

HomeWorks® QS Wired Maestro® Designer Local Controls

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

HomeWorks® QS Wired Maestro® local controls include a Front Accessible Service Switch (FASS™) for safe lamp replacement. HomeWorks® QS Wired 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 Wired Maestro® local controls support color change kits.



Dimmer *Switch* *Fan Speed*



Remote Dimmer *Remote Switch*

Model Numbers

Dimmers

Incandescent/Magnetic Low-voltage

HWD-6D-XX*	600 W/600 VA Dimmer
HWD-6ND-XX*	600 W/600 VA Dimmer
HWD-10D-XX*	1000 W/1000 VA Dimmer
HWD-10ND-XX*	1000 W/1000 VA Dimmer

Electronic Low-voltage

HWD-5NE-XX*	500 W Neutral Dimmer
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Switches

HWD-8ANS-XX*	8 A Lighting, 5.8 A Motor Neutral Electronic Switch
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Fan Speed Control

Single ceiling paddle fan only (120 V~)	
HWD-2ANF-XX*	2 A Neutral Fan Speed Control

Remotes (for multi-location installations)

HQD-RD-XX*	Remote Dimmer (120 V~)
HQD-RS-XX*	Remote Switch (120 V~)

Color Change Kits

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

Note: No color change kit is available for -5NE

"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: HWD-6D-XX, HWD-6ND-XX, HWD-10D-XX, HWD-10ND-XX, HWD-5NE-XX</p> <p>Switch: HWD-8ANS-XX</p> <p>Fan Speed Control: HWD-2ANF-XX</p> <p>Remote: HQD-RD-XX, HQD-RS-XX</p> <p>Color Change Kits: RK-D-XX, RK-S-XX, RK-AD-XX, RK-AS-XX, RK-F-XX</p>
Power	120 V~ 50/60 Hz
Typical Power Consumption	<p>Dimmer/Switch/Fan Speed Control: 0.75 W</p> <p>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 -5NE), and NOM
Environment	Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing. Indoor use only.
Communications	Wired Local Controls are wired to a HomeWorks® dimmer Hub (HWI-H48). One pair twisted shielded 22 AWG to 18 AWG (0.5 mm ² to 1.0 mm ²) IEC PELV/NEC® Class 2 wiring.
Capacity	Each HomeWorks® Dimmer Hub (HWI-H48) is capable of directly controlling up to 48 Wired Maestro® Local Controls. Up to 8 Wired Local Controls may be wired to a single bus on the HWI-H48. Refer to IEC PELV/NEC® Class 2.
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	http://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.
- Two-wire dimmers available.
- Electronic low voltage dimmer available.

Switch

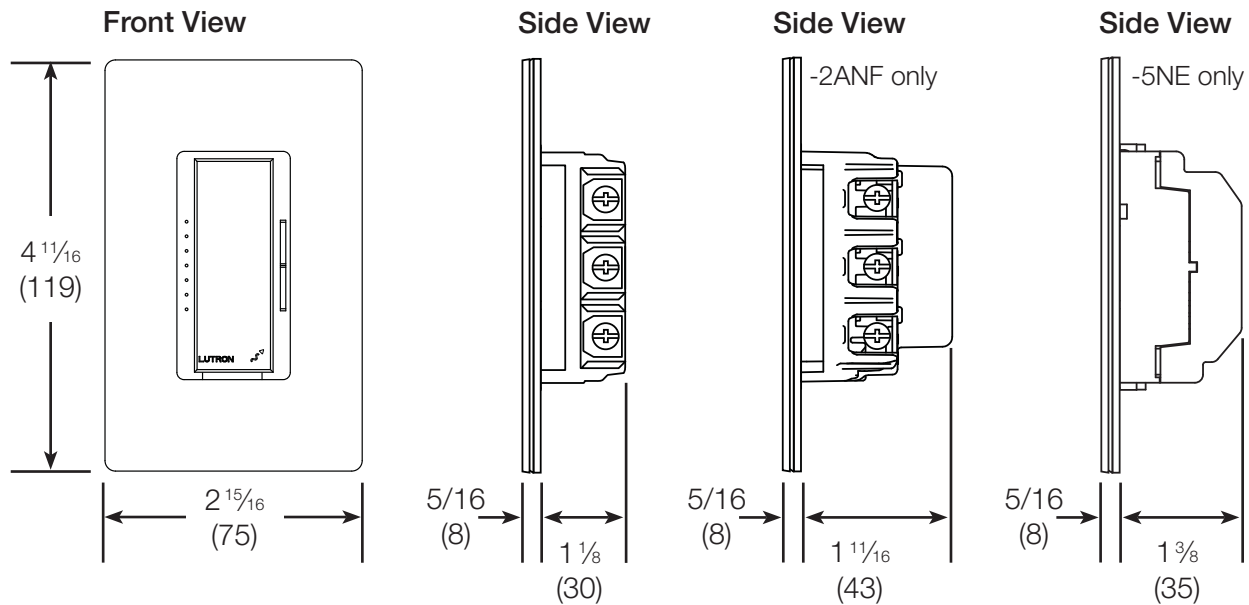
- On a single-tap, lights or motors turn ON or OFF.
- Requires a neutral connection.

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 (i.e. bath exhaust fans).
- Provides four (4) quiet speeds plus OFF.
- Not for use with fans that have integrated fan speed and/or light control modules.
- Requires a neutral connection.

Dimensions

All dimensions are shown as $\frac{\text{in}}{\text{(mm)}}$



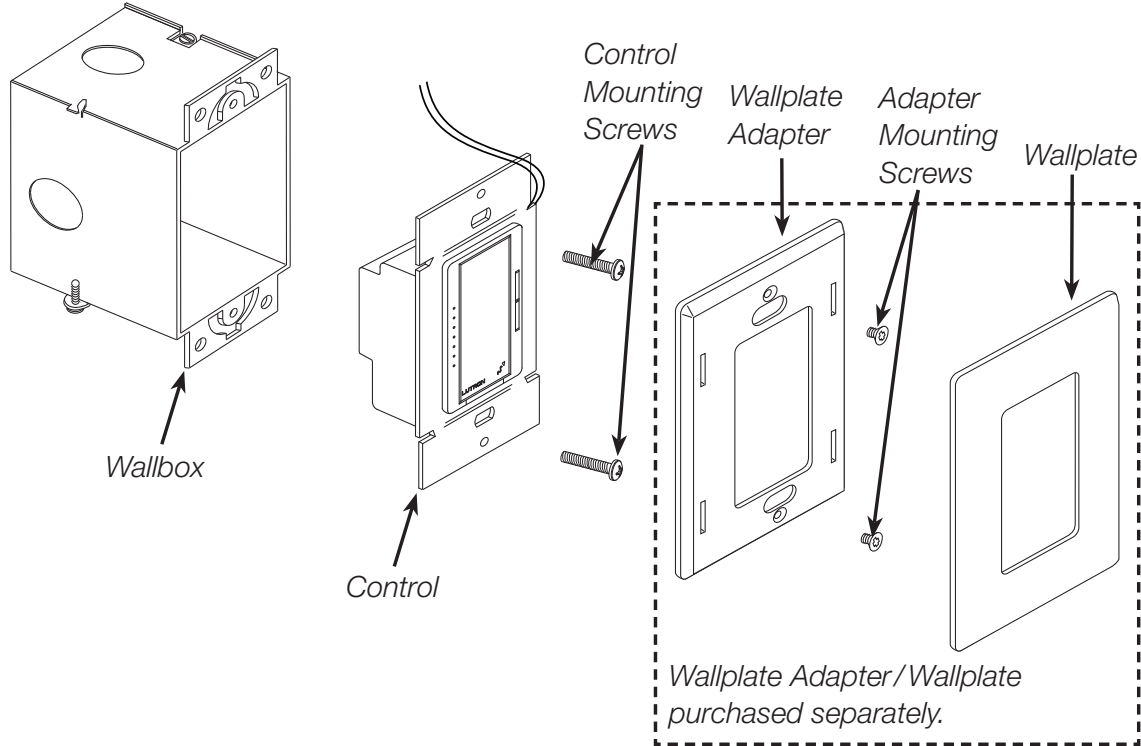
Terminal / Wire Color

The HWD-5NE dimmer does not have terminals - it has wires. Refer to the chart to the right for wire color equivalents when viewing the wiring diagrams for the -5NE.

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

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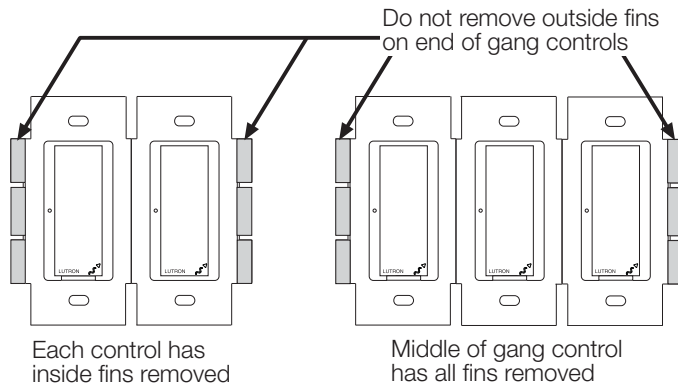
Mounting and Parts Identification



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/switches/fan speed controls. -8ANS has fins that need to be removed for multigang installations.

-8ANS only:



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Load Type and Capacity

Control	Load Type	Minimum Load	Not Ganged	End of Gang	Middle of Gang	Neutral Connection
HWD-6D ¹	Incand.	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	
HWD-6ND ^{1, 5}	Incand.	10 W	600 W	500 W	400 W	YES
	MLV ²	10 W/VA	450 W/ 600 VA	400 W/ 500 VA	300 W/ 400 VA	
HWD-10D ¹	Incand.	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	
HWD-10ND ^{1, 5}	Incand.	10 W	1000 W	800 W	650 W	YES
	MLV ²	10 W/VA	800 W/ 1000 VA	600 W/ 800 VA	500 W/ 650 VA	
HWD-5NE	ELV/Incand.	10 W	500 W	450 W	400 W	YES
HWD-8ANS ^{4, 7}	Lighting	10 W	8 A	6.5 A	5 A	YES
	Motor	0.083 A	1/4 HP 5.8 A	5.8 A	5 A	
HWD-2ANF ⁶	Ceiling Fan	0.083 A	2 A	2 A	2 A	YES

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

² Low-Voltage Applications: Use -6D, -6ND, -10D and -10ND with magnetic (core and coil) low-voltage transformers only. Not for use with electronic (solid-state) low-voltage transformers. To control electronic low-voltage transformers, use the HWD-5NE control.

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 Switch Load Type: -8ANS is designed for use with all permanently installed lighting loads and with motor loads up to 1/4 HP (5.8 A)

⁴ Ceiling Fan Application (HWD-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 (i.e. bath exhaust fans).
- Do not use to control fans that have integrated fan speed controls (i.e. 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 (i.e. lighting kit).

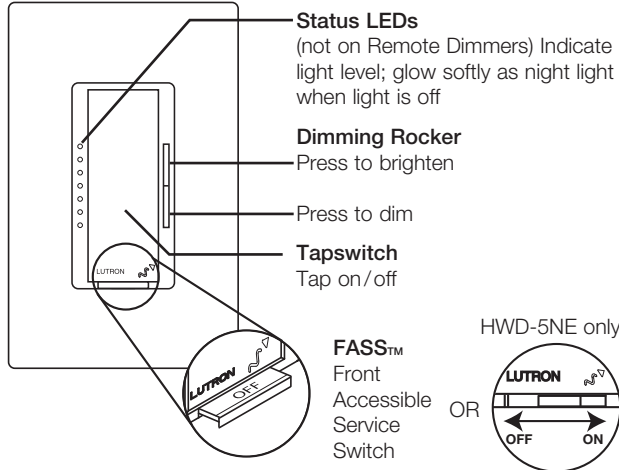
*See Application Note # 217 – “HomeWorks® Maestro® Controls Reference” for more information.

⁵ Can control the following power boosters/load interfaces: Hi-Power® Boosters (HP-2, HP-4, HP-6), 0-10 Volt Interface (GRX-TVI), Minimum Load Interface (LUT-LBX), Phase Adaptive Power Module (PHPM-PA), Switched Power Module (PHPM-SW), and 3-Wire Fluorescent Power Module (PHPM-3F).

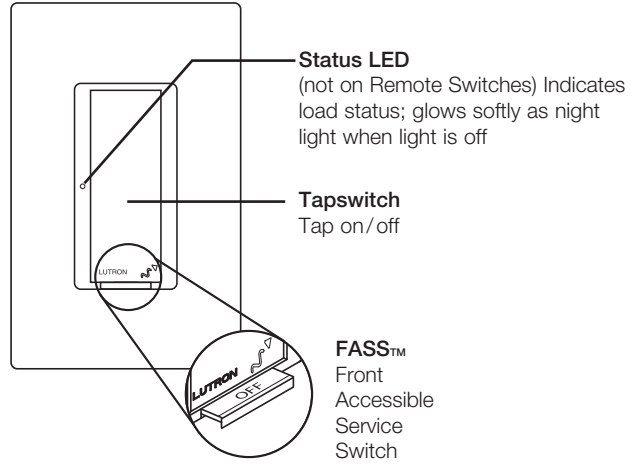
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Operation

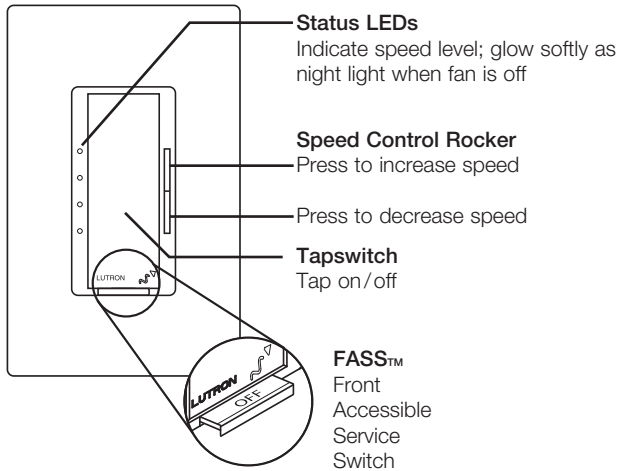
Dimmer



Switch



Fan Speed Control



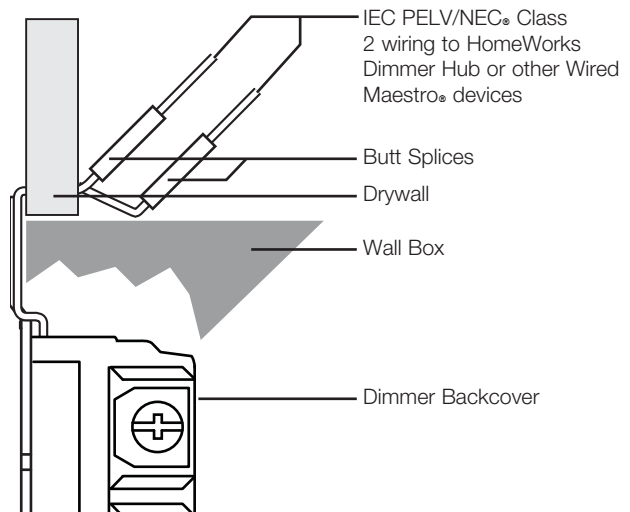
IMPORTANT NOTICE:
FASS™ - Front Accessible Service Switch
 To replace bulb, remove power by pulling the FASS™ switch out fully on all controlling devices.
 After replacing bulb(s), push the FASS™ switch(es) back in fully to restore power to the control(s).

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Wiring

Dimmer communications wiring may be in a daisy chain, star, or t-tap configuration. Each home run on a bus may be up to 500 ft (152 m) and may contain up to 8 devices. The total length of wire on each bus (all home runs) may be up to 1000 ft (305 m). Up to 48 HomeWorks[®] Wired Maestro[®] Local Controls may be wired to the HomeWorks[®] Dimmer Hub (HWI-H48). Up to four HWI-H48 Dimmer Hubs may be placed on each processor link configured as an H48 link in the HomeWorks[®] software.

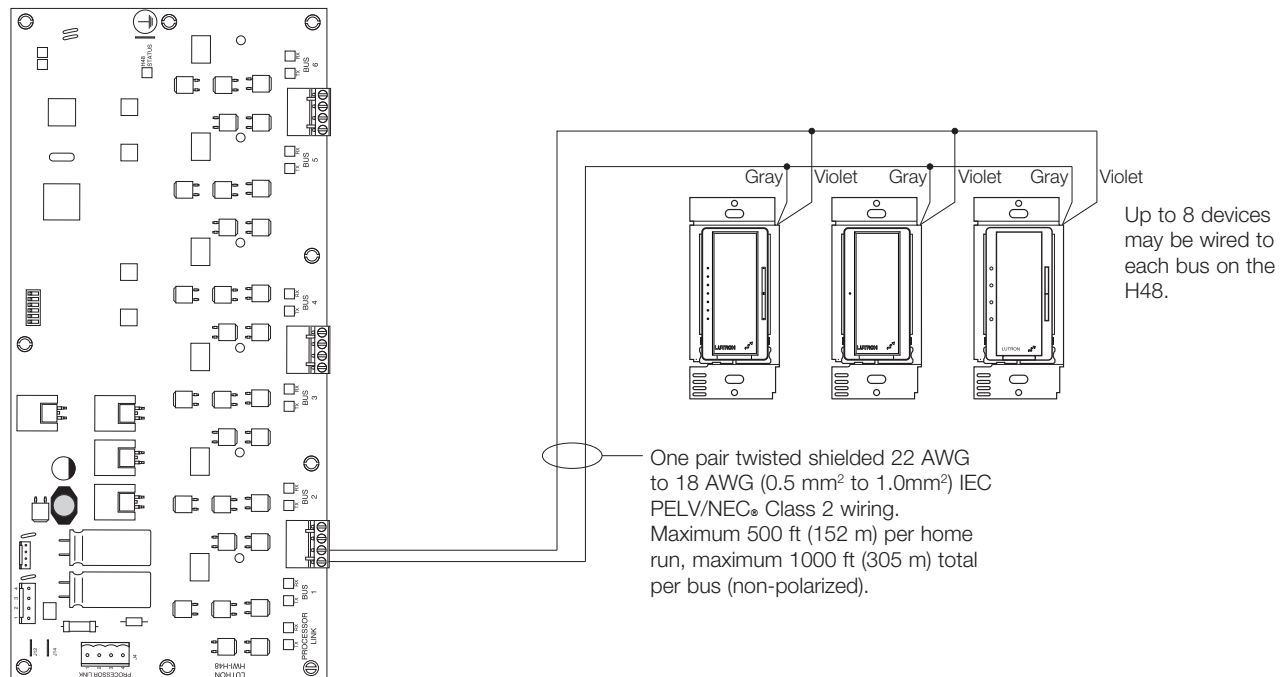
Dimmer Side View



IEC PELV/NEC[®] Class 2 Wire Type

One pair twisted shielded 22 AWG to 18 AWG (0.5 mm² to 1.0 mm²) IEC PELV/NEC[®] Class 2 wiring.

HWI-H48 Dimmer Hub

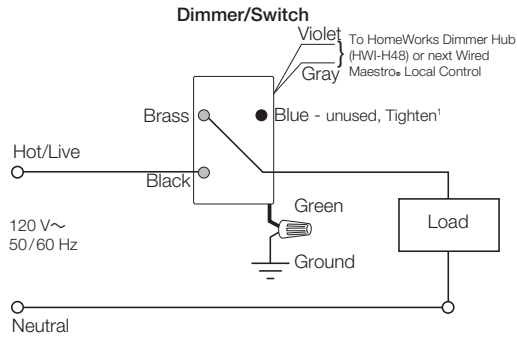


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Wiring Diagrams

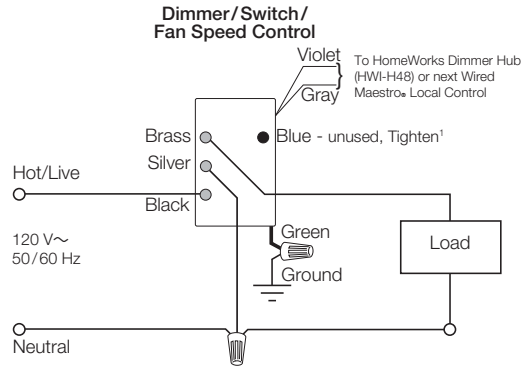
Wiring Diagram 1

Single Location Installation without Neutral¹
-6D and -10D



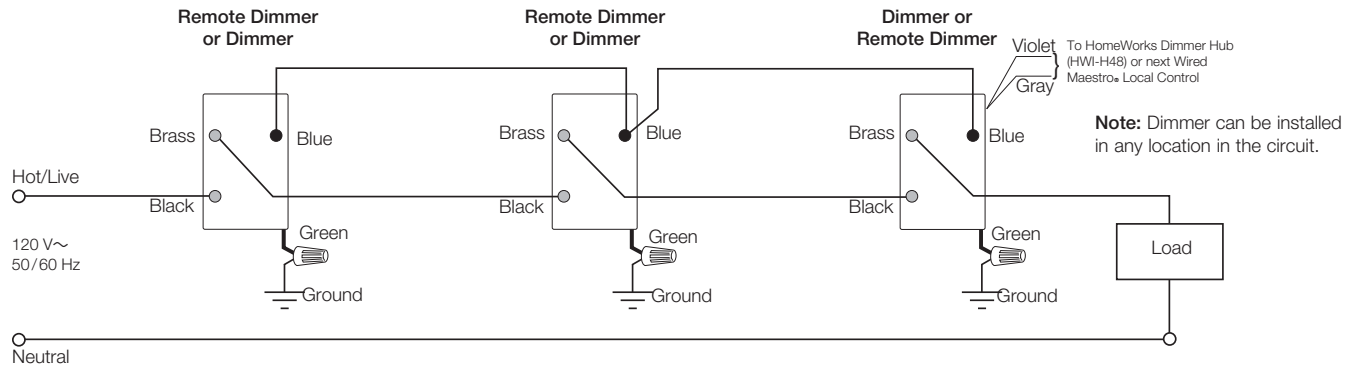
Wiring Diagram 2

Single Location Installation with Neutral¹
-6ND, -10ND, -5NE, -2ANF and -8ANS



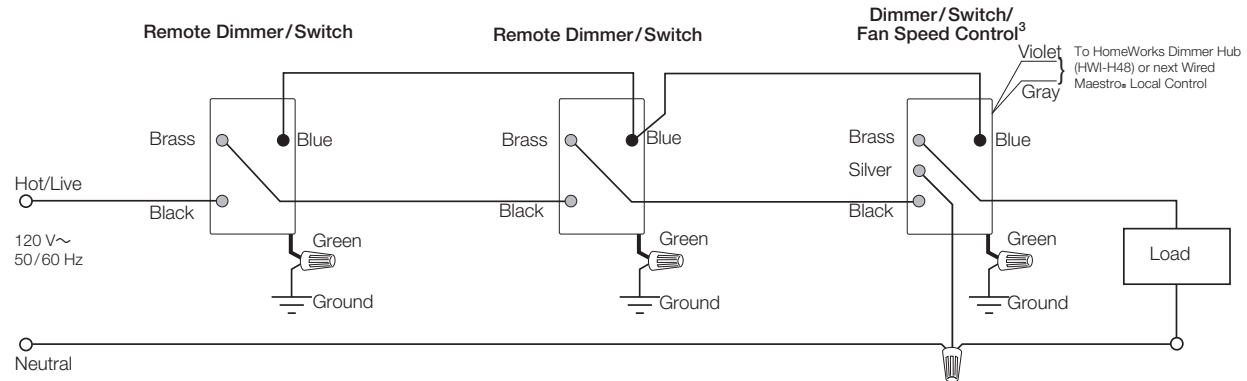
Wiring Diagram 3

Multi-Location Installation without Neutral²
-6D and -10D with HQD-RD



Wiring Diagram 4

Multi-Location Installation with Neutral^{2,3}
-6ND, -10ND, -5NE and -2ANF with HQD-RD; -8ANS with HQD-RS



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 Up to 9 HomeWorks[®] Maestro[®] Remote Dimmers/Switches may be connected to the HomeWorks[®] Wired Maestro[®] Dimmer/Switch/Fan Speed Controls. Total blue terminal wire length may be up to 250 ft (76 m).

³ Neutral wire Dimmers/Switches/Fan Speed Controls must be connected on the Load side of a multi-location installation.

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Colors and Finishes

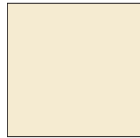
Gloss Finishes



White
WH



Ivory
IV



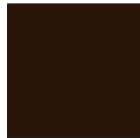
Almond
AL



Light
Almond
LA



Gray
GR



Brown
BR



Black
BL

Satin Finishes



Hot
HT



Merlot
MR



Plum
PL



Turquoise
TQ



Taupe
TP



Eggshell
ES



Biscuit
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 to order the Maestro[®] Control in Midnight (MN).