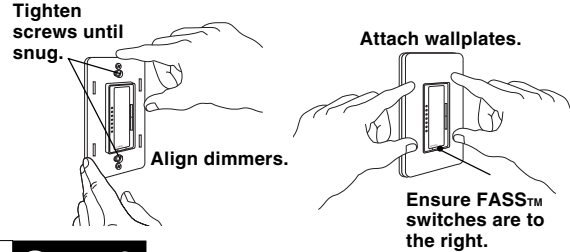
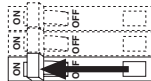


Three-Location Installation Continued

Step 5 Mount and align dimmers. Attach Claro® wallplates (purchased separately).



Step 6 Turn power ON.



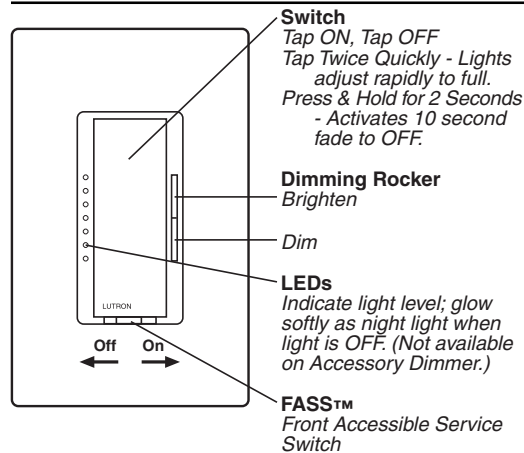
Troubleshooting

Symptom	Possible Cause
Light does not turn on.	<ul style="list-style-type: none"> Front Accessible Service Switch (FASS™) on the Dimmers are switched to the left side (see Step 5). Light bulb(s) burned out. Breaker is OFF or tripped. Dimmer not wired correctly (see Step 4).
Dimmer keeps turning ON and OFF.	<ul style="list-style-type: none"> Total wattage is under recommended minimum load. (See Important Note No. 8.)
Top and bottom LEDs flashing.	<ul style="list-style-type: none"> Magnetic low-voltage load attached. Use only incandescent or electronic low-voltage loads. Line surge occurred. Slide FASS™ switch OFF, then ON, to reset Dimmer (see Operation section).
Top and second from bottom LEDs flashing.	<ul style="list-style-type: none"> Total wattage is above maximum load. Load is shorted.

Technical Assistance

If you have questions concerning the installation or operation of this product, call the **Lutron Technical Support Center**. Please provide exact model number when calling.
 (800) 523-9466 (U.S.A., Canada, and the Caribbean)
 Other countries call (610) 282-3800
 Fax (610) 282-3090
 Visit our web site at www.lutron.com

Operation



IMPORTANT NOTICE:
 FASS™ - Front Accessible Service Switch - to replace bulb, power may be conveniently removed by sliding FASS™ switch to the left, on both the *Dimmer* and any *Accessory Dimmers*. For any procedure other than routine lamp replacement, power must be disconnected at the main electrical panel.

For detailed instructions on programming your dimmer, refer to the RadioRA® Setup Guide that is included with a RF Signal Repeater.

FCC Information

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by Lutron Electronics Co. could void the user's authority to operate this equipment.

Limited Warranty

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year 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.
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 under one or more of the following U.S. patents: 4,835,343; 4,954,768; 5,248,919; 5,399,940; 5,637,930; 5,736,965; 5,798,581; 5,838,226; 5,848,054; 5,905,442; 5,982,103; DES 353,798; DES 378,814; DES 389,461; DES 389,805; DES 395,037; DES 404,013; DES 422,969; DES 428,855; DES 436,579; DES 439,220 and corresponding foreign patents. U.S. and foreign patents pending. Lutron, Claro, and RadioRA are registered trademarks, and FASS is a trademark of Lutron Electronics Co., Inc.
 © 2001 Lutron Electronics Co., Inc.

Lutron Electronics Co., Inc.
 7200 Suter Road
 Coopersburg, PA 18036-1299, U.S.A.
 Made and printed in the U.S.A. 10/01 P/N 044-019 Rev. A

English

P/N 044-019

RadioRA®

Wireless Home Lighting Control

Installation Instructions for Multi-Location Control

Please Leave for Occupant

Read all instructions completely before installation.

Important Notes

- Caution:** To avoid overheating and possible damage to other equipment, do not use to control receptacles, fluorescent lighting fixtures, motor-operated or transformer-supplied appliances.
- Use only to control the primary side of a solid-state (electronic) low-voltage transformer, or in combination with incandescent lamps. **Do not use to control core and coil (magnetic) low-voltage transformers.**
- Some fixture manufacturers do not recommend dimming their solid-state transformers. To determine if a fixture may be dimmed, consult the fixture manufacturer.
- Install in accordance with all national and local electrical codes.
- Do not paint dimmers or wallplates.
- Clean with a soft damp cloth only.** Do not use any chemical cleaners.
- This product requires a neutral wire in the wallbox. If a neutral wire is not present, contact a licensed electrician for installation.
- Do not use where total wattage is under recommended minimum load of 40W.
- Do not exceed dimmer's maximum load rating (shown on page 2).
- In any 3-way/4-way circuit use only one Dimmer with up to 9 Accessory Dimmers. RadioRA® Dimmers are not compatible with standard 3-way/4-way switches. Use only with RadioRA® Accessory Dimmers.
- Dimmer may not work with dimmed lamps (Sylvania Designer 16™ or Philips PAR-16™).
- Operate in ambient temperatures between 0°C (32°F) and 40°C (104°F).
- Dimmer may feel warm to the touch during normal operation.
- Recommended wallbox depth is 2 1/2" minimum.

Electronic Low-Voltage Dimmer

RAELV-500LM, RBELV-500LM

Accessory Dimmer

RA-AD, RB-AD

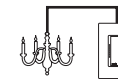
120/127VAC, 50/60Hz

- The range and performance of the RadioRA® System is highly dependent on a variety of complex factors such as:
 - Distance between system components
 - Geometry of the home
 - Construction of walls separating system components
 - Electrical equipment located near system components
- Do not mix RadioRA® "A" and "B" frequency products within the same system. Products with different frequencies **are not** compatible.

Installation Contents

Single-Location Installation

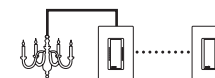
Installing one RadioRA® Dimmer to control light(s) or an Interface Module from a single location.



Page 2

Two-Location Installation

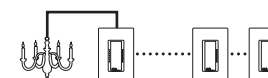
Installing one RadioRA® Dimmer and one Accessory Dimmer to control light(s) or an Interface Module from two locations.



Page 4

Three-Location Installation

Installing one RadioRA® Dimmer and two Accessory Dimmers to control light(s) or an Interface Module from three locations.



Page 6

Multi-Location Installation

For installations beyond Three-Location, call the **Lutron Technical Support Center** at 1-800-523-9466.

Operation

Using the RadioRA® Dimmer.



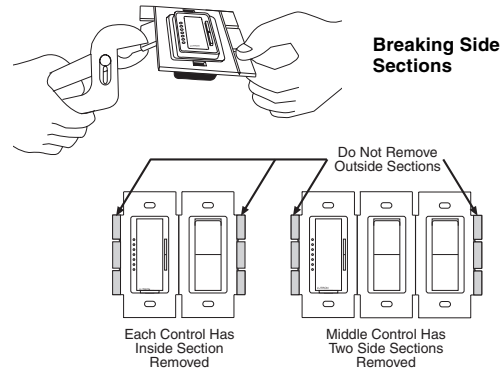
Page 8

LUTRON®

LUTRON®

Multigang Installations

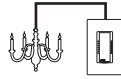
Lutron Claro® wallplates are available in 1 to 6 gang versions. Purchase Claro® multigang plates separately. When combining dimmers in the same wallbox, remove all inner side sections prior to wiring. Using pliers, bend side sections up and down until they break off.



When removing side sections for multigang installations, reduction of the dimmers load capacity is required. See table below.

Model Number	No sides removed	1 side removed	2 sides removed
RAELV-500LM, RBELV-500LM	500W	450W	400W

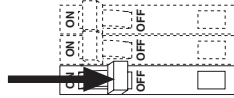
Single-Location Installation



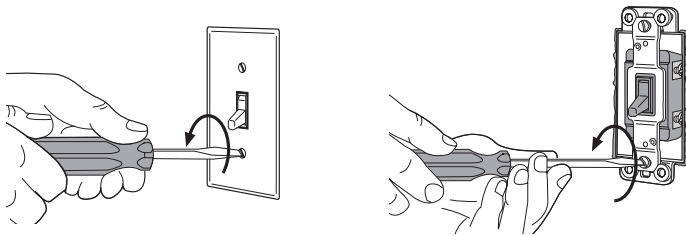
For installations involving more than one dimmer in a wallbox, refer to Multigang Installations above before beginning.

✓ Check off Steps as completed.

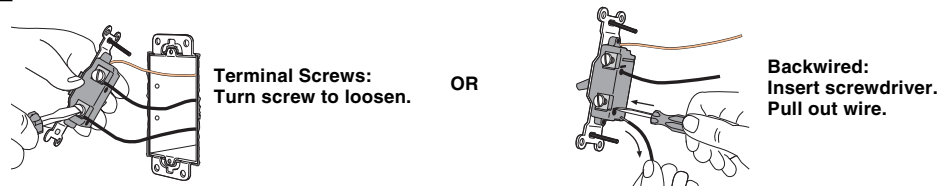
Step 1 Turn power OFF at circuit breaker or remove fuse.



Step 2 Remove wallplate. Pull switch from wall.



Step 3 Disconnect wires.



Important Wiring Information

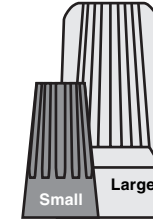
When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connectors. **Note:** Wire connectors provided are suitable for **copper wire only**. For aluminum wire, consult an electrician.

Small:

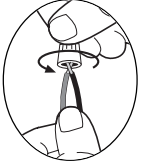
Strip insulation 3/8" for 14 AWG wire
Strip insulation 1/2" for 16 or 18 AWG wire
Use to join one 14 AWG supply wire with one 16 or 18 AWG control wire.

Large:

Strip insulation 1/2" for 10, 12 or 14 AWG wire
Strip insulation 5/8" for 16 or 18 AWG wire
Use to join one or two 12 or 14 AWG supply wires with one 10, 12, 14, 16, or 18 AWG control wire.



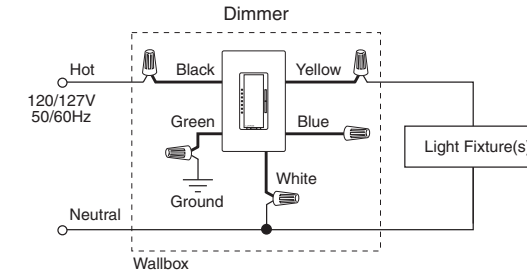
Twist wire connector tight. Be sure no bare wire is exposed.



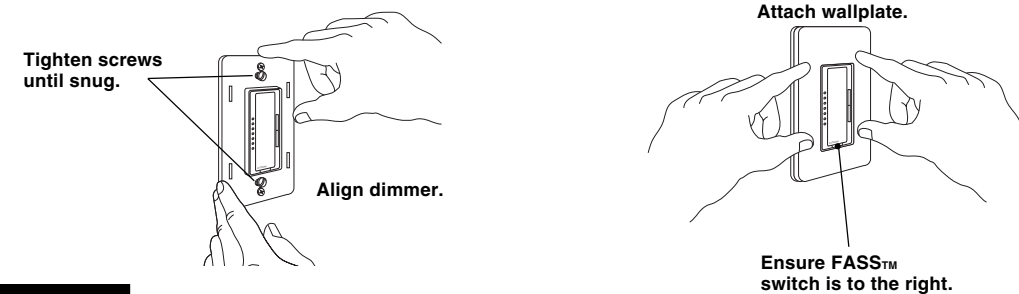
Step 4 Wire the Dimmer.

Using the wire connectors provided:

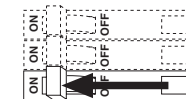
- Connect the **Dimmer green** ground wire to the ground wire in the wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the **Dimmer white** wire to the neutral wire in the wallbox.
- Connect the **Dimmer black** wire to Hot (the wire leading to the circuit breaker or fusebox).
- Connect the **Dimmer yellow** wire to the Load (wire leading to the lights or transformers).
- Cap off the **Dimmer blue** wire. It is not needed for a Single-Location Installation.



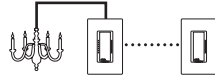
Step 5 Mount and align dimmer. Attach Claro® wallplate (purchased separately).



Step 6 Turn power ON.



Two-Location Installation

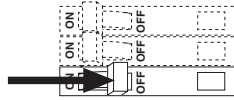


Replacing two 3-way switches or an existing dimmer and a 3-way switch.

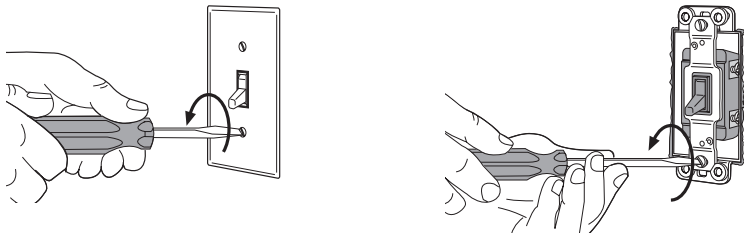
For installations involving more than one dimmer in a wallbox, refer to Multigang Installations on page 2 before beginning.

✓ **Check off Steps as completed.**

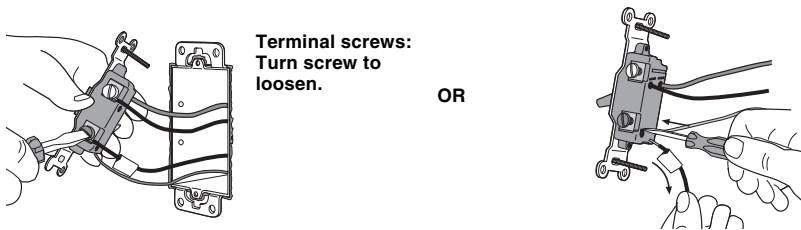
Step 1 Turn power OFF at circuit breaker or remove fuse.



Step 2 Remove wallplates. Pull switches from wall.



Step 3 Disconnect wires.



Terminal screws:
Turn screw to loosen.

OR

Backwired:
Insert screwdriver.
Pull out wire.

Important Wiring Information

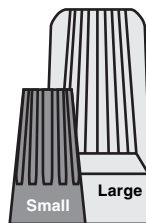
When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connectors. **Note:** Wire connectors provided are suitable for **copper wire only**. For aluminum wire, consult an electrician.

Small:

Strip insulation 3/8" for 14 AWG wire
Strip insulation 1/2" for 16 or 18 AWG wire
Use to join one 14 AWG supply wire with one 16 or 18 AWG control wire.

Large:

Strip insulation 1/2" for 10, 12 or 14 AWG wire
Strip insulation 5/8" for 16 or 18 AWG wire
Use to join one or two 12 or 14 AWG supply wires with one 10, 12, 14, 16, or 18 AWG control wire.



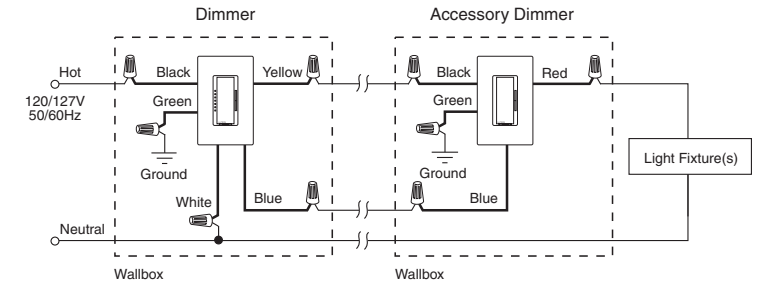
Twist wire
connector tight.
Be sure no bare
wire is exposed.



Step 4 Wiring the *Dimmer* with one *Accessory Dimmer* (3-way).

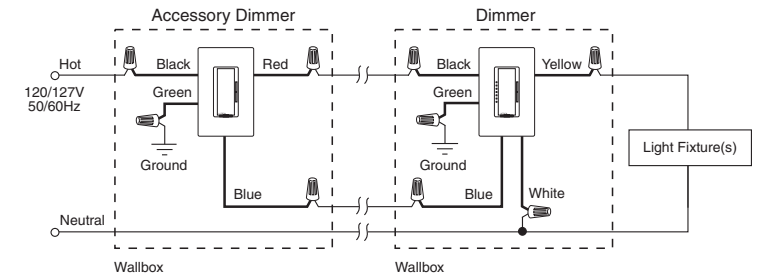
A) Wiring Dimmer on feed side

- Connect each control's **green** ground wire to the ground wire in its wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the *Dimmer* **white** wire to the neutral wire in the wallbox.
- Connect the *Dimmer* **blue** wire to the **blue** wire on the *Accessory Dimmer*.
- Connect the *Dimmer* **black** wire to Hot (the wire leading to the circuit breaker or fusebox).
- Connect the *Dimmer* **yellow** wire to the **black** wire on the *Accessory Dimmer*.
- Connect the *Accessory Dimmer* **red** wire to the Load (wire leading to the lights or transformers).

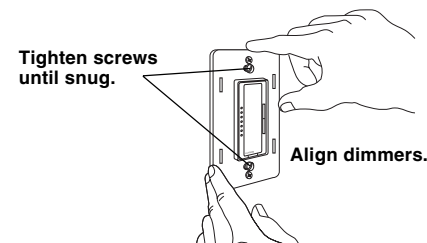


B) Wiring Dimmer on load side

- Connect each control's **green** ground wire to the ground wire in its wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the *Accessory Dimmer* **blue** wire to the **blue** wire on the *Dimmer*.
- Connect the *Accessory Dimmer* **black** wire to Hot (the wire leading to the circuit breaker or fusebox).
- Connect the *Accessory Dimmer* **red** wire to the **black** wire on the *Dimmer*.
- Connect the *Dimmer* **yellow** wire to the Load (wire leading to the lights or transformers).
- Connect the *Dimmer* **white** wire to the neutral wire in the wallbox.

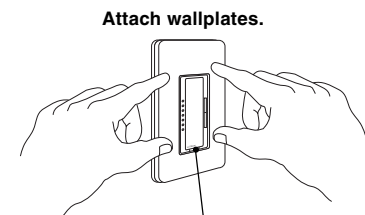


Step 5 Mount and align dimmers. Attach Claro® wallplates (purchased separately).



Tighten screws
until snug.

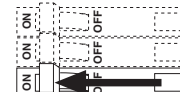
Align dimmers.



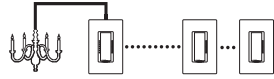
Attach wallplates.

Ensure FASS™
switches are to the
right.

Step 6 Turn power ON.



Three-Location Installation

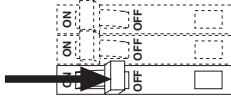


Replacing two 3-way switches and a 4-way switch.

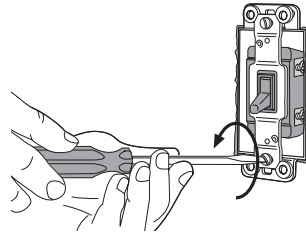
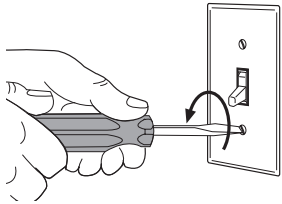
For installations involving more than one dimmer in a wallbox, refer to Multigang Installations on page 2 before beginning.

✓ **Check off Steps as completed.**

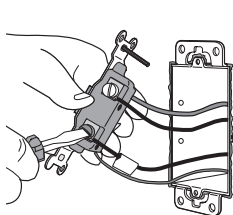
Step 1 Turn power OFF at circuit breaker or remove fuse.



Step 2 Remove wallplates. Pull switches from wall.

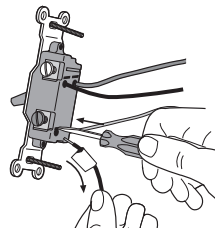


Step 3 Disconnect wires.



Terminal screws:
Turn screw to loosen.

OR



Backwired:
Insert screwdriver.
Pull out wire.

Important Wiring Information

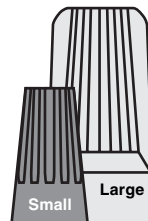
When making wire connections, follow the recommended strip lengths and combinations for the supplied wire connectors. **Note:** Wire connectors provided are suitable for **copper wire only**. For aluminum wire, consult an electrician.

Small:

Strip insulation 3/8" for 14 AWG wire
Strip insulation 1/2" for 16 or 18 AWG wire
Use to join one 14 AWG supply wire with one 16 or 18 AWG control wire.

Large:

Strip insulation 1/2" for 10, 12 or 14 AWG wire
Strip insulation 5/8" for 16 or 18 AWG wire
Use to join one or two 12 or 14 AWG supply wires with one 10, 12, 14, 16, or 18 AWG control wire.



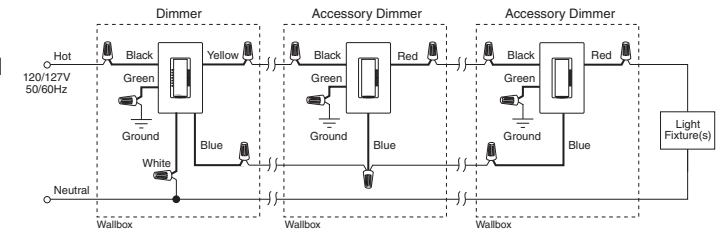
Twist wire
connector tight.
Be sure no bare
wire is exposed.



Step 4 Wiring the Dimmer with two Accessory Dimmers (4-way).

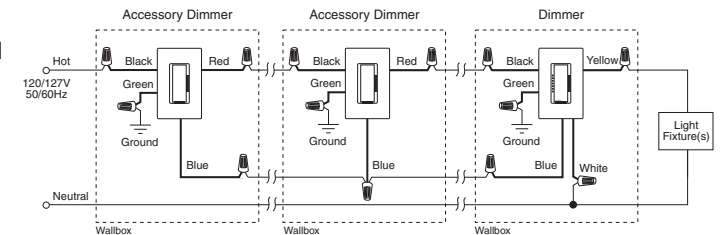
A) Wiring Dimmer on feed side

- Connect each control's **green** ground wire to the ground wire in its wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the **Dimmer white** wire to the neutral wire in the wallbox.
- Connect the **Dimmer blue** wire to the **blue** wire on both **Accessory Dimmers**.
- Connect the **Dimmer black** wire to Hot (the wire leading to the circuit breaker or fusebox).
- Connect the **Dimmer yellow** wire to the **black** wire on the first **Accessory Dimmer**.
- Connect the first **Accessory Dimmer red** wire to the **black** wire on the second **Accessory Dimmer**.
- Connect the second **Accessory Dimmer red** wire to the Load (wire leading to the lights or transformers).



B) Wiring Dimmer on load side

- Connect each control's **green** ground wire to the ground wire in its wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the **Dimmer blue** wire to the **blue** wire on both **Accessory Dimmers**.
- Connect the first **Accessory Dimmer black** wire to Hot (the wire leading to the circuit breaker or fusebox).
- Connect the first **Accessory Dimmer red** wire to the **black** wire on the second **Accessory Dimmer**.
- Connect the second **Accessory Dimmer red** wire to the **black** wire on the **Dimmer**.
- Connect the **Dimmer white** wire to the neutral wire in the wallbox.
- Connect the **Dimmer yellow** wire to the Load (wire leading to the lights or transformers).



C) Dimmer Replacing 4-way Switch

- Connect each control's **green** ground wire to the ground wire in its wallbox. If there is no ground wire in your wallbox, consult an electrician.
- Connect the **Dimmer blue** wire to the **blue** wire on both **Accessory Dimmers**.
- Connect the first **Accessory Dimmer black** wire to Hot (wire leading to the circuit breaker or fusebox).
- Connect the first **Accessory Dimmer red** wire to the **black** wire on the **Dimmer**.
- Connect the **Dimmer white** wire to the neutral wire in the wallbox.
- Connect the **Dimmer yellow** wire to the **black** wire on the second **Accessory Dimmer**.
- Connect the second **Accessory Dimmer red** wire to the Load (wire leading to the lights or transformers).

