

MODELS
Bosch 17e
Bosch 21e
Bosch 25e
Bosch 26e

(YS1770RA series, YS2170RA series, YS2670RABZ, YS2670RA series)

INSTALLATION MANUAL



This appliance must be installed in accordance with the manufacturer's installation instructions, AS5601, AS/NZS3500.4, AS3000 wiring regulations and all Local Building, Water and Gas fitting regulations.

To be installed and serviced only by an authorised person
This appliance is not suitable for use as a pool heater

The "authorised installing person" is responsible for :

1. Correct commissioning of this appliance.
2. Ensure unit performs to the specifications stated on the rating label.
3. Demonstrate operation of unit to customer before leaving.
4. Hand these instructions to customer.

Failure to install this appliance in accordance with these installation instructions may void warranty

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This Bosch water heater is an external, electronically controlled gas water heater. This Bosch appliance is supplied set to operate without temperature selector pads at a constant 55°C outlet temperature. To set the appliance to a different temperature, refer to page 13 for details.

Available as optional extras are Main, Bathroom or Sub temperature selector pads.

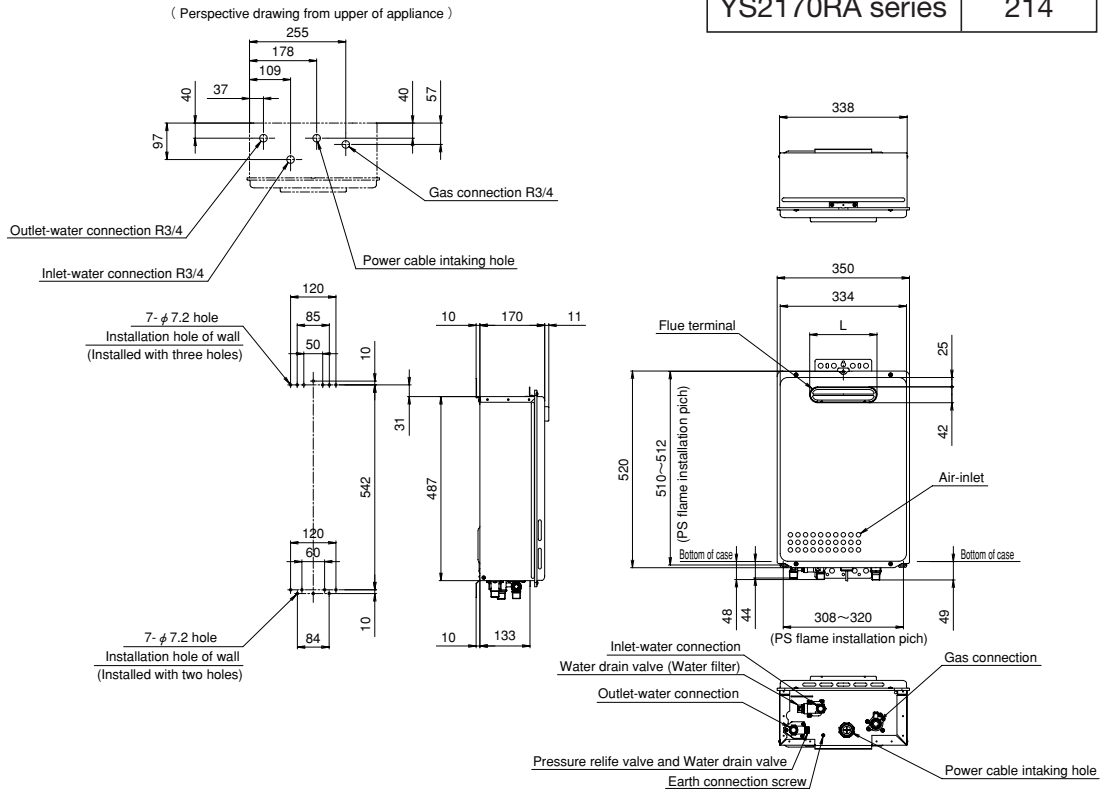
Only one Main controller and one Bathroom controller can be connected to the appliance along with up to 2 x Sub-controllers.

The bathroom and sub temperature selector pads have a maximum temperature setting of 50°C for safety. To ensure compliance with Australian Standard AS/NZS 3500.4, in the bathroom area, this may be achieved by using a Bosch appliance limited to 50°C or using a Bosch appliance with a delivery temperature greater than 50°C and installed with a tempering valve (high performance). In New Zealand, please refer to the New Zealand Building Code and all other applicable electrical, gas fitting and plumbing codes.

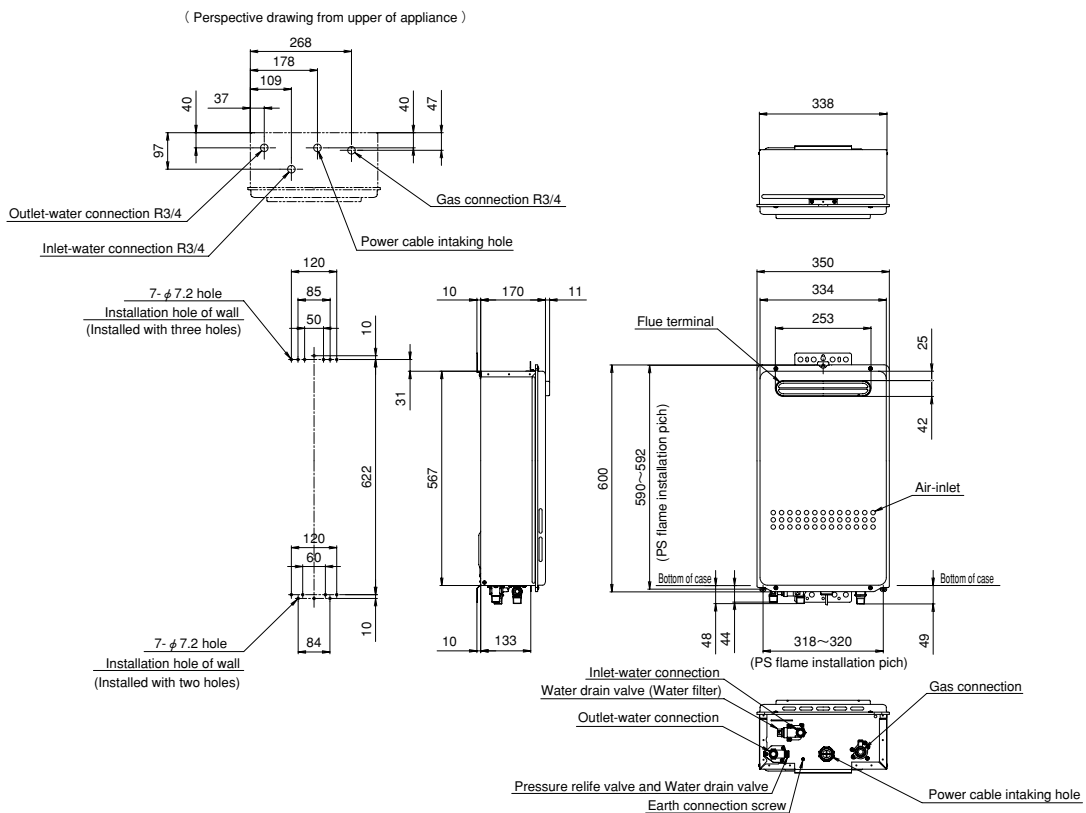
Before installing this appliance, carefully check that all packing materials have been removed and that the appliance is correct for the gas supply to which it is to be connected

DIMENSIONS YS1770RA series, YS2170RA series

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YS1770RA series	178
YS2170RA series	214



DIMENSIONS YS2670RA series, YS2670RABZ



TECHNICAL DATA

Nominal hourly gas consumption by proportional gas control:

	Natural Gas	LP Gas
17e	135 Mj/hr	135 Mj/hr
21e	170 Mj/hr	170 Mj/hr
25e	200 Mj/hr	200 Mj/hr
26e	200 Mj/hr	200 Mj/hr

Test Point Pressure:

Model	Natural Gas Max (kPa)	Natural Gas Min (kPa)	LP Gas Max (kPa)	LP Gas Min (kPa)
YS1770RA series	.67	.26	.78	.23
YS2170RA series	.69	.21	.91	.23
YS2670RABZ	.72	.19	.80	.22
YS2670RA series	.72	.19	.80	.22

Water heating capacity	17e	21e	25e	26e
Litres a minute raised 25°C	17	21	26	26

Maximum Inlet Water Pressure	1000 kPa
Input voltage single phase 50Hz	AC240/230 Volt
Maximum output current	1 Amp
AGA Approval certificate number	7032
Inlet gas connection male thread	20mm
Cold water connection male thread	20mm
Hot water connection male thread	20mm
Relief valve pressure setting	1600 kPa

DATA PLATE

Fitted inside of cabinet

GAS TYPE

The gas type is nominated on a temporary label located on the front cover, and on the data plate located inside of cabinet. The gas type is the gas on which this appliance is designed to operate.

DO NOT OPERATE WITH ANY OTHER GAS TYPE.

WARNING LABELS

Located on the right side of the cabinet- PLEASE READ THESE LABELS CAREFULLY!

POSITION FOR INSTALLATION

The heater must be installed by using a fixing method sufficient to hold the 21Kg weight of unit (see the technical sheet for dimensions of mounting brackets and positions)

N.B.: On combustible surfaces e.g. weatherboards etc. it is not required to install a fire proof back board.

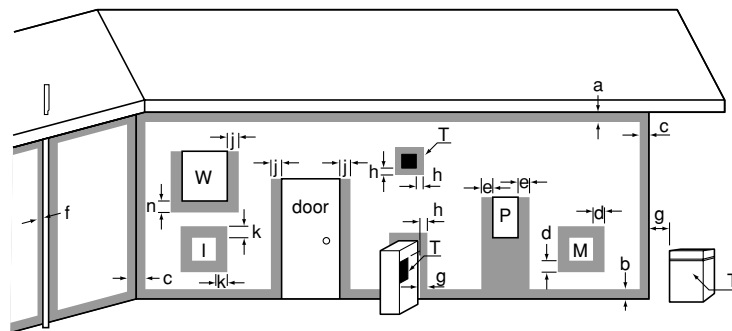
APPLIANCE LOCATION

- (1) This water heater is approved for outdoor installation only.
- (2) Do not install this water heater with any modification or alteration.
- (3) Do not install this water heater indoors or in an enclosed space .

WARNING: FLUE OUTLET MUST BE FREE FROM ANY COMBUSTIBLE MATERIAL.

CLEARANCES FOR FLUE TERMINAL (front of heater)

The location of the flue terminal must comply with the clearances shown on this page. If you are unsure about clearances not indicated here, in general refer to AS5601, or your local authority. In Western Australia refer to the SECWA rules and regulations.



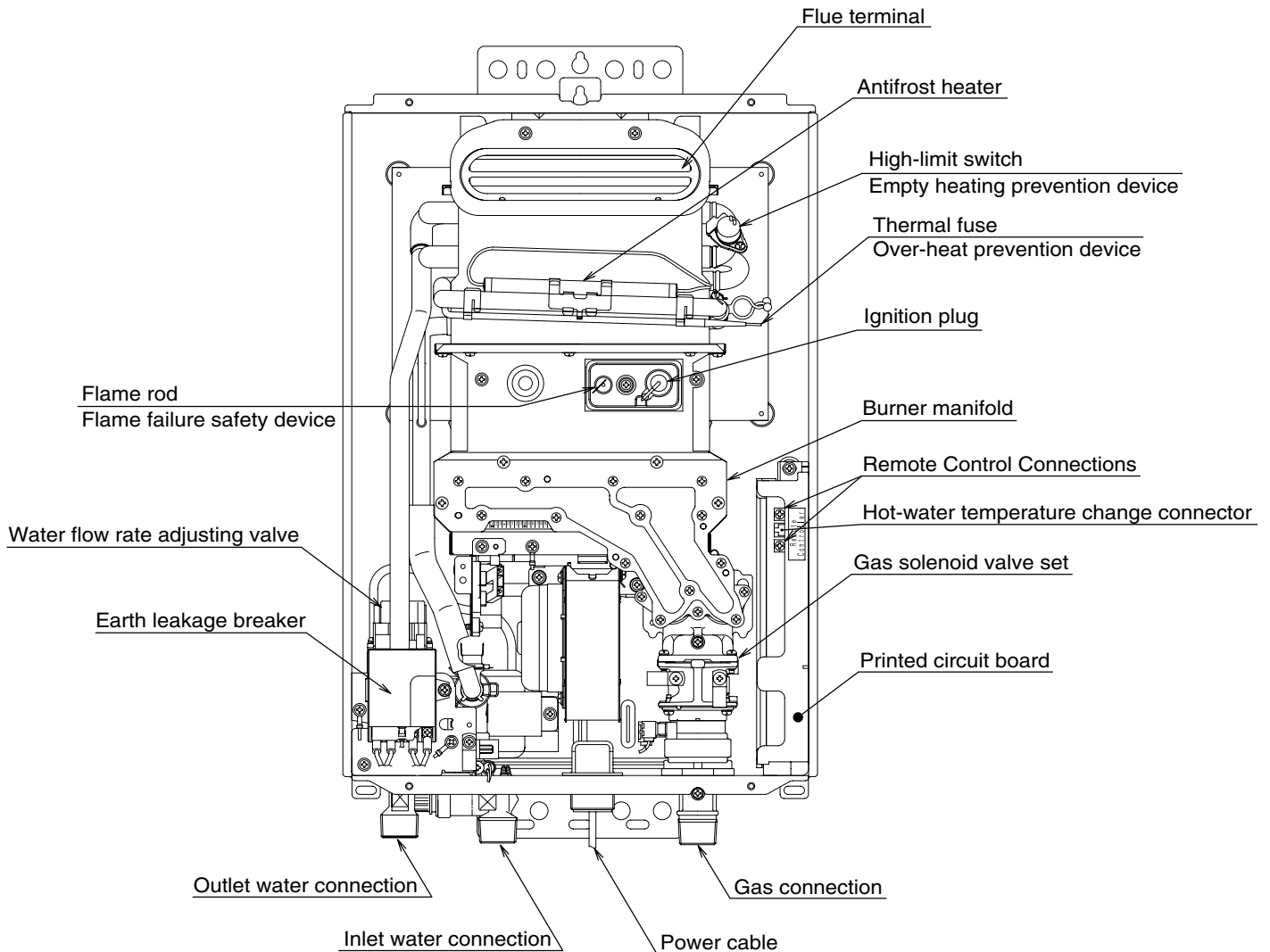
Use as a guide only. Refer to AS5601 or local gas fitting rules for specific locations

T=Flue terminal
 I=Mechanical air inlet
 M=Gas meter
 P=Electricity meter or fuse box
 Shaded area indicates prohibited area
 W=Window

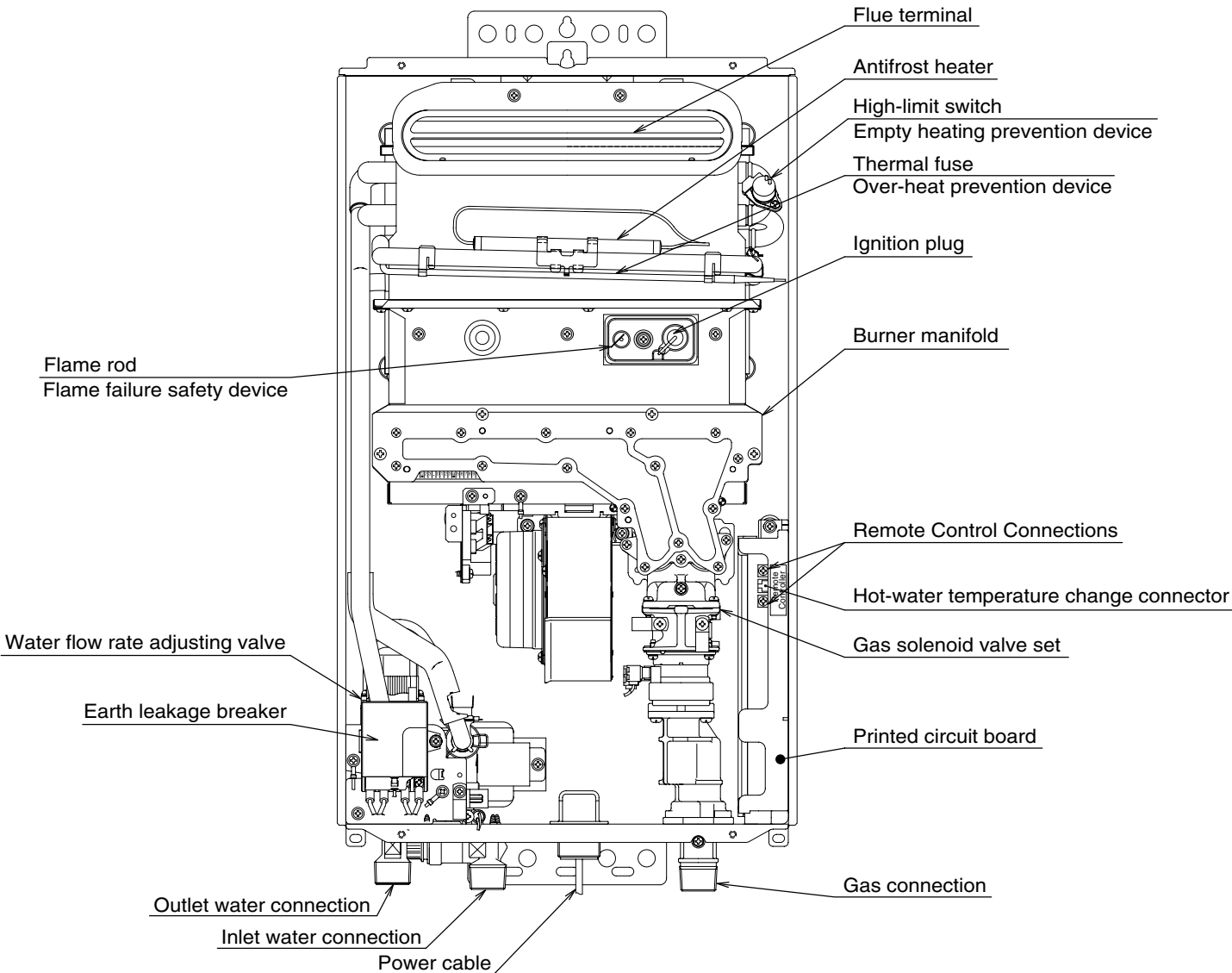
Ref	Item	Clearance mm	
		Natural draft	Fan assisted
a	Below eaves, balconies and other projections		
	Appliances up to 50MJ/h input	300	200
	Appliances over 50 MJ/h input	500	300
b	From the ground, above a balcony or other surface	300	300
c	From a return wall or external corner	500	300
d	From a gas meter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

COMPONENT DETAILS

- YS1770RA series, YS2170RA series



- YS2670RA series, YS2670RABZ



GAS CONNECTION

- (1) Fit a union to the water heater gas inlet for easy connection and removal. The thread diameter is 20 mm.
THIS DOES NOT INDICATE THE SIZE OF THE GAS SUPPLY.
- (2) Fit an AGA / NZGA approved isolating gas cock in the supply line adjacent to the water heater gas connection.
- (3) Ensure that the supply pipe and the gas pressure regulator (LPG or Natural Gas) has sufficient flow capacity for this and other appliances connected to the fitting line.
- (4) For LPG appliances ensure that gas cylinders are of sufficient size. The water heater alone will require 2 x 45 Kg capacity cylinders.
- (5) Before connecting the appliance to the gas service, purge any debris or air from the gas service.
- (6) Check all joints for leaks with an approved leak tester after connection.

Refer to AS 5601 Installation Code or NZ installation code for pipe sizing details.

Ensure that the gas pipe size is correct. If undersized the appliance will not operate correctly

SERVICE CALLS ARE CHARGEABLE FOR UNITS WITH INCORRECT PIPE SIZES OR BLOCKED GAS OR WATER FILTERS.

COLD WATER CONNECTION TO WATER HEATER

Refer to technical sheet for position of connections. The WATER INLET connection is 20 mm 3/4" BSP and requires a union to allow for removal of the water heater. Pipe sizing from the cold water supply should be sized according to local BY LAWS for water supply.

If sludge or foreign matter is present in the water supply it is recommended that a separate filter/strainer be fitted to the cold water supply line.

Please ensure this appliance does not receive inlet water greater than 85°C when used as a Solar booster.

ISOLATING GATE VALVE

A GATE VALVE OR BALL VALVE must be used on the cold water inlet to the water heater. THIS REQUIREMENT IS AN AUSTRALIA WIDE REQUIREMENT UNDER THE NATIONAL PLUMBING CODE.

STOP TAPS OR COMBINATION STOP TAPS AND NON-RETURN VALVES ARE NOT TO BE USED.

N.B. NO PRESSURE REDUCTION VALVE IS REQUIRED UNLESS THE WATER PRESSURE EXCEEDS 1000 kPa

HOT WATER CONNECTION TO WATER HEATER.

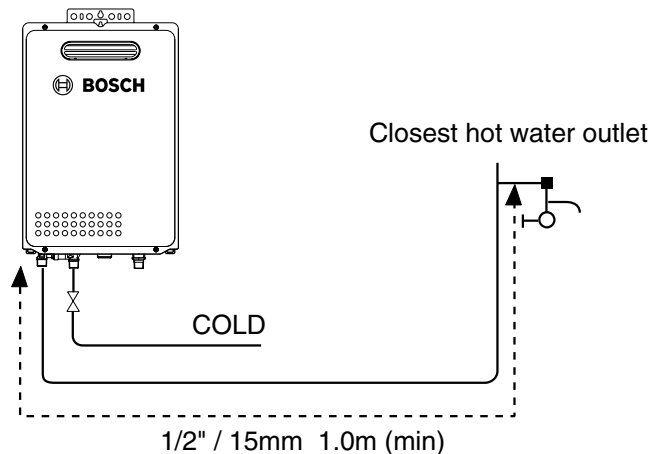
Refer to Technical Sheet for position of connection. The outlet connection is 20 mm (3/4" BSP) MALE thread, and requires an isolating union to allow for removal of the unit. Keep the pipe lengths to a minimum, and make sure that the pipework is well insulated as correct performance of the appliance is dependent on properly insulated pipework. **DO NOT FIT ANY VALVES OR RESTRICTORS TO THE OUTLET OF THE WATER HEATER.**

DO NOT FIT ANY OBSTRUCTION TO THE PRESSURE RELIEF LOCATED ON THE HOT WATER OUTLET CONNECTION.

After purging the air from the system using the hot water supply taps, remove the water inlet strainer located on the cold water supply inlet connection. Remove any debris from the filter and replace. When replacing the filter, do not over-tighten the "O" ring seal.

In order to comply with AS3498 the minimum distances as per the diagram below must be observed.

These requirements are only for the 50°C locked units.



WARNING: For continued safety of this appliance it must be installed, operated and maintained in accordance with the manufacture's instructions.

ELECTRICAL CONNECTION

The appliance is equipped with a 1.7 metre cable with a three pinned earthed plug to be connected to a 240V, 50Hz supply. The electrical rating of the appliance is 0.4 Amps

The appliance requires a 240V in Australia and 230V in New Zealand, 50Hz weatherproof plug installed in a protected position adjacent to the appliance.

IMPORTANT: The appliance should always be disconnected from the power supply before any maintenance is carried out. If the power cord is damaged and requires replacement, use only an original spare part available from the manufacturer.

PRE-SET TEMPERATURE

The Bosch water heaters are factory pre-set to operate at 55°C (or 50°C on 50 degree model) without temperature selector pads. The pre-set temperatures can be altered to 60°C or 75°C, (or 42°C on 50 degree limited unit) by changing the setting of the CPU or by using the temperature bridges supplied. Refer to page 13 for details.

The appliance can also be fitted with temperature selector pads, available as an accessory item. When fitted, the hot water will be delivered at the temperature displayed on the selector pad.

There are two versions of remote controls available, the 66 series which has bath fill alarm and the 67 series which has bath fill stop.

**The two different series must never be connected to the same water heater.
The sub controller cannot be used as a sole controller.**

There is a Main, Bathroom and Ensuite control available in each series, never connect more than one of each control type to the water heater (except an extra sub controller as the fourth controller.)

Only one of each type can be connected to the appliance.

	67 series (Bathstop)	66 series (Bathfill)	
Main controller	YPRM67XBN YPRM67XB	YPRM66XB	Max temperature 75° C #
Bathroom controller	YPRS67XBN YPRS67XB	YPRS66XB	Max temperature 50°C
Ensuite controller	YPRP62XB	YPRP62XB	Max temperature 50°C

MAXIMUM TEMPERATURE IS CONTROLLED BY THE MAXIMUM DEFAULT TEMPERATURE SET IN THE WATER HEATER

TEMPERATURE SELECTOR PAD INSTALLATION DETAILS

Main, Bathroom & Sub Control

Select a suitable flat, dry location away from direct sunlight.(Direct sunlight could make it difficult to see display)

Cut an opening in wall through center of where the remote control is to be installed, pull cable from wall cavity through opening. Attach cable to control. Remove cover from remote control, locate control so that the wiring is not caught between the wall and the remote control.

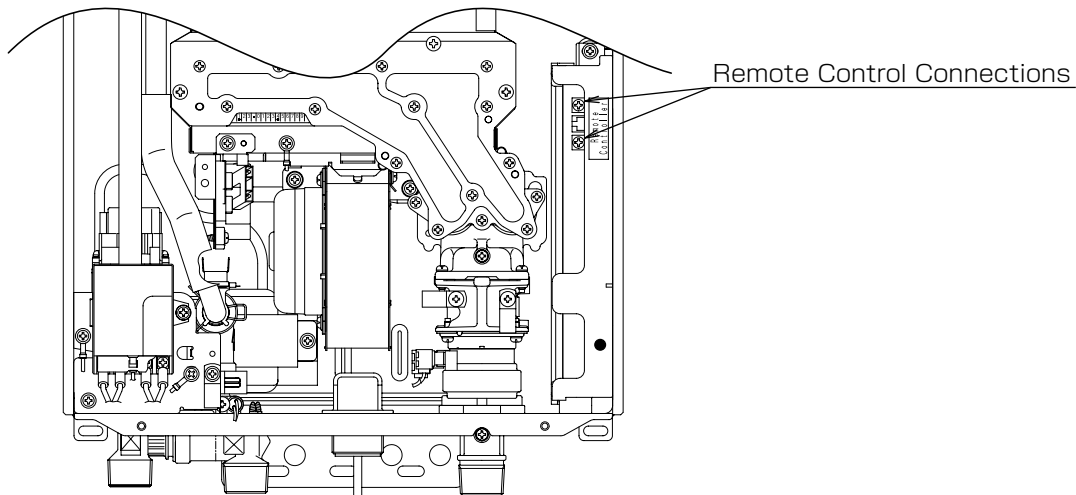
Secure control to wall using the screws provided and refit front cover.

Ensure that sufficient cable length is left to remove control if necessary.

TEMPERATURE SELECTOR PAD WIRING DETAILS

- 1 Remove the front cover of the water heater and locate the PCB on the right hand side of the cabinet.
- 2 Locate the two control terminals on the PCB.
(Please be aware that all controller terminals connect back to the same two points on the PCB)

- 3 Connect one end of the cable to the back of the controller using the terminal points provided. Run the cable from each controller back to the hot water unit. Push the cable up through the electrical cord hole located at the base of the unit.
- 4 Connect the other end of the cable to the terminals on the PCB.
- 5 Locate and secure cable to cable support bracket inside unit.
- 6 Replace the appliance front cover, attach the earth wire and connect the power



TEMPERATURE CONTROL OPERATION

Turn the main temperature selector ON by pressing the Operation switch ON, the control will display 40°C. Adjust the setting control switch if a different temperature is required.

To transfer operation to the bathroom or sub control press the priority switch on the bathroom or sub control and adjust the temperature as required.

The appliance can also be switched on at any of the selectors by pressing the on button

Priority can be cancelled at the main control by switching OFF & ON (Except if water running)

COMMISSIONING AND TESTING

After completing the installation of the unit, connect manometer to gas inlet test point, turn on the water, power and gas supplies to the unit. Confirm the water heater delivers the temperature the consumer requires. With the hot water running, confirm correct gas inlet pressure and remove manometer. Retighten test point and soap test. Test operation of the appliance, explain operation to consumer & hand over these installation instructions. Please leave your contact details with the consumer.

BURNER PRESSURE ADJUSTMENT

No adjustment should be necessary providing the gas inlet pressure is correct.

Burner pressure adjustment is necessary when converting to a different gas type or replacing the PCB. Refer to service manual for details.

N.B. The combustion fan continues to operate for approximately 7 minutes after the unit is turned off. This is normal, not a fault.

SETTING THE TEMPERATURE

USE BRIDGES PROVIDED

Use the bridges provided to change the temperature as indicated in the table....

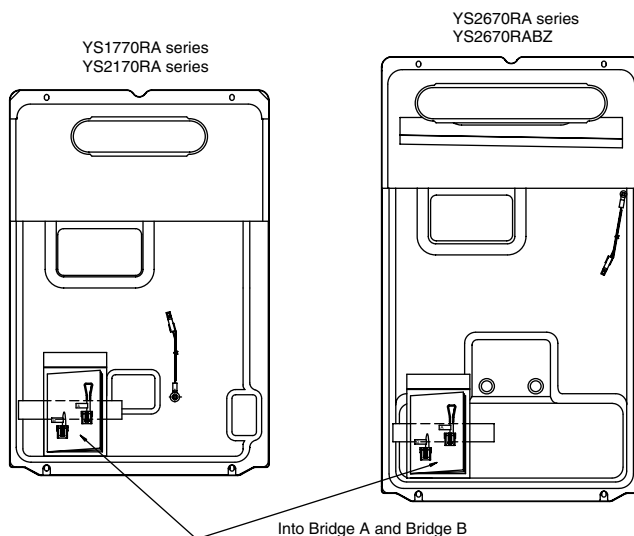
Remote controller less

Unit		Factory Setting	Bridge A	Bridge B
YS1770RA YS1770RAH YS2170RA YS2170RAH	YS2670RA YS2670RAH YS2670RABZ	55°C	75°C	60°C
YS1770RA5 YS2170RA5	YS2670RA5 YS2670RA5P	50°C	50°C	42°C

Connected remote controller

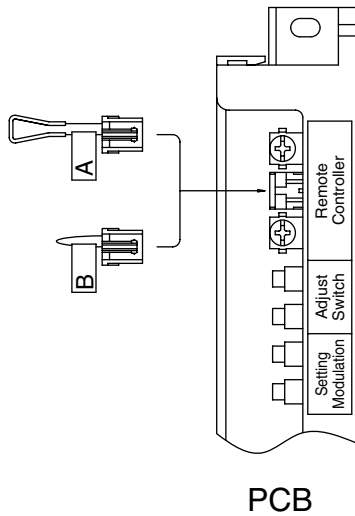
Unit	Remote controller	Factory Setting	Bridge A	Bridge B
YS1770RA YS1770RAH YS2170RA YS2170RAH YS2670RA YS2670RAH YS2670RABZ	YPRM66XB	37-55°C	37-75°C	37-60°C
	YPRS66XB	37-50°C	37-50°C	37-50°C
	YPRM67XBN	37-55°C	37-75°C	37-60°C
	YPRS67XBN	37-50°C	37-50°C	37-50°C
	YPRM67XB	37-55°C	37-75°C	37-60°C
	YPRS67XB	37-50°C	37-50°C	37-50°C
	YPRP62XB	37-50°C	37-50°C	37-50°C
YS1770RA5 YS2170RA5 YS2670RA5 YS2670RA5P	YPRM66XB	37-50°C	37-50°C	37-42°C
	YPRS66XB	37-50°C	37-50°C	37-42°C
	YPRM67XBN	37-50°C	37-50°C	37-42°C
	YPRS67XBN	37-50°C	37-50°C	37-42°C
	YPRM67XB	37-50°C	37-50°C	37-42°C
	YPRS67XB	37-50°C	37-50°C	37-42°C
	YPRP62XB	37-50°C	37-50°C	37-42°C

Step 1 : Locate bridges attached to the inside of the front cover



Step 2: Turn off power to unit.

Step 3: Insert bridge into plastic clip between the controller terminals



PCB

Step 4: Turn power back on

Unit is now set as per the table on the previous page.

USER SAFETY INSTRUCTIONS

PLEASE CAREFULLY READ THIS USER INSTRUCTION BEFORE USE.

You have selected the Bosch Electronic computer controlled hot water unit. The following instructions will assist you to obtain the best performance from your Bosch water heater

SAFETY

1. **Always check water temperature by hand before entering the shower or bath. The temperature may have been changed.**
2. **Do not touch cover or flue outlet when the Bosch water heater is in operation.**
3. **Keep flammable materials, trees, shrubs etc. away from the Bosch water heater**
4. **Water flow needs to be more than 2.0L/min. to operate these Bosch Water Heaters. Hot water temperature may vary at low water flows, or the Water Heater may go out without warning.**
5. **Warning - If the appliance does not operate, burns with yellow flame, leaks water or a gas smell is evident, turn off and contact the local gas authority, the manufacturer or an authorized service person.**
6. **In cases where the inlet water temperature is greater than 20°C the flow rate will need to be increased to maintain low temperatures if using a temperature controller.**

IN CASE OF DIFFICULTIES

If the Bosch water heater ceases to operate, please check that the electricity supply is available. (Check for display of temperature at control pad or plug in a portable appliance.) Also check that the gas supply is turned on.

If a fault develops there are no user adjustments or serviceable components contained in this appliance. Please contact an authorized service person.

SERVICING AND MAINTENANCE

These gas water systems should be serviced at intervals not exceeding two years in domestic applications and in commercial applications intervals not exceeding one year.

For information on how to locate service and parts please phone 1300 30 70 37.

WATER QUALITY

All Bosch water heating appliances are constructed from high quality materials and components and all are certified for compliance with relevant parts of Australian and New Zealand gas, electrical and water standards.

Whilst Bosch water heaters are warranted against defects, the warranty is conditional upon correct installation and use, in accordance with detailed instructions provided with the heater. In the case of the water supplied to the heater, it is important that the water quality be of acceptable standard.

The water quality limits/parameters listed in water quality table are considered acceptable and generally, Australian and New Zealand suburban water supplies fall within these limits/parameters.

In areas of Australia and New Zealand where water may be supplied, either fully or partly, from bores, artesian wells or similar, one or more of the important limits may well be exceeded and the heater could, therefore, be at risk of failure.

Where uncertainty exists concerning water quality, intending appliance users should seek a water analysis from the water supplying authority and in cases where it is established that the water supply does not meet the quality requirements of the water quality table, the Bosch warranty would not apply.

WATER QUALITY TABLE

Maximum levels

pH	Saturation Index(LSI) (langelier)	Total Hardness	Chlorides	Sodium	Iron
6.5-9	+0.4 to Minus 1.0 @65C	200mg/l	250mg/l	180mg/l	1mg/l

Robert Bosch (Australia) Pty Ltd (Bosch)
Manufacturer's Warranty
(Applicable for purchases from 1 January 2012)

All Bosch hot water units are carefully checked, tested and subject to stringent quality controls.

1. Warranty

Bosch offers, at its option, to repair or exchange this Bosch hot water unit or the relevant part listed in clause 2 below at no charge, if it becomes faulty or defective in manufacture or materials during the warranty period also stated in clause 2. This warranty is offered in addition to any other rights or remedies held by a consumer at law.

2. Warranty periods & coverage

- (a) Domestic applications: 3 years (parts and labour)
- (b) Heat exchangers used in domestic applications: 10 years (parts only)
- (c) Commercial applications: 12 months (parts and labour)
- (d) Heat exchangers used in commercial applications: 5 years (part only)

All warranty periods commence on the date of purchase of the hot water unit by the end-user. However, where the date of purchase by the end-user is more than 24 months after the date of manufacture, all warranty periods will automatically commence 24 months after the date of manufacture.

3. Warranty exclusions

This warranty is VOID if any damage to or failure of the hot water unit is caused wholly or partly by:

- (a) faulty installation
- (b) neglect, misuse, accidental or non-accidental damage, failure to follow instructions
- (c) use of the unit for purposes other than which it was designed or approved
- (d) unauthorised repairs or alterations to the unit without Bosch's consent
- (e) use of unauthorised parts and accessories without Bosch's consent
- (f) use of non-potable water or bore water in the hot water unit (see product instructions for further details)
- (g) continued use after a fault becomes known or apparent.

This warranty DOES NOT include:

- (a) costs of consumables or accessories
- (b) wear and tear, normal or scheduled maintenance
- (c) to the extent permitted by law, any damage to property, personal injury, direct or indirect loss, consequential losses or other expenses
- (d) changes in the condition or operational qualities of the hot water unit due to incorrect storage or mounting or due to climatic, environmental or other influences.

NOTE: Any service call costs incurred by the owner or user of the hot water unit for any matter not covered by the terms of this warranty will not be reimbursed by Bosch, even if those costs are incurred during the warranty period. If the hot water unit is located outside the usual operating area of a Bosch service agent, the agent's travel, freight or similar costs are not covered by this warranty and must be paid by the owner or user of the hot water unit.

4. Warranty conditions

- (a) Proof of purchase may be required.
- (b) The hot water unit must be installed by an authorised and licensed installer.
- (c) Proof may be required of the date of installation and correct commissioning of the hot water unit has been carried out to Bosch's satisfaction (such as a certificate of compliance).

- (d) Repair or replacement of the hot water unit or any parts under this warranty does not lengthen or renew the warranty period.
- (e) This warranty is not transferable and is only offered to the original purchaser of the hot water unit.
- (f) No employee or agent of Bosch is authorised to amend the terms of this warranty.
- (g) This warranty only applies to Bosch hot water units purchased from an authorised reseller and installed in Australia or New Zealand.
- (h) To the extent that any condition or warranty implied by law is excludable, such condition or warranty is excluded.

5. How to lodge a warranty claim and warranty procedure

- (a) Warranty claims must be made with the Bosch Customer Contact Centre (Australia: ph 1300 307 037; New Zealand: ph 0800 543 352). Please be ready to provide the model and serial numbers, date of installation, purchase details and a full description of the problem. Warranty claims must be made before the end of the warranty period.
- (b) All warranty service calls must be conducted by an authorised Bosch service agent.
- (c) Invoices for attendance and repair of a hot water unit by third parties not authorised by Bosch will not be accepted for payment by Bosch.

6. Privacy Act 1988 (Cth)

A customer's personal information collected during warranty claims may be used for the provision of customer support, for the provision of information about products and services and for other marketing activities undertaken by Bosch and its Bosch Service Agents who are authorised to carry out warranty repairs on behalf of Bosch (**Purpose**). Bosch is committed to protecting the privacy of its customers' personal information. It will act in compliance with the National Privacy Principles and *Privacy Act 1988* (Cth). Bosch will not forward customers' personal information to third parties other than for the Purpose. A customer can object at any time to the use of their personal information for the Purpose. Bosch will cease to use a customer's personal information accordingly if an objection is made.

7. Bosch contact details

If you have any questions about this warranty or to lodge a warranty claim, please contact:

Robert Bosch (Australia) Pty Ltd
1555 Centre Road, Clayton, Victoria 3168
Tel: Australia: 1300 307 037
Tel: New Zealand: 0800 543 352

IMPORTANT NOTE FOR AUSTRALIAN CONSUMERS

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.