



U.S. Patent 6,989,760

Close the Door on Crime!

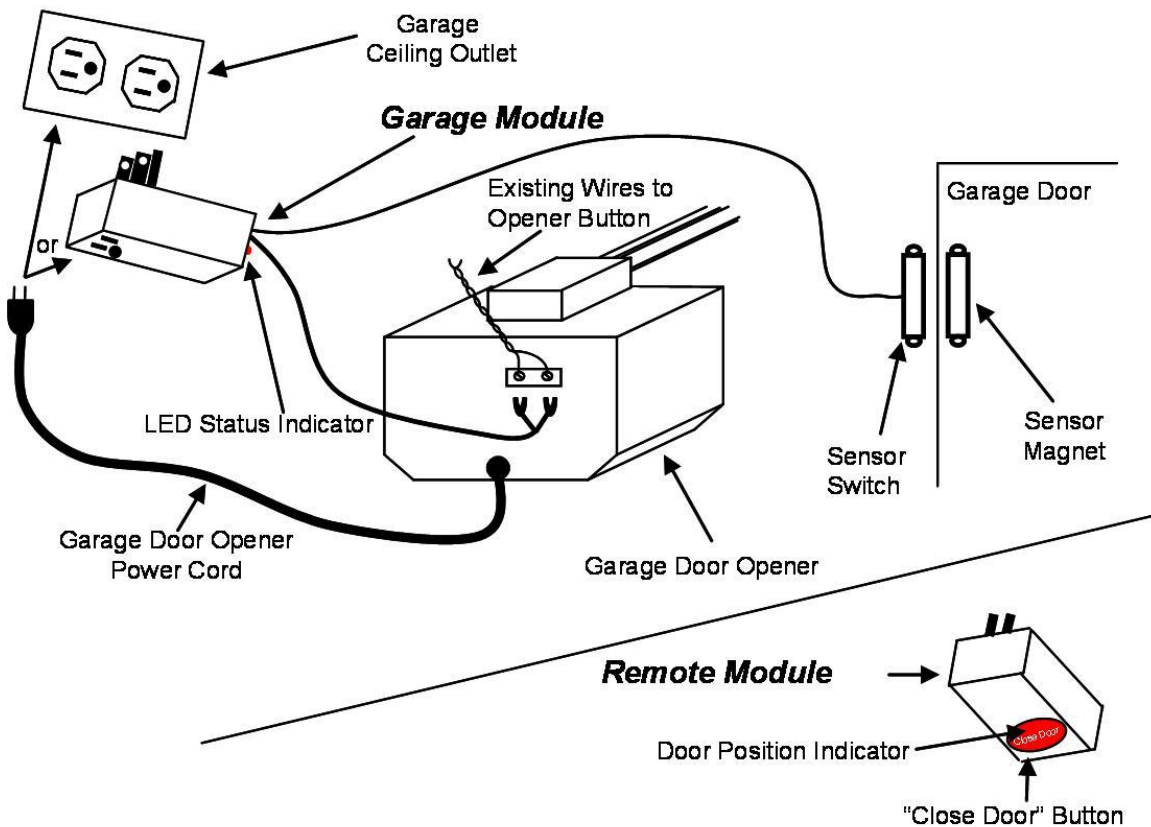
**User Guide
and
Installation Manual**

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INSTALLATION DIAGRAM



FEATURES

Never Come Home to a Dark House Again

- Turns on any light in your house using accessory INSTEON or X10 receiver (not included). **Visit www.garagehawk.com for additional information**
- Automatically turns lights off after four minutes

Easy Installation, Setup and Operation

- Preamsembled for easy installation – a screwdriver is the only tool required
- Requires no rewiring of your house
- Microprocessor controlled – program and settings are stored in non-volatile memory – automatically resets after power failure
- AC powered – no batteries to replace

GarageHawk units employ INSTEON (PLC) standards to communicate over your existing power lines. *GarageHawk* is easily integrated with other INSTEON controllers, receivers, remote controls, and security systems to add additional functionality (e.g. automatically close garage doors at sundown or use Door Open indication to trigger other events or notifications).

For your security, *GarageHawk* **does not** have the capability to remotely open a closed garage door. This eliminates the possibility of the device being used to gain illegal entry to your property.

If multiple Remote Modules are used, all modules will indicate when a door is open. Pressing the CLOSE button on any module will close the door.

Caution: Never use the CLOSE button if garage door opener safety features are not working according to manufacturer's specifications or when unattended operation of garage door could cause personal injury or property damage. Innovative Home Systems, LLC is not responsible for damage or injury caused by improper use.

Attention: Ne jamais utiliser le bouton FERMER si les caractéristiques de sécurité de l'ouverture de la porte du garage ne fonctionnent pas selon les spécificités du fabricant ou lorsque le maniement de la porte du garage fait sans surveillance, peut causer des blessures personnelles ou des dommages de propriété. Innovative Home Systems, LLC n'est pas responsable des blessures ou des dommages occasionnés par un usage inapproprié du système.

Visually Alerts You When Your Garage Door Has Been Left Open

- Notification via small Remote Module
- Additional Remote Modules can be used to monitor from multiple locations in the home
- Provides verification feedback when garage door is closed
- Multiple Garage Door Control
- Additional Garage Modules can be easily added for multiple garage door applications
- *GarageHawk* Remote Module(s) will alert you if any garage door is open
- **Will not** open a closed door

INSTALLATION PROCEDURES

Before Installing the *GarageHawk*

Warning: Do not proceed with the installation of the *GarageHawk* unless the garage door and garage door opener are performing according to their manufacturer's specifications. A qualified garage door service technician should correct any operational problems before proceeding.

For indoor use only. Verify your garage door and garage door opener are both in good working condition. *Test normal garage door opener functions such as photo sensor and automatic reversing controls per garage door opener manufacturers specifications. Do not install GarageHawk with door openers that lack adequate safety features.*

Avertissement: Ne procéder à l'installation du GarageHawk que si la porte du garage et l'ouverture de la porte du garage fonctionnent selon les instructions du fabricant. Un technicien qualifié dans le service des portes de garage devrait corriger tout problème opérationnel avant de procéder.

Pour utilisation intérieure exclusivement. Vérifier que la porte du garage et l'ouverture de la porte du garage fonctionnent toutes deux dans de bonnes conditions.

Tester les fonctions normales de l'ouverture de la porte telles que les photocapteurs et les commandes automatiques (marche avant-arrière) de la porte du garage en suivant les instructions du fabricant. Ne pas installer GarageHawk avec des ouvertures de porte qui n'ont pas les caractéristiques de sécurité adéquates.

Step 1: *Linking Modules*

- a. Plug (or wire) in the INSTEON devices that will communicate with each other.
- b. To "link" (allow a first device to control a second device)
 - Press and hold the "SET" button on the Garage Module for 10 seconds until the LED flashes - then release.
 - Press and hold the "SET" button on the Remote Module for 3 seconds until its LED blinks - then release.

The modules are now linked. Proceed to Step 2: Mounting and Connections

To Link Additional Modules:

- a. Plug (or wire) in the additional INSTEON device
- b. To "link" (allow a first device to control a second device)
 - Press and hold the "SET" button on the ORIGINAL Garage Module for 10 seconds until the LED flashes - then release.
 - Press and hold the "SET" button on the NEW Module for 3 seconds until its LED blinks- then release.

The new module is now linked to the existing network.

Step 2: *Placement and Connections — Garage Module*

1. **Unplug garage door opener.**
2. Connect solder tipped lead to garage door opener button screw terminals on garage door opener. Wires are probably already connected to these terminals. Do not remove these wires, simply loosen the screws and add one wire under each screw head. Connection is not polarity sensitive. Tighten screws to assure a good electrical connection. If your garage door opener does not use screw terminals or does not allow the connection of additional wires, please visit: www.garagehawk.com/support/faqs.html
3. Close garage door. Extend the two-piece Garage Door Sensor to a position adjacent to the top of the garage door, and as far away from metal objects as possible. The sensor can be mounted on either the right or left side of the door. The Sensor Switch is identified by its wire connection to the Garage Module. The Sensor Magnet has no wire connections.
4. The Sensor Magnet should be mounted on the garage door directly adjacent to, but not touching, the

Sensor Switch. With the door closed the Sensor Switch and the Sensor Magnet should be aligned vertically with a gap of no more than 1/2 inch between the two parts. Because garage doors and installation methods vary, exact position and mounting procedures will vary. Use peel-off, adhesive backing to position Sensor Switch and Magnet then secure with mounting screws (included). Clean mounting surfaces with rubbing alcohol to remove dirt and oil before applying adhesive mounting pads.

4. Use plastic ties and mounting pads provided to secure all wires to the outside of the garage door track or ceiling and away from any moving parts. Caution: Care should be taken so the Garage Module or associated wiring does not interfere with the garage door or opener operation.
5. Plug Garage Module into garage door opener outlet located on the ceiling of your garage. The Garage Door opener can be plugged into the "Always On" outlet on the front of the Garage Module or directly into the outlet.
6. Test for proper operation by opening garage door slightly and observing the red LED indicator at the bottom of the Garage Module. The red LED should light as soon as the door starts to open and extinguish when the door is fully closed.

Additional Garage Modules can be purchased to provide convenience and security for garages with multiple doors. Visit our web site: www.garagehawk.com.

Placement and Connections — Remote Module

The Remote Module can be plugged into any convenient and accessible outlet in your home. Suggestions: bedroom, bathroom, or hallway where Door Position indication can be seen before going to bed.

Additional Remote Modules can be purchased to provide indications in multiple locations. Visit our web site: www.garagehawk.com.

Step 3: Testing the System

With the garage door open, the "Door Position Indicator" on the Remote Module should glow red. Note: Indicator will flash alternate red/green during power up and whenever communications with the Garage Module(s) are lost.

Push the "Close Door" button on Remote Module. Remote Module "Door Position Indicator" should flash green until garage door is fully closed. (Under certain conditions this process could take up to 40 seconds to complete.) When the closing process is complete the Door Position Indicator" will change to a low intensity green glow indicating the door has successfully closed. If the Door Position Indicator" returns to red at the completion of the process a problem has been encountered while closing the door. The door should be inspected immediately to determine and rectify the problem. Pushing the "Close" button when a garage door is already closed will not cause it to open. *GarageHawk* **does not** have the capability to remotely open a closed garage door.

UNLINKING A GARAGEHAWK SYSTEM

If you are no longer going to use a GarageHawk or other INSTEON Device that has previously been linked to GarageHawk, it is very important that you reset and re-link all GarageHawk modules. Otherwise, GarageHawk will retry any commands intended for the unused module(s), thus slowing down your system.

1. To reset GarageHawk modules and remove all linking, unplug each module from the wall outlet and wait 10 seconds. Press and hold each module's SET button, plug it back in, continue holding the SET button for 3 seconds and release. After several seconds, the Status LED will turn on, indicating a reset is complete. Repeat the process with every GarageHawk module.
2. Re-link your active GarageHawk modules using the procedure described in the section titled Linking Modules

OPTIONAL SECURITY AND CONVENIENCE LIGHTING FEATURE

When using an INSTEON module the module must be linked to the *GarageHawk* system using the procedure outlined in the section titled “Step 1: Linking Modules”. (When an X10 module is used the X10 module must be set to House Code “G”, Unit Code “16”).

Visit our web site for additional information on how to obtain compatible INSTEON or X10 modules. www.garagehawk.com

OPERATION	
Remote Module Indicator	Meaning
Solid Red	Garage Door Open
Flashing Red	Error Condition—Check Garage Door
Solid Green	Garage Door Closed
Flashing Green	Garage Door Closing
Flashing Alternate Red/Green	Communication Failure or During Power Up

Note: If multiple Garage Modules are being used the red Door Position indication will mean one or more doors are not fully closed.

To close the open door(s) press and release the “Close Door” button. The Door Position indication will flash green indicating a command has been sent to the Garage Module. The Door Position indication will continue to flash until the Garage Module signals that the door is fully closed. This may take up to 40 seconds in some cases. If the Door Position indication fails to turn green or changes back to solid red, *GarageHawk* has encountered a problem closing the door. The problem should be investigated and corrected immediately.

When the *GarageHawk* senses the garage door has been opened it will send an ON command over the power line using both INSTEON and X10 commands. These commands can be used to turn on lights using auxiliary INSTEON and/or X10 modules. *GarageHawk* will delay 4 minutes, then send INSTEON and X10 OFF commands. See section titled “Optional Security and Convenience Lighting Feature”.

INTEROPERABILITY WITH INSTEON CONTROLLERS

The *GarageHawk* system can be used with other INSTEON devices (e.g. Automation Controllers) to allow emulation of basic Remote Module user interface functions.

Visit www.garagehawk.com/support for detailed information.

TROUBLESHOOTING

When garage door is opened, neither Door Position indicator on the Garage Module or Remote Module will light.

1. Verify Garage Module is plugged into a non-switched outlet and that AC power is being supplied to the unit.
2. Verify that the garage door position sensor switch and magnet are mounted correctly. See section titled “Mounting and Connections”.
Remove garage door position sensor switch and magnet from the mounting location. Hold switch and magnet together. Red LED indicator on the bottom of the Garage Module should light when switch and magnet are separated. If this test works, try relocating the mounting location away from metal objects. Metal objects sometimes become magnetized causing erratic operation of the position sensor.

When garage door is opened Door Position indicator on the bottom of the Garage Module will light, but Door Position light on Remote Module will not light, or garage door does not close when the CLOSE button is depressed on Remote Module.

Verify proper operation when Remote Module is plugged directly into the front of the Garage Module. If this does not correct the problem re-link the modules by following the procedure outlined in the section titled "Linking INSTEON Modules".

If this corrects the problem the source is typically one of two conditions: signal attenuation or power line noise. Rarely, these conditions can be produced by defective home wiring, but are more often caused by an appliance which is generating power line interference.

Hints for locating sources of signal attenuation and power line noise:

The following represents a partial list of appliances which, under certain circumstances, have been known to generate power line interference or cause signal attenuation:

Certain brands of television receivers	Ionizing air cleaners
Computer Printers	Laptop computer power supplies
Defective florescent lighting fixtures	Dimmer switches
Small battery chargers	Uninterruptible Power Systems (UPS)

Power line interference problems can usually be isolated by turning off circuit breakers one at a time until the problem is isolated to a particular circuit. After restoring power, portable appliance problems can be identified by unplugging them, one at a time, until the problem is resolved. Be sure to unplug each appliance--simply turning them off may not identify the problem. When the offending appliance has been located, the problem can usually be easily remedied with the use of a filter. **Signal attenuation can be more difficult to locate but can be easily remedied through the use of INSTEON signal extenders. Visit our web site for additional information concerning filters and signal extenders.**

Always plug GarageHawk modules directly into an electrical outlet. GarageHawk modules should never be plugged into surge suppressor type power strips as they may cause signal attenuation.

For additional troubleshooting hints, information, or comments visit our website:
www.garagehawk.com

ONE YEAR LIMITED WARRANTY

Innovative Home Systems, LLC ("Seller") warrants to the first retail purchaser of this product, for the residence in which this product is originally installed, that it will be free from any defect in materials and/or workmanship for a period of one year from the date of purchase. The product must be used in complete accordance with Seller's instructions for installation, operation and care. The Seller specifically denies any warranty of performance, stated or implied, where electrical noise interference exists at the time of the installation, or subsequent to the installation by the addition of noise producing devices or equipment, or where these components have been installed for non-residential applications. The proper operation of this product is dependent on your compliance with the User's Guide and Installation Manual instructions regarding installation, operation, maintenance and testing. Failure to comply strictly with those instructions will void this warranty in its entirety.

If during the limited warranty period, it appears as though this product contains a defect which is covered by this limited warranty, CALL OUR SUPPORT NUMBER, BEFORE DISMANTLING THIS PRODUCT, AT 720-733-4295. Then send this product, pre-paid and insured, to our service center for warranty repair. You will be advised of shipping instructions when you call the support number. Please include a brief description of the problem and a dated proof-of-purchase receipt with any product that is returned for warranty repair.

Products returned to Seller for warranty repair, which upon receipt by Seller are confirmed to be defective and covered by this limited warranty, will be repaired or replaced (at Seller's sole option) at no cost to you and returned pre-paid. Defective parts will be repaired or replaced with new or factory-rebuilt parts at Seller's sole option.

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Some states do not allow the exclusion or limitation of consequential, incidental or special damages so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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