TouchLinc™

INSTEON® Wireless Touchscreen Controller

Model : 2448

INSTEON COMPATIBLE

SMARTHOME™

INSTEON

TouchLinc Owner's Manual

TABLE OF CONTENTS

ABOUT TOUCHLINC **3**
Key TouchLinc Features 3
What is Included with TouchLinc 3

WHAT IS INSTEON? **4**

INSTALLATION **4**
Installing TouchLinc 4
USB Stick and TouchLinc 4

USING TOUCHLINC **5**
Opening / Hiding the Keyboard Panel 6

ADVANCED FEATURES **7**
Upadating the OS Firmware 7
Resetting TouchLinc 7

ABOUT INSTEON **8**
Using Dual-Band INSTEON Devices to Upgrade Your Network 8
Further Enhancing Reliability 8

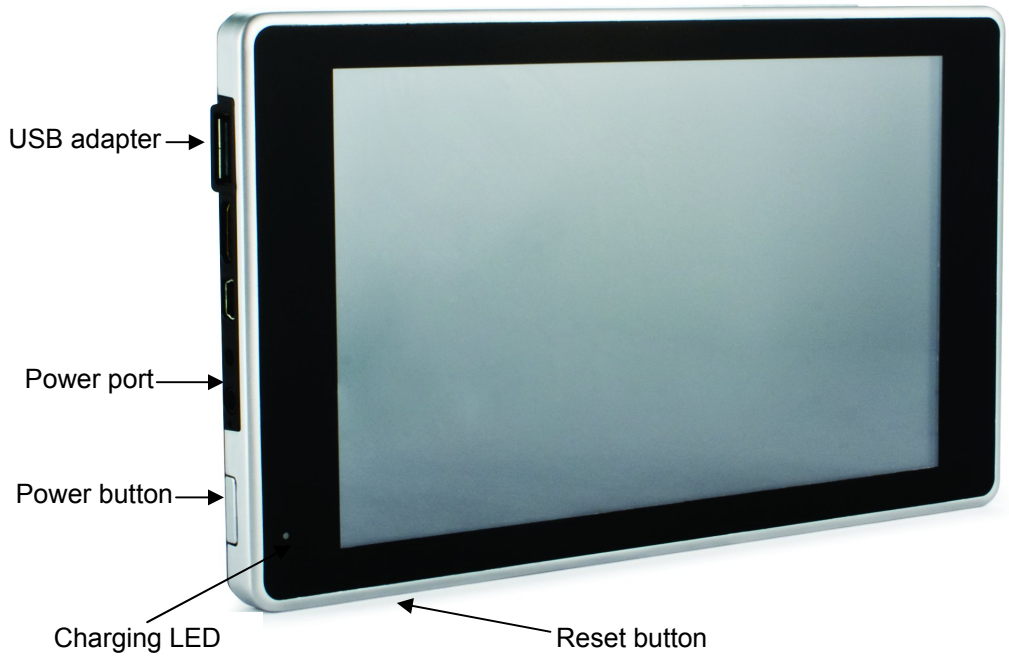
ADDITIONAL RESOURCES **8**

TROUBLESHOOTING **9**

SPECIFICATIONS, CERTIFICATION, AND WARRANTY **9**
Specifications 9
Certification 9
FCC & Industry Canada Compliance Statement 10
Limited Warranty 11

ABOUT TOUCHLINC

With its simple interface and wireless connection, programming and controlling your INSTEON systems, such as HouseLinc, will be easier and more convenient than ever.



Key TouchLinc Features

- INSTEON 7 inch color touchscreen
- Multiple units in your home will not require any additional setup
- Handheld to add flexibility to your INSTEON system
- Power supply is CUL listed
- Tabletop / Wall Mount kit sold separately
- One year warranty (excluding battery)

What is Included with TouchLinc

- TouchLinc – INSTEON Wireless Touchscreen Controller
- Stylus
- Power supply (charger)
- Quick-Start Guide

WHAT IS INSTEON?

Since its inception in 2005, INSTEON has become a best-selling home-control networking technology, offering more reliability and flexibility than any other home management system on the market. INSTEON systems are simple, reliable, and affordable. Simple, because each device takes mere minutes to install. Reliable, because every INSTEON device works as a network repeater, ensuring your commands will not be lost. Affordable, because INSTEON can be integrated into any number of devices easily and at a very low cost. An INSTEON home grows in value with each added INSTEON device, making life more convenient, safe, and fun.

How Does INSTEON Work?

What makes INSTEON the most reliable home automation network is its dual-mesh network. INSTEON devices use both radio frequency (RF) signals and the home's existing wiring to talk to each other. In an INSTEON network, every INSTEON device also acts as a repeater, receiving and sending every message to all other devices in the network. So by integrating more INSTEON devices you will strengthen the network and ensure no commands will be lost.

No central controller or networking setup is required with an INSTEON network. Simply install your devices and then use a series of button presses or taps to Link your devices together. Throughout this Owner's Manual, you may see the terms "Controller" or "Responder". These generic INSTEON terms refer to the components of an INSTEON scene, and are used on a scene-by-scene basis.

- **Controller** – sends INSTEON commands to other devices
- **Responder** – reacts to commands sent out by another INSTEON device

An INSTEON device may act as a Controller, Responder, or sometimes both.

INSTEON networks are also extremely secure. Each INSTEON device is assigned a unique INSTEON ID, so unless neighbors or would-be hackers have access to your particular device's INSTEON ID, they won't be able to control your home, even if they are using similar products.

INSTALLATION

Installing TouchLinc

1) Register for firmware updates at: www.smarthome.com/tlreg
2) If needed, connect the power supply to TouchLinc and plug into an outlet

   NOTE: Typical battery life is 3-4 hours. It is recommended that you plug the charger in when not in use. While charging, the battery icon in the taskbar will show as half full. This is the default icon and does not represent the charging process.
3) Press & hold the Power button (on the left edge) until TouchLinc begins to boot up

   TouchLinc should boot up and a network setup dialog box should open

USB Stick and TouchLinc

Go to www.smarthome.com/TLsoftware to download and install the latest OS firmware and native app to TouchLinc.

USING TOUCHLINC

Energy Save Mode

To conserve power, the TouchLinc backlight will shut off after periods of non-use. TouchLinc will still respond to touches in Energy Save Mode, so try tapping the lower left corner to open the Start menu, to avoid inadvertently sending commands from a window that has been left open.

TouchLinc Icons

To launch an application, either:

- Double-tap the icon
- Press & hold the icon until the context menu pops up and then select "Open"

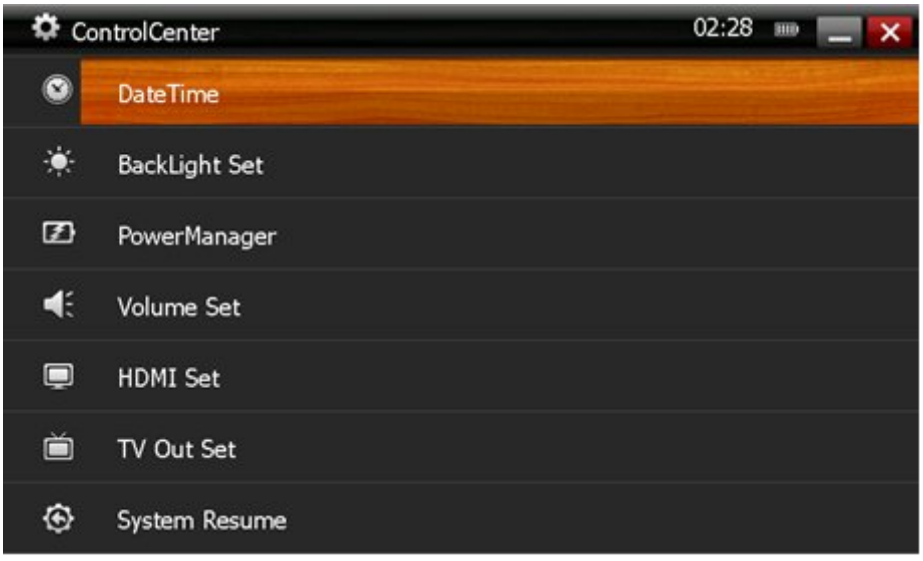
Opens the INSTEON system's homepage	Opens the TouchLinc general settings	Opens the Calibration wizard	Shows disk drives and hardware connected to TouchLinc	Contains files and folders that you have deleted from TouchLinc

Settings

Scroll down to view more settings options by sliding your finger or stylus from the bottom to the top of the screen. To change settings, double-tap the setting category you wish to update.

Settings should automatically save when you exit the Settings screen

NOTE: Settings changes will no longer be effective when TouchLinc is powered off. TouchLinc will return to its default settings when it is turned back on. Not all control panel settings are supported.

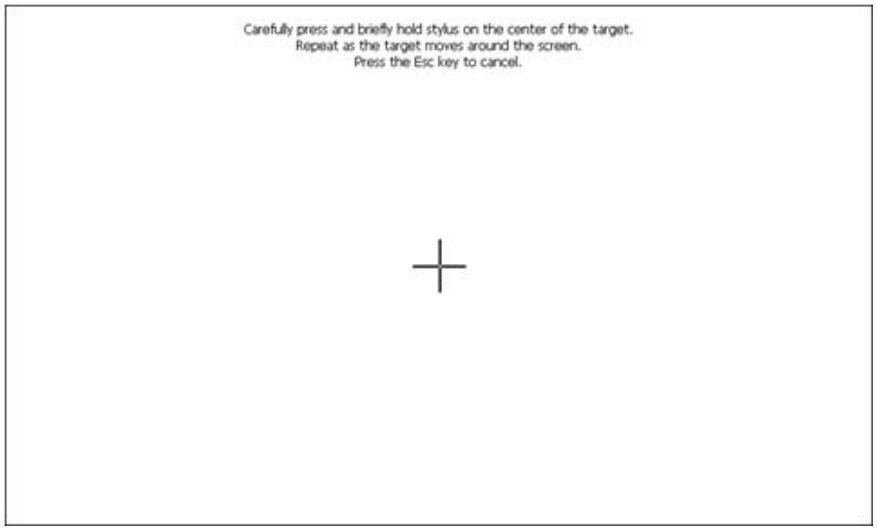


Calibrate

1) Double-tap the Calibrate icon

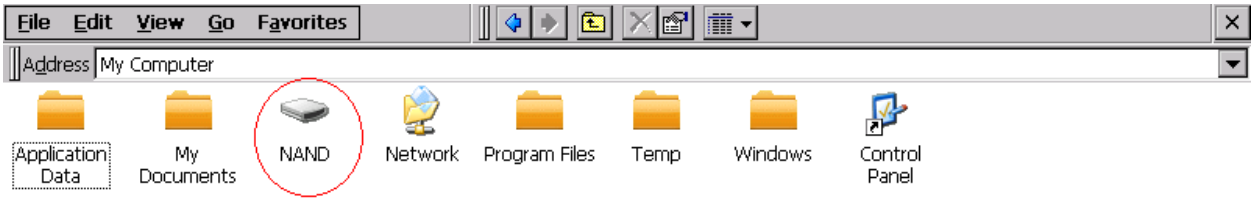
   Calibration wizard should launch

2) Follow instructions on the wizard



My Computer

If you have files you would like to save on TouchLinc, they must be placed in the My Computer → NAND folder. Files in other locations or on the desktop will be lost when TouchLinc is powered off.



Opening / Hiding the Keyboard Panel

1) Click the pencil icon on the lower right corner of the screen
2) Select "LargeKB" to open the keyboard panel or "Hide Input Panel" to hide the keyboard panel

   If you are opening the keyboard panel, it should appear in the same location it was in when you last selected "Hide Input Panel"

   If you are hiding the keyboard panel, it should no longer be visible on the desktop

ADVANCED FEATURES

Updating the OS Firmware

NOTE: Updating the TouchLinc OS Firmware will remove all files from the local NAND drive on TouchLinc, including the native app.

1) Go to www.smarthome.com/tlsoftware to download the latest TouchLinc OS Firmware and save to your computer
2) Unzip the file and copy "nk.rom" and "tcboot.rom" to the root of an SD card from your computer
3) Make sure to turn TouchLinc off. Then, plug in the charger (even if TouchLinc is fully charged) and insert the SD card into the bottom of TouchLinc
4) Press & hold the Power button (on the left edge) until TouchLinc begins to boot up
5) When the Update dialog box appears, tap the Power button. (Tapping the screen will cancel the update.)

   The update should begin

   Once the update is finished, a Delete Files dialog box should appear
6) To delete nk.rom and tcboot.rom from the SD card, tap the Power button. To continue without deleting, tap the TouchLinc screen.

   The Calibration wizard should open
7) Using a stylus, follow the instructions on the Calibration wizard
8) On the desktop, double-tap the Setting shortcut and double-tap Firmware Update to verify the new firmware file has been installed on TouchLinc
9) Reinstall the native app

Resetting TouchLinc

The reset procedure will shut down TouchLinc, thus clearing its memory. When TouchLinc is powered back on, items in the NAND folder will remain. Items placed on the desktop or in other folders will no longer be available. All setting changes prior to the reset procedure will no longer apply.

Use a probe to tap the Reset button, located at the bottom of TouchLinc

TouchLinc should turn off

ABOUT INSTEON

Using Dual-Band INSTEON Devices to Upgrade Your Network

What are phases?

The majority of single-family homes in North America have two phases (or "legs") of 110 Volts coming into their electricity panels. From the panel, they are distributed throughout the home, providing power to outlets and wall switches. These phases come together in some parts of the home to provide 220 Volts of power to large appliances, such as an electric oven or pool pump.

Why do I need to bridge these phases?

Single-band power line devices send commands via the home's electricity, but only on a single phase. If the command is intended for a device on the opposite phase, there is a good chance the command will go unnoticed. Installing dual-band INSTEON devices, such as Access Points (#2443), on each phase will allow for devices to communicate between the two phases via RF.

Dual-band INSTEON devices embody the full potential of a true INSTEON mesh network. Taking the power line band signal and working in conjunction with the RF band signal, its dual-band function plays out in two ways:

- Phase bridger – a receiver of commands, reacting to and translating signals sent from one power phase to the opposite via RF
- Signal repeater – a participant in an INSTEON network, repeating commands intended for other devices whether those commands are generated from RF or power line-only devices. To ensure reliability, every INSTEON device confirms that it has received a command. If a Controller does not receive this confirmation, it will automatically retransmit the command up to five times.

While using at least one dual-band device is required when using an RF-only device, at least two dual-band devices are recommended in any INSTEON network to ensure reliable communication across two-phase home wiring systems. For larger applications, it is recommended to install at least one dual-band device for every 750 – 1,000 square feet.

Search for dual-band INSTEON devices at: www.smarthome.com/dualband

Further Enhancing Reliability

As signals travel via the power line or RF throughout the home, they naturally become weaker the farther they travel. The best way to overcome weakened signals is to increase the coverage of the mesh network by introducing more INSTEON devices.

It is possible that some audio-video devices, computers, power strips, or other electrical equipment may attenuate INSTEON signals on the power line. You can temporarily unplug suspected devices to test whether the INSTEON signal improves. If it does, then you can plug in filters that will permanently fix the problem.

ADDITIONAL RESOURCES

Find home automation solutions, helpful tips, interactive demos, videos, user forums, and more at the Smarthome Learning Center: www.smarthome.com/learningcenter.html

TROUBLESHOOTING

Problem	Possible Cause	Solution
TouchLinc is not controlling my INSTEON devices.	There might be possible signal loss.	Make sure your INSTEON system portal is getting power.
My saved files are missing after TouchLinc is powered off and then back on.	Saved files might not have been placed in the NAND folder. Upon shutdown, TouchLinc clears its memory, including files in locations other than the NAND folder.	Make sure you are saving files directly to My Computer → NAND.
When I adjust the backlight from the Control Panel, my changes aren't saved.	Backlight settings must be adjusted through the Settings icon.	Launch the Settings application and choose the Backlight Set option to adjust the TouchLinc backlight.
The web browser on TouchLinc keeps freezing up.	There may be too many browser windows open.	TouchLinc can only support three open browser windows at once. Opening up extra windows will cause the system to freeze up.
The date and time has been reset to 1999.	The TouchLinc battery was over discharged during Sleep Mode, thus resetting the clock to the default setting.	Make sure not to keep TouchLinc in Sleep Mode for an extended period of time (over 6 hours). If you do not plan on using TouchLinc for a number of hours, make sure the charger is plugged in to ensure the TouchLinc battery stays charged.
TouchLinc is still on, but the backlight will not turn on. When I tap the screen, I can hear the device responding to screen taps but the screen remains black.	TouchLinc may be operating in a low-power state (the battery has very little power).	New firmware revisions have eliminated this bug/issue. Install the latest version of the TouchLinc OS firmware. See *Updating the OS Firmware.*

If you have tried these solutions, reviewed this Owner's Manual, and still cannot resolve an issue you are having with TouchLinc, please call:

INSTEON Gold Support Line
800-762-7845

SPECIFICATIONS, CERTIFICATION, AND WARRANTY

Specifications

View specifications for TouchLinc at: www.smarthome.com/2448.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.

FCC & Industry Canada Compliance Statement

This device complies with FCC Rules Part 15 and Industry Canada RSS-210 (Rev. 7). Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorise aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radiolectrique subi, mme si le brouillage est susceptible d'en compromettre le fonctionnement.

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 relocate 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 device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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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