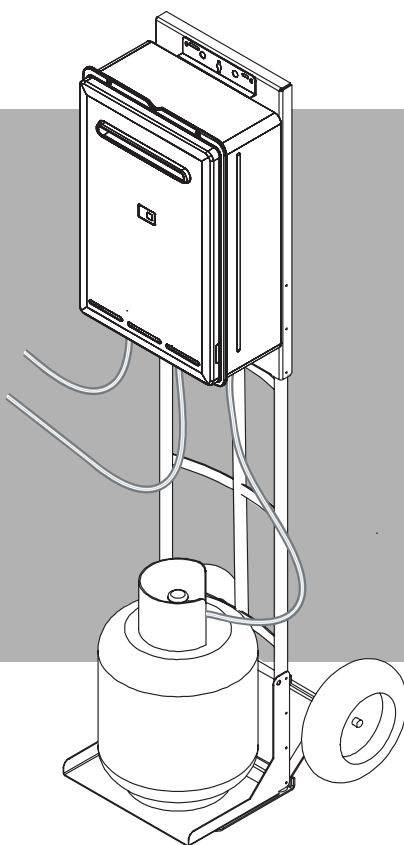


Rinnai

Portable Water Heater Trolley Operation / Installation Manual



This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 3000, AS/NZS 3500 & AS 5601
- Local Regulations and Municipal Building Codes

This appliance must be installed, serviced and removed by an Authorised Person.



The Australian
Gas Association
All Rinnai gas water
heaters are A.G.A. certified.



N10378



**Quality
Endorsed
Company**

ISO 9001 Lic 4983
SAI Global

Head Office Certified

Distributed and serviced in Australia under a Quality
System certified as complying with ISO 9001 by
SAI Global

**Certified
Product**



WaterMark
AS3498 Lic W200
SAI Global

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Rinnai Australia reserves the right to make modifications and change specifications without notice.



- **READ THESE INSTRUCTIONS CAREFULLY BEFORE OPERATION AND RETAIN FOR FUTURE REFERENCE.**
- **ILLUSTRATION MAY VARY FROM ACTUAL APPLIANCE**
- **FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN A FIRE OR EXPLOSION WHICH COULD CAUSE PROPERTY DAMAGE, SERIOUS BODILY INJURY OR DEATH.**
- **THIS PRODUCT IS ONLY SUITABLE FOR THE TEMPORARY SUPPLY OF HOT WATER IN DOMESTIC APPLICATIONS ONLY.** This applies when a permanently installed Rinnai Water Heater has failed and there is a delay in supplying and installing a permanent replacement. During the delay period the portable water heater trolley is used to provide temporary hot water. It is not suitable for any other application.
- **THIS PRODUCT IS NOT SUITABLE FOR PERMANENT INSTALLATION.**
- **FOR TEMPORARY OUTDOOR INSTALLATION BY AN AUTHORISED PERSON ONLY.**
- **THIS PRODUCT IS NOT SUITABLE FOR USE AS A POOL HEATER.**
- **MODIFICATIONS AND ADJUSTMENTS TO THE RINNAI WATER HEATER BY AN AUTHORISED PERSON ONLY.**
- **REPOSITIONING OF PORTABLE WATER TROLLEY ONCE INSTALLED MUST BE DONE BY AN AUTHORISED PERSON ONLY.**
- **CONNECTION AND DISCONNECTION OF PIPEWORK, FITTINGS AND COMPONENTS MUST BE DONE BY AN AUTHORISED PERSON ONLY, EXCEPT THOSE RELATING TO CHANGE-OVER OF THE LP GAS CYLINDER.**
- **THE END USER IS PERMITTED TO CHANGE OVER THE GAS CYLINDER AND OPERATE THE RINNAI WATER HEATER IN ACCORDANCE WITH THESE INSTRUCTIONS. ALL OTHER WORK TO BE PERFORMED BY AN AUTHORISED PERSON ONLY.**

FOR YOUR SAFETY

IF YOU SMELL GAS:

1. Shut off gas to the appliance, if possible.
2. Extinguish any open flame.
3. Perform gas leak check procedure.
4. If odour continues, immediately call your gas supplier.

STORAGE:

1. Do not store or use petrol or other flammable vapours and liquids in the vicinity of this or any other appliance.
2. Do not store gas cylinders that are not connected for use in the vicinity of this appliance.

OUTDOOR USE ONLY



DO NOT OPERATE THIS APPLIANCE BEFORE READING THE INSTRUCTION BOOKLET

DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE

DO NOT STORE CHEMICALS OR FLAMMABLE MATERIALS, OR SPRAY AEROSOLS NEAR THIS APPLIANCE

DO NOT OPERATE THE APPLIANCE INDOORS

DO NOT OPERATE IN AN ENCLOSED AREA

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GENERAL INFORMATION

APPLICATIONS OF PRODUCT



- **THIS PRODUCT IS ONLY SUITABLE FOR THE TEMPORARY SUPPLY OF HOT WATER IN DOMESTIC APPLICATIONS ONLY.** This applies when a permanently installed Rinnai Water Heater has failed and there is a delay in supplying and installing a permanent replacement. During the delay period the portable water heater trolley is used to provide temporary hot water. It is not suitable for any other application.
- **THIS PRODUCT IS NOT SUITABLE FOR PERMANENT INSTALLATION.**
- **FOR TEMPORARY OUTDOOR INSTALLATION BY AN AUTHORISED PERSON ONLY.**
- **THIS PRODUCT IS NOT SUITABLE FOR USE AS A POOL HEATER.**

REGULATIONS

This appliance must be installed correctly by an Authorised person. The installation of gas, water, and electricity must conform to local regulations.

The installation must also comply with the instructions supplied by Rinnai.

The Rinnai Continuous Flow water heater has been certified by the Australian Gas Association, the A.G.A. Certification Number is shown on Data plate.

This installation uses "Propane Gas". Check that the correct gas is supplied.

CLEARANCES

The clearance requirements for the gas water heater flue terminal and gas cylinder as specified in AS 5601 or by your local gas authority apply to the Portable Water Heater Trolley & must be adhered to.

Applicable AS 5601 clauses include 5.13.6.5, Fig. 5.3 and Appendix J.- Refer to 'Clearances and Location' section.

GAS CONNECTION, HOSES AND REGULATOR

The gas cylinder, supply hose and regulator supplied with this appliance are suitable for Propane Gas. (AS 1869 Type C).

Check that the Rinnai Water Heater supplied is a Propane Gas appliance. The gas type is clearly labelled on the water heater.

The pressure regulator and hose assembly supplied with the appliance must be used.

The installer is responsible for adjusting the gas regulator to a gas pressure of 2.75 kPa flowing at the test point on the inlet of the water heater.

END USER - SAFETY INFORMATION



- Failure to comply with these instructions could result in a fire or explosion which could cause serious injury, death or property damage.



- THIS PRODUCT IS NOT SUITABLE FOR PERMANENT INSTALLATION.
- FOR TEMPORARY INSTALLATION BY AN AUTHORISED PERSON ONLY.
- MODIFICATIONS AND ADJUSTMENTS TO THE RINNAI WATER HEATER BY AN AUTHORISED PERSON ONLY.
- REPOSITIONING OF TROLLEY ONCE INSTALLED MUST BE DONE BY AN AUTHORISED PERSON ONLY.
- CONNECTION AND DISCONNECTION OF PIPEWORK, FITTINGS AND COMPONENTS MUST BE DONE BY AN AUTHORISED PERSON ONLY, EXCEPT THOSE RELATING TO CHANGE-OVER OF THE LP GAS CYLINDER.
- THE END USER IS PERMITTED TO CHANGE OVER THE GAS CYLINDER AND OPERATE THE RINNAI WATER HEATER IN ACCORDANCE WITH THESE INSTRUCTIONS. ALL OTHER WORK TO BE PERFORMED BY AN AUTHORISED PERSON ONLY.



If you smell gas:

1. Shut off gas to the appliance, if possible.
2. Extinguish any open flame.
3. Perform gas leak check procedure. (Refer to page 7).

If odour continues, immediately call your gas supplier.



- Never connect the Rinnai Water Heater directly to the gas cylinder without a regulator.
- Always use the hose and regulator supplied.
- Gas cylinders must not be stored indoors. Gas cylinders must be removed and stored outdoors in a well ventilated area out of reach of children.
- Gas cylinders must not be stored in a building, garage or other enclosed area or in the vicinity of this or any other appliance.
- Never test for gas leaks with a match or open flame.
- Inspect the gas hose or whenever the gas cylinder is replaced. If the hose is cracked, cut, abraded, discoloured or damaged in any other way the portable water trolley must not be used. The hose must be replaced if damaged or when local regulations require this. Contact your supplier or local regulating authority if uncertain. Replacement must only be carried out by an Authorised person.
- Avoid unnecessary twisting of the gas hose.
- Never alter or modify any parts of the portable water trolley components including any of the gas components.
- DO NOT move the portable water heater trolley.
- DO NOT allow children to handle any parts of the portable water heater trolley.



- DO NOT store or use petrol or other flammable vapours and liquids in the vicinity of this or any other appliance.

END USER - SAFETY INFORMATION

Hose and Regulator

1. The pressure regulator and hose assembly supplied with the Rinnai water heaters are suitable for use on bottled **Propane gas only**.
2. The pressure regulator and hose assembly supplied with the appliance **MUST** be used.
3. Replacement pressure regulators and hose assemblies must be those specified by Rinnai for use with this appliance.
4. The pressure regulator supplied has been fixed to have an outlet pressure of 2.75 kPa. This pressure must not be adjusted by the end user.
5. Avoid twisting of the hose.
6. Keep the gas hose away from hot surfaces or dripping grease or oil.
7. Inspect the gas hose when replacing the gas cylinder. If the hose is cracked, cut, abraded, discoloured or damaged in any other way, the portable water trolley must not be used. The hose must be replaced if damaged or when local regulations require this. Contact your supplier or local regulating authority if uncertain. Such replacement must only be carried out by an Authorised person.

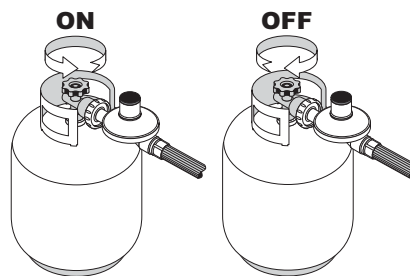
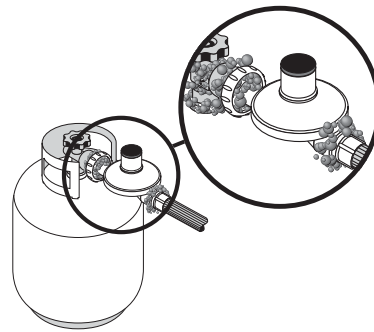
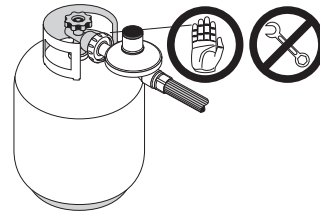
Gas Cylinder

1. This Portable Water Heater Trolley is designed for use with a 9 kg LP Gas cylinder. This cylinder should conform to AS 2030.1 - 1999. Do not use a gas cylinder of different capacity.
2. The Rinnai water heater is designed for use in the vapour withdrawal mode. Therefore it is important to always store and use the gas cylinder in an upright position.
3. For storage and when refilling / exchanging cylinders, disconnect the hose and regulator at the cylinder end only. Do not disconnect the hose and regulator from the water heater.
4. The gas cylinder should be refilled by a reputable gas dealer, or exchanged at a reputable gas cylinder exchange outlet. Gas cylinders should be inspected and re-qualified periodically in accordance with local statutory regulations. A dented or rusty gas cylinder may be hazardous and should not be used.
5. Do not subject the gas cylinder to excessive heat. Always keep gas cylinder in an upright position.
6. Gas cylinders must not be stored indoors.
7. A 9 kg LP gas cylinder will operate the Rinnai water heater for approximately 4 hours of continuous operation.

END USER - SAFETY INFORMATION

Connection and leak testing

1. Connect the regulator to the gas cylinder by turning the coupling nut anti-clockwise to tighten to a full stop (left hand thread). The seal has now engaged. An additional one half to three quarter turn is required to complete the connection. Tighten by hand only. **Do not use tools.**
2. Make a soapy solution by mixing one part liquid detergent (such as dish-washing liquid) and one part water.
3. Open the gas valve on the cylinder by turning it anticlockwise.
4. Apply the soapy solution to all visible gas connections in the vicinity of the cylinder and regulator and where the gas hoses attach to the fitting on the solid portable water trolley gas pipe and to the side shelf burner (if fitted). Gas leaks will show as small bubbles in the soapy solution.
5. If there is a gas leak from the connection between the regulator and gas cylinder, close the gas valve on the bottle by turning it clockwise. Disconnect the regulator and hose assembly from the cylinder by turning the coupling nut clockwise to disengage. Inspect for debris inside the cylinder fitting and fitting at the end of the regulator. Remove debris and reconnect. Retest for gas leaks.



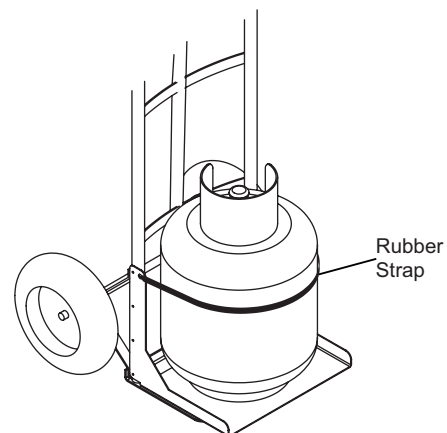
CAUTION

If there is still a gas leak from the connection between the regulator and gas cylinder or any other connections contact your supplier or Rinnai for assistance.

Connections other than the connection between the regulator and gas cylinder must only be altered by an Authorised person.

If gas leaks are present DO NOT operate the Rinnai Water Heater.

6. Removal of the gas hose, regulator and cylinder is the reverse of the connection procedure.
7. The cylinder must always be secured in an upright position to the portable water heater trolley using the rubber strap provided.



NOTE

A 9 kg LP gas cylinder will operate the Rinnai water heater for approximately 4 hours of continuous operation.

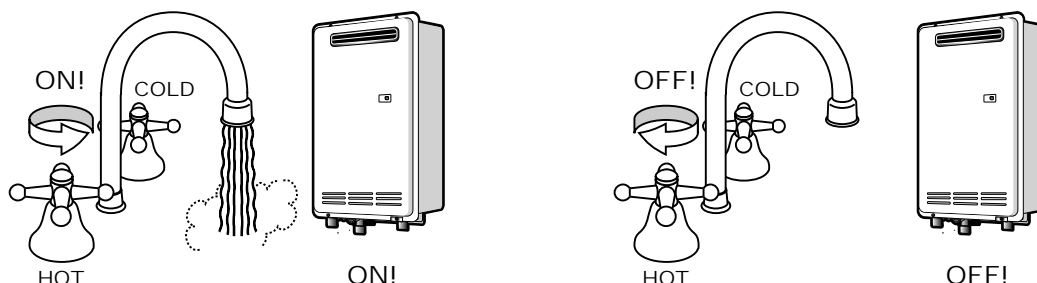
END USER - OPERATION WITHOUT CONTROLLERS

Rinnai Continuous Flow water heater products do not use a pilot light.

When installed and operated without water controllers, the opening of any hot water tap will automatically start the appliance.

Once water is flowing through the appliance the burner will be ignited by electronic ignition.

When the hot water tap is closed and water flowing through the appliance has stopped the burner flame will extinguish.



To minimise the risk of scald injury, Rinnai water heaters installed on portable trolleys are factory pre-set to a temperature limit of 50°C. This meets Australian Standard requirements relating to water temperature to fixtures used primarily for the purposes of personal hygiene in domestic homes.

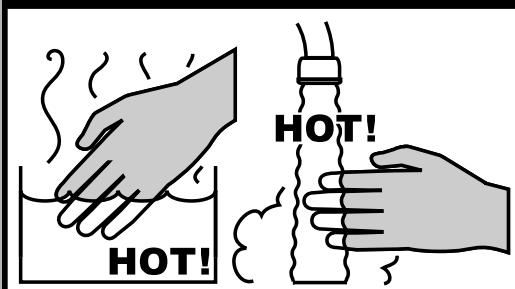
This temperature limit may be lower than the water heater previously installed.

The MC-91Q water controllers are available to allow precise digital water controller.

These controllers can be fitted during installation of the portable water trolley.



DANGER BEWARE OF SCALDING HAZARDS



Excessively hot water is dangerous, especially for young children and the infirm. Rinnai Continuous Flow water heaters allow you to control the temperature of hot water to safe levels.

Water temperatures above 50°C can cause severe burns instantly and may even result in death. Those most at risk are children, disabled, elderly and the infirm. Hot water at 65°C (the average hot water temperature in Australia) can severely burn a child in less than half a second. At 50°C it takes five minutes.

ALWAYS.....

Test the temperature of the water with your elbow before placing your child in the bath, also carefully feel water before bathing or showering yourself.

Supervise children whenever they are in the bathroom.

Make sure that the hot water tap is turned off tightly.

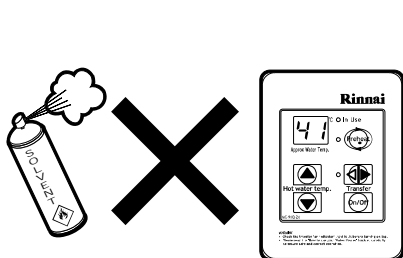
CONSIDER.....

Installing child proof tap covers or child resistant taps (both approaches will prevent a small hand being able to turn on the tap).

NEVER....

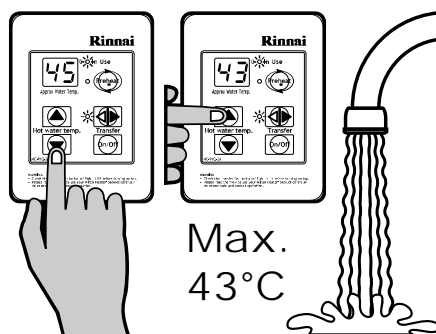
Leave a toddler in the care of another child. They may not understand the need to have the water temperature set at a safe level.

END USER - OPERATION WITH CONTROLLERS

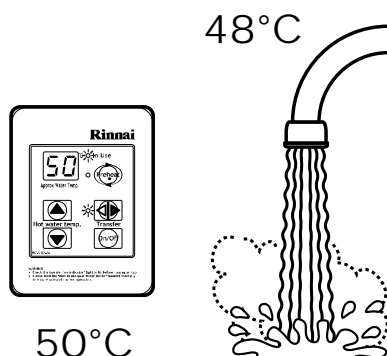


To clean your water controller(s) use a soft damp cloth with a mild detergent.

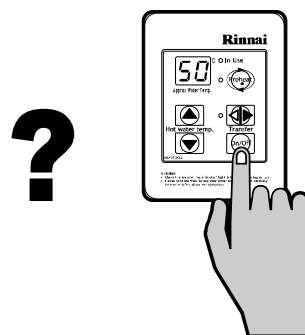
Do Not use solvents!



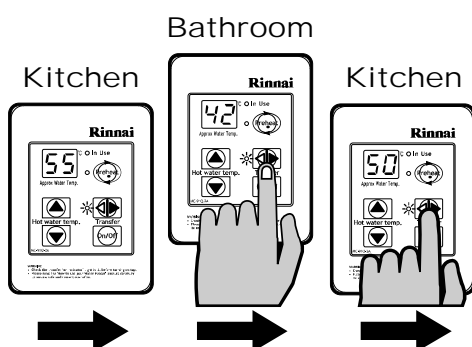
Whilst hot water outlets are open the set temperature may be lowered. However they cannot then be raised above 43°C. In addition transfer of 'priority' between water controllers is not possible. These are safety features.



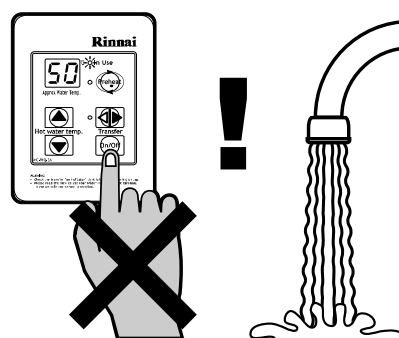
Depending on the weather conditions and the length of the pipe between the Rinnai water unit and the outlet in use, there may be a variation between the temperatures displayed at the water controller(s) and the temperature of the water at the outlet.



There is no need to turn the water controller(s) off after use. However, if you prefer to turn the water controller(s) off, selected temperatures to a maximum of 50°C will be stored in the system memory at all times whilst mains power remains connected.



As a safety precaution, if a Kitchen Controller's temperature is set above 50°C, transferring and then returning 'priority' to the Kitchen Controller will result in a default set temperature of 50°C being selected. This is a safety feature.

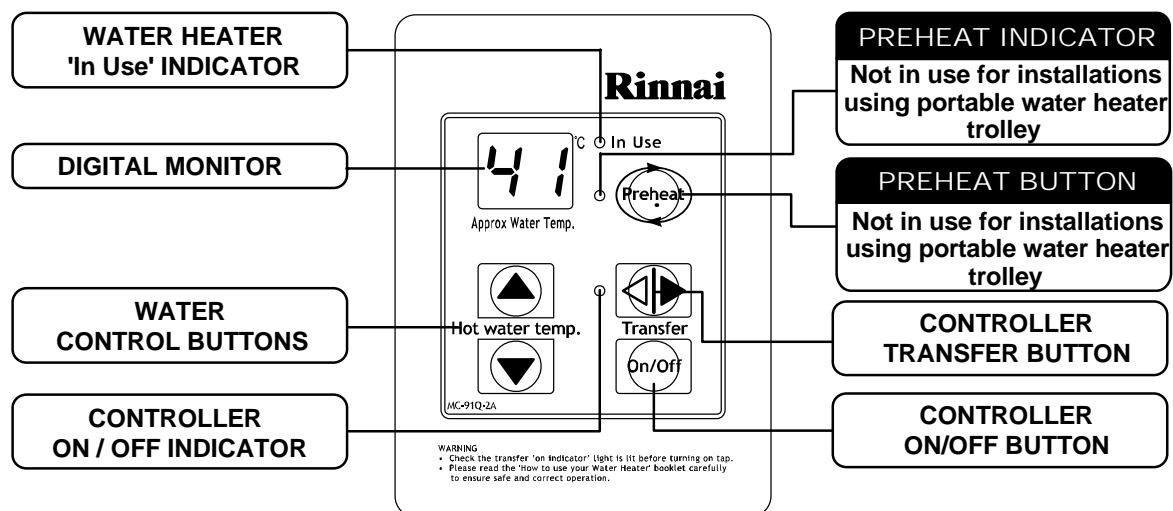


Do Not push the ON/OFF button on any Controller when the 'Red' water heater 'In Use' indicator is illuminated as this will turn off the water heater causing the water to go cold. Someone maybe in the middle of having a shower or filling a bath.

END USER - MC-91Q UNIVERSAL CONTROLLER

ABOUT THE UNIVERSAL WATER CONTROLLER (MC-91Q)

The Rinnai Controller (MC-91Q) should only be used with your Rinnai Portable Water Heater Trolley, no other controller is suitable.



HOW TO USE A SINGLE UNIVERSAL WATER CONTROLLER

Turning on the Controller

If the controller is switched OFF (No digits displayed in the digital monitor window) press the ON/OFF button once.

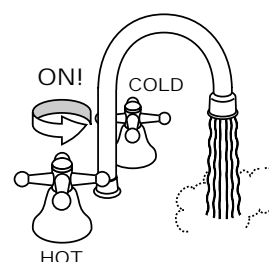
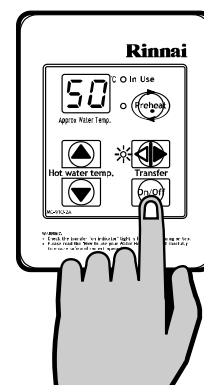
The ON indicator will illuminate, indicating that the Rinnai water unit will be ready to supply hot water once a hot water tap is opened.

Adjusting Temperature

Select the desired temperature using the 'hot water temperature' ▲ or ▼ buttons until the required temperature is displayed on the Digital Monitor.

To operate the Rinnai water unit, open any hot water tap. This will automatically light the burner providing hot water. The water heater 'In Use' indicator will illuminate on the Water Controller.

Once the hot water is running, if the set temperature is either too hot or cold press the 'hot water temp' ▲ or ▼ buttons until the desired temperature is reached.



CHECK WATER TEMPERATURE BEFORE USE.

A parent or carer should always check the temperature before a child is placed in contact with hot water.



Whilst hot water outlets are open the set temperature may be lowered. However they cannot then be raised above 43°C. In addition transfer of 'priority' between controllers is not possible. These are safety features.

The 'beep' sound can be muted by pressing the Water Controller Up ▲ and Down ▼ buttons simultaneously for more than 3 seconds.

END USER - MC-91Q UNIVERSAL CONTROLLER

HOW TO USE TWO OR MORE MC-91Q UNIVERSAL WATER CONTROLLERS

Turning on Controllers

If the controllers are switched OFF (No digits displayed in the digital monitor window) press the On/Off button once at any controller.



The ON indicator on the desired controller will illuminate, indicating that the Rinnai water unit will be ready to supply hot water once a hot water tap is opened.

Transferring Priority when the Controllers are already on



An illuminated ON / OFF indicator confirms that the desired controller is in control of the water delivery temperature, if the ON / OFF indicator is not illuminated press the TRANSFER button once.

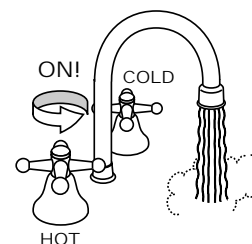
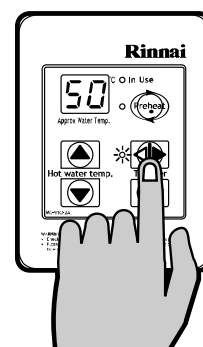
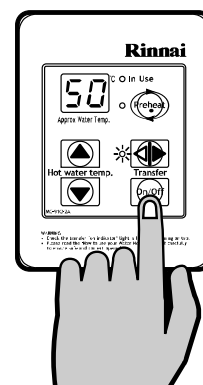
The ON / OFF indicator on the controller will now illuminate indicating that hot water control has now been transferred to this controller and that the Rinnai water unit will be ready to supply hot water once a hot water tap is opened.

Adjusting Temperature

Select the desired temperature using the 'hot water temp'  or  buttons until the required temperature is displayed on the Digital Monitor.

To operate the Rinnai water unit, open any hot water tap. This will automatically light the burner providing hot water. The water heater 'In Use' indicator will illuminate on the Water Controller.

Once the hot water is running, if the set temperature is either too hot or cold press the 'hot water temp'  or  buttons until the desired temperature is reached.



CHECK WATER TEMPERATURE BEFORE USE.

A parent or carer should always check the temperature before a child is placed in contact with hot water.



Whilst hot water outlets are open the set temperature may be lowered. However they cannot then be raised above 43°C. In addition transfer of 'priority' between controllers is not possible. These are safety features.

Temperatures higher than 50°C should not be able to be selected on controllers installed in bathrooms, ensuites or toilets. This is to help reduce the risk of burns from hot water. If this is not the case, the controllers have been incorrectly installed. **CONTACT YOUR INSTALLER.**

The temperature of outgoing hot water is constantly monitored by a built-in sensor. If the temperature of the outgoing hot water rises to more than 3°C above the selected temperature shown on the Digital Monitor or the pre-set limit when Water Controllers are not fitted, the burner will automatically go out. The 'in use' indicator will also go out. The burner will ignite again once the outgoing hot water temperature falls to that shown on the Digital Monitor (or the pre-set limit of the appliance).

INSTALLER - SAFETY INFORMATION



- Failure to comply with these instructions could result in a fire or explosion which could cause serious injury, death or property damage.



If you smell gas:

1. Shut off gas to the appliance, if possible.
2. Extinguish any open flame.
3. Perform gas leak check procedure.

If odour continues, immediately call your gas supplier.



- Never connect the water heater directly to the gas cylinder without a Regulator.
- Always use the hose and regulator supplied.
- Gas cylinders must not be stored indoors. If the portable water heater trolley is to be stored indoors the gas cylinder must be removed and stored outdoors in a well ventilated area out of reach of children.
- Gas cylinders must not be stored in a building, garage or other enclosed area or in the vicinity of this or any other appliance.
- Do not test for gas leaks with an open flame.

Location



- This portable water trolley is for **OUTDOOR** use only.
- **DO NOT** operate the portable water heater trolley indoors.
- This portable water heater trolley must be placed on a level and stable surface. Surfaces which ignite easily (such as carpet) must not be used.
- **DO NOT** install on recreational vehicles or boats.

Check that the Rinnai water heater supplied is a Propane gas appliance. The gas type is clearly labelled on the water heater.

Hose and Regulator

1. The pressure regulator and hose assembly supplied with the water heaters are suitable for use on bottled **Propane gas only**.
2. The pressure regulator and hose assembly supplied with the appliance **MUST** be used.
3. Replacement pressure regulators and hose assemblies must be those specified by Rinnai for use with this appliance.
4. The pressure regulator supplied has been fixed to have an outlet pressure of 2.75 kPa. A different pressure is not suitable.
5. Avoid twisting of the hose.
6. Keep the gas hose away from hot surfaces or dripping grease or oil.
7. Inspect the gas hose when replacing the gas cylinder. If the hose is cracked, cut, abraded, discoloured or damaged in any other way, the portable water trolley must not be used. The hose must be replaced if damaged or when local regulations require this. Contact your supplier or local regulating authority if uncertain. Such replacement must only be carried out by an Authorised person.

INSTALLER - SAFETY INFORMATION

Gas Cylinder

1. This Portable Water Heater Trolley is designed for use with a 9 kg LP Gas cylinder. This cylinder should conform to AS 2030.1 - 1999. Do not use a gas cylinder of different capacity.
2. The water heater is designed for use in the vapour withdrawal mode. Therefore it is important to always store and use the gas cylinder in an upright position.
3. For storage and when refilling / exchanging cylinders, disconnect the hose and regulator at the cylinder end only. Do not disconnect the hose and regulator from the water heater.
4. The gas cylinder should be refilled by a reputable gas dealer, or exchanged at a reputable gas cylinder exchange outlet. Gas cylinders should be inspected and re-qualified periodically in accordance with local statutory regulations. A dented or rusty gas cylinder may be hazardous and should not be used.
5. Do not subject the gas cylinder to excessive heat. Always keep gas cylinder in an upright position.
6. Gas cylinders must not be stored indoors. If the portable water heater trolley is to be stored indoors the gas cylinder must be removed and stored outdoors in a well ventilated area out of reach of children.

INSTALLER - CLEARANCES & LOCATION

Location



- The Rinnai portable water trolley is for OUTDOOR use only.
- DO NOT operate the portable water heater trolley indoors.
- This portable water heater trolley must be placed on a level and stable surface. Surfaces which ignite easily (such as carpet) must not be used.
- DO NOT install on recreational vehicles or boats.

Positioning

- The Rinnai portable water trolley must be positioned with the rear of the trolley facing the wall. This results in the water heater flue terminal facing away from the wall.
- If the Rinnai portable water trolley cannot be secured to the wall use star picket or similar device in the ground and ropes/wires.

Clearances

The location and position of the portable water heater trolley are largely determined by the clearances required from the water heater flue terminal and gas cylinder.

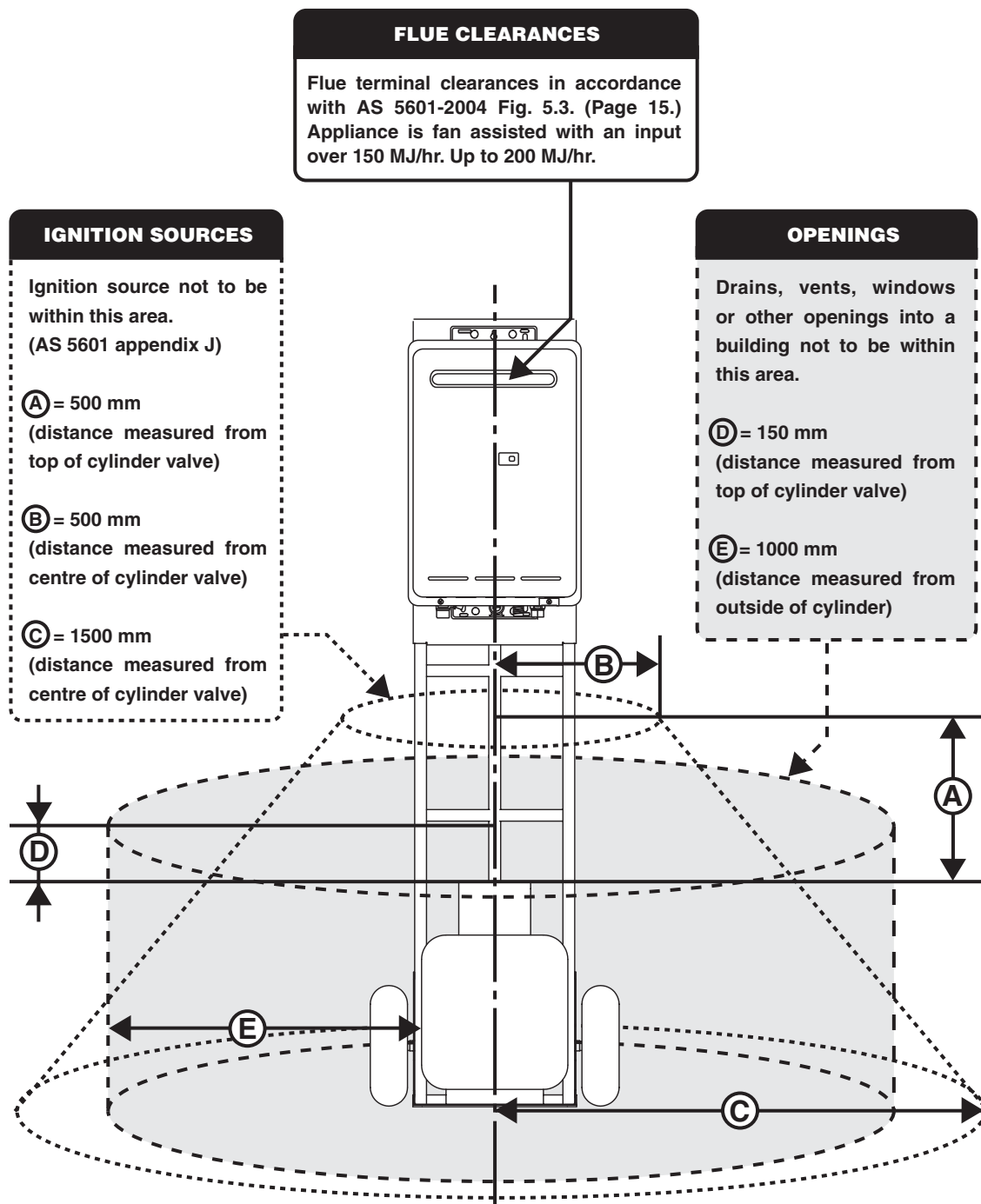
The water heater has a fan assisted flue terminal and is for outdoor installation. As such, the requirements of AS5601-2004 Clauses 5.13.6.5, 5.13.6.6 and Figure 5.3 apply.

The LP Gas cylinder supplied is intended for exchange purposes. As such the requirements of AS 5601-2004 Appendix J in general and Figure J2 apply. .

INSTALLER - CLEARANCES & LOCATION

The figure below shows how the clearance requirements of AS 5601 apply to the Rinnai Portable Water Heater Trolley.

If there is a conflict in terms of the clearance requirements of Figures 5.3 and J2, the larger clearances shall apply.



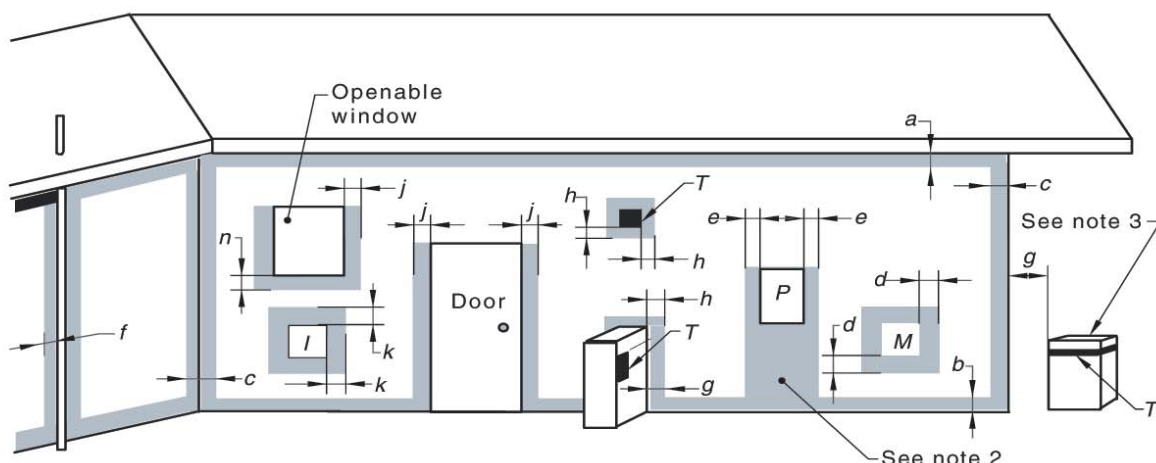
HOT WATER TROLLEY CLEARANCES

Cylinder Safety Valve Discharge

The discharge point of the cylinder safety valve shall be directed away from another cylinder, piping, building, drain and any opening into or under a building, caravan, boat or other enclosure. (AS 5601 Section J4).

INSTALLER - CYLINDER LOCATION

HORIZONTAL FLUE TERMINAL CLEARANCES (Extract from AS5601 - 2004)



LEGEND:

T = Flue terminal
I = Mechanical air inlet

M = Gas meter
P = Electricity meter or fuse box

Shading indicates prohibited areas for flue terminals

Ref.	Item	Minimum clearances (mm)	
		Natural draft	Fan assisted
a	Below eaves, balconies and other projections:		
	• Appliances up to 50 MJ/h input	300	200
	• Appliances over 50 MJ/h input	500	300
b	From the ground, above a balcony or other surface †	300	300
c	From a return wall or external corner †	500	300
d	From a gas meter (M) (see 4.7.11 for vent terminal location of regulator)	1000	1000
e	From an electricity meter or fuse box (P)	500	500
f	From a drain pipe or soil pipe	150	75
g	Horizontally from any building structure † or obstruction facing a terminal	500	500
h	From any other flue terminal, cowl, or combustion air intake †	500	300
j	Horizontally from an openable window, door, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:		
	• Appliances up to 150 MJ/h input	500	300
	• Appliances over 150 MJ/h input up to 200 MJ/h input	1500	300
	• Appliances over 200 MJ/h input up to 250 MJ/h input †	1500	500
	• Appliances over 250 MJ/h input †	1500	1500
	• All fan-assisted flue appliances, in the direction of discharge	-	1500
k	From a mechanical air inlet, including a spa blower	1500	1000
n	Vertically below an openable window, non-mechanical air inlet, or any other opening into a building with the exception of sub-floor ventilation:		
	• Space heaters up to 50 MJ/h input	150	150
	• Other appliances up to 50 MJ/h input	500	500
	• Appliances over 50 MJ/h input and up to 150 MJ/h input	1000	1000
	• Appliances over 150 MJ/h input	1500	1500

† Unless appliance is certified for closer installation

1. All distances are measured to the nearest part of the terminal.
2. Prohibited area below electricity meter or fuse box extends to ground level.
3. See Clause 5.13.6.6 for restrictions on a flue terminal under a covered area.
4. See Appendix J, Figures J2(a) and J3(a), for clearances required from a flue terminal to an LP Gas cylinder. A flue terminal is considered to be a source of ignition.
5. For appliances not addressed above acceptance should be obtained from the technical regulator

FIGURE 5.3 (in part) MINIMUM CLEARANCES REQUIRED FOR BALANCED FLUE TERMINALS, FAN-ASSISTED FLUE TERMINALS, ROOM-SEALED APPLIANCE TERMINALS OR THE TERMINALS OF OUTDOOR APPLIANCES



- MODIFICATIONS AND ADJUSTMENTS TO THE RINNAI WATER HEATER MUST BE DONE BY AN AUTHORISED PERSON ONLY.
- REPOSITIONING OF TROLLEY ONCE INSTALLED MUST BE DONE BY AN AUTHORISED PERSON ONLY.
- CONNECTION AND DISCONNECTION OF PIPEWORK, FITTINGS AND COMPONENTS MUST BE DONE BY AN AUTHORISED PERSON ONLY, EXCEPT THOSE RELATING TO CHANGE-OVER OF THE LP GAS CYLINDER.
- THE END USER IS PERMITTED TO CHANGE OVER THE GAS CYLINDER AND OPERATE THE WATER HEATER IN ACCORDANCE WITH THESE INSTRUCTIONS. ALL OTHER WORK TO BE PERFORMED BY AN AUTHORISED PERSON ONLY.

CONNECTIONS

An AC 240V, 10 Amp, earthed power supply terminating in the form of a 3 pin power point socket must be provided adjacent to the appliance. This power supply must be weather proof. It must be clear of the gas and water connections to the appliance and also the flue exhaust and water pressure relief valve. Ensure any power leads are not placed across any hot surfaces. The power cord of the appliance is 1.5 Metres long.

Approved isolating valves must be fitted to the cold water inlet and gas supply pipe. In areas where the water supply pressure exceeds 1000 kPa, a pressure limiting valve must also be fitted.

Water connections are R1/2. The gas connection size is R3/4. Pipe connection sizes are not an indication of the size of pipe required.

HOT WATER DELIVERY TEMPERATURES

Local regulations and/or the requirements of AS/NZS 3500.4 must be considered regarding the temperature limitations of hot water supplied to areas used primarily for personal hygiene.

The temperatures of water to these areas may be limited to 50°C or less.

Rinnai water heaters installed on portable trolleys are factory pre-set to a temperature limit of 50°C. In accordance with AS 3498. In most cases, local regulations will permit installation without any additional temperature limiting devices. If you are unsure about your local regulations, contact your regulating authority or Rinnai.

IMPORTANT: If the appliance is to deliver water primarily for the purposes of personal hygiene in an early childhood centre, primary or secondary school, nursing home or similar facility for the care of young, aged, sick or disabled persons as defined in AS/NZS 3500.4 a temperature limiting device may be required even with the appliance set to 50°C.

INSTALLER - INSTALLING CONTROLLERS

Water Controllers

Water controllers are an optional extra. Universal MC-91Q controls can only be fitted, these controllers allow water temperature selection only. Deluxe controllers have temperature selection, bath-fill and voice prompting functions, but cannot be fitted to this Portable Hot Water Trolley. For details information regarding controller operation refer to the "How to use your water heater" booklet supplied with the Rinnai water appliance. Other manufacturers' controllers are NOT compatible with this appliance.

Universal Controllers (Model: MC-91Q)

Up to 4 Standard Controllers can be fitted to the appliance. They are normally installed in the areas where the majority of hot water is used, for example, the kitchen, bathroom, ensuite and laundry.

Positioning of Controllers

Controllers must be installed in shaded and clean locations. They should be fitted out of reach of children (suggested height from floor at least 1500 mm). Controllers are water resistant, however, durability is improved when positioned outside the shower recess or at least 400 mm above the highest part of a sink, basin or bath.

Do not install the Controllers

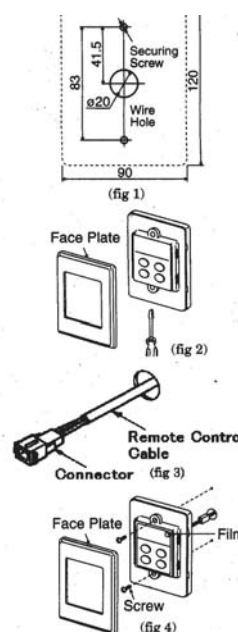
- NEAR A HEAT SOURCE, SUCH AS A COOKTOP, STOVE OR OVEN. HEAT, STEAM, SMOKE AND HOT OIL MAY CAUSE DAMAGE.
- IN DIRECT SUNLIGHT.
- OUTDOORS UNLESS AN ENCLOSURE IS PROVIDED WHICH PROTECTS THE CONTROLLER AGAINST SUNLIGHT AND DUST INGRESS.
- AGAINST A METAL WALL UNLESS THE WALL IS EARTHED IN ACCORDANCE WITH AS/NZS 3000.

Water Control Cables

Water controllers operate at extra low voltage (12 Volts DC) which is supplied from the appliance. Controllers are supplied with 15 m of electrical cable. The cable wires for connection to the appliance are fitted with spade terminals. Extension cables are available from Rinnai. Alternatively, a two core sheathed (double insulated) flex with minimum cross-sectional area of 0.5 mm² can be used. Maximum cable length is 50 m. For connection refer to "CONNECTING WATER CONTROL CABLES" section.

Fitting the 'Universal' water controllers (MC-91Q)

1. Determine the most suitable position for the Water Controller.
2. Drill 3 holes in the wall, as shown in fig.1, one for the cable and two for the securing screws. Ensure holes are drilled. Fit wall plugs if required.
3. Run the cable through the hole in the wall-ensuring that the end fitted with the connector is near the controller.(fig.3).
4. Remove the face plate from the Water Controller, using a screw driver.(fig.2).
5. Fix the water controller to the wall and fasten with Phillips head screws supplied as shown in (fig.4).
6. Remove the protective plastic film from the controller face as shown in (fig.4).
7. Replace the face plate.



INSTALLER - INSTALLING CONTROLLERS

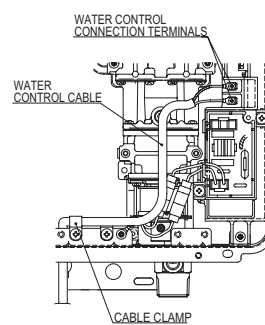
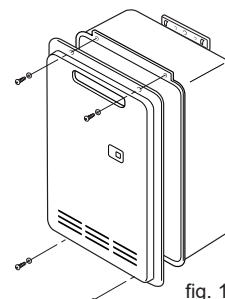
CONNECTING WATER CONTROL CABLES



Do not attempt to connect the water control cable terminals to the appliance with the power on. RISK OF ELECTRICAL SHOCK!

Connecting One or Two Controllers

1. Isolate the power supply.
2. Remove the front cover from the appliance (4 screws) (fig.1).
3. Thread the cable(s) through the cable access hole at the base of the appliance.
4. Connect the spade connector to the terminals marked 'Water Control' on the printed circuit board. (fig. 2). Polarity is not important. Either wire colour can be connected to either terminal.
5. Replace cover of the appliance. Ensure that the screw with the star washer is placed at the bottom right hand corner for earthing purposes.

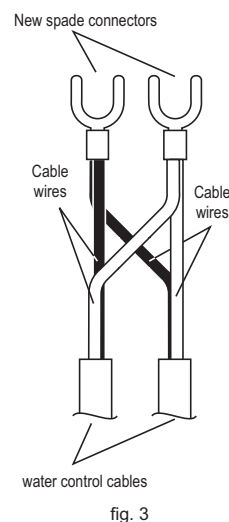


Connecting Three Controllers

1. Isolate the power supply.
2. Remove the front cover from the appliance (4 screws) (fig.1).
3. Cut the spade connectors from 2 of the controller cables to be connected to the appliance (4 spade connectors should be cut off) and discard. Connect the wires from these two cables and terminate into two new spade connectors as shown in (fig.3). Spade connectors are available from your local electrical component retailer.
4. Thread the 3 cables through the cable access hole at the base of the appliance. Connect the 4 spade connectors to the terminals marked 'Water Control' on the printed circuit board. (fig.2). Polarity is not important. Either wire colour can be connected to either terminal.
5. Replace cover of the appliance. Ensure that the screw with the star washer is placed at the bottom right hand corner for earthing purposes.

Connecting Four Controllers

1. Isolate the power supply.
2. Remove the front cover from the appliance (4 screws) (fig.1).
3. Cut the spade connectors from all four controller cables to be connected to the appliance (8 spade connectors should be cut off) and discard. Connect the wires from two cables and terminate into two new spade connectors as shown in (fig. 3). Repeat for the remaining two cables.
4. Thread the 4 cables through the cable access hole at the base of the appliance. Connect the 4 spade connectors to the terminals marked 'Water Control' on the printed circuit board. (fig.2). Polarity is not important. Either wire colour can be connected to either terminal.
5. Replace cover of the appliance. Ensure that the screw with the star washer is placed at the bottom right hand corner for earthing purposes.



INSTALLER - INSTALLING CONTROLLERS

INSTALLATION - WATER CONTROLLERS (MC-91Q)

QUESTION 1: Are 4 controllers connected ?

IF YES: You will need to activate the fourth controller.

STEP 1:

For the controller in the KITCHEN only, press and hold the 'Transfer' and 'On / Off' buttons simultaneously (see Fig 1.) until a 'beep' is heard (approximately 5 seconds).

STEP 2:

Check that the display on ALL FOUR controllers is lit and displaying a temperature when 'switched on' If any ONE of the controller displays two dashes (see Fig 2.) in the display repeat STEP 1.

This completes the activation procedure. Ignore Question 2.

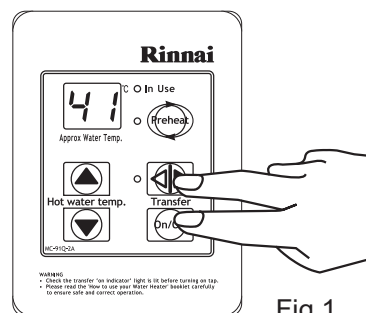


Fig 1.

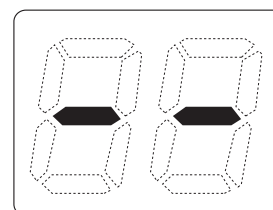
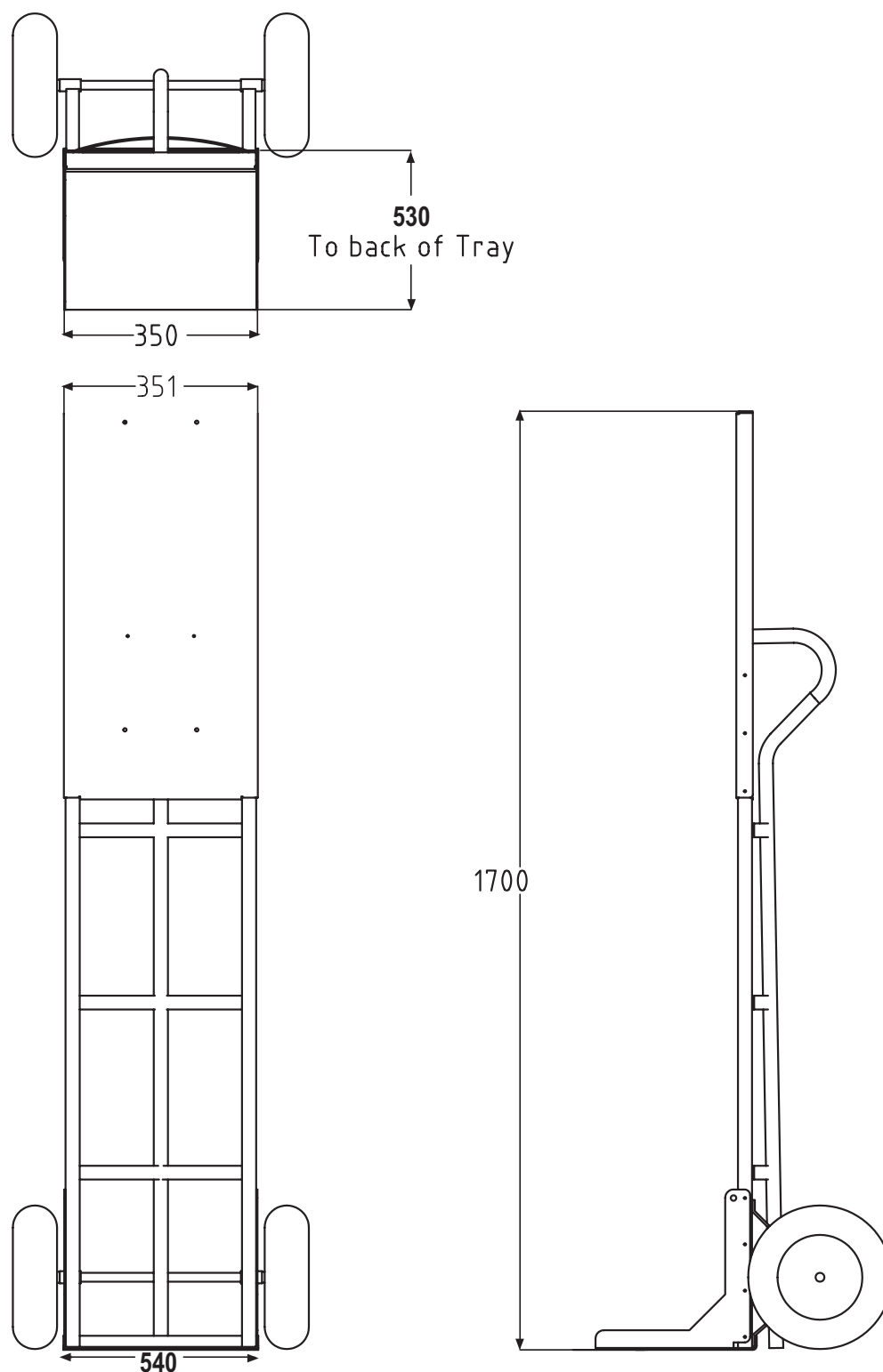


Fig 2.

INSTALLER - DIMENSIONS



Overall Dimensions

Height: 1700 mm

Width: 351 mm

Depth: 530 mm

INSTALLER - COMMISSIONING & TESTING

TESTING

1. Before final connection of the water heater purge gas, hot water and cold water supply lines. Swarf in either the gas or water supplies may cause damage.
2. Turn on gas and cold water supplies.
3. Test for water leaks and gas escapes near the water heater and gas cylinder.
4. Isolate gas supply. Remove test point screw located on the gas inlet connection and attach pressure gauge.
5. Turn the power 'on' at the power point socket and turn on gas.
6. If MC-91Q water controllers are fitted, turn the controller 'ON', select the maximum delivery temperature and open ALL available hot water taps including the shower. If water controllers are not fitted, simply open all available hot water taps. **(CAUTION: Ensure building occupants do not have access to hot water outlets during this procedure).**
7. Operate ALL other gas appliances at their maximum gas rate, in accordance with manufacturers instructions.
8. With at least 2 taps operating on full, the pressure should read between 2.75 - 3.0 kPa. If the pressure is lower, the gas supply is inadequate and the appliance will not operate to specification. It is the Installers responsibility to check the service regulator and rectify as required. Note that the gas regulator on the appliance is electronically controlled and factory pre-set. Under normal circumstances it DOES NOT need adjustment during installation.
9. Close hot water taps including the shower.
10. Inspect and clean the strainer located on the cold water inlet connection. This procedure may need to be repeated to ensure the strainer remains clear, especially on new installations.
11. If (MC-91Q) water controllers are fitted, it is necessary to test their operation through the complete range of functions.
12. Confirm the hot water delivery temperature(s) using a thermometer.
13. Ensure the gas cylinder is secured to the portable water heater trolley using the rubber strap provided.
14. After testing is completed explain to the householder the functions and operation of the Rinnai water heater and water controllers (if fitted).

Demonstrate and explain the procedure of connecting/disconnecting the gas cylinder and checking for leaks. (Refer to page 7).

Remind the end user of the safety information in this manual (detailed under end user safety information), in particular:

- i) End user should not tamper with any connections other than the connection between gas regulator and cylinder.
- ii) End users should not move the portable water heater trolley.

These instructions are also found in the pocket located inside the appliance front cover.

GAS PRESSURE SETTING

The regulator is electronically controlled and factory pre-set. Under normal circumstances it does not require adjustment during installation. Make adjustments only if the unit is not operating correctly and all other possible causes for incorrect operation have been eliminated.

Instructions for Gas Pressure setting are located in the instruction pocket located inside the appliance front cover.

SERVICE

Rinnai has a service and spare parts network with personnel who are fully trained and equipped to give the best service of your Rinnai appliance.

If your portable water trolley needs service, please ring the service contact number located on the back page of this booklet. Rinnai recommends that this appliance should be serviced by an Authorised person.

WARRANTY CONDITIONS

Warranty Terms

The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product which you have under the Trade Practices Act and similar State or Territory Laws. Given installation and application is in accordance with the manufacturers specifications and instructions, Rinnai water heaters are warranted by Rinnai for the cost of labour and components in the event of defects arising from faulty materials and/or workmanship in accordance with the Terms in Table 1 and Warranty Conditions and Exclusions stated in this document and any additional conditions and exclusions stated in the these instructions.

The warranty terms, conditions and exclusions stated in this document apply to the Rinnai water heater only. They do not apply to the gas cylinder, regulator, gas hose and the trolley or any of its components.

Table 1: Warranty Terms

Domestic Application		Rinnai Water Heater
Heat Exchanger	Parts	10 Years
	Labour	3 Years
All Other Parts	Parts	3 Years
	Labour	3 Years
Commercial Application		Rinnai Water Heater
Heat Exchanger	Parts	1 Year
	Labour	1 Year
All Other Parts	Parts	1 Year
	Labour	1 Year

Water heaters preset to 85 °C or 95 °C ~ 1 Year warranty on Heat Exchanger.
All terms are effective from the date of installation.

DEFINITION OF DOMESTIC USE

The warranty periods that are allocated under “Domestic Use” are based on hot water usage patterns of a typical family. Rinnai “Domestic Use” warranty periods apply to:

1. Water heaters units installed to supply heated water to domestic dwellings.
2. When installed to supply heated water to commercial installations such as motel units, hotel rooms, caravans, mobile homes, nursing homes, retirement village complexes and other care institutions and like accommodation provided that preset temperatures are lower than 75° C and the water heater are not installed as component(s) of centralised bulk hot water systems and the installation does not incorporate building flow and return systems.

DEFINITION OF COMMERCIAL USE

The warranty periods that are allocated under “Commercial Use” are for Rinnai water heater(s) installed at premises such as commercial and industrial buildings, cafes, caravan parks and sporting complexes. “Commercial Use” warranty applies to:

3. Water heater(s) supplying kitchens used for the bulk preparation of food.
4. Water heater(s) set to 75° Celsius or higher.
5. Water heater(s) used in commercial or industrial heating processes.
6. Water heater(s) installed as component(s) of centralised bulk hot water system(s).

WARRANTY CONDITIONS

WARRANTY CONDITIONS

1. Dated proof of purchase is required to be shown to the attending service technician prior to the commencement of any warranty work.
2. All Rinnai water heaters must be installed in accordance with the Manufacturer's Installation Instructions, current AS/NZS 3000, AS/NZS 3500 and AS 5601, local regulations and municipal building codes.
3. All Rinnai water heaters must only be installed, commissioned and removed by persons Authorised by local regulations to do so. All Rinnai water heaters must only be serviced and repaired by a Rinnai approved service technician.
4. Where the water heater units have not been sited in accordance with the Installation Instructions or installed such that normal service access is difficult, a service charge may apply. At the discretion of the attending service technician, if access is deemed dangerous service will be refused.
5. Where a failed component is replaced under warranty, the balance of the original appliance warranty will remain effective.
6. Water chemistry and impurity levels must be within the limits specified in Table 2 below:

Table 2: Water chemistry and impurity limits - Rinnai Water Heater

TDS (Total Dissolved Solids)	Total Hardness CaCO ₃	Alkalinity (as CaCO ₃)	Dissolved (free) CO ₂	pH	Chlorides	Magnesium	Sodium	Iron
Up to 600 mg/litre or ppm	Up to 200 mg/litre or ppm	Up to 200 mg/litre or ppm	Up to 25 mg/litre or ppm	6.5 to 8.5	Up to 300 mg/litre or ppm	Up to 10 mg/litre or ppm	Up to 150 mg/litre or ppm	Up to 1 mg/litre or ppm

WARRANTY EXCLUSIONS:

The following exclusions may cause the warranty to become void and may incur a service charge and costs of parts (if required):

1. Accidental damage, acts of God, failure due to misuse, incorrect or un Authorised installations, attempts to repair the water heater other than by a Rinnai approved service technician.
2. Where it is found that there is no fault with the water heaters and the issue is related to the plumbing installation or due to the failure of water, electric or gas supplies.
3. Where the water heaters has failed directly or indirectly as a result of excessive water pressure, negative water pressure (partial vacuum) or water pressure pulsation.
4. Subject to any statutory provisions to the contrary, claims for damage to walls, foundations etc. or any other consequential loss either directly or indirectly due to leakage from the water heater or any other faults.
5. This warranty does not cover the effects of sludge and sediment as a result of connection to a water supply from unfiltered sources such as a spring, dam, bore, river, or the entry of sludge and sediment into the water supply for any other reason.
6. Operating the unit when not completely filled with water.

Rinnai does not accept liability for consequential damage or any incidental expenses resulting from any breach of the warranty.

Rinnai

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Spare Parts & Technical Info

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**Cost of a local call Higher from mobile or public phones.*