

Quick-Start Guide

EZIO6I 6-Input Controller

Your EZIO6I puts monitoring of signals at the point of need, thus simplifying wiring. The unit has six inputs for signals such as those from contact closures and analog sensors (0—5VDC). These signals can be made to control other INSTEON devices on their opening, closing or changing levels via group commands or broadcast messages. Timers can be set on any of the inputs to force OFF commands in the absence of the signal returning to its original state. Behavior of the inputs is programmable with the help of a free Windows-XP utility or home automation software. Four of the inputs are opto-isolated and another two are either digital or configurable for analog signals such as those from environmental (light, temperature, pressure, humidity, etc.) sensors.

EZIO6I has a built-in power line interface and is programmed/controlled through the power line. INSTEON and X10 compatibility means virtually unlimited connectivity, including wireless networks and the Internet.



Installation

Select a suitable power outlet that is close to the sensors to be connected. Avoid exposure to moisture. If installing outdoors, use only a suitable outdoor weather-proof enclosure.

Connection of the Inputs: Two sets of inputs (Opto-isolated and I5/I6) are available through a terminal connector pictured above. Notice also that separate terminals are provided for +12VDC (50 mA. maximum) and Ground usable to power the opto-isolated inputs. The two sets of inputs are described below.



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- **Opto-Isolated Inputs:** Inputs I1 through I4 can be used in a way that the signal source is totally isolated from the EZIO6I, as may be the requirement for certain alarm panels monitoring. In this case, the input must provide a voltage between 3 and 30 VDC, connected between the positive (Ix+) and negative (Ix-) terminals. If isolation is not required, these inputs can easily be connected to “dry” contact closures such as those from external relays, proximity detectors or door closure sensors using the provided auxiliary power source. In this case, connect the positive (Ix+) terminal to the +12V terminal, and the contact closure between the negative (Ix-) terminal and the GND terminal.
- **I5 and I6 as Digital Inputs:** As configured by default, inputs I5 and I6 can be used to monitor voltage levels that have distinct thresholds (0—1VDC for ON, and 3—5VDC for OFF.) These are the levels typically produced by digital devices such as the control output from a liquid level detector or telephone answering device. Keep in

mind that the device output can not be of the “dry” type; in other words, the output connecting to the EZIO6I I5 or I6 inputs must provide a voltage level required to cause a change that the EZIO6I can recognize. If needed, a “pull-up” resistor can be connected between the particular input (I5 or I6) and a +5VDC source. **If using the provided source, a regulator must be used to reduce the voltage to +5VDC.**

- **I5 and I6 as Analog Inputs:** A software program such as our free utility or a home automation program may be used to configure these inputs to respond to and measure the level of voltages between 0 and 5VDC. Typical uses for this type of monitoring could be light, temperature, pressure, humidity, or other slowly and discretely varying levels. The value of the voltage at each of the inputs is internally converted to a number between 0 and 1023 (10 bits) which can be read via INSTEON commands or used to trigger alarm conditions. Alarms are simply events when the EZIO6I sends a group message to the INSTEON network. Using this facility, an alarm can be set to send an INSTEON ON group command when the voltage on the given input goes over a certain level, and an INSTEON OFF group command when the voltage falls below another level. This allows many possibilities for closed-loop control such as for maintaining the level of a pool, the temperature in a room, the humidity in a greenhouse, etc.

Plug your EZIO6I into an AC outlet. The LED on its side will flash on and off rapidly a few times, then turn on and off for about 1 second (indicating successful internal diagnostics), and finally glow steadily. The unit is now ready for routine operation or programming.

Controlling INSTEON Devices with the Inputs

Your EZIO6I is an Insteon “Sender” (Controller) that sends INSTEON group commands, or broadcast messages whenever a change (OFF to ON or ON to OFF) on an input is detected. In the instructions below, please note that a “Press and Hold” refers to pushing and holding, then releasing the set-button on the side of the EZIO6I. A “Tap” refers to gently and rapidly depressing and releasing the button.

to control one or multiple devices with the activation of an input, follow these steps:

- 1) Put the EZIO6I in linking mode by pressing its pushbutton and releasing it after **10-12** seconds. The EZIO6I will turn off its LED indicating it is waiting to be told which input is to be used for this link.
- 2) Tap the pushbutton on the EZIO6I a number of times corresponding to the input to be used for control (e.g. once for input 1, twice for input 2, etc.) After the last tap, press the pushbutton on the EZIO6I and release it after **3-4** seconds. Its LED will begin to flash about once per second indicating it is listening for an INSTEON device to link with.
- 3) On the INSTEON device to be controlled, press its pushbutton and release it after 3-4 seconds (or use method specific to device.) A successful link will be indicated by a flash of the LED on the controlled device (device specific) and by the LED on the EZIO6I turning on solidly.
- 4) Additional INSTEON devices may be controlled by the EZIO6I by linking them using the above steps.

Unlinking an INSTEON Responder Device: To stop an EZIO6I input from controlling an INSTEON device:

- 1) Put the EZIO6I in unlinking mode by pressing its pushbutton and releasing it after **10-12** seconds. The EZIO6I will turn off its LED indicating it is waiting to be told which input is to be unlinked.
- 2) Tap the pushbutton on the EZIO6I a number of times corresponding to the input to be unlinked (e.g. once for input 1, twice for input 2, etc.) After the last tap, press the pushbutton on the EZIO6I and release it after **18-20** seconds. Its LED will begin to flash about once per second indicating it is listening for an INSTEON device to unlink from.
- 3) On the INSTEON device to be unlinked, press its pushbutton and release it after **3-4** seconds (or use method specific to device.) A successful unlink will be indicated by a flash of the LED on the controlled device (device specific) and by the LED on the EZIO6I turning on solidly.

To Activate EZIO Inputs from another INSTEON Controller: To activate an input with a controller such as the ControlLinc, SwitchLinc or KeypadLinc, follow these steps:

- 1) Put controller in linking mode by holding the button to be used for controlling until it indicates linking mode (4-10 seconds depending on controller.) Usually its LED will blink or a light connected to it will flash.
- 2) Hold the pushbutton on the EZIO6I and release it after **3-4**

seconds. The LED on the EZIO6I will turn off when the link is established with the controller. The controller will also give an indication of a successful link by flashing its LED or a load connected to it.

- 3) The EZIO6I must be told which input to link by tapping the pushbutton on the EZIO6I a number of times corresponding to the input number (e.g. once for input 1, twice for input 2, etc.) After the last tap, press the pushbutton on the EZIO6I and release it after **10-12** seconds. Its LED will turn on solidly indicating the end of the linking process.

Programming Your EZIO6I

EZIO6I has many features that are best exploited with an automation PC/Server application or our free Windows-XP configuration and setup utility. The PC application can be used to alter the behavior of the inputs, such as what command is sent on the detection of an OFF or ON condition, the INSTEON group number that is sent, a timer to delay the input OFF response, and/or the alarms on the Analog inputs. The unit, however, is usable out-of-the-box as an input monitor/controller, able to send INSTEON ON and OFF group commands in response to detection of contacts opening and closing on its inputs.

About the Links Database: The EZIO6I maintains an internal table of links (30 maximum) where the information on each linked device is stored. The database can be accessed and altered with the use of our PC utility such that links can be entered, modified or deleted.