Adaptive Phase Dimmer
Installation Guide

Supported Models
- C4-APD120  Adaptive Phase Dimmer, 120V
- C4-APD277  Adaptive Phase Dimmer, 277V

Introduction
The Control4® Adaptive Phase Dimmer operates independently or as part of a Control4 home automation system. It installs in a standard back box using typical wiring standards and communicates to the Control4 system using a wireless connection.

Box Contents
- Adaptive Phase Dimmer
- Wire Nuts
- Warranty Card
- Adaptive Phase Dimmer Installation Guide (this document)

Specifications and Supported Load Types
The specifications are described below.

<table>
<thead>
<tr>
<th>Model Numbers</th>
<th>C4-APD120-xx, C4-APD277-xx</th>
</tr>
</thead>
</table>
| Power Requirements | C4-APD120: 120VAC +/-10%, 50/60Hz  
                     | C4-APD277: 277VAC +/-10%, 50/60Hz  |
|                  | This device can function with or without a neutral AC connection depending on load type. See load types and “Sample Wiring Configurations” below. |
| Power Consumption | C4-APD120: 714mW; C4-APD277: 2.44W |

### Load Types and Ratings

<table>
<thead>
<tr>
<th>Supported Load Types</th>
<th>Incandescent; Halogen; Electronic (Solid State) Low Voltage (ELV) transformers, Magnetic (Iron Core, Inductive) Low Voltage (MLV) transformers; Phase-Dimmable Fluorescents, Compact Fluorescents, and LEDs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4-APD120 Maximum Load</td>
<td>1 Gang</td>
</tr>
<tr>
<td>Incandescent (Tungsten)</td>
<td>600W</td>
</tr>
<tr>
<td>Halogen</td>
<td>600W</td>
</tr>
<tr>
<td>Fluorescent*</td>
<td>300W</td>
</tr>
<tr>
<td>Compact Fluorescent (CFL)*</td>
<td>300W</td>
</tr>
<tr>
<td>LED*</td>
<td>120W</td>
</tr>
<tr>
<td>C4-APD277 Maximum Load</td>
<td>1 Gang</td>
</tr>
<tr>
<td>Incandescent (Tungsten)</td>
<td>1000</td>
</tr>
<tr>
<td>Halogen</td>
<td>1000</td>
</tr>
<tr>
<td>Fluorescent*</td>
<td>500</td>
</tr>
<tr>
<td>Compact Fluorescent (CFL)*</td>
<td>500</td>
</tr>
<tr>
<td>LED*</td>
<td>200</td>
</tr>
</tbody>
</table>

**NOTES:**
(1) The maximum load requirements for fluorescent, CFL and LED loads can vary greatly depending upon the specific fixture and/or bulb being used. These load types have significant in-rush current which can trip the protection circuitry on the device.
(2) The quality and performance of these load types varies greatly from manufacturer to manufacturer. When using these load types, we recommend testing in advance. If problems are found, simply changing to a different bulb manufacturer may solve the problem.
(3) Additionally, we do not recommend the use of fluorescent, CFL, or LED loads without a neutral wire connected to the dimmer due to the capacitive nature of these load types.

Warnings and Considerations

**WARNING!** Turn OFF electrical power before installing or servicing this product. Improper use or installation can cause SERIOUS INJURY, DEATH or LOSS/DAMAGE OF PROPERTY.

**ATTENTION!** Coupez l'alimentation électrique avant d'installer ou de réparer ce produit. Une mauvaise installation ou utilisation peut entraîner des blessures graves, décès ou perte / dommages à la propriété.

**WARNING!** This device must be protected by a circuit breaker (20A max).

**ATTENTION!** Cet appareil doit être protégé par un disjoncteur (20A max.)

**WARNING!** Ground this device in accordance with the National Electric Code (NEC) requirements. DO NOT rely solely upon the yoke plate's contact with a metal wallbox for adequate grounding. Use the device's ground wire to make a secure connection to the safety ground of the electrical system.

**ATTENTION!** Cet appareil doit être en conformité avec le Code national de l’électricité (NEC). Ne comptez pas uniquement au contact de la plaque avant avec un boitier mural métallique pour la mise à la terre adéquate. Utilisez cet appareil à la terre de l’appareil pour établir une connexion sécurisée au système électrique.

**IMPORTANT!** This device must be installed by a licensed electrician in accordance with all national and local electrical codes.

**IMPORTANT!** If you are unsure about any part of these instructions, consult a qualified electrician.
Installation Instructions

1. Ensure that the location and intended use meet the following criteria:
   - Do not exceed the load capacity requirements of the dimmer. In multi-gang installations, a reduction of the dimmers’ capacity is required to allow the dimmers to be installed side-by-side. Refer to the load ratings in the specifications above for details.
   - Install in accordance with all national and local electrical codes.
   - The range and performance of the wireless control system is highly dependent on the following: (1) distance between devices; (2) layout of the home; (3) walls separating devices; and (4) electrical equipment located near devices.

2. If installing in a multi-gang scenario, use pliers to remove the inner-side breakaway tabs. Bend each tab forward first, and then back and forth until it breaks off. Remove the inner-side tabs ONLY on any device side that will be adjacent to another device. DO NOT remove tabs on any side that will become the outer side of a group of devices. Handle the device with care after removing the tabs, as the broken edge can be sharp.

3. Turn OFF the local electrical power by either switching off the circuit breaker or removing the fuse from the fuse box. To ensure the wires do NOT have power running to them, use an inductive voltage detector.

4. Prepare each wire. Wire insulation should be stripped back 5/8 of an inch from the wire end (see Figure 1).

5. Identify your wiring application, and then see the appropriate wiring diagram in the “Sample Wiring Configurations” section below.

6. Identify and connect the dimmer wires to the back box wires using the wire nuts.

7. Fit the wires into the back box. Bend the wires in a zigzag pattern so that they easily fold into the back box (Figure 2).

8. Align the dimmer to the back box (the load rating label should be at the bottom) and fasten it with screws. Tighten the screws until the back side of the yoke plate is even with the wall surface, but no further. Overtightening can warp the dimmer and cause mechanical malfunction.

9. Install the Control4 Faceplate following the instructions in the Faceplate Installation Guide or attach a standard Decora-style faceplate.

10. Turn ON power at the circuit breaker or replace the fuse from the fuse box.

Operation and Configuration

On initial power up, all status LEDs on the dimmer will illuminate green, indicating that the device has power. To set up this dimmer for use with a Control4 system, refer to the Composer Pro User Guide.

To operate this dimmer as a stand-alone device:

- Click the top button to turn the light on.
- Click the bottom button to turn the light off.
- Press and hold the top button to ramp the light up. Release the button at the desired light level.
• Press and hold the bottom button to fade the light down. Release the button at the desired light level.

Air Gap Switch

During routine lamp replacement, remove power from the lamp by engaging the air gap mechanism.

1. To engage, press on the right side of the top actuator bar until the left side pops out. All LEDs on the dimmer will turn off, and the dimmer will no longer control the light when the air gap mechanism has been engaged.

2. To return power to the dimmer and lamp, press on the left side of the top actuator bar until it snaps back into place.

Figure 3. Dimmer with Actuator Bar

Button Tap Sequences

The button tap sequences are defined in the table below. Button tap sequences that require a single (1) button should use the top button.

<table>
<thead>
<tr>
<th>Function</th>
<th>Button Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify</td>
<td>4</td>
</tr>
<tr>
<td>ZigBee Channel</td>
<td>7</td>
</tr>
<tr>
<td>Reboot</td>
<td>15</td>
</tr>
<tr>
<td>Factory Reset</td>
<td>9-4-9</td>
</tr>
<tr>
<td>Leave Mesh and Reset</td>
<td>13-4-13</td>
</tr>
</tbody>
</table>

Troubleshooting

If the light does not turn on:

• Ensure that at least one (1) LED on the face of the dimmer is lit.
• Ensure that the light bulb is not burned out and is screwed in tightly.
• Ensure that the circuit breaker is not turned OFF or tripped.
• Check for proper wiring (see “Sample Wiring Configurations”).
• For help on the installation or operation of this product, email or call the Control4 Technical Support Center. Please provide your exact model number. Contact support@control4.com or see the web site www.control4.com.

Care and Cleaning

• Do NOT paint the dimmer or its wall plate.
• Do NOT use any chemical cleaners to clean the dimmer.
• Clean surface of the dimmer with a soft damp cloth as needed.

Regulatory/Safety Information

To review Regulatory information for your particular Control4 products, see the information located on the Control4 website at: http://www.control4.com/regulatory/.

Patent Information


Warranty

For complete warranty information, including details on consumer legal rights as well as warranty exclusions, review the Warranty card or visit www.control4.com/warranty.

About this Document

Part Number: 200-00306 Rev C  5/08/2013

Sample Wiring Configurations

Figure 4. Single Device Location, With Neutral Connection

Figure 5. Single Device Location, Without Neutral Connection