



FilterLincTM

Plug-In Electrical Noise Filter

Model : 1626 (5 Amp)
 1626-10 (10 Amp)

SMARTHOMETM

FilterLinc Owner's Manual

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ABOUT FILTERLINC

FilterLinc is designed to:

- Prevent noisy electrical devices from polluting onto the power lines
- Prevent INSTEON or X10 signals from being absorbed into appliances



Key FilterLinc Features

- 2-stage modified pie filter centered at 120 kHz
- 49.4 dB attenuation at 12 kHz
- Safety tested and approved by ETL
- Rated for up to 10 Amps (#1626-10) or 5 Amps (#1626)
- Unfiltered pass-through outlet on the front of device
- Does not effect higher frequencies on the AC line like FM intercoms and HomePNA devices
- Two-year warranty

What is Included with FilterLinc

- FilterLinc Plug-In Noise Filter
- Quick-Start Guide

FilterLinc Owner's Manual

About Electrical Noise and Signal Attenuation

Many electrical devices in your home may cause interference with your INSTEON or other power line-based automation devices. Such devices will cause either:

- **Electrical Noise** – noise on your home's electrical wires
- **Signal Attenuation** – absorption of INSTEON power line communicating signals

Electrical Noise

Some devices may only emit electrical noise when operating so they can be difficult to detect. Some of the most common noise producers are:

- HID lighting
- Motorized devices (refrigerators, pumps, electric razors, hair dryers)
- Transformer-based light that uses solid-state transformers
- Fluorescent-based lighting and ballast transformers
- Failed or failing X10 transmitters

In most cases, electrical noise is caused by an electrical device that you have recently plugged in or an existing device if you are just starting with an INSTEON system. There may also be a device in your home that is beginning to fail or is wearing out, thus creating noise on the power line.

Signal Attenuation

FilterLinc will also dramatically lessen the effect of non-INSTEON devices on the signal. When a signal is transmitted, it goes everywhere in your home. INSTEON signals are like water pipes – it actually gets anywhere it can, not just to the receiving device. Some electrical devices will have more of an effect on the signal strength than others.

In the last 20 years, an explosion of electrical devices has invaded homes. Computers, video gear, and other high-end electronics are more present than in years past. Some of these devices contain complicated electrical power supplies that are designed to provide clean electricity to the devices they serve. Engineers design power supplies with built-in traps to filter out and kill electrical noise on the AC line. Unfortunately, INSTEON signals look just like electrical noise to these devices. The result is that a large percent of the transmitted signal is lost. The most common sources of signal loss are:

- Television, stereo components, satellite, and cable receivers
- Computer systems, monitors, and printers
- Computer Universal Power Supplies (UPS)
- Power strips
- Power supplies for laptops and cell phones

INSTALLATION

Preparing to Install FilterLinc

CAUTION

Read and understand these instructions before installing and retain them for future reference.

FilterLinc is intended for installation in accordance with the National Electric Code and local regulations in the United States or the Canadian Electrical Code and local regulations in Canada. Use indoors only. FilterLinc is not designed nor approved for use on power lines other than 120V 60Hz, single phase. Attempting to use FilterLinc on non-approved power lines may have hazardous consequences.

Prior to installing FilterLinc, please review the entire installation procedure and take the following precautions:

- Use indoors or in a properly insulated and weatherproof electrical box only
- Don't plug FilterLinc into an outlet controlled by a switch because if the switch is inadvertently turned off, FilterLinc won't have power
- Don't plug FilterLinc into a filtered power strip or AC filter

If you have any questions, please call:

INSTEON Gold Support Line

800-762-7845

Locating the Offending Device

If you suspect an electrical device might be interfering with INSTEON transmissions, use the following steps to determine if the electrical device should be filtered:

- 1) Unplug the electrical device – don't just turn it off
- 2) Retry sending INSTEON commands from the devices that are experiencing poor communications to determine if they are working better

If the INSTEON devices begin working after the electrical device is unplugged, then install a FilterLinc on that electrical device.

Installing FilterLinc

NOTE: FilterLinc should be installed between the offending device (noise-maker or signal-absorbing appliance) and your home's AC outlet.

- 1) Turn off the device to be filtered (i.e., TV or computer)
- 2) Unplug the device's power cord from the outlet
- 3) Plug the cord into the outlet on the *bottom* of FilterLinc
- 4) Plug FilterLinc into an unswitched outlet
- 5) OPTIONAL: You may use the outlet on the *front* of FilterLinc as you would an ordinary uncontrolled outlet. However, make sure the device you plug in does not harm INSTEON or other PLC signals.

It is usually recommended to avoid stacking INSTEON devices on pass-through outlets to prevent overheating. FilterLinc does not generate heat, so it will not affect operation of the stacked INSTEON device. But be sure only *one* INSTEON device is plugged into the FilterLinc pass-through outlet.

Now the device that was causing INSTEON transmission problems will be isolated from the AC lines, making your home's automation system more reliable.

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SPECIFICATIONS, CERTIFICATION, AND WARRANTY

Specifications

View specifications for FilterLinc at: www.smarthome.com/1626.html

Certification

This product has been thoroughly tested by ITS ETL SEMKO, a nationally recognized independent third-party testing laboratory. The North American ETL Listed mark signifies that the device has been tested to and has met the requirements of a widely recognized consensus of U.S. and Canadian device safety standards, that the manufacturing site has been audited, and that the manufacturer has agreed to a program of quarterly factory follow-up inspections to verify continued conformance.

Limited Warranty

Seller warrants to the original consumer purchaser of this product that, for a period of two years from the date of purchase, this product will be free from defects in material and workmanship and will perform in substantial conformity to the description of the product in this Owner's Manual. This warranty shall not apply to defects or errors caused by misuse or neglect. If the product is found to be defective in material or workmanship, or if the product does not perform as warranted above during the warranty period, Seller will either repair it, replace it, or refund the purchase price, at its option, upon receipt of the product at the address below, postage prepaid, with proof of the date of purchase and an explanation of the defect or error. The repair, replacement, or refund that is provided for above shall be the full extent of Seller's liability with respect to this product. For repair or replacement during the warranty period, call the INSTEON Gold Support Line at 800-762-7845 with the Model # and Revision # of the device to receive an RMA# and send the product, along with all other required materials to:

Smarthome, Inc.
ATTN: Receiving Dept.
16542 Millikan Ave.
Irvine, CA 92606-5027

The logo for Smarthome, Inc. features the word "SMARTHOME" in a bold, blue, sans-serif font. A small trademark symbol (TM) is positioned to the upper right of the word.

Limitations

The above warranty is in lieu of and Seller disclaims all other warranties, whether oral or written, express or implied, including any warranty or merchantability or fitness for a particular purpose. Any implied warranty, including any warranty of merchantability or fitness for a particular purpose, which may not be disclaimed or supplanted as provided above shall be limited to the two-year of the express warranty above. No other representation or claim of any nature by any person shall be binding upon Seller or modify the terms of the above warranty and disclaimer.

Home automation devices have the risk of failure to operate, incorrect operation, or electrical or mechanical tampering. For optimal use, manually verify the device state. Any home automation device should be viewed as a convenience, but not as a sole method for controlling your home.

In no event shall Seller be liable for special, incidental, consequential, or other damages resulting from possession or use of this device, including without limitation damage to property and, to the extent permitted by law, personal injury, even if Seller knew or should have known of the possibility of such damages. Some states do not allow limitations on how long an implied warranty lasts and/or the exclusion or limitation of damages, in which case the above limitations and/or exclusions may not apply to you. You may also have other legal rights that may vary from state to state.

INSTEON Technology Patent

U.S Patent No. 7,345,998, International patents pending

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