

Instructions for installation of econnecx™

There are 2 stages involved in the installation of econnecx™ to ensure a quality installation. Not all outputs or functions are required to enjoy the features of this device. econnecx™ must be installed by a registered electrician and meet all local body and national electrical regulations / standards.

Stage 1: Customer Consultation.

Discuss what you or your client wants to have econnecx™ control.

The home/ away mode requires the most consideration. We recommend that the following items are not isolated in away mode.

- Fridges – Freezers – Hot Water Cylinder – Heating
- Alarm – Smoke Detectors – Garage Door Openers (consider isolating if holiday home)
- Dishwasher (if operated when not at home)
- Washing Machine and Dryer (if operated when not at home)
- Sky Decoder – Answer Phone / Router
- Ventilation System
- Entry Lights – Night Lights – Security System
- Solar Heating Pump
- Heated Towel Rails – Heat Pumps – Under Floor Heating or any appliance that will be scheduled by econnecx™

All other sockets and fittings could be isolated when away from your home, back or office. You or your client can then select what lights and fittings they would like to schedule to eliminate the standby power consumption. The more you isolate in this mode the more you save! Please see wiring diagram 1 for recommended installation of the home / away mode relay.

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)

Outputs: econnecx™ has 8 outputs that can be remotely controlled or scheduled as required. We recommend the following as a guide (default settings) however econnecx™ can switch anything as long as the 240volt relay current ratings are not exceeded.

		Voltage	Current Rating	
Relay 1	=	Hot Water Cylinder	0 - 240 volts	22 amps max – resistive only
Relay 2	=	Under Tile Heating	0 - 240 volts	22 amps max– resistive only
Relay 3	=	Ventilation System	0 - 240 volts	22 amps max– resistive only
		<i>We recommend scheduling of ventilation system to reduce power consumption and eliminate the introduction of cold air over night</i>		
Relay 4	=	Spare or TV Isolation Circuit	0 - 240 volts	22 amps max– resistive only
Relay 5	=	Heated Towel Rails	0 - 240 volts	10 amps max– resistive only
Relay 6	=	Entry/ Security Lights	0 - 240 volts	10 amps max– resistive only
Relay 7	=	Indoor Night Lights	0 - 240 volts	10 amps max– resistive only
Relay 8	=	Spare	0 - 240 volts	10 amps max– resistive only

econnecx™ can also control the following:

- 5 Infra-red controlled appliances, e.g. heat pumps or blinds. If you have an infra-red appliance that you would like to control that is not on our list, please contact us to discuss loading on our site. We may require your remote for 5 working days. In most cases this is a free service. (www.econnecx.com/ir)
- Alarms econnecx™ will provide the status of your alarm and offer remote arming and disarming
- Garage Doors: econnecx™ will provide the status of your garage door and offer remote opening and closing

Once you have confirmed the requirements you are ready to wire econnecx™

Relay ratings are for resistive loads only. Not suitable for connection to iron core or fluorescent loads.

Stage 2: Wiring

When installing econnecx™ we recommend it is wired as per the provided wiring diagrams.

0 - 240 volt relays

The diagram configuration allows the appliances in the home or office to continue working in the event of internet failure or disconnection of the device. The econnecx™ web site is pre-programmed and labelled for this configuration.

Any configuration of the mains outputs relays is acceptable as long as the current ratings of each relay are not exceeded. The relay outputs can be configured as required via the econnecx™ web site upon commissioning should you choose to alter from normally closed or normally open or vice versa.

IR Outputs

When installing IR it is important to install the sensor facing the appliances IR receiver to ensure reliable operation. A simple two core cable is required to run from econnecx™ to each appliance that is to be controlled. This must be polarity correct for operation.

These outputs will control any IR controlled appliance that is loaded onto the econnecx™ system. For a list please visit www.econnecx.com/ir. Should you wish to control an appliance that is currently not loaded please contact us via the IR page. This will require you sending the remote or manufacturer supplied codes to econnecx™ which will then be loaded onto the web site. This process takes approximately 5 working days.

If more of than 5 IR devices were required to be controlled e.g. 10 opening/closing IR controlled blinds, then an IR expander will be required. This would allow one output to control multiple heat pumps in an office or blinds in a home.

Inputs and Outputs

Home/Away Mode Control: If a home / away mode relay is installed econnecx™ can control this switchboard mounted relay via relay 8 as per wiring diagram 1. We recommend the installation of a LED or NEON at the point of entry to indicate the status of the home / away mode relay. The relay will energise and de-energise via a low voltage input provided by econnecx™ Terminal 2 via connection block 10-D. We recommend the switch(s) is installed at the most frequently used entry and exit point.

Inputs and Outputs continued

Alarm: econnecx™ provides a pulse output for arming and disarming. Your alarm will need to be programmed so this pulse output will allow arming and disarming Terminal 3 via connection block 10-B. econnecx™ requires an alarm status signal which will be supplied into Terminal 3 via connection block 10-D. This can either be 12 volts directly from the alarm into econnecx™ or via clean contacts as provided by Terminal 1 & 3 via connection block 10-D.

Garage door: We recommend one of two options:

Option One: To simplify wiring and eliminate the installation of limit switches on garage doors, if possible we recommend programming the garage door opener to provide an output to state the door is closed. This can then be wired directly into econnecx™ if it is a 12 volt output.

Option Two: If garage door outputs are unavailable we recommend installation of a limit switch on the garage door. This would be connected as per the wiring diagram 1. If required a simple pantry door switch could be fitted to the garage door opener.

Stage 3: Testing and Hand Over

After wiring econnecx™ is ready to test. Upon power up econnecx™ will set all relays to default position.

NOTE: econnecx™ requires 30 seconds to initialise before indicators are illuminated.

The following tests are to 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. Garage door
 - 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 econnecx™ web site.
 - ii. Connect econnecx™ to your internet connection. econnecx™ will automatically connect to the website and set up the default configuration. This process will take up to 1 min.
5. Website Log In

This can be completed at any time on or off site by the electrician, homeowner or office user.

- Go to www.econnecx.com
- Select Manage Device
- Either log in as a new user or existing user
- Complete necessary fields in the 'Create User and 'Account Details' screens
- From the 'manage your econnecx™ devices' screen, select "add a new device"
- Type in the device serial number (located on packaging and inside econnecx™ cabinet)

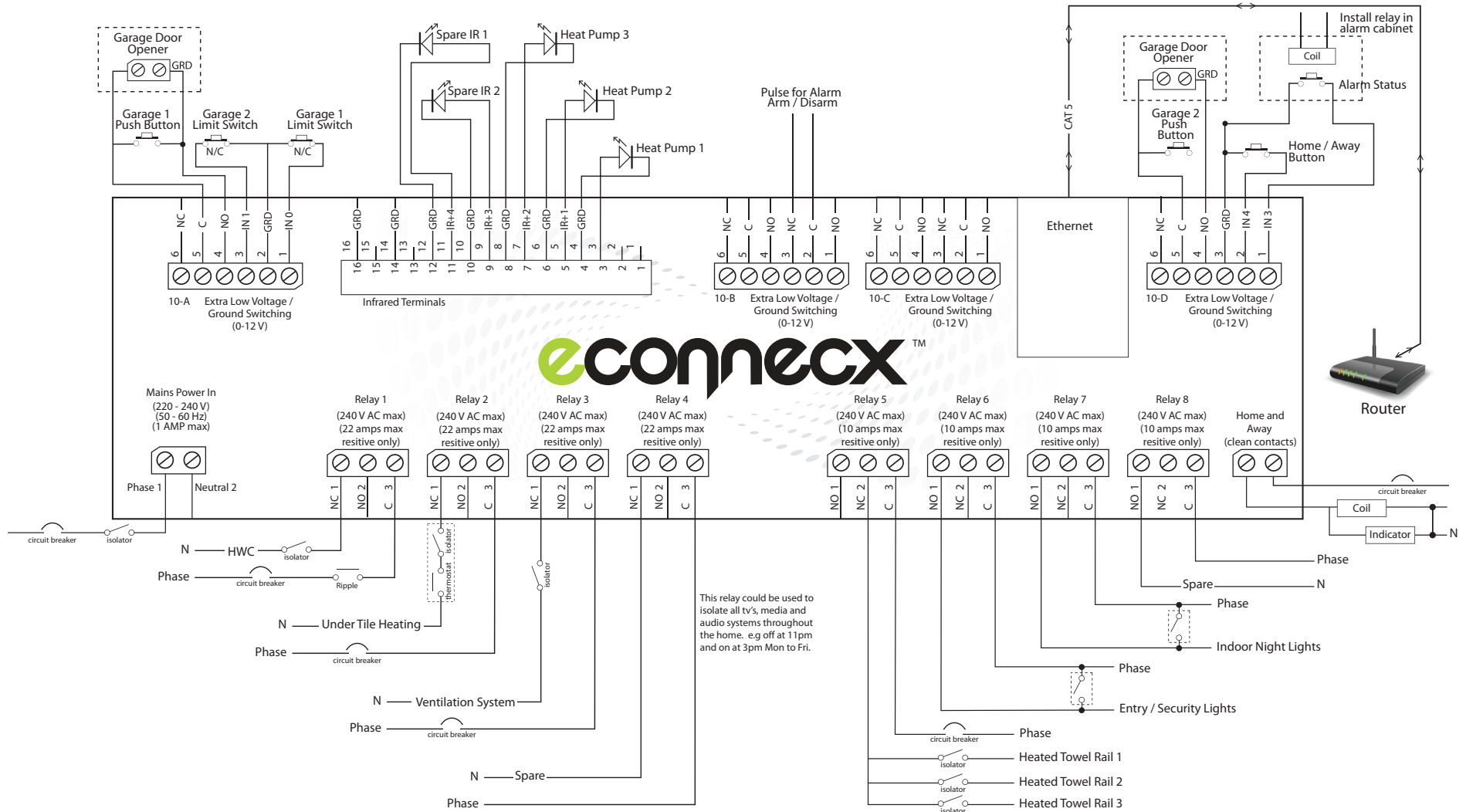
Throughout these screens you will be asked to complete the compulsory fields (we suggest you obtain these from the client first):

- clients name / company
- clients email address
- clients contact phone number
- econnecx™ site address
- name of electrician and electrical company
- user name and password for the client to access "Manage Device"
- you will be directed to the "device settings" section where you will tick active relays to label each one, if different to the default settings and select relay status (normally open or normally closed). You will then load specified appliances, i.e. alarm; garage door; heat pumps etc. Upon selection of appliances the inputs and outputs will automatically be configured as per wiring diagram 1.
- Once completed you will be directed to the "Configure Device" section where you will label relays if different to the default settings and select relay status (normally open or normally closed). You will then load specified appliances, i.e. alarm; garage door; heat pumps etc. Upon selection of appliances the inputs and outputs will automatically be configured as per wiring diagram 1.

Please note that econnecx™ will give you 5 days free connection to complete this commissioning process.

econnecx™ requires a yearly subscription fee of \$80 +GST which can be paid upon commissioning or when the owner logs on for the first time.

Recommended Installation Diagrams for econnect™



Please ensure circuit protection does not exceed current rating of switching relay (R1 – R4, 22 amps, R5 – R8, 10 amps)
Relay ratings are for resistive loads only. **Not suitable for connection to iron core or fluorescent loads.**

Recommended cables

Lights

- econnect™ to Main Entry Point (master off relay) 2 core TPS
- econnect™ to Entry Lights 3 core TPS (if lights are scheduled in away mode)
- econnect™ to Hallway Lights 3 core TPS (if lights are scheduled in away mode)

Security

- econnect™ to Alarm Panel 4 core security cable (minimum)
- econnect™ to Garage Door One & Two 4 core security cable **OR** 1x cat 5

Heating & Ventilation

- econnect™ to Infrared Controlled Device (heatpump) 1x cat 5 (up to 4 devices) or 2 core (per each device)
- econnect™ to Main Switch Board - HWC; heated towel rail; undertile heating; ventilation

Master Off Wiring

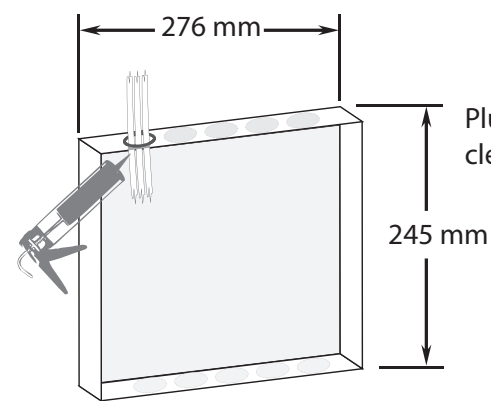
- econnect™ to Main Entry Point (master off relay button) ... 4 core security cable **OR** 1x cat 5
- econnect™ to Main Switch Board 2 core TPS for master off relay

Data / Internet

- econnect™ to Router 1x cat 5

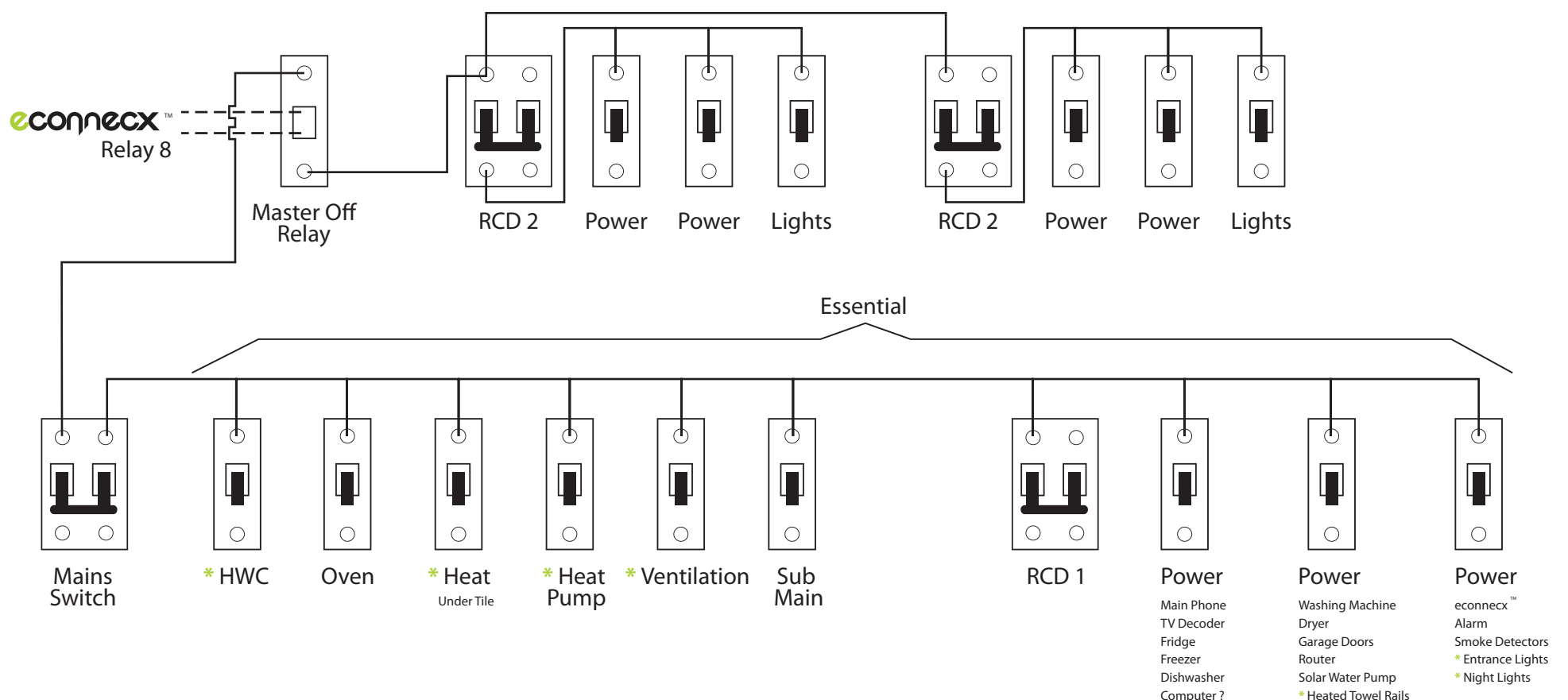
Device Dimensions

You will need a hole
width of 276mm
height of 245 mm



Plus an additional 15mm
clearance for the lid

- a) Knock out 32mm hole as required
- b) Fit bush or pack gland to open hole
- c) Feed cables through hole and terminate
- d) Seal gaps with fire retardant sealant



* econnect controlled appliances (avoid master off isolation, so scheduling can occur in away mode)