## Maestro Wireless® Dimmers and Switches

The Maestro Wireless solution incorporates Maestro Wireless® load controls, wireless sensors, and wireless remote controls, which provides a system that delivers energy savings, convenience, and ease of installation.

Maestro Wireless» dimmers and switches use Lutron patented Clear Connectтм RF Technology, which enables wireless communication with Radio Powr Savr $_{\text {t }}$ sensors and Pico® wireless controls for light control and general switched loads.

## Features

- The Maestro Wireless® solution provides dimming/ switching of multiple load types, occupancy/vacancy sensing, daylight harvesting, and high-end trim.
- Lutron patented Clear Connectтm RF Technology works through walls and floors.
- Incorporates advanced features such as fade on/ fade off, high-end trim, and rapid full on.
- Controls include Front Accessible Service Switch (FASS тм $_{\text {м }}$ for safe lamp replacement.
- Two-wire dimmers and switches available for retrofit applications.
- Power failure memory: If power is interrupted, the control will return to its previously set level prior to interruption.

Receiving Devices
Maestro Wireless Controls


## Transmitting Devices

Radio Powr Savrtm Sensors


Ceiling-mounted occupancy and vacancy sensor


Wall-mounted occupancy and vacancy sensor

Pico* Wireless Controls



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Model Numbers:
$\square$
Maestro Wireless』
Maestro Wireless® Dimmers

## Model Numbers

## Dimmers

Halogen/Incandescent/Magnetic Low-voltage MRF2-600M-XX 600 W Incandescent Dimmer 120 V~
MRF2-6MLV-XX 600 W/600 VA Incandescent/ MLV Dimmer 120 V~
MRF2-6ND-120-XX* 600 W/600 VA
Spec Grade Neutral wire Dimmer 120 V~
MRF2-10D-120-XX 1000 W/1000 VA
Spec Grade Dimmer 120 V~
3-wire Fluorescent
MRF2-F6AN-DV-XX*
6 A 3-wire Fluorescent Spec Grade Neutral wire Dimmer 120-277 V~
Electronic Low-Voltage Dimmer-
MRF2-6ELV-120-XX* 600 W ELV Dimmer 120 V~

* NEUTRAL WIRE REQUIRED.


## Companion Controls

Claro Gloss Finishes
MA-R-XX Companion Dimmer 120 V~
MA-R-277-XX Companion Dimmer 277 V~
Satin Colors Satin Finishes
MSC-AD-XX Companion Dimmer 120 V~
MSC-AD-277-XX Companion Dimmer 277 V~
" $X X$ " in the model number represents color/finish code.

Dimmer


## Companion Dimmer



## Dimmer Load Type and Capacity

Neutral Required

| Control | Voltage | Load Type | Minimum Load | Maximum Load |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Not Ganged | End of Gang | Middle of Gang |
| MRF2-6ND-1201,2,4 | 120 V ~ | Incand. | 25 W | 600 W | 500 W | 400 W |
|  |  | MLV ${ }^{2}$ | 25 W/VA | $\begin{aligned} & 450 \mathrm{~W} / \\ & 600 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 400 \mathrm{~W} / \\ & 500 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 300 \mathrm{~W} / \\ & 400 \mathrm{VA} \end{aligned}$ |
| MRF2-6ELV ${ }^{2}$ | 120 V ~ | ELV ${ }^{2}$ | 5 W | 600 W | 500 W | 400 W |
| MRF2-F6AN-DV3,5 | 120-277 V ~ | Lighting | $\begin{aligned} & 1 \text { ballast } \\ & 0.05 \mathrm{~A} \end{aligned}$ | 6 A | 5 A | 3 A |

## No Neutral Required

| Control | Voltage | Load Type | Minimum Load | Maximum Load |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Not Ganged | End of Gang | Middle of Gang |
| MRF2-600M ${ }^{1,4}$ | $120 \mathrm{~V} \sim$ | Incand. | 50 W | 600 W | 500 W | 400 W |
| MRF2-6MLV ${ }^{1,2,4}$ | 120 V ~ | MLV ${ }^{2}$ | 50 VA | $\begin{aligned} & 450 \mathrm{~W} / \\ & 600 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 400 \mathrm{~W} / \\ & 500 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 300 \mathrm{~W} / \\ & 400 \mathrm{VA} \end{aligned}$ |
| MRF2-10D-120 ${ }^{1,2,4}$ | 120 V ~ | Incand. | 50 W | 1000 W | 800 W | 650 W |
|  |  | MLV ${ }^{2}$ | 50 W/VA | $\begin{aligned} & 800 \mathrm{~W} / \\ & 1000 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 600 \mathrm{~W} / \\ & 800 \mathrm{VA} \end{aligned}$ | $\begin{aligned} & 500 \mathrm{~W} / \\ & 650 \mathrm{VA} \end{aligned}$ |

1 Dimmer Load Type: MRF2-6ND-120, MRF2-6MLV and MRF2-10D-120 are designed for use with permanently installed incandescent, magnetic low-voltage, or tungsten halogen only. MRF2-600M is designed for use with permanently installed incandescent or tungsten halogen only. MRF2-6ELV is designed for use with permanently installed electronic low-voltage only. Do not install dimmers to control receptacles or motor-operated appliances.
$\mathbf{2}$ Low-Voltage Applications: Use MRF2-6ND-120, MRF2-6MLV and MRF2-10D-120 with magnetic (core and coil) low-voltage transformers only. Not for use with electronic (solid-state) low-voltage transformers. Use MRF2-6ELV with electronic (solid-state) low-voltage transformers only. 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 quickly as possible.
- Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.

3 Can control the following power boosters/load interfaces: Phase-adaptive Power Modules (PHPM-WBX-DV-WH), 3-wire Fluorescent Power Modules (PHPM-3F-DV-WH), Tu-Wire. Fluorescent Power Modules (PHPM-PA-DV-WH), and 0-10 V (GRX-TVI).
4 Can control the following power booster/load interface: Hi-Power $2 \cdot 4 \cdot 6_{\mathrm{m}}$ Boosters (HP-2, HP-4, HP-6) for control of most popular lighting sources including Lutron 3-wire line voltage control fluorescent dimming ballasts (Hi-lume*, Hi-lume Compact SE ${ }_{\text {тм }}$, Eco-10』, and EcoSystem』).
5 Dimmer Load Type: MRF2-F6AN-DV is designed for use with permanently installed 3-wire line voltage control fluorescent ballasts or LED drivers only (Hi-lume*, Hi-lume Compact SE ${ }_{\text {тм }}$, Eco-10®, and EcoSystem®).
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## Maestro Wireless® Switches

Model Numbers
Switches

| Lighting and motor loads |  |
| :--- | :--- |
| MRF2-6ANS-XX* | 6 A Lighting/3 A Fan ( $1 / 10 \mathrm{HP}$ <br> motor), Electronic Switch <br> $120 \mathrm{~V} \sim$ |

MRF2-8ANS-120-XX* 8 A Lighting, 5.8 A Fan (1/4 HI motor), Spec Grade Electronic Switch 120 V~
MRF2-6ANS-277-XX* 6 A Lighting, Spec Grade Electronic Switch 277 V~
MRF2-8S-DV-XX 8 A Lighting, 3 A Fan (1/10 HF motor, $120 \mathrm{~V} \sim$ only), Spec Grade Electronic Switch 120-277 V~, NO NEUTRAL WIRE REQUIRED
*NEUTRAL WIRE REQUIRED.

Companion Controls
Claro Gloss Finishes
MA-AS-XX
Companion Switch 120 V~
MA-AS-277-XX Companion Switch 277 V~
Satin Colors Satin Finishes
MSC-AS-XX Companion Switch 120 V~ MSC-AS-277-XX Companion Switch 277 V~
" $X X$ " in the model number represents color/finish code.

Switch


Companion Switch



## Switch Load Type and Capacity

## Neutral Required

| Control | Voltage | Load Type | Minimum Load | Maximum Load |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Not Ganged | End of Gang | Middle of Gang |
| MRF2-8ANS-120 ${ }^{1,3}$ | 120 V ~ | Lighting | 25 W | 8 A | 6.5 A | 5 A |
|  |  | Fan Motor | 0.2 A | $\begin{aligned} & \hline 1 / 4 \mathrm{HP} \\ & 5.8 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 1 / 4 \mathrm{HP} \\ & 5.8 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 1 / 6 \mathrm{HP} \\ & 4.4 \mathrm{~A} \end{aligned}$ |
| MRF2-6ANS ${ }^{1}$ | 120 V | Lighting | 25 W | 6 A | 5 A | 3.5 A |
|  |  | Fan Motor | 0.2 A | $\begin{aligned} & 1 / 10 \mathrm{HP} \\ & 3 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 1 / 10 \mathrm{HP} \\ & 3 \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 1 / 10 \mathrm{HP} \\ & 3 \mathrm{~A} \end{aligned}$ |
| MRF2-6ANS-277 ${ }^{2}$ | 277 V~ | Lighting | 25 W | 6 A | 5 A | 3.5 A |

## No Neutral Required

| Control | Voltage | Load Type | Minimum <br> Load | Maximum Load |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | End of <br> Gang | Middle of <br> Gang |  |
| MRF2-8S-DV ${ }^{2}$ | $120-277 \mathrm{~V} \sim$ | Incandescent/ <br> Halogen | 25 W | 8 A | $8 \mathrm{~A} / 7 \mathrm{~A}^{4}$ | 7 A |
|  | $120-277 \mathrm{~V} \sim$ | Fluorescent/ <br> LED/CFL | 40 W <br> $(\mathrm{LUT}-\mathrm{MLC})^{5}$ | 8 A | $8 \mathrm{~A} / 7 \mathrm{~A}^{4}$ | 7 A |
|  | $120 \mathrm{~V} \sim$ | Fan <br> Motor | 0.4 A | $1 / 10 \mathrm{HP}$ <br> 3 A | $1 / 10 \mathrm{HP}$ <br> 3 A | $1 / 10 \mathrm{HP}$ <br> 3 A |

[^0]

## Specifications

## Regulatory Approvals

- UL Listed.
- CSA Certified.
- FCC Approved. Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
- Industry Canada Certified.


## Power

Operating voltage:
120 V~ 50/60 Hz
277 V~ 50/60 Hz (MRF2-6ANS-277, MRF2-8S-DV, MRF2-F6AN-DV)

## Key Design Features

## Dimmers

- On a single-tap, lights fade UP or DOWN.
- On a double-tap, lights go to full ON.
- When ON, press and hold to engage 20-second 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.


## Switch

- On a single-tap, lights turn ON or OFF.
- Two-wire switches available.


## All RF Local Controls

- Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2.
- 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.
- Controls always operate locally and do not require system control.
- Power failure memory: should power be interrupted, the control will return to its previously set level prior to the interruption when power is restored.
- Uses conventional 3-way and 4-way wiring.
- Multiple location control from Dimmer/Switch and up to 9 Companion Dimmer(s)/Switch(es).
- Use Lutron» Designer (Claro» and 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.
- Requires a 1 -gang U.S. wallbox. $31 / 2$ in ( 89 mm ) deep recommended, $21 / 4$ in ( 57 mm ) deep minimum.
- Green indicator lights.


## System Communications and Capacity

- Maestro Wireless controls communicate with the Pico® wireless controls and Radio Power Savrtm sensors through radio frequency (RF).
- Maestro Wirelesse local controls must be located within $60 \mathrm{ft}(18 \mathrm{~m})$ line of sight or $30 \mathrm{ft}(9 \mathrm{~m})$ through walls, of Radio Power Savrim sensors.
- Maestro Wireless® local controls must be located within $100 \mathrm{ft}(30 \mathrm{~m})$ line of sight or $30 \mathrm{ft}(9 \mathrm{~m})$ through walls, of a Pico』 wireless control.
- Up to 10 Maestro Wirelesse controls can be configured to work together.


## Environment

- Ambient operating temperature: $32{ }^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}$ $\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right), 0 \%-90 \%$ humidity, non-condensing. Indoor use only.
Job Name:
Job Number: $\square$

Model Numbers:

## Operation



## IMPORTANT NOTICE:

FASS $_{T M}$ - Front Accessible Service Switch - to service load, remove power by pulling the FASS $_{T M}$ switch out completely on either the Dimmer/Switch or Companion Dimmer/Switch. After servicing load, push the FASS тм $_{\text {switch }}$ back in fully to restore power to the control.

## Mounting



| $\square$ | $\square$ |
| :--- | :--- |
| $\square$ |  |

## Dimensions

Front View


Side View


## Ganging and Derating

When ganging with other controls in the same wallbox, derating is required. See Load Type and Capacity chart. Only MRF2-8ANS controls have fins that need to be removed for multigang installations. No other controls have fins, but they must still be derated in multigang installations.

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| :--- | :--- |
|  | $\square$ |

## Wiring Diagrams

## Single Location Installation

MRF2-600M, MRF2-6MLV, MRF2-10D-120


Single Location Installation with Neutral
MRF2-6ND-120, MRF2-6ELV-120, MRF2-6ANS-120, MRF2-8ANS-120, MRF2-6ANS-277


Multi-Location Installation ${ }^{2}$
MRF2-600M, MRF2-6MLV, MRF2-10D-120 with MA-R/MSC-AD


Neutral

## Multi-Location Installation with Neutral ${ }^{2,3}$

MRF2-6ND-120, MRF2-6ELV-120 with MA-R/MSC-AD; MRF2-6ANS-120, MRF2-8ANS-120 with MA-AS/MSC-AS; MRF2-6ANS-277 with MA-AS-277/MSC-AS-277


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Model Numbers:


## Wiring Diagrams

## Single Location Installation

MRF2-8S-DV


* A LUT-MLC ensures proper function when fluorescent, CFL, or LED loads are used. Install the LUT-MLC inside a load fixture or in a separate J-box of the circuit.


## Multi-Location Installation ${ }^{2}$

MRF2-8S-DV4, with MA-AS/MA-AS-277 or MSC-AS/MSC-AS-277


[^2]

Model Numbers:


## Wiring Diagrams

Single Location Installation with Neutral
MRF2-F6AN-DV


Multi-Location Installation with Neutral ${ }^{2,3}$
MRF2-F6AN-DV with MA-R/MA-R-277 or MSC-AD/MSC-AD-2774

${ }^{1}$ 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 Maestro® Companion Dimmers may be connected to the Maestro Wireless® Dimmer. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
${ }^{3}$ Neutral wire Dimmers must be connected on the Load side of a multi-location installation.
${ }^{4}$ Requires MA-R/MSC-AD for $120 \mathrm{~V} \sim$ applications, and MA-R-277/MSC-AD-277 for $277 \mathrm{~V} \sim$ applications.



## Wiring Diagrams

Single Location Installation with Power Booster Single Feed<br>MRF2-6ANS-120, MRF2-8ANS-120 with PHPM-SW-DV-WH



Multi-Location Installation with Power Booster ${ }^{2,3}$ Single Feed
MRF2-6ANS-120, MRF2-8ANS-120 with MA-AS/MSC-AS and PHPM-SW-DV-WH


## Single Location Installation with Power Booster Dual Feed <br> MRF2-6ANS-120, MRF2-8ANS-120 with PHPM-SW-DV-WH



## Multi-Location Installation with Power Booster ${ }^{2,3}$ Dual Feed <br> MRF2-6ANS-120, MRF2-8ANS-120 with MA-AS/MSC-AS and PHPM-SW-DV-WH


${ }^{1}$ 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 Maestro® Companion Switches may be connected to the Maestro Wireless® Switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
${ }^{3}$ Neutral wire Switches must be connected on the Load side of a multi-location installation.

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

## Model Numbers:

$\square$
$\square$

## Wiring Diagrams

## Single Location Installation with Power Booster Single Feed

MRF2-F6AN-DV with PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH


Multi-Location Installation with Power Booster ${ }^{2,3}$ Single Feed
MRF2-F6AN-DV with MA-R/MSC-AD and PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH


## Single Location Installation with Power Booster Dual Feed

MRF2-F6AN-DV with PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH


## Multi-Location Installation with Power Booster ${ }^{2,3}$ Dual Feed

MRF2-F6AN-DV with MA-R/MSC-AD and PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH


[^3]$\square$
$\square$

## Colors and Finishes

## Gloss Finishes



Almond
AL

## Gray <br> GR <br> 



Black
BL

Due to printing limitations, colors and finishes shown cannot be guaranteed to perfectly match actual product colors.


Light
Almond
LA


Satin Finishes


Hot
HT


Taupe
TP


Palladium
PD


Merlot MR


Plum
PL


Eggshell
ES


Snow
SW


Midnight MN


Sienna
SI


Goldstone GS

Metal Finish (wallplate only)


Stainless
Steel SS

When using Stainless Steel wallplates, it is recommended to order the controls in Black (BL) or Midnight (MN).

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Job Number: $\square$

Model Numbers:
$\square$
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[^0]:    1 Switch Load Type: MRF2-8ANS-120 is designed for use with permanently installed lighting loads and with fan motor loads up to 1/4 HP (5.8 A). MRF2-6ANS is designed for use with permanently installed lighting loads and with fan motor loads up to $1 / 10 \mathrm{HP}(3 \mathrm{~A})$. MRF2-8S-DV is designed for use with permanently installed lighting loads and with fan motor loads up to $1 / 10 \mathrm{HP}(3 \mathrm{~A}, 120 \mathrm{~V} \sim$ only).
    2 Switch Load Type: MRF2-6ANS-277 and MRF2-8S-DV are designed for use with permanently installed lighting loads.
    3 For loads larger than 8 A @ 120 V~, the MRF2-8ANS-120 switch can be used with the PHPM-SW-DV-WH power booster. For loads larger than the MRF2-6ANS-277 capacity of 6 A @ $277 \mathrm{~V} \sim$, the MRF2-8ANS-120 can also be used with the PHPM-SW-DV-WH power booster to switch 277 V~ loads. Please note that in this applica-
    tion, the MRF2-8ANS-120 switch is providing an input at $120 \mathrm{~V} \sim$ and the power booster is switching $277 \mathrm{~V} \sim$.
    4 Maximum load for double gang application is 8 A. Triple gang application derates maximum load to 7 A.
    5 The LUT-MLC ensures proper function with certain fluorescent, CFL, and LED load types.

[^1]:    ${ }^{1}$ When using controls in single location installations, tighten the blue terminal without any wires attached. DO NOT connect the blue terminal to any other wiring or to ground.
    ${ }^{2}$ Up to 9 Maestro® Companion Dimmers/Switches may be connected to the Maestro Wireless* Dimmer/Switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$
    ${ }^{3}$ Neutral wire Dimmers/Switches must be connected on the Load side of a multi-location installation.
    ${ }^{4} 120$ V~: MRF2-6ND, MRF2-6ANS-120, MRF2-8ANS-120, MRF2-6ELV-120
    277 V~: MRF2-6ANS-277, MRF2-8S-DV
    ${ }^{5}$ Requires MA-AS/MSC-AS for $120 \mathrm{~V} \sim$ applications, and MA-AS-277/MSC-AS-277 for 277 V~ applications.

[^2]:    ${ }^{1}$ When using controls in single location installations, tighten the blue terminal without any wires attached. DO NOT connect the blue terminal to any other wiring or to ground.
    ${ }^{2}$ Up to 9 Maestro Companion Dimmers/Switches may be connected to the Maestro Wireless® Dimmer/Switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
    ${ }^{3} 120$ V~ : MRF2-6ND, MRF2-6ANS-120, MRF2-8ANS-120, MRF2-6ELV-120
    277 V~ : MRF2-6ANS-277, MRF2-8S-DV
    ${ }^{4}$ Requires MA-AS/MSC-AS for 120 V~ applications, and MA-AS-277/MSC-AS-277 for 277 V~ applications.

[^3]:    ${ }^{1}$ 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 Maestro® Companion Dimmers may be connected to the Maestro Wireless® Dimmer. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
    ${ }^{3}$ Neutral wire Dimmers must be connected on the Load side of a multi-location installation.
    ${ }^{4}$ When using a PHPM, tighten the brass (Sw Hot) terminal of the MRF2-F6AN-DV. DO NOT connect the brass terminal to any other wiring or to ground.

