

# *Owner's Guide and Installation Instructions*



## *Rheem Multipak<sup>®</sup> Commercial Hot Water Systems*



*Install a Rheem*

*This water heater must be installed and serviced by a qualified person.  
Please leave this guide with a responsible officer.*

Please read this manual prior to installing this product, it contains all the necessary technical and installation information that will be required by the contactor to correctly install & commission this system. This product must be installed & commissioned in accordance with the Rheem installation instructions, AS/NZS 5601, AS/NZS 3500.4, the relevant electrical & local authorities' requirements.

**Operational design of this Hot Water System is protected by Australian Patent No: 2007201101.**

#### **PATENTS**

This water heater may be protected by one or more patents or registered designs.  
Operation design of the Hot Water System is protected by Australian Patent No 2007201101

® Registered trademark of Rheem Australia Pty Ltd.

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**RESPONSIBLE OFFICER - We recommend you read pages 4 to 12.**  
The other pages are intended for the installer but may be of interest.

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MULTIPAK – MODELS AVAILABLE & TECHNICAL SPECIFICATIONS						
Multipak Model		MPE02 & MPI02	MPE03 & MPI03	MPE04 & MPI04	MPE05 & MPI05	MPE06 & MPI06
Wall Mount		standard	standard	standard	standard	standard
Floor Mount		optional	optional	optional	optional	optional
Secondary Circulation Pump		optional	optional	optional	optional	optional
Water Supply Pressure						
Max	kPa	800				
Min	kPa	140				
Gas Supply Pressure Range						
Natural	kPa	1.13 – 3.5				
Propane	kPa	2.75 – 3.5				
Electrical supply (240V/1Ph/50Hz)	Amps	1.50	2.25	3.0	3.75	4.5

**WATER HEATER OPERATION**

Automatic safety controls are fitted to the water heater to provide safe and efficient operation.

**HOW HOT SHOULD THE WATER BE?**

The water heater has a maximum preset outlet temperature setting of 82°C. For applications requiring sanitising temperatures, the outlet temperature should be set at 82°C. The minimum recommended preset outlet temperature setting is 60°C.

If the water heater is installed as part of a circulated hot water flow and return system in a building, the preset outlet temperature setting of the water heater must be set to at least 60°C.

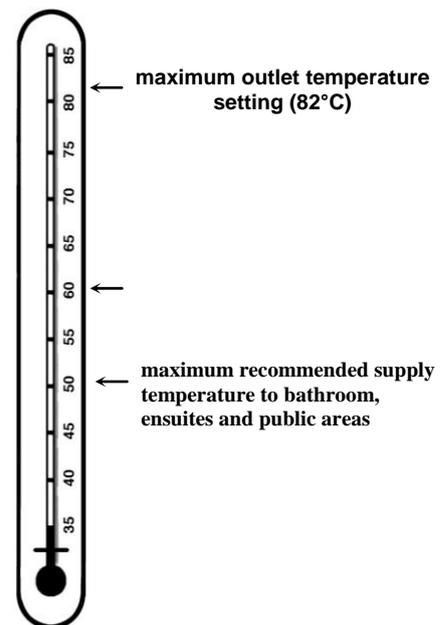
**Note:** The preset outlet temperature setting of this water heater cannot be adjusted by the householder. The setting can only be adjusted by the installer, Rheem Service or their nearest Accredited Service Agent.

**Note:** AS 3498 requires that a water heater provides the means to inhibit the growth of Legionella bacteria in potable water. When this water heater is used as an in-series booster for a solar water heater it can satisfy this AS 3498 requirement provided it is energised and the booster preset outlet temperature setting is 70°C or higher.

If this water heater is installed as part of a solar water heater system, the system can deliver water at temperatures from 58°C up to 75°C and possibly higher depending upon the model of solar water heater installed.

Multipak systems with the suffix/ 50 are marked “This appliance delivers water not exceeding 50°C in accordance with AS3498 on the front panel. This model;

- **must not** be installed as an in-series gas booster to a solar water heater, as water temperature greater than 50°C can be delivered from the water heater contravening its compliance to AS3498.
- **must not** be installed as part of a circulated hot water flow and return system.



## HOTTER WATER INCREASES THE RISK OF SCALD INJURY

This water heater can deliver water at temperatures which can cause scalding.

We recommend and it may be required by regulations that an approved temperature limiting device be fitted into the hot water piping to ablution, bathing and public areas when an Commpak water heater is installed. This will keep the water temperature below the maximum permitted by AS/NZS 3500.4 to these areas.

The water heater uses 240 Volt AC electrical power for operation of the control systems and the combustion fan. The removal of the front panel will expose 240 V wiring. It must only be removed by a qualified person.

The power lead from the water heater must be plugged into a weatherproof electrical outlet. Take care not to touch the power plug with wet hands.

## SAFETY

This water heater is supplied with temperature sensors, a FlameSafe<sup>®</sup> protection system and a pressure relief valve. These devices must not be tampered with or removed. The water heater must not be operated unless each of these devices is fitted and is in working order.

If the power supply cord or plug is damaged, it must be replaced by a qualified person in order to avoid a hazard. The power supply cord and plug must be replaced with a genuine replacement part available from Rheem. Phone Rheem Service or their nearest Accredited Service Agent to arrange for an inspection.



**Warning:** For continued safety of this water heater it must be installed, operated and maintained in accordance with the Owner's Guide and Installation Instructions.

**The Rheem warranty may not cover faults if relief valves or other safety devices are tampered with or if the installation is not in accordance with these instructions.**

- Do not store **flammable or combustible materials** near the water heater. Flammable liquids (such as petrol), newspapers and similar articles must be kept well away from the water heater and the flue terminal.
- Do not use **aerosols, stain removers and household chemicals** near the water heater whilst it is working. Gases from some aerosol sprays, stain removers and household chemicals become corrosive when drawn into a flame.
- Do not store **swimming pool chemicals, household cleaners**, etc., near the water heater.
- Do not place anything on top of the water heater or in contact with the flue terminal. Ensure the flue terminal is not obstructed in any way at any time.
- Do not use Propane / Butane gas mixtures in a Propane model. A Propane model is designed to operate on Propane only. The use of Propane / Butane mixture, such as automotive LPG fuel, in a Propane model is unsafe and can cause damage to the water heater.



## PRECAUTIONS

Where damage to property can occur in the event of the water heater leaking, the water heater must be installed over a safe tray. Construction, installation and draining of a safe tray must comply with AS/NZS 3500.4 and all local codes and regulatory authority requirements.

The water heater must be maintained in accordance with the Owner's Guide and Installation Instructions. Refer to "General Maintenance" on page 7, "Minor Six Month Maintenance" on page 7 and "Annual Service" on page 8.

If this water heater is to be used where an uninterrupted hot water supply is necessary for your application or business you should ensure that you have back up redundancy within the hot water system design. This should ensure the continuity of hot water supply in the event that this water heater was to become inoperable for any reason. We recommend you seek advice from your plumber or specifier about your needs and building back up redundancy into your hot water supply system.

## GENERAL MAINTENANCE

The jacket of the water heater can be cleaned with a soft cloth and warm mild soapy water. Under no circumstances should abrasive materials or powders be used.

The area around the water heater can be sprayed with insecticide to rid the area of insects. Insects encroaching into or nesting in the water heater can interfere with the operation of the water heater and also damage components.

The minor maintenance includes:

Inspect around the air inlet, flue terminal and the water heater in general for plant growth.

- Trim back any shrubs, bushes or other plants which have encroached around the water heater.
- Plant growth across the air let and flue terminal can interfere with the performance of the water heater.
- Inspect around the water heater for insect infestations, such as ants.
- Spray insecticide around the water heater if necessary to rid the area of insects. Do not spray the surface or into the air inlet or flue terminal of the water heater.
- Insects encroaching into or nesting in the water heater can interfere with the operation of the water heater and also damage components.
- Check the drain line from the safe tray (if one is installed) is not blocked.
- Check and clean line strainers on the cold water inlet and hot water return.

Check and clean filter on CFWH cold water inlet.

## MINOR SIX MONTH MAINTENANCE

It is recommended minor maintenance be performed every six months by the dwelling occupant.

The minor maintenance includes:

Inspect around the air inlet, flue terminal and the water heater in general for plant growth.

- Trim back any shrubs, bushes or other plants which have encroached around the water heater.
  - Plant growth across the air let and flue terminal can interfere with the performance of the water heater.
- Inspect around the water heater for insect infestations, such as ants.
- Spray insecticide around the water heater if necessary to rid the area of insects. Do not spray the surface or into the air inlet or flue terminal of the water heater.
  - Insects encroaching into or nesting in the water heater can interfere with the operation of the water heater and also damage components.
- Check the drain line from the safe tray (if one is installed) is not blocked..
- Check and clean filter on CFWH cold water inlet.

### ANNUAL SERVICE

For safe and efficient operation, it is recommended an annual service be conducted on the water heater. Only genuine replacement parts should be used on this water heater.



**Warning:** Servicing of a water heater must only be carried out by qualified personnel. Phone Rheem Service or their nearest Accredited Service Agent.

The annual service includes the following actions:

- Check and if necessary adjust the gas pressure.
- Check the operation of and clean the burner.
- Visually check the unit for any potential problems.
- Inspect all connections.
- Check the drain line from the safe tray (if one is installed) is not blocked.
- Check and clean line strainers on the cold water inlet and hot water return.
- Check and clean filter on CFWH cold water inlet.

### TO TURN OFF THE WATER HEATER

If it is necessary to turn off the water heater:

- Switch off the electrical supply at the circuit breaker isolating switch to the water heater if there is no risk of freezing conditions occurring (refer to note below).
- Close the gas isolation valve at the inlet to the water heater.
- Close the cold water isolation valve at the inlet to the water heater.
- Close the hot water return isolation valve.

**Note:** If there is a risk of freezing conditions, the electrical supply to the water heater should not be switched off unless the water heater is drained, otherwise damage could result (refer to “[Frost Protection](#)” on page 9 and “[Draining the Water Heater](#)” on page 9).

### TO TURN ON THE WATER HEATER

- Screw in the drain plugs at the cold water inlet and hot water outlet of the CFWH if they have been drained.
- Open all of the hot taps. (don't forget the shower).
- Open the cold water isolation valve fully at the inlet to the water heater.

Air will be forced out of the taps.

- Close each tap as water flows freely from it.
- Open the gas isolation valve fully at the inlet to the water heater.
- Switch on the electrical supply at the circuit breaker isolating switch.
- The water heater will operate automatically.

## FROST PROTECTION

The water heater has a frost protection system. The frost protection system will protect the water heater from damage, by preventing ice forming in the waterways of the water heater, in the event of freezing conditions occurring.

### Notes:

- The frost protection system will be rendered inoperable if electrical power is not available at the water heater. Damage caused by freezing due to the unavailability of power at the water heater is not covered by the Rheem warranty (refer to [“Terms of the Rheem Warranty”](#) on page 36).
- If it is necessary to switch the power off to the water heater and there is a risk of freezing, then it is necessary to drain the water heater (refer to [“Draining the Water Heater”](#) on page 9).
- The water heater is not suitable for installation in areas where the ambient temperature falls below -20°C (including wind chill factor).
- Refer to [“Terms of the Rheem Warranty”](#) on page 36.

## DRAINING THE WATER HEATER

To drain the water heater:

- Turn off the water heater (refer to [“Turn Off The Water Heater”](#) on page 7).
- Open the pressure relief valve on the Commpak located on the hot manifold.
- Unscrew the two drain plugs, one each at the cold water inlet and hot water outlet, on the underside of continuous flow water heater.

Water will drain from the water heaters.

- When water stops flowing from the water heaters, close the pressure relief valve.

**Note:** It is recommended not to screw the drain plugs back in, until the water heater is to be turned on again.

## HOW DO I KNOW IF THE WATER HEATER IS INSTALLED CORRECTLY?

Installation requirements are [shown on pages 15 to 18](#) The water heater must be installed:

- by a qualified person, and
- in accordance with the installation instructions, and
- in compliance with Standards AS/NZS 3500.4, AS 5601 or AS/NZS 5601.1, as applicable under local regulations, and all local codes and regulatory authority requirements.

## DOES THE WATER CHEMISTRY AFFECT THE WATER HEATER?

The water heater is suitable for most public water supplies, however some water chemistries may have detrimental effects on the water heater, its components and fittings. Refer to [“Water Supplies”](#) on page 10.

If you are in a known harsh water area or you are not sure of your water chemistry, have your water checked against the conditions [described on page 10](#).

## HOW LONG WILL THE WATER HEATER LAST?

The water heater is supported by a manufacturer’s warranty ([refer to page 35](#)). There are a number of factors that will affect the length of service the water heater will provide. These include but are not limited to the water chemistry, the water pressure, the water temperature (inlet and outlet) and the water usage pattern. Refer to [“Precautions”](#) on page 7.

# WATER SUPPLIES

**This water heater must be installed in accordance with this advice to be covered by the Rheem warranty.**

This water heater is manufactured to suit the water conditions of most public reticulated water supplies. However, there are some known water chemistries which can have detrimental effects on the water heater and its operation and / or life expectancy. If you are unsure of your water chemistry, you may be able to obtain information from your local water supply authority. This water heater should only be connected to a water supply which complies with these guidelines for the Rheem warranty to apply.

## CHANGE OF WATER SUPPLY

The changing or alternating from one water supply to another can have a detrimental effect on the operation and / or life expectation of a heat exchanger in a continuous flow water heater.

Where there is a changeover from one water supply to another, e.g., a rainwater tank supply, bore water supply, desalinated water supply, public reticulated water supply or water brought in from another supply, then water chemistry information should be sought from the supplier or it should be tested to ensure the water supply meets the requirements given in these guidelines for the Rheem warranty to apply.

## SATURATION INDEX

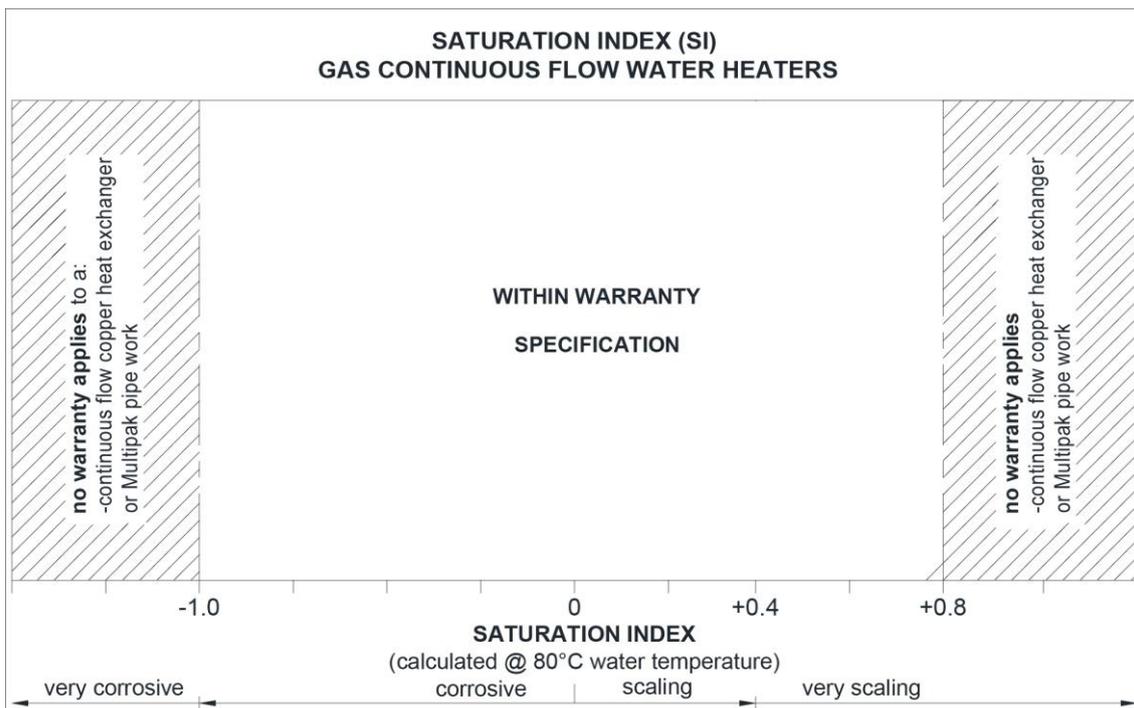
The saturation index (SI) is used as a measure of the water's corrosive or scaling properties.

In a corrosive water supply, the water can attack copper parts and cause them to fail. Where the saturation index is less than  $-1.0$ , the water is very corrosive and the Rheem warranty does not apply to a copper heat exchanger in a continuous flow water heater.

In a scaling water supply calcium carbonate is deposited out of the water onto any hot metallic surface. Where the saturation index exceeds  $+0.80$ , the Rheem warranty does not apply to a copper heat exchanger in a continuous flow water heater.

Water which is scaling may be treated with a water softening device to reduce the saturation index of the water.

Refer to the [Saturation Index chart](#) on page 10.



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## SAVE A SERVICE CALL

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Check the items below before making a service call. You will be charged for attending to any condition or fault, which is not related to manufacture or failure of a part (refer to “[Terms of the Rheem Warranty](#)” on page 36).

### COLD WATER FROM THE HOT TAP

- Is the water heater plugged in and the power outlet switched on?
- Is power available in the premises?  
Try using another electrical appliance.
- Is the isolation valve in the gas line open?
- Is there a gas supply to the rest of the premises?  
Try lighting another gas appliance.
- Has the gas line been purged of air after installation?  
Refer to your plumber.

### WATER IS TOO HOT OR NOT HOT ENOUGH

- Is the preset outlet temperature of the water heater higher than required?

### NO WATER FROM THE HOT TAP

No flow of water from the hot tap may indicate a restriction in or failure of the cold water supply to the water heater. Check for water flow at other taps and that the cold water isolation valve is fully

### WATER TEMPERATURE FLUCTUATES

More than two or three taps in use at the same time may cause a decrease in the hot water flow from the taps. This can also be evident if the water heater has been installed as an in-series gas booster to a solar water heater and the solar heated water is at a low temperature.

### FAN CONTINUES TO RUN AFTER WATER HEATER OPERATION STOPS

It is the normal operation of the water heater for the fan to continue running after heating of the water is finished. The fan may run for up to six minutes after the burners extinguish, to prepare for the next ignition.

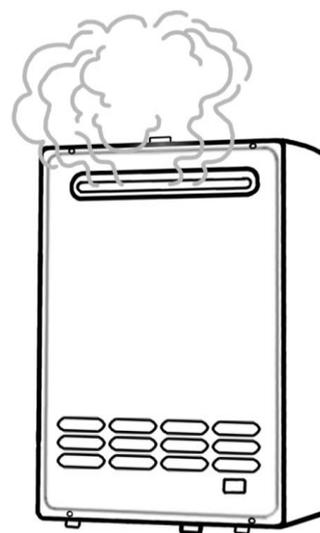
### CLOUDS OF WHITE ‘VAPOUR’ FROM THE FLUE TERMINAL

During the heating cycle, it is not unusual to see water vapour clouds steaming from the flue terminal, particularly on cold days. This is normal operation of the water heater.

### PRESSURE RELIEF VALVE DISCHARGING

A pressure relief valve is incorporated into the water heater controls. This valve protects the water heater, by allowing water to escape, in the event of excessive pressure build up in the waterways.

- **Normal operation**  
A small volume of water may discharge from the bottom of the water heater when a hot tap is suddenly closed.
- **Continuous dribble**  
A continuous dribble may indicate the water supply pressure is above the design pressure for the water heater. If so, a pressure limiting valve must be installed on the cold water supply pipe to the water heater (refer to “[Mains Water Supply](#)” on page 17).



## ERROR CODE

The water heater provides a diagnostic error code in the event of an interruption to its operation. The error code is displayed on the controller(s) (if installed) and on the OK MONITOR on the front of the water heater as a numerical value. If an error code appears:

- Close the hot tap, switch off the electrical supply to the water heater.
- Check the gas isolation valve at the gas inlet to the water heater is fully open.
- Wait 5 minutes, then switch on the electrical supply to the water heater, turn on a controller and open a hot tap.

If the error code persists, take note of the numerical code, turn off the hot tap and turn off the controller(s). Phone Rheem Service or their nearest Accredited Service Agent to arrange for inspection.



**IF YOU HAVE CHECKED ALL THE FOREGOING AND STILL BELIEVE YOU NEED ASSISTANCE, PHONE RHEEM SERVICE OR THEIR NEAREST ACCREDITED SERVICE AGENT**

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# MULTIPAK – TECHNICAL SPECIFICATIONS

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## RHEEM WATER HEATERS & STAGING VALVES

- Two (2) to Six (6) Off 'Rheem Continuous Flow Water Heaters'(CFWH)
- Mounted and plumbed in parallel.
- 2<sup>nd</sup> to 6<sup>th</sup> water heaters are fitted with staging valve/s.

## PLUMBING DETAILS

- Complete cold water and hot water piping, valves and fittings to AS3500.4.
- Complete gas piping, valves and fittings to AS5601.
- Optional circulating pump complete with valves and fittings to AS3500.4

## SKID PACKAGE COMPRISING OF:

- 'Rheem' water heaters, cold water, hot water, natural gas / LPG manifolds and options are fully assembled and all mounted on a Galvabond Steel frame. Package is ready for site installation.
- Connection points provided to the package are:
  - Cold Water Inlet, Hot Water Outlet and *Optional Hot water Return*
  - Natural Gas (Standard) *or* LPG (Optional) Inlet

## UNIQUE FEATURES

- Staged operation of CFWH
- Capital and operating cost savings
- Smaller space requirements

## STAGING VALVE

A staging valve is provided at the cold water inlet to each heater, excepting the first CFWH, to facilitate staged operation of CFWH upon increasing flow demand.

Staging valve settings:

1 <sup>st</sup> CFWH	2 <sup>nd</sup> CFWH	3 <sup>rd</sup> CFWH	4 <sup>th</sup> CFWH	5 <sup>th</sup> CFWH	6 <sup>th</sup> CFWH
N/A	#2	#3	#4	#5	#6

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## FRAME OPTION

- Base Frame: An optional structural aluminium alloy floor mounting unit in lieu of wall mounting is available.

### **CIRCULATION PUMP OPTION**

Optional Circulating Pump Package comprising of:

- A 25mm in-line circulating pump in cast bronze designed for secondary hot water circulation. 240V/1Ph/50Hz; IP44 canned motor with three speed setting option.
- Pump is provided with unions, in-line strainer, isolation ball valves, check valve and integrated into the system with required plumbing fittings.

### **TECHNICAL NOTES:**

1. Heaters must have 60°C or greater temperature setting with this option to prevent proliferation of 'Legionella Bacteria'.
2. Return piping sizing shall be sized in accordance to AS3500.4.
3. No pressure limiting and other such pipe friction devices shall be installed in this return piping.
4. If such devices are installed return water flow will be restricted and pump will starve of water resulting in premature failure of the pump and is not covered under warranty.
5. Dry running of the pump will cause irreparable damage to the pump and is not covered under warranty.
6. Power supply timer is required to turn off pump automatically at least four (4) times daily for five (5) minutes minimum.

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## INSTALLATION – WATER HEATER

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**THIS WATER HEATER IS FOR OUTDOOR OR INDOOR INSTALLATION, MODEL DEPENDANT.  
THIS WATER HEATER IS NOT SUITABLE FOR POOL HEATING.  
Check the water heater is suitable for the gas type available.  
(refer to the rating label on the water heater)**

### INSTALLATION STANDARDS

The water heater must be installed:

- by a qualified person, and
- in accordance with the installation instructions, and
- in compliance with Standards AS/NZS 3500.4, AS 5601 or AS/NZS 5601.1, as applicable under local regulations, and all local codes and regulatory authority requirements.

All packaging materials must be removed from the water heater prior to its installation.

### WATER HEATER APPLICATION

This water heater is designed for the purpose of heating potable water. Its use in an application other than this may shorten its life.

If this water heater is to be used where an uninterrupted hot water supply is necessary for the application or business, then there should be redundancy within the hot water system design. This should ensure the continuity of hot water supply in the event that this water heater was to become inoperable for any reason. We recommend you provide advice to the system owner about their needs and building backup redundancy into the hot water supply system.

**Note:** AS 3498 requires that a water heater provides the means to inhibit the growth of Legionella bacteria in potable water. When this water heater is used as an in-series booster for a solar water heater it can satisfy this AS 3498 requirement provided it is energised and the booster preset outlet temperature setting is 70°C or higher.

### WATER HEATER LOCATION

The water heater should be installed in a position chosen with safety and service in mind. If this water heater is part of a solar water heater system, it should also be installed close to the solar storage tank. Make sure people (particularly children) will not touch the flue terminal. The flue terminal and air inlet must be clear of obstructions and shrubbery.

Clearance must be allowed for servicing of the water heater. The water heater must be accessible without the use of a ladder or scaffold. Make sure the entire front panel can be removed for service. You must be able to read the information on the rating plate. Remember you may have to remove a water heater later for servicing.

The water heater must be installed vertically upright. Wall mounted versions must be installed on a solid wall capable of supporting the weight of the Commpak system. Free standing versions can be mounted in any location on a solid base. The frame must be secured to the floor at all anchor points provided.

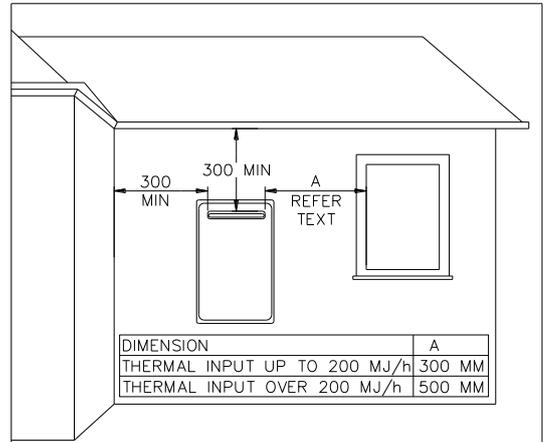
The water heater must not be installed in an area with a corrosive atmosphere where chemicals are stored or where aerosol propellants are released. Remember the air may be safe to breathe, but when it goes through a flame, chemical changes take place which may attack the water heater.

## OUTDOOR INSTALLATION

If outdoors a secondary flue is not required. The water heater must not be installed indoors or in a confined space.

The water heater must be located to ensure that the location of the flue terminal complies with the requirements of AS/NZS 5601 or AS/NZS 5601.1, as applicable under local regulations. As a guide the following requirements are extracted from the AS/NZS 5601. The distances are measured along the wall behind the water heater.

- At least 300 mm between the top of the flue terminal and the eaves.
- At least 500 mm between the flue terminal and the edge of any opening into the building, such as an openable door or window, measured horizontally\*.
- At least 1500 mm between the top of the flue terminal and the edge of any opening into the building, such as an openable window, measured vertically.
- At least 300 mm between the flue terminal and a return wall or external corner, measured horizontally\*.
- At least 1500 mm between the flue terminal and any opening into a building, in the direction of the flue discharge.
- At least 500 mm between the flue terminal and a fence, wall or other obstruction, in the direction of the flue discharge.



**Note:** \* If these horizontal distances cannot be achieved, AS/NZS 5601.1 states an equivalent horizontal distance measured diagonally from the nearest discharge point of the flue terminal to the opening may be deemed to comply. Check with the local regulator.

**Note:** Two or more of this model CFWH can be installed side by side with minimal clearance between them. The AGA has approved the installation of two or more of this model CFWH with an exemption from the 300 mm minimum clearance requirements between flue terminals, as stated in AS/NZS 5601, clause 5.13.6.5 and AS/NZS 5601.1, clause 6.9.3.

## INDOOR INSTALLATION

### VENTILATION

This water heater is to be installed with a Rheem coaxial flue system. The kit enables a room sealed installation, drawing air for combustion from outside of the building.

The ventilation of a room or an enclosure such as a cupboard, where the water heater is installed must comply with the requirements of AS 5601 or AS/NZS 5601.1, as applicable under local regulations.

### SECONDARY FLUE

A secondary flue must be installed with an indoor water heater to discharge combustion products to outside the building. The water heater **MUST ONLY** be installed with a certified Rheem coaxial flue system.

Where more than one water heater is installed, each water heater must be individually flued using a certified Rheem coaxial flue system. A common flue system **MUST NOT** be used. Refer to the CFWH Owner's Manual for details of flue installation.

### SAFE TRAY

Where damage to property can occur in the event of the water heater leaking, the water heater must be installed over a safe tray. Construction, installation and draining of a safe tray must comply with AS/NZS 3500.4 and all local codes and regulatory authority requirements.

**FROST PROTECTION**

The water heater has a frost protection system. The frost protection system will protect the water heater from damage, by preventing ice forming in the waterways of the water heater, in the event of freezing conditions occurring.

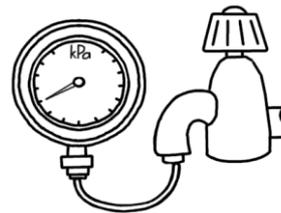
The frost protection system will be rendered inoperable if electrical power is not available at the water heater. Damage to the water heater caused by freezing of the pipe work to or from the water heater is not covered under the Rheem warranty. Refer to AS/NZS 3500.4 for precautions to be taken for installations in frost prone areas. The water heater is not suitable for installation in areas where the ambient temperature falls below -20°C (including wind chill factor).

**MAINS WATER SUPPLY**

Where the mains water supply pressure exceeds that shown in the table below, an approved pressure limiting valve is required and should be fitted.

Relief valve setting	1000 kPa
Max. mains supply pressure	800 kPa
Min. mains supply pressure *	140 kPa

\* minimum water supply pressure required to achieve the rated flow and performance



**Notes:**

- It is not recommended to install this water heater with a low pressure water supply.
- A minimum water supply pressure of 140 kPa is required to achieve the rated flow and performance of the water heater.
- If this water heater is installed as an in-series gas booster for a solar water heater, the maximum water supply pressure to the solar water heater, without an expansion control valve (ECV), is generally 800 kPa, however it may be less than this for some models. Refer to the Owner’s Guide and Installation Instructions supplied with the solar water heater for maximum mains supply pressure details.
- This water heater is not suitable for connection to bore water or spring water unless a water treatment device is fitted.
- Refer to “Water Supplies” on page 10 for further information on water chemistry.

**PRESET OUTLET TEMPERATURE SETTING**

The factory preset outlet temperature setting of the water heater is:

- 60°C as part of a Multipak system
- 50°C as part of a Multipak/50 system

It is usually not necessary to check or adjust the factory preset outlet temperature setting of the water heater, unless the customer or application has a particular requirement for this to be done.

For applications requiring sanitising temperatures, such as a commercial kitchen, it will be necessary to adjust the preset outlet temperature setting of the CFWH and the controller to achieve and maintain sanitising temperatures up to 82°C. Refer to page 28 for details.

If the water heater is installed as part of a circulated hot water flow and return system in a building, the preset outlet temperature setting must be set to at least 60°C. If the water temperature decreases by more than 5°C through a circulated hot water flow and return system due to heat loss in the ring main, the preset outlet temperature setting of the water heater should be set to at least 65°C.

**GAS BOOSTER FOR A SOLAR WATER HEATER**

**Note:** AS 3498 requires that a water heater provides the means to inhibit the growth of Legionella bacteria in potable water. When this water heater is used as an in-series booster for a solar water heater it can satisfy this AS 3498 requirement provided it is energised and the booster preset outlet temperature setting is 70°C or higher.

### **HOT WATER DELIVERY**

This water heater can deliver water at temperatures which can cause scalding.

It is necessary and we recommend that a temperature limiting device be fitted into the hot water piping to any ablution and public areas such as a bathroom, ensuite or public amenities when a Commpak water heater is installed to reduce the risk of scalding. The installing plumber may have a legal obligation to ensure the installation of this water heater meets the delivery water temperature requirements of AS/NZS 3500.4 so that scalding water temperatures are not delivered to a bathroom, ensuite or other ablution or public area.

The temperature limiting device used with a continuous flow gas water heater should have:

- a specified 'minimum temperature differential' between the hot water inlet and the tempered water outlet of no greater than 10°C, and
- a specified 'maximum permitted pressure variation' in the supply between the hot water inlet and the cold water inlet of no less than 15%.

Refer to the specifications of the tempering valve.

### **TEMPERATURE LIMITING DEVICE**

A temperature limiting device cannot be installed in circulated hot water flow and return pipe work, unless it is specifically designed to do so, such as the Rheem Guardian warm water system. The tempered water from a temperature limiting device cannot be circulated. Where a circulated hot water flow and return system is required in a building, a temperature limiting device can only be installed on a dead leg, branching off the circulated hot water flow and return pipe.

If circulated tempered water were to be returned back to the water heater, depending on the location of the return line connection on the water supply line to the water heater, then either:

- water will be supplied to the cold water inlet of the temperature limiting device at a temperature exceeding the maximum recommended water supply temperature, or
- when the hot taps are closed no water will be supplied to the cold water inlet of the temperature limiting device whilst hot water will continue to be supplied to the hot water inlet of the temperature limiting device.

These conditions may result in either water at a temperature exceeding the requirements of AS/NZS 3500.4 being delivered to the hot water outlets in the ablution areas, or the device closing completely and not delivering water at all, or the device failing. Under either condition, the operation and performance of the device cannot be guaranteed.

Note: a Multipak/50 system with the words **“THIS APPLIANCE DELIVERS WATER NOT EXCEEDING 50°C IN ACCORDANCE WITH AS3498”** on the front panel of the water heater complies with the requirements of AS3500.4 for 50°C maximum delivery temperature and requires no further tempering for these applications.

---

## CONNECTIONS – PLUMBING

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### SITE LOCATION

- External Systems - Recommended 800mm access clearance from Horizontal Flue Outlets
- Internal Systems - Recommended 600mm access clearance.
- Refer: Australian Standard Gas Installations AS/NZS5601 – 2004 Fig 5.3 for further requirements
- Secure to the floor or wall as appropriate.
- Consult with site structural engineer for any specific securing requirements.
- Connect both cold water and hot water piping / valves and fittings as per the requirements of AS3500.4
- Connect Natural Gas piping / valves and fitting as per the requirements of AS./NZS 5601
- Natural Gas working pressure 1.13 kPa minimum to 2.75 kPa maximum
- Optional: LPG operation available on request.
- A secondary flue must be installed with an indoor water heater to discharge combustion products to outside the building. Each water heater must be individually flued using a Rheem approved coaxial flue system. A common flue system **MUST NOT** be used.
- Refer to the owner's guide and installation instructions supplied for the 862 series 027 indoor CFWH, model for further details.

### PIPE SIZES

The pipe sizing for hot water supply systems should be carried out by persons competent to do so, choosing the most suitable pipe size to ensure adequate flow for each individual application. Reference to the technical specifications of the water heater and local regulatory authority requirements must be made.

To achieve true mains pressure operation, the cold water line to the water heater should be the same size or bigger than the hot water line from the water heater.

### IN-SERIES BOOSTER

The pipe work between the solar storage tank (if one is installed) and the in-series gas booster, **MUST BE** of copper and be fully insulated with a closed cell type insulation or equivalent in accordance with the requirements of AS/NZS 3500.4.

The insulation must be weatherproof and UV resistant if exposed. The insulation must be fitted up to the connections on the solar storage tank

### GAS INLET

The gas connection is made on the left hand side of the water heater. The pipe work must be cleared of foreign matter before connection and purged before attempting to operate the water heater. An isolation valve and disconnection union must be installed to allow servicing and removal of the water heater.

**Note:** Refer to the Gas Installations Standard AS/NZS 5601 or AS/NZS 5601.1 for the correct method of sizing the gas supply pipe to the water heater. The pipe size selection must take into account the high gas input of this water heater as well as all of the other gas appliances in the premises.

**⚠ Warning:** Always isolate the water heater before pressure testing the gas supply system. Disconnect the water heater after the isolation valve to prevent the risk of serious damage to the gas control. The Rheem warranty does not cover damage of any nature resulting from failure to observe this precaution. Refer to rating label for gas types and pressures.

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## **CONNECTIONS - ELECTRICAL**

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All electrical work and permanent wiring must be carried out by a qualified person and in accordance with the Wiring Rules AS/NZS 3000 and all local codes and regulatory authority requirements.

The water heater will only operate on a sine wave at 50 Hz. Devices generating a square wave cannot be used to supply power to the water heater.

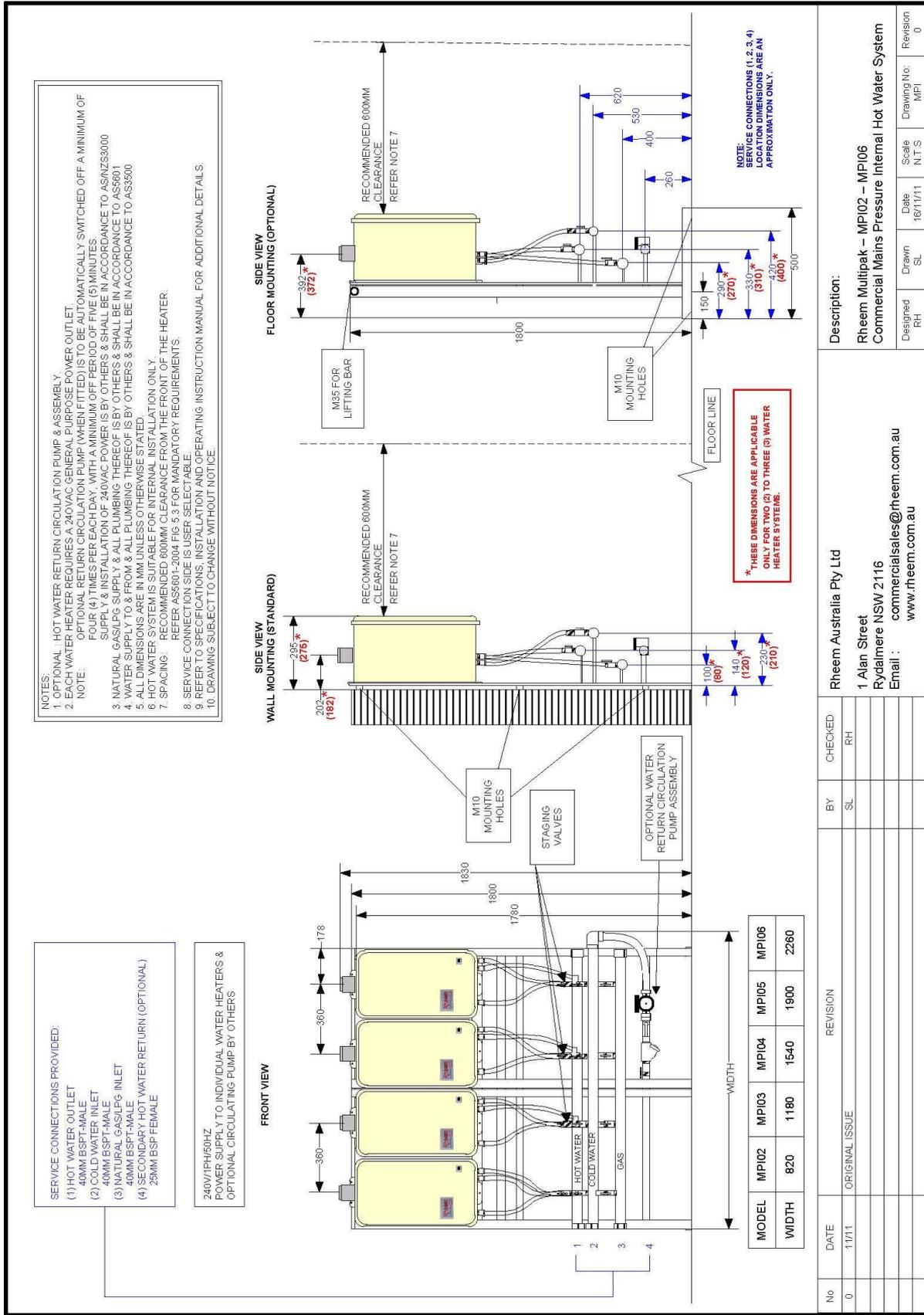
Power supply:

- Electrician to fit 240V/1Ph/50Hz general purpose outlet power supply to each CFWH and optional pump.
- Maximum 10 Amp current draw.

### **Multipak/R**

The optional pump fitted with Multipak/R systems must be controlled by a thermostat or timer to shut off the power supply to the pump at least four (4) times per day

# MULTIPAK INTERNAL (MPI02-MPI06) – GENERAL ARRANGEMENT

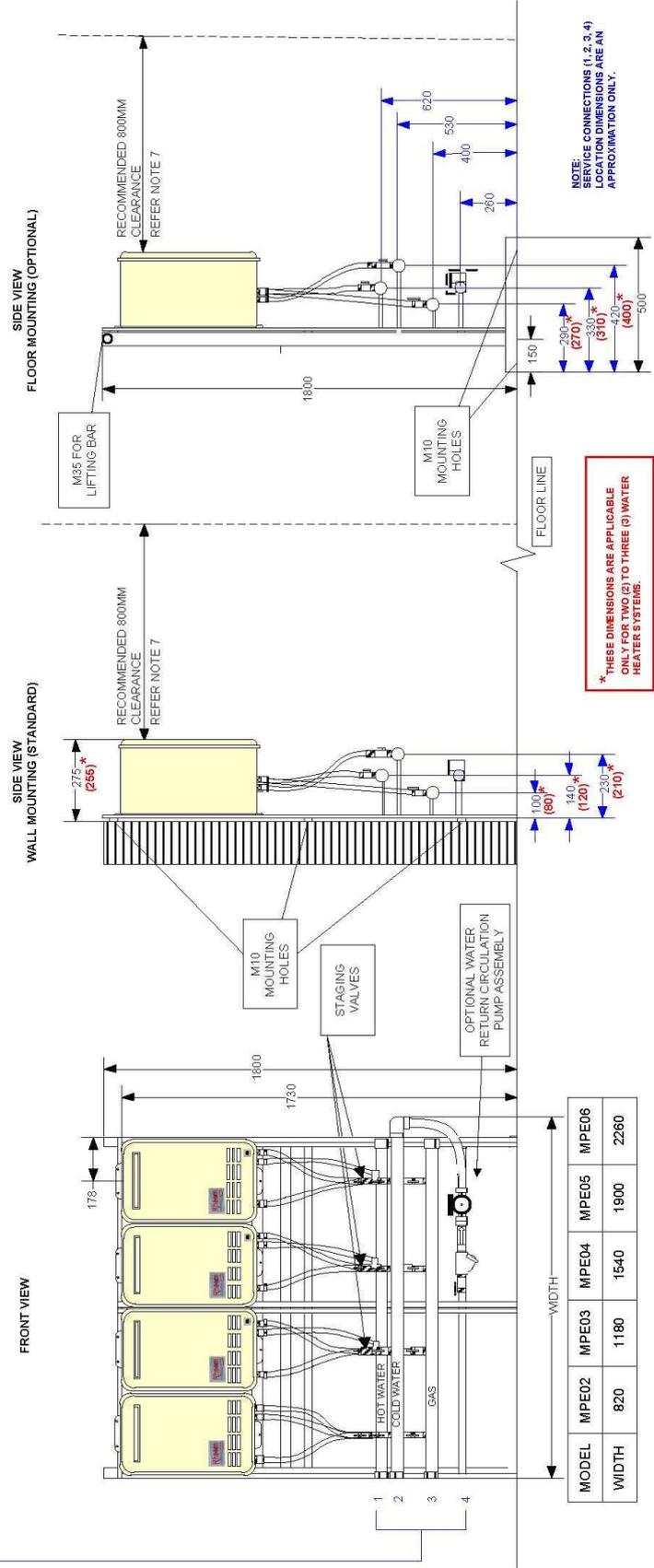


# MULTIPAK EXTERNAL (MPE02-MPE06) – GENERAL ARRANGEMENT

- NOTES:**
- OPTIONAL: HOT WATER RETURN CIRCULATION PUMP & ASSEMBLY.
  - EACH WATER HEATER REQUIRES A 240VAC GENERAL PURPOSE POWER OUTLET.  
OPTIONAL RETURN CIRCULATION PUMP (WHEN FITTED) IS TO BE AUTOMATICALLY SWITCHED OFF A MINIMUM OF FOUR (4) TIMES PER EACH DAY, WITH A MINIMUM OFF PERIOD OF FIVE (5) MINUTES.  
SUPPLY & INSTALLATION OF 240VAC POWER IS BY OTHERS & SHALL BE IN ACCORDANCE TO AS/NZS3000
  - NATURAL GAS/LPG SUPPLY & ALL PLUMBING THEREOF IS BY OTHERS & SHALL BE IN ACCORDANCE TO AS5601
  - WATER SUPPLY TO & FROM & ALL PLUMBING THEREOF IS BY OTHERS & SHALL BE IN ACCORDANCE TO AS3500
  - ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED.
  - HOT WATER SYSTEM IS SUITABLE FOR EXTERNAL INSTALLATION ONLY.  
REFER AS5601-2004 FIG 5.3 FOR MANDATORY REQUIREMENTS.
  - SPACING: RECOMMENDED 800MM CLEARANCE FROM HORIZONTAL FLUE OUTLET.  
REFER AS5601-2004 FIG 5.3 FOR MANDATORY REQUIREMENTS.
  - SERVICE CONNECTION SIDE IS USER SELECTABLE.
  - SERVICE CONNECTION SIDE IS USER SELECTABLE.  
REFER TO SPECIFICATIONS, INSTALLATION AND OPERATING INSTRUCTION MANUAL FOR ADDITIONAL DETAILS.
  - REFER TO SPECIFICATIONS, INSTALLATION AND OPERATING INSTRUCTION MANUAL FOR ADDITIONAL DETAILS.
  - DRAWING SUBJECT TO CHANGE WITHOUT NOTICE.

- SERVICE CONNECTIONS PROVIDED:**
- HOT WATER OUTLET  
40MM BSPT-MALE
  - COLD WATER INLET  
40MM BSPT-MALE
  - NATURAL GAS/LPG INLET  
40MM BSPT-MALE
  - SECONDARY HOT WATER RETURN (OPTIONAL)  
25MM BSP FEMALE

240V/1PH/50HZ  
POWER SUPPLY TO INDIVIDUAL WATER HEATERS &  
OPTIONAL CIRCULATING PUMP BY OTHERS.



**\* THESE DIMENSIONS ARE APPLICABLE ONLY FOR TWO TO THREE (3) WATER HEATER SYSTEMS.**

**NOTE:** SERVICE CONNECTIONS (1,2,3,4) LOCATION DIMENSIONS ARE AN APPROXIMATION ONLY.

No	DATE	REVISION	BY	CHECKED	Description:	Designed	Drawn	Date	Scale	Drawing No.	Revision
0	11/11	ORIGINAL ISSUE	SL	RH	Rheem Australia Pty Ltd 1 Alan Street Rydalmere NSW 2116 commercialsales@rheem.com.au www.rheem.com.au	RH	SL	16/11/11	N.T.S	MPE	0

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# COMMISSIONING

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## INITIAL CHECKS

1. Check that the power supply to the system is switched OFF.
2. Check that an adequate water supply is available to the hot water system.  
Water supply pressure shall not exceed 800kPa.
3. OPEN cold water inlet valve, hot water outlet valve, (and hot water return valve with pump option only)  
Check all individual water heater isolation valves are OPEN;
4. Check that the system is fully charged, all the air is bled from the system and no leaks are evident.
5. Check the pipe work for leaks
6. OPEN all individual water heater gas isolation valves and purge gas lines.
7. Check the gas pipe work for leaks

To complete the installation, it is necessary to check the gas supply pressure at the inlet to the water heater (refer to “Gas Inlet Pressure” on page 23), the minimum test point pressure and the maximum test point pressure (refer to “Burner Gas Pressure” on page 25).

**⚠ Warning:** Upon completion of the installation and commissioning of the water heater, leave this guide with the a responsible officer. **DO NOT** leave this guide inside of the cover of the water heater, as it may interfere with the safe operation of the water heater or ignite when the water heater is turned on.

## GAS INLET PRESSURE

**IMPORTANT - CHECK** the gas supply pressure at the inlet to the water heater with the water heater and all other gas burning appliances in the premises operating (burners alight). The minimum gas supply pressure is:

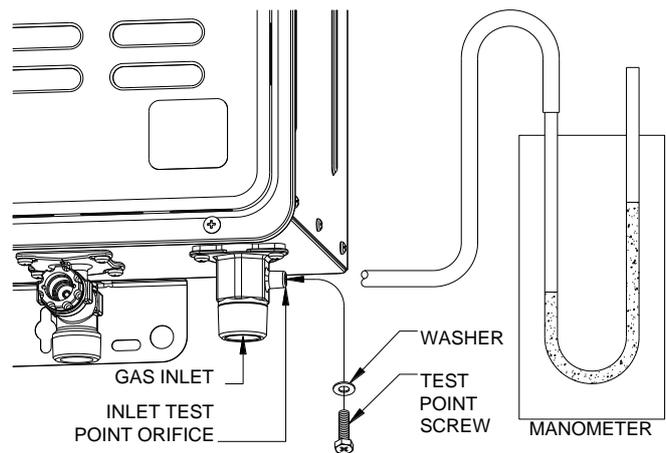
Natural Gas	1.13 kPa	Propane	2.75 kPa
-------------	----------	---------	----------

If this minimum cannot be achieved, it may indicate the meter or the gas line to the water heater is undersized. It is important to ensure that an adequate gas supply pressure is available to the water heater when other gas burning appliances, on the same gas supply, are operating.

## GAS INLET TEST POINT PRESSURE

To check the gas inlet pressure, select the CFWH at the furthest point in the manifold as the test unit:

1. Ensure the burners are not operating, by turning off the power to the Commpak.
2. Close the gas isolation valve at the gas inlet to the CFWH.
3. Locate the gas inlet test point on the gas connection to the CFWH.
  - Remove the test point screw and washer from the test point orifice.
  - Connect the manometer.
4. Open the gas isolation valve fully at the gas inlet to the CFWH.
5. Observe the gas pressure reading on the manometer.



If the manometer reading is between the minimum and maximum inlet gas pressure ratings on the rating label, no adjustment is required.

If the manometer reading is below the minimum inlet gas pressure rating on the rating label, then either the gas pipe to the water heater is undersized and needs to be rectified or adjustment is required at the gas regulator.

If the manometer reading is above the maximum inlet gas pressure ratings on the rating label, then adjustment is required at the gas regulator.

6. Switch on the electrical supply to the Commpak Plus.
7. If installed as part of a recirculation system, the Commpak should start automatically. If on a dead leg system, the unit should start automatically but may shut down before checks are completed. If on a dead leg system open a hot tap fully and ensure all the CFWH are on and the burners are fully ignited. It may be necessary to open several taps.

**Note:** If the Multipak is using 872027 or 862027 model CFWH and is installed as an in-series gas booster for a solar water heater, then the temperature of the water entering Commpak must be at least 2°C below the water heater preset outlet temperature setting. Otherwise the gas burners will not ignite and the test point gas pressures cannot be measured.

8. Observe the gas pressure reading on the manometer.
  - If the manometer reading is between the minimum and maximum inlet gas pressure ratings on the rating label, no adjustment is required.
  - If the manometer reading is below the minimum inlet gas pressure rating on the rating label, then either the gas pipe to the water heater is undersized and needs to be rectified or adjustment is required at the gas regulator.
  - If the manometer reading is above the maximum inlet gas pressure ratings on the rating label, then adjustment is required at the gas regulator.
9. If an adjustment was made during Step 8, repeat this procedure from Step 5.
10. Close the isolation valve on the outlet of the CFWH.
11. Close the gas isolation valve at the inlet to the CFWH.
12. Remove the manometer and refit and tighten the test point screw and washer.
13. Open the gas isolation valve fully at the gas inlet to the water heater.
14. Open the isolation valve again so the burners ignite.
15. Test for gas leaks.
16. Close the hot taps, if open

**⚠ Warning:** The removal of the front panel will expose 240 volt wiring. Take care not to touch wiring terminals.

**Note:** If the Commpak is using 872027 or 862027 model CFWH and is installed as an in-series gas booster for a solar water heater, then the temperature of the water entering Commpak must be at least 2°C below the water heater preset outlet temperature setting. Otherwise the gas burners will not ignite and the test point gas pressures cannot be measured.

**MINIMUM TEST POINT GAS PRESSURE**

Refer to the rating label on the water heater for the minimum test point gas pressure.

1. Ensure the burners are not operating, by turning off the power to the CFWH.
2. Remove the screws holding the front panel to the jacket.
3. Gently disengage the front panel and pull forward to remove from the water heater.
4. Locate the burner pressure test point on the main burner manifold.
  - Remove the test point screw and washer from the test point orifice.
  - Connect the manometer.
5. Switch on the electrical supply at the power outlet to the water heater.
6. Open the gas isolation valve fully at the gas inlet to the water heater, if not already open.
7. If installed as part of a recirculation system, the Commpak should start automatically. If on a dead leg system, the unit should start automatically but may shut down before checks are completed. If on a dead leg system open a hot tap fully and ensure all the CFWH are on and the burners are fully ignited. It may be necessary to open several taps.
8. Press and hold down the MIN button and observe the reading on the manometer.
  - “1L” is shown on the LED display.
9. Release the MIN button.

If the manometer reading observed in step 7 agrees with the rating label, no further adjustment is required.

10. To adjust, press and hold the adjuster button.
  - “LH” is shown on the LED display.

**Note:** The adjuster button must be held down continuously through steps 10 to 12.

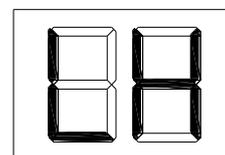
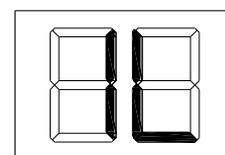
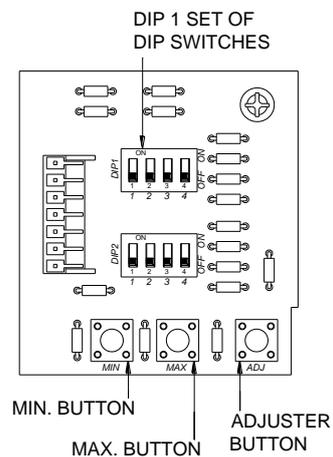
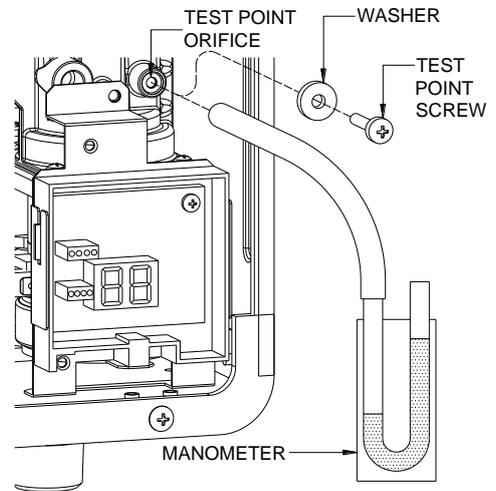
11. Press and hold the MIN button and observe the reading on the manometer.

- The manometer reading will change as the test point gas pressure adjusts.

**Note:** While the MIN button is pressed, the gas pressure will at first increase then decrease, cycling between an upper gas pressure limit (39 on the LED display) and a lower gas pressure limit (01 on the LED display).

12. Release the MIN button when the reading on the manometer agrees with the rating label.

13. Release the adjuster button.



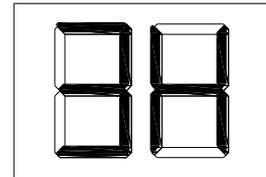
**Notes:**

- If the burners extinguish and error code 11 or 12 starts to flash on the LED display:
  - release the MIN and adjuster buttons
  - close the CFWH isolation valve
  - clear the error code (refer to “Clearing Error Code” on page 26)
  - recommence the procedure from Step 7
- If the adjuster button is released before Step 12, clear any error code (if displayed) and recommence the procedure from Step 7.

**MAXIMUM TEST POINT GAS PRESSURE**

Refer to the rating label on the water heater for the maximum test point gas pressure.

Follow Steps 1 to 13 of the “Minimum test point gas pressure” procedure on page 27, but open the hot tap fully and use the MAX button instead of the MIN button. It may be necessary to open two or three hot taps fully, depending upon the model of water heater and the incoming cold water temperature.



**Note:** In Step 7, “3H” (027 models) will be shown on the LED display.

After setting the minimum and maximum test point gas pressures:

- Close the outlet isolation valve.
- Remove the manometer and refit and tighten the test point screw and washer.
- Open the isolation valve again so the burners ignite.
- Test for gas leaks..
- Refit the front panel and screws to the water heater.

**CLEARING ERROR CODE**

If an error code does appear on the LED display during the commissioning process, it will be necessary to clear the error in order to complete the installation.

To clear an error code:

- switch off the electrical supply at the power outlet to the water heater
- check the gas isolation valve at the gas inlet to the water heater is fully open
- wait five (5) minutes
- switch on the electrical supply at the power outlet to the water heater

NOTE: If min/max pressure adjustments were required on the test heater it may be necessary to test all water heaters individually.

**PRESET OUTLET TEMPERATURE SETTING**

The factory preset outlet temperature setting of the water heater is:

- 60°C as part of a Multipak system
- 50°C as part of a Mulitpak /50 system

It is usually not necessary to check or adjust the factory preset outlet temperature setting of the water heater, unless the customer or application has a particular requirement for this to be done.

For applications requiring sanitising temperatures, such as a commercial kitchen, it will be necessary to adjust the preset outlet temperature setting and controller to 82°C. Refer to page 34 for details.

If the water heater is installed as part of a circulated hot water flow and return system in a building, the preset outlet temperature setting must be set to at least 60°C. If the water temperature decreases by more than 5°C through a circulated hot water flow and return system due to heat loss in the ring main, the preset outlet temperature setting of the water heater should be set to at least 65°C.

**GAS BOOSTER FOR A SOLAR WATER HEATER**

**Note:** AS 3498 requires that a water heater provides the means to inhibit the growth of Legionella bacteria in potable water. When this water heater is used as an in-series booster for a solar water heater it can satisfy this AS 3498 requirement provided it is energised and the booster preset outlet temperature setting is 70°C or higher.

It will be necessary to check and if required to adjust the preset outlet temperature setting of the continuous flow water heater when:

- it is installed as an in-series gas booster to a solar water heater
- it is an existing continuous flow water heater and a solar water heater is then installed.

**Note**

- Consideration must be given to the delivery temperature to any ablution and public areas such as a bathroom, ensuite or public amenities. Refer to "Hot Water Delivery" on page 18

**TO CHECK OR ADJUST THE PRESET OUTLET TEMPERATURE SETTING**

The temperature settings will be displayed on the LED display. The preset outlet temperature settings are:

- 872/862 series                      38°C, 40°C, 42°C, 43°C, 45°C, 50°C, 55°C, 60°C, 65°C, 70°C, 75°C, 82°C

It is necessary to have the electrical supply to the water heater switched on during stages of checking or adjusting the preset outlet temperature setting procedure.

**⚠ Warning:** The removal of the front panel will expose 240 volt wiring. Take care not to touch wiring terminals. The adjustment must be carried out by a qualified person.

**⚠ Warning:** This procedure will involve the adjustment of dip switches. Adjustment of a dip switch should only be made with an insulated tool.

To check or adjust the preset outlet temperature setting:

1. Switch off the electrical supply at the power outlet to the water heater.
2. Remove the screws holding the front panel to the jacket.
3. Gently disengage the front panel and pull forward to remove from the water heater.
4. Switch on the electrical supply at the power outlet to the water heater.
5. Switch dip switches 3 and 4 to the on (up) position on the DIP 1 set of DIP switches on the I.C. Board.

The current preset outlet temperature setting will show on the LED display.

If the temperature displayed on the LED display is the desired preset outlet temperature setting, then proceed to step 7, as no further adjustment is necessary.

6. Press the MAX button to increase or the MIN button to decrease the preset outlet temperature setting.

Each press of the MAX or MIN button will increase or decrease the preset temperature by one increment.

The MAX and MIN buttons are located underneath the DIP 1 and DIP 2 set of DIP switches.

**872 series**

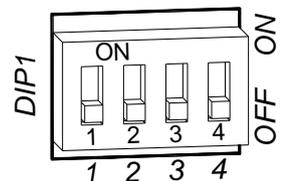
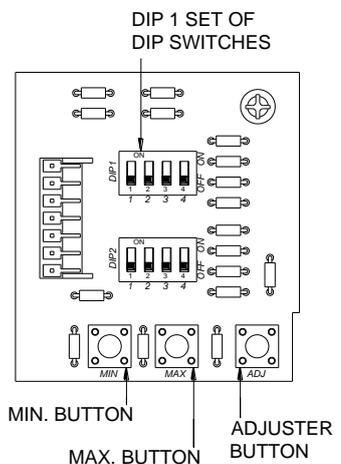
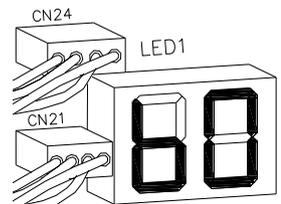
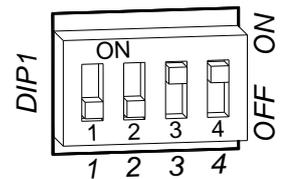
The increments are 38, 40, 42, 43, 45, 50, 55, 60, 65, 70, 75, 82.

Set the LED display to 82 on an 872 series water heater if it is required to deliver sanitising temperatures.

7. Switch dip switches 3 and 4 to the off (down) position.

The LED display will go blank. The preset outlet temperature setting is now set.

8. Switch off the electrical supply at the power outlet to the water heater.
9. Refit the front panel and screws to the water heater.



## TO TURN OFF THE WATER HEATER

If it is necessary to turn off the water heater on completion of the installation, such as on a building site or where the premises is vacant, then:

- Switch off the electrical supply at the isolating switch to the Commpak (refer to note below).
- Close the gas isolation valve at the inlet to the Commpak.
- Close the cold water, hot water flow and building return isolation valves at the inlet to the Commpak.
- Drain each CFWH if there is a risk of freezing conditions occurring (refer to “[Draining The Water Heater](#)” on page 29).

### Notes:

- The frost protection system will be rendered inoperable if electrical power is not available at the water heater.
- Damage caused by freezing due to the unavailability of power at the water heater is not covered by the Rheem warranty (refer to “[Terms of the Rheem Warranty](#)” on page 35).
- If the power has been switched off to the water heater and there is a risk of freezing, then it is necessary to drain the water heater (refer to “[Draining the Water Heater](#)” on page 29).

## DRAINING THE WATER HEATER

To drain the water heater:

- Turn off the water heater (refer to “[Turn Off The Water Heater](#)” on page 29).
- Open the pressure relief valve on the Commpak located on the hot manifold.
- Unscrew the two drain plugs, one each at the cold water inlet and hot water outlet, on the underside of each continuous flow water heater.

Water will drain from the water heaters.

- When water stops flowing from the water heaters, close the pressure relief valve.

**Note:** It is recommended not to screw the drain plugs back in, until the water heater is to be turned on again.

## START UP CHECKS

Before turning 240VAC power on to the Hot Water System ensure the following checks are undertaken.

## OPTIONAL CIRCULATION PUMP WARNING

Note: Dry running of the pump will result in permanent damage and is not covered under warranty

1. Bleed the pump by unscrewing the Stainless Steel plug at end of motor casing.
  - Check that the pump shaft is free to turn, if not, free the shaft with a flat bladed screwdriver.
  - Screw the Stainless Steel plug back in.
  - Select the desired pump speed, factory set maximum on number 3.
2. Check that the pump power supply lead is plugged in and turned ON.
3. Check all CFWH power supply leads are plugged in and turned ON
4. Gradually turn on several hot water outlets (fixtures) on the installation to check first CFWH has fired and is operational. With higher flows check that all the remaining CFWH units are operating in staged sequence correctly.

**Note:** All CFWH Units have been factory temperature pre-set and gas pressures adjusted.

5. Check gas pressure at the most disadvantaged CFWH during maximum demand (during all CFWH operation) to ensure adequate pressure is available. Refer to CFWH manual for further details.

## FINAL CHECKS

1. Check system for any leaks (Gas and Water)
2. Turn system 240VAC power OFF.
  - Isolate main water valves
  - Check and clean strainers on each of CFWH cold water inlet and pump return (where fitted).
  - Please ensure the pump is bled and ready for operation as described above (point 1, above)
3. Advise customer to check strainers after 1 Week usage.
  - Continue to check strainers on a weekly basis until they inspect clean.
  - Continue to check strainers on a monthly basis until they inspect clean.
  - Continue to check strainers on a Quarterly basis until they inspect clean.
  - Thereafter check every six (6) months.
4. Re-instate Multipak by repeating steps Initial checks on page 23
5. Fill in commissioning sheet (Refer Page 33). Rheem Multipak can now be left on line.

Finish.

**MULTIPAK – COMMISSIONING SHEET**

**Customer :** \_\_\_\_\_

**Project and Address:** \_\_\_\_\_

**Package Details:** \_\_\_\_\_

Installation	OK	Comments
Overall Installation?		
Ventilation Requirements?		<b>Compliance to AS5601 is mandatory</b>
Co-axial Flueing		<b>Compliance to AS5601 is mandatory</b> <b>Refer: Owner's Guide and Installation Instructions Model 027</b> Continuous Flow Gas Outdoor Water Heater 872 Series Electronic Continuous Flow Gas Indoor Water Heater 862 Series
<b>Fuel: Natural Gas / LPG</b>		
Gas Pressure During full Load Operation?		<b>Natural Gas: 1.13 Minimum &amp; Up to 3.5 kPa</b> <b>Propane: 2.75 Minimum &amp; Up to 3.5 kPa</b>
<b>Inlet Water Pressure</b>		
Inlet Water Pressure?		<b>Minimum 140 kPa &amp; up to 800 kPa</b>
<b>Valves</b>		
All the Valves are in Open Position?		
Staging Valve Position?		Refer to Page 13 for details.
<b>Circulation Pump (optional)</b>		
Venting?		
Operation?	<b>Pump Speed:</b>	<b>Factory Pre-set to No. 3</b>
<b>System</b>		
Flow & Return System or Dead Leg System?		Flow &Return System requires Circulation pump
All Water Heater Operations?		
System Temperature Satisfactory?		
<b>Comments</b>		

Client to carry out regular preventative maintenance as below:  
 Water Heaters Inlet Strainers & Optional Hot Water Circulation Pump Return Strainer  
 Check & Clean as per the schedule – **Refer Steps 2 & 3 of Page 32 - Commissioning – Final Checks**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Sign Off**

**System Commissioned By:** \_\_\_\_\_ **Customer's Representative:** \_\_\_\_\_

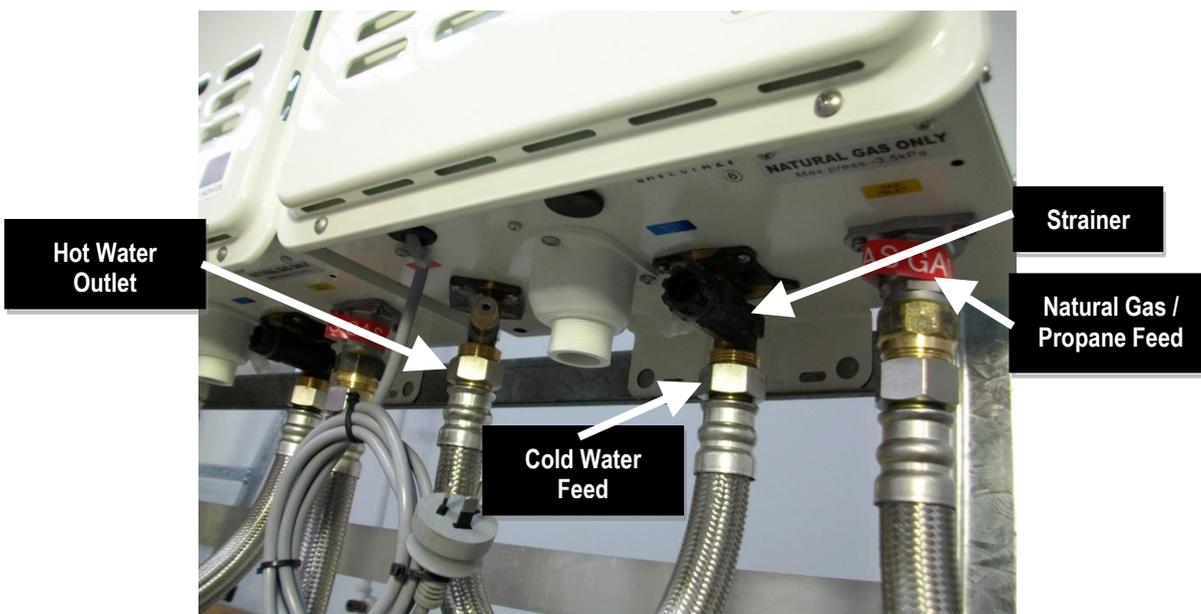
**Date:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**MULTIPAK – FAULT FINDING PROCEDURE**

Fault	Possible Causes	Description & Recommended Corrective Action
No Hot Water	Gas Failure	<ul style="list-style-type: none"> <li>• Check gas supply and reinstate</li> </ul>
	Power Failure	<ul style="list-style-type: none"> <li>• Check and reinstate Power Supplies to all the power outlets.</li> </ul>
	Water Supply Failure	<ul style="list-style-type: none"> <li>• Check adequate cold water supply is available to all CFWH &amp; no valves are shut.</li> <li>• Check for minimum 140KPa water supply pressure available.</li> <li>• Check CFWH strainers for cleanliness</li> </ul>
	RECFWH Fault	<ul style="list-style-type: none"> <li>• Refer to Rheem Owner’s Guide and Installation Instructions for additional Information</li> </ul>
Long delay for Hot water Supply	Optional Pump Fault	<ul style="list-style-type: none"> <li>• Check pump operation (if fitted) as per commissioning list - item 8 (Page 23) of this manual.</li> <li>• Check Pump installation has been completed in accordance to technical notes on page 13 of this manual</li> </ul>

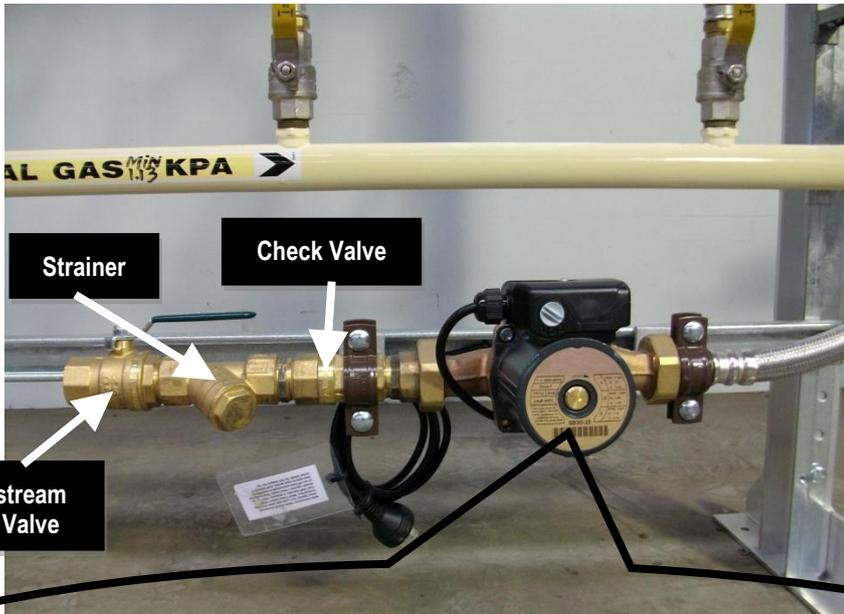
**MULTIPAK – CFWH STRAINER CLEANING**

1. Isolate the CFWH cold and hot water valves.
2. Remove the strainer assembly. Clean and refit.
3. Re-instate the CFWH cold and hot water valves to open position.
4. Complete above procedure for all the CFWH of the Multipak



**MULTIPAK – OPTIONAL CIRCULATING PUMP SUCTION STRAINER CLEANING**

1. Turn Off the power supply to the circulating pump. Isolate the pump upstream valve.
2. Remove the pump upstream strainer assembly. Clean and refit.
3. Re-instate the pump upstream valves to open position.
4. Follow the secondary pump commissioning start-up instructions 7, 8 and 9 as stated before.
5. Re-instate the pump power supply.



**Basic Instruction for inline wet rotor Circulating Pump; Motor shall be "Horizontal"; Never Operate "Dry"; Loop cable down on exiting terminal box as shown; "Bleed" Pump; Confirm "Rotation"; "Free" shaft assembly, if necessary; Power Supply Timer is required to turn off pump automatically at least four (4) times daily for short periods; Clean Pump Suction Strainer regularly.**

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# **RHEEM CONTINUOUS FLOW GAS WATER HEATER WARRANTY – AUSTRALIA ONLY**

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## **CONTINUOUS FLOW GAS WATER HEATER MULTIPAK MODELS MP02-MP06**

### **1. THE RHEEM WARRANTY – GENERAL**

- 1.1 This warranty is given by Rheem Australia Pty Limited ABN 21 098 823 511 of 1 Alan Street, Rydalmere New South Wales, the supplier of Rheem continuous flow gas water heaters, manufactured by Paloma Co., Ltd., a world leader in water heater technology and manufacture.
- 1.2 Rheem offer a trained and qualified national service network who will repair or replace components at the address of the water heater subject to the terms of the Rheem warranty. Rheem Service, in addition can provide preventative maintenance and advice on the operation of your water heater. The Rheem Service contact number is available 7 days a week on 131 031 with Service personnel available to take your call from 8am to 8pm daily (hours subject to change).
- 1.3 For details about this warranty, you can contact us on 131 031 or by email at [warrantyenquiry@rheem.com.au](mailto:warrantyenquiry@rheem.com.au) (not for service bookings).
- 1.4 The terms of this warranty are set out in section 2 and apply to water heaters manufactured after 1<sup>st</sup> January 2012.
- 1.5 If a subsequent version of this warranty is published, the terms of that warranty will apply to water heaters manufactured after the date specified in the subsequent version.

### **2. TERMS OF THE RHEEM WARRANTY AND EXCLUSIONS TO IT**

- 2.1 The decision of whether to repair or replace a faulty component is at Rheem's sole discretion.
- 2.2 Where a failed component or cylinder is replaced under this warranty, the balance of the original warranty period will remain effective. The replacement does not carry a new Rheem warranty.
- 2.3 Where the water heater is installed outside the boundaries of a metropolitan area as defined by Rheem or further than 25 km from either a regional Rheem branch office or an Accredited Rheem Service Agent's office, the cost of transport, insurance and travelling between the nearest branch office or Rheem Accredited Service Agent's office and the installed site shall be the owner's responsibility.
- 2.4 Where the water heater is installed in a position that does not allow safe or ready access, the cost of that access, including the cost of additional materials handling and/or safety equipment, shall be the owner's responsibility. In other words, the cost of dismantling or removing cupboards, doors or walls and the cost of any special equipment to bring the water heater to floor or ground level or to a serviceable position is not covered by this warranty.
- 2.5 This warranty only applies to the original and genuine Rheem water heater in its original installed location and any genuine Rheem replacement parts.
- 2.6 If the water heater is not sized to supply the hot water demand in accordance with the guidelines in Rheem's water heater literature, any resultant fault will not be covered by the Rheem warranty.
- 2.7 The Rheem warranty does not cover faults that are a result of:
  - a) Accidental damage to the water heater or any component (for example: (i) Acts of God such as floods, storms, fires, lightning strikes and the like; and (ii) third party acts or omissions).
  - b) Misuse or abnormal use of the water heater.
  - c) Installation not in accordance with the Owner's Guide and Installation Instructions or with relevant statutory and local requirements in the State or Territory in which the water heater is installed.
  - d) Connection at any time to a water supply that does not comply with the water supply guidelines as outlined in the Owner's Guide and Installation Instructions.
  - e) Repairs, attempts to repair or modifications to the water heater by a person other than Rheem Service or a Rheem Accredited Service Agent.
  - f) Faulty plumbing or faulty gas or power supply.
  - g) Failure to maintain the water heater in accordance with the Owner's Guide and Installation Instructions.
  - h) Transport damage.
  - i) Fair wear and tear from adverse conditions (for example, corrosion).
  - j) Cosmetic defects.
  - k) Ice formation in the waterways of a water heater: where the electricity supply has been switched off or has failed and the water heater has not been drained in accordance with the instructions; or due to an ambient temperature below -20°C (including wind chill factor).
- 2.8 If you require a call out and we find that the fault is not covered by the Rheem warranty, you are responsible for our standard call out charge. If you wish to have the relevant component repaired or replaced by Rheem, that service will be at your cost.
- 2.9 Subject to any statutory provisions to the contrary, this warranty excludes any and all claims for damage to furniture, carpet, walls, foundations or any other consequential loss either directly or indirectly due to leakage from the water heater, or due to leakage from fittings and/ or pipe work of metal, plastic or other materials caused by water temperature, workmanship or other modes of failure.

## CONTINUOUS FLOW GAS WATER HEATER MULTIPAK MODELS MP02-MP06

### 3. WHAT IS COVERED BY THE RHEEM WARRANTY FOR THE WATER HEATERS DETAILED IN THIS DOCUMENT

- 3.1 Rheem will repair or replace a faulty component of your water heater if it fails to operate in accordance with its specifications as follows:

What components are covered	The period in which the fault must appear in order to be covered	What coverage you receive
All components	Year 1	Repair and/or replacement of the faulty component, free of charge, including labour.
<b>CFWH</b> (only if the water heater is installed in a single-family domestic dwelling)	Years 2 & 3	Repair and/or replacement of the faulty component, free of charge, including labour.
<b>The heat exchanger</b> (if the water heater is installed in a single-family domestic dwelling)	Years 4 to 10	Replacement heat exchanger, free of charge. Installation and repair labour costs are the responsibility of the owner.
<b>The heat exchanger</b> (if the water heater is <u>not</u> installed in a single-family domestic dwelling)	Years 2 to 5	Replacement heat exchanger, free of charge. Installation and repair labour costs are the responsibility of the owner.
<b>The heat exchanger</b> (with a thermostat setting greater than 75°C)	Year 1	Repair and/or replacement of the faulty component, free of charge, including labour.

### 4. ENTITLEMENT TO MAKE A CLAIM UNDER THIS WARRANTY

- 4.1 To be entitled to make a claim under this warranty you need to:
- Be the owner of the water heater or have consent of the owner to act on their behalf.
  - Contact Rheem Service without undue delay after detection of the defect and, in any event, within the applicable warranty period.
- 4.2 You are **not** entitled to make a claim under this warranty if your water heater:
- Does not have its original serial numbers or rating labels.
  - Is not installed in Australia.

### 5. HOW TO MAKE A CLAIM UNDER THIS WARRANTY

- 5.1 If you wish to make a claim under this warranty, you need to:
- Contact Rheem on 131031 and provide owner's details, address of the water heater, a contact number and date of installation of the water heater or if that's unavailable, the date of manufacture and serial number (from the rating label on the water heater).
  - Rheem will arrange for the water heater to be tested and assessed on-site.
  - If Rheem determines that you have a valid warranty claim, Rheem will repair or replace the water heater in accordance with this warranty.
- 5.2 Any expenses incurred in the making of a claim under this warranty will be borne by you.

### 6. THE AUSTRALIAN CONSUMER LAW

- 6.1 Our goods come with guarantees that cannot be excluded under the *Australian Consumer Law*. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- 6.2 The Rheem warranty (set out above) is in addition to any rights and remedies that you may have under the *Australian Consumer Law*.

**RHEEM AUSTRALIA PTY LTD**  
A.B.N. 21 098 823 511  
www.rheem.com.au

FOR SERVICE TELEPHONE  
**131 031 AUSTRALIA**  
**0800 657 335 NEW ZEALAND**