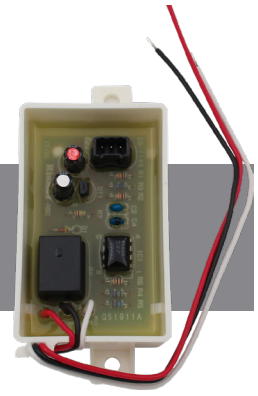


# Rinnai

## Commercial Error indication switch (REUOPU3)



Ensure the power supply to the Rinnai INFINITY is disconnected before commencing installation. Removing the front cover will expose live mains voltage connections.

The Rinnai INFINITY water heater error switch is a volt-free normally open or normally closed switch. The switch will shift to the reverse position when there is an active error in the water heater. The switch is intended to be connected to a monitoring system such as a BMS (building monitoring system) or other visual, or audible error indicating system.

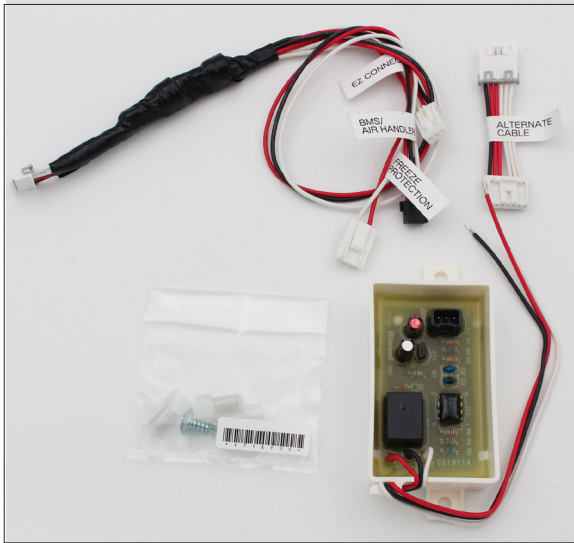
System designers should note that some errors will reset the switch to a normal state under certain conditions. It is important that this is understood when developing monitoring and response systems.

**Suitability:** Suitable for Rinnai INFINITY commercial units only.

**Switch rating: 24 V (AC or DC), 1 A**

Systems requiring loads greater than this should be configured via an external relay.

### Kit contents



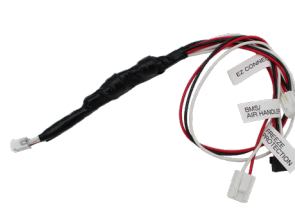
HD49  
N-Series  
HD56kWe

Switch only  
Switch + accessory cable  
Switch + accessory cable + alternate cable

- Black = common
- Red = normally open
- White = normally closed



Switch



Accessory cable



Alternate cable

### Installation

#### 1. ALL MODELS

Remove the water heater front cover.

#### 2. Attach the error switch.

<b>HD49/HD56</b>	Attach the error switch inside the unit using the mounting screw provided. If required, adjust the position of the main wiring loom to provide enough room.
<b>N-Series</b>	Attach the error switch to the mounting bracket (above the controller) inside the unit. The orientation will differ depending on whether the model is internal or external, refer images on p.4.

## Commercial Error indication switch (REUOPU3)

### 3. Connect cable into accessory port of the water heater PCB

<b>HD49</b>	N/A for this unit, instead, in the main wiring loom of the unit, locate the red-black-green wiring loom tagged BMS and separate out (refasten cable tie around the remaining loom).
<b>N-Series</b>	Connect the accessory cable main wiring loom into the accessory port of the PCB.
<b>HD56kWe</b>	Connect the ALTERNATE CABLE into the accessory port of the PCB and then connect the other end into the accessory cable.

### 4. ALL MODELS

Attach the BMS/Air Handler wiring loom plug to the matching socket on the error switch, replace the water heater front cover, and reconnect the power supply.

With the supplied crimp connectors, join the red and black wires of the error indication switch to the monitoring system via the remote controller access hole of the water heater. Polarity is not important.

## Testing

The operation can be quickly tested by passing water through the unit with the gas supply shut off.

After several ignition attempts the combustion fan should be heard to stop and error code 11 should display on the inbuilt controller/status monitor—within 15 seconds the error switch should reverse position. This can be verified with a multimeter. The switch should remain in this position.

Turn off the water flow and turn on the gas supply. Restart the water flow. The water heater should ignite as normal and the status of the monitor should display the water heater set temperature. At this point the error switch should return to the normal position.

## Error codes

### General error codes

When an error occurs the Rinnai INFINITY will shut itself down. Most errors will reset when the water flow stops, either by a tap being turned off, circulating pump stopping and /or the power being switched off.

### LC error code (lime check)

In hard water areas calcium is deposited within the tubes of the heat exchanger. This reduces the heat transfer within the water heater. When the unit detects this LC is displayed. This will

not prevent operation of the unit, but indicates to the customer that maintenance is required.

When LC is displayed the error switch will remain in a closed position at all times, except where a remote control (if fitted) is switched off.

The time charts, on the following page, shows the relationship between the errors indicated by the error switch, and the output shown on the status monitor/inbuilt controller.

### Response to errors

If an error is currently active, the error code can be read off the status monitor/inbuilt controller. Any active error, other than LC, indicates the unit is not heating the water. Error codes 11/12 usually indicate a failure in the gas supply. To reset an 11/12 error, the water flow through the unit must be stopped for a few seconds and then restarted.

If an error has occurred the error history can be read from the controller (or fitted controller) using the procedure detailed on the next page. If no remote controller is fitted, contact a Rinnai service centre, they will be able to access the error history of the unit.

## Commercial

### Error indication switch (REUOPU3)

#### HD49/HD56: Retrieving error code history using a Rinnai Compact Controller



**WARNING**

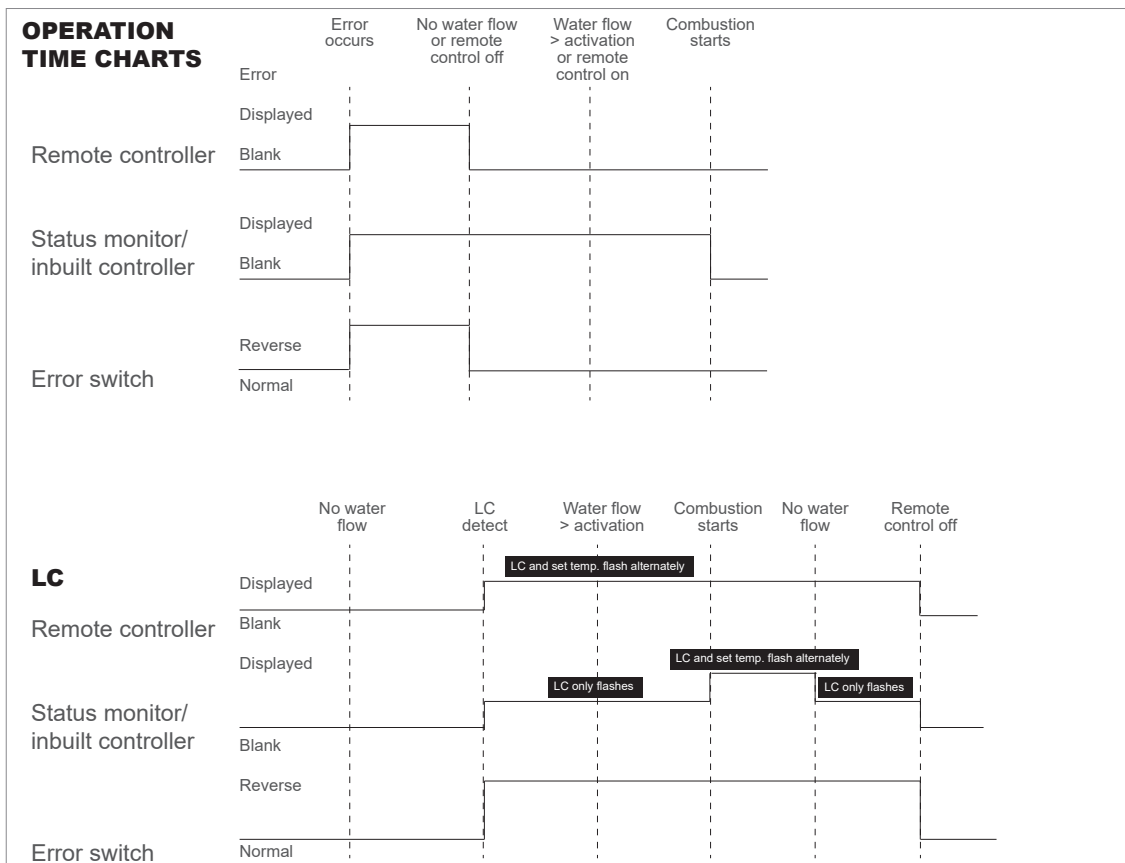
If temporarily fitting a controller for the purposes of checking error history, ensure power to the water heater is turned off. Failure to do so may result in irreparable damage to the main PCB of the Rinnai INFINITY.

1. With the remote controller switched on, push and hold the power button.
2. While continuing to hold the power button down, push and release the temperature up button. Release the power button.
3. The remote controller should now scroll through the last ten errors—record these.
4. To revert to normal mode, repeat steps 1-2 above.

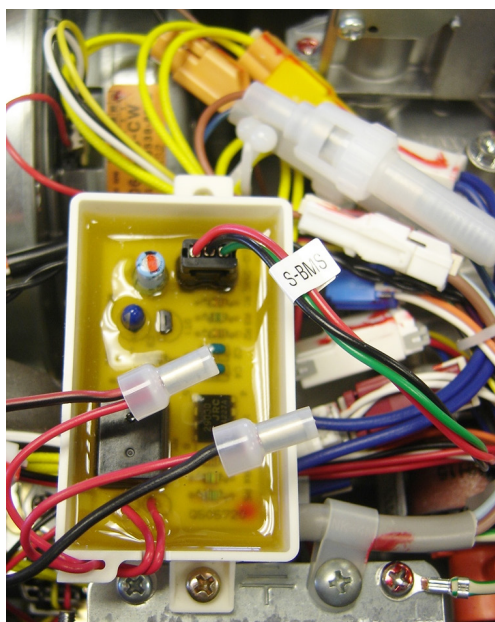
#### N-Series: Retrieving error code history

1. Have the inbuilt controller turned off, but the power on.
2. Hold the On/Off button for two seconds while at the same time pressing the up arrow button, and then release.
3. The controller will display the last nine error codes, the latest code displaying first. If less than nine codes, or no error codes '--' will be displayed.

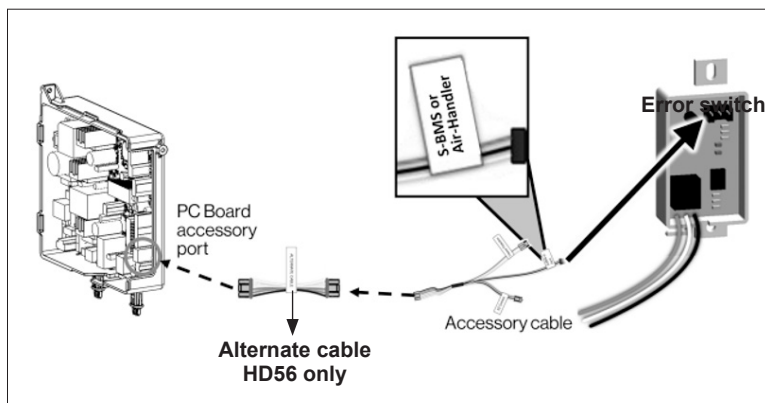
Error codes are displayed for three minutes. To return the controller to normal operation, press the temperature up arrow and then press and hold the On/Off button.



## Error switch installed HD49 example

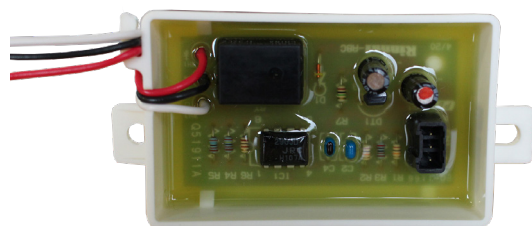


## HD56 connections

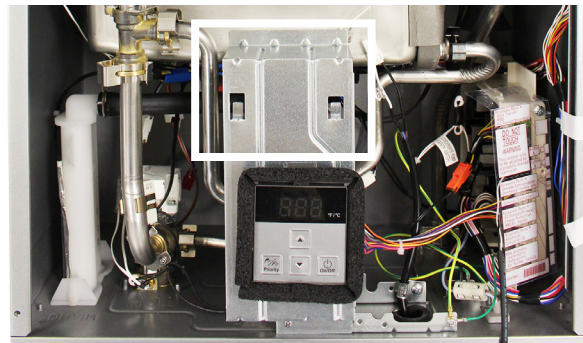
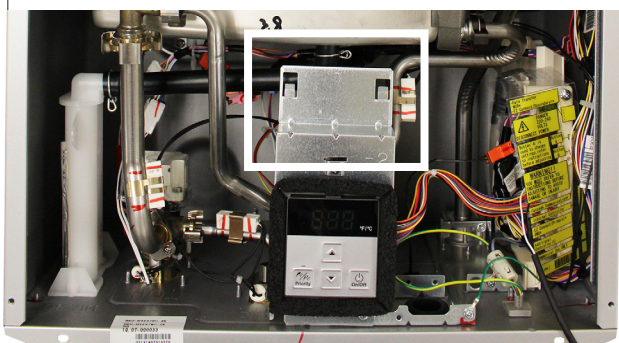
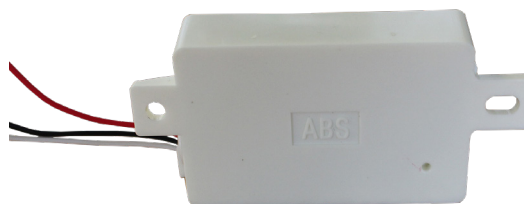


## N-Series: Error switch orientation

### External unit board faces out



### Internal unit board faces in



**Rinnai.co.nz**

Tel: 0800 746 624

<http://www.youtube.com/rinnainz>

<http://facebook.com.rinnainz>

Commercial error indication switch 12554-B