DHC with Intellisense™ Technology

Plug-In RF Controller

Rated: 120VAC, 60Hz

Cat. No. HCPRF

Incandescent: 300W max., 60W min.

INSTALLATION INSTRUCTIONS

INTELLISENSE®

DI-000-HCPRF-00A

LIMITED 2 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for two years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such two year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 59-25 Little Neck Parkway, Little Neck, New York 11362-2591 (In Canada send to Leviton Mfg. of Canada Ltd., 165 Hymus Blvd., Point Claire, (Quebec), Canada H9R 1E9).** This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to two years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

For Technical Assistance Call:
1-800-824-3005 (U.S.A. Only)
1 800 405-5320 (Canada Only)
www.leviton.com

LEVITON
Building A Connected World

DI-000-HCPRF-00A

FEATURES

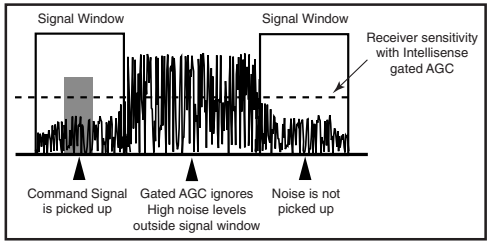
- Intellisense Circuitry
- ON/OFF LED indicates status of load
- Manual ON/OFF capability at load
- 2-Way communication when used with 2-Way transmitters
- Works with Transmitters (hand-held) and Controllers
- DHC Scene Capable
- One Button Programming

INTRODUCTION

Leviton Residential Powerline Carrier Components are 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.

LEVITON'S DHC DEVICES FEATURE INTELLISENSE, THE RIGHT TYPE OF AUTOMATIC GAIN CONTROL (AGC)

Leviton DHC devices use Intellisense, a special gated-type of AGC, to help eliminate noise problems. This circuit feature is ideal for powerline carrier systems because it only operates during the signal window when receivers listen for command signals. Noise levels in the signal window are never as high as they are during other portions of the AC power curve. Therefore, Leviton's Intellisense gated AGC will desensitize a receiver to noise signals with only a minimal reduction in command signal sensitivity. The result: Problems from noise interference are dramatically reduced without affecting overall system performance.



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 Decora Home Controls (DHC) Technical Manual and the DHC 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.

DHC Components are for residential use only. Installation for any other application voids any warranty, stated or implied.

DESCRIPTION

The Leviton Plug-In Radio Frequency (RF) Module, Cat. No. HCPRF, is designed for use with DHC Residential Powerline Carrier Components. Cat. No. HCPRF functions as a remote control receiver which accepts ON/OFF, DIM, BRIGHT, and ALL LIGHTS ON/OFF commands of up to 256 DHC codes from DHC remote controls **(refer to Figure 1)**.

The device re-transmits the signal throughout existing house wiring to control both hard wired and plug-in dimmers and switch modules. The HCPRF contains an integral receptacle which can be remotely or locally turned ON or OFF **(refer to Figure 3)**; it is suitable for incandescent lamp loads up to 300W . It can also be programmed to respond to scene commands from scene controllers. The device can be used with or without a load attached locally.

APPLICATIONS

DHC devices will not control lighting that is used with electronic low-voltage and high frequency power supply transformers, nor high pressure discharge lamps (HID lighting). This includes mercury-vapor, sodium vapor and metal halide lamps.

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF an ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/tv technician for help.

INSTALLATION INSTRUCTIONS

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

WARNING: IF YOU ARE NOT SURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT A QUALIFIED ELECTRICIAN.

WARNING: TO REDUCE THE RISK OF OVERHEATING AND POSSIBLE DAMAGE TO OTHER EQUIPMENT, DO NOT INSTALL TO CONTROL A MOTOR-OPERATED APPLIANCE, FLUORESCENT LIGHTING FIXTURE, OR A TRANSFORMER-SUPPLIED APPLIANCE.

CAUTION: UNPLUG UNIT WHEN SERVICING FIXTURE OR CHANGING BULBS.

CAUTION: SAVE THIS INSTRUCTION SHEET. IT CONTAINS IMPORTANT TECHNICAL DATA ALONG WITH TESTING AND TROUBLESHOOTING INFORMATION WHICH WILL BE USEFUL AFTER INSTALLATION IS COMPLETE.

TO INSTALL:

NOTE: The Cat. No. HCPRF may be used with or without a load connected to its integral receptacle. If desired, connect lamp load as follows:

1. Carefully unwind and straighten out Antenna attached. For best reception and range, ensure that Antenna is orientated straight up.
2. Locate lamp to be controlled by Plug-In Control Module and ensure it is operational. Turn lamp OFF and unplug lamp cord from wall outlet.
3. Attach lamp plug into Module receptacle noting proper polarity of blades.
4. Plug Module into wall receptacle. Turn lamp ON and verify that receptacle is live by pressing the button on the front of the Module. The lamp should turn ON. Please note that if receptacle is controlled by a wall switch, the switch must be kept ON at all times. After verifying, press button on Module to turn lamp OFF.

5. Depress and hold the programming button located on the front of the unit **(refer to Figure 1)**. After a few seconds, the LED under the button will begin flashing. The unit is then ready to learn the code from the transmitter to control its local load.
6. Adjust House and Unit Code on the appropriate transmitters using programming procedure **(refer to Transmitter Instruction Sheet for directions)**. Press "ON" rocker or "ON" button of the appropriate row on a multi-button controller. The transceiver will receive the code from the transmitter and set itself to it.

   NOTE: The unit can also be programmed using the hand-held Remote Control to send the desired address to this device.
7. Verify that the transceiver works correctly by operating the ON/OFF adjustments from the transmitter.
8. If desired, the push-button on the Module can be used to turn the load ON and OFF. Only the attached load will respond.
9. **INSTALLATION IS COMPLETE.**

TO OPERATE

NOTE: The Cat. No. HCPRF can be operated by a Hand-held Keychain RF Remote. It will also respond to DHC signals from wired controllers.

ON: Press the appropriate ON address button on the Keychain or Hand-held Remote Control. The lamp attached to the transceiver will turn ON if the transceiver is set to the same code as the transmitter. The device will send the ON command through the house wiring and turn ON all dimmers and switches set to the same address as selected by the Remote. The Load attached to the transceiver will also respond to ON commands sent from a DHC wall or table top controller.

OFF: Press the appropriate OFF address button on the Keychain or Hand-held Remote Control. The lamp attached to the transceiver will turn OFF if the transceiver is set to the same code as the transmitter. The device will send the OFF command through the house wiring and turn OFF all dimmers and switches set to the same address as selected by the Remote. The Load attached to the transceiver will also respond to OFF commands sent from a DHC wall or table top controller.

BRIGHTEN: On an appropriate Hand-held Remote Control, press the BRIGHT button after pressing the ON button of the selected address to control. The device will send the BRIGHTEN command through the house wiring set to the same address as selected by the Remote. Only dimmable DHC devices will respond to the command.

DIM: On an appropriate Hand-held Remote Control, press the DIM button after pressing the ON button of the selected address to control. The device will send the DIM command through the house wiring set to the same address as selected by the Remote. Only dimmable DHC devices will respond to the command.

NOTE: The load connected to this device can be operated locally. Press the button on the front of the unit to turn the load ON and OFF. Only the attached load will respond.

NOTE: If a power interruption should occur while the device in ON, the light load will return to its previous light level when power is restored.

NOTE: This device is equipped with 2-Way communications capability. When the device is turned ON or OFF locally, it will transmit status (ON/OFF) to the transmitter whose LED's or readouts will adjust accordingly.

TESTING PROCEDURE

With Cat. No HCPRF properly installed and powered-up, use the above procedure to control the unit using the appropriate transmitter. The unit should respond as follows:

NOTE: If a power interruption should occur while the device is ON, the light load will return to its previous state when power is restored.

1. Transmit an OFF command to the module. If the code set on this device matches the transmitter, it will turn its load OFF. The unit will transmit the OFF command through the house wiring; all units set to the same code will respond.
2. Transmit the ALL LIGHTS ON command to this module from an appropriately coded controller. It should respond by turning its assigned load to ON.
3. Transmit DIM and BRIGHT commands. The device will not react, but will transmit the DIM or BRIGHT command through the house wiring; all units set to the same code will respond.
4. Transmit the ALL OFF command to this module from an appropriately coded controller. It should respond by turning its assigned load to OFF.

PERFECT PERFORMANCE CHECKLIST

If Cat. No. HCPRF appears to be functioning improperly, proceed with the following steps:

1. Confirm that the device is being supplied from a 120V, 60Hz AC source ONLY.
2. Confirm that the load being controlled is in proper working order. Local switch, ON (check for burned-out bulbs).
3. Confirm that the load being controlled does not exceed the 300W module limit.
4. Ensure that Antenna is straight and pointing up.
5. Confirm that unit is programmed properly. Repeat program procedure from Step 4 under "TO INSTALL" section.
6. Confirm that the controller is powered and is set to transmit commands to the same letter and number code that the module has been programmed to.

   NOTE: If the module still does not operate properly after following steps 1-8, the fault may not lie with the module. Proceed with steps 7 and 8.
7. Set the controller to transmit address P1. Using a Cat No. 6386 Signal Strength Indicator plugged in on the same branch circuit as 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 the controller checked.
8. Check for the adequate command signal for Cat. No. HCPRF location as follows:
   - **A.** Plug the Cat. No. 6385 Signal Test Transmitter into a receptacle on the same circuit as the dimmer.
   - **B**. Using the Cat. No. 6386 Signal Strength Indicator at the HCPRF 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 appropriate phase communication device (Leviton Cat. No. 6299, 6201, or HCA02).
   - **C.** If the YELLOW ERROR CONDITION indicator is lit, there is electrical "noise" present on the AC line which is interfering with proper module operation. The source of the noise must be identified and either filtered out or eliminated **(refer to Technical Manual)**.

Figure 1 - Controller Functions

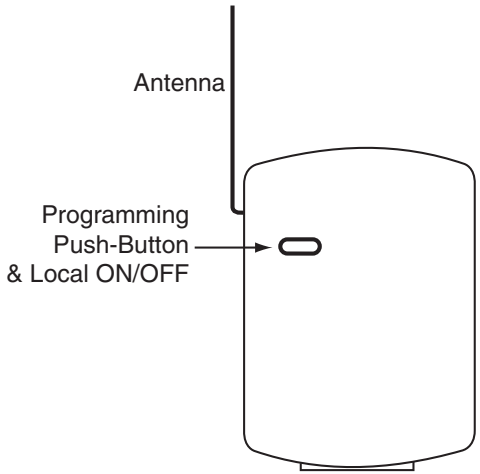


Figure 2 - Back of Controller Polarized Plug

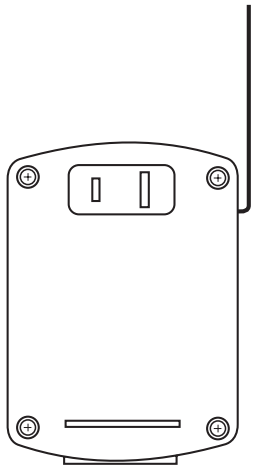


Figure 3 - Bottom of Controller Receptacle