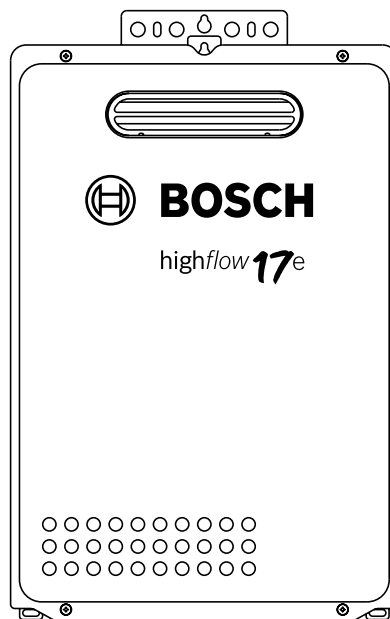


MODELS
Bosch 17e
Bosch 21e
Bosch 26e
(YS1770RA, YS2170RA & YS2670RA)

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

INDEX

	<i>Page Number</i>
Introduction	3
Dimensions	4
Technical Data	5
Appliance Location	6
Component Details	7
Gas Connection	9
Cold Water Connection	9
Hot Water Connection	10
Electrical Connection	10
Pre-Set Temperature	10
Temperature Selector Pad Installation	11
Temperature Selector Pad Wiring	11
Temperature Control Operation	12
Commissioning and Testing	12
Temperature Setting	13
USER SAFETY INSTRUCTIONS	15
In Case Of Difficulties	15
Warranty Details	16

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.

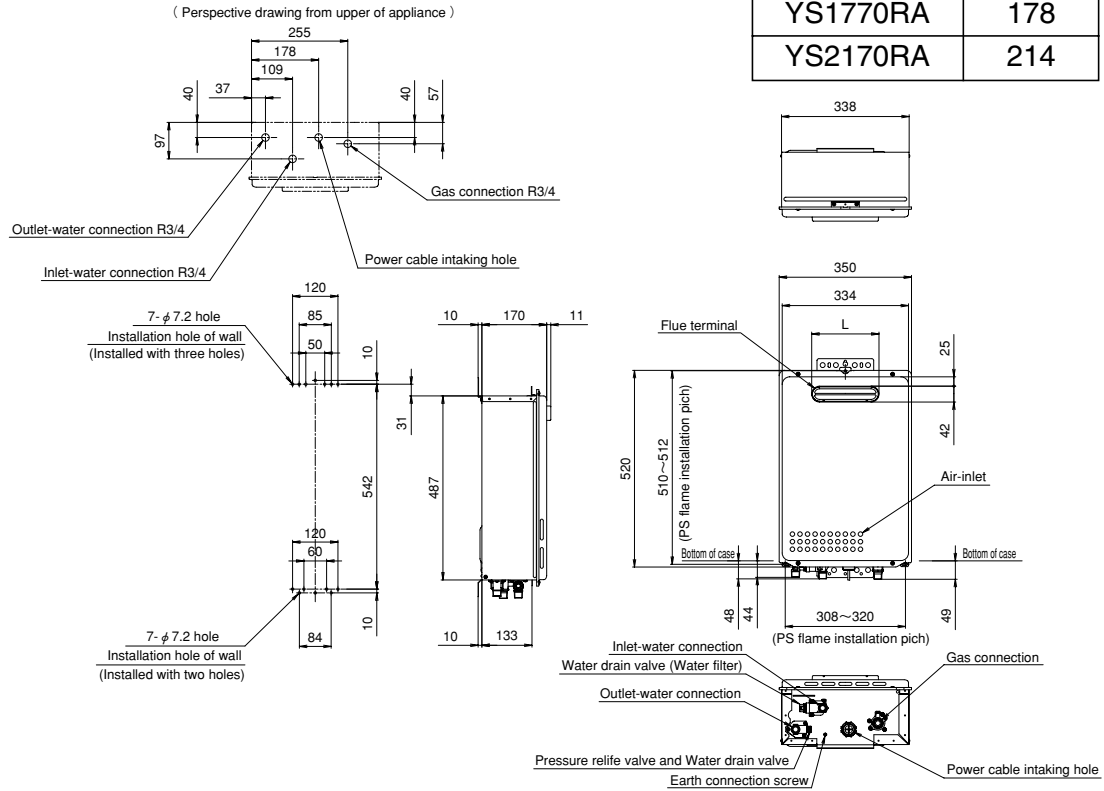
Available as optional extras are Main, Bathroom or Sub temperature selector pads.

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

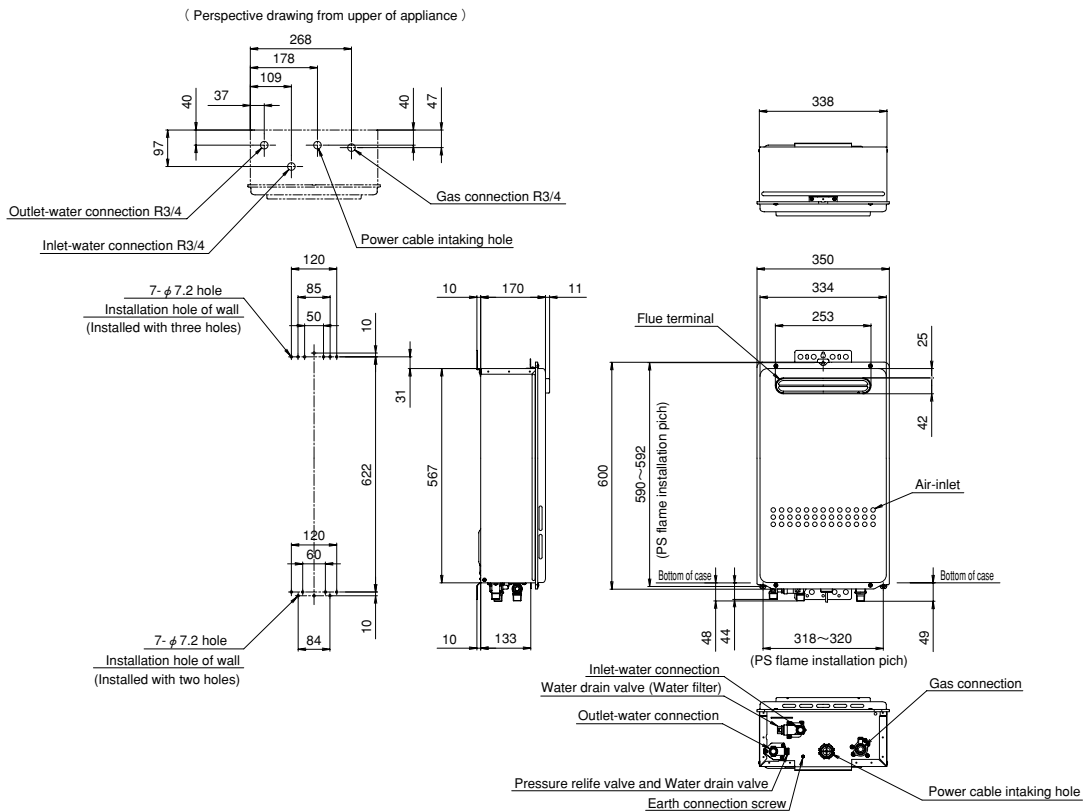
The bathroom and sub temperature selector pads have a maximum temperature setting of 50°C for safety. To ensure compliance with Australian Standard AS/NZS 3500.4, in the bathroom area, this may be achieved by using a Bosch appliance limited to 50°C or using a Bosch appliance with a delivery temperature 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, YS2170RA



DIMENSIONS YS2670RA



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
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	.67	.26	.78	.23
YS2170RA	.69	.21	.91	.23
YS2670RA	.72	.19	.80	.22

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

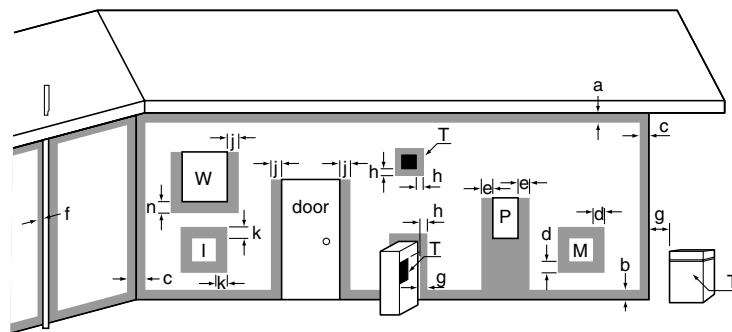
APPLIANCE LOCATION

- (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.



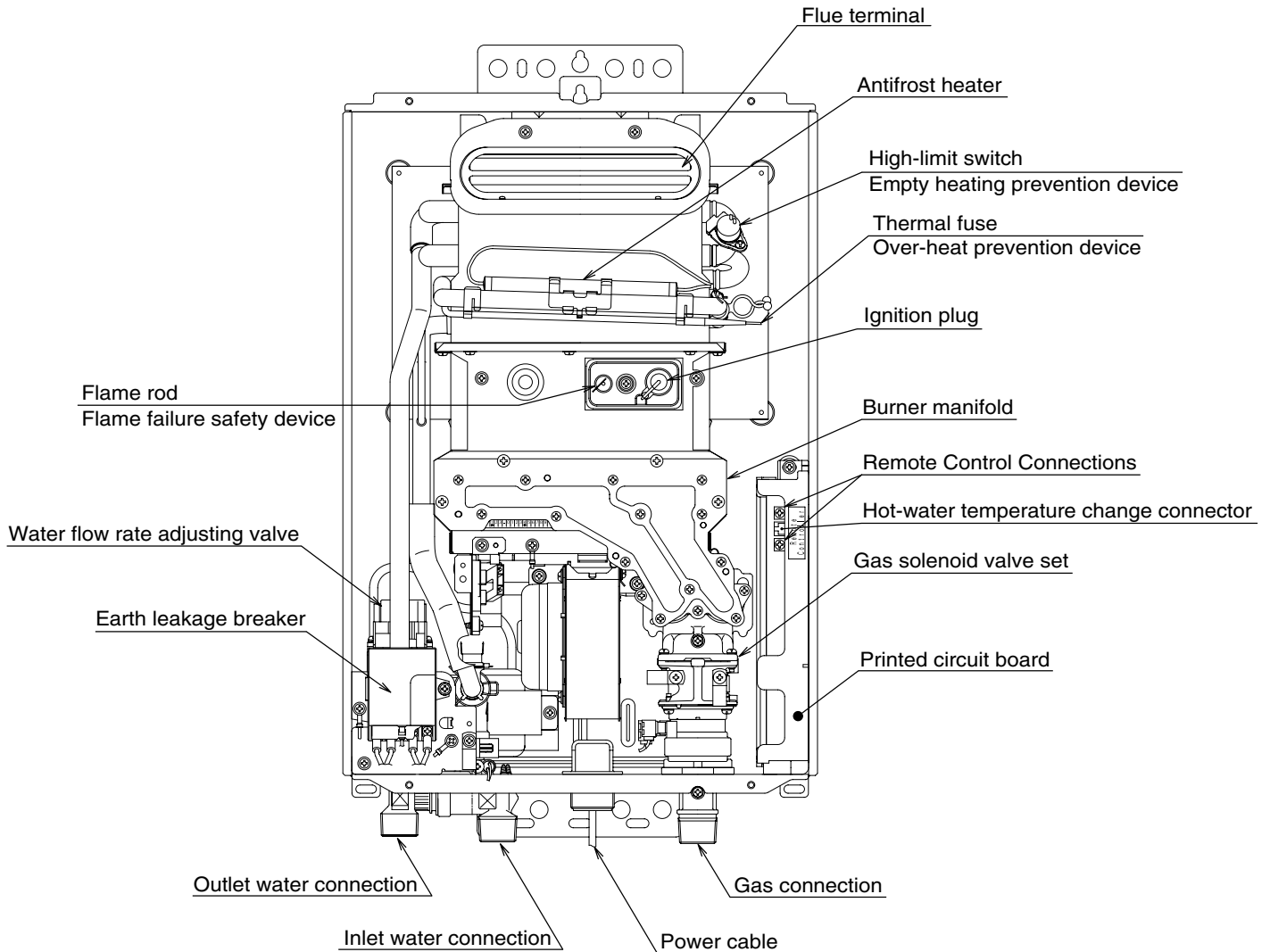
Use as a guide only. Refer to AS5601 or local gas fitting rules for specific locations

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

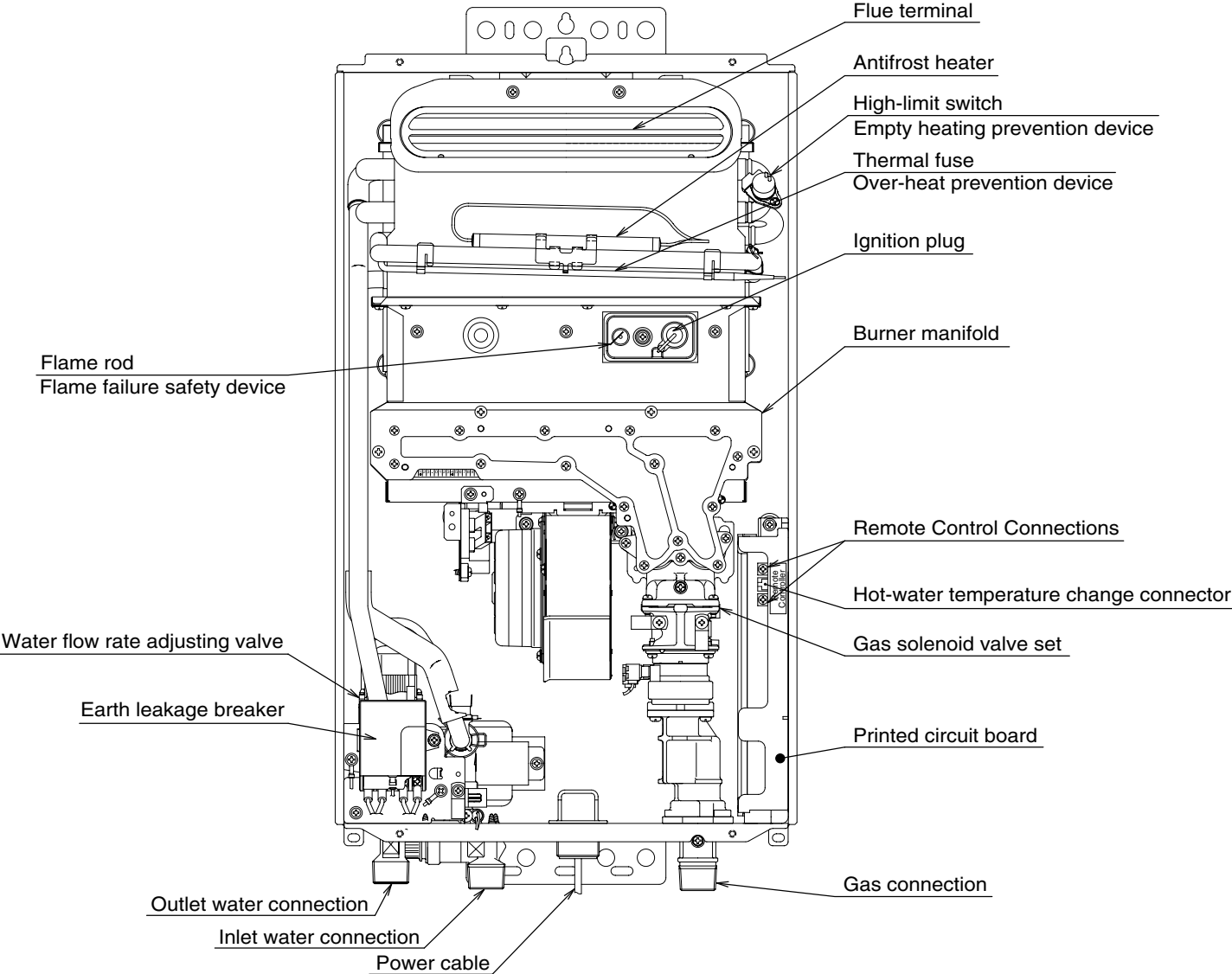
Ref	Item	Clearance mm	
		Natural draft	Fan assisted
a	Below eaves, balconies and other projections		
	Appliances up to 50 MJ/h input	300	200
	Appliances over 50 MJ/h input	500	300
b	From the ground, above a balcony or other surface	300	300
c	From a return wall or external corner	500	300
d	From a gas meter	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 150 MJ/h input up to 200 MJ/h input	1500	300
	Appliances over 200 MJ/h input up to 250 MJ/h input	1500	500
	Appliances over 250 MJ/h input	1500	1500
	All fan assisted flue appliances in the direction of discharge		1500
k	From a mechanical air inlet, including 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, YS2170RA



• YS2670RA



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.
For your assistance we have included the following pipe sizing from AS 5601.
FOR COPPER TUBE USING NATURAL GAS**

NOMINAL PIPE SIZE IN MM	LENGTH OF STRAIGHT IN METRES	HOURLY RATE. RATE IN Mj/H
13 mm	4	43
18 mm	4	82.2
20 mm	4	142
25 mm	4	313

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.

A solar transfer valve must be fitted with all solar applications using the Bosch Highflow range. Solar systems fitted without a solar transfer valve will void all Bosch Warranty

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 18 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.

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 Bathroom 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	YPRM67XB	YPRM66XB	Max temperature 75° C #
Bathroom controller	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)

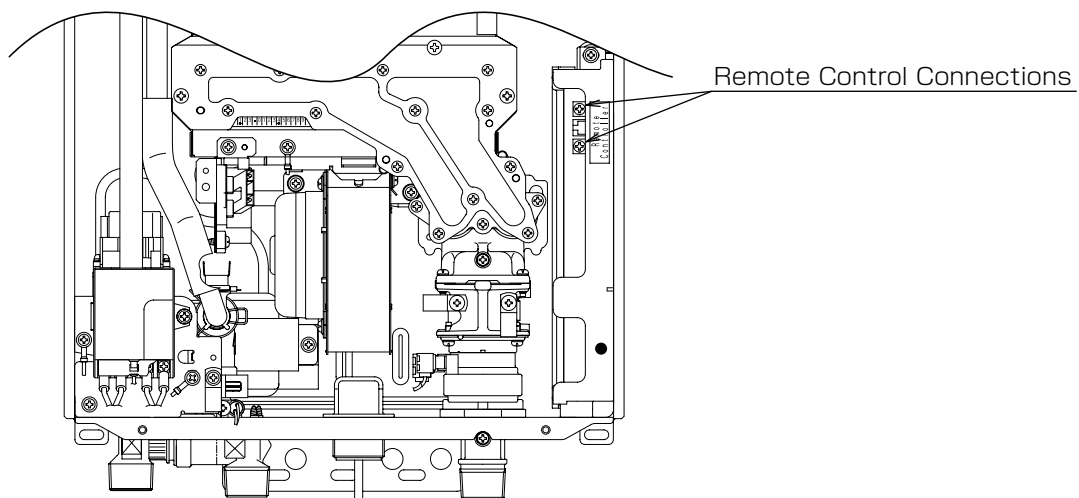
Cut an opening in wall through center of where the remote control is to be installed, pull cable from wall cavity through opening. Attach cable to control. Remove cover from remote control, locate control so that the wiring is not caught between the wall and the remote control.

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 plug to 240V in Australia and 230V in New Zealand supply.



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....

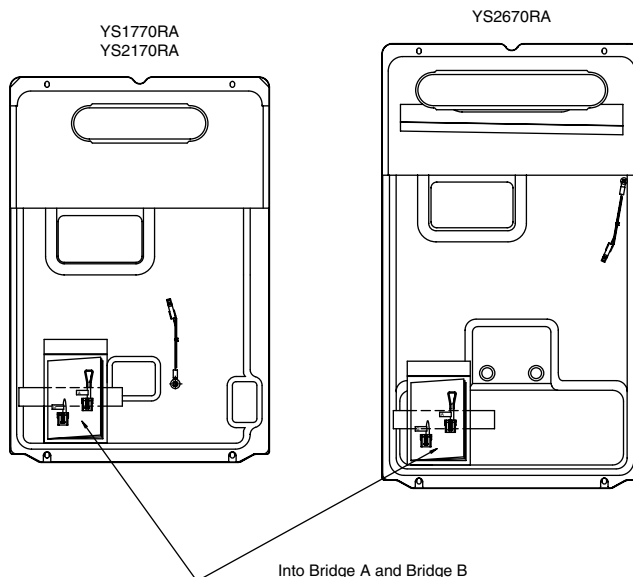
Remote controller less

Unit	Factory Setting	Bridge A	Bridge B
YS1770RA YS2170RA YS2670RA	55°C	75°C	60°C
YS1770RA5 YS2170RA5 YS2670RA5	50°C	50°C	42°C

Connected remote controller

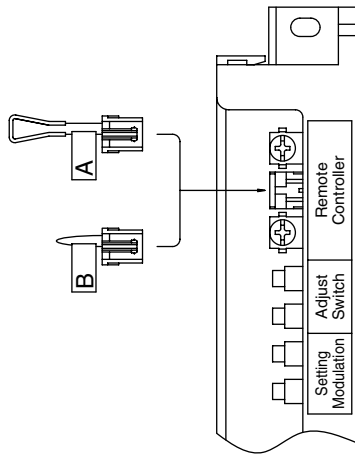
Unit	Remote controller	Factory Setting	Bridge A	Bridge B
YS1770RA YS2170RA YS2670RA	YPRM66XB	37-55°C	37-75°C	37-60°C
	YPRS66XB	37-50°C	37-50°C	37-50°C
	YPRM67XB	37-55°C	37-75°C	37-60°C
	YPRS67XB	37-50°C	37-50°C	37-50°C
	YPRP62XB	37-50°C	37-50°C	37-50°C
YS1770RA5 YS2170RA5 YS2670RA5	YPRM66XB	37-50°C	37-50°C	37-42°C
	YPRS66XB	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 2.5L/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.**

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.

Warranty Details For Models Bosch 17e, 21e & 26e

Your Bosch Hot Water Unit is guaranteed as follows:

For appliances used in domestic applications, ie. normal hot water drawn from household outlets, the warranty period is three (3) years parts and labour. The heat exchanger is covered for a period of ten (10) years (part only, for the original supplied with the appliance, not warranty replacements). Purchased spare parts are guaranteed for 12 months, replacement only.

For appliances used in commercial applications, the warranty period is twelve (12) months parts and labour including the heat exchanger.

The warranty period commences from the purchase date. Claims for warranty will only be accepted upon suitable proof of purchase submitted to Robert Bosch (Australia) Pty. Ltd. or an approved Bosch Service Agent authorized to carry out warranty repairs.

PURCHASER'S STATUTORY RIGHTS

The warranty terms set out below do not exclude any conditions or warranties which may be mandatorily implied by law, and your attention is drawn to the provisions of the Trade Practices Act, 1974, and State legislation which confers certain rights upon consumers. The ROBERT BOSCH (AUSTRALIA) PTY. LTD. Warranty supplements these.

EXTRACT OF TERMS OF DELIVERY AND SALE:

Warranty of products marketed by Robert Bosch (Australia) Pty. Ltd. herein referred to as RBAU.

- a) RBAU warrants products marketed by it as free from faults and defects and having the specified qualities according to the respective state of technology. Notwithstanding that the products may have been sold by description or sample the products shall be accepted by the Buyer even though alterations in design or construction have been generally introduced between the date of contract and the delivery of the products.
- b) The warranty shall be limited to the replacement or repair at the option of RBAU of any defective products and of such parts of RBAU's products as have been damaged in consequence of the defect despite proper treatment. Parts replaced will not be returned.
- c)
 - i) Repairs and maintenance shall not extend the warranty period of the appliance.
 - ii) If the product is located outside of the service agent's area, the consumer shall be responsible for the service agent's traveling costs, and if necessary the expenses of freight, packing and charges of a similar nature.

Without limiting the generality of these terms of delivery this warranty shall not apply to products sold in the following cases :---

- i) if the products sold are repaired or altered by any third party without RBAU's consent.
- ii) where parts not manufactured or sold by RBAU are used in and replacement or repair.
- iii) if products are not used with proper care and for the purpose for which they are sold and in accordance with any specified instruction for use.
- iv) if changes occur in the condition or operational qualities of the products due to incorrect storage or mounting or due to climatic or other influences.
- v) in respect of faulty construction or defects due to the use of unsuitable materials if such method of construction or use of material has been specified by the Buyer.
- vi) in respect of surface coating and glass damage.
- vii) in respect of the replacement of parts when such replacements are part of the normal maintenance, service or normal wear and tear.

No servant or authorised service agent has authority to add to or alter the terms of this warranty.

PLEASE NOTE:- If a service call is requested and it is found that it is not a manufacturing fault, you may be charged for the call even during the warranty period.

ROBERT BOSCH (AUSTRALIA) PTY. LTD. (Incorporated in Victoria) Phone 1300 30 70 37.

Vic. Cnr. Centre Road & McNaughton Roads, Clayton, Vic. 3168. Ph: 03 9541 5555

N.Z. Ph: 0800 4 BOSCH or Ph: 08 543 352

www.bosch.com.au

www.bosch.co.nz