

DEC Components are for RESIDENTIAL USE ONLY.
Installation for any other application voids any warranty,
stated or implied.



DECORA ELECTRONIC CONTROLS RESIDENTIAL POWERLINE CARRIER COMPONENTS

SINGLE POLE SWITCH MODULE

INSTALLATION INSTRUCTIONS

& Wiring Diagram

Cat. No. 6291

LEVITON'S LIMITED ONE-YEAR WARRANTY
This warranty gives you specific rights, and you may also have other rights, which vary in different states and countries. LEVITON warrants to the original consumer purchaser that this product is free of defects in materials and workmanship for 1 year from the purchase date. Leviton will correct such defects by repair or replacement, at its option, if the product is returned prepaid, with proof of purchase date, to Leviton Manufacturing Co., Inc., ATT. Quality Assurance Department, 745 Jefferson Blvd., Warwick, RI 02886. This warranty does not cover labor for removal or reinstallation of the product and is void on any product installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner. Leviton limits the duration of any implied warranty of merchantability to 1 year and excludes incidental or consequential damages for breach of any warranty on this product. Some jurisdictions may not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you.



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For Technical Assistance Call: 1-800-824-3005

**TO BE INSTALLED AND/OR USED IN ACCORDANCE
WITH APPROPRIATE ELECTRICAL CODES
AND REGULATIONS.**

DESCRIPTION:
This Wall Switch Module is designed for use with Leviton Decora Electronic Control (DEC) Powerline Carrier Components. It functions as a remote control switching device which responds to ON/OFF and ALL LIGHTS ON/OFF commands, from one or more DEC controllers remotely located from the module. The switch module can also be operated manually as a standard type wall switch.

ENGINEERING DATA:
Input Signal: 121kHz carrier signal superimposed on a 120V AC power line.
Minimum Signal Strength: 100mV.
Ambient Operating Temperature: Minimum 0° F (-18°C) to Maximum 104° F (40°C).
Ambient Humidity: 0 to 90% RH, non-condensing.

The module may be set to any of the 256 address codes, selected at the time of installation. The desired address is set by removing the touchplate and selecting letter and number codes with a small blade screwdriver. The module is equipped with back wire terminals and installs easily in a standard wall box. It is suitable for incandescent and fluorescent lighting, as well as switch controlled appliances when Dimming is not desired.
The Cat. No. 6291 is assembled as white and an ivory color conversion kit is provided. This product fits any color Decora Wallplate (sold separately). Additional color conversion kits are available.

**SAVE THIS INSTRUCTION SHEET!
IT CONTAINS IMPORTANT TECHNICAL DATA,
TESTING, AND TROUBLE SHOOTING INFORMATION WHICH WILL BE USEFUL AFTER
INSTALLATION IS COMPLETE.**

IMPORTANT: Unlike standard single pole wall switches the Cat. No. 6291 also requires a neutral (white) wire for operation.

APPLICATIONS:
Decora Electronic Controls will not control lighting that is used with low voltage or high frequency transformers, nor high pressure discharge lamps (HID lighting). This includes mercury vapor, sodium vapor, and metal halide lamps.
DEC Components will control a wide range of lighting including:
• Low pressure discharge lamps (fluorescent- (single- pole) or 6293 (3-ON/OFF Only)—use Cat. Nos. 6291
• 120V Quartz Lamps can be dimmed or brightened—using Cat. Nos. 6381 or 6383.
• Low Voltage Lighting, that operates with a 60Hz transformer - (ON/OFF only) use Cat. Nos. 6291, 6293, 6227 and 6280 (DIMMING) use Cat. Nos. 6381-U and 6290
If a power interruption should occur while the 6291 is ON the LOAD will remain ON when power is restored.

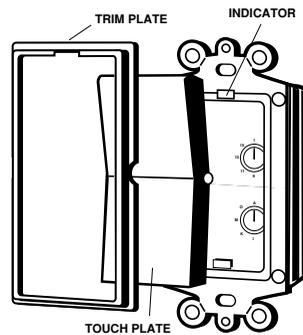
IMPORTANT NOTICE
The Leviton power line carrier signal is designed to provide the greatest signal integrity and noise immunity possible. However, in some environments intense electrical noise can cause interference with the signal.
Leviton has developed hardware and techniques for overcoming this interference when properly applied. It is the responsibility of the specifier/installer to test for signal strength and the presence of noise using Leviton test equipment Cat. Nos. 6385 (Signal Test Transmitter) and 6386 (Signal Strength Indicator) and to properly apply signal coupling and noise-reduction equipment according to the guidelines provided in the DEC Technical Manual and the DEC Troubleshooting Guide.
Leviton specifically denies any warranty of performance, stated or implied, where electrical noise interference exists at the time of installation, or subsequent to installation by the addition of noise-producing devices or equipment, or where these components have been installed for non-residential applications.

INSTALLATION INSTRUCTIONS

- 1. WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE . TEST THAT POWER IS OFF-BEFORE WIRING!** Use this device only with copper or copper clad wire. With aluminum wire use only devices marked CO/ALR. REMOVE BULB(S) FROM FIXTURE.
 2. Remove and discard existing switch and wallplate, if applicable.
 3. Remove 1/2" insulation from ends of branch circuit wires to expose bare copper.
 4. Connect circuit wires to switch module per wiring diagram as follows: Insert wires into round backwire holes. Firmly tighten all terminal screws.
- NOTE:** up to two (2) circuit wires can be connected to each terminal.
5. Mount switch module in wall box using two screws provided
 6. Using a small blade screwdriver, remove the Touch Plate (front cover) by prying it off at the bottom.

COLOR CONVERSION PROCEDURE

The color of this Cat. No. 6291 can be changed to suit your interior design requirements. Simply get a color conversion kit of the appropriate color from your Leviton distributor or use the one provided, and proceed as follows:



1. The trim frame bordering the touch plate has notches on its sides. Place the tip of a small-bladed screwdriver under a notch and gently pry off the trim frame.
2. The touch plate has a notch along its bottom edge which can be seen once the trim frame has been removed. Place the screwdriver tip in this notch and gently pry off the touch plate.

WIRING DIAGRAM For Cat. No. 6291 Single Pole Switch Module

3. Take the new touch plate and gently press it into place until it seats properly with a click.
4. Take the new trim frame and position it properly around the touch plate. Notice that the trim frame has a cut-out for the indicator light. With the trim frame properly positioned, gently press it into place until it seats properly with a click. The color conversion is complete.

PERFECT PERFORMANCE CHECKLIST

If the 6291 seems to be functioning improperly confirm that the:

1. POWER IS OFF AT CIRCUIT BREAKER OR FUSE. Check that the Module is wired EXACTLY as shown in the Wiring Diagram. Restore power before proceeding.
2. Module is being supplied from a 120V/ 60Hz AC source ONLY.
3. Load being controlled is in proper working order. Local switch, ON. (Check for burned-out bulbs)
4. Load being controlled does not exceed the 20 Amp module limit.

7. Using the same screwdriver, set the House Code Dial (RED) to the chosen Letter and the Unit Code Dial (BLACK) to the chosen Number, thus programming the unit with the desired address code.
8. If it is desirable to change the color of the device, do so now by following the "Color Conversion Procedure". If not, remount the Touch Plate by pressing it into position. Mount Decora Wallplate (sold separately).
9. Replace bulb(s) in lighting fixture. Restore power at circuit breaker or fuse. INSTALLATION IS COMPLETE. PROCEED TO TESTING.

TESTING (Performed directly after installation)

With the Cat. No. 6291 properly wired and powered, tap the switch plate several times to ensure that the module is turning its load on and off in response to manual control. Next, use the Cat. No. 6320 Table Top Controller, or other controller, to check for the proper switch module operation as

follows (leaving the load ON, manually):

- Transmit an OFF command to the module. It should respond by turning its assigned Load OFF.
5. Module's Letter and Number codes are set correctly- that they match the codes set in the Controller.
 6. Confirm that the controller is powered.
- IMPORTANT:** If, after checking items 1 through 7, the module still does not operate properly, the fault may not lie with the module itself. Follow steps 7 and 8 to identify the source of the problem.
7. Set the controller to transmit address P1. Using a Signal Strength Indicator, Cat. No. 6386, plugged in at the location of the controller, Confirm that the controller is transmitting a minimum reading of 2 volts of command signal at the HI-RANGE setting. If the signal strength is less than 2 volts, have controller checked.
 8. Check for adequate command signal at the module location as follows:
 - a) Plug the Cat. No. 6385 Signal Test Transmitter

- Transmit an ALL LIGHTS ON control to the module from an appropriately coded controller. It (and all other devices on that House Code) should respond by turning its assigned Load ON.
- Transmit an ALL OFF command from an appropriately coded controller. It should respond by turning its assigned Load OFF.

If a power interruption should occur while the 6291 is ON the LOAD will remain ON when power is restored.

The DEC Single Pole Module Switch should be operating properly. If not, proceed to PERFECT

ter into a receptacle on the same circuit.

- b) Using the Cat. No. 6386 Signal Strength Indicator at the module location, check the command signal amplitude. Signal strength must be 100mV minimum. If there is less than 100mV of signal present, it may be necessary to couple both legs of the 120/240 volt power service at the entrance panel using Cat. No. 6299 Signal Bridge.

