

## HomeWorks Architectural RF Maestro Local Controls

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

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

Use Lutron Nova T★ wallplates. Wallplates are sold separately. Lutron Nova T★ wallplates snap on with no visible means of attachment. HomeWorks RF Maestro local controls support color change kits.



*Dimmer*



*Switch*



*Fan Speed*



*Remote Dimmer*



*Remote Switch*

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# HomeWorks Architectural RF Maestro Local Controls

## Model Numbers

### Dimmers

HQRA-6ND-XX	600 W Neutral-Wire Dimmer
HQRA-10D-XX	1000 W Two-Wire Dimmer
HQRA-10ND-XX	1000 W Neutral-Wire Dimmer
HQRA-F6AN-DV-XX	6 A Fluorescent/LED 3-Wire Dimmer
HQRA-PRO-XX	250 W (CFL/LED) or 500 W/VA Incandescent/Halogen/ELV or 400 VA MLV Phase Selectable, Neutral Optional dimmer*

### Switches

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

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

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

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

### Color Change Kits

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

\* Go to [www.lutron.com/ledfinder](http://www.lutron.com/ledfinder) 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.

# HomeWorks Architectural RF Maestro Local Controls

## Specifications

<b>Model Numbers</b>	<i>Dimmer:</i> HQRA-6ND, HQRA-10D, HQRA-10ND, HQRA-F6AN-DV, HQRA-PRO <i>Switch:</i> HQRA-8ANS, HQRA-8S-DV <i>Fan Speed Control:</i> HQRA-2ANF <i>Remote:</i> HQA-RD, HQA-RS <i>Color Change Kits:</i> RKA-D, RKA-S, RKA-AD, RKA-AS, RKA-F
<b>Power</b>	120 V~ 50/60 Hz: -10D, -10ND, -2ANF, -8ANS, -RD, -RS 120–277 V~ 50/60 Hz: -F6AN-DV, -8S-DV
<b>Typical Power Consumption</b>	<i>Dimmer/Switch/Fan Speed Control:</i> 0.6 W <i>Test conditions:</i> load is off and nightlight mode is enabled. <i>Remote Dimmer/Switch:</i> 0 W <i>Test conditions:</i> load is off.
<b>Regulatory Approvals</b>	UL <sup>®</sup> , CSA (all except -PRO), cUL (-PRO only), NOM, FCC, IC, COFETEL, ANATEL (all except remotes)
<b>Environment</b>	<i>Ambient operating temperature:</i> 32 °F to 104 °F (0 °C to 40 °C), 0% to 90% humidity, non-condensing. Indoor use only.
<b>Communications</b>	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.
<b>ESD Protection</b>	Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2.
<b>Surge Protection</b>	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.
<b>RTISS Equipped</b>	Circuitry compensates in real time for incoming line-voltage variations (neutral connection required). -PRO only.
<b>Power Failure</b>	<i>Power failure memory:</i> should power be interrupted, the control will return to its previous state when power is restored.
<b>Mounting</b>	Requires a U.S. wallbox. 3½ in (89 mm) deep recommended, 2¼ in (57 mm) deep minimum.
<b>Wiring</b>	Use only remote dimmers (-RD) and remote switches (-RS) with dimmers/switches/fan speed controls. Up to 9 -RD or -RS may be used with controls.
<b>Warranty</b>	<a href="http://www.lutron.com/TechnicalDocumentLibrary/warranty.pdf">www.lutron.com/TechnicalDocumentLibrary/warranty.pdf</a>

# HomeWorks Architectural RF Maestro Local Controls

## 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.

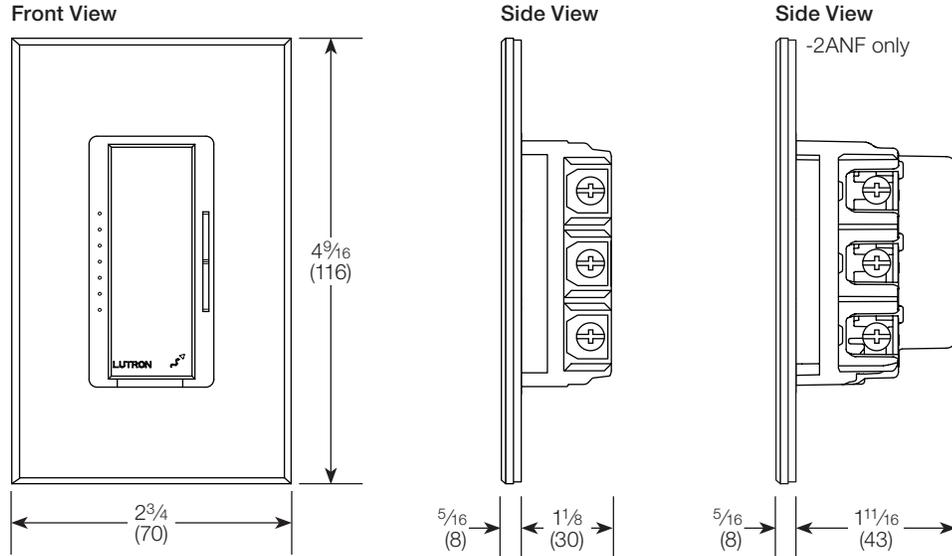
### Fan Speed Control

- 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.

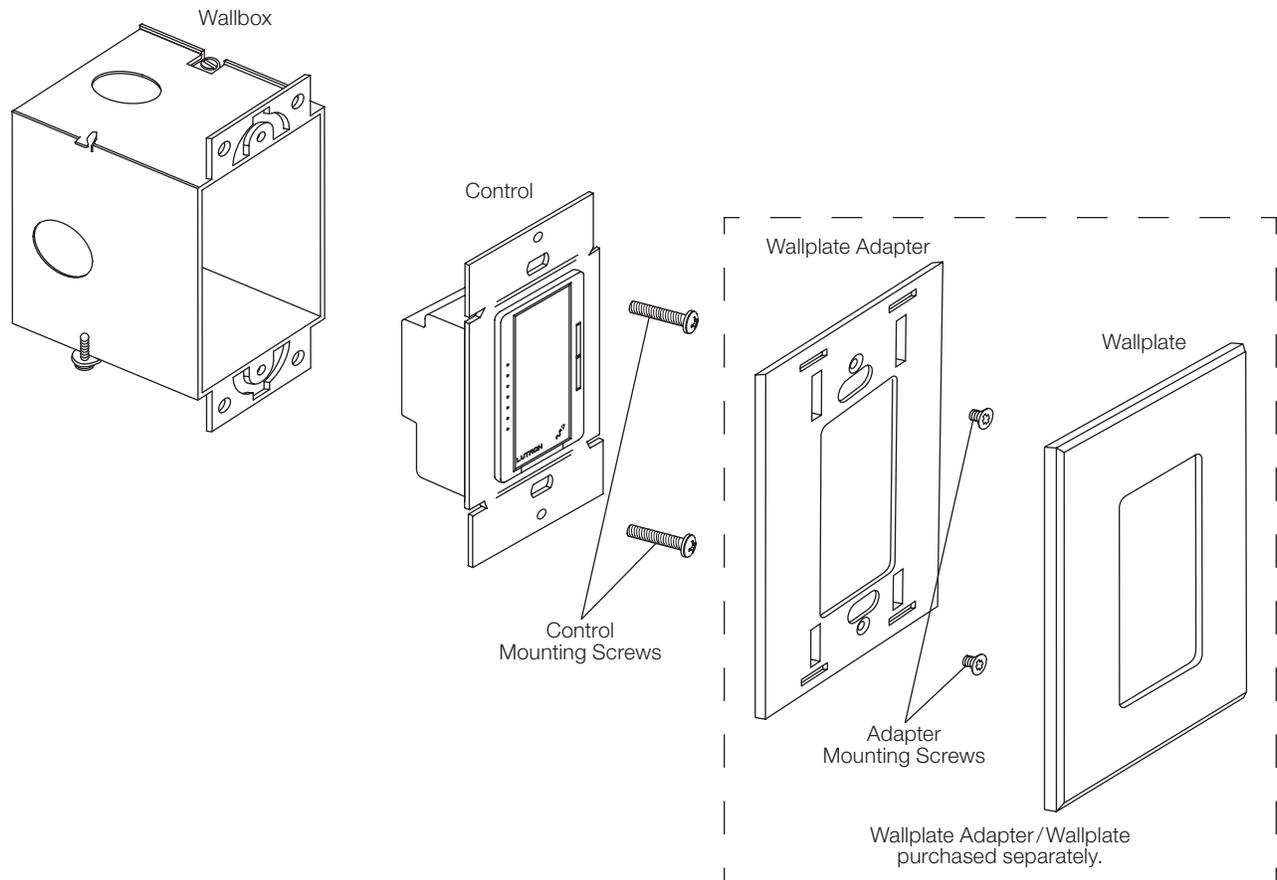
# HomeWorks Architectural RF Maestro Local Controls

## Dimensions

All dimensions are shown as: in (mm)



## Mounting

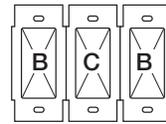
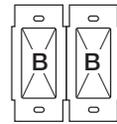


# HomeWorks Architectural RF Maestro Local Controls

## 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.

### Load Type and Capacity



Load Type	Minimum Load	A: Not Ganged	B: End of Gang	C: Middle of Gang	Neutral Connection
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HQRA-6ND <sup>1,4</sup>					
LED	Varies <sup>5</sup>	150 W	150 W	150 W	Yes
Incandescent/Halogen	10 W	600 W	500 W	400 W	
MLV <sup>2, 3</sup>	10 W/VA	450 W/600 VA	400 W/500 VA	300 W/400 VA	

HQRA-10D <sup>1</sup>					
Incandescent/Halogen	50 W	1000 W	800 W	650 W	No
MLV <sup>2</sup>	50 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA	

HQRA-10ND <sup>1,4</sup>					
LED	Varies <sup>5</sup>	150 W	150 W	150 W	Yes
Incandescent/Halogen	10 W	1000 W	800 W	650 W	
MLV <sup>2, 3</sup>	10 W/VA	800 W/1000 VA	600 W/800 VA	500 W/650 VA	

- <sup>1</sup> Dimmer Load Type:
  - -6ND,-10D, -10ND: designed for use with permanently-installed incandescent, LED, magnetic low-voltage, or tungsten halogen only.
  - Note:** Do not install dimmers to control receptacles or motor-operated appliances.
- <sup>2</sup> Low-Voltage Applications: -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.
- <sup>3</sup> Do not mix CFL or LED loads with MLV loads.
- <sup>4</sup> 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 10.
- <sup>5</sup> 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](http://www.lutron.com/ledtool)

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Customer Assistance:

# HomeWorks Architectural RF Maestro Local Controls

## Load Type and Capacity (continued)

Load Type	Minimum Load				Neutral Connection	Required Phase Mode
		A Not Ganged	B End of Gang	C Middle of Gang		
<b>HQRA-PRO</b>						
LED	1 bulb <sup>2</sup>	250 W	200 W	150 W	Optional <sup>1</sup>	Either
CFL	1 bulb <sup>2</sup>	250 W	200 W	150 W	Optional <sup>1</sup>	Forward
MLV Transformer with LEDs	See Application Note #559 (P/N 048559) at <a href="http://www.lutron.com">www.lutron.com</a>				Required	Forward
ELV Transformer with LEDs	No Derating Required					Reverse
MLV Transformer with Halogen	10 W	400 VA (300 W)	No Derating Required		Required	Forward
ELV Transformer with Halogen	10 W	500 W	400 W	300 W	Required	Reverse
Incandescent/ Halogen	5 W <sup>2</sup>	500 W	400 W	300 W	Optional <sup>1</sup>	Either
Dimmable Fluorescent Ballast	1 ballast	3.3 A (400 VA)	No Derating Required		Required	Forward
Hi-lume 1% 2-wire (LTE) LED Driver	1 driver	3.3 A (400 W) 20 drivers max.	No Derating Required		Required	Forward
PHPM-PA/3F and GRX-TVI <sup>3</sup>	1 interface	3 interfaces	No Derating Required		Required	Forward

<sup>1</sup> Neutral is recommended for best dimming performance, if available, but is not required for this load type.

<sup>2</sup> Minimum load shown is for neutral connected operation. If no neutral is used, minimum load is 2 bulbs CFL/LED, or 25 W Incandescent/Halogen.

<sup>3</sup> Power Boosters / Load Interfaces: -HQRA-PRO 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 10.

**Note:** For dimming MLV fixtures, the maximum lamp wattage is typically 70%-85% of the transformer's VA rating. For actual transformer efficiency, contact the manufacturer. The total VA rating of the transformer(s) shall not exceed the VA rating of the dimmer.

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## Load Type and Capacity (continued)

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

-8ANS and -8S-DV have fins that need to be removed for multigang installations.					
		<b>A: Not Ganged</b>	<b>B: End of Gang</b>	<b>C: Middle of Gang</b>	
Load Type	Minimum Load	A: Not Ganged	B: End of Gang	C: Middle of Gang	Neutral Connection
<b>HQRA-F6AN-DV<sup>1,2,3</sup></b>					
Fluorescent/LED Drivers	0.05 A	6 A	5 A	3.5 A	Yes
	1 ballast	60 ballasts	50 ballasts	35 ballasts	
<b>HQRA-2ANF<sup>4</sup></b>					
Ceiling Fan	0.083 A	2 A	2 A	2 A	Yes
<b>HQRA-8ANS<sup>1,5</sup></b>					
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	
<b>HQRA-8S-DV<sup>5,6</sup></b>					
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.

- <sup>1</sup> Power Boosters/Load Interfaces: -F6AN-DV and -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 10.
- <sup>2</sup> 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, Hi-lume 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.
- <sup>3</sup> Maximum Load: The maximum load for the -F6AN-DV is either the derated load or the number of ballasts, whichever is LESS.
- <sup>4</sup> 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).
- <sup>5</sup> 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.
- <sup>6</sup> 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 and 8.

# HomeWorks Architectural RF Maestro Local Controls

## 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 you have two dimmers ganged together and you have two 24 W bulbs installed (total CFL Wattage = 48 W), on one dimmer, you may add up to 300 W of incandescent or halogen lighting to that one dimmer. Repeat the exercise for the other dimmer with which it is ganged.

Total CFL/LED Wattage	Total Incandescent/Halogen Wattage						
		A: Not Ganged		B: End of Gang		C: Middle of Gang	Neutral Connection
<b>HQRA-PRO<sup>1</sup></b>							
0 W	+	5 W <sup>1</sup> –500 W	Or	5 W <sup>1</sup> –400 W	Or	5 W <sup>1</sup> –300 W	Optional
1 W–50 W	+	0 W–400 W	Or	0 W–300 W	Or	0 W–200 W	
51 W–100 W	+	0 W–300 W	Or	0 W–200 W	Or	0 W–100 W	
101 W–150 W	+	0 W–200 W	Or	0 W–100 W	Or	0 W	
151 W–200 W	+	0 W–100 W	Or	0 W	Or	N/A	
201 W–250 W	+	0 W	Or	N/A	Or	N/A	

<sup>1</sup> Minimum load shown is for neutral connected operation. If no neutral is used, minimum load is 2 bulbs CFL/LED, or 25 W Incandescent/Halogen.

# HomeWorks Architectural RF Maestro Local Controls

## 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.

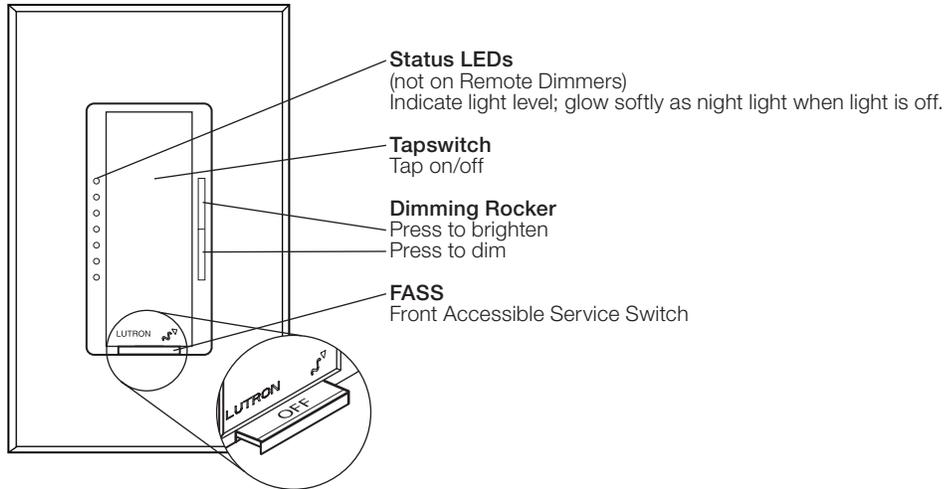
Control	Phase Adaptive Power Modules: PHPM-PA-120-WH; PHPM-PA-DV-WH	3-wire Fluorescent Power Modules: PHPM-3F-120-WH; PHPM-3F-DV-WH	Switched Power Module: PHPM-SW-DV-WH	0–10 V <sub>DC</sub> Interface and Switching Module: GRX-TVI
HQRA-6ND	✓	✓		✓
HQRA-10ND	✓	✓		✓
HQRA-F6AN-DV <sup>1</sup>	✓	✓		✓
HQRA-8ANS			✓	
HQRA-PRO	✓	✓		✓

<sup>1</sup> Only the GRX-TVI is compatible with the HQRA-F6AN-DV at 277 V<sub>AC</sub>. All other power modules are 120 V<sub>AC</sub> only.

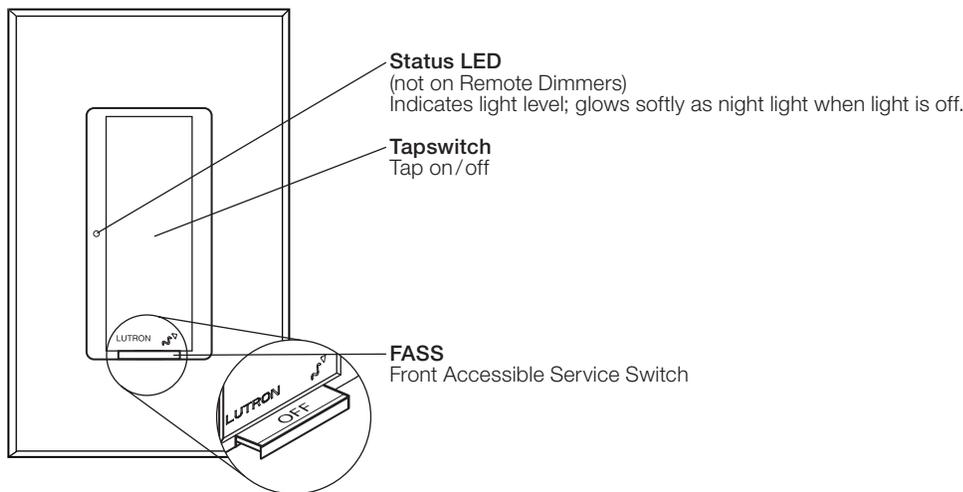
# HomeWorks Architectural RF Maestro Local Controls

## Operation

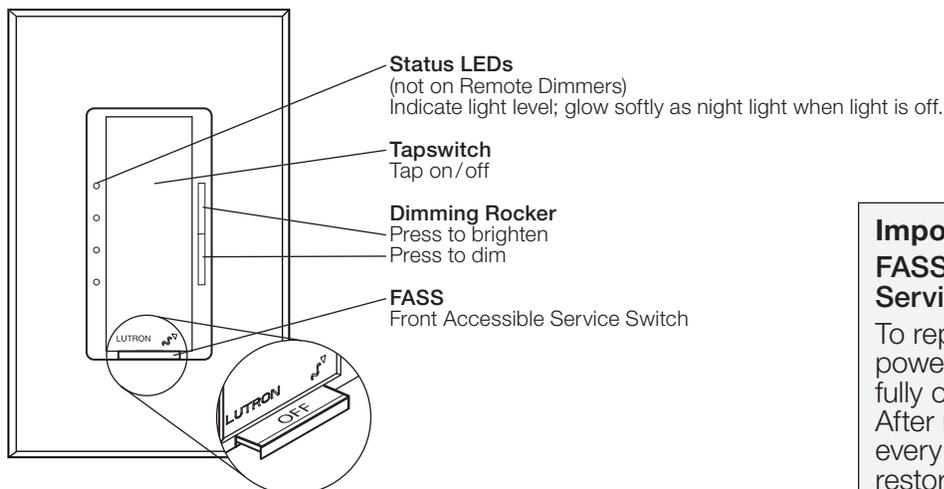
### Dimmer



### Switch



### Fan Speed Control



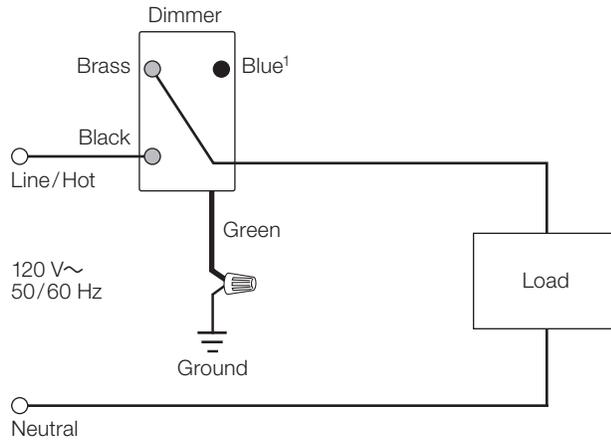
**Important Notice**  
**FASS: Front Accessible Service Switch**  
 To replace bulbs, remove power by pulling the FASS out fully on all controlling devices. After replacing bulbs, push every FASS back in fully to restore power to the controls.

# HomeWorks Architectural RF Maestro Local Controls

## Wiring Diagrams

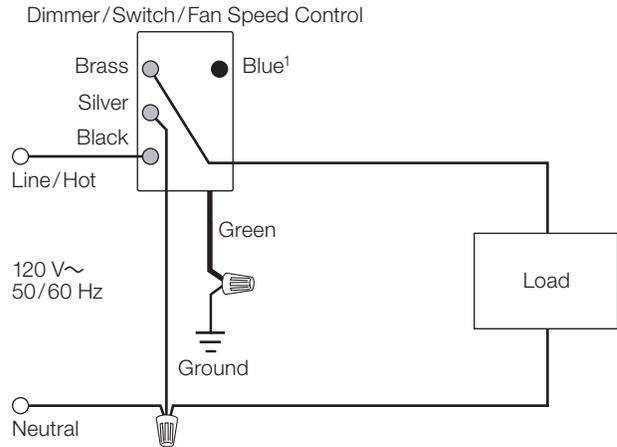
### 1: Single-Location Installation without Neutral<sup>1</sup>

-10D, -PRO



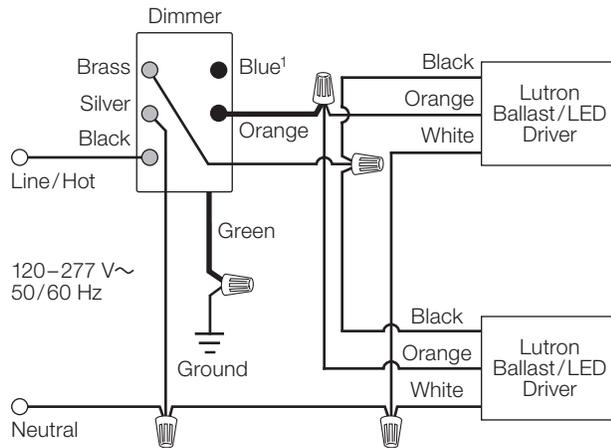
### 2: Single-Location Installation with Neutral<sup>1</sup>

-6ND, -10ND, -2ANF, -8ANS, -PRO



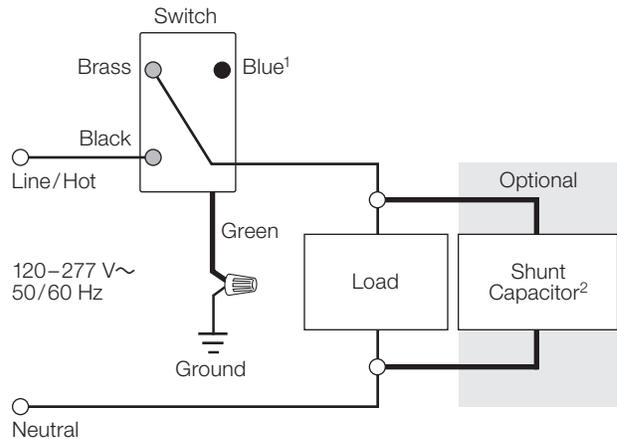
### 3: Single-Location Fluorescent Dimmer Installation<sup>1</sup>

-F6AN-DV with Lutron Ballast/LED Driver



### 4: Single-Location 2-Wire Switch Installation<sup>1</sup>

-8S-DV with Optional Shunt Capacitor<sup>2</sup>



**Note:** Bolded lines in diagrams indicate leads on products.

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

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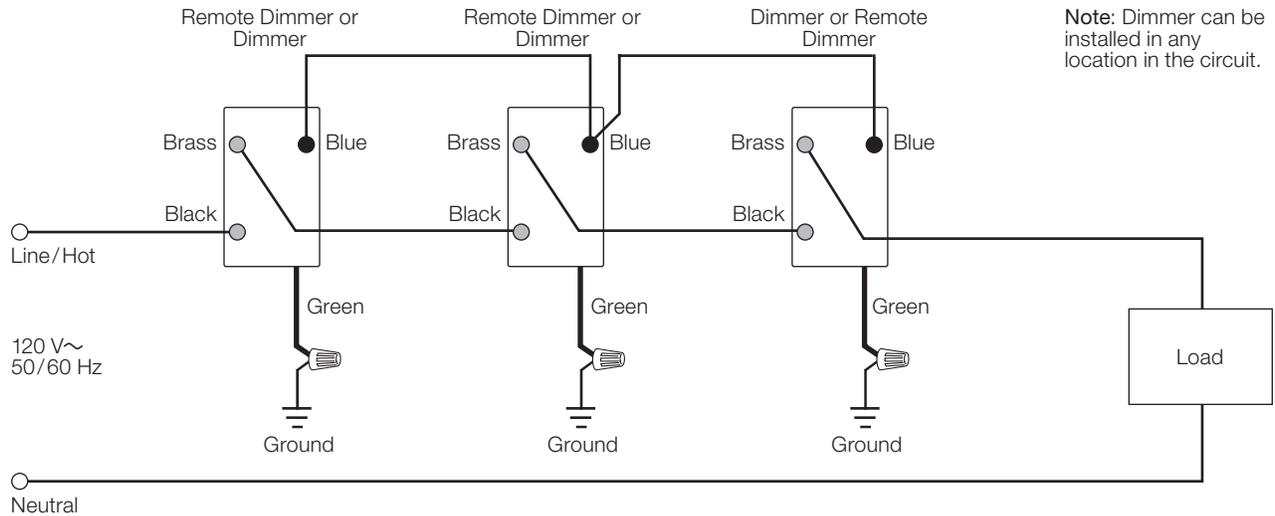
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# HomeWorks Architectural RF Maestro Local Controls

## Wiring Diagrams (continued)

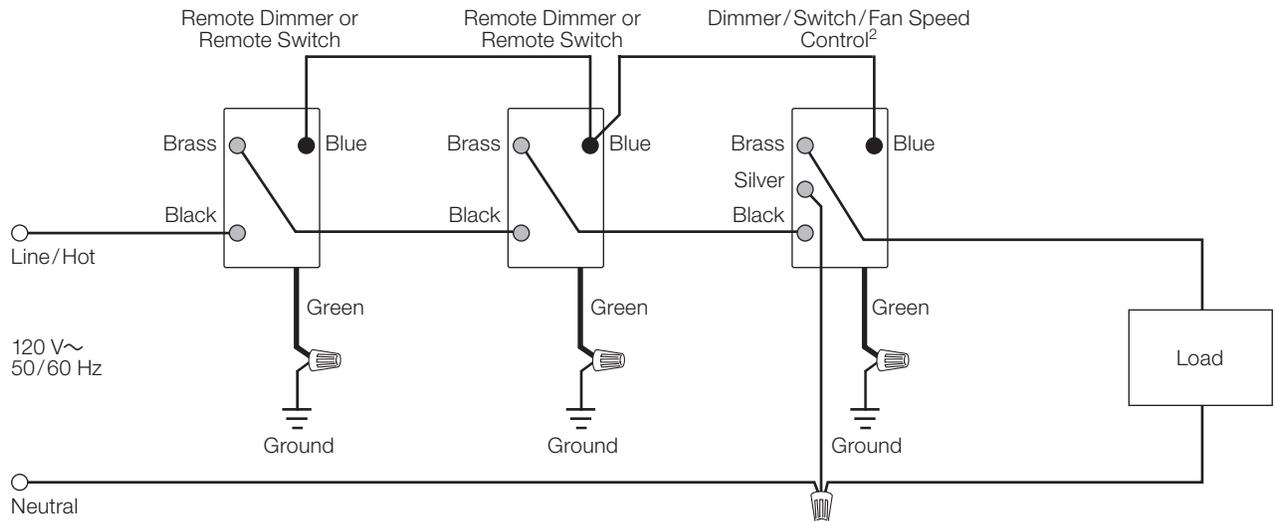
### 5: Multiple-Location Installation without Neutral<sup>1</sup>

-10D and -PRO with HQA-RD



### 6: Multiple-Location Installation with Neutral<sup>1,2</sup>

-6ND, -10ND, -2ANF, and PRO with HQA-RD ; -8ANS with HQA-RS



**Note:** Bolded lines in diagrams indicate leads on products.

<sup>1</sup> 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), except -PRO which is up to 150 ft (45 m).

<sup>2</sup> Neutral-Wire Dimmers/Switches/Fan Speed Controls must be connected on the load side of a multi-location installation, except the -PRO which can be connected in any position.

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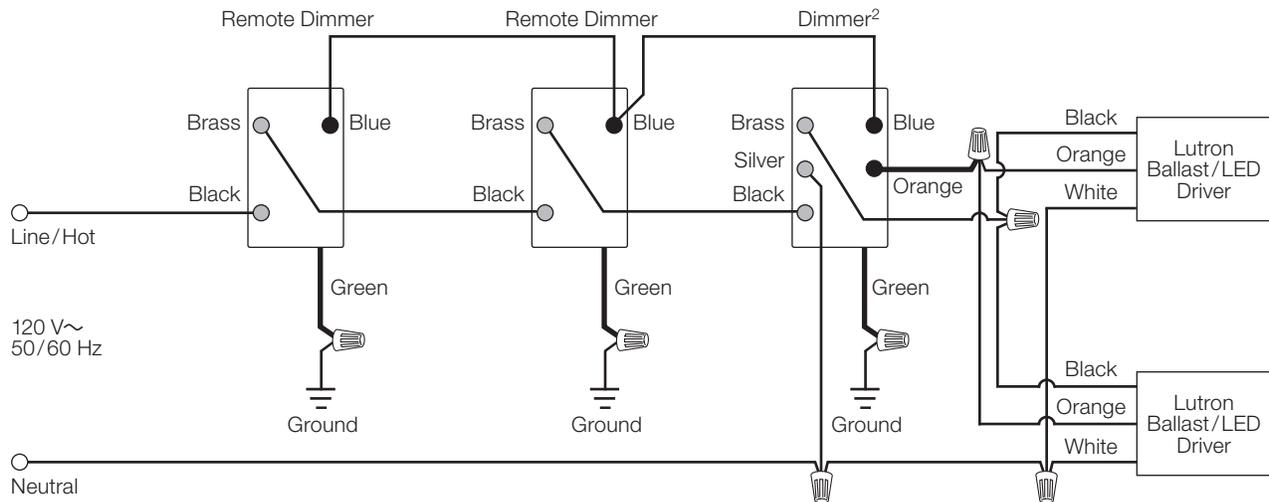
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# HomeWorks Architectural RF Maestro Local Controls

## Wiring Diagrams (continued)

### 7: Multiple-Location Fluorescent Dimmer Installation<sup>1,2</sup> (120 V~)

-F6AN with HQA-RD and Lutron Ballast/LED Driver



**Note:** Bolded lines in diagrams indicate leads on products.

- <sup>1</sup> 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), except -PRO which is up to 150 ft (45 m).
- <sup>2</sup> Neutral-Wire Dimmers/Switches/Fan Speed Controls must be connected on the load side of a multi-location installation, except the -PRO which can be connected in any position.

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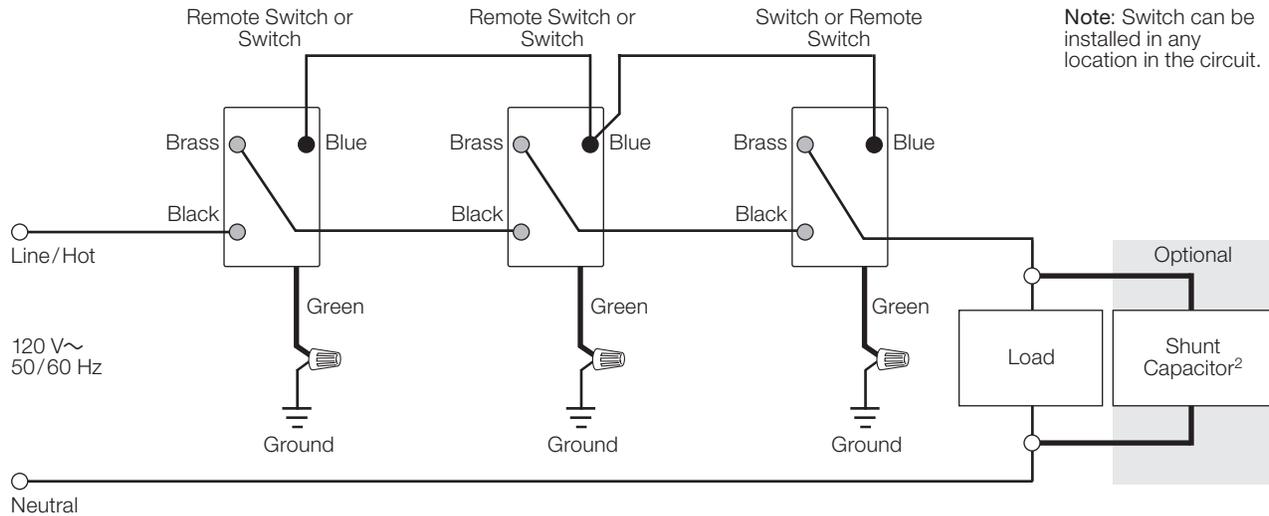
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# HomeWorks Architectural RF Maestro Local Controls

## Wiring Diagrams (continued)

### 8: Multiple-Location 2-Wire Switch Installation<sup>1</sup> (120 V~)

-8S-DV with HQA-RS and Optional Shunt Capacitor



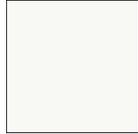
**Note:** Bolded lines in diagrams indicate leads on products.

- <sup>1</sup> 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), except for -PRO which is 150 ft (45 m).
- <sup>2</sup> Optional Shunt Capacitor must be installed inside the load fixture or in a separate J-box. Shunt capacitor (LUT-MLC) is included with 8S-DV.

# HomeWorks Architectural RF Maestro Local Controls

## Colors and Finishes

### Architectural Matte Finishes



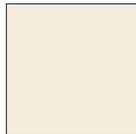
White  
WH



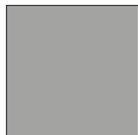
Ivory  
IV



Almond  
AL



Light Almond  
LA



Gray  
GR



Brown  
BR



Black  
BL



Taupe  
TP



Sienna  
SI



Beige  
BE

### Architectural Metal Finishes



Satin Brass  
SB



Bright Brass  
BB



Clear Anodized  
Aluminum  
CLA



Black Anodized  
Aluminum  
BLA



Antique Brass  
QB



Antique Bronze  
QZ



Satin Nickel  
SN



Bright Nickel  
BN



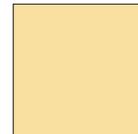
Bright Chrome  
BC



Brass Anodized  
Aluminum  
CLA



Satin Chrome  
SC



Gold  
AU

When ordering metal wallplates, it is recommended to order the controls in Black (BL).

- 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:
  - Architectural Matte Finishes: AM-CK-1
  - Architectural Metal Finishes: AMTL-CK-1

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