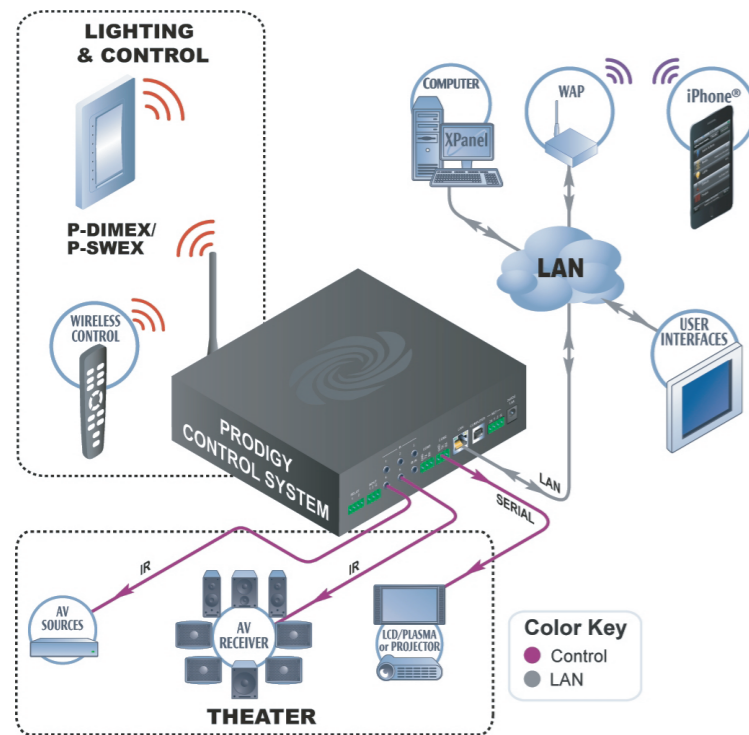# P-DIMEX

## Prodigy® Single Button Wireless Dimmer

### 1 Introduction

The Prodigy® P-DIMEX is an elegant, robust in-wall lighting dimmer which brings stylish and affordable lighting control to any home. Utilizing 802.15.4 mesh network technology, it affords reliable communications and load control without the need for additional wiring.

Whether installed in a retrofit or new construction, the P-DIMEX provides a low cost lighting solution, bringing the benefits of automated lighting to any budget.

### 2 Application

The following diagram illustrates a P-DIMEX in a system with other Prodigy devices.

LIGHTING & CONTROL

COMPUTER
XPanel
WAP
iPhone®

P-DIMEX/ P-SWEX

LAN

WIRELESS CONTROL

USER INTERFACES

PRODIGY CONTROL SYSTEM

LAN
SERIAL

IR    IR

AV SOURCES
AV RECEIVER
LCD/PLASMA or PROJECTOR

THEATER

**Color Key**
● Control
● LAN

### 3 Important Notes (Read Before Installation)

• Install the P-DIMEX in accordance with all local and national electrical codes.

⚠ **CAUTION:** TO REDUCE THE RISK OF OVERHEATING AND POSSIBLE DAMAGE TO OTHER EQUIPMENT, DO NOT INSTALL TO CONTROL A RECEPTACLE OR A TRANSFORMER SUPPLIED APPLIANCE.

**ATTENTION:** GRADATEURS COMMANDANT UN BALLAST-AFIN DE REDUIRE LE RISQUE DE SURCHAUFFE ET LA POSSIBILITE D'ENDOMMAGEMENT A D'AUTRES MATERIELS, NE PAS INSTALLER POUR COMMANDER UNE PRISE OU UN APPAREIL ALIMENTE PAR UN TRANSFORMATEUR.

• Use copper wire only. For supply connection, use 75°C rated wire.

• The P-DIMEX is designed for use with permanently installed incandescent, magnetic low voltage, tungsten halogen or dimmable CFL only.

• The P-DIMEX is designed to be used in an environment where temperature range is 32° to 104°F (0° to 40°C).

• The P-DIMEX mounts in a standard electrical box. For easy installation, Crestron® recommends using 3 1/2" (~89 mm) deep electrical boxes. Several devices can be installed in one electrical box (multigang). This requires derating of the dimming device. For a smooth appearance, one-piece multigang faceplates (not included) can be installed.

• Mechanical 3- or 4-way switches will not work with the P-DIMEX.

• If mounting one device above another, leave at least 4 1/2" (~114 mm) vertical space between them.

• Use with core and coil (magnetic) low voltage transformers only. Do not use any solid state electronic low voltage transformers.

• Operation of a low voltage circuit with all lamps inoperative or removed may result in current flow in excess of normal levels. To avoid transformer overheating and premature transformer failure, Crestron recommends ensuring operative lamps are in place, replacing burned out lamps as quickly as possible and using transformers with thermal protection or a fuse on the primary windings to prevent transformer failure due to overcurrent.

### 4 Installation

⚠ **WARNING:** Turn off power at the circuit breaker. Installing with power on can result in serious personal injury and damage to the device.

**NOTE:** The P-DIMEX can operate with or without a connection to neutral. If neutral is not connected, the minimum required load is 50 Watts.
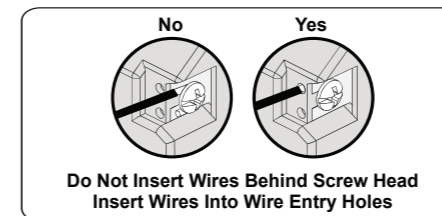
**NOTE:** New installations should be checked for short circuits prior to installing the P-DIMEX. With power off, close the circuit and restore power. If the lights do not work or a breaker trips, check and correct the wiring or fixture (if necessary). Install the P-DIMEX only when the short is no longer present.
**The warranty is void if the P-DIMEX is installed and operated with a shorted load.**

Use the following procedure to install a P-DIMEX:

1. Turn power off at the circuit breaker.
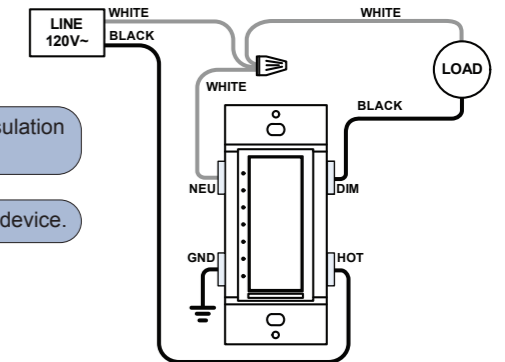2. Wire the dimmer as shown in the illustration to the right.

**NOTE:** The rear label on the P-DIMEX provides a guide for how much insulation to strip from the wires.

**NOTE:** Refer to the following illustration when making connections to the device.

LINE 120V~    WHITE    WHITE
BLACK
LOAD
WHITE    BLACK
NEU    DIM
GND    HOT

No    Yes

Do Not Insert Wires Behind Screw Head
Insert Wires Into Wire Entry Holes

3. Push all power wires back into the electrical box and fasten the device to the electrical box with the screws provided.
4. Attach decorative faceplate (not included).
5. Restore power at the circuit breaker.

**NOTE:** To operate the device in *Switch* mode, follow the instructions in "Swiching Between *Dim* Mode and *Switch* Mode" on the following page, before restoring power.
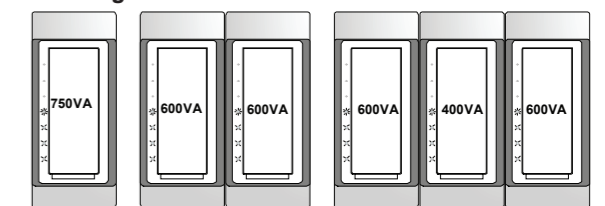
### 5 Multigang Installations (Optional)

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

The load capacity for each device in the electrical box must be derated. Refer to the illustrations to the right for derating information.

\*    VA ratings are for input power to the transformer. If you do not know the input power requirement of the transformer, use the bulb's wattage to determine proper rating.

*Derating Information for P-DIMEX Dimmers\**

750VA    600VA    600VA    600VA    400VA    600VA

For Regulatory Compliance information, refer to the latest version of Doc. 7010.

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**www.crestron.com/prodigy** | 888.273.7876 | 201.767.3400

Specifications subject to change without notice.

**prodigy®**

## 6 Acquire the P-DIMEX

Use the Prodigy Composer software (available for download from www.crestron.com/prodigycomposer) to configure your Prodigy system. A Prodigy Network Setup Wizard is included with Prodigy Composer. Before a P-DIMEX can be used, it must first be acquired by a Prodigy control system (sold separately). To acquire the P-DIMEX, perform the following when prompted by the Prodigy Network Setup Wizard.

> **NOTE:** The P-DIMEX can also work as a stand-alone wallbox dimmer, without being acquired by a Prodigy control system.

> **NOTE:** A dimmer can be acquired by only one Prodigy control system.

> **NOTE:** In an environment where multiple Prodigy control systems are installed, only one Prodigy control system should be in the *Acquire* mode at any time.

1. Put the Prodigy control system in *Acquire* mode by pressing its **ACQUIRE** button (or follow the prompts in the Network Setup Wizard to do this automatically).

2. Tap the top of the button on the P-DIMEX three times, then press and hold until the top LED blinks (may take up to 10 seconds).

3. Release the button. The LED will flash slowly while it searches for a gateway in the *Acquire* mode. When the P-DIMEX has been acquired, the LED will stop blinking. (If the acquire fails, the LED will flash rapidly until the button is pressed.)

4. After all devices have been acquired, take the Prodigy control system out of the *Acquire* mode by pressing its **ACQUIRE** button (or follow the prompts in the Network Setup Wizard to do this automatically).

To check the communication status of the P-DIMEX, perform the tap-tap-tap-hold (refer to step 2 in this section) but release the button after approximately two seconds. At this point, the top LED will indicate communication status as described below.
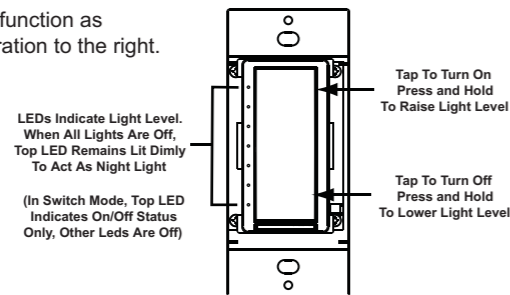
| LED BEHAVIOR | COMMUNICATION STATUS |
|---|---|
| Turns on | Device communicating with control system |
| Blinks three times | Device communicating with gateway but gateway not communicating with control system |
| Blinks two times | Device not communicating with gateway |
| Blinks one time | Device acquired but not communicating with network |
| Stays off | Device not joined to network |

## 7 Operation

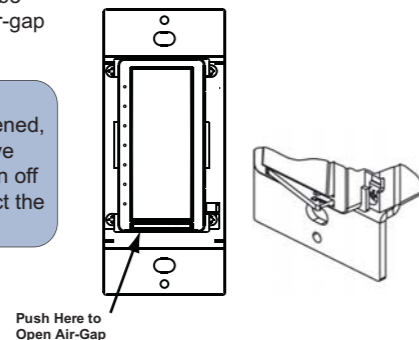> **NOTE:** During operation, the device may be warm to the touch. This is normal.

### Basic Operation

The P-DIMEX will function as shown in the illustration to the right.

LEDs Indicate Light Level. When All Lights Are Off, Top LED Remains Lit Dimly To Act As Night Light

(In Switch Mode, Top LED Indicates On/Off Status Only, Other Leds Are Off)

Tap To Turn On Press and Hold To Raise Light Level

Tap To Turn Off Press and Hold To Lower Light Level

Power to dimmer and load can be disconnected by pushing the air-gap lever as shown to the right.

> **NOTE:** If the dimmer remains powered after the air-gap is opened, the **HOT** and **DIM** terminals have been connected in reverse. Turn off power to the dimmer and correct the connections.

Push Here to Open Air-Gap

### Adjust Preset Level

The P-DIMEX can store and recall a preset level. To adjust the preset level:

1. Adjust the light to the desired level.

2. Enter *Programming* mode by tapping the right side of the air-gap lever as shown in the illustration to the right.

3. Press and hold the top of the button until the top LED blinks (approximately two seconds). Release the button to store the new level.
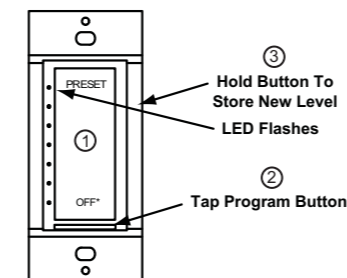
If the button is not pressed, the P-DIMEX will exit *Programming* mode after approximately five seconds.

### Switching Between *Dim* Mode and *Switch* Mode

The P-DIMEX can also operate in *Switch* mode, if you prefer to use it this way or if the load is not dimmable.
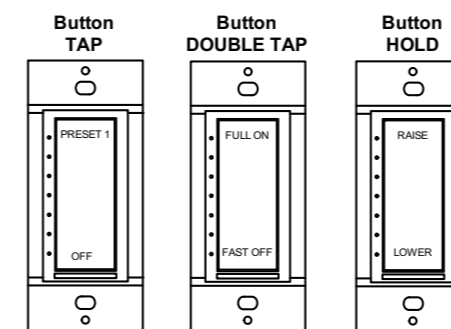To toggle between *Dim* and *Switch* modes:

1. Open the air-gap switch, as shown in the illustration to the left.

2. While power is off, press and hold the top and the bottom of the button at the same time, while engaging the air-gap switch to restore power.

3. After five seconds, the top LED will blink three times to indicate *Dim* mode or five times to indicate *Switch* mode.

4. To save the new setting, release the buttons within the next five seconds.

③ Hold Button To Store New Level
LED Flashes
① PRESET
② Tap Program Button
OFF*

\* A delay can be added via control system programming.

### Default Button Functions

The illustrations below summarize the default button fuctions.

| Button TAP | Button DOUBLE TAP | Button HOLD |
|---|---|---|
| PRESET 1 | FULL ON | RAISE |
| OFF | FAST OFF | LOWER |

## 8 Problem Solving

### Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

| TROUBLE | POSSIBLE CAUSE(S) | CORRECTIVE ACTION |
|---|---|---|
| Dimmer does not function. | Dimmer is not receving line power. | Verify dimmer is properly connected to power line and that the circuit breaker is closed. |
| | Load is not operational (e.g. lamps are burned out). | Verify load is operational and that air-gap switch is closed. |
| Dimmer does not dim. | Device is in *Switch* mode. | Refer to "Switching Between *Dim* Mode and *Switch* Mode". |
| Dimmer remains powered after air-gap is opened. | **HOT** and **DIM** terminals wired in reverse. | Turn off power to dimmer and correct connections. |
| Dimmer cycles off when near full brightness. | Load connected is below 50 Watt minimum. | Connect neutral to dimmer. |

### Further Inquiries

If you cannot locate specific information or have questions after reviewing this guide, please take advantage of Crestron's award winning customer service team by calling Crestron at 1-888-CRESTRON [1-888-273-7876]. For assistance in your region, please refer to the Crestron Web site (www.crestron.com) for a listing of Crestron worldwide offices.

You can also log onto the online help section of the Crestron Web site (www.crestron.com/onlinehelp) to ask questions about Crestron products. First-time users will need to establish a user account to fully benefit from all available features.

### Future Updates

As Crestron improves functions, adds new features and extends the capabilities of the P-DIMEX, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron Web site periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

**2**

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