

Installation Instructions

Please Read Before Installing

Designer-Style Maestro® Remotes

HD-RD, -RS

120/127 V ~, 50/60 Hz

Overview

The HD-RD Remote Dimmer and the HD-RS Remote Switch are for use with *HomeWorks Maestro* Dimmers and Switches.

Up to nine HD-RD Remote Dimmers may be used with a *HomeWorks* Wired or RF *Maestro* Dimmer, and up to nine HD-RS Remote Switches may be used with a *HomeWorks* Wired or RF *Maestro* Switch.

Important Notes

Codes: Install in accordance with all local and national electrical codes.



Danger: These controls must not be used to control equipment which is not visible from every control location. They must also not be used to control equipment which could create hazardous situations such as entrapment if operated accidentally.

Examples of such equipment which must not be operated by these controls include (but are not limited to) motorized gates, garage doors, industrial doors, microwave ovens, heating pads, etc. It is the installer's responsibility to ensure that the equipment being controlled is visible from every control location and that only suitable equipment is connected to these controls.

Overheat Damage: To reduce the risk of overheating and possibly damaging other equipment, do not install to control receptacles or motor-operated appliances.

Environment: Ambient operating temperature: 0-40°C, 32-104°F, 0-90% humidity, non-condensing. Indoor use only.

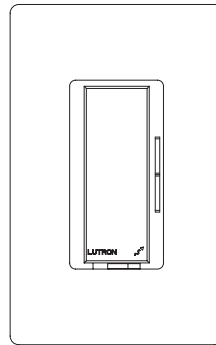
Spacing: If mounting one control above another, leave at least 4 1/2" (114mm) vertical space between them.

Wallplates: Lutron Claro® and Satin Colors™ wallplates are recommended for best color match and aesthetic appearance. Do not paint controls or wallplates.

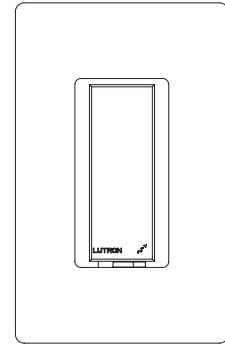
Cleaning: To clean, wipe with a clean damp cloth. **DO NOT** use any chemical cleaning solutions.

Wallboxes: Lutron recommends using 3-1/2" (89mm) deep wallboxes for easier installation. Several controls may be installed in one multigang wallbox - see Multigang Installations (page 2).

Remotes: Use only Lutron® *HomeWorks Maestro* Remote Dimmers (HD-RD) with HRD/HWD-6D, -6ND, -10D, -10ND, and -5NE controls. Use only *Lutron HomeWorks Maestro* Remote Switches (HD-RS) with HRD/HWD-8ANS controls. Up to 9 HD-RD or HD-RS controls may be used with a *HomeWorks Maestro* Dimmer or Switch. Mechanical 3- or 4-way switches will not work.



HD-RD



HD-RS

Multigang Installations

In multigang installations, several controls are grouped horizontally in one multigang wallbox.

- No derating is required for Remotes.
- When ganging Remotes with dimmers or switches in the same wallbox, derating is required for the dimmers or switches. See the installation instructions that came with the dimmer or switch for derating requirements.

Note: Controls do not have fins that need to be removed for multigang installations.

Installation



Danger - Locate and remove fuse or lock circuit breaker in the OFF position before proceeding. Wiring with power ON may result in personal injury.

Short Circuit Check: Check the installation for short circuits before installing control(s). With power OFF, install standard mechanical switch(es) between Hot and load. Restore power. If lights do not work or a breaker trips, check wiring. Correct wiring and check again. Install control(s) only when short is no longer present. Warranty is void if control is turned ON with a shorted circuit.

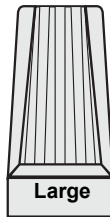
1. Turn power OFF at fusebox or circuit breaker.
2. Prepare wires. When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connectors. Note: Wire connectors provided are suitable **for copper wire only**.

Large:

Strip insulation 1/2" (13mm) for #10 AWG (6mm²), #12 AWG (4mm²) or #14 AWG (2.5mm²).

Strip insulation 5/8" (16mm) for #16 AWG (1.5mm²) or #18 AWG (1.0mm²).

Use to join one or two #12 or 14 AWG supply wires with one #10, 12, 14, 16 or 18 AWG control wire.



3. Wire controls using Wiring Diagrams 1 and 2 (page 3). When using power boosters or interfaces, use Wiring Diagrams 3, 4, and 5 (page 4). Up to nine HD-RD or HD-RS remotes may be connected to the -6D, -6ND, -10D, -10ND, -5NE, or -8ANS controls.
4. Push all wires back into the wallbox and loosely fasten the control to the wallbox using the control mounting screws provided. Do not pinch the wires.

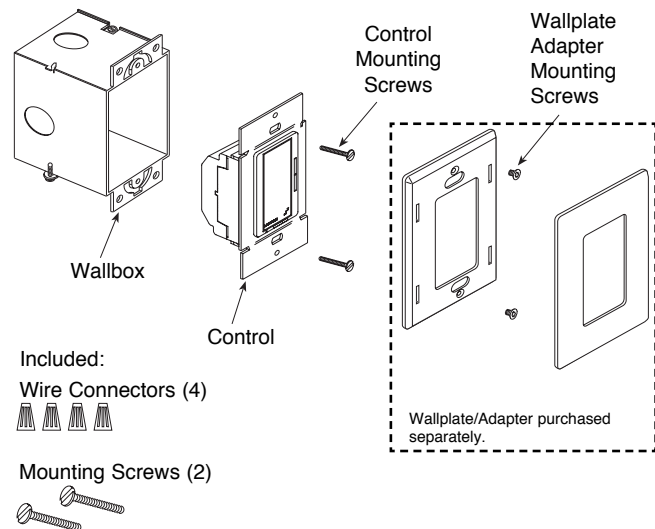
5. Attach Lutron Claro® or Satin Colors™ wallplate adapter and wallplate.

- a. Loosely install control mounting screws.
- b. Tighten wallplate adapter mounting screws snug.
- c. Tighten control mounting screws until wallplate adapter is flush to wall (do not over-tighten).
- d. Snap wallplate onto wallplate adapter, and verify that control is not submerged.
- e. If control is submerged, loosen mounting screws appropriately.

6. Complete wiring for all dimmers, switches and remotes in this circuit.

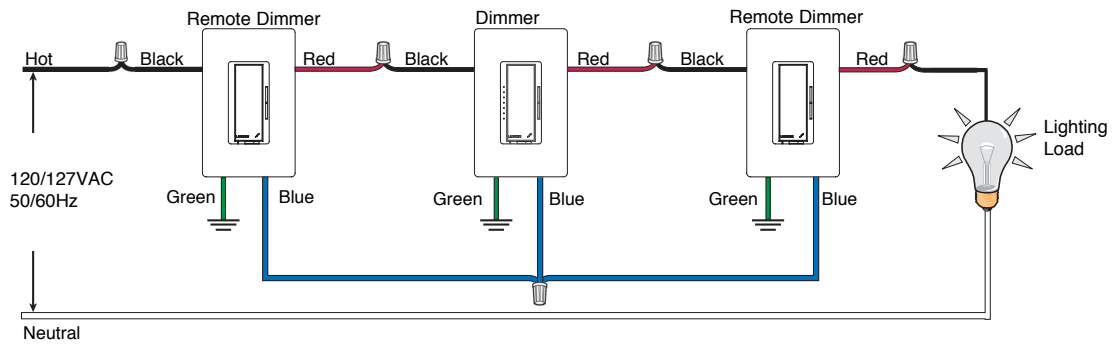
7. Restore power. Check for correct local operation (see Local Operation, page 5).

Mounting Diagram



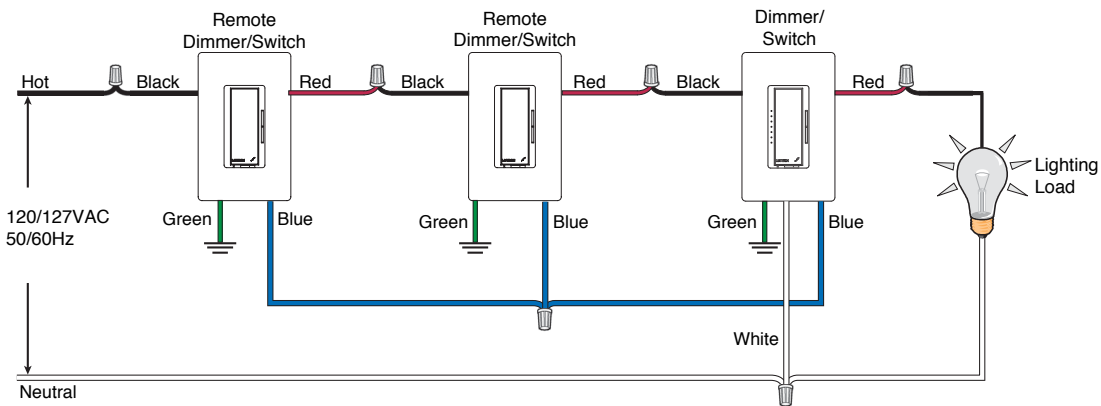
Wiring Diagram 1

Multi-Location Installation¹
-6D, -10D with HD-RD



Wiring Diagram 2

Multi-Location Installation with Neutral^{1,2}
-6ND, -10ND, -5NE with HD-RD, -8ANS with HD-RS

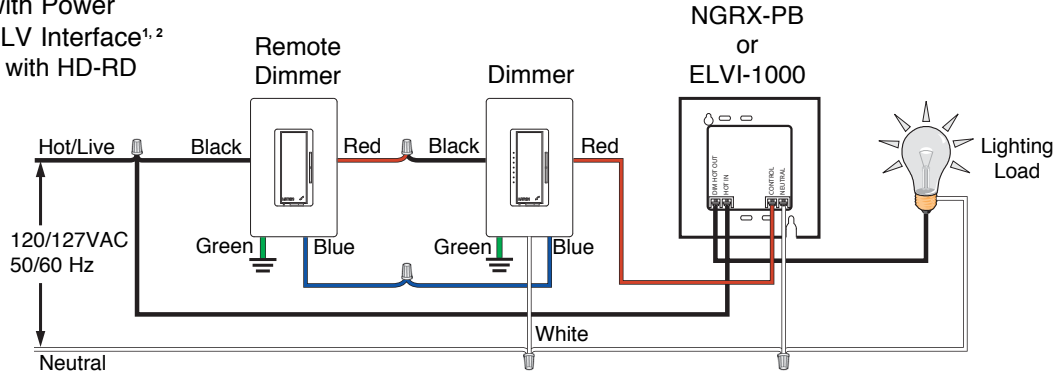


¹ Up to 9 HomeWorks® Maestro® Remote Dimmers/Switches may be connected to the *HomeWorks Maestro* Dimmer/Switch. Total Blue wire length may be up to 250' (76m).

² Remote Dimmers/Switches must be connected on the Line side of a multi-location installation when used with Neutral wire Dimmers or Switches.

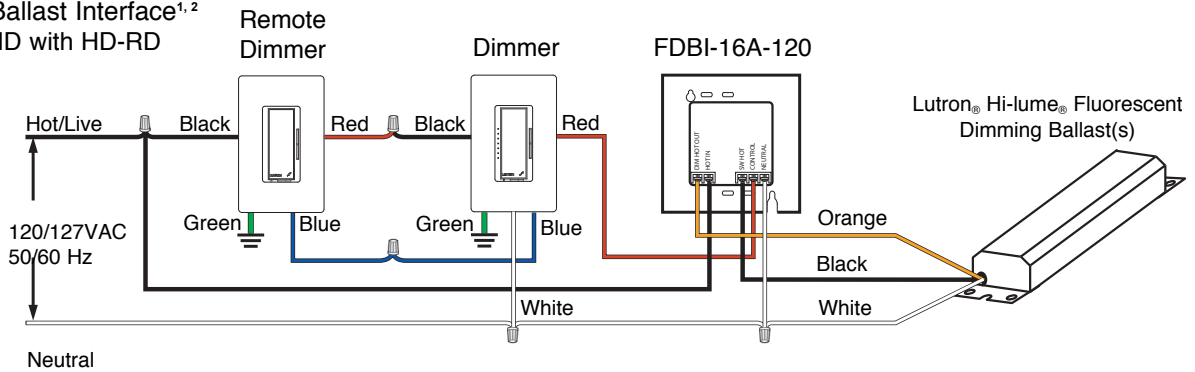
Wiring Diagram 3

Installation with Power
Booster or ELV Interface^{1,2}
-6ND, -10ND with HD-RD



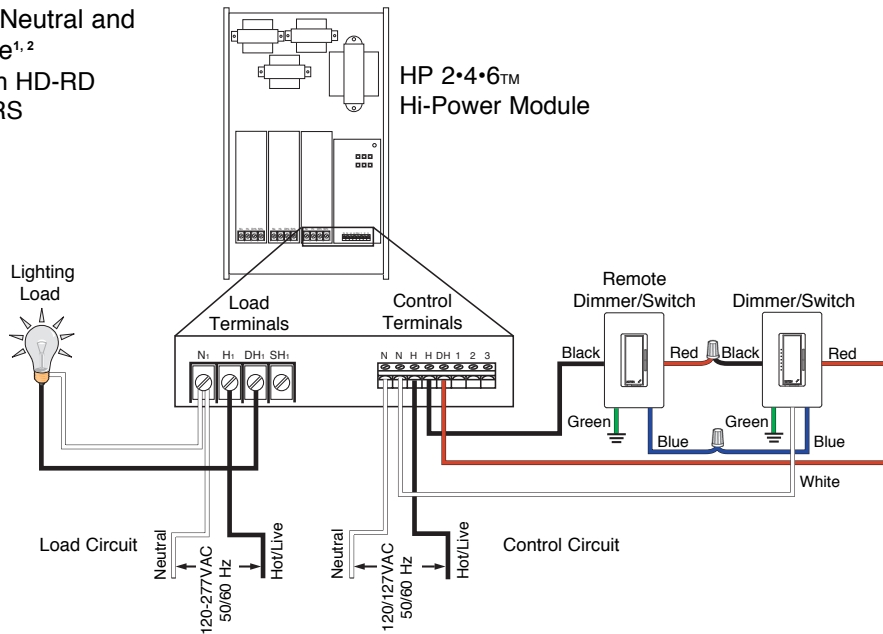
Wiring Diagram 4

Installation with Fluorescent
Dimming Ballast Interface^{1,2}
-6ND, -10ND with HD-RD



Wiring Diagram 5

Installation with Neutral and
Hi-Power Module^{1,2}
-6ND, -10ND with HD-RD
-8ANS with HD-RS



¹ Up to 9 HomeWorks® Maestro® Remote Dimmers/Switches may be connected to the *HomeWorks Maestro* Dimmer/Switch. Total blue wire length may be up to 250 ft. (76m).

² Remote Dimmers/Switches must be connected on the Line side of a multi-location installation when used with Neutral wire Dimmers or Switches.

Local Operation

Pressing the Tapswitch on any Dimmer, Switch, or Remote will alternately turn the lights ON and OFF. For HD-RD, the ON level will be the level previously set using the Dimming Rocker. Press and hold the top or bottom of the Dimming Rocker to raise or lower the light level.

Double-tapping the Tapswitch on the HD-RD will turn the lights ON to full. Pressing and holding the Tapswitch for 1/2 second (while ON) activates a 10-second long fade-to-off.

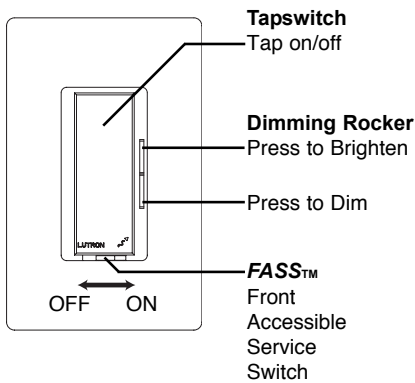
Lamp Replacement

For routine lamp replacement, remove power from the fixture(s) by sliding the Front-Accessible Service Switch (FASS) to the OFF position (left). After replacing lamps, slide the FASS back to the ON position (right) to restore power.

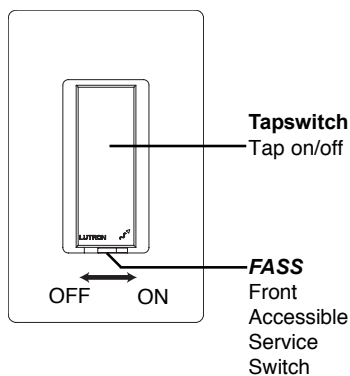


Danger - For any procedure other than routine lamp replacement, power must be disconnected at the main electrical panel.

Remote Dimmer Operation



Remote Switch Operation



Troubleshooting Guide

Symptom	Cause and Action
No lights at all	<p>Power not present</p> <ul style="list-style-type: none"> • Circuit breaker OFF or tripped. Perform Short Circuit Check (see page 2). • <i>FASS™</i> in the OFF position. Move <i>FASS</i> to the ON position by sliding it to the right. Check both the dimmer/switch and all of the remote dimmers/switches. <p>Wiring</p> <ul style="list-style-type: none"> • Wires shorted. Make sure the blue wires are not grounded or shorted to any other wires. • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams. <p>Lamps burned out</p> <ul style="list-style-type: none"> • Replace lamps. <p>Diode lamps</p> <ul style="list-style-type: none"> • If diode lamps are being used, replace with non-diode lamps.
Lights turn ON when tap-switch is pressed, then turn OFF	<p>Wiring</p> <ul style="list-style-type: none"> • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams. <p>Tapswitch stuck</p> <ul style="list-style-type: none"> • Tapswitch stuck at another location. Check to see that tapswitches are not sticking for all control locations in the circuit.
Light turns ON and OFF continuously	<p>Load is less than minimum load requirement</p> <ul style="list-style-type: none"> • Make sure the load connected to the dimmer or switch meets the appropriate minimum load requirement for that control. See Load Specifications in the Installation Instructions for the dimmer or switch.
Lights don't switch when tap-switch is pressed	<p>Wiring</p> <ul style="list-style-type: none"> • Wires shorted. Make sure the blue wires are not grounded or shorted to any other wires. • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams.
Lights don't switch ON/OFF when HD-RD or HD-RS tap-switch is pressed	<p>Wiring</p> <ul style="list-style-type: none"> • Wires shorted. Make sure the blue wires are not grounded or shorted to any other wires. • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams.
Lights don't switch ON/OFF from Keypad	<p>Improper programming</p> <ul style="list-style-type: none"> • Check programming in HomeWorks® Utility. <p>Wiring</p> <ul style="list-style-type: none"> • Wires shorted. Make sure the blue wires are not grounded or shorted to any other wires. • Wiring error. Check wiring to be sure it agrees with installation instructions and wiring diagrams.

Notes:

Technical and Sales Assistance
If you need assistance, call the toll-free **Lutron Technical Support Center**. Please provide exact model number when calling.
(800) 523-9466 (U.S.A., Canada and the Caribbean)
Other countries call:
Tel: (610) 282-3800
Fax: (610) 282-3090
Visit our Web site at www.lutron.com

LIMITED WARRANTY

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within two years after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage pre-paid. Telephone the Lutron Technical Support Center toll free at 800-523-9466. After the two year period, a pro-rated warranty applies to this product until eight years after the purchase. For more information regarding this warranty contact your Lutron representative.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, AND THE IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED TO TWO YEARS FROM PURCHASE. THIS WARRANTY DOES NOT COVER THE COST OF INSTALLATION, REMOVAL OR REINSTALLATION, OR DAMAGE RESULTING FROM MISUSE, ABUSE, OR IMPROPER OR INCORRECT REPAIR, OR DAMAGE FROM IMPROPER WIRING OR INSTALLATION. THIS WARRANTY DOES NOT COVER INCIDENTAL OR CONSEQUENTIAL DAMAGES. LUTRON'S LIABILITY ON ANY CLAIM FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE MANUFACTURE, SALE, INSTALLATION, DELIVERY, OR USE OF THE UNIT SHALL NEVER EXCEED THE PURCHASE PRICE OF THE UNIT.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This product may be covered by one or more of the following U.S. patents: 5,248,919; 5,399,940; 5,637,930; D353,798 and corresponding foreign patents. U.S. and foreign patents pending. Lutron, Claro, Maestro, Hi-lume and HomeWorks are registered trademarks and Satin Colors, HP 2•4•6, FASS and the HomeWorks Logo are trademarks of Lutron Electronics Co., Inc.

© 2003 Lutron Electronics Co., Inc.