

## Instructions for Installation of Econx H – ECO-003

Econx must be installed by a registered electrician and meet all local body and national electrical regulations / standards. Confirm your client’s requirements or use the online enquiry form to create a schedule. Each Econx provides the following.

**Home/ Away mode** – this isolates all non – essential power circuits when the home or office is un occupied. A simple solution is to only isolate non-essential lighting. Any input can be configured to control R1 – R9. A simple option is to use the larger 22amp relay to feed two light breakers. This mode can be extended to isolate plug sockets and appliances, if this mode is being used in a holiday home we suggest the contactor is installed after the main switch and is used to isolate all non-essential lighting and power circuits including relays being switched by econnecx.

**Mains Rated Outputs:** Econx has 9 outputs that can be remotely controlled or scheduled as required. Schedule 1 provides (default settings) however Econx can switch anything as long as the 240volt relay current ratings are not exceeded. These outputs can be easily relabeled.

			Voltage	Current Rating
Relays	1 – 2	=	0 – 240volts	22amps max – resistive loads only
Relays	2 – 9	=	0 - 240volts	10amps max – resistive loads only

**IR Outputs** Econx provides 5 Infra-red controlled outputs, a range of IR codes are already online allowing control of most major brands of heat pumps. If you have an infra-red heating/ cooling appliance that requires control and is not on our list, please contact us to discuss loading on our site. We may require the remote for 5 working days.

**Miscellaneous Control** Econx provides 9 Low Voltage inputs and outputs that can be used for access control such as garage doors, automatic gates, electric door locks. Econx can connect to any opener that provides a pulse to open or close, Econx requires the status of the door or gate which is typically completed with the installation of a reed switch.

			Voltage	Current Rating
Relays	0 – 8	=	0 – 24volts	1.0 amp (max)

These inputs and outputs can also be configured to run for set times making them ideal for blinds, windows, irrigation or pumps. These inputs are interconnected with their corresponding output, these inputs can also be used to trigger relays, camera inputs and receive pulse inputs for graphing.

**Alarm and Temperature Control** - Econx provides 14 inputs for PIR’s, Smoke’s and Temperature sensors. These inputs can be configured for a range of EOL resistors and Devi heating sensors. Econx provides a Night arm mode, panic inputs and Key switch input. A pulse output keypad can be wired into this input. Alarm activation outputs are provided, 1 x Siren, 1 x light. The light is automatically configured to flash for arming and disarming. Econx will operate with any manufactures PIR’s and outdoor sirens. We recommend low energy PIR’s.

**Temperature Inputs** – are automatically graphed show high and low temperatures.

**Cameras** each - Econx can integrate with Panasonic E Series cameras. Econx can take an image from any Panasonic camera and send to the Econx interface, image triggering can be from any input. Econx will store 1000 images for 30 days. A Panasonic NVR is required for recording.

**Power Supply:** 220-240 V; (50-60 Hz) max; current 1 amp (for permanently connected equipment, readily accessible disconnect device shall be incorporated external to the equipment)

### Testing/ Connection

After wiring Econx is ready to test. Upon power, up Econx will set all relays to default position. NOTE: Econx requires 30 seconds to initialize before indicators are illuminated.

**Option 1** – Go step 5 – complete profile, connect and test via web browser or phone app

**Option 2** The following tests can be completed before making your internet connection.

1. Test mains voltage outputs
  - i. Hold down buttons 1 & 3 for five seconds, this will enter test mode one. Once in test mode press button 4 to energise relay 2, press again to de-energise. Press again to energise relay 2, repeat process to test all outputs.
  - ii. Once tested hold button 1 down for five seconds to exit.
2. Test IR
  - i. Hold down buttons 1 & 4 for five seconds, this will enter test mode two. This provides voltage to the IR outputs every 0.5 second (On 0.5 of second, off 0.5 of a second). By looking at the IR transmitter through your phone camera you should see the LED flashing.
  - ii. Once tested hold button 1 down for five seconds to exit.
3. Misc. Outputs
  - i. Hold down buttons 2 & 4 for five Seconds, this will enter test mode three. Once in test mode press button 4 to energise garage door switch 1, press again to energise garage door switch 2.
  - ii. Once tested hold button 1 down for five seconds to exit.
4. Internet Connection
  - i. After completing the above checks, you are ready to connect to the Econx [web](#) site.
  - ii. Connect Econx to your internet connection. econnecx™ will automatically connect to the website and download the latest operating version. This process can take from 1 – 5min. (the top LED indicator will illuminate when updating)
5. Website Log In – You and your client are required to create an online Econx profile. This can be completed at any time.
  - o Go to [www.econx.co.nz](http://www.econx.co.nz)
  - o Select Manage My econnecx
  - o Either log in as a new user or existing user
  - o If new user complete necessary fields in the ‘Create User and ‘Account Details’ screens
  - o From the ‘Manage your Econnecx™ devices’ screen, select “Add a New Device” NOTE YOU MUST BE LOGGED IN AS THE CLIENT FOR INITIAL CONNECTION
  - o Type in the device serial number (located on the relays E.G D1:15:4G:.....) This is not case sensitive and : are not required

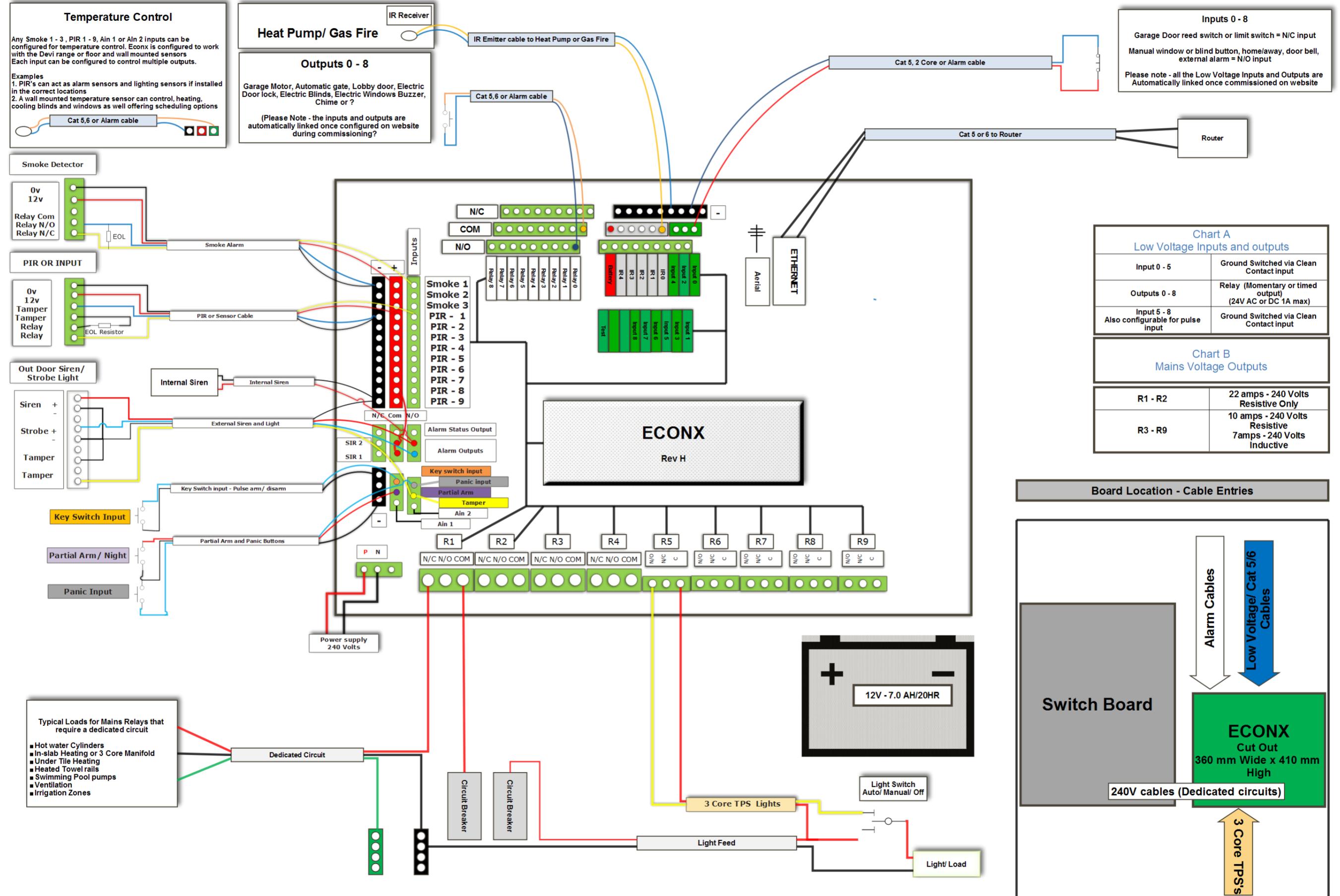
Throughout the following screens you will be asked to complete the compulsory fields. For set by step instructions visit [www.econx.co.nz](http://www.econx.co.nz) – technical information

1. Site Location details, who installed etc.
2. Relays – ticking the box to activate the relays – label as required (Typically normally open for lighting or normally closed for dedicated circuits)
3. Misc. Devices – Select device from drop box and label on Right hand box
4. IR devices – Select make and model from drop box – Codes are typically loaded with 5 minutes
5. Cameras – Click search from Cameras – This can take up to 5 minutes to appear on manage screen
6. Alarm – Tick box to activate Zone. Label as required and create entry, exit and partial arm modes. Econx will automatically learn the end of Line resistance – If a smoke is selected it will automatically monitor that zone 24hours. A range of preset configuration are set – External light will flash for arming and disarming
7. Pair radio remotes –While in the screen just press a button on the remote, it will appear on your screen, you can allocate to a user for logging access and then select functions for each button. If you need to reset press button on the back of the remote and repeat process
8. Go to “Manage My Econnecx” and test.
9. Schedules and other users can be loaded –watch Videos online to learn how
10. Down Load App – enter email address and password to use

Econx requires a yearly subscription fee of \$80 +GST which can be paid upon commissioning or when the owner logs on for the first time or with the 1<sup>st</sup> 90 days.

Relay Controls	
Relay 1	<i>Hot water cylinder</i>
Relay 2	<i>Instant Water Heater or In Floor Heating</i>
Relay 3	<i>Under tile Heating Ensuite</i>
Relay 4	<i>Under Tile Heating Bathrooms</i>
Relay 5	<i>Heated Towel Rails</i>
Relay 6	<i>Outdoor Entry Lights</i>
Relay 7	<i>Indoor Night</i>
Relay 8	
Relay 9	
Security and Safety	
1 Smoke or Sensor	<i>Smoke - Hallway</i>
2 Smoke or Sensor	<i>Smoke - Hallway</i>
3 Smoke or Sensor	<i>Smoke - Living</i>
4 Smoke or Sensor	<i>PIR- Entry</i>
5 Smoke or Sensor	<i>PIR– Garage</i>
6 Smoke or Sensor	<i>PIR – Laundry Door</i>
7 Smoke or Sensor	<i>PIR– Hallway 1</i>
8 Smoke or Sensor	<i>PIR – Hallway 2</i>
9 Smoke or Sensor	<i>PIR– Master Bedroom</i>
10 Smoke or Sensor	
11 Smoke or Sensor	
12 Smoke or Sensor	
Panic Button	
Key Switch	
Temperature Input 1	<i>Bathroom</i>
Temperature Input 2	<i>Ensuite</i>
Access	
Control/ Misc. 0	<i>Garage Door</i>
Control/ Misc. 1	<i>Automatic Gate</i>
Control/ Misc. 2	<i>Blinds Up</i>
Control/ Misc. 3	<i>Blinds Down</i>
Control/ Misc. 4	
Control/ Misc. 5	
Control/ Misc. 6	
Control/ Misc. 7	
Control/ Misc. 8	
Heating and Cooling	
IR Output 0	<i>Heat Pump Living</i>
IR Output 1	<i>Heat Pump Hallway</i>
IR Output 2	
IR Output 3	
IR Output 4	

**This is a wiring example only** - PIR and Smoke inputs can also be configured to switch relays R1 - R9 for preset run times, Please treat these as clean contact inputs that can be used for other applications, E.G Turn on lights, start pump, start ventilation, etc for pre - set run times  
 Inputs 0 - 8 are internally linked to Relays 0 - 8. (Chart A) These inputs require a Momentary input to provide a Momentary output. E.G Open Garage Door, Gate, Front Door, Lobby Door etc -



**Temperature Control**  
 Any Smoke 1 - 3, PIR 1 - 9, Ain 1 or Ain 2 inputs can be configured for temperature control. Econx is configured to work with the Devi range or floor and wall mounted sensors. Each input can be configured to control multiple outputs.  
 Examples  
 1. PIR's can act as alarm sensors and lighting sensors if installed in the correct locations  
 2. A wall mounted temperature sensor can control heating, cooling blinds and windows as well offering scheduling options

**Heat Pump/ Gas Fire**  
 IR Receiver  
 IR Emitter cable to Heat Pump or Gas Fire  
**Outputs 0 - 8**  
 Garage Motor, Automatic gate, Lobby door, Electric Door lock, Electric Blinds, Electric Windows Buzzer, Chime or ?  
 (Please Note - the inputs and outputs are automatically linked once configured on website during commissioning?)

**Inputs 0 - 8**  
 Garage Door reed switch or limit switch = N/C input  
 Manual window or blind button, home/away, door bell, external alarm = N/O input  
 Please note - all the Low Voltage Inputs and Outputs are Automatically linked once commissioned on website

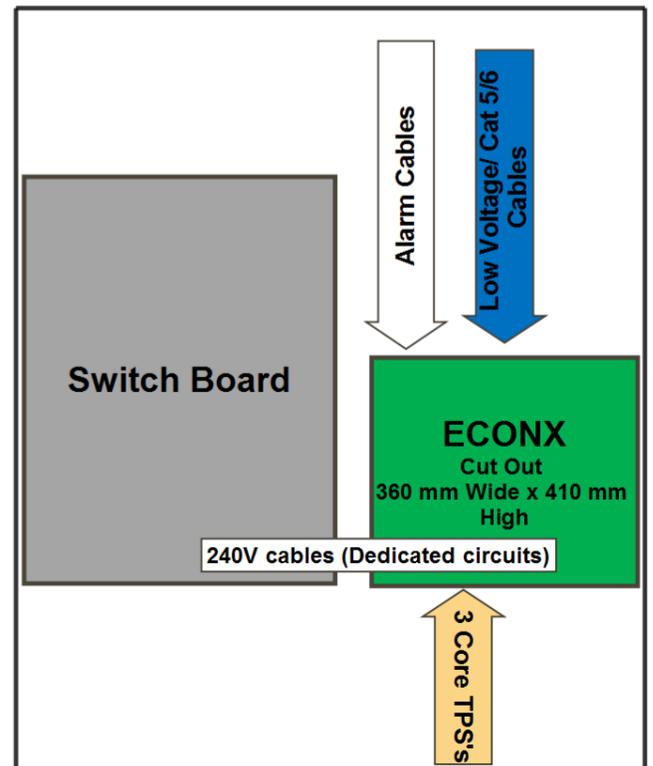
**Chart A**  
 Low Voltage Inputs and outputs

Input 0 - 5	Ground Switched via Clean Contact input
Outputs 0 - 8	Relay (Momentary or timed output) (24V AC or DC 1A max)
Input 5 - 8	Ground Switched via Clean Contact input Also configurable for pulse input

**Chart B**  
 Mains Voltage Outputs

R1 - R2	22 amps - 240 Volts Resistive Only
R3 - R9	10 amps - 240 Volts Resistive 7amps - 240 Volts Inductive

**Board Location - Cable Entries**



- Typical Loads for Mains Relays that require a dedicated circuit**
- Hot water Cylinders
  - In-slab Heating or 3 Core Manifold
  - Under Tile Heating
  - Heated Towel rails
  - Swimming Pool pumps
  - Ventilation
  - Irrigation Zones

