

Rinnai INFINITY® Metal Recess Box R1405/R1407 installation guide



These instructions are a guide only, designed to be used in conjunction with the NZ Building Code Approved Document - External Moisture E2. The recess box installation can be compared to the detail required to install a meter box.

Local authorities may have their own additional requirements regarding this type of installation. If in any doubt over compliance with building codes, it is advisable they are consulted prior to installation.

contents:

Important:

The recess box shall be installed in accordance with:

- Manufacturer's installation instructions
- AS/NZS 5601 Gas Installations
- AS/NZS 3000 Electrical Standards

Installation, servicing and repair shall be carried out only by authorised personnel.

Warning

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life.

For more information about buying, using, and servicing of Rinnai appliances call: 0800 RINNAI (0800 746 624).

Rinnai New Zealand Limited
105 Pavilion Drive, Mangere, Auckland
PO Box 53177, Auckland Airport, Auckland 2150

Phone: (09) 257 3800
Email: info@rinnai.co.nz
Web: www.rinnai.co.nz
www.youtube.com/rinnainz
www.facebook.com/rinnainz

About the metal recess box	4
Dimensions.....	5
R1405 metal recess box kit contents	6
R1407 metal recess box kit contents	7
Installation steps	8
Fitting the EF24 inside a metal recess box.....	10
Flue terminal clearance positioning diagram	11

Installers - please note:

These instructions are for the tradespeople installing the recess box and continuous flow water heater. If you are not installing the water heater, please leave these instructions, and any other kit components not used inside the recess box. It is important that the gasfitter installing the water heater has access to the information and components required to fit the water heater inside the box.

About the metal recess box

The Rinnai INFINITY metal recess box enables an external continuous flow gas water heater to be recessed, either fully or semi-recessed into an external wall, behind a door and out of sight.

Construction and colour

Folded galvanised steel, powder coated white— can be painted to match the exterior cladding.

Suitability

Outdoor installations only.

Suitable for the following external Rinnai INFINITY water heaters:

R1405 recess box

- A-Series (A16-A26) current range
- VT-Series (VT16-VT26) discontinued

R1407 recess box

- HD200, HD250, EF24 current range

Designed for new builds or major renovations. Installation needs to commence during the framing stage, before internal lining, cladding, or building wrap is applied.

Clearance requirements

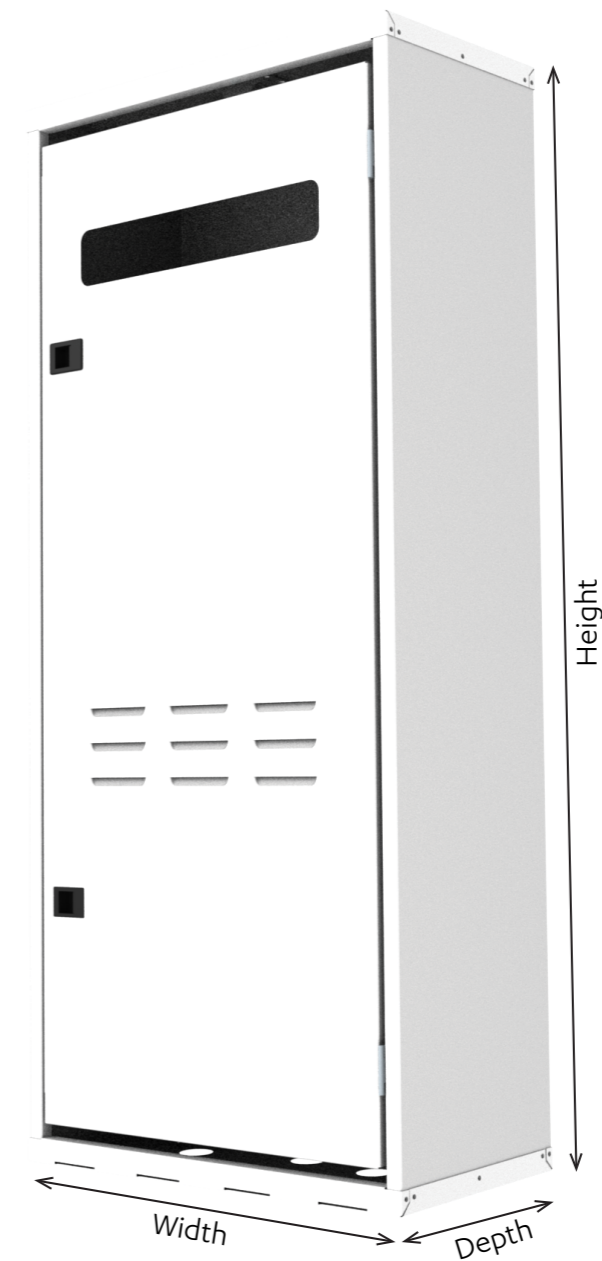
The location of the flue terminal must comply with AS/NZS 5601.1 Fig 6.2. If you do not have access to this document, we have produced a simplified diagram highlighting the main clearances on p. 11.

Position

Some considerations when installing a Rinnai recess box with an external continuous flow water heater.

- Operating noise
A Rinnai INFINITY gas water heater inside a recess box operates at a slightly louder level than a unit installed on an outside wall. Please keep this in mind when positioning near a bedroom as the operating noise could affect some people.
- Hot water outlets
In most cases it's better to site the recess box closer to the kitchen where there is an expectation for instant hot water.
- Obstructions
Ensure there is no plumbing, electrical wires, timber, or other objects blocking the box inside or outside the cavity.
- Accessibility
Make sure the unit is accessible for maintenance and servicing.

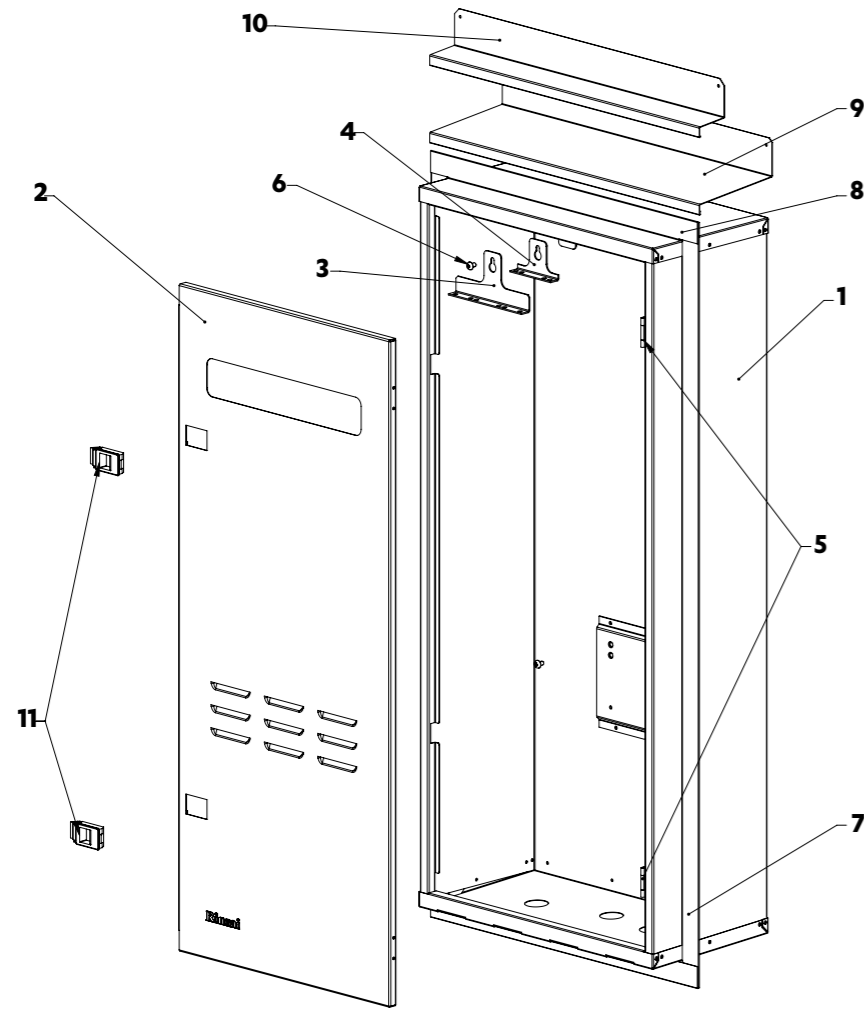
Dimensions (mm)



	R1405	R1407
Height	944 mm	944 mm
Width	417 mm	514 mm
Depth	205 mm	270 mm

R1405 metal recess box kit contents

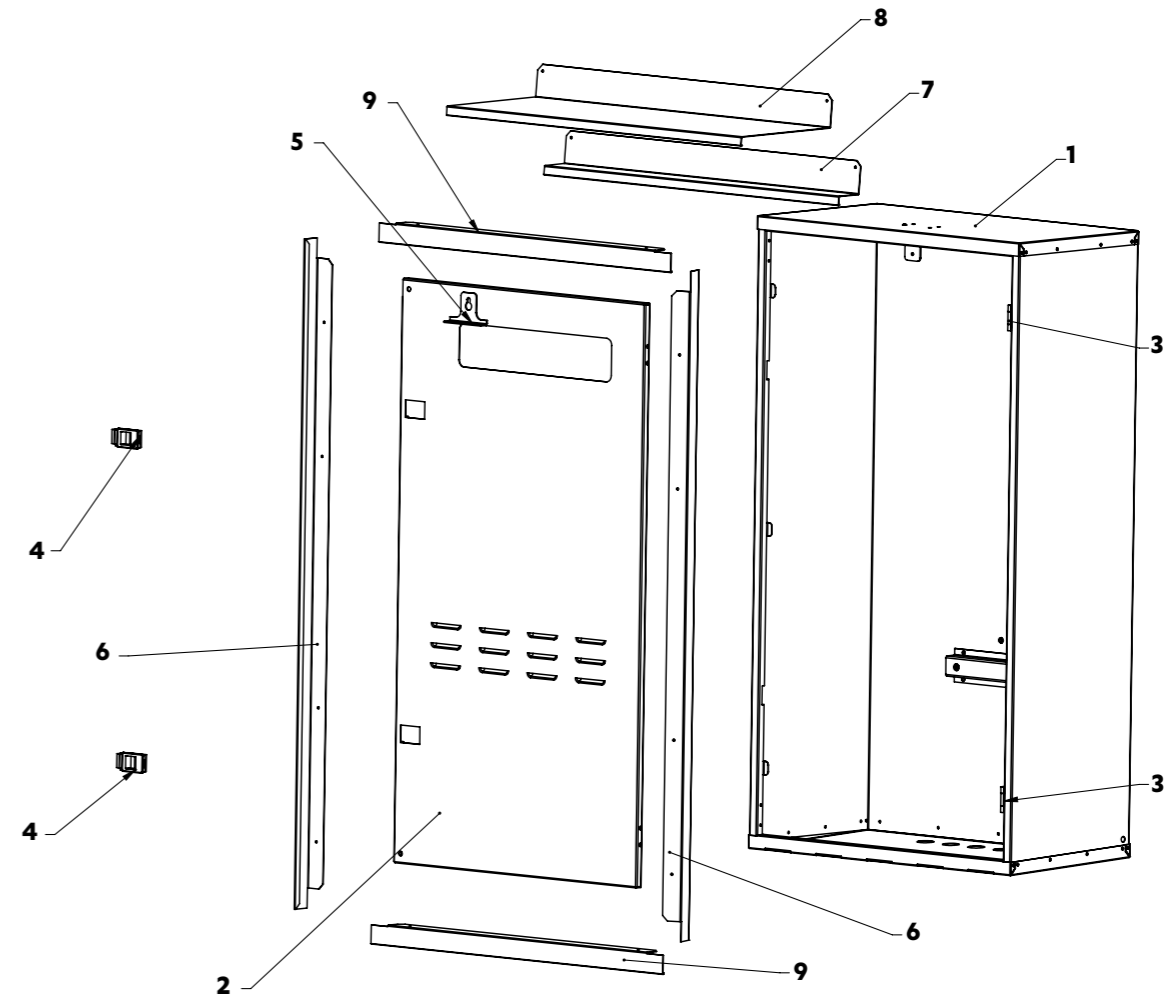
A16-A26, VT16-VT26



Part number	Description	Quantity
1	Recess box body	1
2	Recess box door	1
3	INFINITY mounting bracket - long (for A-Series and older VSeries models)	1
4	INFINITY mounting bracket - short (for VT and XR models)	1
5	Stainless steel (304) hinges	2
6	Stainless steel (304) screws	3
7	Side trim	2
8	Top and bottom trim	2
9	Large head flashing - brick cladding	1
10	Small head flashing - weatherboard cladding	1
11	Black snap-lock latches	2
-	Roll of black foam tape seal (not pictured)	1

R1407 metal recess box kit contents

HD200, HD250, EF24



Part number	Description	Quantity
1	Recess box body	1
2	Recess box door	1
3	Stainless steel (304) hinges	2
4	Black snap-lock latches	2
5	INFINITY mounting bracket - short	1
6	Side trim	2
7	Small head flashing - weatherboard cladding	1
8	Large head flashing - brick cladding	1
9	Top and bottom trim	2
-	Roll of black foam tape seal (not pictured)	1

Installation steps

1. Framing

Prepare a suitable opening for the recess box and the flashing system intended to be used to ensure the cavity is weathertight.

Make sure there is enough space to run the pipe and electrical connections into the box.

For all installations regardless of cladding, ensure a 5 mm clearance from all framing and cladding.

2. Attach trims and foam tape seal

Position, drill, and rivet side, top, and bottom trims around the outside of the box. The position of the trim will depend on the recess depth. The top and bottom trims are positioned BEHIND the side trims.

Attach the foam tape seal behind the trims. When the box is installed into the cavity the trims will push firmly against the cladding, compressing the foam seal.

3. Install recess box

Install the recess box into the opening. Ensure it is level and square.

Fix the recess box in place by screwing the sides to the framing using appropriate fastenings (not supplied).

4. Complete water and gas connections

Run the hot and cold water supplies, and gas connection up into the recess box. It is recommended flexible gas and water connectors are used to make the final connections so the water heater can be removed if necessary without having to cut the pipework.

5. Install a general power outlet

Install an approved weather-proof electrical general power outlet. This can be installed inside the box in accordance with AS/NZS 3000 electrical wiring rules.

6. Copy INFINITY information onto label

The water heater model and serial numbers must be copied legibly from the data plate to the label on the inside of the cover of the recess box before fitting the heater.

The model and serial numbers are required for servicing, troubleshooting, and parts supply.

7. Install the Rinnai INFINITY into the box

Attach the top mounting bracket to the water heater using the screws provided.

Lift the water heater into the box, align the screw on the internal bracket with the keyhole on the top mounting bracket and tighten.

After the water heater is positioned, align, level and screw the bottom bracket to the back of the box using the screws provided.

The flue outlet of the water heater MUST align with the flue outlet position of the door.

Special fitting instructions for the EF24 (refer supplementary images on p. 10)

Before fitting the EF24 inside the recess box, remove the lower securing bracket—you will not need this.

Bend the top keyhole bracket back so the water heater can fit inside the recess box. Slide the EF24 top mounting bracket under the recess box top retainer and screw in place.

Lower the EF24 lower mounting bracket keyhole over the centre screw. Fit additional retaining screws.

8. Complete connections

Connect water, gas, and electrical supplies.

9. Commission water heater

Commission water heater in accordance with the commissioning checklist supplied with the water heater.

10. Fit appropriate flashing head and seal box and cavity.

Fit appropriate flashing head.

Use an approved solution to seal the box, cavity, and any penetrations, including any pipe and electrical penetrations.

2. Install trims and tape seal



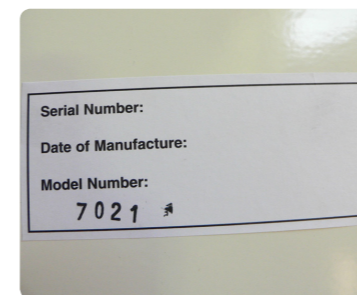
4. Complete water and gas connections



5. Install a general power outlet



6. Transfer INFINITY data onto label



7. Attach mounting bracket to INFINITY



7. Align with keyhole on the top mounting bracket



7. Level and screw the bottom bracket



8. Complete connections

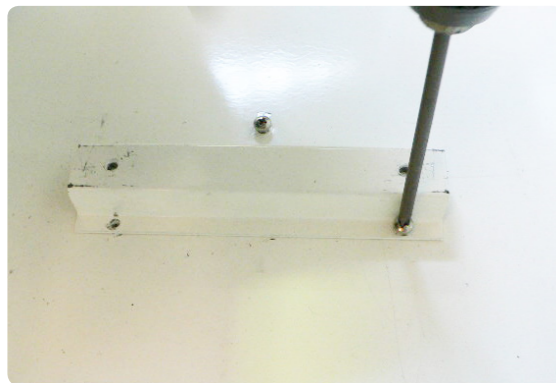


Recess box fully installed and sealed



Fitting the EF24 inside the metal recess box

1. Remove the lower securing bracket



2. Bend the top keyhole bracket back so the water heater can fit inside the recess box.



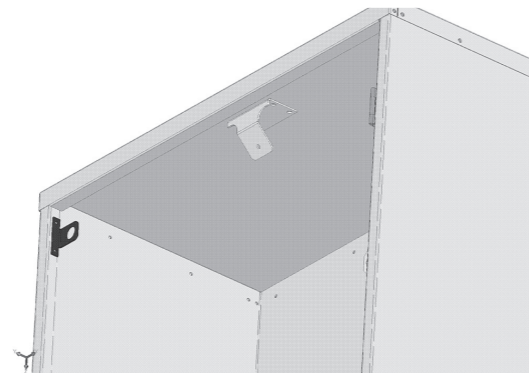
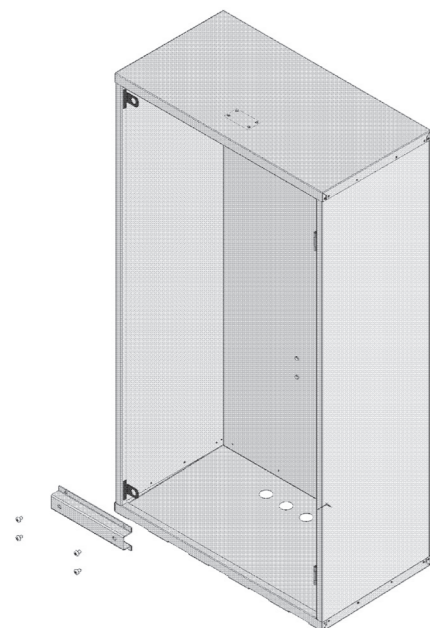
3. Slide the EF24 top mounting bracket under the recess box retainer and screw into place.



4. Lower the EF24 mounting bracket keyhole over the centre screw. Fit additional screws.

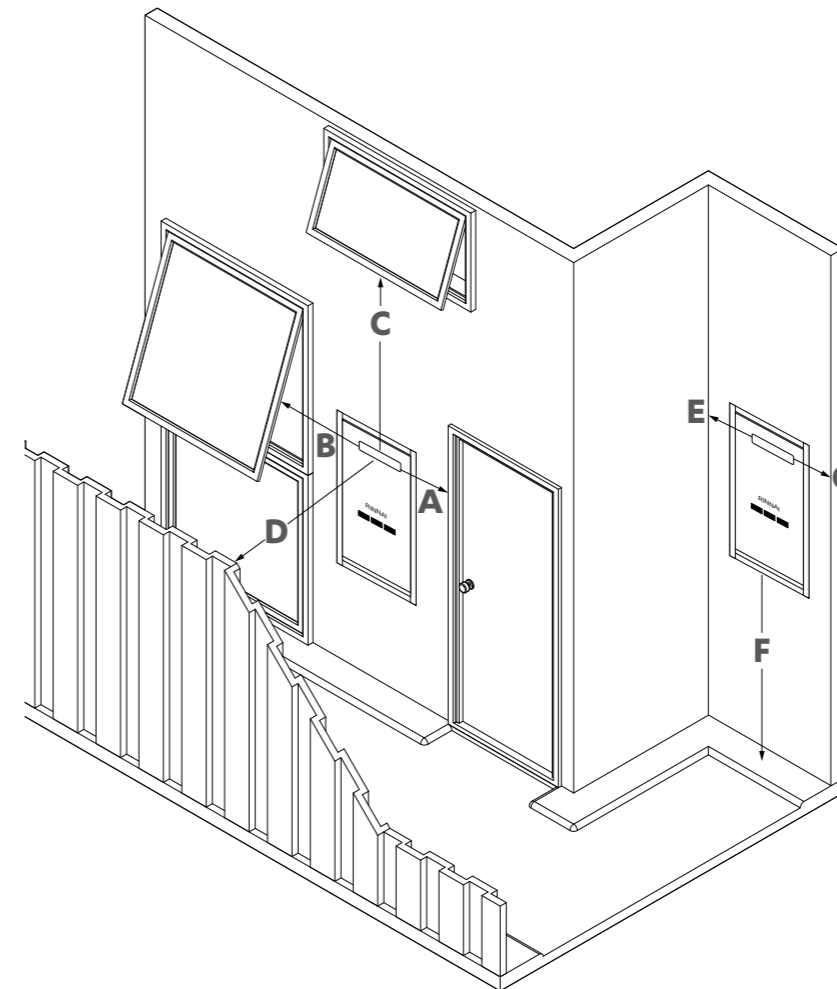


Additional drawings highlighting steps 1 and 2



Flue terminal clearance positioning diagram

The location of the flue terminal must comply with AS/NZS 5601.1 Fig 6.2. If you are in any doubt as to where to locate the recess box and water heater we recommend contacting a registered gasfitter for advice.



Other general clearances
 Below eaves, balconies, and other projections - 300 mm.
 From a gas meter - 1000 mm.
 From an electricity meter or fuse box - 500 mm.

Description	INFINITY A-Series, VT HD200, EF24	INFINITY HD250
A Horizontally from an openable door	300 mm	500 mm
B Horizontally from an openable window	300 mm	500 mm
C Vertically below an openable window	1500 mm	1500 mm
D Horizontally from any building structure or obstruction facing the terminal	500 mm	1500 mm
E From a return wall	300 mm	300 mm
F From the ground	300 mm*	300 mm*
G From an external corner	300 mm	300 mm

* Rinnai recommend 1500 mm to give enough clearance for the pipe work and to safely expel flue gases

Rinnai



Experience our innovation

Rinnai.co.nz | **0800 746 624**

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

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