



HCA Tech Note 204

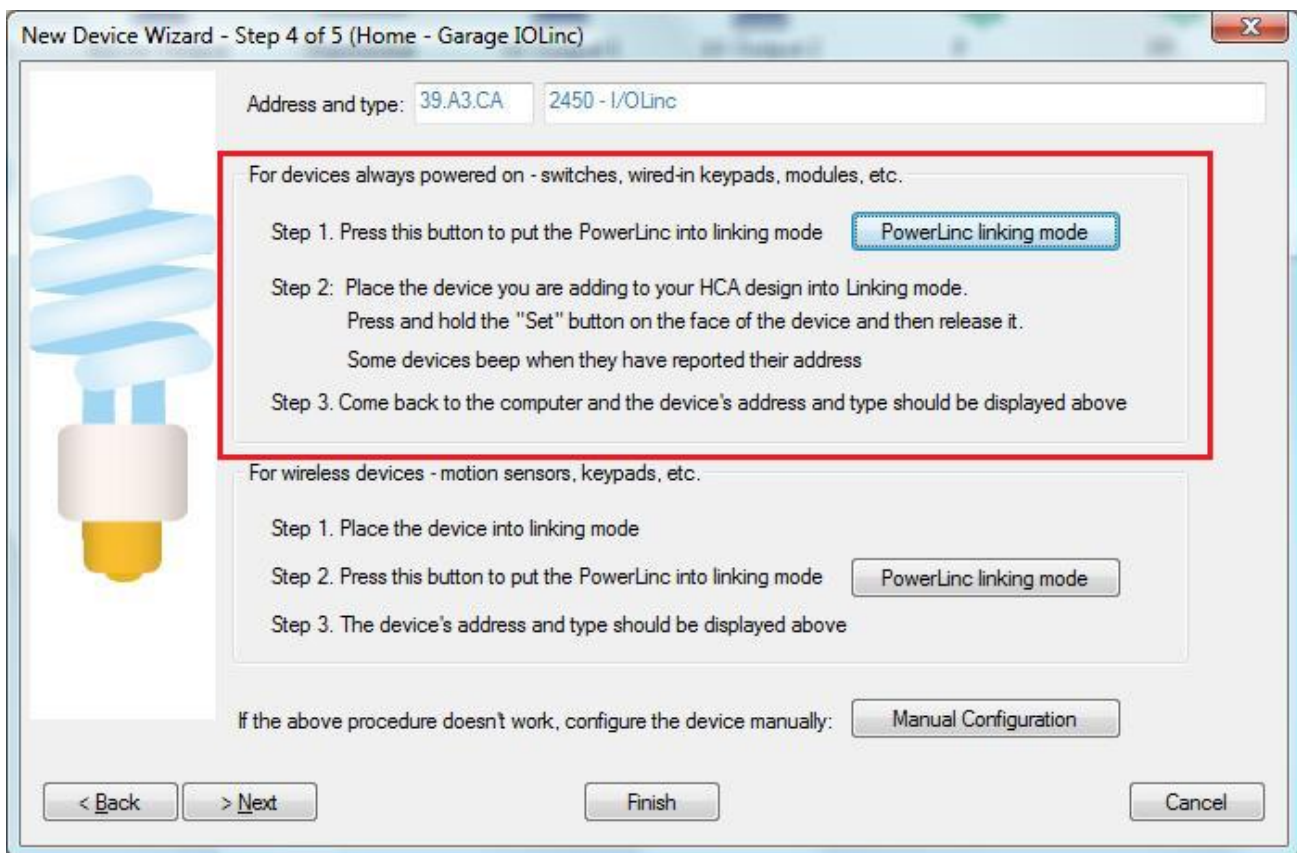
Working with the Insteon IOLinc – 1 input and 1 output

<http://www.smarthome.com/i-o-linc-insteon-2450-low-voltage-contact-closure-interface-1-in-1-out.html>

The complexity of using the IOLinc in HCA is that there is one relay and one sensor in the IOLinc package. In HCA each device represents a single controllable unit. Because of this, when this type of device is added to your design, two HCA devices are added – one for the input and the other for the output.

Using the IOLinc with HCA starts by adding it to your design. You need to be able to access the "Set" button on it to establish a link to it. The set button is located on the side of the module next to the status LED.

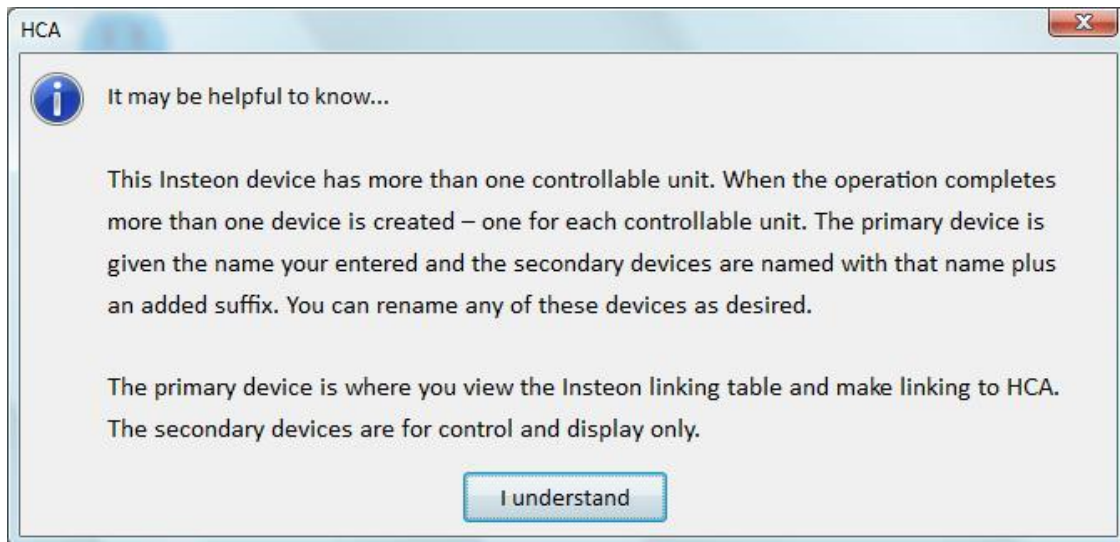
In the Add Wizard on step 3, choose "Insteon" as the manufacturer and then press the Next button. In step 4 press the dialog button to put the PowerLinc into linking mode and then press the set button on the IOLinc to complete the link.





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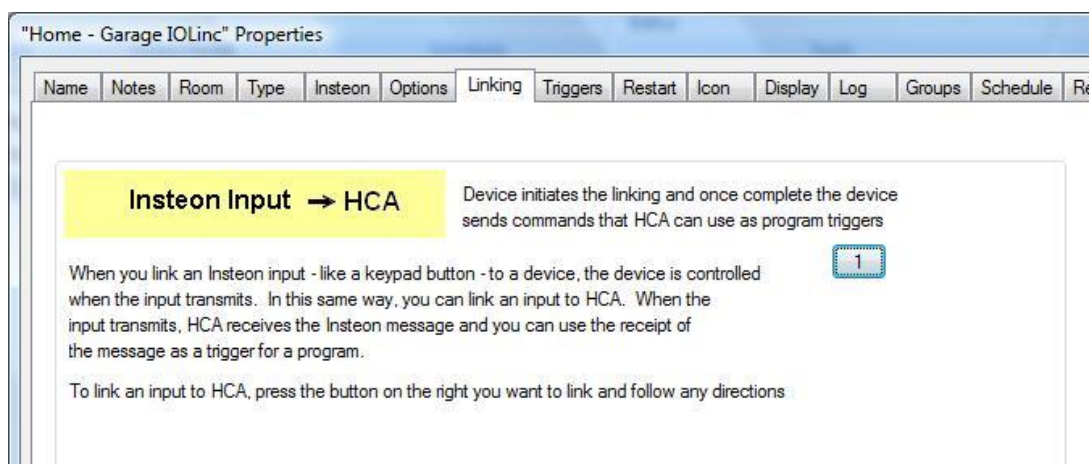
After you complete the Add Wizard, this popup messages appears:



As explained above, two devices are created. The device for sensor input the "primary" device and the relay output is the "secondary" device. The sensor input can be used to trigger HCA programs or can be tested in programs and the output device can be used in schedules or programs to control the relay.

When you open the properties of the primary device the "Insteon" and "Linking" tabs are available. When you open the properties of the secondary devices the Insteon tab directs you to the primary device and the linking tab is not seen.

Before the input can be used to trigger programs it must be linked to HCA. This is accomplished on the linking tab:





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Once the device input is linked the button text shows "HCA".

To create a trigger for the input, open the "Triggers" tab of the program and press "Add Trigger". This trigger will cause the program to start when the sensor detects a "ON" condition:

The screenshot shows the 'Trigger' configuration window. It has a title bar 'Trigger' and a light blue header. The main area is white and contains the following fields and options:

- Trigger Type:** A dropdown menu set to 'Insteon Message'.
- Start the program on this trigger:** A text input field containing 'When Home - Garage IOLinc sends On by group 1'.
- Device sending command:** A dropdown menu set to 'Dev: Home - Garage IOLinc'.
- Component:** A dropdown menu set to 'group 1'.
- Command:** A list of radio button options:
 - On
 - Off
 - Dim
 - Bright
 - Fade Start
 - Fade Stop
 - All On
 - All Off
 - Fast On
 - Fast Off

The icon on a HCA display can show the state of the input. It is best to use an icon that has two representations – one for ON and one for OFF. For example, the Door, Garage Door, or Window icons has two representations.

Depending upon how the sensor works in your application, ON may be open or closed with OFF being the opposite. HCA supplies different sets of icons for each of these – one where ON shows a closed icon and one where it shows an open icon. Choose the set that works best for your application.

Messages from controllers that are linked to the IOLinc output are received and cause HCA to keep its state up to date as long as HCA has the most recent copies of the IOLinc and the controller linking tables.



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Note: SmartHome sells lots of "kits" based upon the IOLinc. Any of them can be used with HCA. All you need do is to add the device, link the sensor and then create programs and triggers that respond to the sensor going ON or OFF. What ON or OFF means depends upon which of the kits you purchased.

You can also use the Visual Scene Editor (VSE) with this IOLinc input. Using the VSE you can build scenes that are controlled by the input sensor and control Insteon receivers (switches, KeypadLinc LEDs, output devices).

For the IOLinc output the VSE lets you build scenes that are:

- Controlled by HCA to turn on or off the output and other devices simultaneously
- Controlled by an Insteon controller (KeypadLinc, IO Module Input) that turns on or off the output.