Quick-Start Guide

PowerLinc Modem™ – INSTEON® Serial Interface (Dual Band)

Model: 2413S
Serial RS-232 and TTL Interface for INSTEON

Set Button

Status LED

Interface Port

Key Features

- No background software needed with computer programs
- Straight-forward and simplified command set
- Simple-to-use RS-232 communications
- Direct TTL connection for hardware devices
- Stores over 1,023 INSTEON links in 64Kb of non-volatile memory
- Simultaneously communicates via powerline and RF INSTEON for maximum reliability
- Access Point functionality for:
  - Coupling 120-volt phases in your home when used with another dual band product like an Access Point
  - Bridging RF and powerline INSTEON communications

Installation

1) Refer to the instruction manual of your home automation software or controller with which you will be using PowerLinc Modem for installation and setup instructions
2) It is recommended to confirm PowerLinc Modem is in range of at least 1 other dual band device, such as an Access Point or another dual band PowerLinc Modem:
   a. Tap PowerLinc Modem's Set button 4 times quickly
      PowerLinc Modem will begin beeping continuously once per second
   b. Now check the LED behavior of your other dual band devices. Verify at least 1 of your dual band devices' LED's does one of the following:
      - LED is bright and steadily On (if you aren't sure how bright is bright, tap PowerLinc Modem's Set button and Access Point or other dual band device will now be significantly dimmer)
      - LED is blinking (any color)
   c. If none of your dual band devices exhibit the behavior in Step 2b, we recommend you either 1) reinstall your Access Points according to their Quick-Start Guide (choosing outlets closer to your PowerLinc Modem), or 2) purchase additional dual band devices
   d. Tap PowerLinc Modem's Set button
      PowerLinc Modem will stop beeping

Tips for Using PowerLinc Modem

- Do not plug PowerLinc Modem into a power strip or AC line filter
- Some computers and their accessories can absorb PowerLinc Carrier (PLC) signals off the power lines. Since PowerLinc Modem will be so close to the computer, the power strip for the computer should be filtered. Use Smarthome's FilterLinc™ #1626 on the computer's power strip to keep the PowerLinc Modem's signals from getting absorbed by the computer equipment.
- Don't plug other PLC transmitters into the same outlet as PowerLinc Modem. Every PLC transmitter will absorb the other transmitter's PLC signals when they are not transmitting. In some cases, up to half the signal can be lost due to nearby transmitters.
- If the computer's serial port is shared with another hardware device (scanner, pda, etc.) be sure to turn off that device's program on the PC. If left running, the home automation software will not be able to communicate to the PowerLinc Modem.

Connector Specifications

Pin 1: RS232 to PC pin 2 (Rx)
Pin 2: Not Connected
Pin 3: TTL Output (from PLM)
Pins 4 & 5: Not connected
Pin 6: TTL Input (from PLM)
Pin 7: Common Ground
Pin 8: RS232 from PC pin 3 (Tx)

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Interface Port

Communications

The RS-232 Serial communications to the PowerLinc Modem are:

19,200 baud	8 data bits	No parity	1 stop bit

Note: each byte send to the PowerLinc Modem will be echoed back to the host

Become a Developer

For information about becoming an INSTEON developer, visit the PowerLinc Modem Developer Kit product page at:

http://www.smarthome.com/insteon/sdk2600s.html

Questions?

Call:
Friendly tech support @ 1-800-SMARTHOME (800-762-7846)

FCC Compliance Statement

This device complies with FCC Rules Part 15.Operation is subject to two conditions:
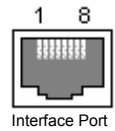(1) This device may not cause harmful interference, and
(2) This device must accept any interference that may be received or that may cause undesired operation. The digital circuitry of this device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. 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 and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna of the device experiencing the interference.
- Increase the distance between this device and the receiver.
- Connect the device to an AC outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

WARNING! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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