

HomeWorks® QS Designer RF Maestro® Local Controls

HomeWorks® QS RF Maestro® local controls function much like standard dimmers and switches, but can be controlled as part of a 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.

HomeWorks® QS RF Maestro® dimmers incorporate advanced features such as fade on/fade off, delayed long fade to off, and rapid full on.

HomeWorks® QS RF Maestro® local controls include a Front Accessible Service Switch (FASS™) for safe lamp replacement. HomeWorks® QS RF Maestro® local controls install in single-pole or multi-location applications. Remote dimmers/switches are available for multi-location control.

Use Lutron® Designer (Claro® or Satin Colors®) wallplates or designer-style wallplates from other manufacturers. Wallplates are sold separately. Lutron® Claro® and Satin Colors® wallplates snap on with no visible means of attachment. HomeWorks® QS RF Maestro® local controls support color change kits.



Dimmer



Switch



Fan Speed



Remote Dimmer



Remote Switch

HomeWorks® QS Designer RF Maestro® Local Controls

Model Numbers

Dimmers

HQRD-6CL-XX	600 W/VA (Incandescent/Halogen/MLV) or 150 W (CFL/LED) Two-Wire Dimmer*
HQRD-6D-XX	600 W Two-Wire Dimmer
HQRD-6ND-XX	600 W Neutral Wire Dimmer
HQRD-10D-XX	1000 W Two-Wire Dimmer
HQRD-10ND-XX	1000 W Neutral Wire Dimmer
HQRD-6NA-XX	600 W Neutral Phase Adaptive Dimmer
HQRD-F6AN-DV-XX	6 A Fluorescent/LED 3-Wire Dimmer

Switches

HQRD-8ANS-XX	Neutral Wire Electronic Switch
HQRD-8S-DV-XX	Two-Wire Electronic Switch

Fan Speed Control (single ceiling paddle fan only [120 V~])

HQRD-2ANF-XX	2 A Fan Speed Control
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Remotes (for multi-location installations)

HQD-RD-XX	Remote Dimmer (120 V~)
HQD-RS-XX	Remote Switch (120 V~)
HQD-RD-277-XX	Remote Dimmer (277 V~) (for use with -F6AN-DV only)
HQD-RS-277-XX	Remote Switch (277 V~) (for use with -8S-DV only)

Color Change Kits

RK-D-XX	Dimmers (-6CL, -6D, -10D, -10ND, -6NA, -F6AN-DV)
RK-S-XX	Switches (-8ANS and -8S-DV)
RK-AD-XX	Remote Dimmer (-RD)
RK-AS-XX	Remote Switch (-RS)
RK-F-XX	Fan Speed Control (-2ANF)

* Go to www.lutron.com/LEDtool to see all compatible CFL/LED lamps.

Note: "XX" in the model number represents color/finish code. See **Colors and Finishes** at end of document.

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Specifications

Model Numbers	<p>Dimmer: HQRD-6CL, HQRD-6D, HQRD-6ND, HQRD-10D, HQRD-10ND, HQRD-6NA, HQRD-F6AN-DV</p> <p>Switch: HQRD-8ANS, HQRD-8S-DV</p> <p>Fan Speed Control: HQRD-2ANF</p> <p>Remote: HQD-RD, HQD-RS, HQD-RD-277, HQD-RS-277</p> <p>Color Change Kits: RK-D, RK-S, RK-AD, RK-AS</p>
Power	<p>120 V~ 50/60 Hz: -6CL, -6D, -10D, -10ND, -6NA, -2ANF, -8ANS, -RD, -RS</p> <p>120-277 V~ 50/60 Hz: -F6AN-DV, -8S-DV</p>
Typical Power Consumption	<p>Dimmer/Switch/Fan Speed Control: 0.6 W Test conditions: load is off and nightlight mode is enabled.</p> <p>Remote Dimmer/Switch: 0 W Test conditions: load is off.</p>
Regulatory Approvals	UL, CSA (all except -6CL, -6NA), cUL (-6CL, -6NA only), NOM, FCC, IC, COFETEL
Environment	Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing. Indoor use only.
Communications	Dimmers and switches communicate with the HomeWorks® system through Radio Frequency (RF) and must be located within 30 ft (9 m) of a repeater. Remote dimmers/switches are not required to be within a specific range of a repeater.
ESD Protection	Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2.
Surge Protection	Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.
Power Failure	Power failure memory: should power be interrupted, the control will return to its previous state when power is restored.
Mounting	Requires a U.S. wallbox. 3½ in (89 mm) deep recommended, 2¼ in (57 mm) deep minimum.
Wiring	Uses conventional 3-way and 4-way wiring.
Warranty	www.lutron.com/TechnicalDocumentLibrary/warranty.pdf

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Design Features

Dimmer

- On a single-tap, lights fade ON or OFF.
- On a double-tap, lights go to full ON.
- When ON, press and hold the tapswitch to engage the delayed long fade to OFF.
- Light levels can be fine-tuned by pressing and holding the dimming rocker until the desired light level is reached.
- Neutral and two-wire dimmers available.

Switch

- On a single-tap, lights or motors turn ON or OFF.
- Neutral and two-wire switches available.

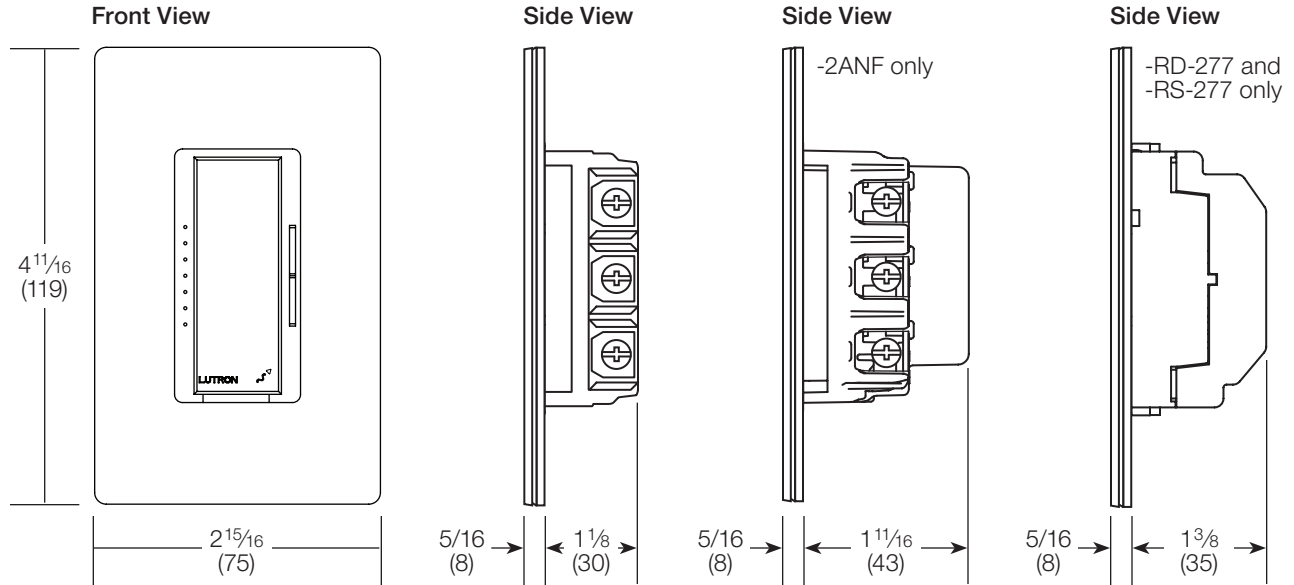
Fan Speed Control

- On a single-tap, fan turns ON or OFF.
- Fan speeds can be selected by pressing and holding the fan speed control rocker until the desired fan speed is reached.
- Controls one paddle-type ceiling fan (Permanent split-capacitor motor) up to 2 A. Not for use with shaded-pole type motors (e.g., bath exhaust fans).
- Provides 4 quiet speeds plus OFF.
- Not for use with fans that have integrated fan speed and/or light control modules.
- Requires a neutral connection.

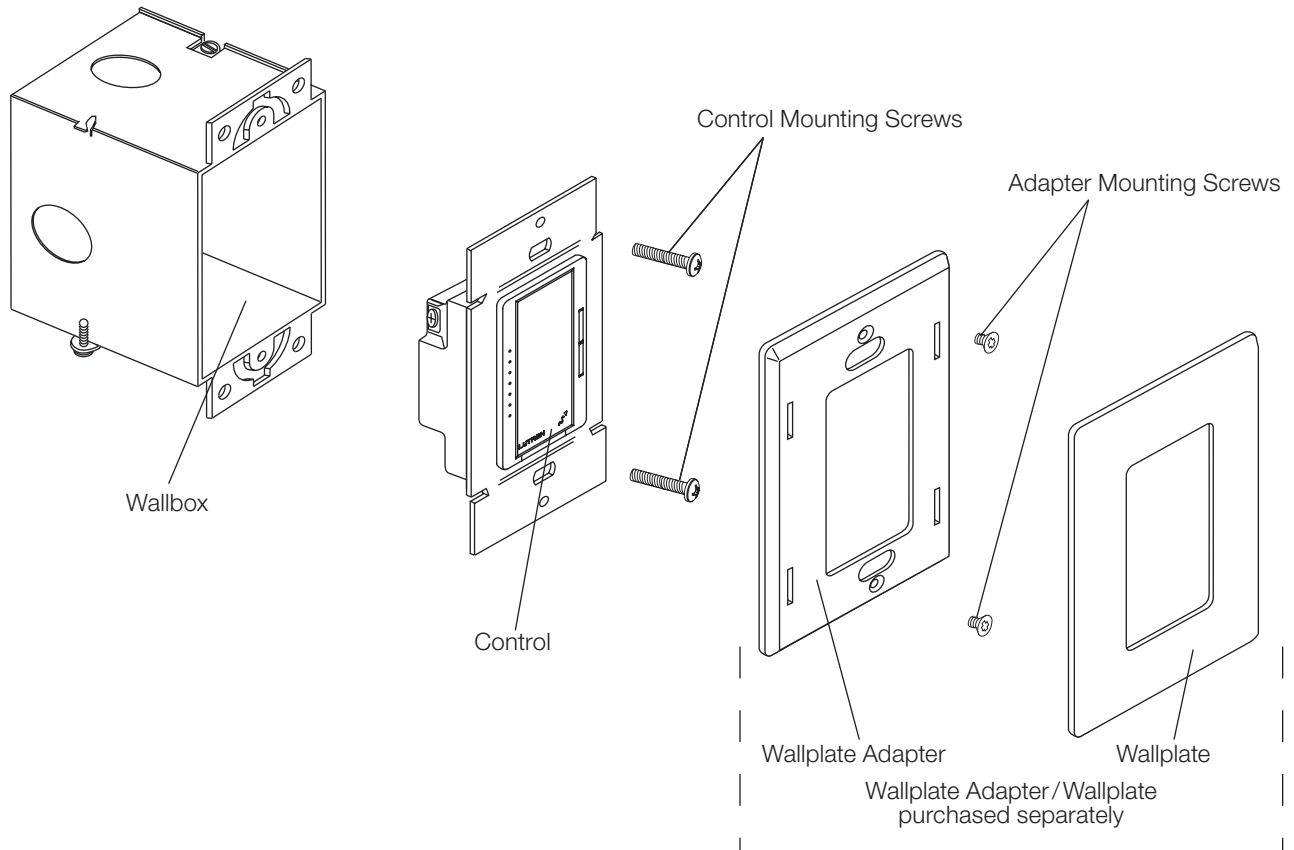
HomeWorks® QS Designer RF Maestro® Local Controls

Dimensions

All dimensions are shown as: in (mm)



Mounting and Parts Identification



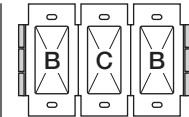
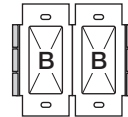
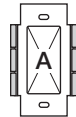
HomeWorks® QS Designer RF Maestro® Local Controls

Ganging and Derating

When combining controls in the same wallbox, derating is required (see **Load Type and Capacity**). No derating is required for remote dimmers, remote switches, or fan speed controls. -8ANS, -RD-277, and -RS-277 have fins that need to be removed for multigang installations.

Load Type and Capacity

Do not remove outside fins on ends of ganged controls (shaded areas below).



Load Type	Minimum Load	A Not Ganged	B End of Gang	C Middle of Gang	Neutral Connection
HQRD-6CL¹					
Incandescent/Halogen/CFL/LED	see <i>Mixing Lamp Types</i> , page 8				No
MLV ^{2,3}	50 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA	
HQRD-6D¹					
Incandescent/Halogen	50 W	600 W	500 W	400 W	No
MLV ²	50 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA	
HQRD-6ND^{1,4}					
LED	Varies ⁵	150 W	150 W	150 W	Yes
Incandescent/Halogen	10 W	600 W	500 W	400 W	
MLV ^{2,3}	10 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA	
HQRD-10D¹					
Incandescent/Halogen	50 W	1000 W	800 W	650 W	No
MLV ²	50 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA	
HQRD-10ND^{1,4}					
LED	Varies ⁵	150 W	150 W	150 W	Yes
Incandescent/Halogen	10 W	1000 W	800 W	650 W	
MLV ^{2,3}	10 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA	

¹ Dimmer Load Type:
 • -6D, -6ND, -10D, -10ND: designed for use with permanently-installed incandescent, LED, magnetic low-voltage, or tungsten halogen only.
 • -6CL: designed for use with permanently-installed incandescent, magnetic low-voltage, tungsten halogen, CFL, or LED only.
Note: Do not install dimmers to control receptacles or motor-operated appliances.

² Low-Voltage Applications: -6CL, -6D, -6ND, -10D -10ND: use with magnetic (core and coil) low-voltage transformers only. Not for use with electronic (solid-state) low-voltage transformers.
 Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature 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 fused transformer primary windings to prevent transformer failure due to overcurrent.

³ Do not mix CFL or LED loads with MLV loads.

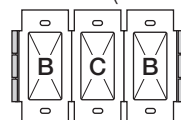
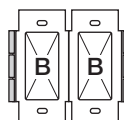
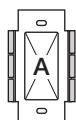
⁴ Power Boosters/Load Interfaces: -6ND and -10ND can be used to control power boosters/load interfaces. For a list of compatible power boosters/load interfaces see **Compatible Power Boosters and Load Interfaces**, page 8.

⁵ Minimum load depends on lamp and is not limited to a particular wattage. Refer to the LED Product Selection Tool at www.lutron.com/ledtool

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Load Type and Capacity (continued)

Do not remove outside fins on ends of ganged controls (shaded areas below).



Load Type	Minimum Load	A Not Ganged	B End of Gang	C Middle of Gang	Neutral Connection
HQRD-6NA^{1,2}					
LED	Varies ⁹	150 W	150 W	150 W	Yes
Incandescent/Halogen/ELV	5 W	600 W	500 W	400 W	
MLV ³	5 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA	
HQRD-F6AN-DV^{3,4,5}					
Fluorescent/LED Drivers	0.05 A	6 A	5 A	3.5 A	Yes
	1 ballast	60 ballasts	50 ballasts	35 ballasts	
HQRD-2ANF⁶					
Ceiling Fan	0.083 A	2 A	2 A	2 A	Yes
HQRD-8ANS^{3,7}					
Lighting	10 W	8 A	6.5 A	5 A	Yes
Motor	0.08 A	1/4 HP 5.8 A	1/4 HP 5.8 A	1/6 HP 4.4 A	
HQRD-8S-DV^{7,8}					
Lighting	40 W/VA	8 A	8 A (2-gang); 7 A (3-gang)	7 A	No
Motor	0.4 A	1/10 HP 3 A			

Note: Do not install dimmers to control receptacles or motor-operated appliances.

- Dimmer Load Type: -6NA: designed for use with permanently-installed incandescent, LED, electronic low-voltage, magnetic low-voltage, or tungsten halogen only.
- Power Boosters/Load Interfaces: -6NA, -F6AN-DV, -8ANS can be used to control power boosters/load interfaces. For a list of compatible power boosters/load interfaces see **Compatible Power Boosters and Load Interfaces**, page 8.
- Low-Voltage Applications: -6NA: use with electronic (solid-state) or magnetic (core and coil) transformers. Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature 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 fused transformer primary windings to prevent transformer failure due to overcurrent.
 - Do not mix CFL or LED loads with MLV loads.
- Fluorescent Dimmer Load Type: -F6AN-DV: designed for use with permanently installed 3-wire 120 V~ or 277 V~ line voltage control fluorescent ballasts or LED drivers. Use with only Hi-lume®, Hi-lume® 3D, Compact SE™, Eco-10®, or EcoSystem® (H3D-, FDB-, ECO-, HL3-, EC5-, L3D). Do NOT use with any other ballasts or drivers. Do not install to control receptacles or motor-operated appliances.
- Maximum Load: The maximum load for the -F6AN-DV is either the derated load or the number of ballasts, whichever is LESS.
- Ceiling Fan Application: -2ANF
 - Use to control one paddle-type ceiling fan (permanent split-capacitor).
 - Use the ceiling fan's pull chain to set its speed to the highest setting.
 - Do not use to control fans that use shaded-pole motors (e.g., bath exhaust fans).
 - Do not use to control fans that have integrated fan speed controls (e.g., fans that have a remote control), unless the integrated control is removed from the ceiling fan.
 - Do not connect to any other motor-operated appliance or to any lighting load type.
 - Do not use to control a fan lighting load (e.g., light kit).
- Switch Load Type:
 - 8ANS and -8S-DV: designed for use with permanently installed 120 V~ incandescent, magnetic low-voltage, electronic low-voltage, tungsten halogen, fluorescent, CFL, LED, or motor loads.
 - 8S-DV can also be used with permanently installed 277 V~ magnetic low-voltage or fluorescent loads.
- Shunt Capacitor: Some -8S-DV installations may require the use of a shunt capacitor; this is especially necessary for load types sensitive to leakage current (e.g., fluorescent ballasts). If load flickers, install a shunt capacitor. Optional shunt capacitor must be installed inside the load fixture or in a separate J-box. For shunt capacitor installation see Wiring Diagram 4, 9, or 10.
- Minimum load depends on lamp and is not limited to a particular wattage. Refer to the LED Product Selection Tool at www.lutron.com/ledtool

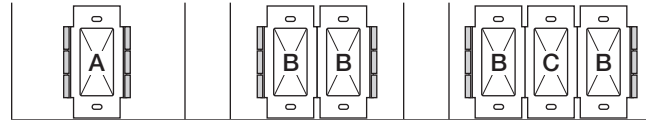
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Mixing Lamp Types

Mixing lamp types (using a combination of CFL/LED, and Incandescent/Halogen bulbs) and ganging with other dimmers or electronic switches may reduce maximum wattage as shown in the chart below.

Example: If fins from one side of dimmer are removed and you have two 24 W bulbs installed (total CFL Wattage = 48 W), you may add up to 300 W of incandescent or halogen lighting.

Do not remove outside fins on ends of ganged controls (shaded areas below).



Total CFL/LED Wattage	Total Incandescent/Halogen Wattage			
	A Not Ganged	B End of Gang	C Middle of Gang	Neutral Connection
HQRD-6CL^{1,2}				
0 W	+ 50 W–600 W	Or 50 W–500 W	Or 50 W–400 W	No
1 W–25 W	+ 0 W–500 W	Or 0 W–400 W	Or 0 W–300 W	
26 W–50 W	+ 0 W–400 W	Or 0 W–300 W	Or 0 W–200 W	
51 W–75 W	+ 0 W–300 W	Or 0 W–200 W	Or 0 W–100 W	
76 W–100 W	+ 0 W–200 W	Or 0 W–100 W	Or 0 W–50 W	
101 W–125 W	+ 0 W–100 W	Or 0 W–50 W	Or 0 W	
126 W–150 W	+ 0 W	Or 0 W	Or 0 W	

¹ Dimmer Load Type -6CL is designed for use with permanently-installed incandescent, CFL, LED, magnetic low-voltage, or tungsten halogen only. Do not install dimmers to control receptacles or motor-operated appliances.
² Do not mix CFL and LED loads with MLV loads.

Compatible Power Boosters and Load Interfaces

Some local controls can be used to control power boosters or load interfaces. Up to three power boosters or load interfaces can be used with one control. See table below for a list of controls and compatible power boosters and load interfaces.

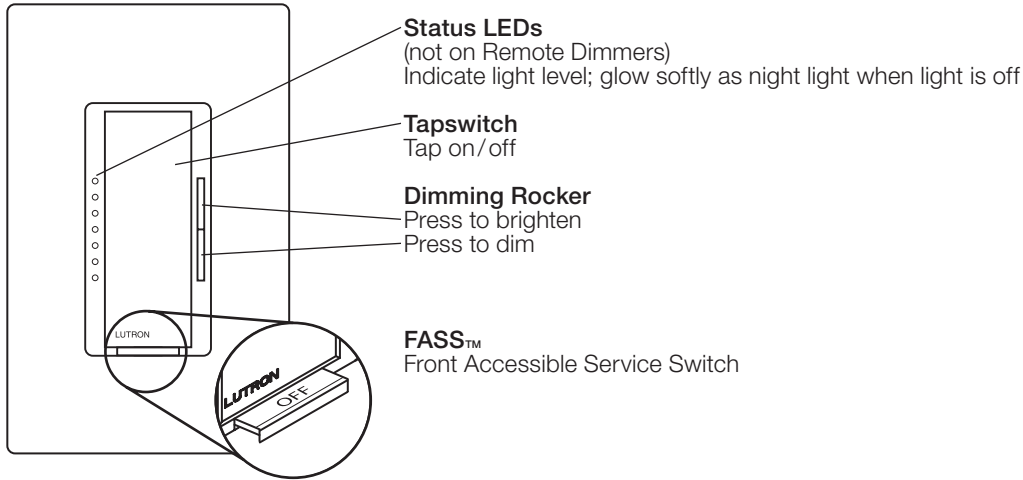
Control	Phase Adaptive Power Modules: PHPM-PA-120-WH; PHPM-PA-DV-WH	3-wire Fluorescent Power Modules: PHPM-3F-120-WH; PHPM-3F-DV-WH	Switched Power Module: PHPM-SW-DV-WH	0–10 V Interface and Switching Module: GRX-TVI
HQRD-6ND	✓	✓		✓
HQRD-10ND	✓	✓		✓
HQRD-6NA	✓	✓		✓
HQRD-F6AN-DV ¹	✓	✓		✓
HQRD-8ANS			✓	

¹ Only the GRX-TVI is compatible with the HQRD-F6AN-DV at 277 V~. All other power modules are 120 V~ only.

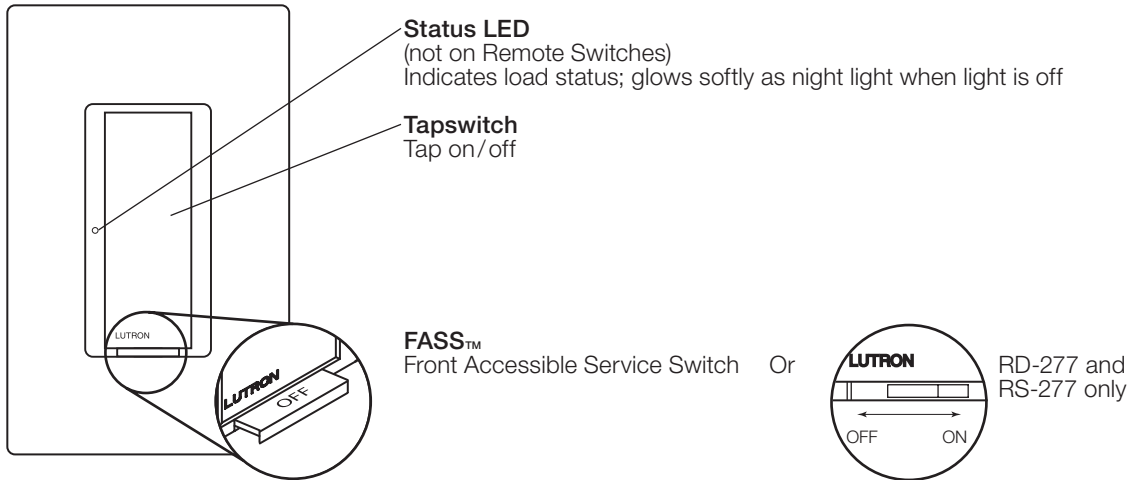
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Operation

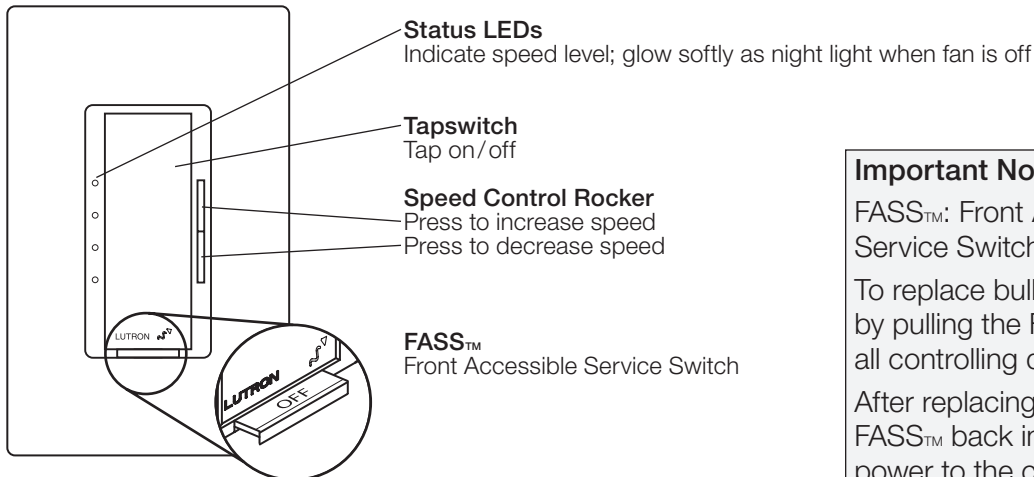
Dimmer



Switch



Fan Speed Control



Important Notice

FASS™: Front Accessible Service Switch

To replace bulb, remove power by pulling the FASS™ out fully on all controlling devices.

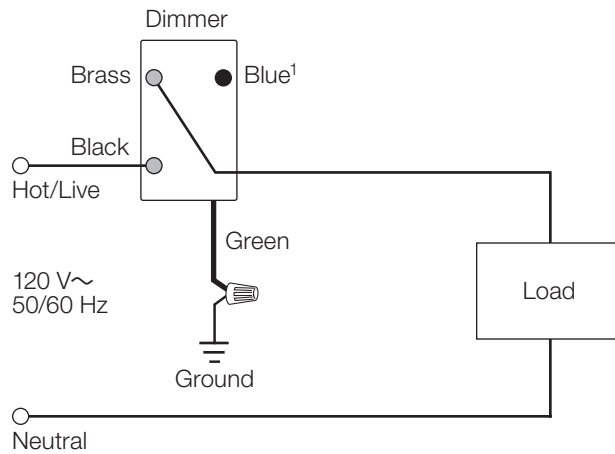
After replacing bulb(s), push the FASS™ back in fully to restore power to the control(s).

HomeWorks® QS Designer RF Maestro® Local Controls

Wiring Diagrams

Wiring Diagram 1

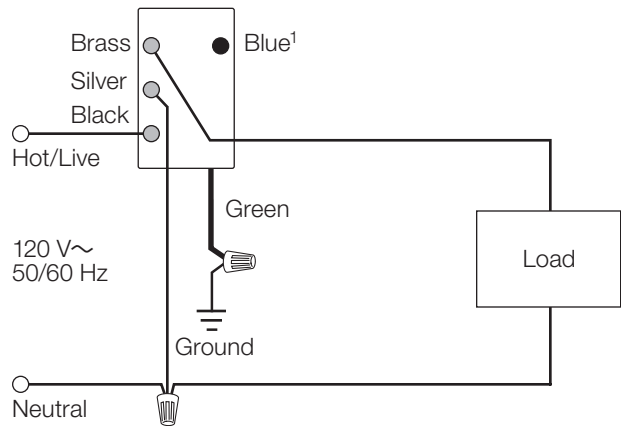
Single-Location Installation without Neutral¹
 -6CL, -6D, -10D



Wiring Diagram 2

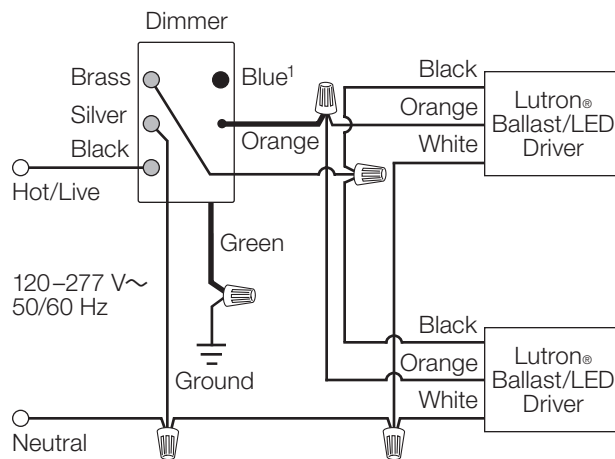
Single-Location Installation with Neutral¹
 -6ND, -10ND, -6NA, -2ANF, -8ANS

Dimmer/Switch/Fan Speed Control



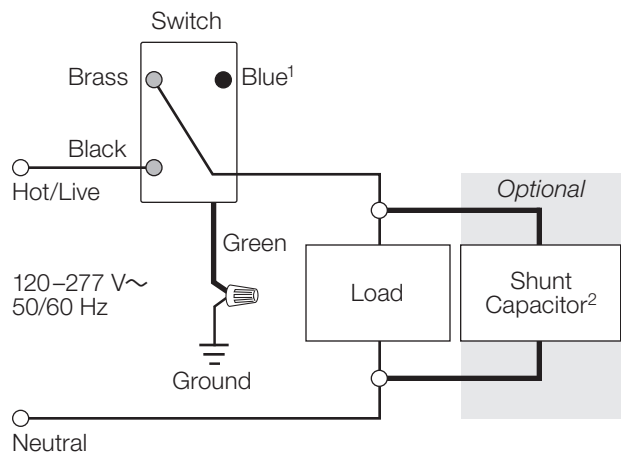
Wiring Diagram 3

Single-Location Fluorescent Dimmer Installation¹
 -F6AN-DV with Lutron® Ballast/LED Driver



Wiring Diagram 4

Single-Location 2-Wire Switch Installation¹
 -8S-DV with Optional Shunt Capacitor²



Note: Bolded lines in diagrams indicate leads on products.

- ¹ When using controls in single-location installations, tighten the blue terminal. Do not connect the blue terminal to any other wiring or to ground.
- ² Optional Shunt Capacitor must be installed inside the load fixture or in a separate J-box.

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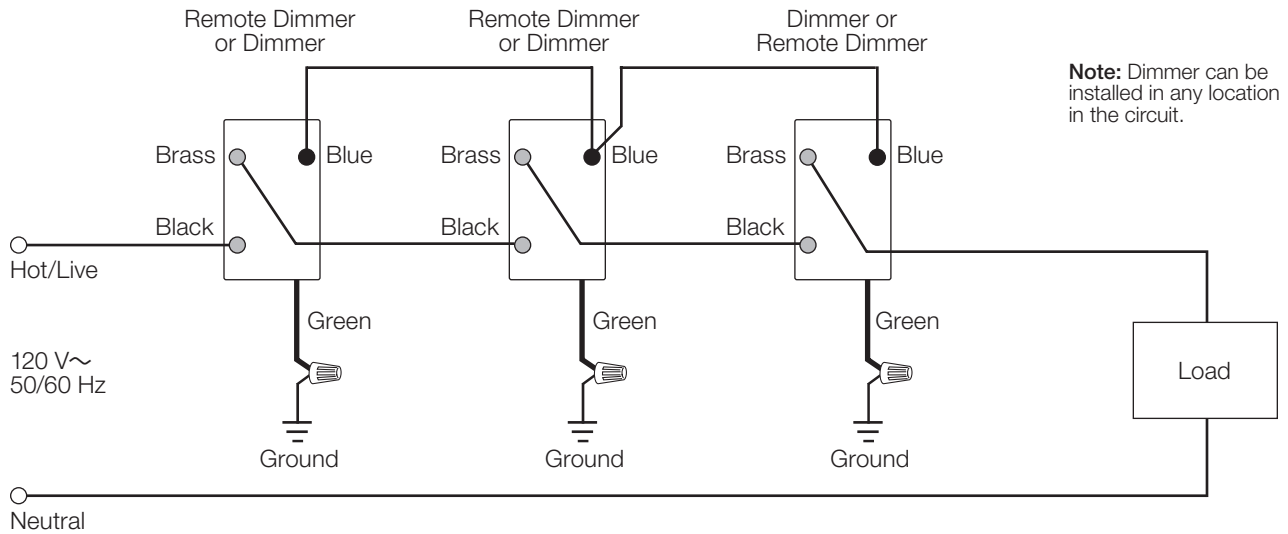
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Wiring Diagrams (continued)

Wiring Diagram 5

Multi-Location Installation without Neutral¹

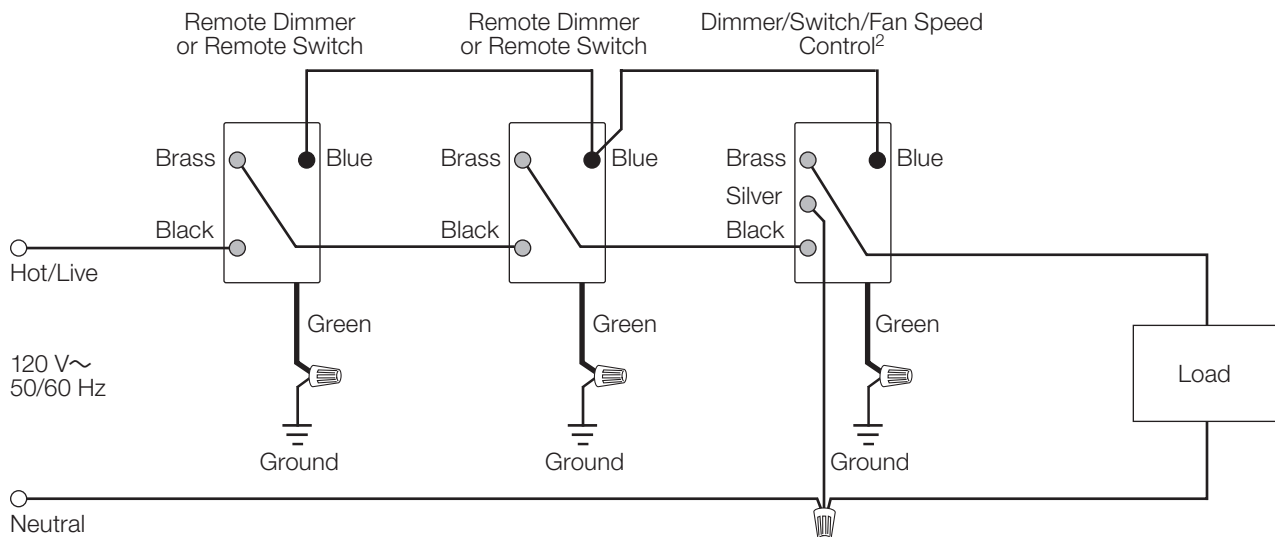
-6CL, -6D, and -10D with HQD-RD



Wiring Diagram 6

Multi-Location Installation with Neutral^{1,2}

-6ND, -10ND, -6NA, and -2ANF with HQD-RD; -8ANS with HQD-RS



Note: Bolded lines in diagrams indicate leads on products.

- ¹ Up to 9 Remote Dimmers/Remote Switches may be connected to the Dimmer/Switch/Fan Speed Controls. Total blue terminal wire length may be up to 250 ft (76 m).
- ² Neutral-Wire Dimmers/Switches/Fan Speed Controls must be connected on the Load side of a multi-location installation.

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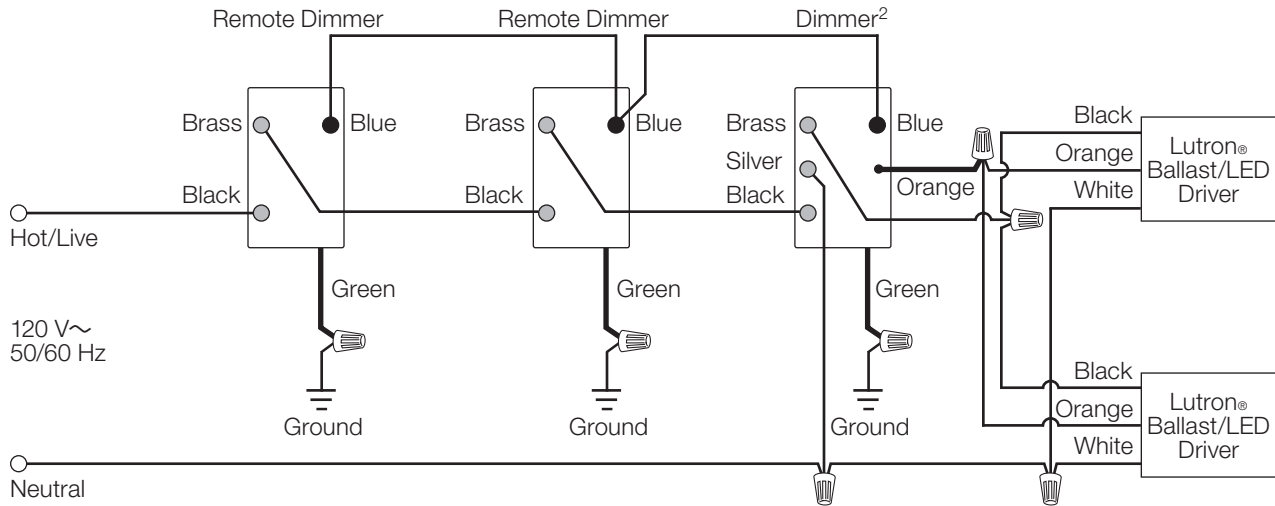
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Wiring Diagrams (continued)

Wiring Diagram 7

Multi-Location Fluorescent Dimmer Installation^{1,2} (120 V~)

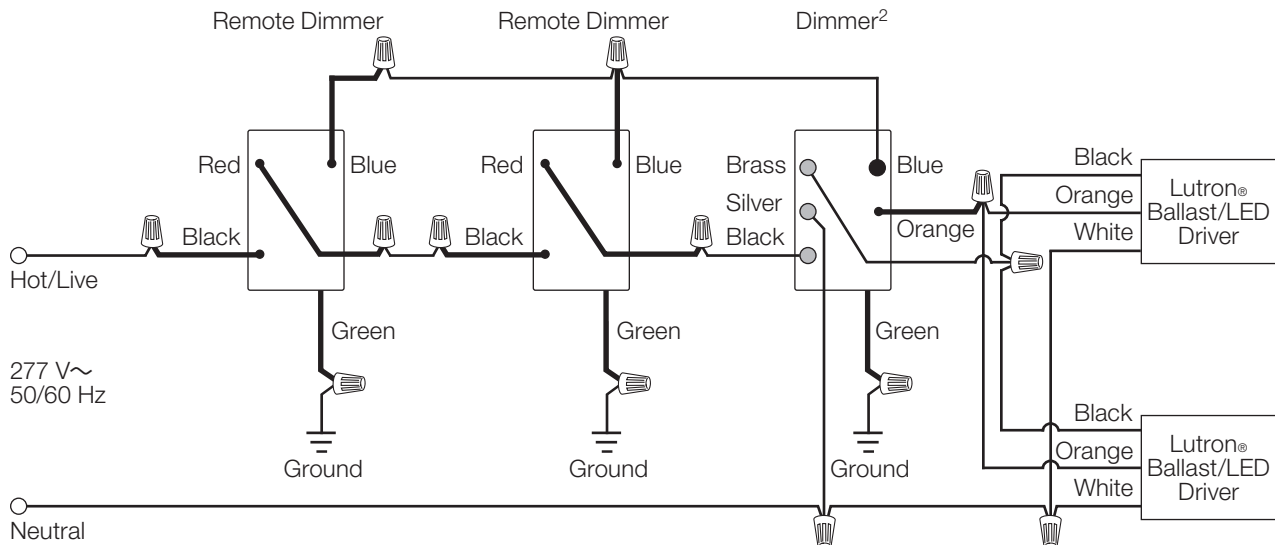
-F6AN with HQD-RD and Lutron® Ballast/LED Driver



Wiring Diagram 8

Multi-Location Fluorescent Dimmer Installation^{1,2} (277 V~)

-F6AN with HQD-RD-277 and Lutron® Ballast/LED Driver



Note: Bolded lines in diagrams indicate leads on products.

- ¹ Up to 9 Remote Dimmers/Remote Switches may be connected to the Dimmer/Switch/Fan Speed Controls. Total blue terminal wire length may be up to 250 ft (76 m).
- ² Neutral-Wire Dimmers/Switches/Fan Speed Controls must be connected on the Load side of a multi-location installation.

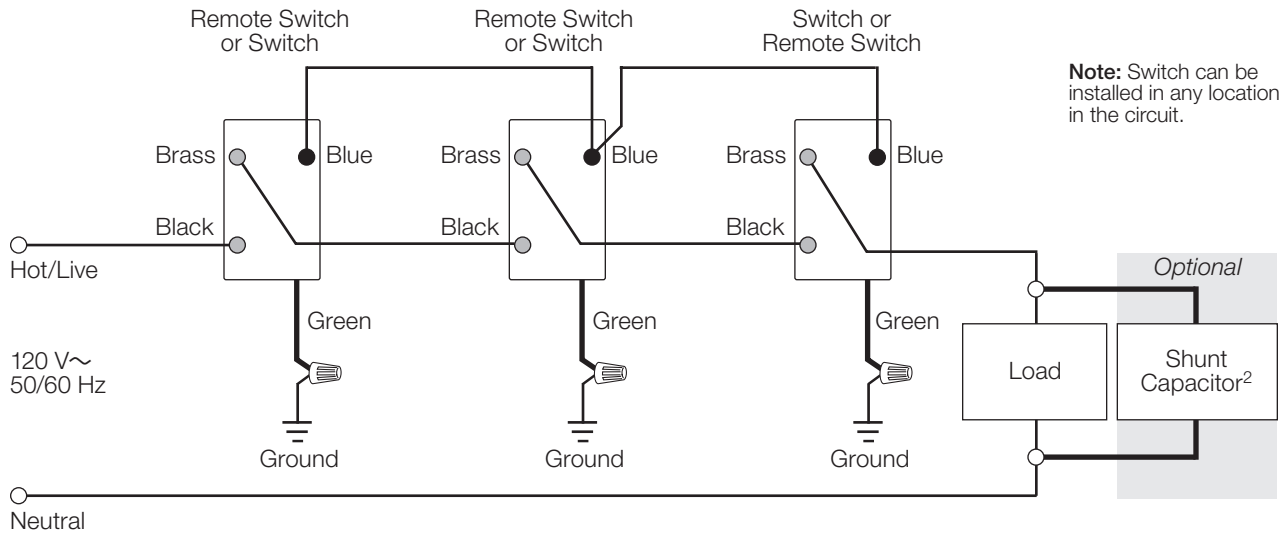
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Wiring Diagrams (continued)

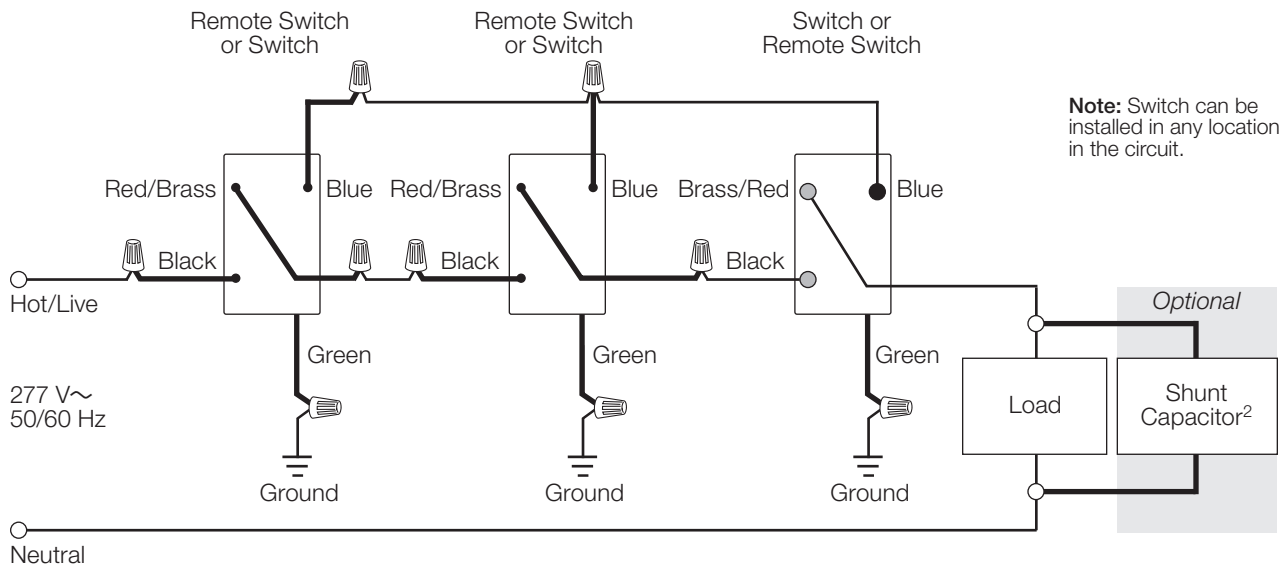
Wiring Diagram 9

Multi-Location 2-Wire Switch Installation¹ (120 V~)
 -8S-DV with HQD-RS and Optional Shunt Capacitor



Wiring Diagram 10

Multi-Location 2-Wire Switch Installation¹ (277 V~)
 -8S-DV with HQD-RS-277 and Optional Shunt Capacitor



Note: Bolded lines in diagrams indicate leads on products.

- ¹ Up to 9 Remote Dimmers/Remote Switches may be connected to the Dimmer/Switch/Fan Speed Controls. Total blue terminal wire length may be up to 250 ft (76 m).
- ² Optional Shunt Capacitor must be installed inside the load fixture or in a separate J-box.

HomeWorks® QS Designer RF Maestro® Local Controls

Colors and Finishes

Gloss Finishes



White
WH



Ivory
IV



Almond
AL



Light Almond
LA



Gray
GR



Brown
BR



Black
BL

Satin Finishes



Hot
HT



Merlot
MR



Plum
PL



Turquoise
TQ



Taupe
TP



Eggshell
ES



Bizcocho
BI



Snow
SW



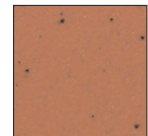
Palladium
PD



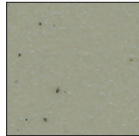
Midnight
MN



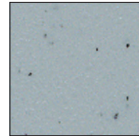
Sienna
SI



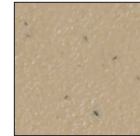
Terracotta
TC



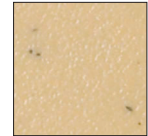
Greenbriar
GB



Bluestone
BG



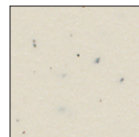
Mocha Stone
MS



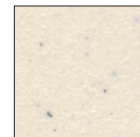
Goldstone
GS



Desert Stone
DS



Stone
ST



Limestone
LS

- Due to printing limitations, colors and finishes shown cannot be guaranteed to perfectly match actual product colors.
- Color chip keychains are available for more precise color matching:
Gloss Finishes: DG-CK-1
Satin Finishes: SC-CK-1

Metal Finish (wallplate only)



Stainless Steel
SS

When using Stainless Steel wallplates, it is recommended that you order the control in Midnight (MN).