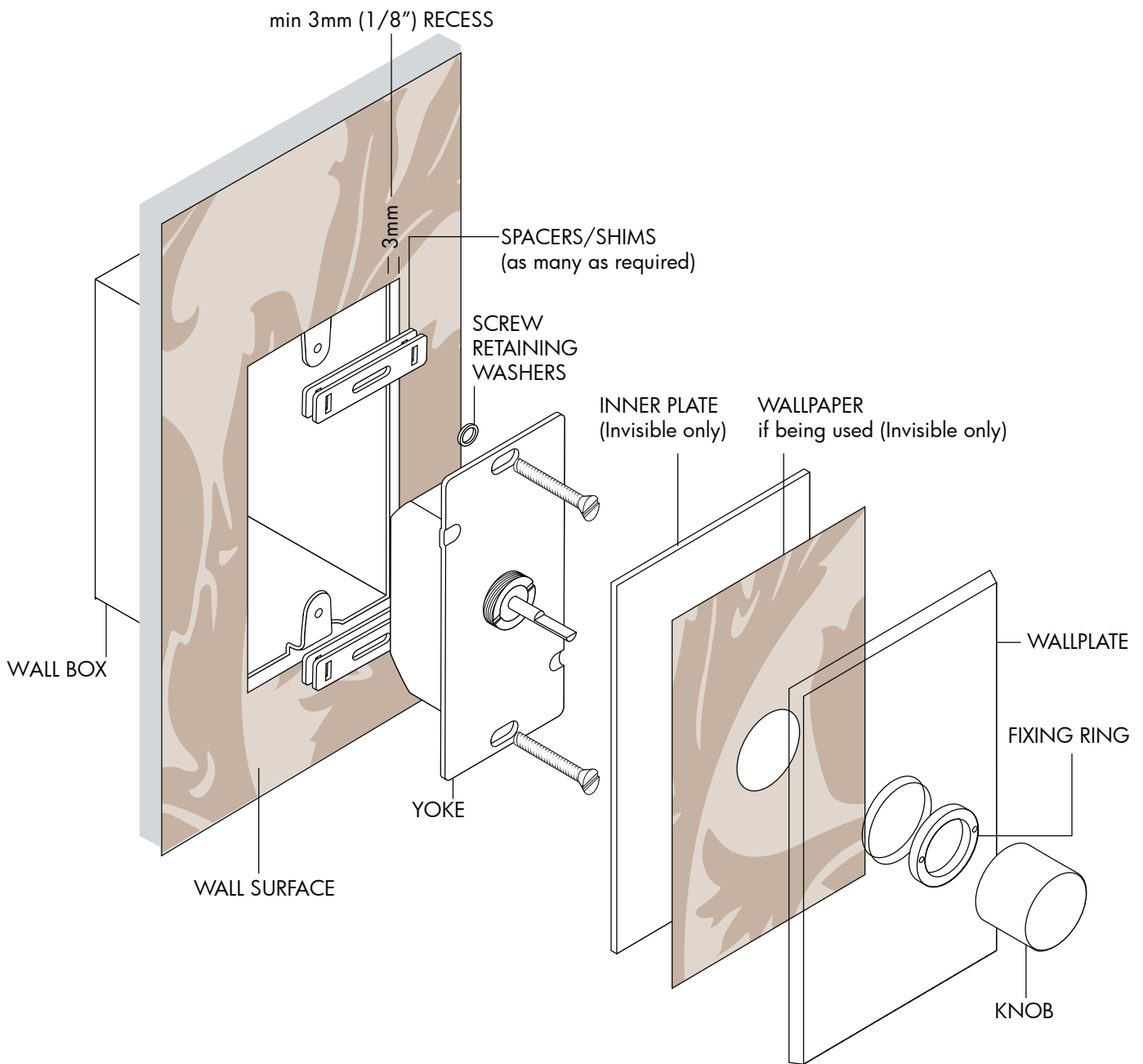


ASSEMBLY FOR ROTARY DIMMERS





INSTRUCTIONS FOR ELECTRICIANS AND DECORATORS (FOR SWITCHES & DIMMERS)

When installing Forbes & Lomax outlets (receptacles) we recommend that you follow the instructions below:

1. Remove the light switch from the box and unscrew the fixing ring around the switch using the white plastic spanner provided.
2. Remove the wallplate and place each plate in separate plastic bags to prevent damage.
3. Take great care with all metal plates. They are very delicate and can easily be damaged by scratching, paint, damp plaster and other building site debris.
4. Ensure that the wall box is recessed by a minimum of 4mm below the surface of the wall. This is necessary to enable the wallplate to sit flat when fitted. For ease of installation we recommend a two inch deep wall box.
5. Install switches and dimmers in the normal way. A spacer or shim can be used to bring the yoke level with the surface of the wall. This will enable the switch to be fixed rigidly and the wallplate to attach properly.
6. The "Invisible" switches and dimmers are supplied with a thin, primed aluminum inner plate. The inner plate can be painted to match the walls or used as a template to cut out a piece of wallpaper to fit between the inner plate and the "Invisible" plate. Place the inner plate and wallpaper (if being used) over the switch and re-fit the "Invisible" plate with the fixing ring.
7. For metal wallplates simply refit the wallplate with the fixing ring.
8. For rotary dimmers, align the 'D' shaped insert on the underside of the dimmer knob with the 'D' shape on the spindle and push the knob onto the spindle.
9. Do not plaster, paint or paper straight over the wall boxes in case it is necessary to access the switch at a later date.
10. To avoid unnecessary damage, wallplates should be fitted after electrical and decorative work is complete.
11. Do not fix plates to damp walls.



ROTARY STYLE PUSH ON/OFF 6A LED, 720W INCANDESCENT

RECOGNIZED
COMPONENT



Intertek

5008422

Conforms to UL1472 and CSA-C22.2 no.184

INSTALLATION INSTRUCTIONS
READ AND SAVE THESE INSTRUCTIONS

INSTALLING YOUR DIMMER

To be installed by a certified electrician or other qualified person. To be installed and/or used in accordance with appropriate electrical codes and regulations. For instructions regarding wall box installation and wallplate assembly refer to the 'Instructions for Electricians and Decorators' information sheet.

WARNING

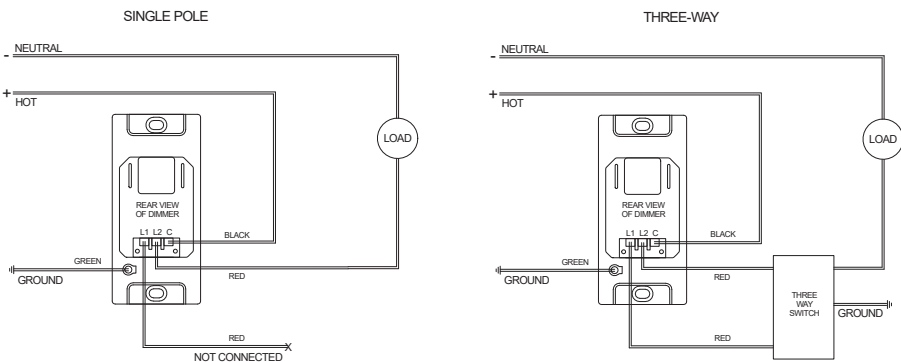
For Control of Permanently Installed Incandescent, Low Voltage or LED lamp Fixtures Only.

To prevent shock or electrocution, always turn the power OFF at the service panel before installing this unit, working on the circuit, or changing a lamp.

CAUTION

Connect only in a 120VAC, 60Hz circuit. Do not use with a load whose power requirements exceeds the maximum power rating marked on the dimmer. No de-rating is necessary for multi-gang installations. Use copper wire only. Connect to 12AWG or 14AWG stranded or solid copper conductors.

WIRING DIAGRAM



WARRANTY

Lifetime Warranty. The device you have purchased is warranted under normal use against defects in workmanship and materials for as long as you own the device. If the device fails due to manufacturing defect during normal use, return the device for replacement to the store where purchased or send to: Forbes & Lomax, 979 Third Ave, 1502, NY 10022. All requests for replacements must include a dated sales receipt (legible copies acceptable). ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO YEARS FROM THE DATE OF PURCHASE. YOUR SOLE AND EXCLUSIVE REMEDY AGAINST FORBES & LOMAX LTD. UNDER ANY WARRANTY SHALL BE THE EQUIVALENT REPLACEMENT OF THE DEVICE. IN NO EVENT SHALL ANY WARRANTY APPLY TO ANY DEFECT ARISING OUT OF ANY ALTERATION OF THE DEVICE, IMPROPER INSTALLATION, MISUSE ABNORMAL USE OR NEGLIGENCE. IN NO EVENT SHALL FORBES & LOMAX LTD. BE LIABLE FOR LOST PROFITS, INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long implied warranties last and do not allow exclusion or limitation of incidental or consequential damages. Some of the above limitations or exclusions may not apply to every purchaser.



**ROTARY DIMMER
120W LED/300W INCANDESCENT**

RECOGNIZED
COMPONENT



Intertek

5008422

Conforms to UL1472 and CSA-C22.2 no.184

INSTALLATION INSTRUCTIONS
READ AND SAVE THESE INSTRUCTIONS

IMPORTANT: We cannot guarantee that all LEDs labelled as “dimmable” can actually be dimmed satisfactorily. Maximum and minimum loads may vary according to the make and type of LED. To optimize the dimming range, for LED lighting in particular, the minimum brightness setting of the dimmer can be adjusted [see “Adjusting the Minimum Brightness” below].

INSTALLING YOUR DIMMER

To be installed by a certified electrician or other qualified person. To be installed and/or used in accordance with appropriate electrical codes and regulations. For instructions regarding wallbox installation and wallplate assembly refer to the ‘Instructions for Electricians and Decorators’ information sheet.

WARNING

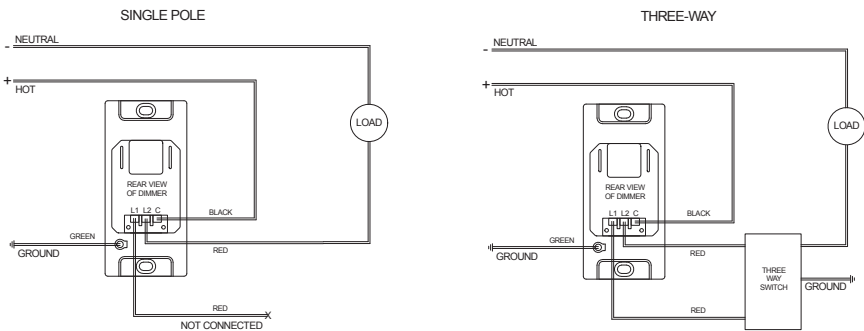
For control of permanently installed incandescent or LED lamp fixtures Only.

To prevent shock or electrocution, always turn the power OFF at the service panel before installing this unit, working on the circuit, or changing a lamp. It is normal for the dimmer to feel warm during operation.

CAUTION

To reduce risk of overheating and possible damage to other equipment, do not install to control, receptacle, a fluorescent light or bulb or a motor-operated appliance. Connect dimmers only in a 120VAC, 60Hz circuit. Do not use dimmer with a load whose power requirements exceeds the maximum power rating marked on the dimmer. No de-rating is necessary for multi-gang installations. Use copper wire only. Connect to 12AWG or 14AWG stranded or solid copper conductors.

WIRING DIAGRAM



WARRANTY

Lifetime Warranty. The device you have purchased is warranted under normal use against defects in workmanship and materials for as long as you own the device. If the device fails due to manufacturing defect during normal use, return the device for replacement to the store where purchased or send to: Forbes & Lomax, 979 Third Ave, 1502, NY 10022. All requests for replacements must include a dated sales receipt (legible copies acceptable). ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO YEARS FROM THE DATE OF PURCHASE. YOUR SOLE AND EXCLUSIVE REMEDY AGAINST FORBES & LOMAX LTD. UNDER ANY WARRANTY SHALL BE THE EQUIVALENT REPLACEMENT OF THE DEVICE. IN NO EVENT SHALL ANY WARRANTY APPLY TO ANY DEFECT ARISING OUT OF ANY ALTERATION OF THE DEVICE, IMPROPER INSTALLATION, MISUSE ABNORMAL USE OR NEGLIGENCE. IN NO EVENT SHALL FORBES & LOMAX LTD. BE LIABLE FOR LOST PROFITS, INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long implied warranties last and do not allow exclusion or limitation of incidental or consequential damages. Some of the above limitations or exclusions may not apply to every purchaser.



ROTARY DIMMERS: 120W LED/300W INCANDESCENT OPTIMISING THE PERFORMANCE OF YOUR LED DIMMER

We recommend you optimise your LED dimmer and then apply the Child Lock to avoid entering programming mode by accident during normal use

Adjusting the minimum brightness

If your lights are flickering when they are dimmed to a low level you can increase the minimum brightness setting of the dimmer, which may prevent this from happening. Or, if the lights are brighter than you would like when the dimmer is set to minimum, you can try reducing the minimum brightness setting of the dimmer.

1. Switch on and set the dimmer knob to the MINIMUM position (turn fully anticlockwise)
2. Press to turn the lights off and back on again 3 times (OFF-ON x 3), leaving approximately one second between presses
3. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE
4. As soon as the lights have stepped down, set the dimmer to the MAXIMUM position (turn fully clockwise). The lights will come on and allow you to adjust the minimum brightness
5. Adjust the brightness that you are happy with as the minimum. Leave the dimmer in this position
6. After 3 seconds the dimmer will notice that you have stopped adjusting the minimum. The lights will step up and down in brightness to show that the dimmer has returned to normal operation
7. Continue to use the dimmer as normal, with your new minimum brightness

Adjusting the maximum brightness

If your lights are flickering when the dimmer is set to the maximum, you can decrease the maximum brightness setting of the dimmer, which may prevent this from happening. Or, if the lights are brighter or not as bright as you would like when the dimmer is set to maximum, you can try adjusting the maximum brightness setting of the dimmer.

1. Switch off and set the dimmer knob to the MAXIMUM position (turn fully clockwise)
2. Turn the lights on and back off again. ON-OFF, roughly once per second
3. Set the dimmer knob to the MINIMUM position (turn fully anticlockwise)
4. Turn the lights on and back off again. ON-OFF, roughly once per second
5. Set the dimmer knob to the MAXIMUM position (turn fully clockwise)
6. Turn the lights on
7. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE
8. As soon as the lights have stepped down, set the dimmer knob to the MINIMUM (turn the knob fully anticlockwise). The lights will come on and allow you to adjust the maximum brightness
9. Adjust the brightness that you are happy with as the maximum. Leave the dimmer in this position
10. After 3 seconds the dimmer will notice that you have stopped adjusting the maximum. The lights will step up and down in brightness to show that the dimmer has returned to a normal operation
11. Continue to use the dimmer as normal, with your new maximum brightness



ROTARY DIMMERS: 120W LED/300W INCANDESCENT OPTIMISING THE PERFORMANCE OF YOUR LED DIMMER

Changing the dimming mode

Unless the lights are flashing it is likely that the best dimming performance is achieved in MODE 1. If the lights are flashing then you may be able to improve the performance by manually changing the dimming mode to MODE 2, or in a small number of cases, MODE 3.

1. Switch on and set the dimmer knob to the MAXIMUM position (turn fully clockwise)
2. Press to turn the lights off and back on again at least 3 times (OFF-ON x 3), leaving approximately one second between presses
3. The lights will step up and down in brightness to show that the dimmer is in CONFIGURATION MODE
4. As soon as the lights have stepped down, turn the knob fully anticlockwise to select MODE 2, or fully anticlockwise then fully clockwise to select MODE 3
5. The lights will FLASH 2 or 3 TIMES to show which mode the dimmer is in
6. The dimmer can now be operated normally in the new mode

If you follow the same procedure again, it will revert to MODE 1 and the lights will FLASH ONCE to indicate that you have successfully returned the dimmer to MODE 1.

Applying the Child Lock

You can prevent your dimmer from accidentally going into programming mode by following these instructions.

1. Switch off the dimmer and set the dimmer knob to the MAXIMUM position (turn fully clockwise)
2. Turn the lights on and back off again twice. ON - OFF - ON - OFF, roughly once per second
3. Set the dimmer knob to the MINIMUM position (turn fully anticlockwise)
4. Turn the lights on and back off again twice. ON - OFF - ON - OFF, roughly once per second
5. Set the dimmer knob to the MAXIMUM position (turn fully clockwise)
6. Turn the lights ON - OFF - ON, roughly once per second
7. The lights will step up and down in brightness to show that the dimmer has returned to normal operation
8. Continue to use the dimmer as normal, with your new Child Lock setting
9. To disable Child lock, repeat the whole procedure again



**ROTARY DIMMER
500W INCANDESCENT**

RECOGNIZED
COMPONENT



Intertek

5008422

Conforms to UL1472 and CSA-C22.2 no.184

INSTALLATION INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS

INSTALLING YOUR DIMMER

To be installed by a certified electrician or other qualified person. To be installed and/or used in accordance with appropriate electrical codes and regulations. For instructions regarding wall box installation and wall plate assembly refer to the 'Instructions for Electricians and Decorators' information sheet.

WARNING

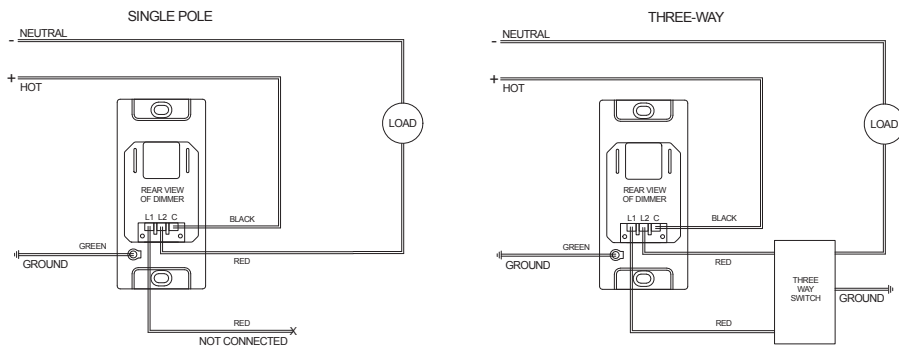
For Control of Permanently Installed Incandescent Lamp Fixtures Only.

To prevent shock or electrocution, always turn the power OFF at the service panel before installing this unit, working on the circuit, or changing a lamp. It is normal for the dimmer to feel warm during operation.

CAUTION

To reduce the risk of overheating and possible damage to other equipment; do not install to control a receptacle, a fluorescent light or bulb or a motor-operated appliance. Connect dimmers only in a 120VAC, 60Hz circuit. Do not use dimmer with a load whose power requirements exceeds the maximum power rating marked on the dimmer. No de-rating is necessary for multi-gang installations. Use copper wire only. Connect to 12AWG or 14AWG stranded or solid copper conductors.

WIRING DIAGRAM



WARRANTY

Lifetime Warranty. The device you have purchased is warranted under normal use against defects in workmanship and materials for as long as you own the device. If the device fails due to manufacturing defect during normal use, return the device for replacement to the store where purchased or send to: Forbes & Lomax, 979 Third Ave, 1502, NY 10022. All requests for replacements must include a dated sales receipt (legible copies acceptable). ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO YEARS FROM THE DATE OF PURCHASE. YOUR SOLE AND EXCLUSIVE REMEDY AGAINST FORBES & LOMAX LTD. UNDER ANY WARRANTY SHALL BE THE EQUIVALENT REPLACEMENT OF THE DEVICE. IN NO EVENT SHALL ANY WARRANTY APPLY TO ANY DEFECT ARISING OUT OF ANY ALTERATION OF THE DEVICE, IMPROPER INSTALLATION, MISUSE ABNORMAL USE OR NEGLIGENCE. IN NO EVENT SHALL FORBES & LOMAX LTD. BE LIABLE FOR LOST PROFITS, INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long implied warranties last and do not allow exclusion or limitation of incidental or consequential damages. Some of the above limitations or exclusions may not apply to every purchaser.



MAGNETIC LOW-VOLTAGE DIMMER



RECOGNIZED COMPONENT

3165121

Conforms to UL standard UL1472 and CSA standard CSA-C22.2 no. 184.1-96

INSTALLATION INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS

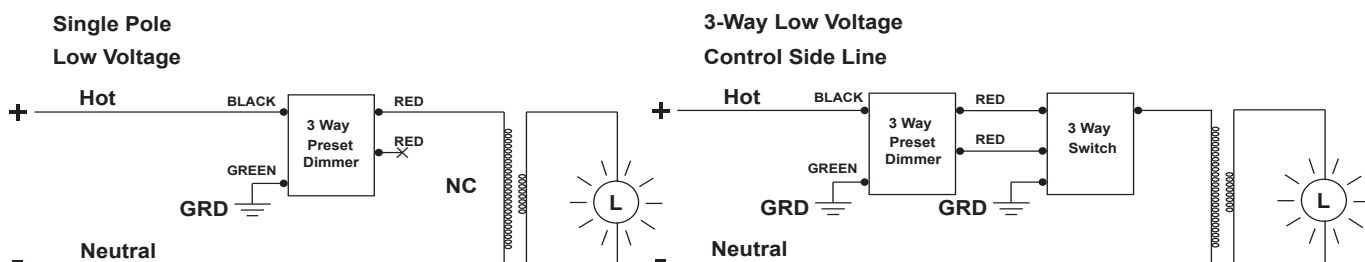
To be installed by a certified electrician or other qualified person. To be installed and/or used in accordance with appropriate electrical codes and regulations. For instructions regarding wallbox installation and wallplate assembly refer to the 'Instructions for Electricians and Decorators' information sheet.

WARNING To prevent shock or electrocution, always turn the power OFF at the service panel before installing this unit, working on the circuit, or changing a lamp.

CAUTION To reduce risk of overheating and possible damage to other equipment; do not install to control a receptacle, a fluorescent light or bulb or a motor-operated appliance. Connect dimmers only in a 120VAC, 60Hz circuit to control the primary of a transformer-supplied incandescent load. Maximum VA rating of the dimmer applies to transformer input, not the load on the transformer secondary.

- Do not use dimmer with a low voltage transformer in combination with incandescent lamps whose power requirements exceeds maximum power (stated in Volt-Amperes) marked on the dimmer.
- Do not use to control a solid-state electronic low-voltage transformer.
- A 50w minimum load is required.
- No de-rating is necessary for multi-gang installations.
- Use copper wire only.
- Connect to 12AWG or 14AWG stranded or solid copper conductors
- Always isolate the power prior to adjusting the trim pot

INSTALLATION DIAGRAM



NOTE It is normal for the dimmer to feel warm during operation. Use a separate neutral wire for each phase of a multiphase system containing a dimmer, and for high power single phase applications where flickering is present.

WARRANTIES Lifetime Warranty. The device you have purchased is warranted under normal use against defects in workmanship and materials for as long as you own the device. If the device fails due to manufacturing defect during normal use, return the device for replacement to the store where purchased or send to: Pass & Seymour Legrand, 50 Boyd Avenue, Syracuse, NY 13209. All requests for replacements must include a dated sales receipt (legible copies acceptable).

ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO YEARS FROM THE DATE OF PURCHASE. YOUR SOLE AND EXCLUSIVE REMEDY AGAINST PASS & SEYMOUR LEGRAND UNDER ANY WARRANTY SHALL BE THE EQUIVALENT REPLACEMENT OF THE DEVICE. IN NO EVENT SHALL ANY WARRANTY APPLY TO ANY DEFECT ARISING OUT OF ANY ALTERATION OF THE DEVICE, IMPROPER WIRING, IMPROPER INSTALLATION, MISUSE, ABNORMAL USE OR NEGLIGENCE. IN NO EVENT SHALL PASS & SEYMOUR LEGRAND OR FORBES AND LOMAX LTD. BE LIABLE FOR LOST PROFITS, INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long implied warranties last and do not allow exclusion or limitation of incidental or consequential damages. Some of the above limitations or exclusions may not apply to every purchaser.



0-10v ROTARY DIMMERS

Current sinking rotary dimmers for the control of 0-10V or 1-10V dimmable lighting drive units, such as drives for LEDs and fluorescents. The 0-10V rotary controls combine signal dimming and push on/off switching in a single device.

Connect to dimmable lighting drives via the Lutron 'PP-DV' Power Pack, or similar power supply/relay products. Suitable for single pole, 3-way or 4-way installations (the dimmer can only be connected at one position).

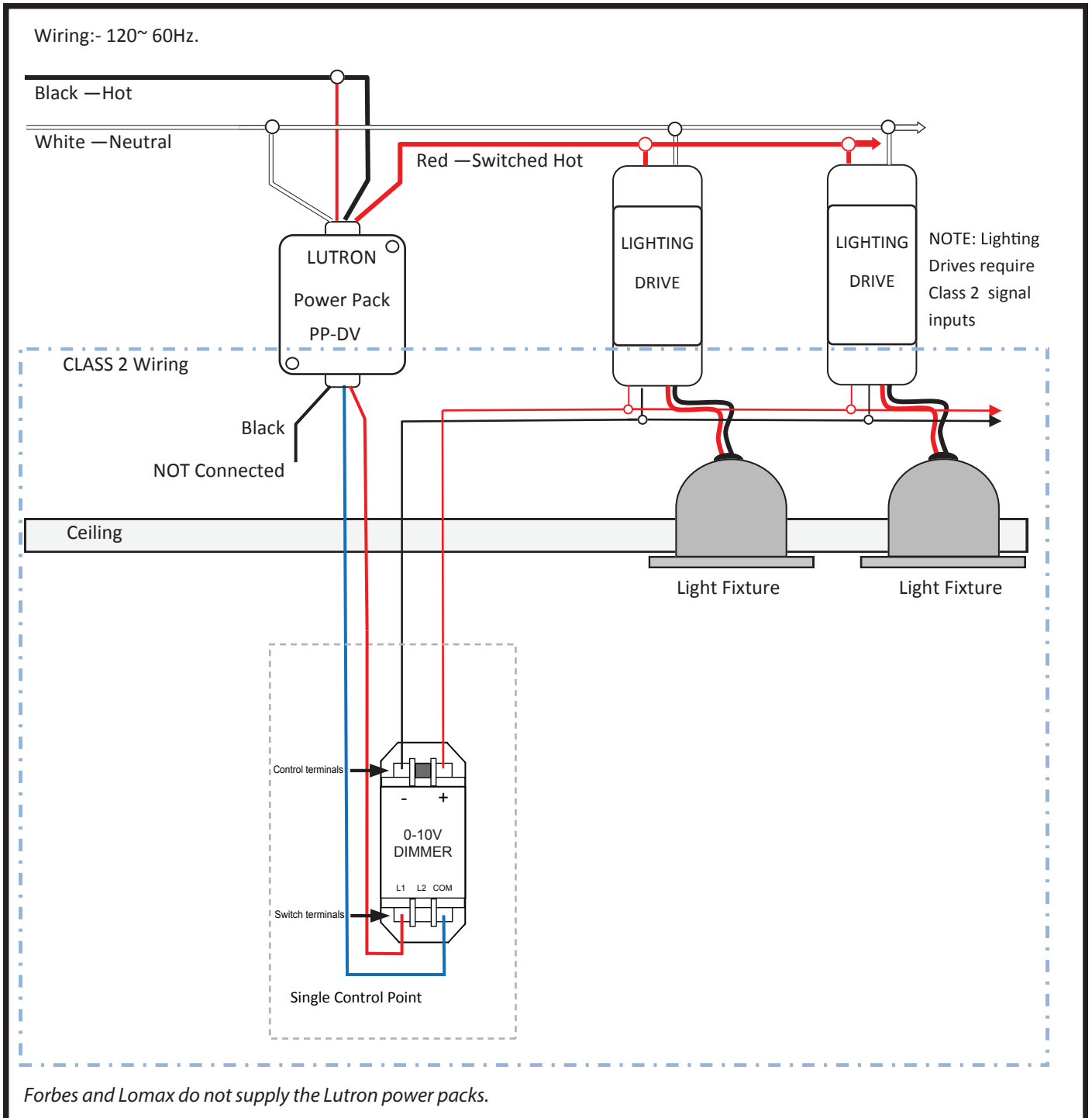
Connections to dimmer (Class 2): 2-wires for dimming 0-10V signal direct to lighting drives plus 2-wires for switching (single pole installation) or 3-wires for switching (3-way/4-way installation).

All connections to dimmer must be Class 2. To be installed by a certified electrician or other qualified person. To be installed and/or used in accordance with appropriate electrical codes and regulations. For instructions regarding wall box installation and wall plate assembly refer to the 'Instructions for Electricians and Decorators' information sheet. Please retain these instructions and leave a copy with the client for future reference.

WARNING *To prevent shock or electrocution, always turn the power OFF at the service panel before installing this unit, working on the circuit, or changing a lamp.*

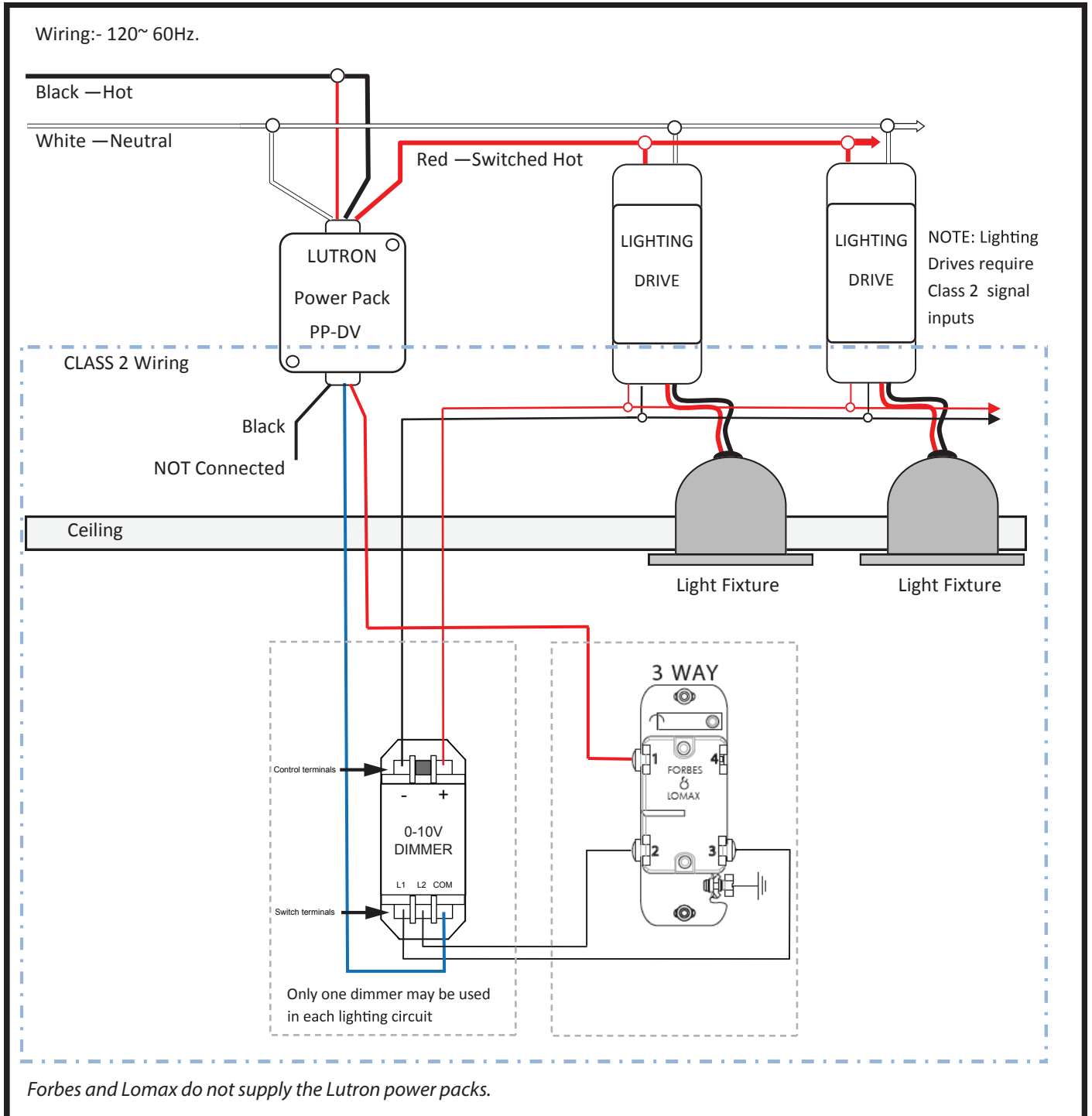
0-10V DIMMER

SINGLE POLE INSTALLATION WIRING



0-10V DIMMER

3 WAY INSTALLATION WIRING



0-10V DIMMER

4 WAY INSTALLATION WIRING

