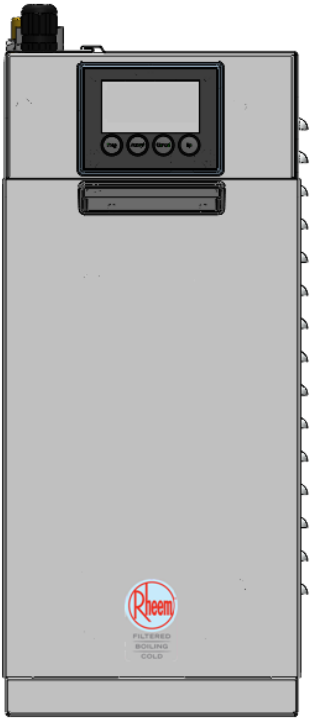
Owners Guide and Installation Instructions



TB3/5 Boiling Water Unit

Install a Rheem

This water heater must be installed and serviced by an authorised person.
Please leave this guide with the householder.

Notice to Victorian Customers from the
Victorian Plumbing Industry Commission.

This water heater must be installed by a licensed person as required by the Victorian Building Act 1993.

Only a licensed person will give you a Compliance Certificate, showing that the work complies with all the relevant standards. Only a licensed person will have insurance protecting their workmanship for 6 years. Make sure you use a licensed person to install this water heater and ask for your Compliance Certificate.

CONTENTS

RESPONSIBLE OFFICER –We recommend reading pages 4 to 16.

The other pages are intended for the installer but may be of interest.

ABOUT YOUR BOILING WATER UNIT

INTRODUCTION

Thank you for choosing our Rheem TB Series Boiling Water Unit. Please take a few minutes to read this booklet because it contains important information about the correct installation and operation of your Rheem Boiling Water Unit.

The Rheem Boiling Water Unit supplies both boiling water and cold filtered water. It is made from high quality copper and is designed to be installed indoors, under sinks and in cupboards. The Rheem Boiling Water Unit is supplied with all the required safety valving for installation (not including the isolation valve prior to the water heater). Your Rheem Boiling Water Unit is designed to supply boiling water to a purpose built Rheem boiling water dispensing tap. As an option your Rheem Boiling Water Unit can also be combined with a Rheem Water Chiller for total water solutions at the sink.

⚠WARNING

This boiling water unit is only intended to be operated by persons who have the experience or the knowledge and the capabilities to do so. This boiling water unit is not intended to be operated by persons with reduced physical, sensory or mental capabilities i.e. the infirm, or by children. Children should be supervised to ensure they do not interfere with the boiling water unit.

This boiling water unit uses 230-240 V AC electrical power for operation of the control systems and the electrically operated components. The removal of the access cover(s) will expose 230-240 V wiring. They must only be removed by an authorised or qualified person.

HOW HOT SHOULD THE WATER BE?

The system controls will operate to maintain a water temperature of near boiling point within the boiling unit.

SAFETY

This boiling water unit is supplied with an over temperature cut-out on the boiling element to prevent element burn out in the event of control failure.

This water heater is supplied with an integral safe tray with automatic shut off device that complies with ATS 5200.476. A safe tray and/or safe waste are not required for installation.

If the electrical supply cord to the water heater is damaged, it must be replaced by an authorised person in order to avoid becoming a hazard. Phone your nearest Rheem Service Department or Accredited Service Agent to arrange for an inspection.

For extra electrical protection against power surges and spikes it is recommended that the user install a surge protector prior to the boiling water unit.

The warranty can become void if any of the installed safety devices are tampered with or if the installation is not in accordance with these instructions.

ABOUT YOUR BOILING WATER UNIT

TO TURN OFF THE BOILING WATER UNIT

This boiling water unit is supplied with a programmable timer. We recommend the timer be used to conserve energy.

If it is necessary to turn off the boiling water unit:

- Switch off the electrical supply at the isolating switch to the boiling water unit.
- Close the cold water isolation valve at the inlet to the boiling water unit.

TO TURN ON THE BOILING WATER UNIT

- Open the cold water isolation valve fully on the cold water line to the boiling water unit.
- Switch on the electrical supply at the isolating switch to the boiling water unit.

Note: The boiling water unit may not appear to turn on immediately when it is first switched on as the electronic controller will automatically check the system prior to allowing water into the boiling water unit (this could be up to 10 seconds).

On initial start up, this boiling water unit automatically runs through a set-up cycle to detect the boiling point of water. During this cycle steam may discharge from the vent pipe for a short time. This set-up cycle will take up to 17 minutes depending on unit, and when completed (boiling point detected) the unit will commence incremental filling. It is important NOT to operate the tap during the set-up cycle because it may affect the operating temperature of the unit.

IS THIS BOILING WATER UNIT INSTALLED CORRECTLY?

Installation requirements are shown under Installation on page 17. The boiling water unit must be installed by an authorised person and the installation must comply with National Standards AS/NZS 3500.4, AS/NZS 3000 and all local codes and regulatory authority requirements. In New Zealand, the installation must also conform to the New Zealand Building Code.

DOES THE WATER QUALITY AFFECT THE BOILING WATER UNIT?

The boiling water unit is suitable for most public water supplies, however some water qualities may have detrimental effects on the boiling water unit and fittings. **If you are in a known harsh water area** you must first read Water Supplies on page 29. If you are not sure, have your water quality checked against the conditions described on page 24.

HOW LONG WILL THE BOILING WATER UNIT LAST?

There are a number of factors that will affect the length of service the boiling water unit will provide. These include the water quality, the water usage pattern etc. However, your boiling water unit is supported by a comprehensive warranty (refer “Warranty” on page 31).

HOW YOUR BOILING WATER UNIT WORKS

RHEEM BOILING WATER UNIT

The boiling water unit is designed to operate using mains water pressure by connecting directly to the mains water supply. If the mains supply pressure in your area exceeds 1000kPa a secondary pressure limiting valve must be fitted. The supply pressure should be greater than 350 kPa for the Rheem Boiling Water Unit to perform at its best. Pressure lower than this will affect the delivery performance of the water chiller (if installed).

BOILING WATER

The Rheem Boiling Water Unit is electronically controlled to obtain the maximum performance, and incorporates further safety devices to prevent over temperature and over filling.

ELECTRONIC CONTROLLER & TIMER

Your Rheem boiling water unit incorporates smart heating software and an electronic timer to obtain the best efficiency for the energy used. The electronic timer allows the user to program when the unit is on or off and when the sleep mode activates to save energy. Also the operator has the availability to indicate and diagnose any system faults that occur without the need to unnecessarily call for a service agent. (Refer “Setting the Timer” on page 7).

ENVIRONMENT

If a chiller unit is installed, at the end of the service life and prior to the chiller being disposed of, a person qualified to work with refrigerants must recover the refrigerant from within the sealed system. The refrigerant must not be vented to atmosphere. Phone your nearest Rheem Service Department or Accredited Service Agent to arrange for an inspection.

WATER FILTER

The Rheem Boiling Water Unit incorporates an integral water filter. The water filter increases the quality of water by removing odours and particles. Over time the water filter will clog up with sediment. We recommend that the water filter be changed at least every 6 months. The Boiling Water Unit has a filter count built into the software that lets the operator know when the filter is getting close to its recommended life.

⚠IMPORTANT

Rheem highly recommends that regular water filter cartridge changes are carried out to ensure the system is performing to a high standard. If the water filter is not regularly serviced and maintained on the recommended intervals by Rheem, the water filter cartridge will block with the trapped impurities, causing bacterial growth in the filter media and dramatically reducing filtered water flow, affecting the operation of the filtered boiling water unit. For more information, please call the Rheem service department.

HOW YOUR BOILING WATER UNIT WORKS

SETTING THE TIMER

Your Rheem boiling water unit is supplied with a programmable 7 day timer which allows the unit to operate in the most efficient fashion to suit your needs. The timer also incorporates a sleep mode which can be set to automatically shut the system down after a set period of time of no use, say after 6 hours. If a Rheem chiller is included, the timer will also control the chiller functions. The tap includes a safety lock to limit access to boiling water if required.

Timer Functions

A) Setting the Clock
B) Timer STD/AUTO
C) Set ON/OFF Times*
D) Set Sleep Delay Time*
E) Filter Life
F) Service Menu
G) Chiller Selection
H) Chiller Temp
I) Cold Tap Time
J) Hot Tap Time
K) Key Lock

* ON/OFF and Sleep Delay times operate in AUTO Mode.

To select a Timer Mode

Press the (**Prog**) button until the desired mode is displayed on the screen. Press the (**Accept)** button to confirm selection. Pressing (**Cancel**) button at any time returns the unit to the main menu. Any functions previously accepted will be retained.

Note: The display will revert back to main menu from any mode if a button has not been pressed for 1 minute.

A) SETTING THE CLOCK

Select the clock mode
(Prog>*Clock*>Accept)

Display Shows: "Set Clock Day".
Press the (**UP**) button until the desired day appears on the screen and press the (**Accept**) button to confirm selection.

Display Shows: "Set Clock HOUR"
Press the (**UP**) button until the desired hour (24 Hour Time) appears flashing on the screen and press the (**Accept**) button to confirm selection.

Display Shows: "Set Clock MIN"
Press the (**UP**) button until the desired minute appears flashing on the screen.

Press the (**Accept**) button to confirm selection and the display reverts to the main menu.

B) Set Timer to STD/AUTO Mode

Select the Timer STD/AUTO mode (Prog>*Timer STD/AUTO*>Accept)

Display Shows: "STD"

Pressing the (**UP**) button alternates the "STD"/"AUTO" icons. STD operation means that the unit operates **24 hours** a day, Auto mode reverts the unit to operate at the pre set times on the timer. Press the (**Accept**) button to confirm selection and the display reverts to the main menu. If the timer is in AUTO mode, pushing any Timer key or lever on the tap will reactivate the unit. The unit will operate normally until the next programmed "Off" time.

C) TO SET ON/OFF TIMES

Select the Timer ON/OFF mode

(Prog>*Set ON/OFF times*>Accept)

Note: to set the unit to be in off mode for an entire day, set the "on" and "off" times to be the same eg: On = 0:00 Off = 0:00

Display Shows: "SUN" "7:00 – 7:00" "Set ON hour".

Press the (**UP**) button until the desired hour appears on the screen and press the (**Accept**) button to confirm selection.

Display Shows: "SUN" "7:00 – 7:00" "Set ON minute".

Press the (**UP**) button until the desired minute appears on the screen and press the (**Accept**) button to confirm selection.

Display Shows: "SUN" "7:00 – 7:00" "Set OFF hour".

Press the (**UP**) button until the desired hour appears on the screen and press the (**Accept**) button to confirm selection.

Display **Shows**: "SUN" "7:00 – 7:00" "Set OFF Minute".

Press the (**UP**) button until the desired minute appears on the screen and press the (**Accept**) button to confirm selection and advance to the next day.

Display Shows: "MON" "7:30 – 15:30" "Set ON hour".

Note: Continue with same procedure for Monday through to Saturday.

D) TO SET SLEEP DELAY TIME.

Select the Sleep on/off mode (Prog>*Sleep DelayTime*>Accept)

Display Shows: "Sleep DelayTime" "OFF".

The sleep function puts the unit in a standby mode after a user defined period.

The Sleep Delay will be factory set to OFF as the default setting. Pressing the (**UP**) button increases the delay time up to 6 hours. Press the (**Accept**) button to confirm selection and the display reverts to the main menu. The unit will go into "Sleep" mode if it has **not** been used for the "Sleep Delay Time" period. To exit "Sleep", push any Timer key or lever on the tap. If you activate the Sleep Delay Time we recommend that you also activate the Temp Show On/Off function.

E) FILTER LIFE

Select the Appropriate Filter Mode (Prog>*Filter life*>Accept)

i) Remaining Life

ii) Filter Reset

i) To Select Remaining Life mode

(Prog>*Filter Life*>Accept>*Remaining Life*)

Display Shows: "Remaining Life" "XXXX litres"

Press the (**Cancel**) or (**Accept**) button to revert back to the main menu.

ii) To Select the Filter Reset mode

(Prog> *Filter Life* >Accept>*filter reset*>Accept)

Display Shows: "Filter Reset"

Press the (**Accept**) button to confirm selection at which time you are prompted "Are you sure?". Press (**Accept**) once more and,

Display Shows: "Set Filter Life" "XXXXLitres".

Pressing the (**UP**) button scrolls from the filter **OFF** selection (this turns the filter count off if a filter is not installed with the boiling water unit) up to 12000 litres. We recommend a default value of 4000 litres, until the user knows the filter will last longer. Press the (**Accept**) button to confirm selection and the display reverts to the Filter menu.

F) SERVICE MENU

Select Appropriate Service Mode (Prog>*Service*>Accept)

1) Error Codes
2) Boiling Temp
3) Chiller Temp* (only shown when chiller is attached)
4) Calib Reset
5) Temp Override
6) Software Version
7) Temp Show ON/OFF
8) TB Treq

1) Product Error Codes

(Prog>*Service*>Accept>*Error Codes*)

This function allows easy identification of problems occurring with the unit by service technicians.

Error	Code	Error	Code
Hot Thermistor O/C, S/C	**A**	Low Level Probe Fault	**H**
Cold Thermistor O/C, S/C	**B**	High Level Probe Fault	**J**
Triac S/C	**C**	Compressor Fault	**K**
Leak Detected	**D**	Water Heating Fault	**L**
Expired Filter	**E**	Internal software reset, No action required	**M**
Calibration Time Out	**G**	Excessive Temperature Rise	**N**

2) For Boiling Unit Display Temp mode

(Prog>*Service*>Accept>*Boiling Temp*)

Display Shows: "XXX ˚C"

This function displays the current boiling water temperature.
Press the (**Cancel**) button to revert back to the main menu.

3) For Chiller Unit Display Temp mode

(Prog>*Service*>Accept>*Chiller Temp*)

Display Shows: "XXX ˚C"

This function displays the current chilled water temperature.
Press the (**Cancel**) button to revert back to the main menu.

4) For Calibration Reset mode

(Prog>*Service*>Accept>*Calib.Reset*>Accept)

Display Shows: "Calib. Reset"

This function recalibrates the boiling water unit to boiling point. Press the (**Accept**) button to recalibrate the boiling point. Press **(Accept)** again at the "**Are You Sure?"** prompt. Press the (**Cancel**) button to revert back to the Main menu. The timer will now display **"Calibrating Do Not Interrupt".** When calibration is complete the timer display will revert back to the main menu.

5) For Temp Override mode

(Prog>*Service*>Accept>*Temp Override*>Accept)

This function allows the user to manually set the required boiling water temperature.

Display Shows: "XX°C"

Press the (**UP**) button until the desired temperature is shown (range is from 70°C to 99°C). Press the (**Accept**) button to activate the selection, then the words "**are you sure?"** will flash on the screen. Press the (**Accept**) button to confirm your selection. The words "**Calibrating Do Not Interrupt**" may appear for a short period. This is because the unit is checking that it is able to reach the temperature you are requiring. Once the unit has finished checking, the screen will return to normal.

6) To Display the Software Version

(Prog>*Service*>Accept>*Software Version*>Accept)

This displays both the Timer and Controller software versions. The top digits pertain to the timer software version, and the lower digits pertain to the controller software version.

7) Temp Show On/Off

(Prog>*Service*>Accept>*TempShow ON/OFF*)

Display Shows: “Hot XXX°C“ If no chiller , “HotXXX ColdXX“ If chiller attached.

This function allows the temperature of the water within the boiling water unit (and chiller if attached) to be displayed permanently on the screen. Press the (**UP**) button to switch modes between ON and OFF.

Press (**Accept**) to confirm and the display reverts back to the service menu.

8) TB Treq

(Prog>*Service*>Accept>*TB Treq*

This function allows the user to see what Temperature the unit calibrated to, and the subsequent required temperature the unit is required to be maintained at.

Under the letters **TB** a figure will be displayed. This temperature is the boiling water calibration temperature. Under the letters **Treq** a figure will also be displayed, and this is the temperature the unit will maintain the water to.

G) CHILLER SELECTION

Select Appropriate Chiller Mode (Prog>*Chiller Selection*>Accept)

i. Auto
ii. No Chiller
iii. Push Thru. Chil
iv. Pumped Chiller

i) To Select Auto mode

(Prog>*Chiller Selection*>Accept>*Auto*)

This allows the unit to automatically detect if any chiller is attached to the unit.

Press (**Accept**) to confirm and the display reverts back to the service menu.

ii) To Select No Chiller mode

(Prog>*Chiller Selection*>Accept>*No Chiller*)

This allows the user to attach a stand alone chiller to the product. By activating the No Chiller mode, the filter count is updated to include chilled water.

Press (**Accept**) to confirm and the display reverts back to the service menu.

iii) To Select Push Thru. Chil mode

(Prog>*Chiller Selection*>Accept>*Push Thru. Chil*)

If the unit incorrectly senses the appropriate chiller, the user can manually set the unit to default to a Push Through Chiller.

Press (**Accept**) to confirm and the display reverts back to the service menu.

iv) To Select Pumped Chiller mode

(Prog>*Chiller Selection*>Accept>*Pumped Chiller*)

If the unit incorrectly senses the appropriate chiller, the user can manually set the unit to default to a Pumped Chiller.
Press (**Accept**) to confirm and the display reverts back to the service menu.

H) CHILLER TEMP

Select Appropriate Chiller Temperature (Prog>*Chiller temp*>Accept)

Display Shows: "XX ˚C"

Press the (**UP**) button to scroll from 5°C to 15°C.

Press (**Accept**) to confirm and the display reverts back to the service menu.

I) COLD TAP TIME

Select Appropriate Cold Tap Time (Prog>*Cold Tap Time*>Accept)

Display Shows: "XXs"

This allows the user to define the maximum volume of water that can be drawn off the unit in one pour.

Press the (**UP**) button to scroll from 5s to 60s.

Press (**Accept**) to confirm and the display reverts back to the service menu.

J) HOT TAP TIME

Select Appropriate Hot Tap Time (Prog>*Hot Tap Time*>Accept)

Display Shows: "XXs"

This allows the user to define the maximum volume of water that can be drawn off the unit in one pour.

Press the (**UP**) button to scroll from 5s to 20s.

Press (**Accept**) to confirm and the display reverts back to the service menu.

K) KEY LOCK

Select Key Lock (Prog>*Key Lock*)

Display Shows: "Key Lock"

This allows the user to lock the timer keys to prevent tampering.

Press the (**Accept**) button to confirm selection and the display will now show "Key Lock Enable" Press the (**Accept**) button again to reconfirm selection and the display will reverts to the main menu.

To unlock the Key Lock function, the " and "**Up**" buttons must be pushed simultaneously for 10 seconds.

OPERATING THE TAP

The boiling unit Tap is used to dispense boiling water and cold/chilled/filtered water. The Tap contains 2 lever switches (hot and cold), a safety lock button (child safety lock) and 2 LED's (Orange, Green). When operating the tap, every 20 seconds the boiling or cold water will stop. This is to prevent the tap being turned on permanently.

TAP LEVERS

The Tap houses two levers. The hot lever has a red insert, the cold has a blue insert.

To operate the levers you can,

a) Pull the lever up to allow for hands free filling of large containers, or

b) Push and hold the lever down for quick cup fills.

SAFETY LOCK BUTTON

The tap also incorporates a safety lock button. To activate and de-activate the button you must push it for 10 seconds. When the safety lock is activated, the word SAFETY will light up in Red on the top of the tap.

To operate the boiling water tap when the safety lock is on, press and hold the safety button whilst activating the boiling water lever.

TAP LED'S

The Tap contains 2 LED's on the top (where the safety lock button is positioned).

The Green LED (Ready) indicates the status of the boiling water unit temperature. If the Green LED is flashing, the boiling unit is below the set operating temperature. Wait until the green LED stops flashing, or you may get a cup of boiling water below the optimum temperature.

The Orange LED (Filter) if flashing, indicates the water filter (if installed) should be replaced. See Setting the Timer, Section E on page 9 for resetting the filter.

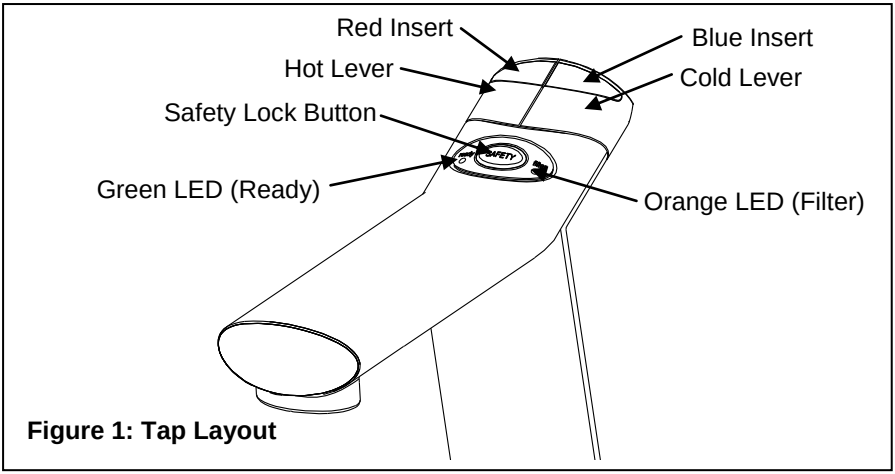


Figure 1: Tap Layout

CHANGING THE WATER FILTER

IF A WATER CHILLER IS CONNECTED PROGRESS THROUGH ALL STEPS
IF A WATER CHILLER IS NOT CONNECTED DO STEPS 1,2,4,5,6,7,9,10 & 11

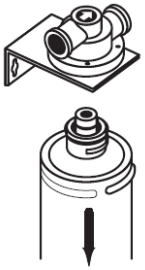
Step 1: Isolate the water supply to the boiling water unit.

Step 2: Isolate the boiling water unit from the electricity supply.

Step 3: Disconnect all electrical chiller connections to the boiling water unit

Step 4: Unlock the filter from the housing by rotating the filter body a quarter turn clockwise.

Step 5: Remove filter by lowering from housing. Ensure that minimal water is spilled within the boiling unit when removing filter.



Step 6: Prepare new filter by removing the plastic wrap and taking off the top plastic cover covering the inlet to the filter.

Step 7: Replace water filter by reversing steps 4 and 5.

Step 8: Disconnect Chilled Water Outlet Pipe from the Water Chiller (if connected) and connect it to the Chilled Water Supply Connector on boiling unit, using supplied ¼" -9mm John Guest spigot fitting supplied with replacement filter.

Step 9: Turn water on to the boiling water unit.

Step 10: Turn the electricity to the unit back on.

Step 11: Flush the new water filter by activating the cold button on the tap for a minimum of 5 minutes (note: the continuous draw off time can be increased to 1 minute intervals (see Section I page 12)

Step 12: Once flushing is complete, put the Chilled Water Outlet Pipe back onto the outlet connection on the chiller, and connect the Chiller Inlet Supply Pipe back onto the Chilled Water Supply Connector.

Step 13: Reconnect all electrical connections from the chiller back onto the boiling water unit.

Step 14: Check unit is functioning correctly and dispose of the old filter cartridge responsibly.

SAVE A SERVICE CALL

Check the items below before making a service call. You will be charged for attending to any condition or fault that is not related to manufacture or failure of a part.

NOT ENOUGH (OR NO) BOILING WATER

- **Is the electricity switched on?**

  Inspect the wall power socket to see if it is switched on. Also check the fuse or circuit breaker at the switchboard to see if it is tripped.

- **Is the timer in the off period?**

  If the timer has been set to turn off and the unit is below the optimum delivery temperature, the green LED will flash, press the hot lever on the boiling water tap and the unit will re-activate. Wait a couple of minutes, and the unit should be back up to temperature (green LED on the tap should change to be continuously on)

- **Is the leak sensor picking up there is a fault with the unit?**

  There is a leak sensor integrated within the boiling water unit that detects if there is a water leak (error code D displayed on the timer screen) within the boiling water unit. Phone your nearest Rheem Service Department or Accredited Service Agent to arrange for an inspection.

  If there is a fault with the unit an error code should be displayed on the front of the unit (see page 9 Section F, 1). If this occurs phone your nearest Rheem Service Department or Accredited Service Agent to resolve any problems with the unit..

WATER NOT HOT ENOUGH?

- **Heavy usage**

  You may find that due to heavy boiling water usage the water temperature may be lower than normally expected due to insufficient heating time being allowed.

- **High altitude**
  The boiling water unit is fitted with automatic altitude calibration to prevent the water from continually boiling, which is energy inefficient. Different altitudes will cause the unit to boil at different temperatures. If you believe the water temperature is not hot enough, recalibrate the unit (see page 10 section 4).

SAVE A SERVICE CALL

HIGH ELECTRICITY BILLS

Should you at any time, feel your electricity account is too high, we suggest you check the following points:

- This water heater is supplied with a programmable timer and sleep mode. Check to see if these features have been activated. Refer “Setting the Timer” on page 7.

UNIT WILL NOT SWITCH OFF

The electronic timer will only switch the unit on or off when it is in “Auto” mode (See section B on page 7) otherwise the unit will operate 24 hours a day 7 days a week.

NO WATER COMING OUT OF THE TAP

There may have been a large draw off prior. Wait a minute for the unit to fill enough for you to get water out. If water will still not come out of the tap check the timer screen if there is an error message and call your nearest Rheem Service Department or Accredited Service Agent to resolve any problems with the unit.

LOW CHILLED WATER FLOW

- **Low supply pressure**

  If the supply pressure is below 350 kPa, lower than acceptable flow rates may occur.

- **Blocked filter**

  Water flow rate will diminish over time as the filter purifies sediments from the water supply. Arrange for the filter to be replaced.

  The electronic timer incorporates a filter life counter. the tap will indicate when the filter should be changed by flashing the orange LED on the tap.

IF YOU HAVE CHECKED ALL THE FOREGOING AND STILL BELIEVE YOU NEED ASSISTANCE, CALL YOUR NEAREST RHEEM SERVICE DEPARTMENT OR ACCREDITED SERVICE AGENT.

INSTALLATION

THIS BOILING WATER UNIT IS FOR INDOOR INSTALLATON ONLY.

BOILING WATER UNIT LOCATION

The boiling water unit is suitable for indoor installation only. The boiling water unit should be installed close to the most frequently used outlet and its position chosen with noise, safety and service in mind. Ensure that the air vents are clear of obstructions at all times. This boiling water unit is designed to fit under a standard sink (internal cupboard depth of 550mm).

The boiling water unit should be positioned with the 24 hour timer facing the front of the cupboard for easy viewing.

Clearance must be allowed for servicing of the boiling water unit. The installer must leave at least 50mm clearance on sides that have vents to allow air flow to critical components.

You must be able to read the information on the rating plate. Remember you may have to remove the entire water heater for servicing.

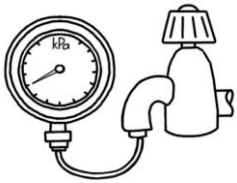
The installation must comply with the requirements of AS/NZS 3500.1, AS/NZS 3500.2, AS/NZS 3500.4, AS/NZS 3500.5, AS/NZS 3000 and water supply by-laws, relevant local authority by-laws, codes (eg Building Code) and regulatory authority requirements. In New Zealand, the installation must conform to the New Zealand Building Code.

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 the chemicals may attack the materials used in the construction of the boiling water unit, or adversely affect the operation of the boiling water unit.

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.

Model	TB3 / TB5
Max. mains water supply pressure	1000 kPa
Min. mains water supply pressure	100 kPa
Max. mains water inlet temperature	60°C
Min. mains water inlet temperature	1°C



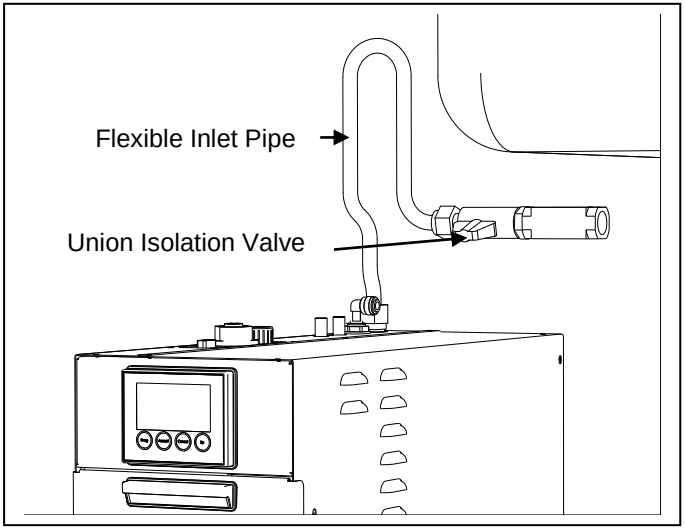
TANK WATER SUPPLY

If the boiling water unit is supplied with water from a tank supply and a minimum water supply pressure of 100 kPa at the boiling water unit cannot be achieved, then a pressure pump system must be installed to allow the boiling water unit to operate. The cold water line from the supply tank should be adequately sized and fitted with a full flow gate valve or ball valve, and care must be taken to prevent water hammer occurring between the pump and boiling water unit. **Failure to comply could void the warranty**.

INSTALLATION

TYPICAL UNDERSINK INSTALLATION

Step 1: Mains Water Connection



COLD WATER INLET

The pipe work must be cleared of foreign matter before connection and purged before attempting to operate the boiling water unit. All olive compression fittings must use brass or copper olives. Use thread sealing tape or approved thread sealant on all fittings.

It is mandatory for a union isolation valve to be fitted on the cold water supply line to the boiling water unit as this makes removing the product for servicing straight forward (the integrated Pressure Limiting Valve incorporates a dual non-return valve therefore extra non-return valves are not required for installation).

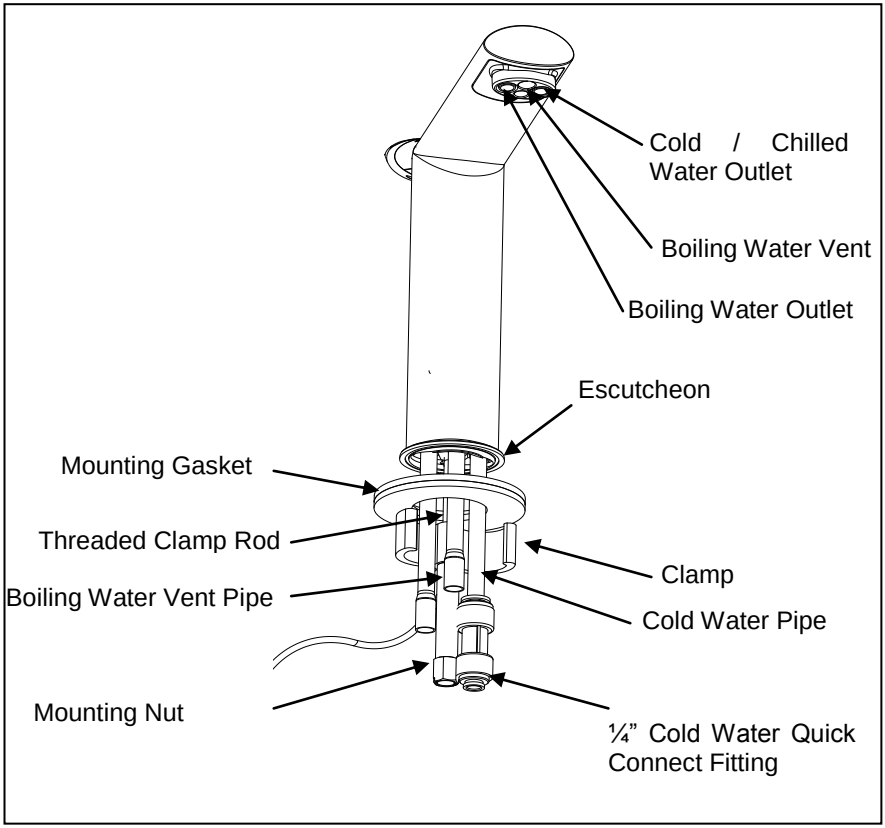
A good quality Watermarked Flexible Inlet Pipe must be installed between the union isolation valve and inlet connector on the unit, suitably long enough to allow the boiling water unit to be moved to the front of the cupboard so as to overhang the cupboard front lip by 50mm.

Note: A low quality Flexible Inlet Pipe will deteriorate the water quality entering the unit. Ensure that all flexible inlet pipes are Watermarked as this ensures that water passing through Flexible Inlet Pipes does not deteriorate before entering the boiling water unit.

Connect the cold water supply to the fitting marked “Inlet” on the boiling water unit.

INSTALLATION

Step 6: Tap Bench Installation



TAP BENCH INSTALLATION

To install the Rheem Tap onto a bench, a 35mm diameter hole must first be cut in the bench top in the preferred mounting position (ensure that all burrs and sharp edges are removed prior to fitting the tap). Next remove adhesive backing from the Mounting gasket and stick the gasket to the underside of the bench. The Tap (without Clamp Washer, Mounting Gasket or Mounting Nut) is then lowered through the cut hole. Place the Clamp Washer over the Threaded clamping rod and screw on the Mounting Nut. Tighten the Mounting Nut until the tap is secure (prior to clamping the tap firmly in place, ensure that it is pointing in the preferred direction for usage and the Tap Comms is clear to move and not jammed between the bench and the clamp). For ease of installation cut the threaded clamp rod to an appropriate length so the Clamp Washer can be tightened by the Mounting Nut with a Screw Driver.

INSTALLATION

BOILING/CHILLED WATER TAP

- Connect the silicone tube to the boiling water tap tube, and cut so the silicone tube inserts onto the boiling water outlet on the unit without kinking.

- Connect the silicone tube to the vent pipe tube on the tap, and cut so the silicone tube inserts onto the vent pipe outlet on the boiling unit without kinking.

- Connect the ¼" Chilled water outlet pipe to the ¼" quick connect fitting on the outlet line of the chiller, and cut so the chilled water outlet tube inserts into the ¼" quick connect fitting on the Tap without kinking **(Ensure that the Chilled Water Outlet Pipe is able to also be connected to the Chiller Water Supply connector on the Boiling Water Unit as this will facilitate flushing the filter when a filter change is required)**.

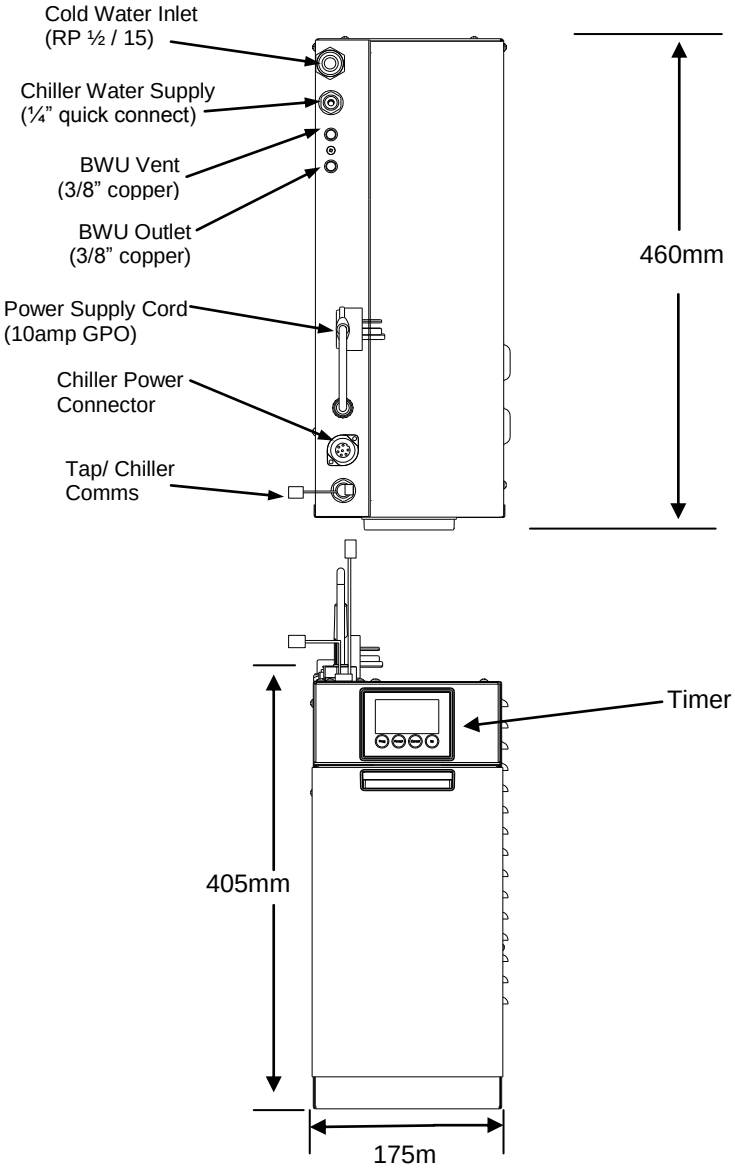
- Connect the tap communications cable to the tap/chiller comms plug from the boiling water unit (6 Pin). If a Rheem chiller is fitted in the installation, the other comms cable is to be plugged into the chiller comms plug (4 pin, connectors can only be inserted one way onto the plugs).

⚠**WARNING:** ENSURE THAT ALL TUBES ARE CUT TO LENGTH, INSTALLED WITHOUT KINKS OR TIGHT BENDS, AND HAVE CONTINUOUS FALL. FAILURE TO DO SO WILL CAUSE A DETRIMENTAL EFFECT ON THE PERFORMANCE OF THE UNIT AND RENDER THE WARRANTY VOID.

The Tap should be the last step in installation. Only once the Tap is installed can you open the isolation valve and turn the unit on electrically.

INSTALLATION

DIMENSIONS AND TECHNICAL DATA



Element power TB5 model	1700-1850 watts
Element power TB3 model	1400-1550 watts

Boiling water capacity	5 litres
Mass empty - total	12 kg
Mass full - total	18 kg

*Specifications are subject to change with ongoing product improvements.

INSTALLATION

THREADED CONNECTION SIZES

- Cold water inlet connection: RP½/15.

All plumbing work must be carried out by a qualified person and in accordance with AS/NZS 3500.4 and local authority requirements.

INSTALLATION SEQUENCE

The installation sequence should be as follows:

- Connect cold water mains supply
- Fit Chiller / Fan units
- Install boiling/chilled water tap
- Connect boiling water chilled/filtered water and vent tubes

FITTING RHEEM TB3 / TB5 TO AN EXISTING CHILLER INSTALLATION (For water chillers other than Rheem products)

The Rheem TB3 / TB5 boiling water unit can be installed with an existing stand alone water chiller installation only if the water chiller is a push through under sink device. The Rheem Tap can accommodate the entire system. All that is required is for the water to run from the chiller supply outlet on the Rheem TB3 / TB5 product to the inlet point on the stand alone water chiller. And then for the water to run from the outlet on the water chiller to the chilled water pipe on the Rheem Tap. The chiller comms wire on the tap loom does not need to be attached to the water chiller, as all chilled water controls are housed within the stand alone water chiller.

ELECTRICAL CONNECTION

MAINS POWER ELECTRICAL CONNECTION

The boiling water unit must be connected to a 240 V AC 50 Hz mains power supply via a standard power outlet socket. This device will not draw more than 10 Amperes when operating under full load, including Rheem chiller, if installed. For extra electrical protection against power surges and spikes it is highly recommended that the user install a surge protector prior to the boiling water unit.

⚠WARNING: This boiling water unit contains electronic equipment and 500 V insulation tests must only be conducted between active and earth and between neutral and earth.

COMMISSIONING

TO TURN ON AND FILL THE BOILING WATER UNIT

- Switch on the electrical supply at the isolating switch to the water heater.
- The unit should begin filling (check for external leaks)
- Set the timer. Refer to “Setting the Timer” on page 7.

On initial start up, this boiling water unit automatically runs through a set-up cycle to detect the boiling point of water. During this cycle steam may discharge from the vent pipe for a short time. This set-up cycle will take up to 17 minutes depending on unit, and when completed (boiling point detected) the unit will commence incremental filling. It is important NOT to operate the tap during the set-up cycle because it may affect the operating temperature of the unit.

Explain to the householder or responsible officer the functions and operation of the boiling water unit. Upon completion of the installation and commissioning of the boiling water unit, leave this guide with the responsible officer.

TO TURN OFF THE BOILING WATER UNIT

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

- Switch off the electrical supply at the isolating switch to the boiling water unit.
- Close the cold water isolation valve at the inlet to the boiling water unit

DRAINING THE BOILING WATER UNIT

To drain the boiling water unit:

- Firstly operate the boiling water tap until no water pumps out of the unit, then;
- Turn off the boiling water unit (refer to “To Turn off the Boiling Water Unit” on page 28).
- Close the cold water isolation valve.
- Remove the unit from the cupboard (the unit should weigh about 7kg) Remove the silicone boiling, chilled and vent pipes from the Boiling Water Unit.
- Place a container under the end of the boiling / vent outlets to collect the water being drained off the unit.
- Tip the unit on its side so remaining water drains from the boiling and vent pipes

⚠WARNING: The water contained in the tank may be hot. Take care to avoid scalding.

WATER SUPPLIES

Your boiling water unit is manufactured to suit the water conditions of most Australian and New Zealand metropolitan water supplies. However, there are some known water supplies which can have detrimental effects on the water heater and its operation and/or life expectancy. If you are unsure of your water quality, you can obtain information from your local water supply authority. The boiling water unit should only be connected to a potable water supply.

CHLORIDE AND PH

In a high chloride water supply, the water can corrode stainless steel parts and cause them to fail. Where the chloride level exceeds 250 mg/L warranty does not apply to the boiling water unit.

The pH is used as a measure of the water's alkalinity and acidity. In an acidic water supply, the water can attack stainless steel parts and cause them to fail. Where the pH is less than 6.0, the water is acidic and warranty does not apply to the boiling water unit.

SATURATION INDEX

The saturation index 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 corrosive and warranty does not apply.

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, warranty does not apply to the cylinder unless a water softening device is installed.

WATER HEATERS NOT INSTALLED IN ACCORDANCE WITH THE ABOVE ADVICE WILL NOT BE COVERED BY THE WARRANTY.

END OF LIFE WATER HEATER DISPOSAL

DISPOSAL

Your Rheem TB3 / TB5 Boiling Water Unit is made from 99% recyclable material. Contact your nearest Rheem Service Department or Accredited Service Agent to arrange for Disposal of your old Boiling Water Unit.

ENVIRONMENT

If a chiller unit is installed, at the end of the service life and prior to the chiller being disposed of, a person qualified to work with refrigerants must recover the refrigerant from within the sealed system. The refrigerant must not be vented to atmosphere. Phone your nearest Rheem Service Department or Accredited Service Agent to arrange for an inspection

INSTALLATION NOTES:

RHEEM BOILING WATER UNIT WARRANTY

WARRANTY CONDITIONS

1. This warranty is applicable only to water heaters manufactured from 1st July 2007.
2. The water heater must be installed in accordance with the Rheem water heater installation instructions, supplied with the water heater, and in accordance with all relevant statutory and local requirements of the State in which the water heater is installed.
3. Where a failed component or water heater is replaced under warranty, the balance of the original warranty period will remain effective. The replaced part or water heater does not carry a new warranty.
4. Where the water heater is installed outside the boundaries of a metropolitan area as defined by Rheem or further than 25 km from a regional Rheem branch office, or an Accredited Service Agent, the cost of transport, insurance and travelling costs between the nearest Rheem Accredited Service Agent's premises and the installed site shall be the owner's responsibility.
5. Where the water heater is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and / or safety equipment, shall be the owner's responsibility.
6. The warranty only applies to the water heater and original or genuine (company) component replacement parts and therefore does not cover any plumbing or electrical parts supplied by the installer and not an integral part of the water heater, e.g. pressure limiting valve; isolation valves; non-return valves; electrical switches; pumps or fuse.
7. The water heater must be sized to supply the hot water demand in accordance with the guidelines in the Rheem water heater literature.

WARRANTY EXCLUSIONS

1. REPAIR AND REPLACEMENT WORK WILL BE CARRIED OUT AS SET OUT IN THE RHEEM WATER HEATER WARRANTY ABOVE HOWEVER THE FOLLOWING EXCLUSIONS MAY CAUSE THE WATER HEATER WARRANTY TO BECOME VOID AND MAY INCUR A SERVICE CHARGE AND / OR COST OF PARTS.

a) Accidental damage to the water heater or any component, including: Acts of God; failure due to misuse; incorrect installation; attempts to repair the water heater other than by a Rheem Accredited Service Agent or the Rheem Service Department.
b) Where it is found there is nothing wrong with the water heater; where the complaint is related to excessive discharge from the temperature and / or pressure relief valve due to high water pressure; where there is no flow of hot water due to faulty plumbing; where water leaks are related to plumbing and not the water heater or water heater components; where there is a failure of gas, electricity or water supplies; where the supply of gas, electricity or water does not comply with relevant codes or acts.
c) Where the water heater or water heater component has failed directly or indirectly as a result of: excessive water pressure; excessive temperature and / or thermal input; blocked overflow / vent drain; corrosive atmosphere; ice formation in the pipe work to or from the water heater.
d) Where the water heater is located in a position that does not comply with the Rheem water heater installation instructions or relevant statutory requirements, causing the need for major dismantling or removal of cupboards, doors or walls, or use of special equipment to bring the water heater to floor or ground level or to a serviceable position.
e) Repair and / or replacement of the water heater due to scale formation in the waterways or the effects of either corrosive water or water with a high chloride or low pH level when the water heater has been connected to a scaling or corrosive water supply or a water supply with a high chloride or low pH level as outlined in the Owner's Guide and Installation Instructions booklet.

2. SUBJECT TO ANY STATUTORY PROVISIONS TO THE CONTRARY, THIS WARRANTY EXCLUDES ANY AND ALL CLAIMS FOR DAMAGE TO FURNITURE, CARPETS, 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.

WARRANTY

Rheem will:

a) Repair or, if necessary replace any Rheem water heater; or
b) Replace any component (or, if necessary, arrange the installation of a new water heater),
which falls within the Warranty Periods specified below, subject to the warranty conditions and exclusions.

Installation	Model	Period	Warranty
All Components (from date of installation)			
All installations	All models	Year 1	New component or water heater (at Rheem's sole discretion), free of charge, including labour**.

Notes:
** Refer to items 4 and 5 of warranty conditions.

Rheem reserves the right to transfer fully functional components from the defective water heater to the replacement water heater if required. The term "water heater" used in the Warranty, Warranty Conditions and Warranty Exclusions means the Rheem supplied water heater(s),boiling water unit(s), chiller unit(s), tap(s) and components.

In addition to this warranty, the Trade Practices Act 1974 and similar laws in each state and territory provide the owner under certain circumstances with certain minimum statutory rights in relation to your Rheem boiling water unit. This warranty must be read subject to that legislation and nothing in this warranty has the effect of excluding, restricting or modifying those rights.

RHEEM
www.rheem.com.au
www.rheem.co.nz

FOR SERVICE TELEPHONE
131 031 AUSTRALIA
0800 657 335 NEW ZEALAND
or refer local Yellow Pages

Note: Every care has been taken to ensure accuracy in preparation of this publication. No liability can be accepted for any consequences, which may arise as a result of its application.

INSTALLATION NOTES: