



Relay & Contact Sensor Installation Guide

for use with Control4

Overview

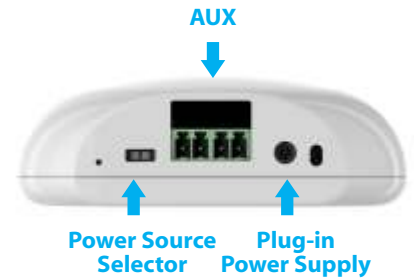
The Relay & Contact Sensor is a flexible tool to build a Control4 system more effectively. It combines the capabilities of a repeater and router with 3 contact inputs, 3 relay outputs and a temperature sensor.

Included

- Relay & Contact Sensor Device
- 1 Plug-In Power Supply
- 1 AUX Plug
- 1 RJ12 Plug
- 2 Mounting screws

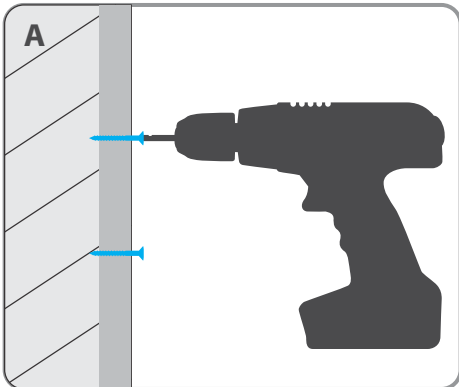
Power Options

The wireless repeater comes in 2 unique versions. The Standard Version is powered by a plug-in power supply. The AUX Version can also be powered via axillary power. To select the power source move the Power Source Selector Switch to the left for AUX and to the right to use the Plug-in Power Supply as shown below. 6.5V-24VAC or DC.



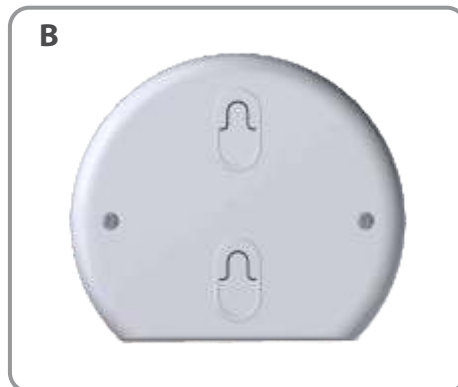
Mounting

Before mounting, make sure the device is in a location where you can still push the button to join it to the ZigBee network. If the location will be difficult to reach, view the instructions for ZigBee networking and join the device to the network before mounting.



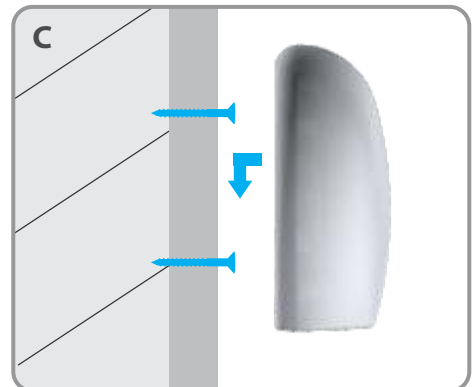
Keyhole Mount

Screw the provided screws into the wall until the heads protrude just enough for the keyhole shapes on the back of the device to fit snugly. Depending on wall material and location, consider using a wall anchor. Distance between screws should be 1.375" (3.5cm) center to center.



Keyhole Mount (Cont'd)

Fit the repeater on the screws and slide down until snug. If the fit is loose, remove the device and turn the screws in further. Repeat until fit is snug.



Three Contact Sensors

The RJ12 jack provides 3 contact sensor inputs. Contact sensor inputs are for dry contacts only.

Contact Pinout

Name	Pins
Contact 1	1&2
Contact 2	3&4
Contact 3	5&6



Internal Wiring Jacks

Below is an image showing the 2 Jacks for the Contact Sensors and Relays along with pin number orientation.



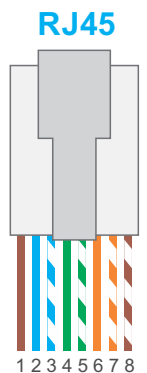
Three Relays

The RJ45 jack provides 3 Relay outputs. (If you need to switch higher loads, use the Axxess External Relay Module.)

Relay Pinout

Name	Pin
Relay 1 +	2
Relay 1 -3	
Relay 2 +	4
Relay 2 -5	
Relay 3 +	6
Relay 3 -7	

Use pins 1 & 8 for the External Relay Module:



Relay Specifications

DC Load on Relay
 Max current = 1A
 Max voltage = 60VDC
 No Polarity

AC Load on Relay
 Max current = 1A
 Max voltage = 40VAC
 No Polarity

For higher rated loads, an External Relay Module is available.

The External Relay Module comes with a plug-and-play cable that simply plugs into the relay output jack and a dongle that can switch up to 3 loads.

ZigBee Network

The device has to be mounted within the range of the ZigBee network in which it is to operate.

A network push button is located in the small hole on the left of the bottom of the repeater. Use a paper clip to press the button.

Join:	4 taps	6 flashes - long solid flash when joined
Leave:	13 taps	6 flashes
Setup:	8 taps	1 flash
Reset:	15 taps	6 flashes if not joined or long solid flash if joined

There are 2 setup modes, *Test Contacts and Relays Mode* and *Test Communication Mode*. Setup mode ends after 8 minutes. See testing section for further instructions.

Testing

8 tap to enter setup. When in setup, 1 tap to toggle between modes. *Test Contacts and Relays Mode* will respond with 1 flash and *Test Communication Mode* will respond with 2 flashes. Setup mode can also be entered through property setting in composer.

Test Contacts and Relays Mode: LED flashes to display state changes (see table on next panel). In this test mode, when a contact is closed the relay of the same number (ex contact 2 and relay 2) is also closed, when contact opens, relay opens.

Relay states can be changed by adjusting properties in composer. Relays can be triggered through programming in composer and/or proxy binding connections.

Contact Sensor & Relay Plugs

For neatest installation, run wire suitable for RJ12/45 crimping to the Repeater and make plug connections.

Wiring Contact Sensors & Relays

There are 2 different ways to run the wire out of the Repeater enclosure depending on your Repeater version.

To lead wires out of the Standard Model simply remove the plastic tab from behind the center window and run the wires through it.

To run wires out of the AUX version use the slots above the terminal blocks.

ZigBee Network (Cont'd)

Network range will vary depending on the strength of the router it is connected to, as well as physical obstructions. Typically the device can communicate up to 400 feet in the open, however range will be significantly reduced indoors. Ensure the network is designed properly and that router strength and physical barriers are considered.



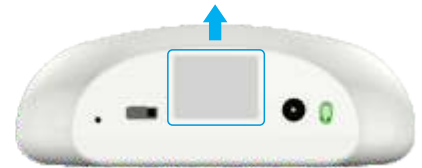
Testing (Cont'd)

Action	LED Flashes
Contact 1 or Relay1	1
Contact 2 or Relay2	2
Contact 3 or Relay3	3

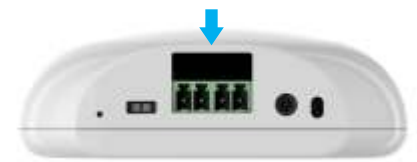
Test Communication Mode: Every 7 seconds the device sends a message to the controller, if it receives a reply the LED will flash. More flashes mean a stronger signal. A measurement of signal strength is printed in composer. Set property *Debug Mode* to *Print* and select the *Lua* tab to view signal strength (measured from the last message the device received before sending its comm test message). This message can be from anything communicating with this device including other devices that are using it as a router. Most likely the last message will be from the controller since the controller replies to the comm test message every 7 seconds.

Contact & Relay Wiring

Standard Model



AUX Model



Composer

Instructions for use with composer can be accessed on our website at: axxind.com/dealers/composer

Drivers

Control4 device Drivers are available for download on our website: axxind.com/dealers/drivers

Please see Documentation tab in System Design pane for this driver in Control4 Composer to see property descriptions.

Troubleshooting

If the device doesn't power up, make sure the Power Source Selector matches your power input as described in section 2 (Applies to AUX versions only).

To determine if the device is connected to the network unplug the power source and watch the LED while plugging it back in. If LED flashes the device is not joined, if the LED shows 1 long solid flash the device is joined to the ZigBee network.

Check wiring and connections. If they are correct then there may be a problem with the device.

Troubleshooting instructions can be accessed on our website at: axxind.com/about/automation/