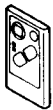
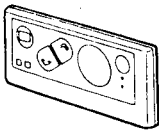








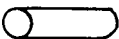






# Installation Instructions

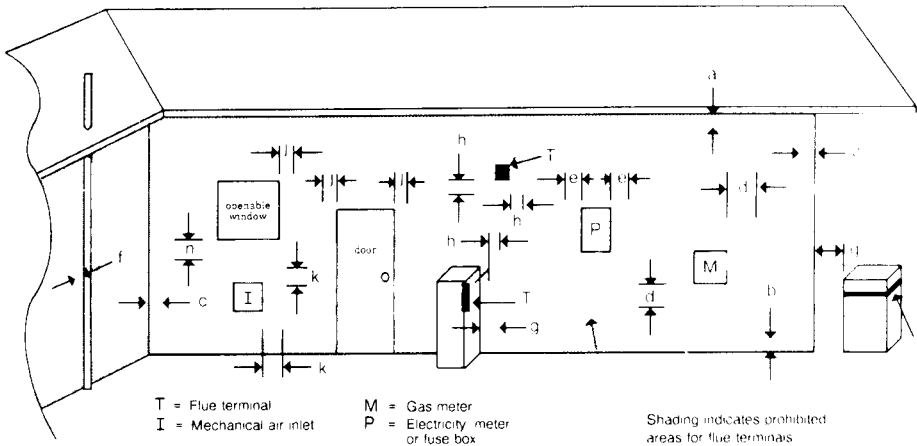
## UNPACKING

- Check for damage, if the Infinity 24 is damaged, contact the supplier or Rinnai. Do not install a damaged appliance before checking with the supplier or Rinnai.
- Remote Controls and accessories are packed inside the carton. Check that the Infinity 24 supplied is correct for the gas type in the area. Refer to local gas authority for confirmation of gas type if in doubt. Refer to data plate located on left hand side panel of Infinity 24.
- Remove Infinity 24 and accessories from carton, and check that all parts shown below are included. The Remote Control cable is provided with horse shoe lugs and Master Control connector already attached.

Qty.	Diagram	Description	Qty.	Diagram	Description
1		Sub Control MC-31-A	1		Master Control BC-31-A
1		Wall Bracket	2		Wall Screws
			2		Plugs
1		Cable Securing Clamp	1		Cable Securing Clamp
1		Cable Clamp	5		Horse Shoe Lugs
2		Cable Screws	5		Heat Shrink Tube
1		Fixing Screws	1		Remote Control Cable 25 metres
2		Wall Screws			
2		Plugs			

# POSITIONING

- The Infinity 24 is an externally mounted, power flued appliance. **IT MUST ONLY BE FITTED OUTSIDE THE BUILDING.**
- When determining a suitable position for the Infinity 24, the length of hot water pipe runs should be taken into consideration. In principle, the Infinity 24 should be as close as possible to the most often used taps, or in a central location between taps, showers etc.
- Minimum mounting height from the ground is 1500mm.
- See diagram on page 21 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 .....	1500
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. In New Zealand refer to DZ5261 or your local authority. In Western Australia refer to the SECWA rules and regulations.

# 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	

**Piping Sizing 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 New Zealand refer to DZ5261.**

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

# INSTALLATION – GENERAL

## ■ INFINITY 24

A 240V (Aust.) or 230V (NZ) weatherproof earthed power point is required within 1.5 m of the Infinity 24.

The Infinity 24 weighs 17kg, 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 24 to the wall. Bracket and fixing hole locations are shown on page 21.

The top bracket has a keyhole slot so that the Infinity 24 can be positioned by hanging it on one screw, then the other screws can be secured. After determining the most suitable position, fix the Infinity 24 to the wall.

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 21.

Connect the gas. **CHECK PIPE SIZING REQUIREMENT USING AN APPROVED PIPE SIZING CHART** (eg: Charts in AG601 or DZ5261).

The Infinity 24 uses 185MJ/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 24 water heater is not suitable for use as a pool heater.

## ■ REMOTE CONTROLS

The Remote Controls enable the customer to control the functions of their Infinity 24 from inside the house. Before fitting the Remote Controls determine the most convenient positions for installation where the customer will benefit the most.

The MC-31-A Sub Control is intended to be fitted in the kitchen or other convenient area where the majority of hot water is being used.

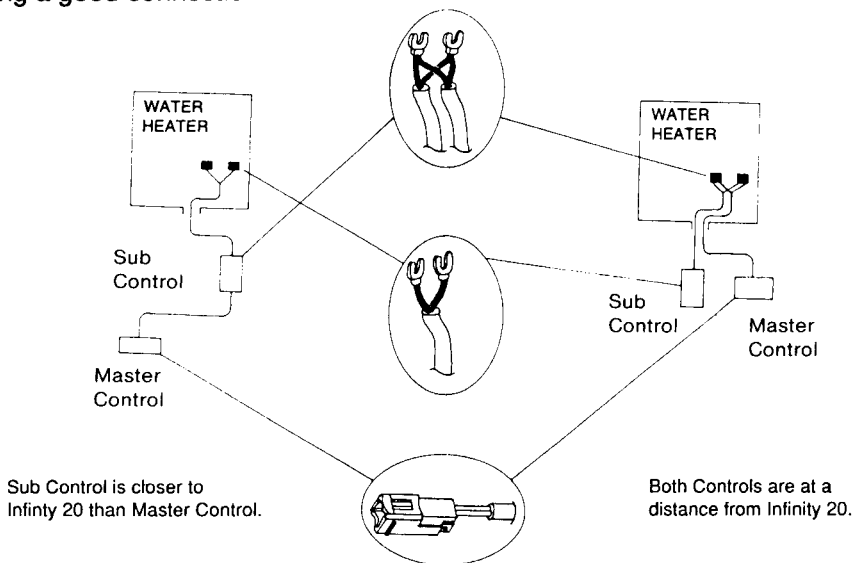
The BC-31-A Master Control is intended to be fitted conveniently close to the shower, in the bathroom, en-suite or other area where the customer requires priority over water temperature selection. Refer to AS3000 1986 Section 6.3 for location requirements in shower and bath areas.

The BC-31-A Master 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-31-A Sub Control.

# 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-1500mm).
  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-31-A Master 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 12vDC (extra low voltage).
  8. Cables should run back to the Infinity 24 from both Remote Controls, or cables should run between the Controls then back to the Infinity 24. Suggested cable arrangements are shown below.

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 24 or the Sub Control. Polarity is not important when connecting cables. Either colour wire can be connected to either terminal at both the Infinity 24 or Sub Control. If more cable is needed any cable with similar specification to the cable supplied with the Infinity 24 can be used. Maximum length is 50m.

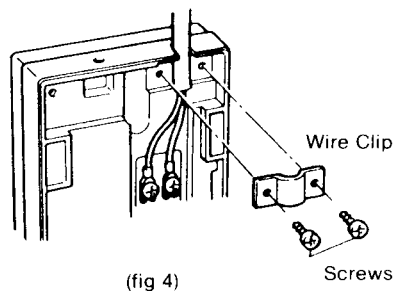
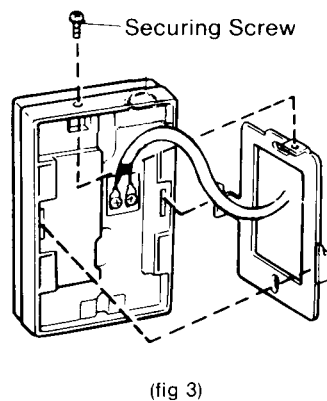
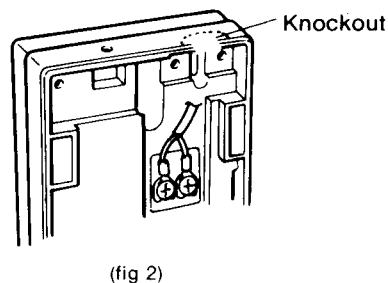
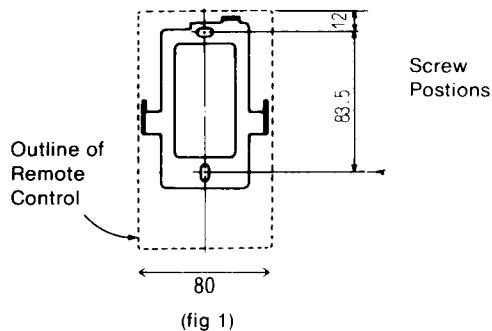
# REMOTE CONTROLS – INSTALLATION

**NOTE:** Please read pages 13 and 14 prior to fitting Remote Controls.

## ■ FITTING THE SUB CONTROL

### MC-31-A

- Determine the most suitable position for the Control.
- Fix the wall bracket to the wall as shown using the screws and plugs supplied, or a suitable alternative (fig 1).
- The Remote Control cable is to connect the Remote Controls to the Infinity 24.
- Make a suitable sized hole through the wall in the centre opening of the wall bracket. Run the cable between the Control and the Infinity 24, or refer to page 14, No. 8.
- Connect the cable to the Control as shown (fig 2).
- Attach the Control to the bracket as shown, secure with the single screw at the top (fig 3).
- The cable clamp and screws are provided to secure the cable to the Remote Control 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).



# REMOTE CONTROLS – INSTALLATION

## ■ FITTING THE MASTER CONTROL

### BC-31-A

- Determine the most suitable position for the Control.
- 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).

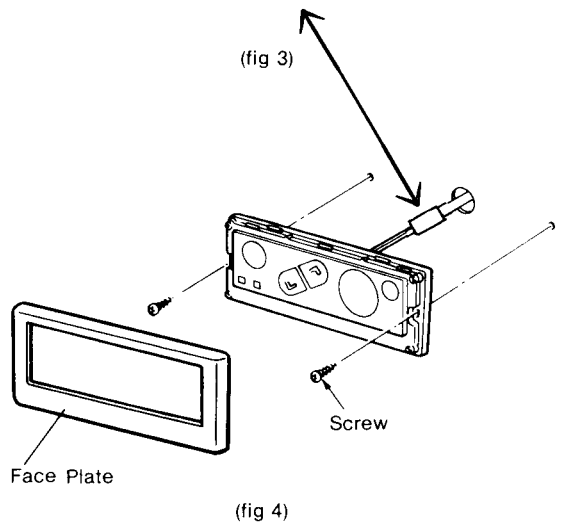
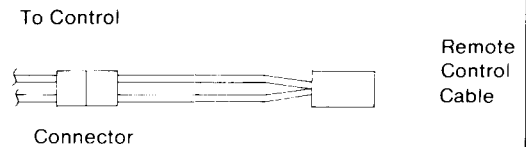
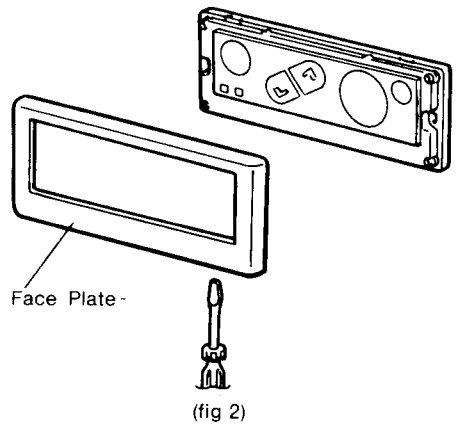
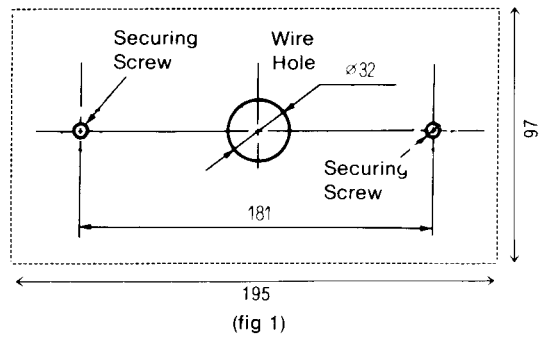
- Run the cable provided between the Control and the Infinity 24; or refer to page 14, No. 8.

- Remove the faceplate from the Remote Control using a screwdriver (fig 2).

- Connect the BC-31-A Control to the cable, using the end of the cable with the connector fitted.

- Fix the Control to the wall, and replace the faceplate (fig 4).

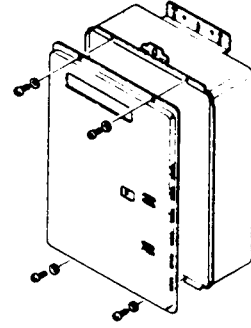
Outline of Remote Control



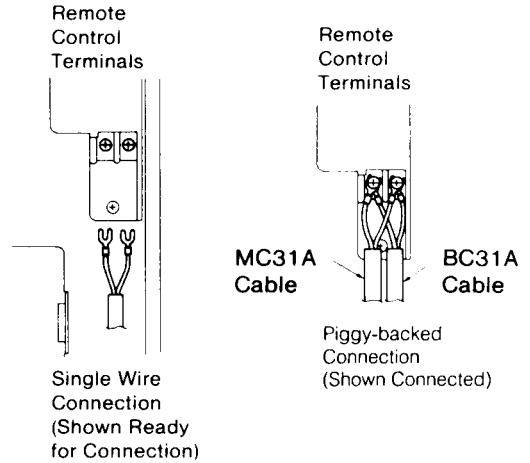
# REMOTE CONTROLS – INSTALLATION

## ■ CONNECTING REMOTE CONTROL CABLE TO THE INFINITY 24.

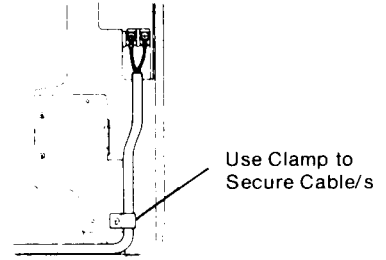
- Remove the cover from the Infinity 24 (4 screws) (fig 1).
- Thread the cable through the cable access hole at the base of the Infinity 24, then connect to the Remote Control terminal on the right hand side, bottom of P.C.B. unit (fig 2).
- Secure cable inside Infinity 24 using the clamp provided (fig 3).



(fig 1)



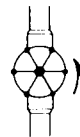
(fig 2)



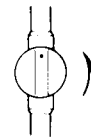
(fig 3)

- Purge Gas and Water pipes to remove air and swarf. Swarf in either gas or water supplies may damage the Infinity 24.

WATER ON



GAS ON





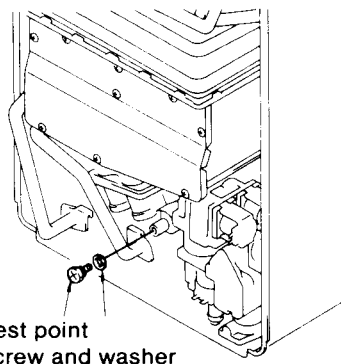
# TESTING

## ■ TESTING

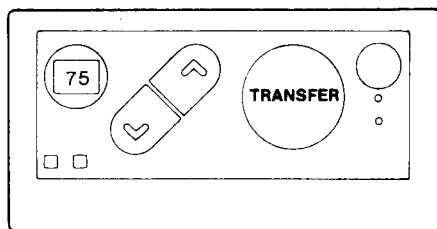
- Turn on Gas and Water.
- Test for water leaks and gas escapes. Use soapy water to check for gas leaks.
- Remove pressure test point screw, attach pressure gauge to test point.
- Turn power on (Caution 240v inside unit).
- Turn Infinity 24 on at either Remote Control. Set temp to 75°C (See page 4).  
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 9 litres/min if incoming water temp. is 15°C.
- If it is established that the gas pressure needs adjusting, follow the instructions EXACTLY according to the information provided in a 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 24 ON at either Remote Control.
- Check operation of appliance by ensuring that the Remote Controls are functioning correctly.
- Explain the operation of the Infinity 24 to the customer. Make sure the customer understands the instructions, in particular the instructions for the Remote Controls.

## FAULT/FAILURE PROCEDURE

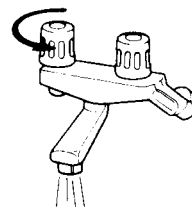
If you are unable to get the Infinity 24 to operate correctly, contact Rinnai, or your local agent.



	NATURAL
LOW	0.04 kPa
HIGH	0.70 kPa



## SET CONTROL



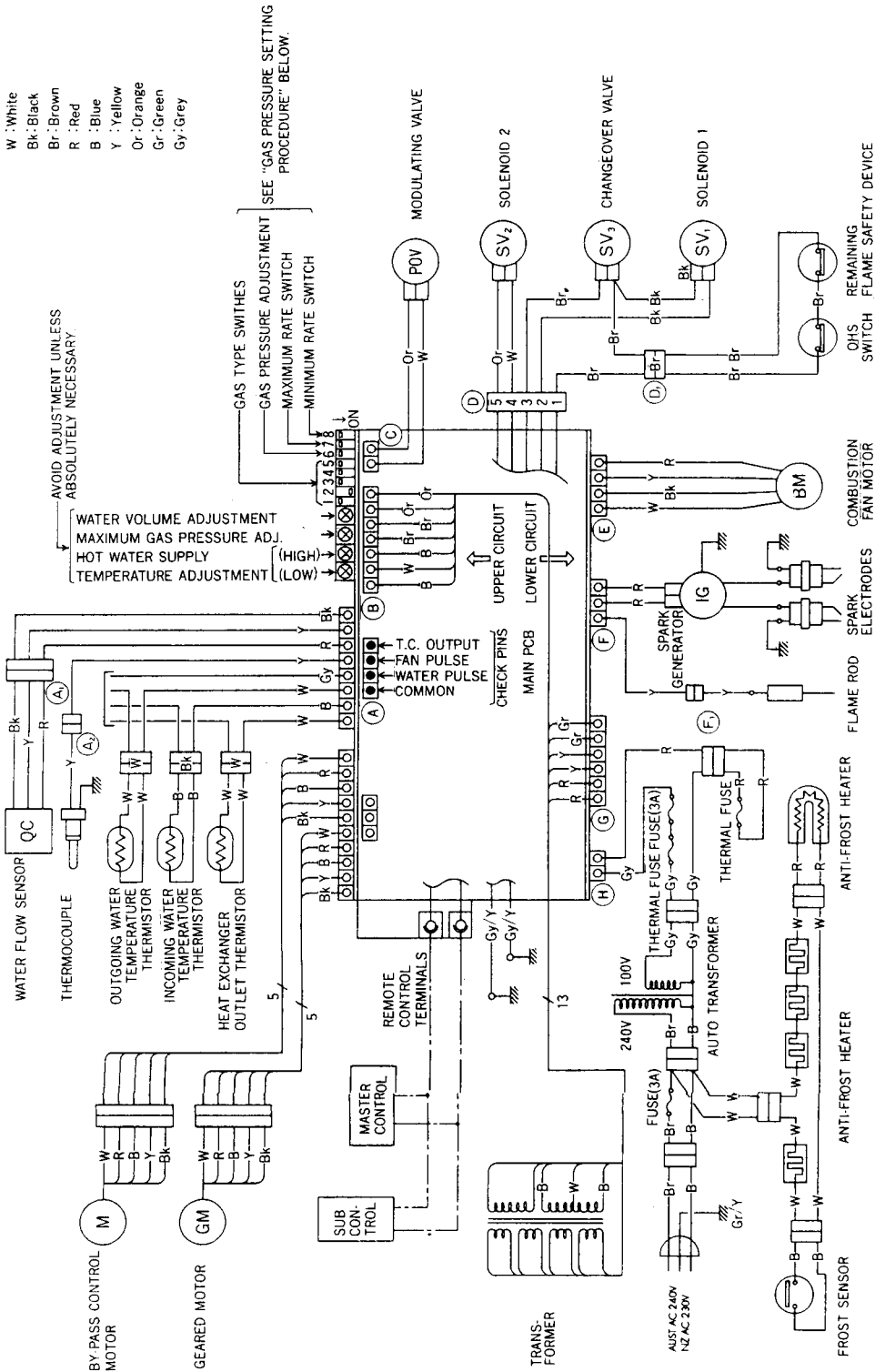
## HOT WATER TAP OPEN

**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.

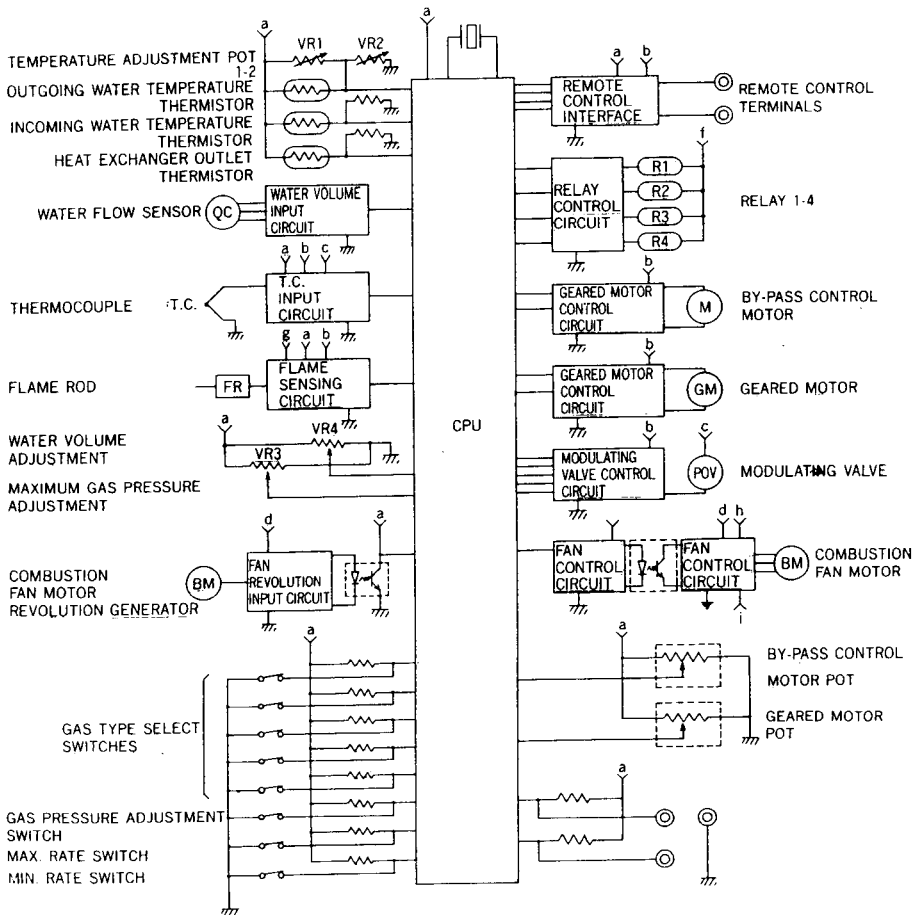
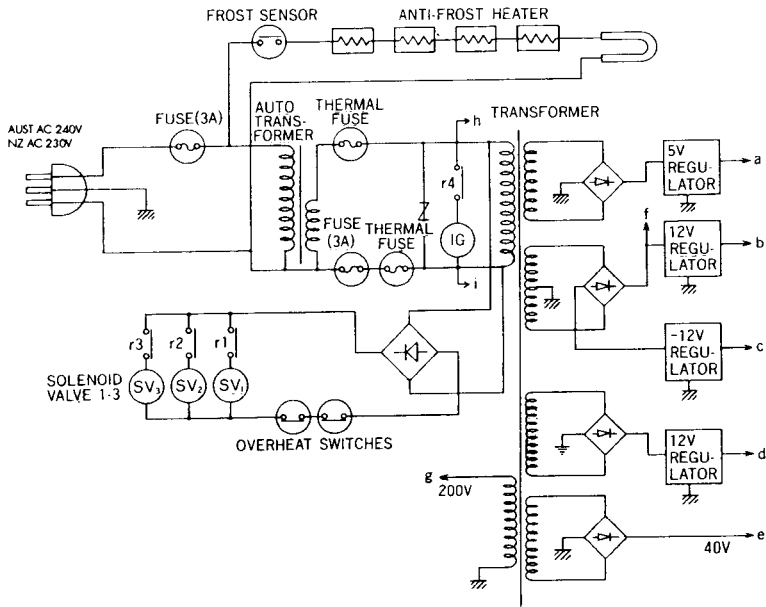
# WIRING DIAGRAM

**COLOR CODING**

- W : White
- Bk : Black
- Br : Brown
- R : Red
- B : Blue
- Y : Yellow
- Or : Orange
- Gr : Green
- Gy : Grey

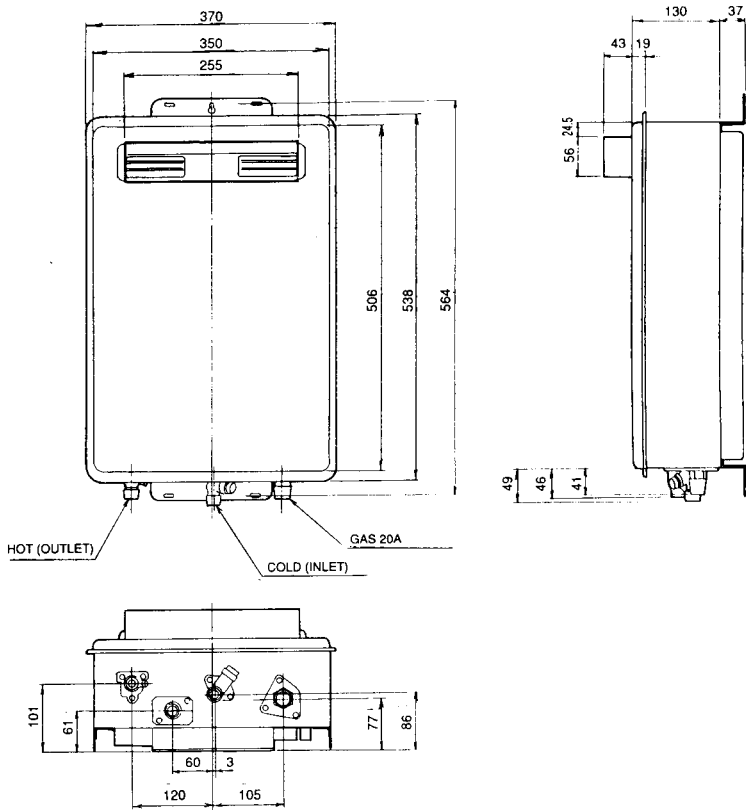


# BLOCK DIAGRAM

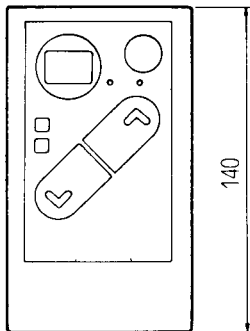
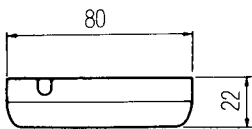


# DIMENSIONS

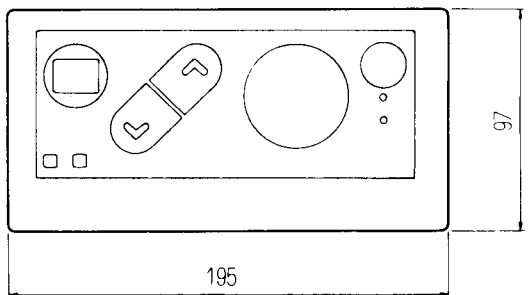
## INFINITY 24



## REMOTE CONTROLS



SUB CONTROL  
MC-31-A



MASTER CONTROL  
BC-31-A

# SPECIFICATIONS

<b>DESCRIPTION</b>	REU-24W-A.
<b>TYPE</b>	EXTERNALLY MOUNTED, POWER FLUED CONTINUOUS FLOW WATER HEATER.
<b>GAS TYPE</b>	NATURAL GAS ONLY.
<b>INPUT</b>	MODULATING - 185MJ/h HIGH, 21MJ/h LOW.
<b>GAS CONTROL</b>	RINNAI ELECTRONIC CONTROL AND SOLENOIDS. TEMPERATURE SELECTION BY 2 REMOTE CONTROLS.
<b>BURNER</b>	CERAMIC PLATE, PRE-MIX
<b>GAS INLET</b>	R <sup>3</sup> / <sub>4</sub> /20 (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 50 Hz – AUST. 230v 50 Hz – NZ.

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

## SERVICE CONTACT POINTS

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<b>A.C.T. Branch</b>	Bird & Stirling, 3 Lithgow Street, Fyshwick, A.C.T. 2609 Telephone: (06) 280 4833, Facsimile: (02) 280 6561
<b>Tas Branch:</b>	Launceston: Launceston Gas Centre, 59 Elizabeth Street, Launceston Tasmania 7250 Telephone: (003) 31 9787, Facsimile: (003) 34 0063  Hobart: Hobart Gas Centre, 174 Bathurst Street, Hobart, Tasmania 7000 Telephone: (002) 34 5677, Facsimile: (002) 34 8997
<b>Newcastle:</b>	Neil Kibble Agency P/L, 157 Lambton Road, Broadmeadow, N.S.W. 2292 Telephone: (049) 56 2122, Facsimile: (049) 56 1919

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