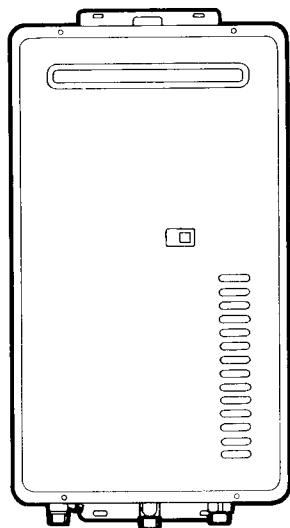


# How to use your Water Heater



**Rinnai  
Infinity 20**

**Customer**  
→ page 2

**Installer**  
→ page 14

**Optional Third  
Remote Control  
Available**

## CONTENTS

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Adjusting Temperature	8
Transfer Function	9
Turning System OFF	10
About Hot Water	11
Error Messages	13
Installation	14
Service Contacts	27

**24 Hr SERVICE**  
**In metropolitan areas.**  
Melb (1800) 632 386  
Syd (02) 729 0468  
A'del (018) 81 4379  
Perth (09) 478 3355



# IMPORTANT

**Rinnai Australia has a service and spare parts network in all states.**

**Our service network personnel are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance needs service, please ring one of the service contact numbers on the back of this booklet. Rinnai recommend that this appliance be serviced every 3 years.**

**This appliance shall be installed in accordance with:**

- Manufacturer's Installation Instructions
- Current AS3500. 4
- Current AS3000
- Local Water Authority Regulations
- Local Gas Fitting Regulations
- Municipal Building Codes
- AG601, A.G.A. Installation Code for Gas Burning Equipment
- Any other relevant Statutory Regulation
- This appliance must be installed, serviced and removed by an Authorised Person.

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

**The installation must also comply with the instructions supplied by Rinnai. Your Infinity 20 has been approved by the Australian Gas Association.**

**A.G.A. Approval Number 5156.**

**Please keep this instruction booklet in a safe place for future reference.**

**All dimensions referred to in these instructions are in millimeters, unless otherwise specified.**

## Rinnai Corporation - Japan



AS/NZS ISO 9001  
APPROVED BY BVQI

Manufactured under a Quality System Certified as complying with AS/NZS ISO 9001 by an Accredited Certification Body.

Bureau Veritas  
Quality International

This Certificate is for Quality Management System, not for product



The Australian  
Gas Association

Proudly a member of the AGA  
All of our gas products are AGA  
tested and approved.



Quality  
Endorsed  
Company

ISO 9002 Lic 4983  
Standards Australia

Distributed and Serviced in Australia under a Quality System certified as complying with ISO 9002 by Standards Australia Quality Assurance Services.

# FEATURES



The Infinity 20 is one of the most advanced water heaters available. It supplies hot water at the temperature selected on the electronic remote controls.

The Infinity 20 is a power flued appliance. It is very compact, saving both floor and wall space, in both the internal and external models.

The Bath Control (Larger control) can be fitted conveniently close to the shower or bath area. It overrides the Kitchen Control (smaller control) which is normally fitted in the kitchen or other convenient area.

A third, (optional) Bath Control is available for fitting in a second bathroom.

The Transfer button on the Bath Control enables you to select and lock the preferred temperature for shower or bath water. When locked in, this selected temperature cannot be overridden by the Kitchen Control.

The Kitchen Control selects the temperature of hot water for use in the kitchen, laundry, etc.

The temperature selected on the Remote Control is the temperature hot water at the tap will be supplied.

Temperatures selected at the controls are retained in the system memory.

The Infinity never runs out of hot water. While electricity, water and gas supplies are connected, hot water is available whenever the hot water tap is open.

The burner lights automatically when the hot water tap is opened, and goes out when the tap is closed. Ignition is electronic; there is no pilot light. When the hot water tap is off, no gas is used.

The temperature of outgoing hot water is constantly monitored by a built-in sensor. If the temperature of the outgoing hot water rises to more than 3°C above the selected temperature shown on the Digital Monitor, the burner will automatically go out. The burner will ignite again once the outgoing hot water temperature falls to that shown on the Digital Monitor.

A.G.A.'s 4 Star Energy Rating shows that the Infinity 20 is one of the most efficient water

Built into the main micro-processor is the facility to **LIMIT THE MAXIMUM TEMPERATURE** of the hot water supplied by the 20. The water temperature may be limited to 40°C, 50°C, or 55°C. This is particularly useful when the 20 is installed where young children or the infirm may be using the hot water. If required, the temperature limits can be set by a service technician. For further information, please contact Rinnai.

Operating noise level is very low.

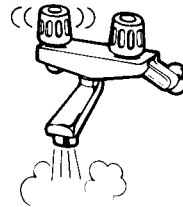
Error messages are displayed on the Remote Controls, assisting with service.

# SAFETY

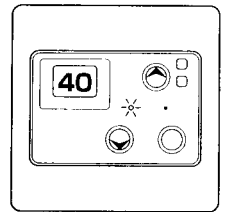
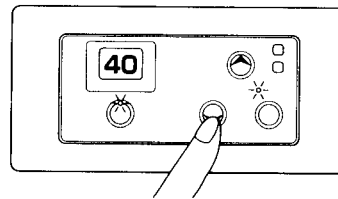
Always check water temperature by hand before entering the shower or bath. The temperature may have been changed.



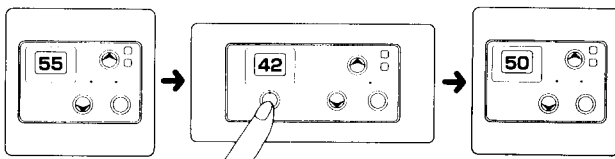
The water temperature can only be adjusted between 37°C and 43°C when the hot water tap is open, and hot water is flowing.



**37↔43  
ONLY**

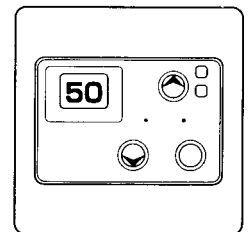


If a temperature higher than 50°C has been selected at the Kitchen Control and then priority of temperature selection is transferred to a Bath Control and back again, the temperature on the Kitchen Control will drop to 50°C. This is a safety feature.



Do not push the **ON/OFF** button on the Kitchen Control after having transferred priority of temperature selection to the Bath Control.

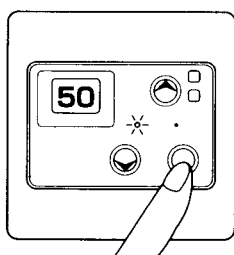
Turn ~~OFF~~ then ON.



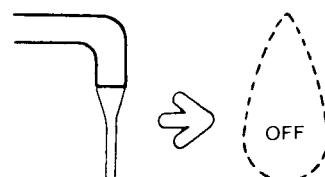
## WARNING

Someone may be about to enter a shower or fill the bath.

There is no need to turn the Infinity 20 off at the Remote Controls after use. However, if you prefer to turn the Controls off, selected temperatures will be stored in the system memory at all times while mains power remains connected.



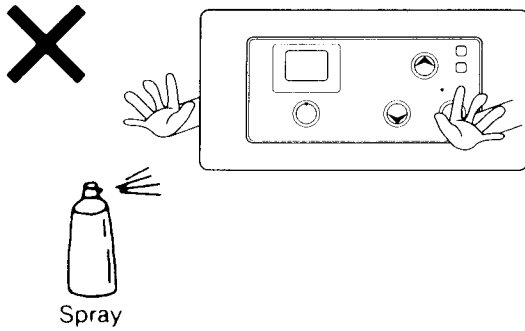
Water flow needs to be more than 2.5 L/min. to operate the Infinity 20. Hot water temperature may vary at low water flows, or the Infinity 20 may go out without warning.



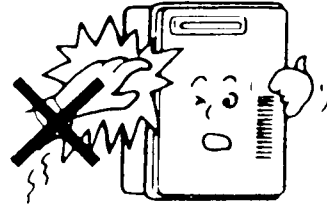
# SAFETY



Do not clean Remote Controls with solvents. Use a soft damp cloth.



Do not touch cover or insert objects into the flue outlet when the Infinity 20 is in operation.



On cold days steam may be discharged from the flue outlet, this is normal with a high efficiency appliance and does not indicate a fault.

If the Infinity 20 is disconnected from the power supply and freezing conditions are expected, turn off water and gas, and drain all water from the appliance.

**Water Off**

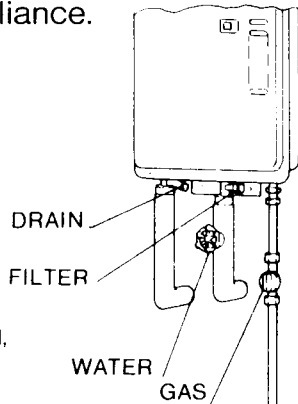


**Gas Off**

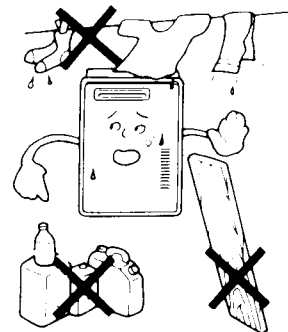


**Drain Water**

If power and the automatic frost protection is connected, freezing will be prevented. ("K" Series only)

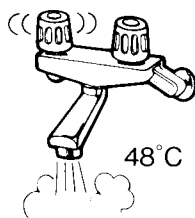
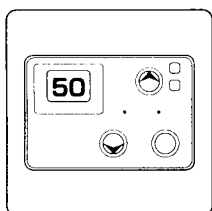


Keep flammable materials, trees, shrubs etc. away from the Infinity 20.

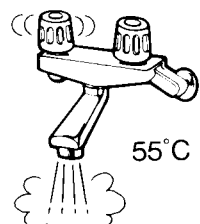
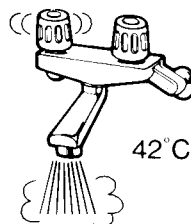


Do not spray water directly into the flue terminal.

Depending on the weather conditions and the length of the pipe between the Infinity 20 and the tap in use, there may be a variation between the temperatures displayed at the Remote Control and the temperature of the water at the tap.



The Infinity 20 controls the water temperature automatically. To do this it sometimes needs to change the water flow accordingly. The water flow from the hot water tap may vary after the selected temperature at the Remote Control is altered. The water flow may also vary from summer to winter, as incoming water temperatures differ.





# KITCHEN REMOTE CONTROL

This remote control may be an option (see page 15)

## DIGITAL MONITOR

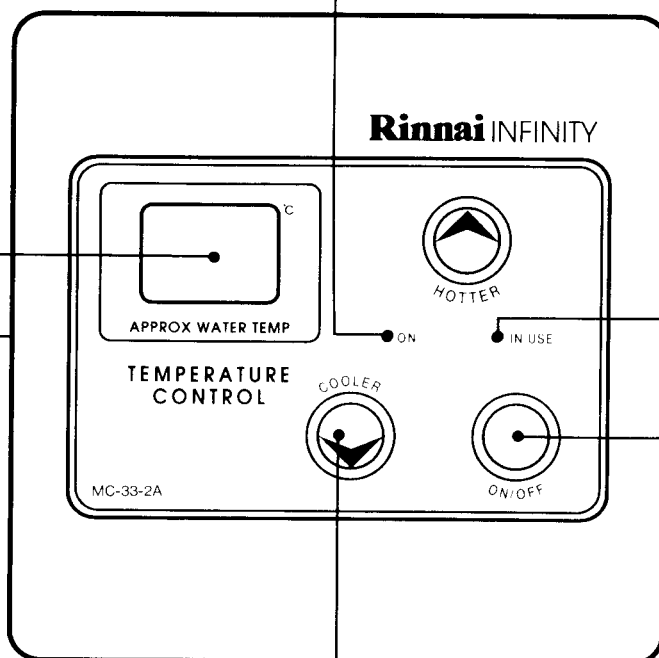
Indicates the temperature selected. Error message flashes in the event of a fault.

## ON INDICATOR

Indicates which remote control is in control of adjusting water temperature.

## OPERATION INDICATOR

Indicates that a hot water tap is open (in any location).



## MC-33-2A

Identifies this remote control as for use in the Kitchen. \*

## THERMOSTAT

To alter the temperature of the hot water.

## ON/OFF

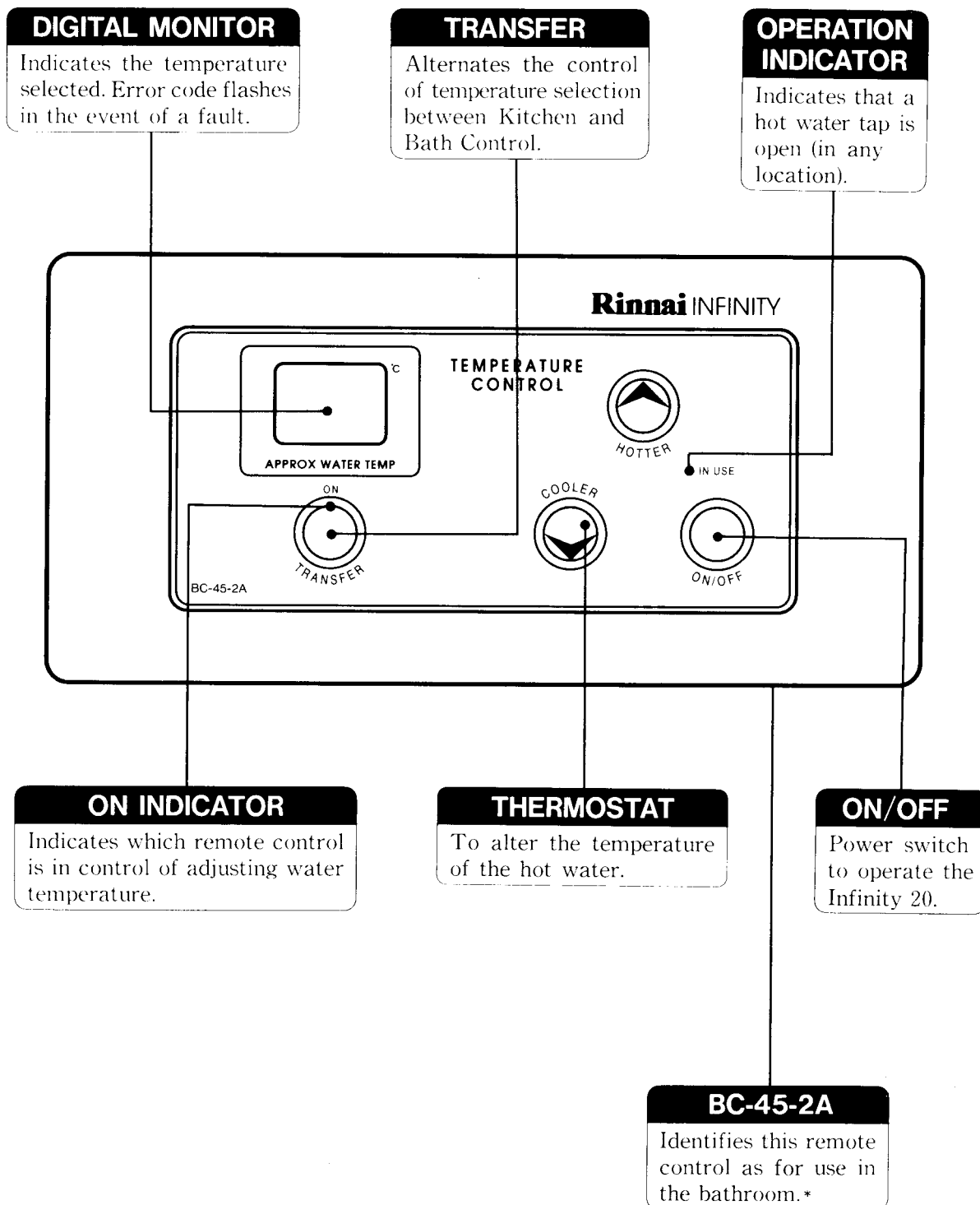
Power switch to operate the Infinity 20.

\* This remote control is also suitable for installation in laundry areas.

# BATH REMOTE CONTROL



This remote control may be an option (see page 15)

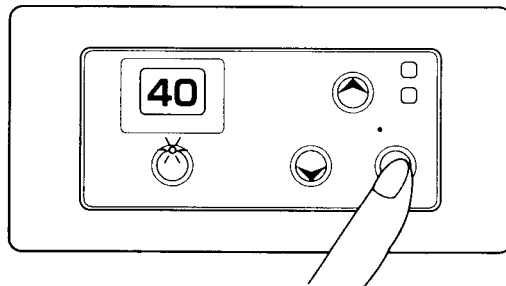
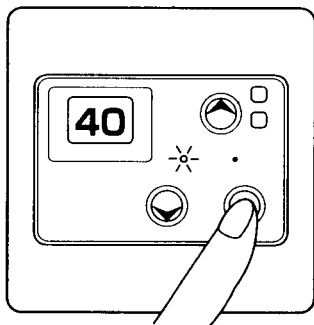


\* An optional remote control identified as BSC-45-2A is available for use in a second bathroom or ensuite. Contact Rinnai for further details.



# OPERATION

**To TURN ON your hot water system,  
Press the ON/OFF button on any  
remote control.**



After Installation, and when the ON/OFF button is first pressed, 40°C will be displayed on the Digital Monitor.

**NOTE**

To obtain the best performance from your Infinity 20 it is important to use the Remote Controls correctly.

Used as intended, the Infinity 20 will supply hot water at the temperature selected, even when the water flow is varied, or when more than one tap is used.

The purpose of the Remote Controls is to enable you to have complete control over your Infinity 20.

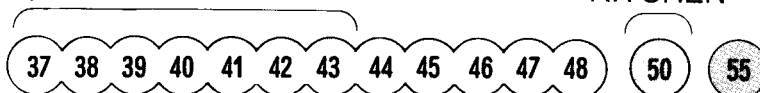
Adjustments to the operation of your Infinity 20 can be made with any of the Remote Controls.

A different temperature can be stored in the system memory of each Control.

Various water temperatures can be selected in 14 steps from 37°C to 55°C. The temperatures are 37-38-39-40-41-42-43-44-45-46-47-48-50-55°C.

SHOWER, ADJUSTABLE WITH TAP OPEN

KITCHEN



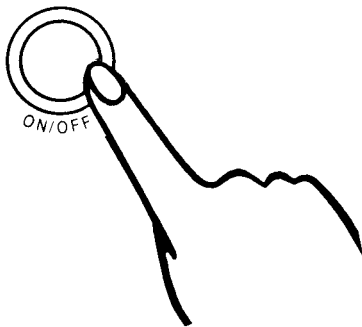
Suggested temperatures are      Shower 42°C  
   Kitchen 50°C.

These temperatures are suggested starting points for selection. You may find higher or lower temperatures are more comfortable. Maintaining lower temperatures helps to save energy. To obtain water temperatures lower than 37°C, simply add cold water.



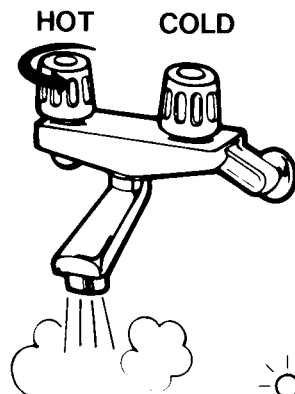
# OPERATION

1



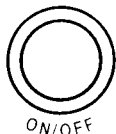
The yellow ON indicator will glow on the Control which you have operated. This indicates that the Infinity 20 is ready to supply hot water as soon as a tap is opened.

2





To operate the Infinity 20 simply turn any hot water tap on. This will automatically light the burner providing hot water at the temperature displayed on the Digital Monitor. The red IN USE indicator will glow on all remote controls.

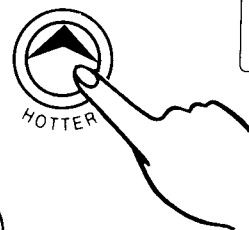
## 3 ADJUSTING TEMPERATURE



The temperature can only be adjusted on the Remote Control where the ON indicator is glowing, and the same temperature will be displayed on all Controls.

4

Simply press the **HOTTER**  or **COOLER**  button until the required temperature is displayed on the Digital Monitor.



42



**NOTE** TEMPERATURE CANNOT BE ADJUSTED EXCEPT BETWEEN 37°C and 43°C WHEN ANY HOT WATER TAP IS OPEN.



**CHECK WATER TEMPERATURE BEFORE ENTERING SHOWER OR BATH.**

- Always test the water temperature in bath before a child gets in. This is best done by the parent placing their elbow in the water.



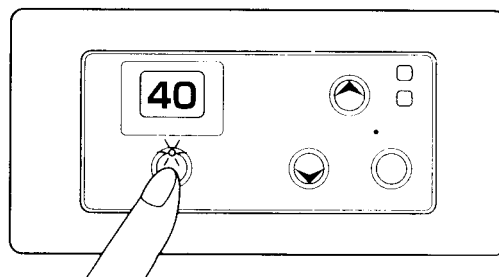
# OPERATION

## TRANSFERRING PRIORITY OF TEMPERATURE SELECTION

1

To transfer priority of water temperature selection to the Bath Control, simply press the **TRANSFER** button on the Bath Control.

The ON indicator on the Bath Control will glow to indicate that priority of water temperature selection has been transferred to the Bath Control.



After having transferred the priority of water temperature selection for the first time, 40°C will be displayed on the Digital Monitor.

2

The water temperature can now be selected using the Bath Control. The maximum temperature which can be selected at the Bath Control is 50°C. This is to help reduce the risk of burns from hot water.

See adjusting temperature, previous page.

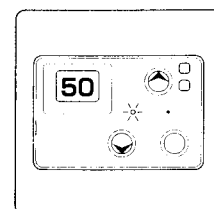
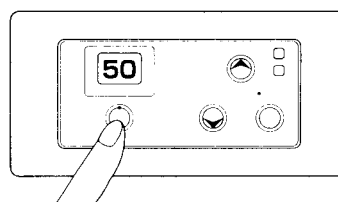
Burns from hot tap water can result in very severe injuries to young children.

Hot water at 65°C (the average hot water temperature in Australia) can severely burn a child in less than half a second. At 50°C it takes five minutes.

Burns can happen when children turn on the hot water tap and they are under it, or when they are placed into a bath which is too hot.

3

To transfer priority of water temperature selection back to the Kitchen Control, simply press the **TRANSFER** button again. The temperature displayed will then return to the temperature which was previously selected at the Kitchen Control, or 50°C, whichever is the lower. The ON indicator will glow to indicate priority control of water temperature selection.

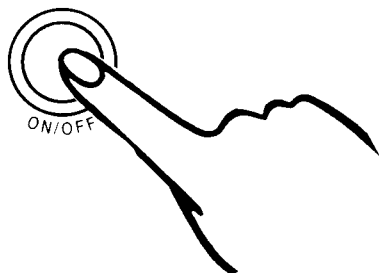


**NOTE** Priority temperature selection cannot be transferred when a hot water tap is open.

## To TURN OFF your hot water system.

1

○  
ON



Simply press the **ON/OFF** button on any Remote Control.

This will shut the Infinity 20 down.

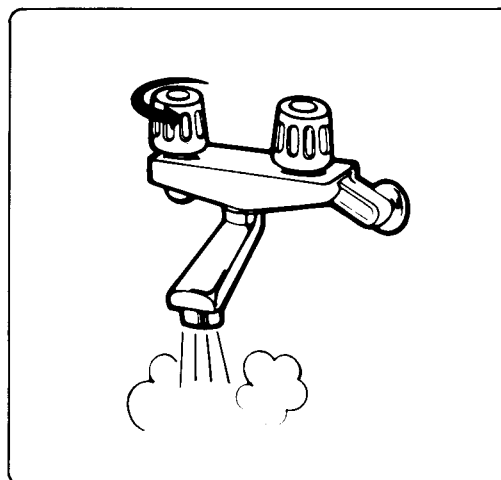
If hot water taps are opened when the Infinity 20 is OFF, cold water will flow from the taps.

The ON indicator will go out.

## Additional SAFETY features

While the hot water tap is open the following safety features apply.

- Temperature selection cannot be transferred.
- Water temperature can only be adjusted between 37°C and 43°C.
- The Kitchen and Bath Control cannot be turned ON.



**NOTE** The temperature of outgoing hot water is constantly monitored by a built-in sensor. If the temperature of the outgoing hot water rises to more than 3°C above the selected temperature shown on the Digital Monitor, the burner will automatically go out. The red operation lamp will also go out. The burner will ignite again once the outgoing hot water temperature falls to that shown on the Digital Monitor.



# WARNING-ABOUT HOT WATER

Excessively hot water is dangerous, especially for young children and the infirm. The Infinity 20 allows you to control the temperature of your hot water to safe levels.



Water temperature over 50°C can cause severe burns instantly or death from scalds.

Children, disabled, and the elderly are at highest risk of being scalded.

Feel water before bathing or showering.

Burns from hot tap water can result in very severe injuries to young children. Hot water at 65°C (the average hot water temperature in Australia) can severely burn a child in less than half a second. At 50°C it takes five minutes.

Burns can happen when children turn on the hot water tap and they are under it, or when they are placed into a bath which is too hot.

## DO

Do stay with children whenever they are in the bathroom. (Take the phone off the hook).

Do take them out of the bathroom if you need to answer the phone or door.

Do test the temperature of the water with your elbow before placing your child in the bath.

Do make sure that the tap is turned off tightly.

Do consider setting your Infinity at a maximum temp of 50°C. (Contact Rinnai.)

Do install a child proof tap cover OR,

Do install a child resistant tap.

## DON'T

Don't leave a toddler in the care of another small child. The older child may not have set the water temperature to a safe level.

- **Consider child-resistant taps or inexpensive tap covers**, both of which prevent a small hand being able to turn on the tap.

- **Consider reducing the temperature of the water coming from the hot tap to 50°C.**

This approach can be extremely valuable because it requires a one time action for a long-term reduction in the risk of scalds. This type of automatic protection is important during times when a parent or carer has been distracted.

# SCALDS - FIRST AID



## 1. REMOVE CLOTHING

Remove all wet clothing quickly, as clothing retains the heat.

## 2. APPLY COLD WATER FOR 30 MINUTES

Immediately submerge the burnt area in cold water for 30 minutes to reduce the heat in the skin, preventing deeper burning.

Never use butter, oils, ointments to cover the burn as they may retain the heat.

Never use ice. Children can be dangerously chilled in iced water.

## 3. KEEP THE CHILD WARM

Place a blanket around your child.

## 4. SEEK MEDICAL ADVICE

Seek medical advice if the scald involves the face or hands or is larger than your palm.

# GUARANTEE

The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product which you have under the Trade Practices Act and similar State and Territory Laws.

Given installation is in accordance with the manufacturers specification, this appliance is warranted by Rinnai for the cost of labour and components in the event of defects arising from faulty materials and/or workmanship with the ensuing warranty conditions.

Domestic Use:	Free Labour	Free Parts	Commercial Use:	Free Labour	Free Parts
Heat Exchanger	3 Years	10 Years	Heat Exchanger	1 Year	1 Year
All other Parts	3 Years	3 Years	All other Parts	1 Year	1 Year

\* All terms are effective from date of installation.

Please record below the following information for your own records.

Your Retailer:

Address:

Phone:

Date of Purchase:

Your Installer:

Installer's Licence No.

Address:

Phone:

Date of Installation:



# ERROR MESSAGES

The Infinity 20 has the ability to check its own operation continuously. If a fault occurs, an Error Message will flash on the Digital Monitor of the Remote Controls. This assists with diagnosing the fault, and may enable you to overcome a problem without a service call. Please quote the code displayed when enquiring about service.

Code Displayed	Fault	Remedy
11	No Ignition	Check gas is turned on at water heater and gas meter or cylinder.
12	Flame Failure	Check gas is turned on at water heater and gas meter. Check that nothing is obstructing flue outlet. Turn on gas supply to water heater.
14	Remaining Flame Safety Device	Service Call
16	Over Temperature Warning	Service Call
31	Incoming Water Temperature Sensor Faulty	Service Call
32	Outgoing Water Temperature Sensor Faulty	Service Call
33	Heat Exchange Outlet Sensor Faulty	Service Call
61	Combustion Fan Failure	Service Call
71	Micro-processor Failure	Service Call
72	Micro-processor Failure	Service Call



In all cases, you may be able to clear the Error Message simply by turning the hot water tap OFF, then ON again. If this does not clear the Error Message, try pushing the **ON/OFF** button OFF, then ON again. If the Error Message still remains, contact Rinnai or your nearest service agent and arrange for a service call.

# **INSTALLATION INSTRUCTIONS**



**THE FOLLOWING PAGES  
CONTAIN INFORMATION FOR  
THE INSTALLER.**

**Please read information printed on  
page one.**

**The installer is responsible for the  
correct installation of your Infinity.**





# UNPACKING

- Read warnings on page one before starting installation.
- Check for damage, if the Infinity 20 is damaged, contact the supplier or Rinnai.  
Do not install a damaged appliance before checking with the supplier or Rinnai.

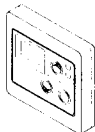


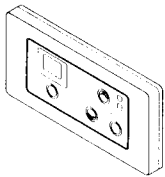

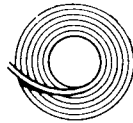
## Please note:

There are 4 combinations of Infinity and remotes

- 1) No remote controls
- 2) One remote control
- 3) Two remote controls
- 4) Three remote controls

Controls are available as options. Always check the Infinity carton in case the optional controls have been packed inside.

Refer to local gas authority for confirmation of gas type if in doubt  
Refer to data plate (left hand side of Infinity 20) for gas type specification.

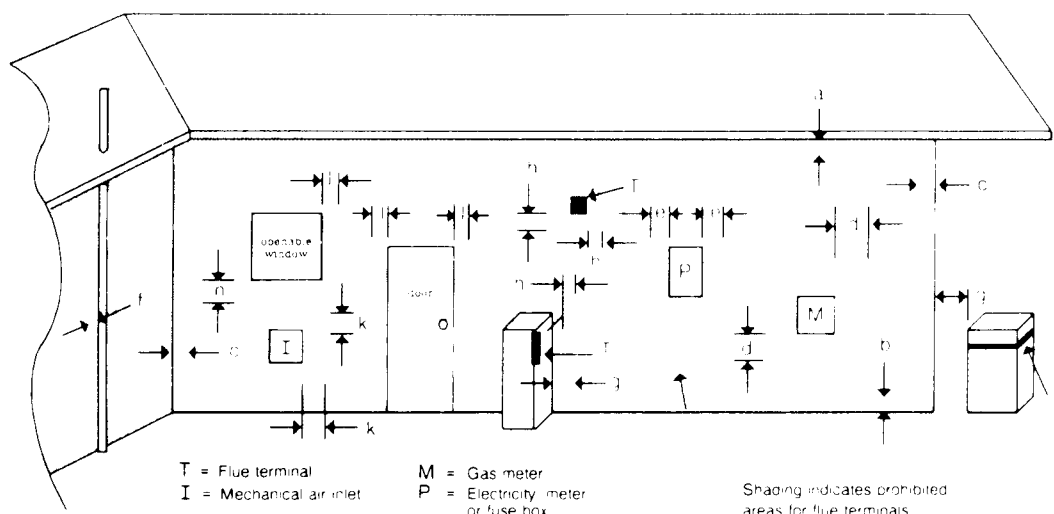
Qty.	Diagram	Description	Qty.	Diagram	Description
1		Kitchen Control MC-33-2A	1		Cable Securing Clamp
			1		Cable Securing Clamp
1		Bath Control BC-45-2A	5		Horse Shoe Lugs
			1		Remote Control Cable 20 metre



# POSITIONING



- The Infinity 20 is an externally mounted, power flued appliance. **IT MUST ONLY BE FITTED OUTSIDE THE BUILDING.**
- When determining a suitable position for the Infinity 20, the length of hot water pipe runs should be taken into consideration. In principle, the Infinity 20 should be as close as possible to the most often used taps, or in a central location between taps, showers etc.
- See diagram on page 24 for position of gas, water and power connections.
- The location of the flue terminal must comply with the clearances shown below.



a - Below eaves, balconies or other projections:	500
b - From the ground or above a balcony	1500
c - From a return wall or external corner	500
d - From a gas meter (M)	1000
e - From an electricity meter or fuse box (P)	500
f - From a drain or soil pipe	150
g - Horizontally from any building structure or obstruction facing a terminal	500
h - From any other flue terminal, cowl, or combustion air intake	500
j - Horizontally from an openable window, door, inlet, or any other opening into a building, with the exception of sub-floor ventilation	500
k - From a mechanical air inlet, including a spa blower	1500
n - Vertically below an openable window, inlet or any other opening into a building, with the exception of sub-floor ventilation	1500

**Note:** If you are unsure about clearances not indicated here, in general refer to AG601, or your local authority.



# GAS PIPE SIZING

## NATURAL GAS THROUGH STEEL PIPE LENGTH OF STRAIGHT PIPE IN METRES

NOMINAL SIZE MM	2	4	6	8	10	12	14	16	18	20	25	30
20	392	270	217	185	164							
25	724	498	400	342	303	275	253	235	221	208	185	167

## NATURAL GAS THROUGH COPPER PIPE LENGTH OF STRAIGHT PIPE IN METRES

NOMINAL SIZE MM	2	4	6	8	10	12	14	16	18	20	25	30
20	207											
25	456	313	252	215	191	173						
32	871	599	481	412	365	331	304	283	265	251	222	201

## L.P.G. THROUGH STEEL PIPE LENGTH OF STRAIGHT PIPE IN METRES

NOMINAL SIZE MM	2	4	6	8	10	12	14	16	18	20	25	30
15	585.6	402.5	323.2	276.6	245.2	222.1	204.4	190.1	178.4	168.5		
20	1282.0	881.0	707.0	605.0	537.0	486.0	447.0	416.0	390.0	369.0	327.0	296.0

## L.P.G. THROUGH COPPER PIPE LENGTH OF STRAIGHT PIPE IN METRES

NOMINAL SIZE MM	2	4	6	8	10	12	14	16	18	20	25	30
15	204.5											
18	390.6	268.5	215.6	184.5	163.5							
20	676.1	464.7	373.1	319.4	283.0	256.5	235.9	219.5	205.9	194.5	172.4	

**PIPESIZING IS IMPORTANT.**

**This guide will help you to size the gas pipe for this appliance correctly.**

**Calculate the length of pipework and total load in MJ/h.**

**Shaded boxes indicate MJ/h capacity of pipe. (Based on information from AG601).**

**In Western Australia refer to Gas Fitters Guide Handbook.**

# INSTALLATION - GENERAL



## ■ INFINITY 20

A 240 V weatherproof earthed power point is required within 1500 mm of the Infinity 20.

The Infinity 20 weighs approx. 20 kg, and the wall on which it is to be mounted must be capable of supporting it and the pipework. Ensure that suitable fixing screws or bolts are used to secure the Infinity 20 to the wall. Bracket and fixing hole locations are shown on page 24 (internal and external models).

The top bracket has a keyhole slot so that the external Infinity 20 can be positioned by hanging it on one screw, then the other screws can be secured. After determining the most suitable position, fix the external Infinity 20 to the wall. (See separate instructions for the internal model).

Connect hot and cold water pipes. An approved gate valve **MUST BE FITTED** to the cold water inlet. In areas where the water pressure is over 1000 kPa, a pressure limiting valve must also be fitted.

Water connections are R<sup>3</sup>/<sub>4</sub>/20. Locations are shown on page 24.

Connect the gas. **CHECK PIPE SIZING REQUIREMENT USING AN APPROVED PIPE SIZING CHART** (eg: Charts in AG601).

The Infinity 20 uses 188MJ/h of gas. **IF THE GAS PIPE SIZE IS INSUFFICIENT, THE CUSTOMER WILL NOT GET THE FULL PERFORMANCE BENEFIT.** An approved isolation valve **MUST BE FITTED** to the gas inlet. Connection size is R<sup>3</sup>/<sub>4</sub>/20. This is not an indication of the size of pipe required.

The Infinity 20 water heater is not suitable for use as a pool heater.

## ■ REMOTE CONTROLS

The Remote Controls enable the customer to control the functions of the Infinity 20. Before fitting the Remote Controls, determine the most convenient positions for installation where the customer will benefit the most.

The MC-33-2A Kitchen Control is intended to be fitted in the kitchen or other convenient area where the majority of hot water is being used.

The BC-45-2A Bath Control is intended to be fitted conveniently close to the shower, in the bathroom, en-suite or other area where the customer requires priority over water temperature selection. Refer to AS3000 1986 Section 6.3 for location requirements in shower and bath areas.

The BC-45-2A Bath Control enables the person in the shower/bath area to lock in the selected water temperature, so that the temperature cannot be changed from the MC-33-2A Kitchen Control.

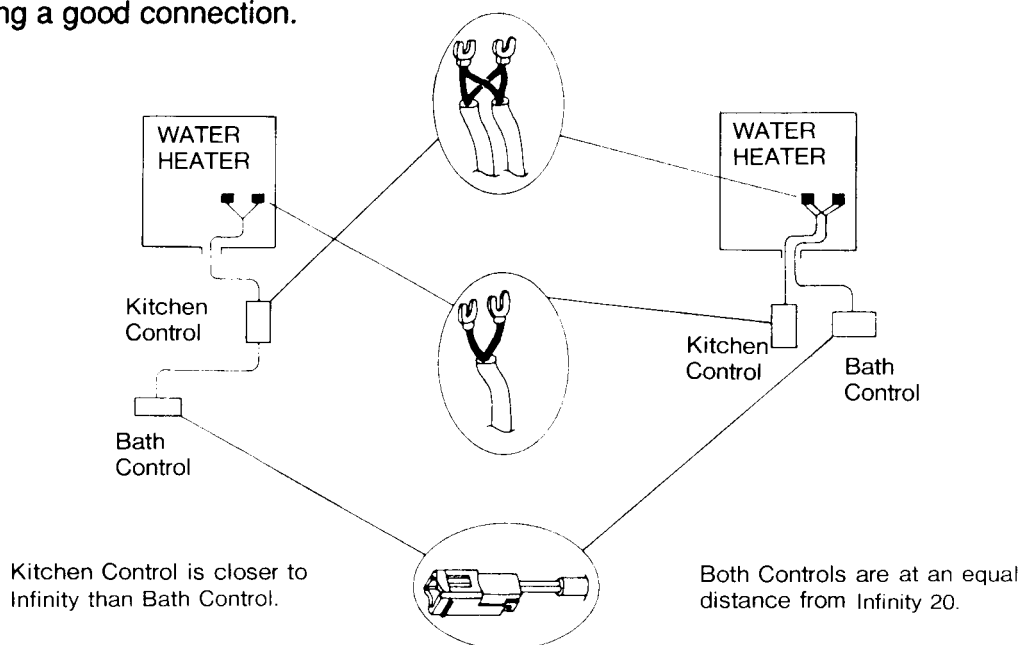
The third, BSC-45-2A Bath Control is intended for use in a second bathroom or ensuite. (Optional extra).



# REMOTE CONTROLS - GENERAL

- When deciding on the best positions for the Remote Controls, the following points should be taken into consideration.
1. Fit the Controls out of reach of children. (Suggested height from floor- 1500 mm).
  2. Avoid positions where the Remote Control will become hot (eg: over hotplates, near ovens or heaters).
  3. If possible, avoid direct sunlight (The Digital Monitor is difficult to read in direct sunlight).
  4. Avoid areas where Remote Control will be affected by oil splashing or cooking.
  5. The BC-45-2A Bath Control is water resistant, however it should not be positioned where it may be splashed directly (ie: shower recess).
  6. Refer to AS3000 1986 Section 6.3 for location requirements in shower and bath areas.
  7. The cables to the Remote Controls only carry 12 V DC (extra low voltage).
  8. Cables should run back to the Infinity 20 from the Remote Controls, or cables should run between the Controls then back to the Infinity 20.  
Suggested cable arrangements are shown below. (See instructions packed with optional extra third (BSC-45-2A) Control for additional connection information).

The installation in every application will vary, therefore the Remote Control cable has been provided so that you may cut the length accordingly and fit the horse shoe lugs, ensuring a good connection.



Cables are simply piggy-backed at the Infinity 20 or the Kitchen Control. Polarity is not important when connecting cables. Either colour wire can be connected to either terminal at both the Infinity 20 or Kitchen Control. If more cable is needed, any cable with similar specification to the cable supplied with the Infinity 20 can be used. Maximum length is 50 m.

# REMOTE CONTROLS-INSTALLATION



**NOTE: Please read pages 18 and 19 prior to fitting Remote Controls.**

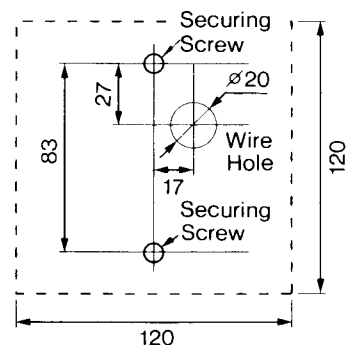
## ■ FITTING THE KITCHEN CONTROL

### MC-33-2A

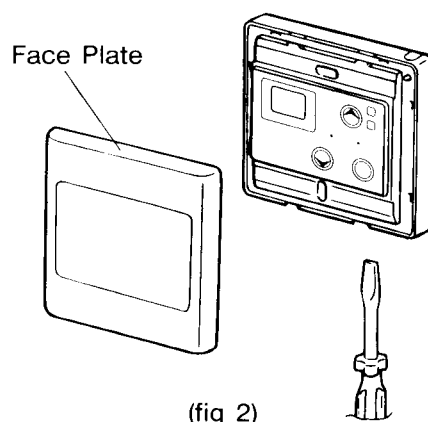
- Determine the most suitable position for the Control. Consider access by children.
- Make 3 holes in the wall, as shown, one for the cable and two for the securing screws. Make sure holes are level. (fig 1)
- Run the cable provided between the Control and the Infinity Water Heater.
- Remove the face plate from the remote control, using a screw driver. (fig 2)
- Connect the cable to the control as shown. (fig 3)
- Fix the control to the wall, and replace the face plate. (fig 4)

**NOTE:** If the cable cannot be run in the wall cavity. In this case, the plastic "knockout" should be removed from the top or bottom of the control. (fig 4)

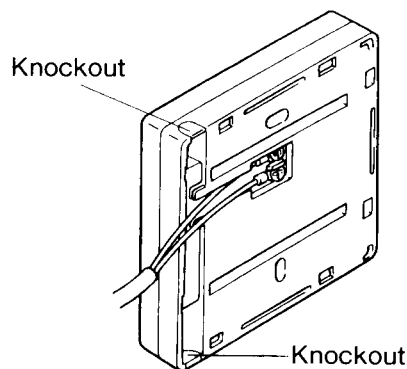
Outline of Remote Control



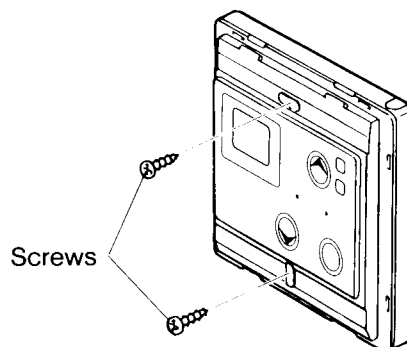
(fig 1)



(fig 2)



(fig 3)



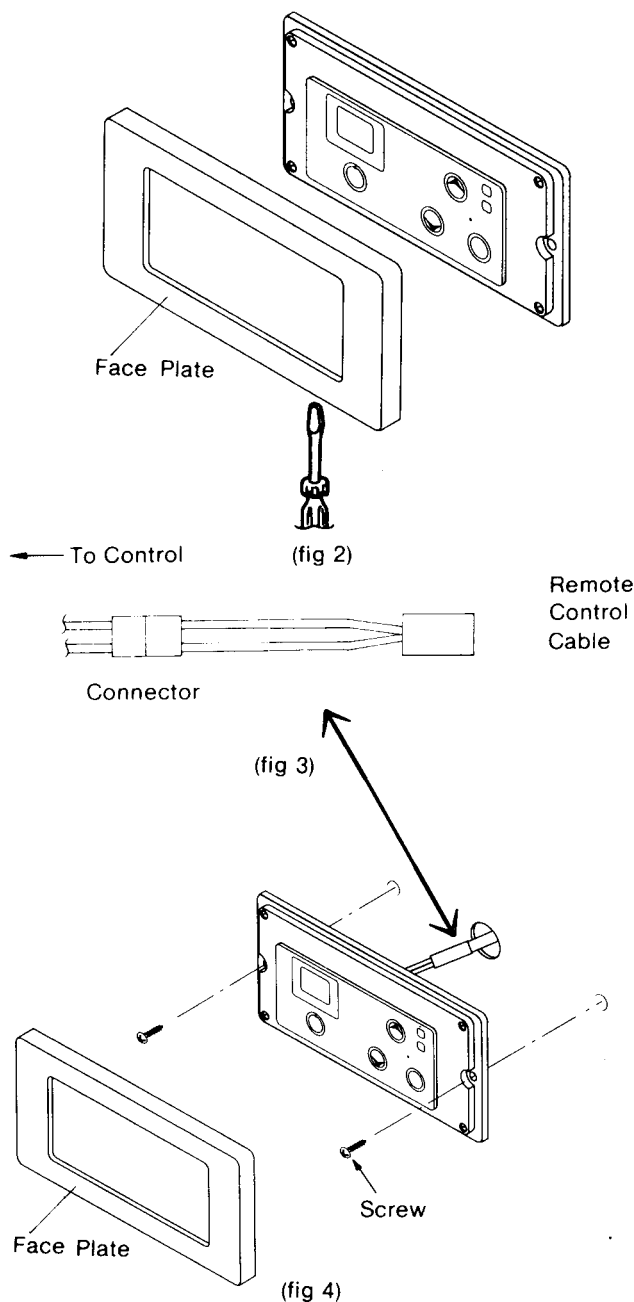
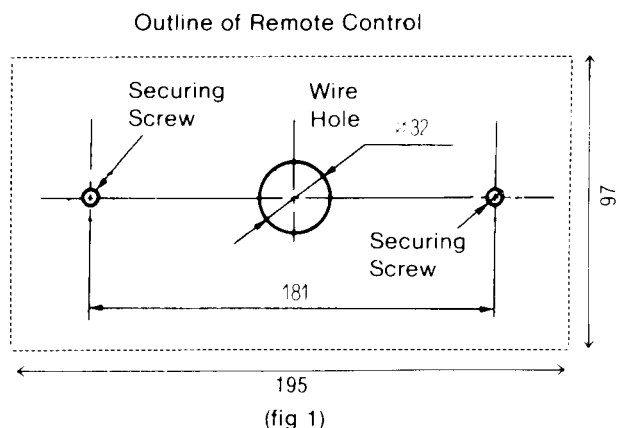
(fig 4)

# REMOTE CONTROLS-INSTALLATION

## ■ FITTING THE BATH CONTROL

### BC-45-2A

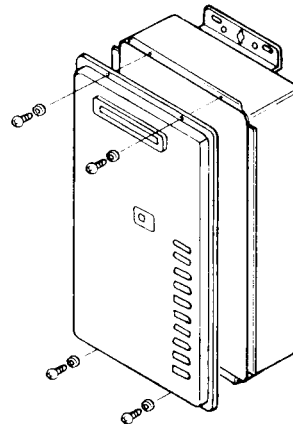
- Determine the most suitable position for the Control.  
Consider access by children.
- Make 3 holes in the wall, as shown, one for the cable and two for the securing screws. Make sure holes are level. Fit wall plugs (fig 1).
- Run the cable provided between the Control and the Infinity 20, or refer to page 19, No. 8.
- Remove the faceplate from the Remote Control using a screwdriver (fig 2).
- Connect the BC-45-2A Control to the cable, using the end of the cable with the connector fitted (fig 3).
- Fix the Control to the wall, and replace the faceplate (fig 4).



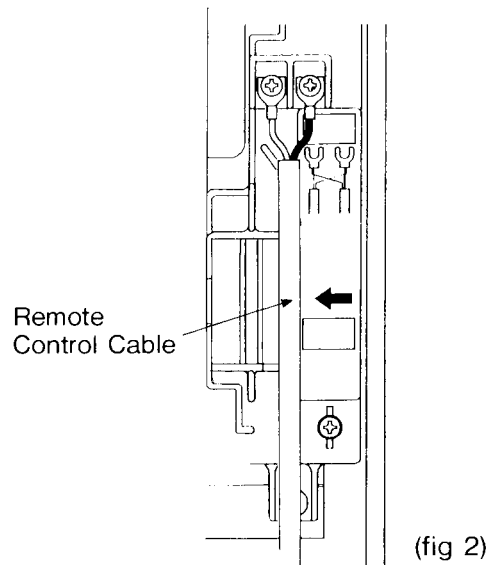
# REMOTE CONTROLS - INSTALLATION

## ■ CONNECTING REMOTE CONTROL CABLE TO THE INFINITY 20.

- Disconnect power.
- Remove the cover from the Infinity 20 (4 screws) (fig 1).
- Remove plastic cover from PCB and electrical connections.
- Thread the cable through the cable access hole at the base of the Infinity 20, then connect to the Remote Control terminal on the right hand side of P.C.B. unit (fig 2).
- Horse shoe lugs must be used at both the water heater connection and the Kitchen Control. Short circuits and bad connections caused by bare wires may cause the heater to malfunction.
- Replace plastic cover.
- Secure cable inside Infinity 20 using the clamp provided.



(fig 1)



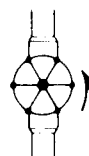
(fig 2)

Single wire connection, shown connected.

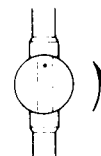
Piggy-back the connection in case of two Remote Controls. (Optional Remote Control is available separately.)

## ■ Purge Gas and Water pipes to remove air and swarf. Swarf in either gas or water supplies may damage the Infinity 20.

WATER ON



GAS ON





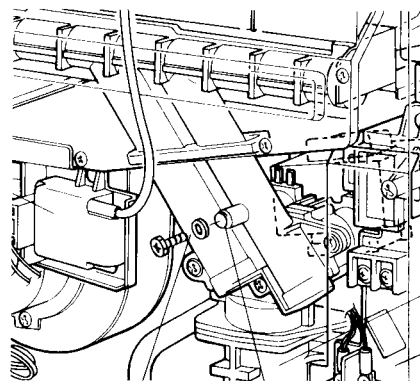
# TESTING

## ■ TESTING

- Turn on Gas and Water.
- Test for water leaks and gas escapes. Use soapy water to check for gas leaks.
- Remove pressure test point screw, attach pressure gauge to test point.
- Turn power on (Caution 240V inside unit).
- Turn Infinity 20 on at Kitchen Remote Control. Set temp to 55°C (See page 7 and 8).  
Open any hot water tap fully.
- Check test point pressure. Information is provided in a pouch, rear of front panel.
- If the pressure is low, there could be various reasons eg. warm incoming water, low water flow, gas pipes too small.  
Water flow will need to be at least 16 litres/min if incoming water temp. is 15°C.
- If it is established that the gas pressure needs adjusting, first check the pressure at the incoming pressure test point (on the gas inlet). If the incoming pressure is correct, follow the instructions EXACTLY according to the information provided in the pouch, rear of front panel.  
IF IN DOUBT, CONTACT RINNAI.
- Turn hot water off. Turn power off. Remove pressure gauge and replace test point screw.
- Replace front cover (4 screws).
- Turn power on. Turn Infinity 20 ON at Remote Control.
- Check operation of appliance by ensuring that the Remote Control(s) are functioning correctly.
- Explain the operation of the Infinity 20 to the customer. Make sure the customer understands the instructions, in particular the instructions for the Remote Control(s).

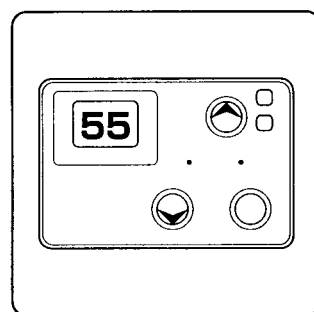
### FAULT/FAILURE PROCEDURE

If you are unable to get the Infinity 20 to operate correctly, contact Rinnai, or your local agent.

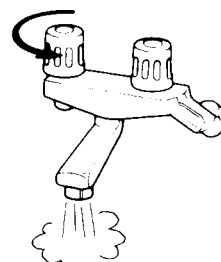


screw and washer      Test point

	NATURAL	PROPANE
LOW	0.06 kPa	0.15 kPa
HIGH	0.73 kPa	1.91 kPa



SET CONTROL



HOT WATER TAP OPEN

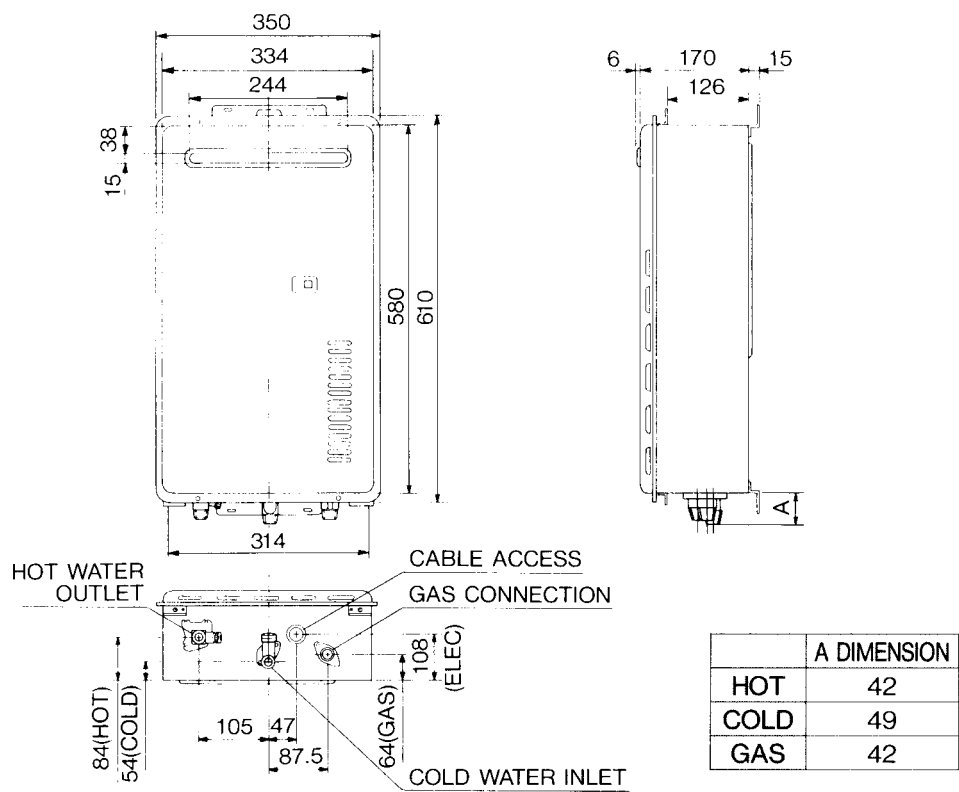
**NOTE:** The regulator is factory pre-set, it should not need adjusting. Check incoming pressure before attempting to make any change to the appliance regulator.



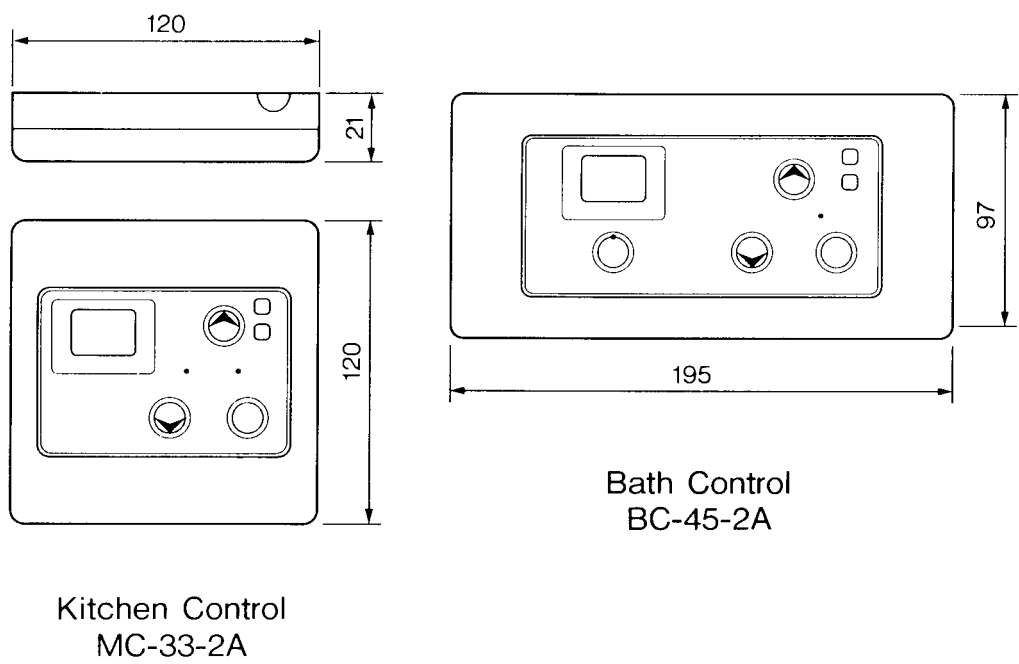
# DIMENSIONS



## INFINITY 20



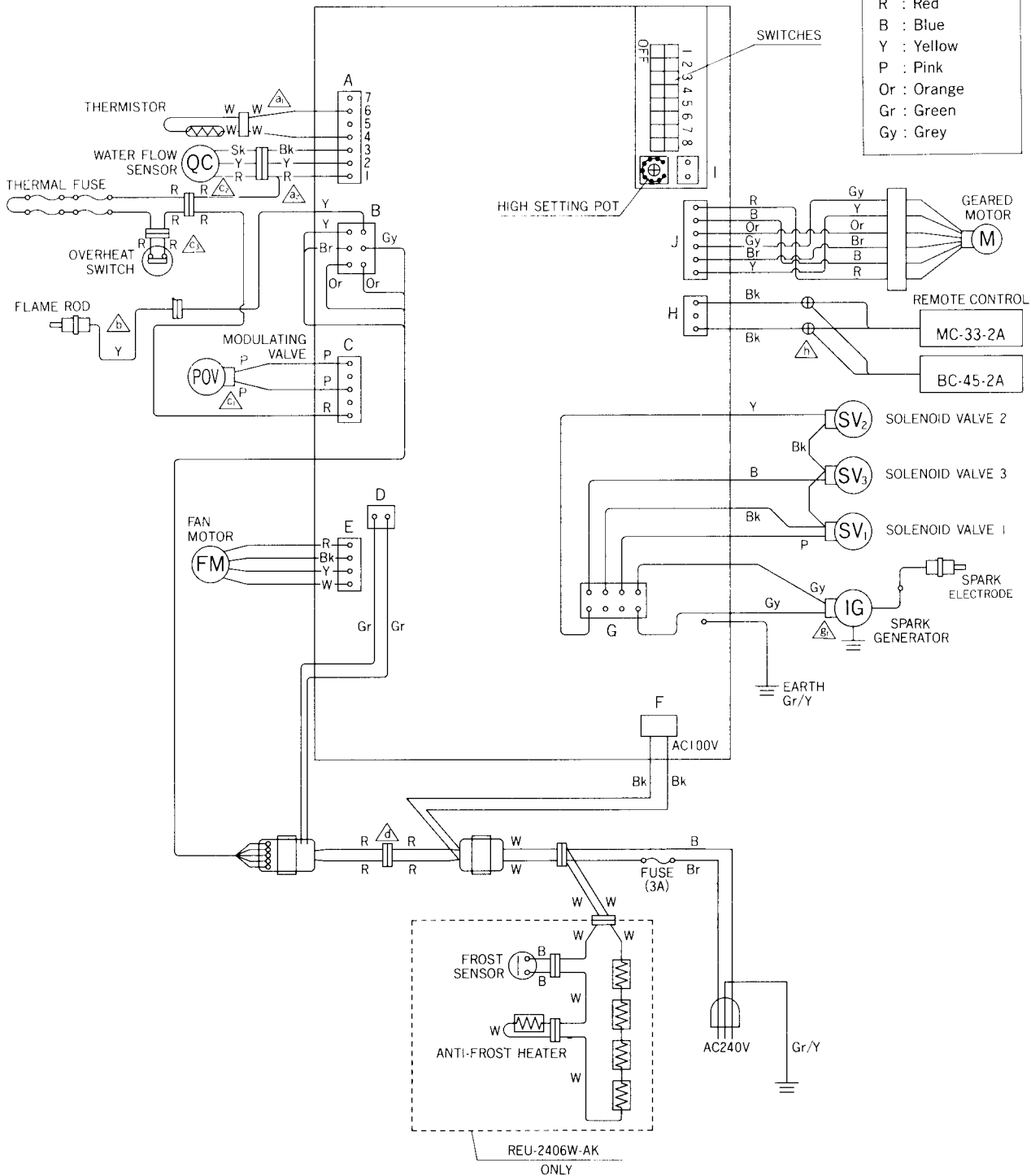
## REMOTE CONTROLS





# WIRING DIAGRAM

COLOUR CODING	
W	: White
Bk	: Black
Br	: Brown
R	: Red
B	: Blue
Y	: Yellow
P	: Pink
Or	: Orange
Gr	: Green
Gy	: Grey



# DIAGNOSTIC POINTS



①		R — R	AC90-110V	FUSE
②		Bk — Bk	DC10-13V	REMOTE CONTROL
③		R — Bk	DC11-13V	WATER FLOW SENSOR
		Y — Bk	DC2-10V	
④		W — Bk	DC2-7V	FAN MOTOR
			70-135Hz	
⑤		Y - EARTH	AC40-150V (ABOVE DC 1 $\mu$ A)	FLAME ROD
⑥		W — W	15°C 11.4-14k $\Omega$ 30°C 6.4-7.8k $\Omega$ 45°C 3.6-4.5k $\Omega$ 75°C 1.4-1.8k $\Omega$	THERMISTOR
⑦		R — R	UNDER 1 $\Omega$	THERMAL FUSE
⑧		R — R	UNDER 1 $\Omega$	OVERHEAT SWITCH
⑨		Gy — Gy	AC90-110V	SPARK GENERATOR
⑩	G	P — Bk	DC80-100V 0.9-1.3k $\Omega$	SOLENOID VALVE 1
⑪	G	Y — Bk	DC80-100V 1.3-1.9k $\Omega$	SOLENOID VALVE 2
⑫		P — P	DC0.5-25V 65-90 $\Omega$	MODULATING VALVE
⑬	G	B — Bk	DC80-100V 1.5-1.9k $\Omega$	SOLENOID VALVE 3

## TRANSFORMER NORMAL READINGS

	R — R	AC90-110V 15-21 $\Omega$
D	Gr — Gr	AC16-20V 6-10 $\Omega$
B	Or — Or	AC15-30V 1.4-1.8 $\Omega$
B	Br — Gy	AC30-50V 6-10 $\Omega$
B	Y — Gy	AC180-220V 0.4-0.6k $\Omega$



# SPECIFICATION

<b>DESCRIPTION</b>	REU-2406W-A(K) EXTERNAL.
<b>TYPE</b>	POWER FLUED CONTINUOUS FLOW WATER HEATER.
<b>GAS TYPE</b>	NATURAL/PROPANE
<b>INPUT</b>	MODULATING – 188 MJ/h HIGH, 20 MJ/h LOW.
<b>GAS CONTROL</b>	RINNAI ELECTRONIC CONTROL AND SOLENOIDS. TEMPERATURE SELECTION BY 2 REMOTE CONTROLS.
<b>BURNER</b>	STAINLESS STEEL, RIBBON TYPE.
<b>GAS INLET</b>	R $\frac{3}{4}$ /20 ( $\frac{3}{4}$ " BSP MALE).
<b>TEST POINT PRESSURE</b>	SEE DATA PLATE AND PRESSURE INFORMATION WITH APPLIANCE.
<b>FLUE</b>	FORCED FLUE.
<b>FLUE TERMINATION</b>	SUPPLIED WITH APPLIANCE.
<b>IGNITION</b>	ELECTRONIC WITH AUTOMATIC FLAME SENSING.
<b>ELECTRICAL SUPPLY</b>	240v 50Hz

Rinnai are continually updating and improving products, therefore specifications are subject to change without prior notice.

## SERVICE CONTACT POINTS

### Rinnai Australia PTY. LTD. A. C. N. 005 138 769

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Sales: (03) 9586 7977. Fax: (03) 9587 0107.  
Spare Parts & Service: (03) 9586 7948. Fax: (03) 9580 7747  
24 hr Hot Water Tel: (1800) 632 386.

**N. S. W. Branch:** 62 Elizabeth Street, Wetherill Park, NSW 2164.

Tel: (02) 9609 2111. Fax: (02) 9609 5260.  
Sales: (02) 9609 2888. Service: (02) 9609 2600.  
24 hr Hot Water Tel: (02) 729 0468.

**S. A. Branch:** 140 Days Road, Ferryden Park, SA 5010.

Tel: (08) 8345 0292. Fax: (08) 8345 4760.  
24 hr Hot Water Tel: (018) 81 4379.

**W. A. Branch:** 18 Belgravia Street, Belmont, WA 6104.

Tel: (09) 478 3355. Fax: (09) 277 2531.  
24 hr Hot Water Tel: (09) 401 2562 North.  
Tel: (09) 457 1909 South.

**QLD Branch:** 6 Curban Street, Underwood, QLD 4119.

Tel: (07) 3341 8777. Fax: (07) 3341 8868.

**A. C. T.** Rinnai Southern (Bird & Stirling Agencies Pty) Ltd.  
3 Lithgow Street, Fyshwick, ACT 2609.

Tel: (06) 280 4833. Fax: (06) 280 6561.

**Tasmania:** Contact Rinnai Melbourne on:

Tel: (03) 9580 7811. Fax: (03) 9580 8098.  
Service: (03) 9586 7948 Fax: (03) 9580 7747.