





UPB™ 6-Button Controller

INSTALLATION AND OPERATING INSTRUCTIONS

For Models:

WMC6 (Wall-Mount Controller)

DTC6 (Desk-Top Controller)



READ THESE INSTRUCTIONS BEFORE INSTALLING DEVICE

The Wall Mount Controller is intended for installation in accordance with the National Electrical Code and local regulations. It is recommended that a qualified electrician perform this installation. Retain these instructions for reference or download the manual from www.pcslighting.com.

Important Notes Prior To Installation

CAUTION: Before installing the WMC6 into a wall box, be sure that power to the wall box has been disconnected by removing the fuse or turning the circuit breaker off. Installing products while the power is on may expose you to dangerous voltage and may damage the product as well!

About Your WMC6 Wall-Mount 6-Button Controller

Congratulations on your purchase of a WMC6 Wall-Mount 6-Button Controller. We feel that the 6-Button Controller is the perfect choice for controlling your UPB™ Lighting System devices (e.g. Wall Switch Dimmers, etc.) to create a dramatic home lighting system. After installing and configuring your WMC6 you'll be able to transmit standard UPB™ commands over the existing powerline to remotely control your UPB™ Lighting System devices and be able to see its pushbuttons light-up for feedback.

The WMC6 (see Figure 1) has six pushbuttons normally labeled **ON**, **A**, **B**, **C**, **D**, and **OFF** (see NOTE below) with LED backlighting and two buttons (**UP** and **DOWN**) without backlighting. All of the components of the WMC6 are highly configurable so that you can customize them to operate your UPB™ Lighting System the exact way you desire.

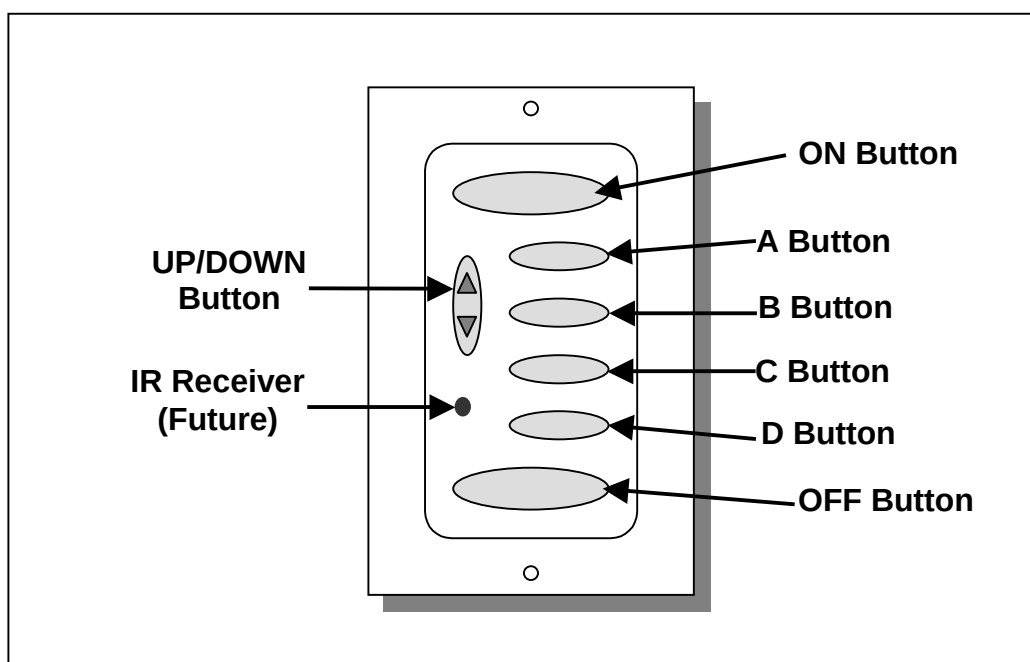


Figure 1: The WMC6 Wall-Mount 6-Button Controller

About Your DTC6 Desk-Top 6-Button Controller

The DTC6 Desk-Top 6-Button Controller is basically the same as the WMC6 described above except it is packaged in a plastic case with a line cord to plug directly into a wall outlet. The DTC6 requires no installation instructions. Simply plug it in and begin controlling your UPB Lighting System devices.

NOTE: Custom engraving of the keypad pushbuttons can be ordered on the PCS web site for a nominal charge. Custom engraving allows the user to identify each button for ease of use and to add beauty and functionality to any room.

INSTALLATION PROCEDURE (WMC6 Only)

- 1) Remove the existing device from the wall box as follows:
 - a) Remove the faceplate from the existing device.
 - b) Unscrew and pull the existing device out of the wall box.
 - c) Disconnect the wires from the existing device. Identify the “Hot” (black) and “Neutral” (white) wires.
- 2) Connect the WMC6 to the following electrical wires (see Figure 2 for reference):
 - a) Connect the “Hot” wire to the black wire on the back of the WMC6.
 - b) Connect the “Neutral” wire to the white wire on the back of the WMC6.
 - c) Make sure all wire connections are tight and that no bare copper is exposed.
- 3) Install the WMC6 into the wall box using the following steps:
 - a) Install the WMC6 into the wall box, making sure all wires are neatly installed. Verify the ON button is at the top.
 - b) Using the enclosed mounting screws, secure the WMC6 into the wall box.
 - c) Replace the faceplate over the WMC6.
- 4) Turn power back on to the wall box.
- 5) Configure the WMC6 buttons for desired operation (as explained in the “Configuring The 6-Button Controller” section of this manual).

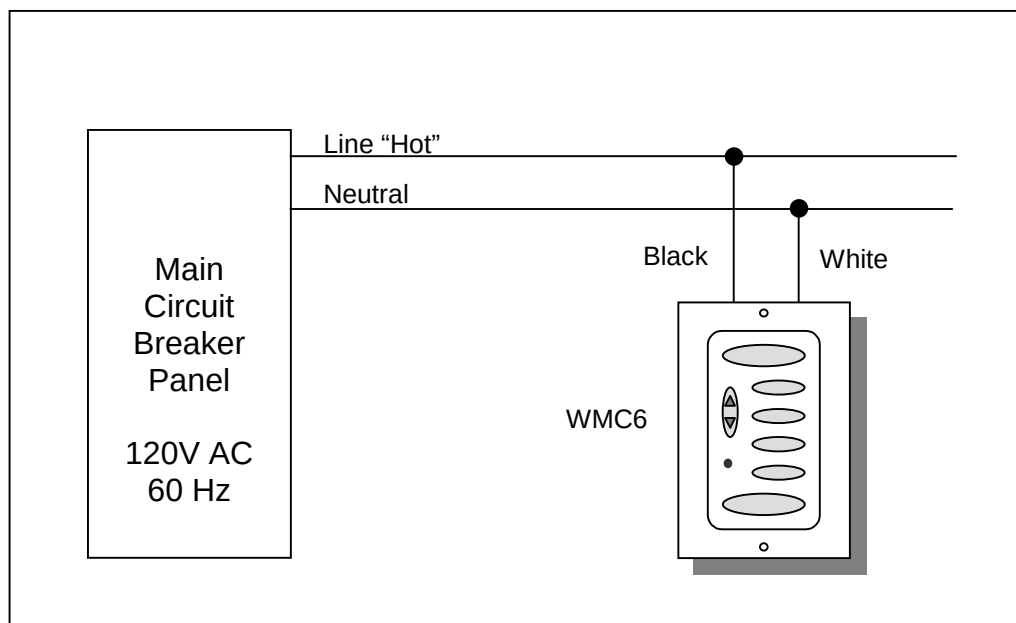


Figure 2: Wiring Diagram

Using Your 6-Button Controller

This section will describe the operation of the 6-Button Controller in its factory default configuration. The 6-Button Controller is packed full of different options and configurations that can be programmed into it using a UPB Setup Tool. Please refer to the section entitled “Configuring the 6-Button Controller” for a description of the many other configuration options available.

NOTE: Although the factory default operation of the 6-Button Controller is useful in many situations, it is highly recommended that your 6-Button Controller be configured with a UPB Setup Tool so that you can take advantage of its many configurable features.

In the factory default configuration the **ON**, **A**, **B**, **C**, **D**, and **OFF** pushbuttons are used to turn on six individual UPB™ Lighting System Scenes. The pushbutton will light up when its scene is on and it will turn off when its scene is off (or another scene is on). No more than one pushbutton LED can be on at a time. The **UP** and **DOWN** buttons are used to brighten and dim the last Scene that was turned on (or off).

The ON and OFF Pushbuttons

By default, the **ON** pushbutton is configured to fade the Wall Switch Dimmers on to **100%** when it is single-tapped or held down. When the **ON** pushbutton is double-tapped the Wall Switch Dimmers will quickly snap on to 100%. Whenever it is pressed, the **ON** pushbutton will illuminate and the other pushbuttons will turn off.

By default, the **OFF** pushbutton is configured to fade the Wall Switch Dimmers off to **0%** when it is single-tapped or held down. When the **OFF** pushbutton is double-tapped the Wall Switch Dimmers will quickly snap off to 0%. Whenever it is pressed, the **OFF** pushbutton will illuminate and the other pushbuttons will turn off.

The A, B, C, and D Pushbuttons

By default, the **A** pushbutton is configured to fade the Wall Switch Dimmers on to **80%** when it is single-tapped, double-tapped, or held down. Whenever it is pressed, the **A** pushbutton will illuminate and the other pushbuttons will turn off.

By default, the **B** pushbutton is configured to fade the Wall Switch Dimmers on to **60%** when it is single-tapped, double-tapped, or held down. Whenever it is pressed, the **B** pushbutton will illuminate and the other pushbuttons will turn off.

By default, the **C** pushbutton is configured to fade the Wall Switch Dimmers on to **40%** when it is single-tapped, double-tapped, or held down. Whenever it is pressed, the **C** pushbutton will illuminate and the other pushbuttons will turn off.

By default, the **D** pushbutton is configured to fade the Wall Switch Dimmers on to **20%** when it is single-tapped, double-tapped, or held down. Whenever it is pressed, the **D** pushbutton will illuminate and the other pushbuttons will turn off.

The UP and DOWN Pushbuttons

By default, the **UP** pushbutton is configured to slowly **brighten** the Wall Switch Dimmers when it is held down and stop brightening when it is released.

By default, the **DOWN** pushbutton is configured to slowly **dim** the Wall Switch Dimmers when it is held down and stop dimming when it is released.

Configuring The 6-Button Controller

The 6-Button Controller is highly configurable. Many of its configuration options can only be enabled or modified with the use of a UPB™ Setup Tool. Please refer to the UPB Lighting System User's Guide on the PCS web site for instructions on how to change the 6-Button Controller's configuration. Table 1 describes the many configuration options available that can be set up with the use of a UPB™ Setup Tool.

NOTE: Although the factory default operation of the 6-Button Controller is useful in many situations, it is highly recommended that your 6-Button Controller be configured with a UPB Setup Tool so that you can take advantage of its many configurable features.

PCS has developed a Powerline Interface Module (PIM) and free UPB Setup Tool software (UPStart) to help you configure all of your UPB Lighting System devices. The UPB Lighting System User's Guide (available on the PCS web site) explains how to configure your system using the UPStart tool.

Option	Factory Default	Possibilities
ON Pushbutton UPB Transmissions	Button Mode = On Button Link = 001	Configure any of 15 different UPB Messages to be transmitted upon each of four Pushbutton Events to any of 254 Link IDs.
OFF Pushbutton UPB Transmissions	Button Mode = Off Button Link = 002	Configure any of 15 different UPB Messages to be transmitted upon each of four Pushbutton Events to any of 254 Link IDs.
A, B, C, and D Pushbutton UPB Transmissions	Button Mode = Scene Activator Links = 003, 004, 005, 006	Configure any of 15 different UPB Messages to be transmitted upon each of four Pushbutton Events to any of 254 Link IDs.
UP Pushbutton UPB Transmissions	Button Mode = Bright Button Link = Use Last Link	Configure any of 15 different UPB Messages to be transmitted upon each of four Pushbutton Events to any of 254 Link IDs.
DOWN Pushbutton UPB Transmissions	Button Mode = Dim Button Link = Use Last Link	Configure any of 15 different UPB Messages to be transmitted upon each of four Pushbutton Events to any of 254 Link IDs.
ON, OFF, A, B, C, and D LED Indicator Receiving Link ID	Each LED Indicator is assigned to its pushbutton's Link ID.	Each LED Indicator can be assigned to any of 254 Link IDs.
ON, OFF, A, B, C, and D LED Indicator Mutual Exclusivity	Each LED Indicator is mutually exclusive (one LED on at a time).	Each LED Indicator can be configured as mutually exclusive (one LED on at a time) or independent (multiple LEDs on at one time).
UPB Transmission Attempts	2	1, 2, 3, or 4 transmissions per event.
UPB ID	NID = 255, UID = 003	Many UPB Identification parameters can be configured including the Network ID (NID), Unit ID (UID), Network Password, Network Name, Room Name, Device Name, etc.
LED Brightness	High	High, Medium, Low, Faint, None
LED Backlighting (very low lighting of all buttons so device can be located in darkness)	Enabled	Enabled or Disabled

Table 1: 6-Button Controller Configuration Options

Changing A Scene's Preset Light Levels

The PCS 6-Button Controllers are specially designed to work in a UPB™ Lighting System consisting of WS1D Wall Switch Dimmers. Pushbuttons on these controllers can be configured to activate the Preset Light Levels and Fade Rates stored in the WS1D (scenes). Once configured, the homeowner can easily adjust the Preset Light Level that gets activated by a particular pushbutton by following this simple procedure.

Step	Operation
1	Press the pushbutton on the 6-Button Controller to activate the currently stored Preset Light Levels (scene) in the Wall Switch Dimmers.
2	Use the local rocker switch on the WS1D to set the new desired Preset Light Level.
3	Press the pushbutton on the 6-Button Controller five times quickly.
4	The WS1D will flash its lighting load one time to indicate that it stored the new Preset Light Level.

Putting The 6-Button Controller Into Setup Mode

The 6-Button Controllers can be put into the Setup Mode (for UPB Setup Tool support) by the following steps:

Step	Operation
1	Press and hold the ON and the OFF pushbuttons for at least 3 seconds.
2	All of the LED Indicators will start to blink to indicate that it is in the Setup Mode.

Setting Factory Defaults

The 6-Button Controllers can be set back to factory defaults by the following steps:

Step	Operation
1	Press and hold the ON and the OFF pushbuttons for at least 3 seconds.
2	All of the LED Indicators will start to blink to indicate that it is in the Setup Mode.
3	Press and hold the A and the D pushbuttons for at least 3 seconds.
4	The blinking will stop and the ON and the OFF pushbuttons will illuminate to indicate that factory defaults have been set.

SPECIFICATIONS

Model Number	WMC6	DTC6
Number of Backlit Pushbuttons	6	6
UP/Down Pushbutton	Yes	Yes
IR Remote Receiver	Future	Future
Plastic Case	None	Yes
Connections	16 GA	Power cord supplied
Dimensions	4.1 X 1.7 X 1.8 in	4.3 X 2.6 X 0.9 in
Weight	0.3 lb.	0.3 lb.
Mounting	Standard J box	Desktop
Input Power	120 $\pm$ 12 VAC	120 $\pm$ 12 VAC
Input Frequency	60 $\pm$ 3 Hz	60 $\pm$ 3 Hz
Operating Temp	-40 °F to 104 °F	-40 °F to 104 °F

LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instruction, to be free from original defects in materials and workmanship for a period of five years from the date of purchase. If the product should prove defective in material or workmanship within that period, Seller will repair or replace the product, at its sole discretion. Service under this warranty can only be obtained by delivering or shipping the product (with all shipping or delivery charges prepaid) to: Powerline Control Systems, 19201 Parthenia St., Suite J, Northridge, CA 91324. Seller will pay return shipping charges.

This warranty does not apply to normal wear or to damage resulting from accident, misuse, abuse or neglect. Seller makes no express warranties other than those expressly set forth herein. Except to the extent prohibited by applicable law, all implied warranties, including all warranties of merchantability or fitness, are limited in duration to the warranty period set forth above; and this warranty expressly excludes all incidental and consequential damages. (Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights that vary from jurisdiction to jurisdiction.)