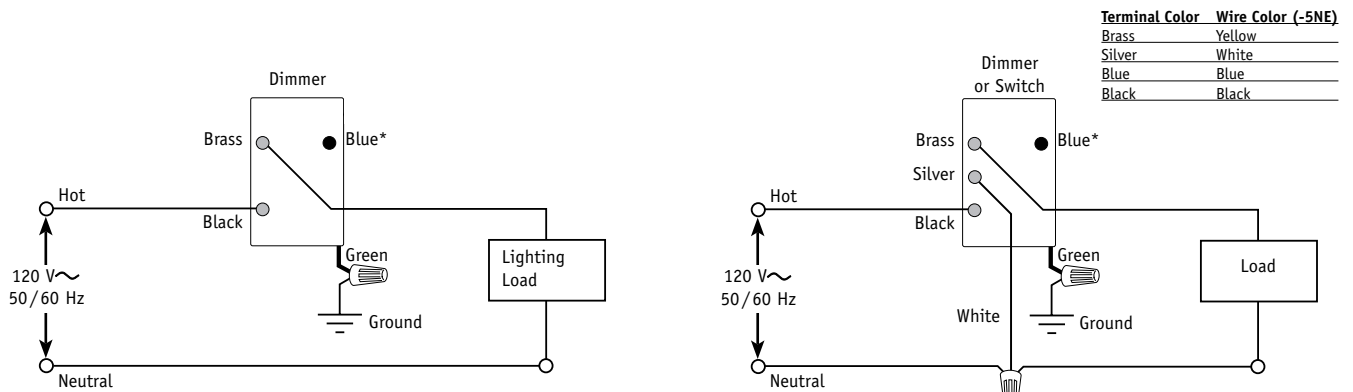


Figure 5 – HRD-6D and HRD-10D Single-Location Wiring Diagram

Figure 6 – HRD-2ANF, HRD-6ND, HRD-10ND, HRD-5NE, and HRD-8ANS Single-Location with Neutral Wiring Diagram

* When using controls in single-location installations, tighten the control's blue terminal (-5NE: cap off blue wire). **DO NOT** connect the blue terminal (-5NE: blue wire) to any other wiring or to ground.

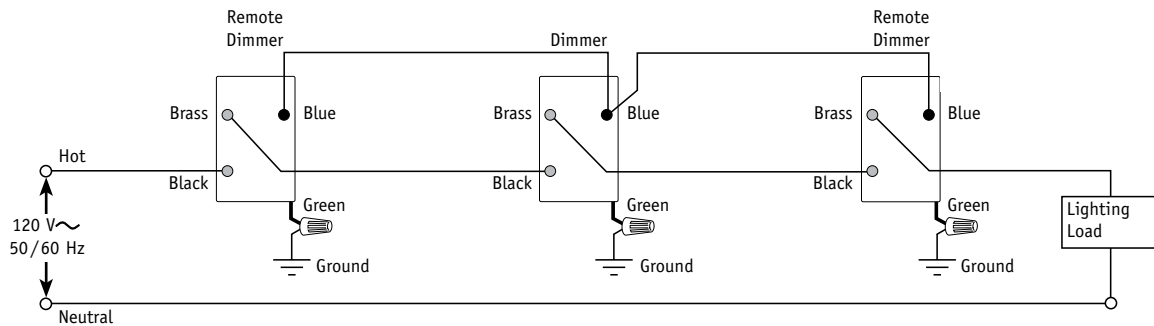


Figure 7 – HRD-6D and HRD-10D Multi-Location Installation¹

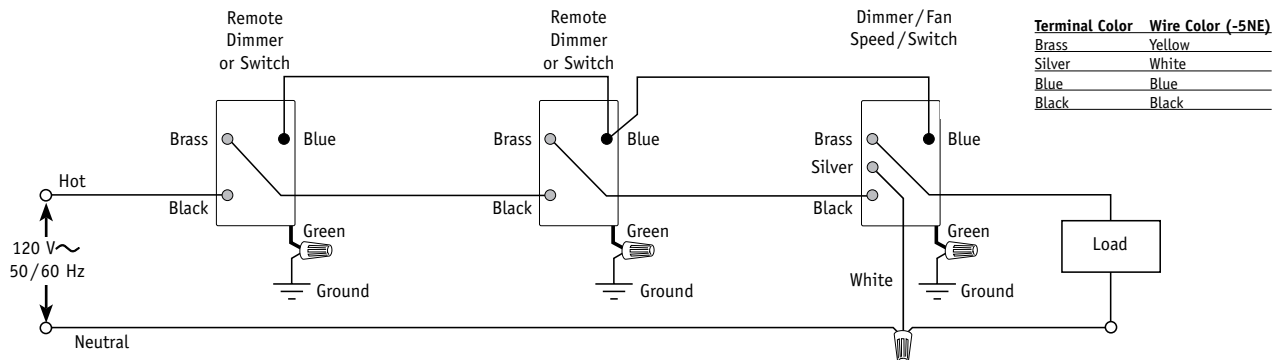


Figure 8 – HRD-2ANF, HRD-6ND, HRD-10ND, HRD-5NE, and HRD-8ANS Multi-Location Installation with Neutral^{1,2}

¹ Up to nine HomeWorks® Maestro Remote Dimmers or Switches may be connected to the HomeWorks RF Maestro Dimmer or Switch. Total length of wire used to connect blue terminals (-5NE: blue wire) may be up to 250 feet (76 m).

² Neutral wire Dimmers/Fan Speed Controls/Switches must be connected on the lighting load side of a multi-location installation.

RF Lamp Dimmer

Wireless Series
Local Lighting Controls
RF Dimmer Link-8.1
Tabletop

RF LAMP DIMMER **(MODEL # HRT-3LD-XX)**

HomeWorks® RF lamp dimmers allow table and floor lamps to be included in the *HomeWorks* lighting control system. Each RF lamp dimmer controls one table or floor lamp with simple and intuitive buttons for on/off and raise/lower. Simple to install, RF lamp dimmers are plugged into any standard wall outlet. Built-in intelligence allows each RF lamp dimmer to be controlled from the *HomeWorks* keypad in the home, as well as from touchscreens, universal remotes, and home automation controls.

RF lamp dimmers incorporate advanced features such as fade-on/fade-off, long fade-to-off, and rapid full-on. In addition, the local control may be programmed similar to a keypad button press with single and double tap functions, turning multiple lights on or off. RF lamp dimmers may be used in any system design with RF capability.

FINISHES AND COLORS

RF lamp dimmers are available in Snow (SW) and Midnight (MN).

DIMMING CONTROL LOAD RATINGS

HRT-3LD dims a single incandescent or magnetic low-voltage circuit up to 300 W/VA.

COMMUNICATION TO PROCESSOR

The RF lamp dimmers must be located within 30 feet (9 m) of an RF processor or a hybrid repeater. Each *HomeWorks* processor can control up to 64 RF local controls.



**RF Lamp Dimmer
(HRT-3LD)**

RF Lamp Dimmer (cont.)

Model Number	HRT-3LD: Lamp dimming control.
Input Voltage	120 V \sim 50/60 Hz
Regulatory Approvals	UL, CSA, NOM, FCC, IC
Load Types	Incandescent, magnetic low-voltage ^{1,2} , tungsten halogen.
Maximum Load	300 W/VA
Minimum Load	10 W/VA
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Addressing	Via the HomeWorks® software, using unique device serial numbers. Units must be installed prior to addressing. Counts as 1 of the 64 dimmer addresses on the RF link.
Diagnostics	LEDs provide diagnostics for troubleshooting.
ESD Protection	Meets or exceeds the IEC 61000-4-2 standard.
Surge Protection	Meets or exceeds ANSI/IEEE standard c62.41.
Fail-Safe Operation	In the unlikely event that communication with the processor is interrupted, all Maestro® local controls will still operate, offering local control.
Dimensions	2 ¹⁵ / ₁₆ in (75 mm) x 4 ¹¹ / ₁₆ in (119 mm) x 1 ⁵ / ₁₆ in (24 mm) See Fig. 1 below.
Shipping Weight	0.75 lbs. (0.34 kg)

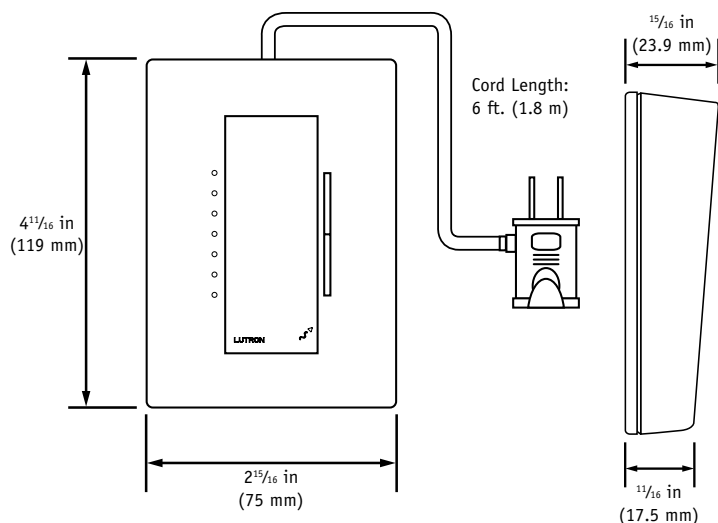


Figure 1 – Dimensions

Plug lamp cord into back of RF Lamp dimmer plug. Plug RF lamp dimmer plug into any standard wall outlet.

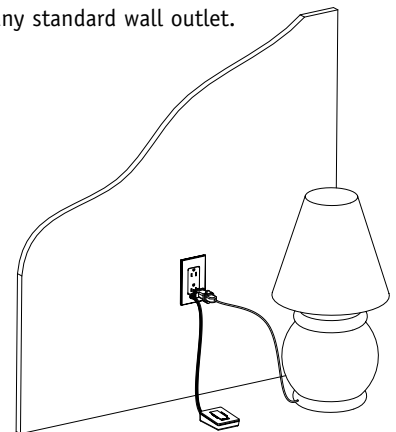


Figure 2 – Installation

- (1) Because low-voltage transformers vary widely in efficiency, the input VA of each transformer should be measured directly. If this is not possible, use the maximum lamp wattage figures, which have a built-in safety margin.
- (2) For low-voltage applications using the HRT-3LD use with core and coil (magnetic) low-voltage transformers only. Do not use any solid-state electronic low-voltage transformers. Operation of a low-voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Lutron strongly recommends the following:
 - a) Do not operate low-voltage circuits without operative lamps in place.
 - b) Replace burned-out lamps as soon as possible.
 - c) Use transformers that incorporate thermal protection or fuse transformer primary windings to prevent transformer failure due to overcurrent.

Receptacles and Plug for Dimming Use

4 / 8 / Wireless Series
Accessories
N/A
Architectural & Designer-Style

The receptacles and plug for dimming use allow lamps to be dimmed by HomeWorks® system dimming controls.

DIMMING RECEPTACLES

Dimming receptacles work just like standard receptacles, but are designed to reject standard plugs. Lutron dimming receptacles will only accept a *Lutron* dimmable lamp plug. By accepting only the special dimmable plugs, these receptacles are certified to be controlled by a dimmer or dimming module. Duplex dimming receptacles denoted by DFDU, have two dimming receptacles. Half dimming receptacles, denoted by HFDU, have one dimming receptacle and one standard receptacle.

DIMMABLE LAMP PLUG (RP-FDU-10-)

Dimmable lamp plugs easily replace the existing plugs on lamps. The plug separates for access to the screw terminals, where the lamp cord is attached after cutting off the original plug.

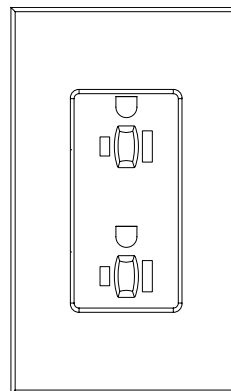
FINISHES AND COLORS

Dimming receptacles are available in Architectural matte finish plastic colors, Architectural metal finishes, and Satin Colors® finishes. Custom paint matching is also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

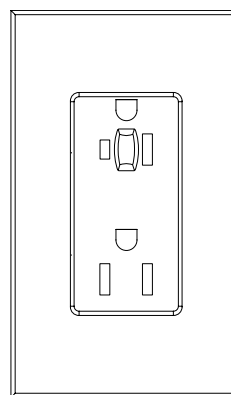
Dimmable lamp plugs are available in White (WH) or Brown (BR).

LOAD RATINGS

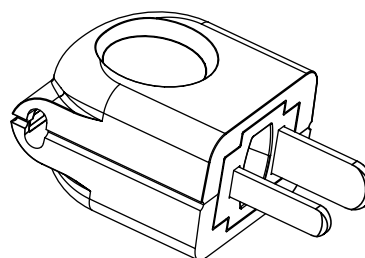
The NTR-15-DFDU is a 15 A receptacle. The NTR-20-DFDU is a 20 A receptacle. The NTR-15-HFDU is a 15 A receptacle. The NTR-20-HFDU is a 20 A receptacle. The maximum load that may be connected to a dimming receptacle is also limited by the dimming control's rating. The RP-FDU-10 is a 10 A plug.



**Duplex Dimming Receptacle
(NTR-15-DFDU-)**



**Half Dimming Receptacle
(NTR-15-HFDU-)**



**Dimmable Lamp Plug
(RP-FDU-10-)**

Receptacles and Plug for Dimming Use (cont.)

Dimming Receptacles

Model Number	NTR-15-DFDU-: 15 A Architectural-style duplex dimming receptacle NTR-20-DFDU-: 20 A Architectural-style duplex dimming receptacle NTR-15-HFDU-: 15 A Architectural-style half dimming receptacle NTR-20-HFDU-: 20 A Architectural-style half dimming receptacle SCR-15-DFDU-: 15 A Designer-style duplex dimming receptacle SCR-20-DFDU-: 20 A Designer-style duplex dimming receptacle SCR-15-DFDU-: 15 A Designer-style half dimming receptacle SCR-20-DFDU-: 20 A Designer-style half dimming receptacle
Input Voltage	125 V \sim 60 Hz
Regulatory Approvals	UL, CSA, NOM
Load Types	Specified by dimming control
Maximum Load	NTR-15-DFDU-: 15 A, not to exceed load rating of controlling device(s) NTR-20-DFDU-: 20 A, not to exceed load rating of controlling device(s) NTR-15-HFDU-: 15 A, not to exceed load rating of controlling device(s) NTR-20-HFDU-: 20 A, not to exceed load rating of controlling device(s) SCR-15-DFDU-: 15 A, not to exceed load rating of controlling device(s) SCR-20-DFDU-: 20 A, not to exceed load rating of controlling device(s) SCR-15-DFDU-: 15 A, not to exceed load rating of controlling device(s) SCR-20-DFDU-: 20 A, not to exceed load rating of controlling device(s)
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Dimensions	2 ²³ / ₃₂ " (69 mm) x 4 ⁹ / ₁₆ " (116 mm) <i>see figure 1, page 86</i>
Shipping Weight	0.2 lbs. (0.1 kg)

Dimmable Lamp Plug

Model Number	RP-FDU-10-: Lamp Plug for dimming use
Input Voltage	125 V \sim 60 Hz
Regulatory Approvals	UL, CSA, NOM
Load Types	Specified by dimming control
Maximum Load	10 A
Environment	Ambient operating temperature: 0 °C to 40 °C, 32 °F to 104 °F Ambient operating humidity: 0-90% humidity, non-condensing. Indoor use only.
Dimensions	<i>See figure 2, page 86</i>
Shipping Weight	0.1 lb. (0.05 kg)

Receptacles and Plug for Dimming Use (cont.)

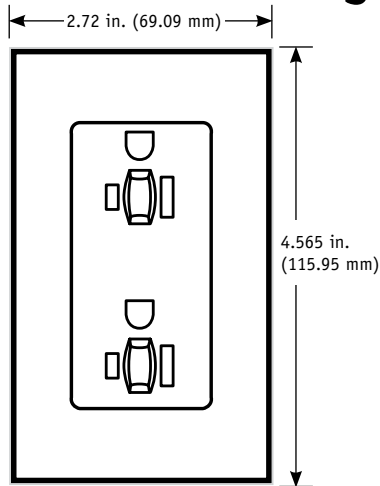


Figure 1 – Receptacle Dimensions

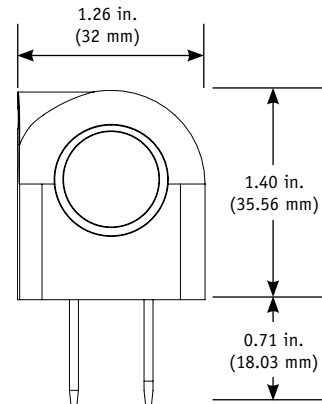


Figure 2 – Plug Dimensions

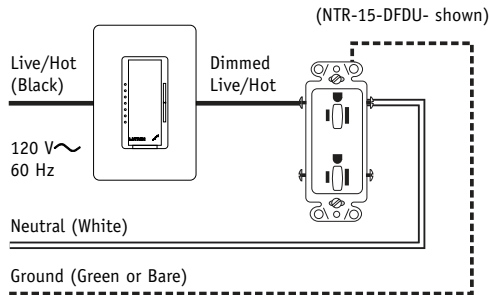


Figure 3 – Duplex Receptacle Wiring (Outlets controlled together)

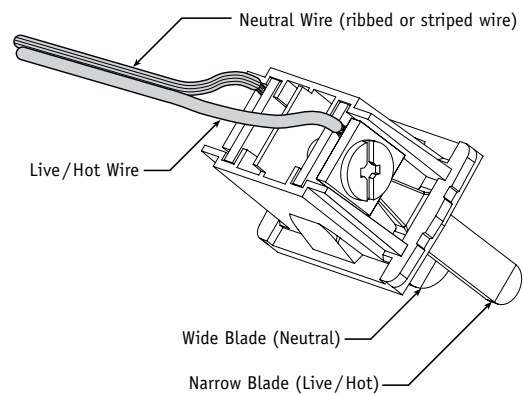
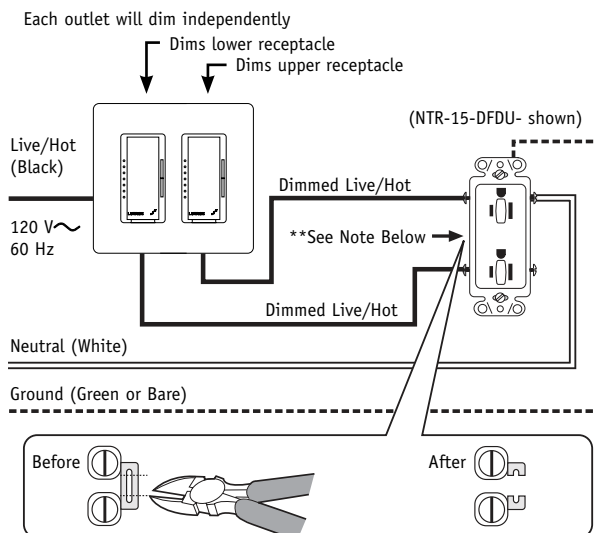


Figure 4 – Plug Wiring



**** NOTE:** To control each section of a duplex receptacle independently, cut off the connecting link with a wire cutter.

Figure 5 – Receptacle Wiring (Duplex Outlets controlled independently or Half-Dimming)

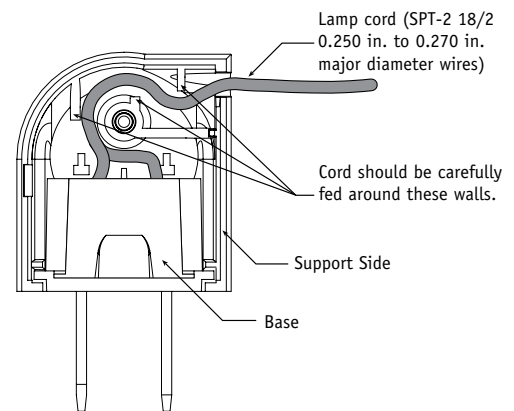


Figure 6 – Plug Assembly

FRONT ROOM

Architectural-style Coordinating Accessories

Switches



Model: NT-1PS-XX
Description: 20 A 120/277 V \sim , single-pole

Model: NT-3PS-XX
Description: 20 A 120/277 V \sim , 3-way

Model: NT-4PS-XX
Description: 20 A 120/277 V \sim , 4-way

Receptacles



Model: NTR-15-XX
Description: 15 A 125 V \sim

Model: NTR-20-XX
Description: 20 A 125 V \sim

GFCI Receptacles



Model: NTR-15-GFCI-XX
Description: 15 A 125 V \sim

Model: NTR-20-GFCI-XX
Description: 20 A 125 V \sim

Isolated Ground Receptacles¹



Model: NTR-15-IG-OR-XX
Description: 15 A 125 V \sim

Model: NTR-20-IG-OR-XX
Description: 20 A 125 V \sim

Cable TV Jack



Model: NT-CJ-XX
Description: F-style, 75-0hm

Telephone Jacks



Model: NT-PJ-XX
Description: Single – 6-conductor RJ11



Model: NT-PJ8X2-XX²
Description: Double – 8-conductor RJ45, category 5



Model: NT-PJ8X3-XX²
Description: Triple – 8-conductor RJ45, category 5

Telephone/Cable TV Jack²



Model: NT-PJ8CJ-XX
Description: 8-conductor RJ45, category 5 and F-style, 75-0hm

Multi-Port Frame



Model: NT-6PF-XX
Description: Six-port frame
Compatible with Hubbell Xcelerator™ telephone and data jacks and Hubbell Snap-fit modules including BNC, RCA, S-video, F-type, and fiber optic connectors.

Integrating Multiple Controls



For a seamless look, keypads and Vareo® local lighting controls can be combined behind a common, custom-made wallplate. All Architectural color and finish choices are available for custom wallplates. Custom backbox configurations may be required.

Integrating Other Controls



Other manufacturers' controls can be ganged with HomeWorks® keypads using a custom wallplate. Examples include AMX, Audioaccess®, Elan, Linn, and B&W™. All Architectural color and finish choices are available. Custom backbox configurations may be required. Consult your Lutron Customer Service Representative.

Hubbell Xcelerator is a trademark of Hubbell Premise Wiring.

Audioaccess is a registered trademark of Madrigal Audio Laboratories, Inc.

B&W is a trademark of B&W Loudspeakers Ltd.

¹ The isolated ground receptacle is orange; wallplate is the specified color. Receptacle can be special ordered to match wallplate color. Contact your Lutron Representative or Customer Service.


² Wallplate and insert match specified color. Device (e.g., jack) and device trim are White for Ivory, White, and Beige products; Black for Gray, Brown, Black, custom, and special metal products.


XX= Color Code


Architectural-style Coordinating Accessories (cont.)


HAND-HELD INFRARED TRANSMITTERS


Hand-held Infrared Transmitters select and adjust scenes up to 50 feet (15 m). Use scene selection buttons to select two, four or eight scenes and off (depending on model), and raise/lower buttons to brighten or dim the selected scene. See Appendix C: Infrared (IR) Integration.

- 

1-Button
 Model: SP-HT-WH
 Description: 1-button with raise/lower (White)
- 


2-Button
 Model: SPS-FSIT-RP
 Description: 2-buttons with raise/lower (Royal Plum)
- 


4-Button
 Model: GRX-IT-WH
 Description: 4-buttons with off and raise/lower (White)
- 


4-Button
 Model: SPS-4IT-RP
 Description: 4-buttons with off and raise/lower (Royal Plum)
- 


8-Button
 Model: GRX-8IT-WH
 Description: 8-buttons with off and raise/lower (White)


MULTI-GANG WALLPLATES


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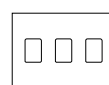
1-Gang
 Model: NT-L-NFB-XX
 Description: 1 Vareo® opening
- 


1-Gang
 Model: NT-R-NFB-XX
 Description: 1 receptacle opening
- 

2-Gang
 Model: VWP-2-XX
 Description: 2 Vareo® openings
- 

Model: VWP-2CR-XX
 Description: 1 Vareo opening, 1 receptacle opening
- 

Model: VWP-2RC-XX
 Description: 1 receptacle opening, 1 Vareo opening
- 

Model: VWP-2R-XX
 Description: 2 receptacle openings
- 

3-Gang
 Model: VWP-3-XX
 Description: 3 Vareo openings
- 

4-Gang
 Model: VWP-4-XX
 Description: 4 openings

FINISHES AND COLORS

All Architectural-style coordinating accessories and wallplates are available in Architectural Matte finish plastic colors and Architectural Metal finishes. Custom paint matching is also available. Please contact Lutron Customer Service or your local Lutron Representative for details and pricing. See Appendix F: Colors & Finishes.

XX= Color Code

Designer-style Coordinating Accessories

Notes: Use the SC prefix when ordering Satin Colors® Accessories.
Use the CA prefix when ordering Claro® Gloss Accessories.

Switches



Model: SC-1PS-XX
CA-1PSH-XX
Description: 15 A 120/277 V~, single-pole

Model: SC-3PS-XX
CA-3PSH-XX
Description: 15 A 120/277 V~, 3-way

Model: SC-4PS-XX
CA-4PSH-XX
Description: 15 A 120/277 V~, 4-way

Receptacle



Model: SCR-15-XX
CAR-15H-XX
Description: 15 A 125 V~

Model: SCR-20-XX
Description: 20 A 125 V~

GFCI Receptacle



Model: SCR-15-GFCI-XX
CAR-15-GFCIH-XX
Description: 15 A 125 V~

Model: SCR-20-GFCI-XX
Description: 20 A 125 V~

Cable TV Jack



Model: SC-CJ-XX
CA-CJH-XX
Description: F-style, 75-ohm coaxial cable

Telephone Jack



Model: SC-PJ-XX
CA-PJH-XX
Description: 6-conductor, RJ11

Multi-Port Frame



Model: SC-6PF-XX
CA-6PF-XX
Description: Six-port frame
Compatible with Hubbell Xcelerator™ telephone and data jacks and Hubbell Snap-fit modules including BNC, RCA, S-video, F-type, and fiber optic connectors.

Integrating Other Controls



Other manufacturers' decorator controls can be ganged with HomeWorks® controls using a Claro or Satin Colors wallplate. All Designer-style color and finish choices are available.

HAND-HELD INFRARED TRANSMITTERS

Hand-held infrared transmitters select and adjust scenes up to 50 feet (15 m). Use scene selection buttons to select two, four or eight scenes and off (depending on model), and raise/lower buttons to brighten or dim the selected scene. See Appendix C: Infrared (IR) Integration.

1-Button



Model: SP-HT-WH
Description: 1-button with raise/lower (White)

2-Button



Model: SPS-FSIT-RP
Description: 2-buttons with raise/lower (Royal Plum)

4-Button



Model: GRX-IT-WH
Description: 4-buttons with off and raise/lower (White)

4-Button



Model: SPS-4IT-RP
Description: 4-buttons with off and raise/lower (Royal Plum)

8-Button



Model: GRX-8IT-WH
Description: 8-buttons with off and raise/lower (White)

Hubbell Xcelerator is a trademark of Hubbell Premise Wiring.

XX= Color Code

Designer-style Coordinating Accessories (cont.)

Note: Use the SC prefix when ordering Satin Colors® Matte Finishes Wallplates.
Use the CW prefix when ordering Claro® Designer Gloss Color Wallplates.

WALLPLATES



1-Gang

Model: SC-1-XX
CW-1-XX

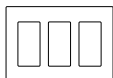
Description: 1-gang screwless wallplate



2-Gang

Model: SC-2-XX
CW-2-XX

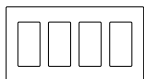
Description: 2-gang screwless wallplate



3-Gang

Model: SC-3-XX
CW-3-XX

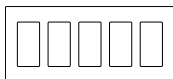
Description: 3-gang screwless wallplate



4-Gang

Model: SC-4-XX
CW-4-XX

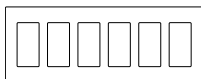
Description: 4-gang screwless wallplate



5-Gang

Model: SC-5-XX
CW-5-XX

Description: 5-gang screwless wallplate



6-Gang

Model: SC-6-XX
CW-6-XX

Description: 6-gang screwless wallplate

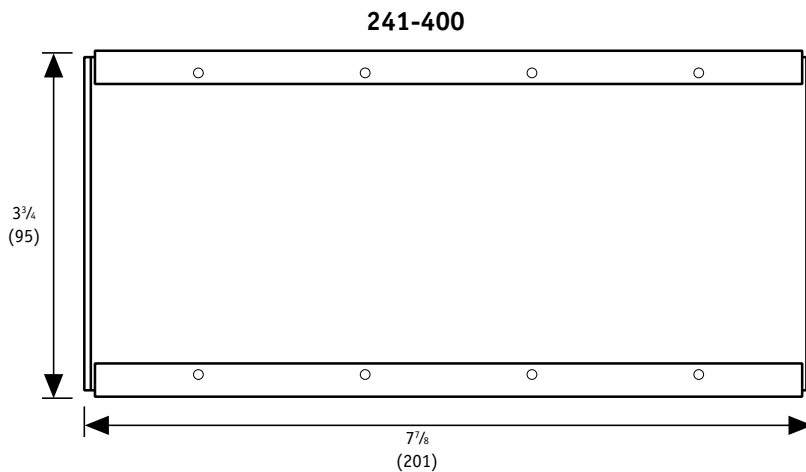
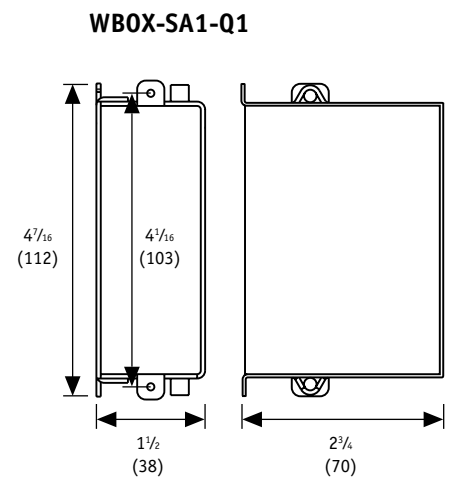
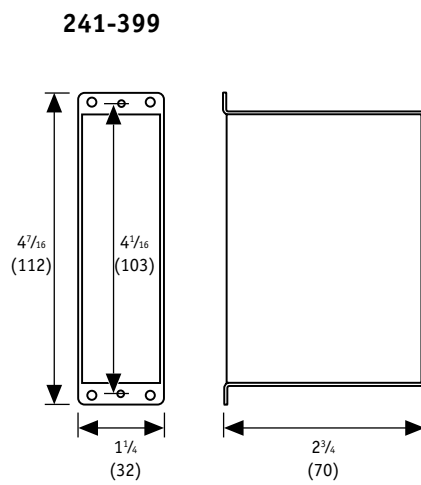
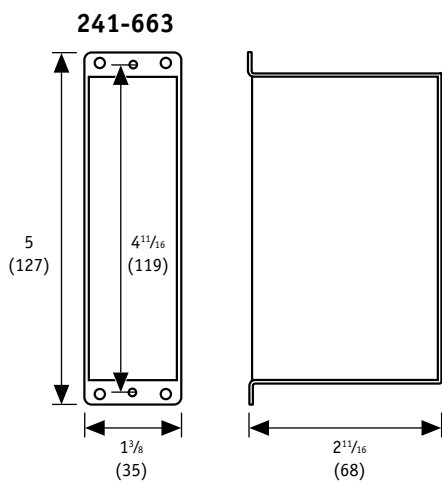
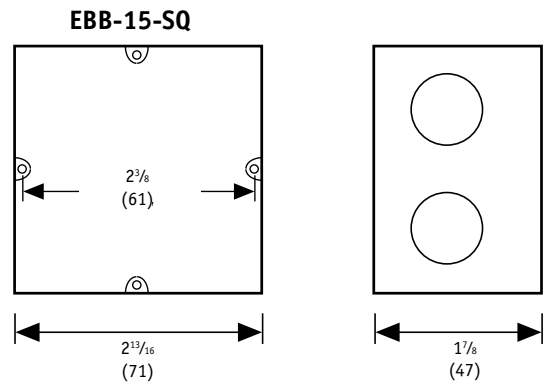
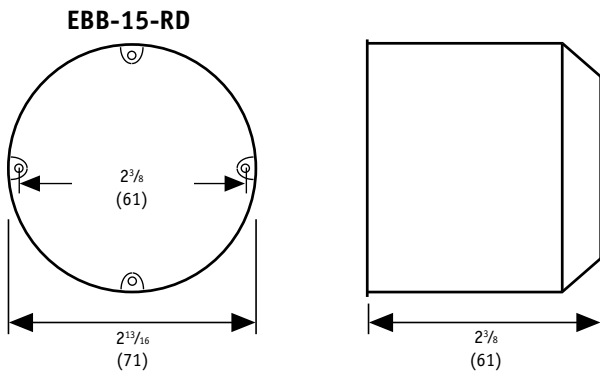
FINISHES AND COLORS

All Designer-style coordinating accessories and wallplates are available in Designer Gloss finishes and *Satin Colors* Matte finishes. See Appendix F: Colors & Finishes.

XX= Color Code

Wallbox Dimensions

Wallbox Dimensions - all dimensions are inches (mm)



FRONT ROOM

