

SmartSwitch

SceneMaster Version 3.0

INSTALLATION INSTRUCTIONS

For Models:

SS1L/S-600 or SS1L/S-1000

SSR (Remote Switch)



INSTALLATION NOTES

READ THESE INSTRUCTIONS BEFORE INSTALLING DEVICE.

This device is intended for installation in accordance with the National Electric Code and local regulations. It is recommended that a qualified electrician perform this installation. Retain these instructions for reference or download manual from www.pcslighting.com. For detailed programming, please download the SceneMaster Programming Manual (SPM-3).

To reduce the risk of overheating and possible damage to other equipment, do not use switch, when set to dimming, to control a receptacle, a motor-operated appliance, a fluorescent lighting fixture or a transformer-supplied appliance. This product is for indoor use only. Connect only copper or copper clad wire to this device.

Pour réduire risque surchauffer et possible dommage autre matériel, non utiliser commutateur, quand positionnement obscurcir, pour contrôler un réceptacle, un moteur appareil, un fluorescent éclairage montage ou un transformateur-fournir appareil.

- a) All PCS wall switches require a neutral (white) connection.
- b) Be sure that power to the load has been disconnected by turning circuit breaker off. Installing the SS1 Smart Switch or a remote with power on may expose you to dangerous voltages and may damage the device.

Installation Procedures

1. Remove faceplate from existing device.
2. Unscrew and pull device out of wall box.
3. Disconnect wires from device. Identify "Hot", "Load", "Neutral" & "Traveler" wires.
4. Install device per the following important note:
Note: Be sure device is in "System Off" position by firmly pressing Rocker Bottom until you click airgap switch to open position or you see "System Off" label on top of Rocker.
5. After all connections have been made, be certain all wire connectors are firmly attached and there is no exposed copper.
6. Gently place wires and switch into wall box (with LED at top of device) and screw in place.
7. Before installing faceplate, restore power to circuit, and firmly press top of device until it snaps out of "System Off" position.
8. After testing device for proper operation install faceplate onto the device.

Ganging Information (SS1L/S-1000 only)

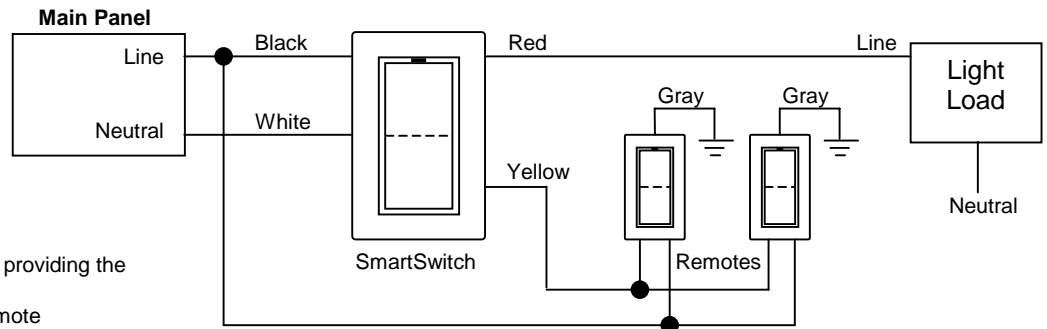
For a proper fit in a multiple gang installation, it may be necessary to remove one or both sides from the mounting plate. When fins are removed the overall rating of the device must be reduced in accordance with the following:

SS1L/S-1000 Rating with no tabs removed:	1000 Watts
SS1L/S-1000 Rating with one tab removed:	800 Watts
SS1L/S-1000 Rating with both tabs removed:	600 Watts

WIRING CONFIGURATION

The Smart Switch is wired directly to the lighting circuit and can be controlled by one or more Remote Switches producing three, four, or five-way circuits. Multi-way circuits make it possible for a group of switches to control the same set of lights. This section will illustrate how to hook-up the connections.

Configuration Definitions:



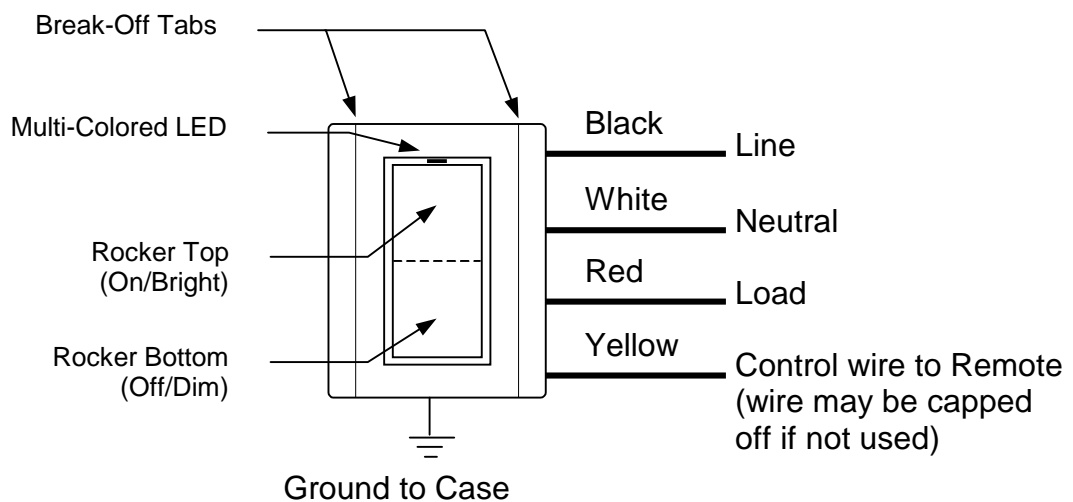
- Main Panel - Source of electricity providing the Line and Neutral
- Remote Switch - One or more remote switches (PCS model SSR) controlling the light circuit via the SmartSwitch
- Gray wire on Remote may be connected to neutral or ground

SmartSwitch Wiring Diagram Notes

1. Refer to diagrams to determine the wire colors of the hook-up.
2. All PCS wall switches require a neutral (white) connection.
3. Remote switches require that the Line (black) wire is accessible.
4. The black wire of the remote switch should be connected to the same phase of the house transformer as the SS1 switch. If the remote is connected to line of the wrong leg of the house transformer the action of the switch will be opposite of what is expected. Top will be OFF and bottom will be ON. You may correct this by reversing the black and yellow wires to obtain correct operation but then the LED will not go on.
5. Gray wire on remote switch can be connected to earth ground or neutral. The gray wire serves only to light the red LED in the remote. This LED does not indicate anything except that power is applied and to serve as a night-light.

LOCAL OPERATION – SS1 (Dimmer) and SSR (REMOTE SWITCH)

Turning the Lighting Circuit On	Tap the Rocker Top once.
Turn On to Full Bright	Tap the Rocker Top twice.
Brightening the Lighting Circuit	Press and Hold the Rocker Top down until the right lighting level is achieved.
Turning the Lighting Circuit Off	Tap the Rocker Bottom once.
Dimming the Lighting Circuit	Press and Hold the Rocker Bottom down until the right lighting level is achieved
System Off. Removing all power for safe bulb replacement. (SS1 Only)	Firmly press the Rocker Bottom until you click the air gap switch to the open position or you see the "System Off" label on top of the rocker.



SMARTSWITCH PROGRAMMING

Modes of Programming

In addition to Normal Operation, there are five programming modes used to set the Primary Address, the Scene Addresses, the Scene Enables, the Scene Ramp Rates and the Advanced Programming Options.

Normal Operation - this is the normal operating state.

Mode 1 - mode used to set primary address of the channel(s).

Mode 2 - mode used to set scene addresses to the scene numbers.

Mode 3 - mode used enable or disable individual channels to scenes.

Mode 4 - mode used to set ramp rates to the scene numbers and primary address.

Mode 5 - mode used to set the Advanced Programming Options.

Scene Number - A number from 1 to 16 representing each scene and holds settings for scene address, channel enable, ramp rate and lighting level.

Channel Number - A number representing the lighting channel of product. The LM4 have 4 channels (Channel Numbers 1 to 4). The MM2 have 2 channels (Channel Numbers 1 to 2). The SS1 has only one channel (Channel Number 1).

Notes:

Elementary programming can be performed using this instruction manual. To fully understand the scene features of the PCS system, please read the SceneMaster Programming Manual (SPM-3) which covers the complete programming of this device. This is available on www.pcslighting.com. Documents > SceneMaster Programming Manual (SPM-3).

The SceneMaster system will provide visual feedback while in programming mode. Lights will flash and the LED pattern will change during the course of programming to give the installer feedback that his actions are being entered.

The Maxicontroller is the simplest controller that can program the PCS SceneMaster system. This hand-held controller was chosen because it was cost-effective, it contained the full set of X-10 addresses and the addresses can be transmitted without an automatic following command. For details, please contact PCS.

This PCS product comes from the factory with the Master Scene system disabled. It will function normally responding to ON, OFF, Bright, Dim, Preset Dim and MicroStep commands.

To Enter any Mode:

- a) Firmly press the bottom of the Rocker Bottom. Click the airgap switch to the open position or when you can see the "SYSTEM OFF" label on top of the rocker.
- b) Press the top of the rocker until power is restored. Within one second press firmly on the top and bottom of the switch rocker simultaneously* and release when the LED goes off. The LED will start blinking green. You are now in Mode 1 (Setting Primary Address).
 - * The best locations to press paddle is the top-right corner and bottom-left corner.
- c) Keep tapping top paddle until you get to correct Mode (see LED for correct color pattern).

RESET TO DEFAULT SETTINGS

1. Enter Mode 1. See To Enter any Mode section.
2. Press All-Units-Off key 3 times. This will reset to factory defaults.
3. Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Mode 1 Programming - Setting Primary Address (BLINKING GREEN)

- 1) Enter Mode 1. See To Enter any Mode section.
- 2) Transmit X-10 address. This address will be the new Primary Address.
- 3) Press All-Lights-On key. The product stores new Primary Address into memory.
- 4) Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Mode 2 Programming - Setting Scene Addresses (BLINKING RED)

- 1) Enter Mode 2. See To Enter any Mode section.
- 2) Press Scene Number. A number between 1 and 16 representing scene of product.
- 3) Press All-Lights-On key. Product confirms Scene Number is entered.
- 4) Transmit X-10 address. Address will be the address of the scene number selected.
- 5) Press All-Lights-On key. The product stores new Scene Address into memory.
- 6) Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Mode 3 Programming - Setting Channel Enables (BLINKING ORANGE)

- 1) Enter Mode 3. See To Enter any Mode section.
- 2) Press Scene Number. A number between 1 and 16 representing scene of product.
- 3) Press All-Lights-On key. Product confirms Scene Number is entered.
- 4) Press all applicable Channel Numbers. SS1s have only channel number 1, so press the "1" key.
- 5) Press the ON key or OFF key. Pressing ON or OFF key will determine if the channel will respond or not respond to the Scene Address.
- 6) Press All-Lights-On key. The product stores new Channel Enables into memory.

7) Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Mode 4 Program - Setting Ramp Rates (ALTERNATING GREEN AND RED)

- 1) Enter Mode 4. See To Enter any Mode section.
- 2) Press Scene Number (keys 1 to 16) or Primary Address (OFF button).
- 3) Press All-Lights-On key. Lights flash confirming information is entered.
- 4) Press Ramp Rate number. A number between 1 and 16 representing the ramp rate duration. The "1" key is an instant-on, "2" is 3 seconds, "3" is 6 seconds, "7" is 20 seconds, "12" is 7 minutes, "15" is 13 minutes, "16" is the security flashing mode.
- 5) Press All-Lights-On key. The product stores new Ramp Rate into memory.
- 6) Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Mode 5 Program - Advan Program Options (ALTERNATING GREEN/ORANGE)

The Advanced Programming Options are given the following table. The sequence of programming is different for these options, so we will separate them as follows.

Numbered Key on Transmitter/Controller	Advanced Programming Option	Default Setting
1	Soft Start	On (Note 1)
2	All Lights On	On
3	All Lights Off	On
4	All Units Off	On
5	Universal All Lights On	Off
6	Universal All Lights Off	Off
7	Universal All Units Off	Off
8	Master Scene Enable	Off
9	Receive Level	4
10	Remote Access	Off
11	Dimming Setting	On (Note 2)

NOTE 1: Advanced Programming Option 1 does not apply to switches in non-dimming setting.
 NOTE 2: This setting is unaffected when defaults are reset.

ADVANCED PROGRAMMING OPTIONS

Advanced Programming Options 1 through 7 or 11

1. Enter Mode 5. See To Enter any Mode section.
2. Press Advanced Programming Option number. A number between 1 through 7 or 11.
3. Press All-Lights-On key. Product confirms Option Number is entered.
4. Press all applicable Channel Numbers. SS1s have only channel number 1, so press "1" key.
5. Press the ON key or OFF key. This will determine if option is enabled or disabled.
6. Press All-Lights-On key. The product stores new setting into memory.
7. Press All-Lights-On key 3 times. The product transfers into normal operation.

Advanced Programming Options 8 or 10

1. Enter Mode 5. See To Enter any Mode section.
2. Press Advanced Programming Option number. Number 8 or 10 as defined in the following table.
3. Press All-Lights-On key. Product confirms Option Number is entered.
4. Press the ON key or OFF key. Pressing ON or OFF key will determine if the channel will respond or not respond to this option.
5. Press All-Lights-On key. The product stores new setting into memory.
6. Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

Advanced Programming Option 9

1. Enter Mode 5. See To Enter any Mode section.
2. Press Advanced Programming Option 9. Number 9 is defined in the following table.
3. Press All-Lights-On key. Product confirms Option Number is entered.
4. Press the Receive Level. A number between 1 and 16 representing the voltage receive level of the product. The default is "4" (50mV). The "1" key is 5mV, "7" is 125mV, "11" is 225mV, "14" is 300mV, and "16" is 350mV.
5. Press All-Lights-On key. The product stores new setting into memory.
6. Press All-Lights-On key 3 times. The product is transferred out of programming mode and into normal operation.

SPECIFICATIONS

Model Number	SS1L/S-600		SS1L/S-1000	
Dimming Setting	Dimming	Non-dimming	Dimming	Non-dimming
Max Total Load	600W / 600VA	5 A	1000W / 1000VA	8 A
Input Power	125 VAC, 5A	125 VAC, 5A	125 VAC, 8A	125 VAC, 8A
Min Load	60 W	60 W	60 W	60 W
Min Receive Level	5 mV	5 mV	5 mV	5 mV
Max Noise Rejection	350 mV	350 mV	350 mV	350 mV
Connections	16 AWG (min)	16 AWG (min)	16 AWG (min)	16 AWG (min)
LED Indicator	Yes	Yes	Yes	Yes
Dimensions	4.25 X 1.65 X 1.9 in ³	4.25 X 1.65 X 1.9 in ³	4.25 X 2.38 X 1.9 in ³	4.25 X 2.38 X 1.9 in ³
Weight	0.3 lb.	0.3 lb.	0.3 lb.	0.3 lb.
Mounting	Standard J box	Standard J box	Standard J box	Standard J box
Operating Temp	-40 °F to 104 °F	-40 °F to 104 °F	-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 on serial number or purchase date if no S/N date is given. 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 which vary from jurisdiction to jurisdiction.)