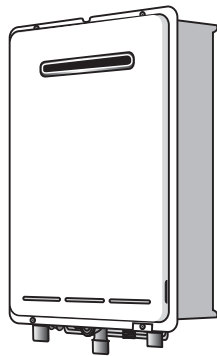


# Rinnai

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## REU-K2430WG-AK

# SERVICE MANUAL



To Suit Model:

REU-K2430WG

ENVIROSMART



The Australian  
Gas Association

All Rinnai products are certified by the Australian Gas Association as compliant to relevant Australian Standards.



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# WARNING



*Failure to comply with these instructions may result in serious personal injury or damage to the appliance.*

ALL WIRING INSIDE THIS APPLIANCE MAY BE AT 240 VOLTS POTENTIAL  
ALL SERVICE WORK MUST BE CARRIED OUT BY AN AUTHORISED PERSON.  
DO NOT TEST FOR GAS ESCAPES WITH AN OPEN FLAME

This manual has been published by Rinnai Australia Technical Support Department. We welcome users of this manual to provide feedback and suggestions for improvement purposes.

SM REU-K2430W-AK (EnviroSMART)

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# Glossary of Terms and Symbols

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dB(A)	-	sound pressure level in decibels, “A” range
DC	-	direct current
AC	-	alternating current
WFCD	-	water flow control device
FB	-	feedback information
FF	-	feedforward information
Hz	-	Hertz
IC	-	integrated circuit
kcal/h	-	kilocalorie per hour
kPa	-	kilopascals
LED	-	light emitting diode
L/min	-	Litres per minute
mA	-	milliamps
MJ/h	-	megajoule per hour
mm	-	millimetres
mmH <sub>2</sub> O	-	millimetres of water (gauge pressure)
OHS	-	overheat switch
PCB	-	printed circuit board
CPU	-	central processing unit
POT	-	potentiometer
rpm	-	revolutions per minute
SV	-	solenoid valve
∅	-	diameter
Δ °C	-	temperature rise above ambient
POV	-	modulating valve
TE	-	thermal efficiency
TH	-	thermistor
T <sub>IN</sub>	-	temperature of incoming water
T <sub>OUT</sub>	-	temperature of outgoing water

# 1. Specifications

Rinnai model number	REU-2430WG-AK	
Type of appliance	Temperature controlled continuous flow gas hot water system with condensing combustion system	
Combustion system	Room sealed, fan forced combustion	
Installation	External	
Dimensions	Width	350 mm
	Height	600 mm
	Depth	250 mm
Weight	27 Kg	
Gas consumption (MJ/h)	Natural gas:	Max 162 / Min 15.9
	Propane gas:	Max 162 / Min 16.7
Connections	Gas inlet	R 3/4
	Cold water connection	R 3/4
	Hot water connection	R 3/4
	Condensate outlet	R 1/2
Electrical consumption	Normal	50 W
	Standby	2 W (with 1 water controller)
	Anti-Frost protection	125 W
Hot water capacity (Raised 25°C)	2.3 to 24 L/min	
Default temperature control (without water controller)	40, 42, 50, 55, 60, 65, 75°C (Set by combination of dip switches on PCB)	
Water flow control	Water flow sensor, electronic water flow control device and electronic by-pass flow control device.	
Nominal operating water pressure	240 kPa ~ 1000 kPa	
Minimum start-up water flow	2.4 L/min	
Maximum war flow	30 L/min	
Power supply	Appliance	AC 240 Volts 50 Hz
	Water controller	DC12 Volts
Water controllers (optional)	1. Up to 4 controllers can be fitted. See below for the combination limitation of water controllers	
	2. Wireless controllers can be fitted in the same manner of MC-91Q-2A	
	Kitchen control	MC-100V-1A or MC-91Q-2A
	Bathroom control	BC-100V-1A or MC-91Q-2A
	Second bathroom control	BC-100V-1A or MC-91Q-2A
Third bathroom control	MC-91Q-2A	
Water Controller Cable (Supplied with controller)	Non-polarized two core cable.	

## Sensors and Safety Functions

- **Hot Water Delivery Thermistor:** Measures hot water temperature at the outlet valve (i.e. the 'mixed' temperature).
- **Flame Rod:** Monitors combustion characteristics inside the combustion chamber. If the flame fails, gas supply is stopped.
- **Overheat Switch:** Situated on the heat exchanger, gas supply is stopped when water temperature reaches 97°C for a number of seconds.
- **Fusible Link:** Situated on the heat exchanger, electrical power supply is stopped if the temperature exceeds 129°C.
- **Water Pressure Relief Valve:** Safeguards the water circuit against excessive inlet pressure. Opens at 2060 kPa, closes at 1470 kPa.
- **Electrical Fuse:** (3A glass fuse) prevents against over-current.
- **Surge Protector:** prevents against over-current.
- **Boil Dry Prevention:** If water flow sensor detects no flow, gas supply is stopped.
- **Combustion Fan Speed Sensor:** In case of combustion fan defect (no rotation of fan) gas supply is stopped.
- **Temperature Cutout:** If the delivered hot water temperature rises above the required delivery temperature for a number of seconds, the gas supply is stopped.

## Combustion Specifications

Refer dataplate on appliance

## 2. Water Flow Rates and Pressure Characteristics

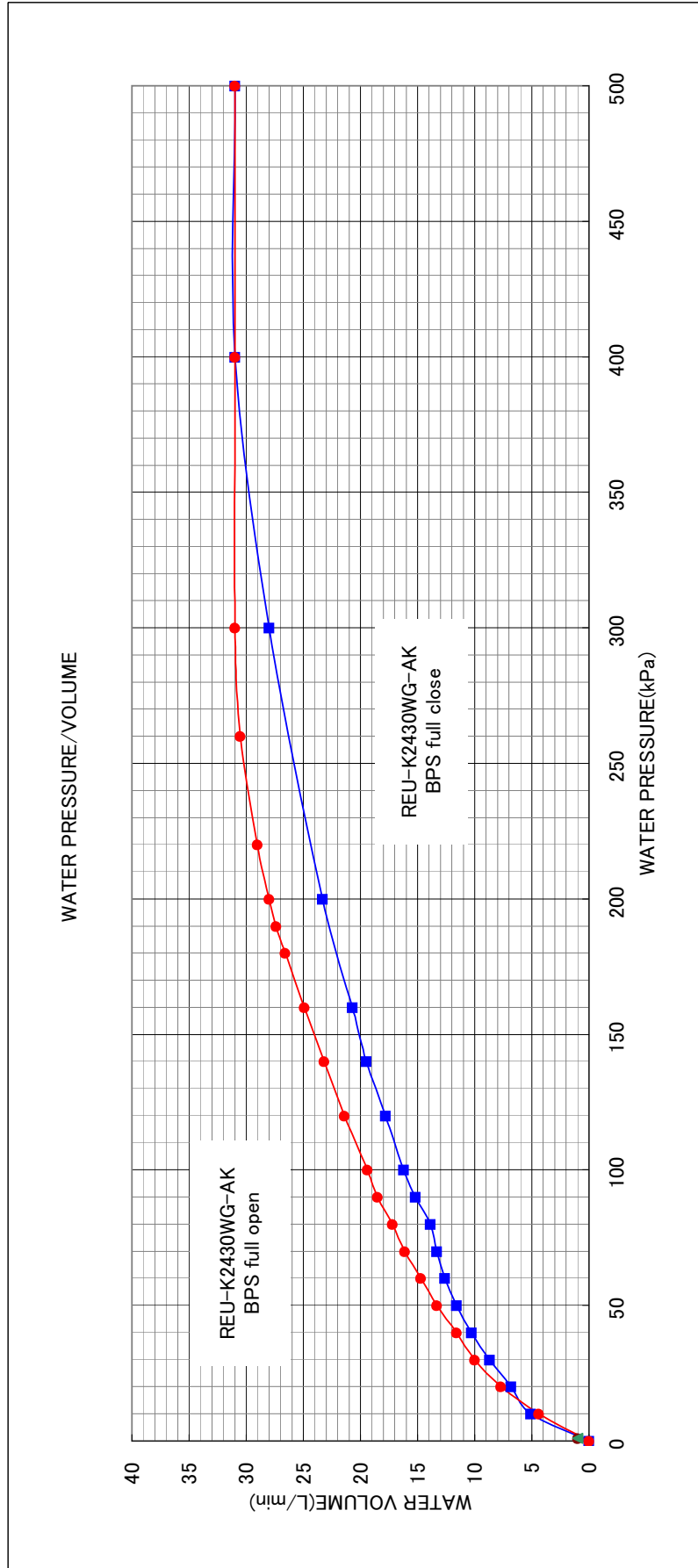
### WATER FLOW REGULATOR

#### REU-K2430WG-AK BPS full close

P(kPa)	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	120.0	140.0	160.0	200.0	300.0	400.0	500.0
Q(L/min)	0.0	5.1	6.8	8.7	10.3	11.6	12.6	13.3	13.9	15.2	16.2	17.8	19.5	20.7	23.3	28.0	31.0	31.0

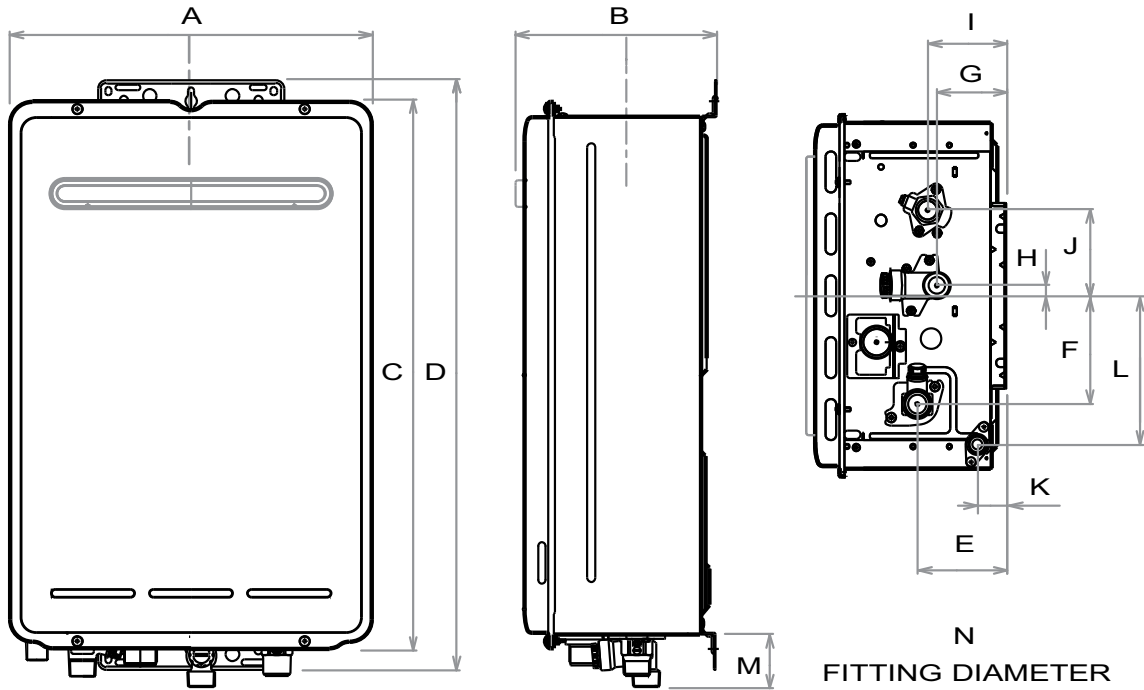
#### REU-K2430WG-AK BPS full open

P(kPa)	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	120.0	140.0	160.0	180.0	190.0	200.0	220.0	260.0	300.0	400.0	500.0
Q(L/min)	0.0	4.4	7.7	10.0	11.6	13.3	14.7	16.1	17.2	18.5	19.4	21.4	23.2	24.9	26.6	27.4	28.0	29.0	30.5	31.0	31.0	31.0



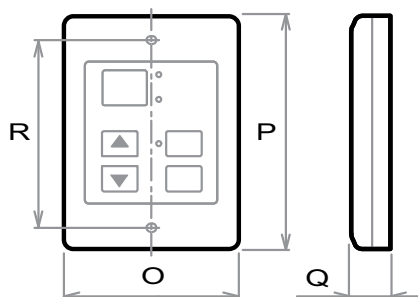


### 3. Dimensions



Dim'	Description	REU-K2430WG
A	Width	350
B	Depth	277
C	Height - Unit	600
D	Height - Including Brackets	644
E	Hot Water outlet (from wall)	164.5
F	Hot Water outlet (from centre)	100
G	Cold Water inlet (from wall)	83
H	Cold Water inlet (from centre)	53
I	Gas Connection (from wall)	70.5
J	Gas Connection (from centre)	25
K	Condensate outlet (from wall)	33
L	Condensate outlet (from centre)	132
	Gas Connection Length (from base)	40
	Cold Connection Length (from base)	50
M	Hot Connection Length (from base)	42
	Condensate Connection Length (from base)	-
	Gas: Fitting Diameter	20
	Cold: Fitting Diameter	20
N	Hot: Fitting Diameter	20
	Condensate: Fitting Diameter	15

\* Please note that this measurement is to the left of the centre line.



Dim'	Description	MC-91	MC-100V MC-91Q-2A	BC-100V
O	Width	90	128	202
P	Height	120	120	104
Q	Depth	20	20	22
R	Distance between mounting hole centres	83	83	181

## 4. Water Controllers



All water controllers must be installed in accordance with the relevant operation/installation instructions supplied with the water heater or water controllers.



Care should be taken to ensure power supply to the Infinity is isolated when connecting / disconnecting controller wiring or transponder on wireless controllers. Failure to isolate power supply may result in damage to the appliance PCB.

Care should be taken when closing the Ezi-connect access panel, to ensure internal wiring for controllers is not shortened or crushed.

### Troubleshooting

#### Controller not showing display - (Wired Controllers)

- Check that the correct number and combination of controllers have been installed for the specific model Infinity. Refer to controller compatibility table below.
- Check controller is turned ON.
- Check there is 12VDC power supply available to the controller from the Ezi-connect terminals.
- If there is 12VDC available from the Ezi Connect but no controller display, check wiring between Ezi-connect and controller is sound.
- If there is no power from the Ezi-connect terminals, but the hot water functions correctly, replace PCB.

#### Error Code 12 as soon as hot water tap is turned ON.

- Check 12VDC internal wiring to Ezi-connect terminal is not crushed or shortened.
- Rectify wiring and re-close Ezi-connect cover carefully.

#### Controller not showing display - (Wireless Controllers)

- Ensure transceiver module is mounted in the correct location, as per wireless controller installation instructions.
- Ensure 2 x AA batteries are in good working order and installed with the correct polarity within the wireless controller. (Battery polarity details on rear of wireless controller)
- Ensure distance between wireless controller and transceiver does not exceed 50 metres.
- Ensure channel has been allocated to each wireless controller.
- Ensure wireless controller has been programmed to the transceiver correctly, as per wireless controller installation instructions.

#### Controller Compatibility Table

<b>Wireless Only Installation</b>	A maximum of 4 wireless water controllers can be fitted with the following limitation: Only <b><u>ONE</u></b> MC-502RC can be set as the Master Controller.
<b>Wired &amp; Wireless Installations</b>	A maximum of 4 water controllers can be fitted. Any combination of deluxe, universal and wireless controllers can be used with the following limitation:  <b>Only <u>ONE</u> master controller can be installed. This can be a MC-100V, a MC-91Q (when programmed as a master controller) or a MC-502RC water controller.</b>  <b>Up to <u>TWO</u> BC-100V water controllers can be installed.</b>  <b>The <u>FOURTH</u> water controllers in any installation MUST BE a MC-502RC or a MC91Q.</b>

## PROGRAMMING FOR THE 'UNIVERSAL' WATER CONTROLLER (MC-91Q)



QUESTION

# 1 Are there four water controllers connected?

**IF NO:** (You have three water controllers or fewer), go to Question 2.

**IF YES:** You will need to activate the fourth water controller as follows:

**STEP 1:** For the water controller in the KITCHEN ONLY, press and hold the 'Transfer' and 'On/Off' buttons simultaneously (see Fig. 5) until a 'beep' is heard (approximately 5 seconds).

**STEP 2:** Check that the display on ALL FOUR water controllers is lit and displaying a temperature when 'switched on'. If any ONE of the controller displays two dashes (see Fig. 6) repeat STEP 1.

This completes the activation procedure for the fourth controller, you may ignore Question 2.

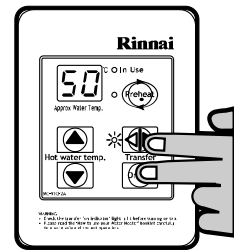


Fig. 5



Fig. 6



QUESTION

# 2 Is the water heater marked to state it delivers water not exceeding 50°C?

**IF YES:** No further action required.

**IF NO:** You will need to program the kitchen controller to enable selection of temperatures higher than 50°C.

**STEP 1:** For the controller in the KITCHEN ONLY, press and hold the 'Transfer' and 'On/Off' buttons simultaneously (Fig. 7) until a 'beep' is heard (approximately 5 seconds).

**STEP 2:** When the controller fitted in the KITCHEN is switched On, it should be possible to select temperatures higher than 50°C. If not, repeat STEP 1.

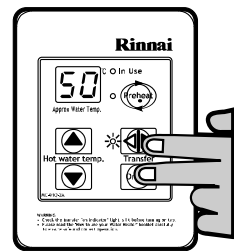


Fig. 7



NOTE

**If the water controller in the kitchen is replaced, repeat STEP 1 above for the replacement controller.**

**If the water controller in the kitchen is swapped with another controller (for example, the controller fitted in a bathroom), repeat STEP 1 for the controller moved from the kitchen to the bathroom. Then perform STEP 1 for the controller moved from bathroom to the kitchen.**

## 5. Smartstart

At least one temperature controller model MC-91Q must be used in conjunction with the water heater and the Smartstart® system. Alternatively, if Water Controllers cannot be used a manual activation switch is available. See separate service manual.

The installation of the water heater and water controllers must be performed in accordance with the operating/installation instructions supplied with the water heater.

The Smartstart® system is designed for domestic installations. However, it may be suitable for certain non domestic installations. See separate service manual for more information.

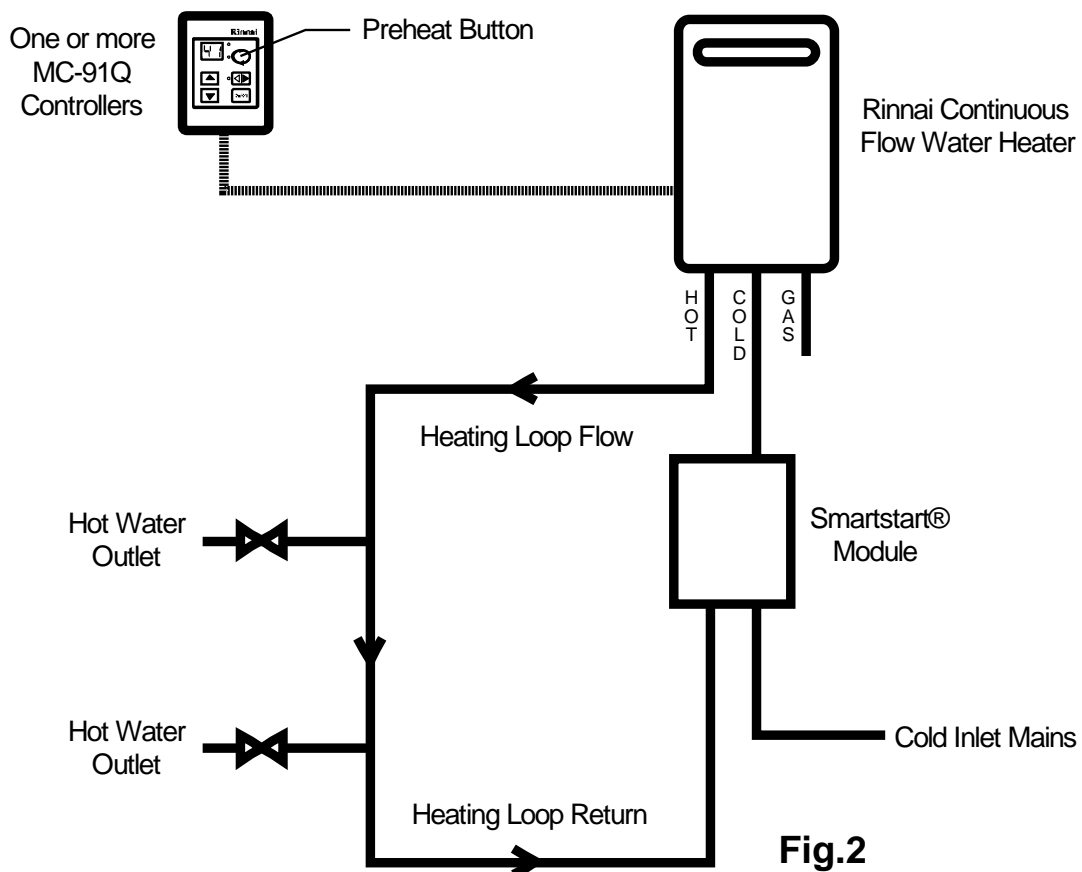
### Principle of operation (Fig.2)

The "Smartstart®" system heats the water in the pipework water connected between the water heater and the hot water outlets before any outlets are opened using the 'flow and return' pipework principle. This results in water savings and reduced waiting time for heated water delivery from the outlet when opened.

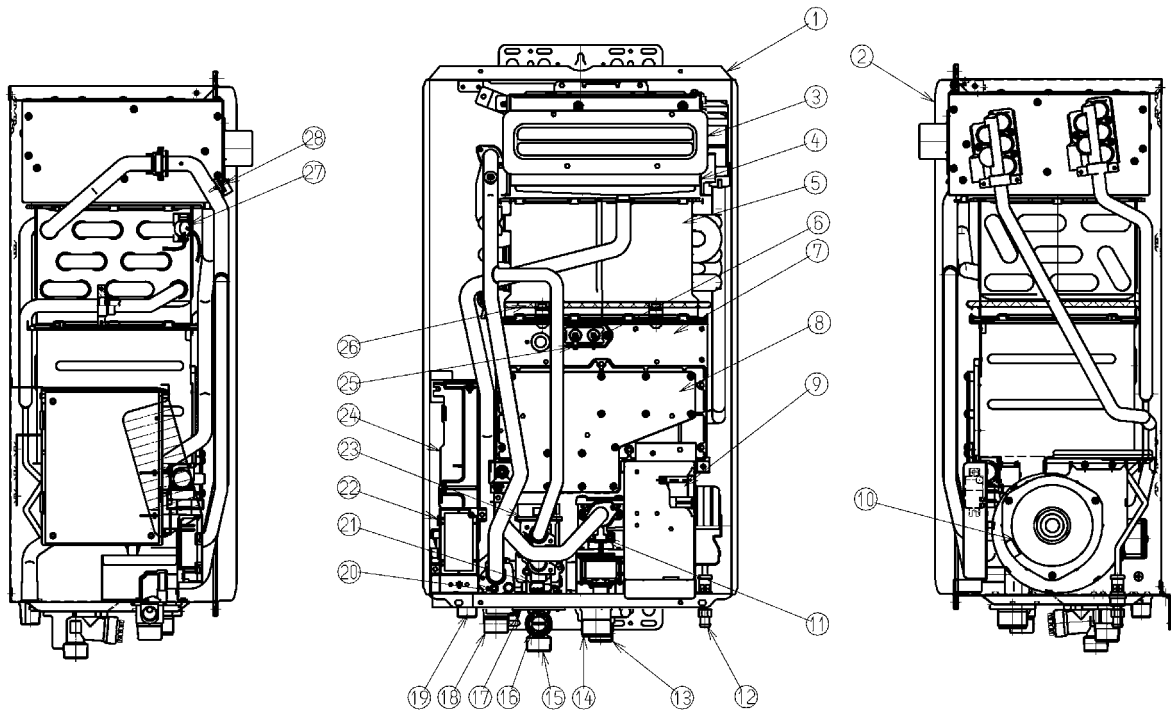
Traditional 'flow and return' systems usually keep the water in the pipework heated continuously. The Smartstart® system however, only heats the water before the outlet is opened. This results in significant energy savings because water is not heated unnecessarily whilst retaining the benefits of traditional flow and return systems.

A schematic of the Smartstart® system installed in conjunction with a Rinnai continuous flow water heater and water controller is shown in Fig.2 below.

If problems are experienced with Smartstart® operation refer to the Smartstart® service manual.



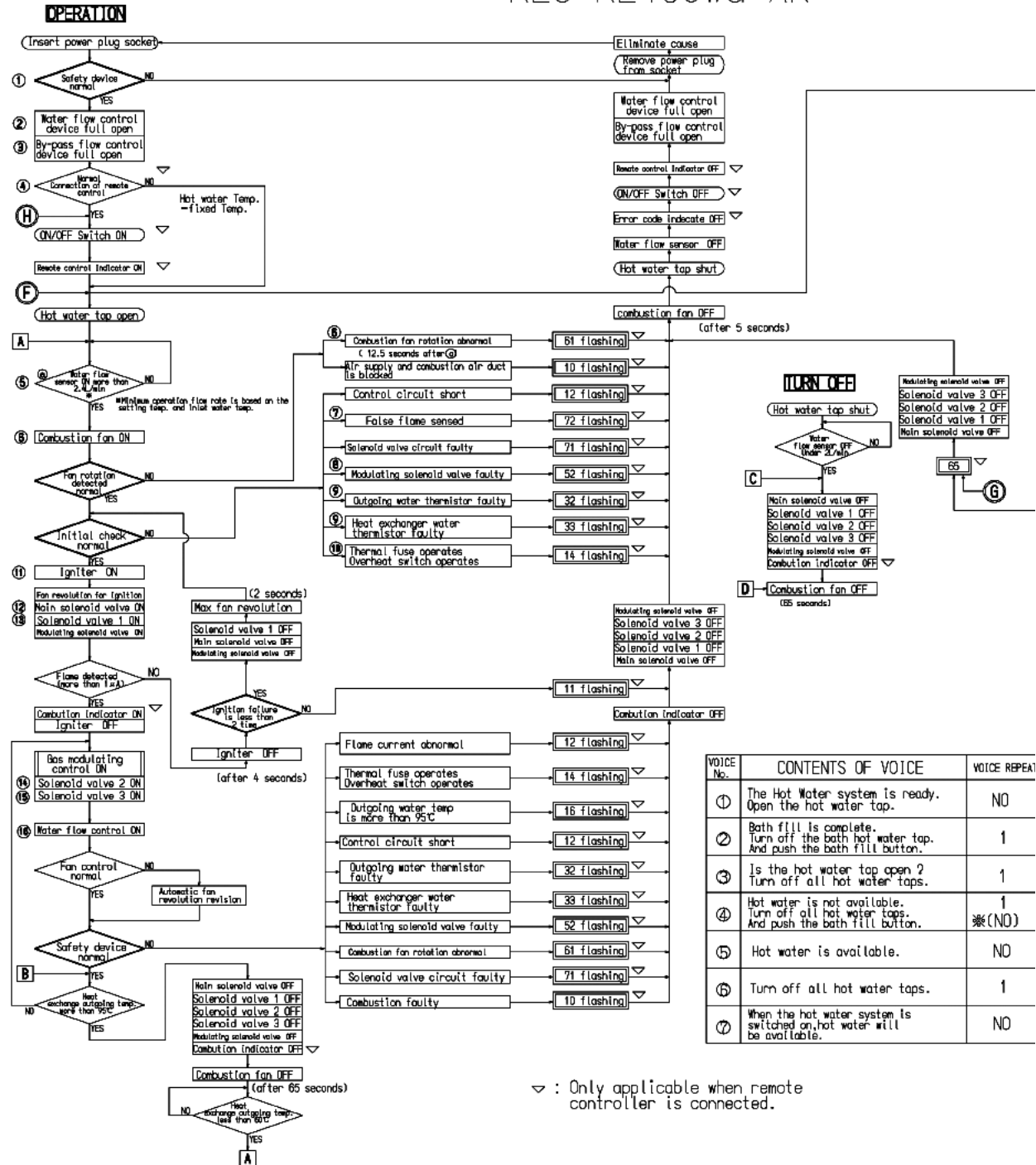
## 6. Cutaway Diagram



NO.	NAME	MATERIAL
1	CASING ASS*Y	
2	FRONT PANNEL ASS*Y	
3	FLUE OUTLET	STAINLESS STEEL
4	LATENT HEAT EXCHANGER	
5	HEAT EXCHANGER	COPPER
6	ELECTRODE	
7	COMBUSTION CHAMBER FRONT PLATE ASS*Y	HOT-DIPPED ALUMINUM COATED STEEL SHEET
8	MANIFOLD ASS*Y	ALUMINUM CASTING
9	IGNITER	
10	COMBUSTION FAN	
11	GAS CONTROL ASS*Y	ALUMINUM CASTING
12	DRAIN PLUG	
13	GAS CONNECTION	ALUMINUM CASTING
14	CABLE PORT	
15	WATER INLET	BRASS
16	DRAIN PLUG	
17	PRESSURE RELIEF VALVE	BRASS
18	HOT WATER OUTLET	BRASS
19	CONDENSATE OUTLET	
20	OUTGOING WATER THERMISTOR	
21	WATER FLOW CONTROL DEVICE	
22	SURGE PROTECTOR	
23	BY-PASS FLOW CONTROL DEVICE	
24	P.C.B.	
25	FLAME ROD	
26	THERMAL FUSES	
27	OVERHEAT SWITCH	
28	HEAT EXCHANGER THERMISTOR	

# 7. Operational Flow Chart

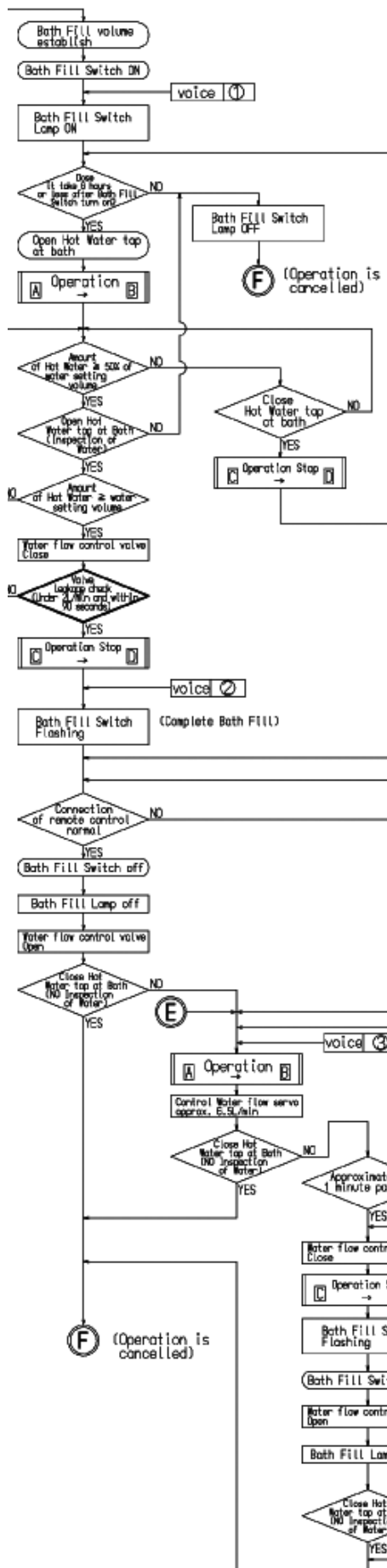
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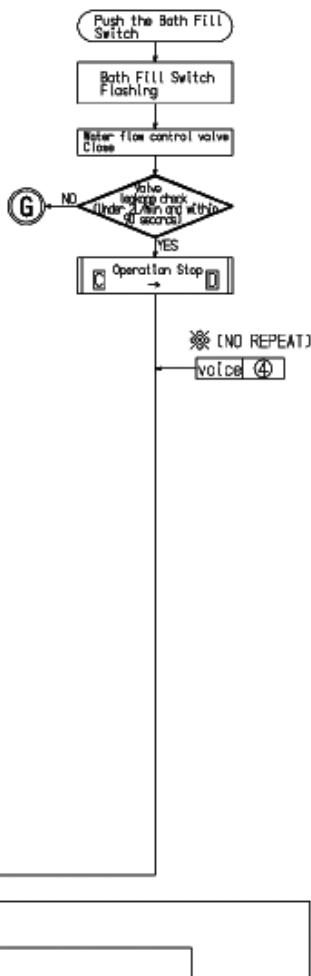
# BATH FILL OPERATION

(Connection of BC-70)



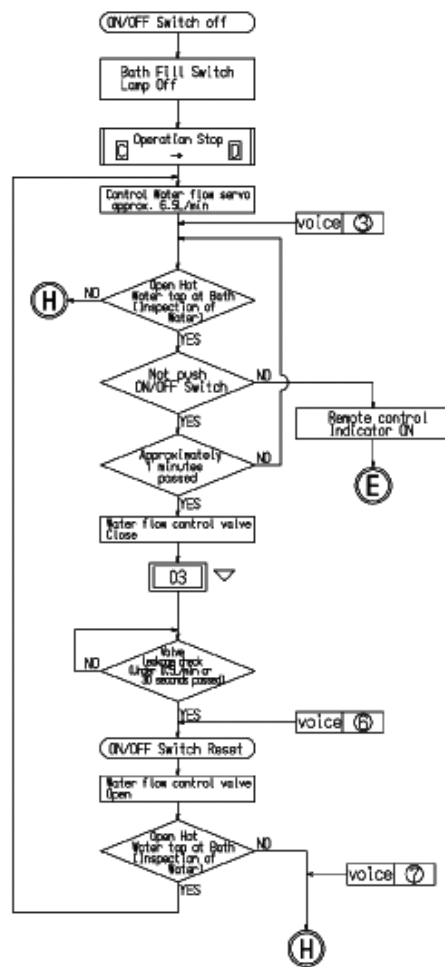
# PUSH THE BATH FILL SWITCH DURING THE OPERATION OF BATH FILL

(Connection of BC-70)

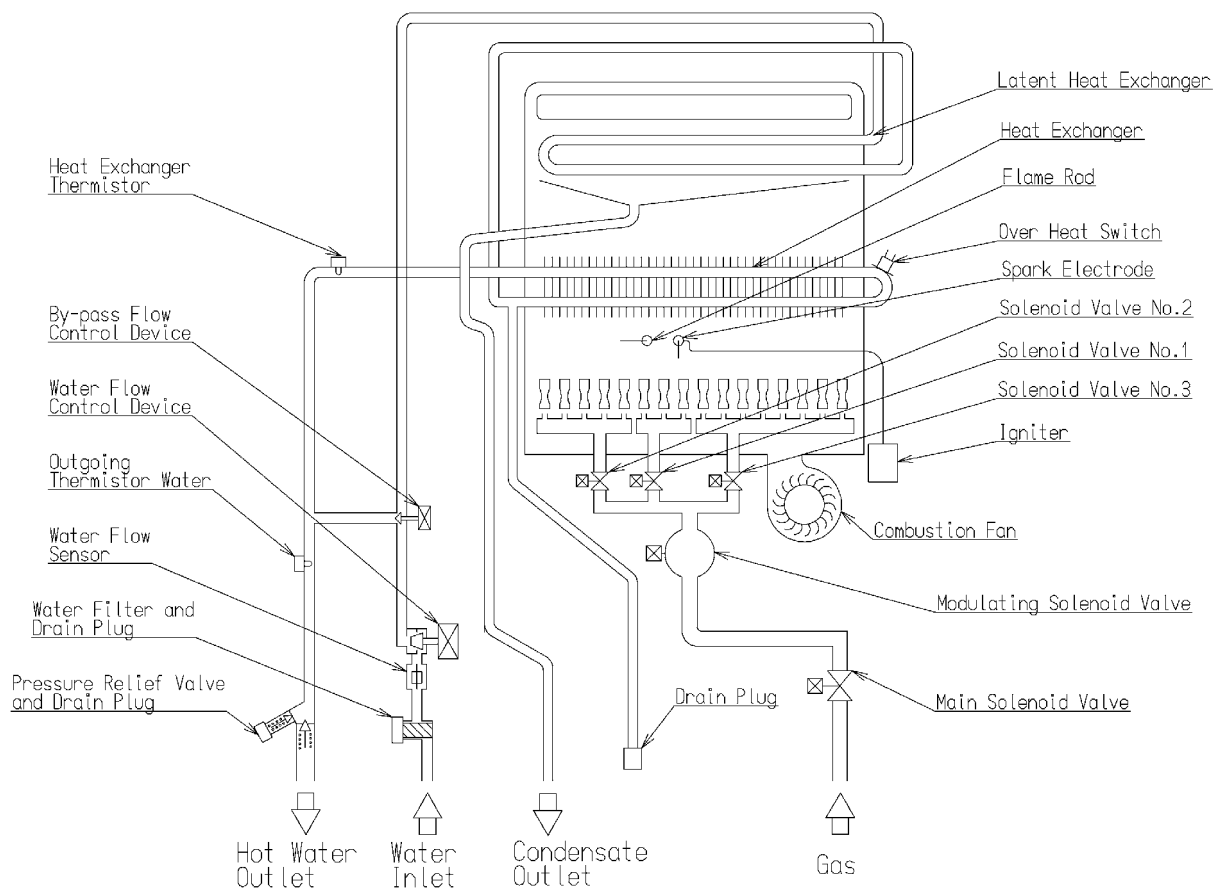


# TURN OFF THE ON/OFF SWITCH DURING THE OPERATION OF BATH FILL

(Connection of BC-70)



## 8. Operation Principles



### Hot Water Operation

#### 1) Ignition

- Activate controllers (if fitted) and open the hot water tap (for full details regarding operation of water controllers refer to the 'Operation / Installation manual supplied with water heater).
- When water flows through the unit, the water flow sensor rotates and sends an electrical 'pulse' signal to the Printed Circuit Board (PCB). This signal is proportional to the water flow rate.
- The PCB sends electrical current to the combustion fan motor causing it to turn. The fan motor sends an electrical pulse signal to the PCB. If fan rotation is OK, the main solenoid and changeover solenoid valves open as required, the spark generator activates and the spark electrode ignites the burner.

#### 2) Water Temperature and Flow

- The PCB will automatically control operation of the internal components to achieve the programmed temperature. When a high temperature rise is required, the PCB may cause the Water Flow Sensor to close partially resulting in a lower flow rate to achieve the programmed temperature. This is a necessary operational feature of the unit.
- When operating in 'Bath Fill' mode, the signal from the water flow sensor is also used by the PCB to compute the volume of water that has been passed through the unit at any instant whilst the bath is filling.

#### 3) Shut Down

- When operating in 'Bath Fill' mode, the PCB causes the Water Flow Sensor to close when the programmed Bath Fill volume has passed through the unit. Alternatively, flow is stopped when the user closes the hot water tap.
- When water flow stops, the water flow sensor stops rotating and the pulse signal to the PCB stops. The PCB then causes the main solenoid and solenoid valves to close and the burner is extinguished. The combustion fan will continue to operate for some time to purge the combustion chamber.



## 9. Main Components

---

### 1) Printed Circuit Board (PCB)

- The Printed Circuit Board controls all operational functions including Air Supply Control, Gas Control, Water Flow Measurement, Water Flow Control, Combustion System and all sensors and safety devices.

### 2) Gas Flow Control

- During normal operation, the PCB keeps the main solenoid valve open whilst there is flow through the unit and the burner needs to be lit.
- Gas flow rate is controlled by the modulating valve assembly and three changeover solenoid valves to always ensure constant outlet water temperature, regardless of flow rate or incoming water temperature.
- The modulating valve is electronically controlled by the PCB using signals from the water flow sensor, water flow control device, bypass flow control device, water temperature thermistors and combustion fan speed sensor. The modulating valve directs gas to the three changeover solenoid valves.
- The three changeover solenoid valves direct gas to each of the three burner banks independently. Any one, two or all of the solenoid valves may be open during operation.
- Gas flow is modulated between 16 and 162 MJ/hr by a combination of the modulating valve and changeover solenoid positions.
- The maximum gas rate is predetermined and the appliance cannot be overloaded when correctly installed.

### 3) Water Flow Control

- Water flow is detected by a turbine coupled to a magnetic pulse generating device. The magnetic pulses are detected and counted by the PCB. The PCB calculates the exact water flow from the frequency of pulses generated by the turbine, as well as the volume of water that has passed through the unit at any instant during 'Bath Fill' operation. A minimum flow rate of 2.4 l/min. is required for the burner to ignite.
- Water flow control is achieved through the use of servo driven water flow and bypass valves. Both servo motors are controlled by the PCB. The 'Water Flow Valve' restricts the flow of water into the heat exchanger assembly if the programmed temperature cannot be achieved. Also, when the Bath Fill function is activated, flow of water is stopped when the bath is full. During normal operation, cold water from the inlet valve is mixed with hot water from the heat exchanger outlet.

### 4) Air Supply Control

- Air for combustion is supplied by a centrifugal fan driven by a variable speed DC motor. The voltage to the motor is determined by the PCB based on water flow, delivered water temperature and programmed water temperature. The actual fan speed is monitored by a magnetic pulse counter. This counter emits a signal to the PCB. From the voltage supplied to the DC motor and the fan speed signal, the PCB determines whether an error condition exists with the fan.

### 5) Combustion System

The combustion chamber is housed within the heat exchanger assembly and comprises:

- A three chamber aluminium alloy manifold multiple integral injectors, arranged in two rows of sixteen. The middle chamber houses six injectors, the left chamber, ten, and the right chamber, sixteen injectors. Gas flow to each chamber is controlled by an electronic solenoid valve (refer 'Gas Flow Control' above).
- A burner assembly comprising sixteen identical modular stainless steel bunsen burners secured by an aluminised steel framework. The manifold is attached to the front of the burner module. Each bunsen burner is supplied by two injectors.
- A combustion chamber. Integrated into the combustion chamber front panel are the flame rod and two ignition electrodes.

## 10. Condensate Drain

---

The ENVIROSMART REU-K2430WG water heater generates condensate continuously at a rate of up to 5 litres per hour as a by-product of highly efficient gas burner system. This condensate must be drained via a pipe to a suitable point of discharge. Because the condensate is a by-product of gas combustion it is mildly acidic. For this reason copper tube and fittings **MUST NOT** be used as it will corrode. Instead, Rinnai recommend plastic pipes and fittings such as Unplasticised Polyvinyl Chloride (UPVC) or Polyethylene (PE) which is commonly used for irrigation piping.

Refer to installation instruction for more information regarding Condensate Drainage.

# 11. Component Circuit Value Table

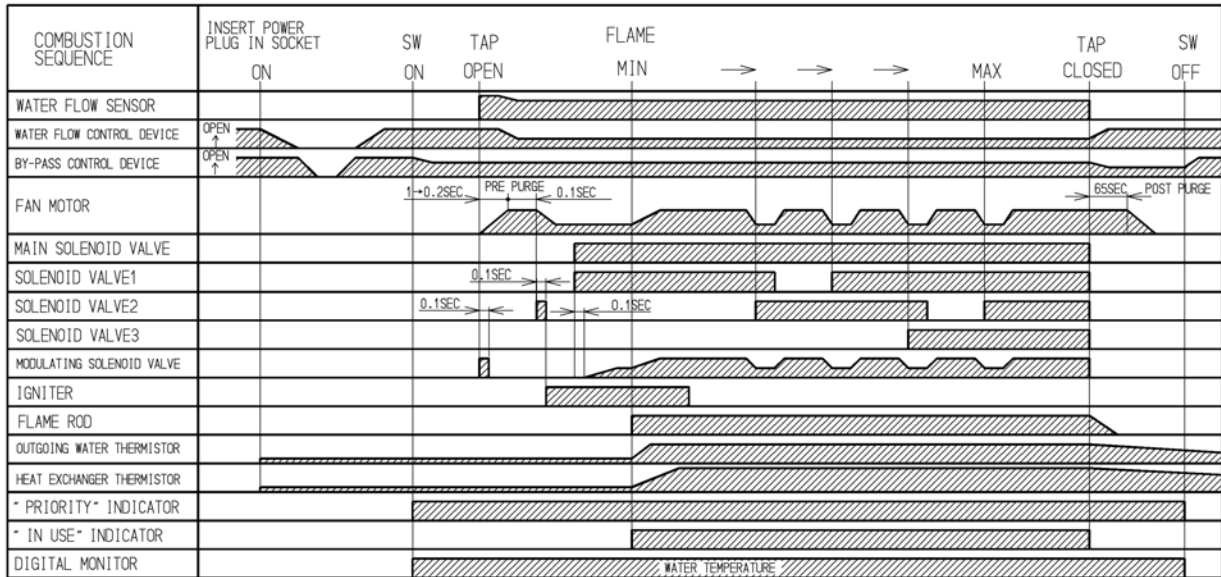
FLOW CHART No.	COMPONENT	MEASUREMENT POINT		NORMAL VALUE	NOTE
		CN	WIRE COLOUR		
①	SURGE PROTECTOR	F <sub>3</sub>	B - Br	AC 207 - 264 V	
② ⑬ ⑯	WATER FLOW CONTROL DEVICE	E <sub>5</sub>	R - B	+/- DC10 - 13V (ONLY WHEN OPERATING)	OPERATE ELECTRICITY
			Y - Gy	BELOW DC 1V(LIMITER OFF) DC 4 - 6V(LIMITER OFF)	FULL OPEN POSITION
			Br - Gy GND	BELOW DC 1V(LIMITER OFF) DC 4 - 6V(LIMITER ON)	FULL CLOSE POSITION
③	BY-PASS FLOW CONTROL DEVICE	H <sub>1</sub>	Br - W O - W Y - W R - W GND	DC 12V (OPERATING DC2-6V)  15 - 35Ω	
④	REMOTE CONTROL	A <sub>1</sub>	Bk - Bk	DC 11 - 13V	
⑤	WATER FLOW SENSOR	E <sub>2</sub>	R - Bk	DC 11 - 13V	ON 2.4L/MIN (33Hz) OVER 1980PULSE/MIN OFF 1.7L/MIN (23Hz) BELOW 1380PULSE/MIN
			Y - Bk GND	DC 4 - 7V (PULSE 20-320Hz)	
⑥	COMBUSTION FAN	B <sub>1</sub>	R - Bk	DC 15 - 46V	
			Y - Bk	DC 11 - 13V	
			W - Bk GND	20 - 400Hz	
⑦	FLAME ROD	I <sub>4</sub>	Y - FLAME ROD	OVER DC 1μA	FLAME CONDITION
⑧	MODULATING SOLENOID VALVE	I <sub>3</sub>	P - P	67 - 81Ω	
⑨	HEAT EXCHANGER THERMISTOR	E <sub>3</sub>	W - P	15°C ... 11.4 - 14.0 kΩ 30°C ... 6.4 - 7.8 kΩ 45°C ... 3.6 - 4.5 kΩ	
	OUTGOING WATER THERMISTOR	E <sub>4</sub>	W - W	60°C ... 2.2 - 2.7 kΩ 105°C ... 0.6 - 0.8 kΩ	
⑩	THERMAL FUSES	I <sub>1</sub>	R - R	BELOW 1Ω	
		E <sub>1</sub>			
⑪	IGNITER	C <sub>1</sub>	Gy - Gy	AC 207 - 264V	
⑫	MAIN SOLENOID VALVE	I <sub>5</sub>	P - Bk	DC 11 - 13V 24 - 28 Ω	
⑬	SOLENOID VALVE 1 (SMALL)	I <sub>6</sub>	B - Bk	DC 11 - 13V 35 - 41 Ω	
⑭	SOLENOID VALVE 2 (MIDDLE)	I <sub>7</sub>	Y - Bk	DC 11 - 13V 35 - 41 Ω	
⑮	SOLENOID VALVE 3 (LARGE)	I <sub>8</sub>	Br - Bk	DC 11 - 13V 35 - 41 Ω	

# 12. Time Charts

## Normal Combustion

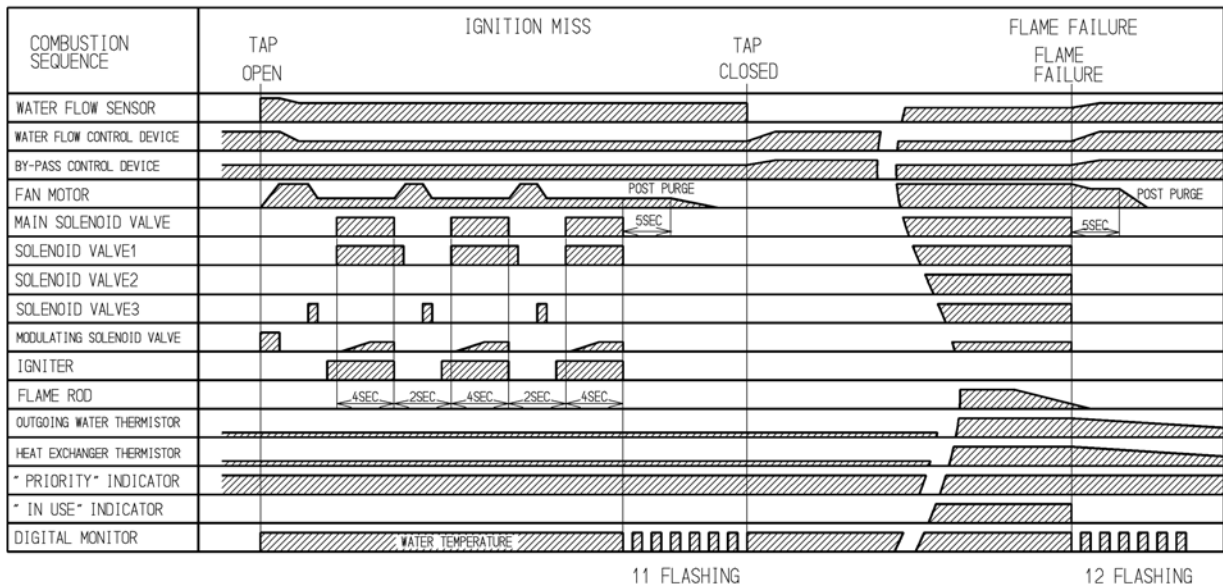
REU-K2430WG-AK

NORMAL COMBUSTION SEQUENCE



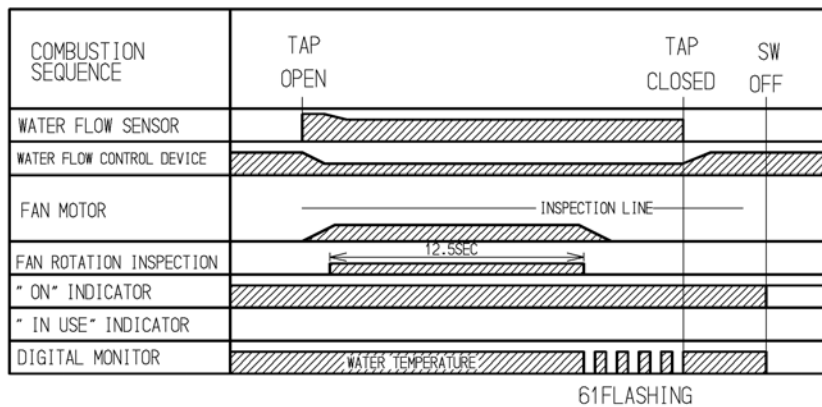
## Mis-Ignition / Flame Failure

ERROR SEQUENCE (IGNITION/FLAME FAILURE)

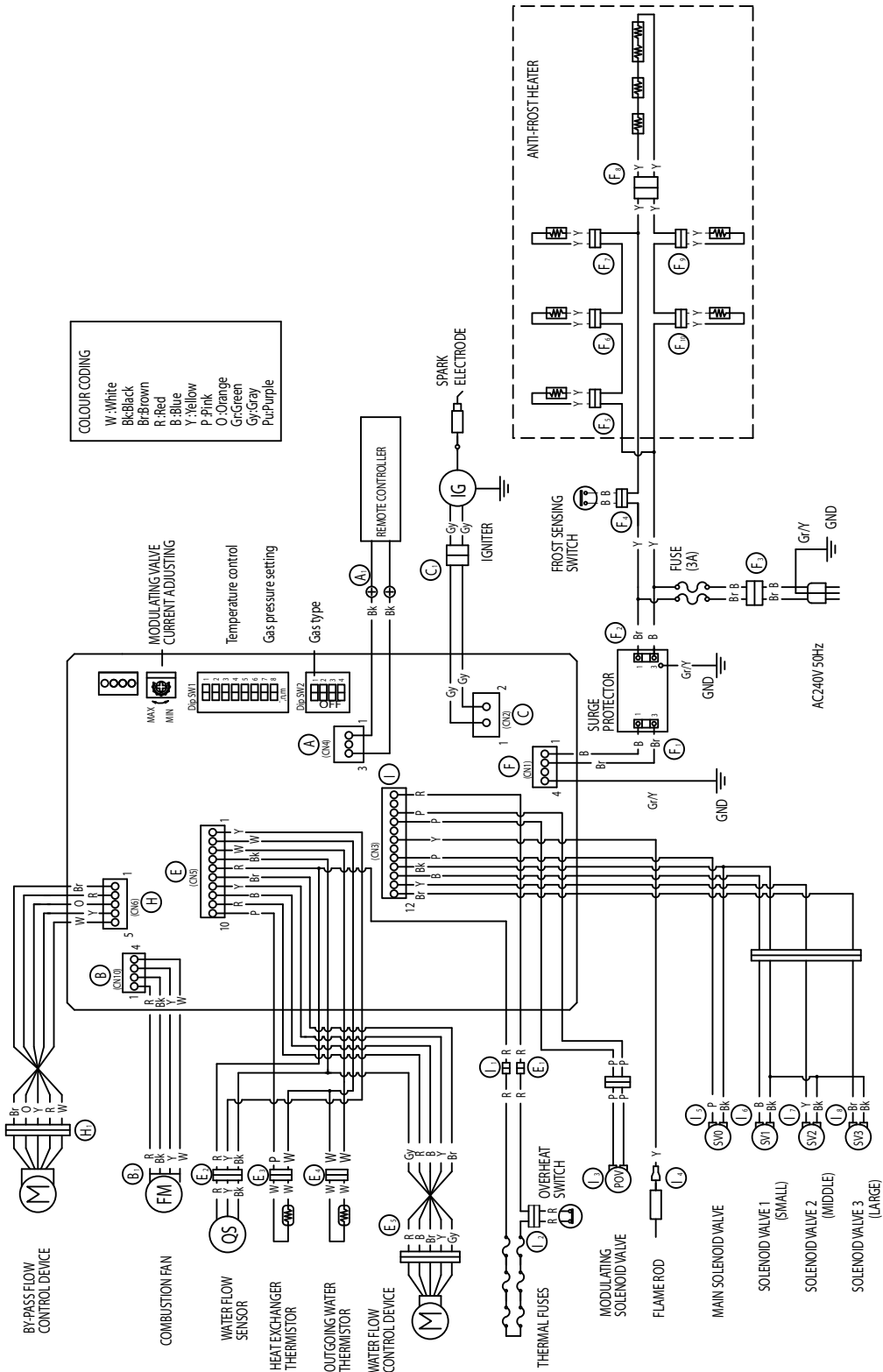


## Abnormal Pre-Purge (Air Supply/Exhaust Blockage)

PRE PURGE DEFECT SEQUENCE



# 13. Wiring Diagram



## 14. Dip Switch Settings

---

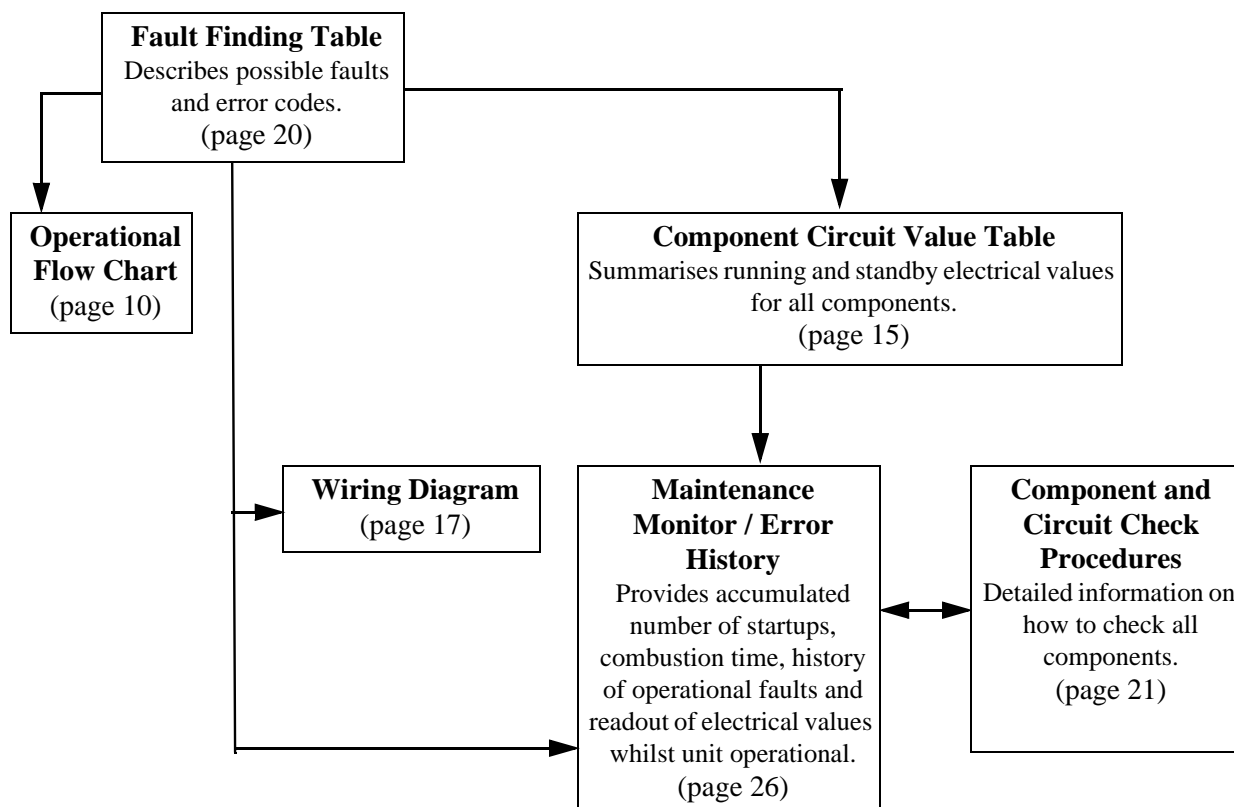
Contact Rinnai for Dipswitch settings.

# 15. Fault Finding



If there is a fault with the appliance, and controllers are installed, a numerical fault code may appear on the digital display controller. If controllers are not installed, one may be fitted to find out the fault code. Fault finding without controllers (and thus fault codes) is possible but more time consuming.

To diagnose and rectify faults, the **Fault Finding Table** is used as illustrated below:



## Fault Finding Table

Code on Controller	Fault	Action
03	Power interruption during Bathfill. Water will not flow when power restored.	1. Turn off all hot water taps. 1. Press the ON/OFF button on a controller twice.
10	Combustion fan current too high. Unit operates, then stops.	1. Check blockage of air intake/flue outlet. 2. Check combustion fan.
11	No ignition. Unit stops without flame igniting	1. Check gas supply 2. Check sparker unit 3. Check gas valves
12	Flame Failure / Earth Leakage	1. Check gas supply 2. Check flame rod 3. Check earth wire lead 4. Check water control
14	Thermal fuse and/or overheat switch activated. Unit operates, then stops.	1. Check thermal fuse 2. Check overheat switch IMPORTANT- If thermal fuse or overheat switch were faulty : a. Check heater for damage b. Confirm "Gas Type" and "Combustion" dip switch settings c. Confirm test point pressures
16	Over temperature warning. Unit operates, then stops.	1. Confirm "Gas Type" and "Combustion" dip switch settings 2. Confirm test point pressure 3. Check gas valves 4. Check water flow sensor 5. Check water flow servo 6. Check heat exchanger outlet temperature thermistor 7. Check hot water outlet temperature thermistor
32	Outlet water thermistor flow	Check hot water outlet thermistor
33	Heat exchanger thermistor error	Check heat exchanger thermistor
52	Modulating solenoid valve fault. Unit stops without flame ignition.	Check modulating solenoid valve
61	Combustion fan rotation error	Check combustion fan
65	Water flow control device error. Water flow is not controlled. Water temperature too low.	Check water flow servo
71	Solenoid valve circuit error. Unit does not operate.	Check gas valves
72	Flame rod circuit error. Unit does not operate.	Check flame rod
-	Appliance does not operate at all. No display on the water controllers (if fitted).	1. Check power cord plugged in and supply turned on. 2. Check power supply voltage. 3. Check electrical fuse. 4. Check transformer. 5. Check gas valves 6. Check sparker unit. 7. Check earth leads and connections. 8. Check for short circuits. 9. Check water controller(s) - if fitted.
-	No combustion despite water control indicating that combustion is occurring - if water controller(s) fitted)	1. Check water flow sensor. 2. Check flame rod. 3. Check heat exchanger outlet thermistor. 4. Check hot water outlet thermistor. 5. Check combustion fan. 6. Check the sparker unit. 7. Check gas valves. 8. Check thermal fuse. 9. Check overheat switch. IMPORTANT - If thermal fuse or overheat switch were faulty: a) check heater for damage; b) confirm "Gas Type" and "Combustion" dip switch settings; c) confirm test point pressure.
-	Combustion stops during operation.	1. Check gas supply 2. Check flame rod 3. Check earth leads and connections.
-	Cannot adjust the hot water temperature via the water controller(s) - only if controller(s) fitted.	1. Check hot water outlet thermistor. 2. Check heat exchanger outlet thermistor. 3. Check gas valves 4. Check water flow servo. 5. Check bypass servo.
-	Anti-frost heater does not operate.	1. Check anti-frost heater components 2. Check frost sensing switch



# 16. Component and Circuit Checks



REU-K2430WG-AK
<p><b>1. Combustion Fan Circuit</b></p> <p>Check the Motor</p> <p>Check the combustion fan if the error indicator displays “61”.</p> <p>Measure voltages between Black-Red of the PCB connector (<b>B<sub>1</sub></b>).</p> <p><i>Normal:</i> DC15~46V (when fan ON) DC0V (when fan OFF) If normal proceed to check the rotation sensor <b>Faulty:</b> Replace PCB</p> <p>Check for the Fan Rotation Sensor</p> <p>a.) Measure voltages between Black-Yellow of connector (<b>B<sub>1</sub></b>).</p> <p><i>Normal:</i> DC11~13V If normal proceed to b.). <b>Faulty:</b> Replace PCB.</p> <p>b.) Measure voltages between Black-White of connector (<b>B<sub>1</sub></b>).</p> <p><i>Normal:</i> DC5~10V (20~400Hz) If normal proceed to - 2. Sparker Circuit. <b>Faulty:</b> Replace Combustion Fan.</p>
<p><b>2. Sparker Circuit</b></p> <p>a.) Measure voltages between Grey-Grey of connector (<b>C<sub>1</sub></b>).</p> <p><i>Normal:</i> AC207~264V If Normal proceed to b.). <b>Faulty:</b> Replace PCB.</p> <p>b.) Disconnect connector (<b>C<sub>1</sub></b>) and measure voltage between both terminals of the sparker.</p> <p><i>Normal:</i> 1MΩ If not sparking, adjust or replace ignition plug. <b>Faulty:</b> Replace Sparker.</p>
<p><b>3. Main Solenoid Valve (SV<sub>0</sub>) Circuit (I<sub>5</sub>)</b></p> <p>Check the main solenoid if error indicator “11” is displayed.</p> <p>a.) Disconnect Main Solenoid connector (<b>I<sub>5</sub></b>) and measure voltage between Pink-Black</p> <p><i>Normal:</i> DC11~13V If normal, proceed to b.). <b>Faulty:</b> Replace PCB</p> <p>b.) Measure voltage between Main Solenoid connectors.</p> <p><i>Normal:</i> 24~28Ω If normal, proceed to 4. Solenoid Valve SV<sub>1</sub> <b>Faulty:</b> Replace Main Solenoid.</p>

## REU-K2430WG-AK

### 4. Solenoid Valve 1 (Small) (SV<sub>1</sub>) (I<sub>6</sub>)

Check Solenoid 1 if error indicator “11” is displayed.

- a.) Disconnect Solenoid 1 connector (I<sub>6</sub>) and measure voltage between Blue-Black.

*Normal:* DC11~13V

If normal, proceed to b).

**Faulty:** Replace PCB.

- b.) Measure resistance between Solenoid 1 connectors.

*Normal:* 35~41Ω

If normal, proceed to 5. Solenoid Valve 2 (SV<sub>2</sub>)

**Faulty:** Replace Solenoid 1

### 5. Solenoid Valve 2 (Middle) (SV<sub>2</sub>) (I<sub>7</sub>)

- a.) Disconnect Solenoid Valve 2 connector (I<sub>7</sub>) and measure voltage between Yellow and Black.

*Normal:* DC11~13V

If normal, proceed to b.).

**Faulty:** Replace PCB.

- b.) Measure resistance between Solenoid Valve 2 connectors.

*Normal:* 35~41Ω

If normal, proceed to 6. Solenoid Valve 3 (SV<sub>6</sub>).

**Faulty:** Replace Solenoid Valve 2.

### 6. Solenoid Valve 3 (Large) (SV<sub>3</sub>) (I<sub>8</sub>)

- a.) Disconnect Solenoid Valve 2 connector (I<sub>8</sub>) and measure voltage between Brown and Black.

*Normal:* DC11~13V

If normal, proceed to b.).

**Faulty:** Replace PCB.

- b.) Measure resistance between Solenoid Valve 2 connectors.

*Normal:* 35~41Ω

If normal, proceed to 6. Solenoid Valve 3 (SV<sub>6</sub>).

**Faulty:** Replace Solenoid Valve 2.

### 7. Modulating Solenoid Valve (I<sub>3</sub>)

- a.) Disconnect Modulating Valve fasten terminals and measure voltage between terminals.(I<sub>3</sub>)

*Normal:* 67~81Ω

If normal, proceed to b.).

**Faulty:** Replace Modulating Valve.

- b.) Measure resistance between Pink-Pink of Modulating Valve fasten terminal.

*Normal:* DC2.0~15V

If normal, proceed to c.).

**Faulty:** Replace PCB.

- c.) Check the gas secondary pressure change when set temperature on the water control changes from 37°C to 55°C.

*Normal:* If secondary pressure changes, go to 11. Water Flow Servo Circuit.

**Faulty:** Replace Modulating Valve.

## 8. Flame Rod Circuit

Check flame rod.(I<sub>4</sub>) Yellow - flame rod.

Over DC1μA

Disconnect flame rod terminal (I<sub>4</sub>), and re-operate.

“72” indicated:- Proceed to 3. Main Solenoid Valve (SV<sub>0</sub>)

“72” is not indicated:- check for electrical leaks from the flame rod.

Measure resistance between flame rod terminal (I<sub>4</sub>) and appliance earth.

*Normal:* >1MΩ

If normal, replace PCB.

**Faulty:** Replace flame rod.

a.) Remove the Flame Rod terminal (I<sub>4</sub>) repeat operation procedure, if “72” is displayed again check the Hot water outlet thermistor.

If “72” is not displayed check current leakage from the Flame Rod.

b.) Measure voltage between body earth and Flame Rod terminal (I<sub>4</sub>).

*Normal:* voltage AC100~160V

If normal, replaced PCB

**Faulty:** Replace Flame Rod.

c.) Check if the Flame Rod is securely fitted.

*Normal:* replace the PCB

**Faulty:** Adjust the fitting of the Flame Rod.

## 9. Thermal Fuse Circuit

Check the Thermal Fuse.

Disconnect relay connector (I<sub>1</sub>) & (E<sub>1</sub>) measure resistance between red and red.

*Normal:* < 1Ω

If normal, replace PCB.

**Faulty:** Replace Thermal Fuse if after confirming there is no damage to appliance.

## 10. Water Flow Sensor

a.) Measure voltage between Red-Black of relay connector (E<sub>2</sub>).

*Normal:* DC 11~13V

If normal, proceed to b.

**Faulty:** Replace PCB.

b.) Measure voltage between Yellow-Black of relay connector (E<sub>2</sub>).

*Normal:* DC 4~7V

If normal, proceed to 2.Sparker Circuit.

**Faulty:** Replace water flow sensor.

**Note: For controller readout of water flow whilst operational refer maintenance monitor. (Chapter 17) No. 1.**

## REU-K2430WG-AK

### 11. Water Flow Servo Circuit

a.) Disconnect relay connector (**E<sub>5</sub>**), and measure voltage between Red (+) and Black (-) on PCB unit side (while operating).

*Normal:* DC10-13V

If normal: proceed to c.).

**Faulty:** Replace PCB unit.

b.) Measure voltage between Black and Yellow with relay connector (**E<sub>2</sub>**) connected (with no water flowing, water flow servo fully open).

*Normal:* DC4~7V (Pulse 20~320Hz)

**Faulty:** Replace Water Flow Servo with Water Flow Sensor.

c.) Measure voltage between Yellow and Grey with relay connector (**E<sub>5</sub>**) connected (with no water flowing, water flow servo fully open).

*Normal:* DC4~7V

**Faulty:** Replace Water Flow Servo and Water Flow Sensor.

### 12. Hot Water Outlet Thermistor Circuit

Check Hot Water Thermistor if error code “32” is displayed.

Disconnect relay connector (**E<sub>4</sub>**) or (**E<sub>3</sub>**) and measure resistance White -White.

*When disconnected:* >1MΩ

*When short circuit:* > 1 Ω

*Normal:* Check Heat exchanger outlet thermistor

**Faulty:** Replace hot water outlet thermistor.

*Normal*

Temperature	15°C	30°C	45°C	60°C	105°C
voltage	11.4~14 kΩ	6.4~7.8 kΩ	3.6~4.5 kΩ	2.2~2.7 kΩ	0.6~0.8 kΩ

If normal proceed to 8. Flame Rod circuit.

**Faulty:** Replace the Hot water Outlet Thermistor.

**Note: For controller readout of thermistor temperature whilst operational refer maintenance monitor.**

Disconnect relay connector (**E<sub>4</sub>**) and measure voltage White -White.

### 13. Surge Protector (F<sub>1</sub>)

Check the fuse. Blue-Brown

AC207~264V

a.) Unplug the power plug.

b.) Check whether or not the fuse (3A) x 2 has blown by measuring the resistance.

*Normal:* <1Ω

If normal go to step 14. Electrical Fuse

**Faulty:** Replace fuse/s (3Ax2). Check for a short next time it's turned off.

## REU-K2430WG-AK

### 14. Electrical Fuse

- a.) Measure voltage between Blue-Brown on the connector (**F<sub>2</sub>**)

*Normal* : AC 207~264V

If normal proceed to b.). (11~13Ω)

**Faulty**: Check if voltage on the fuse terminal is AC207~264V

- b.) Measure voltage between White-White on the (**F<sub>1</sub>**).

*Normal*: AC 207~264V.

**Faulty**: replace surge protector unit.

### 15. Anti-frost Heater Circuit

- a.) Disconnect relay connectors (**F<sub>4</sub>**) and (**F<sub>5</sub>**) and measure resistance between Yellow- Yellow on heater side (water flow servo and HW connection).

*Normal*: 53Ω

If normal, proceed to b.).

**Faulty**: Replace Valve Heater.

- b.) Disconnect relay connector (**F<sub>4</sub>**) and (**F<sub>5</sub>**) and measure voltage between Yellow- Yellow on each connector on heater side.

*Normal*: 618Ω

If normal, proceed to c.). 16. Frost Sensing Switch.

**Faulty**: Replace Anti-frost Heater.

### 16. Frost Sensing Switch

- a.) Disconnect relay connector (**F<sub>4</sub>**) and measure resistance between Blue-Blue.

*Normal*: < 1Ω

If normal, check wiring (AC240V circuit).

**Faulty**: Replace Frost Sensing Switch.

# 17. Maintenance Monitor / Error History

## Wireless Controllers



### Maintenance Function - Wireless Controller Transceiver

- 1.) Press maintenance button once.
- 2.) Temperature light (orange) will illuminate & the Led display will show current water temperature in heat exchanger.
- 3.) Press maintenance button again.  
'Volume' light - (orange) will illuminate. Led display to show l/min water flow through the Infinity.
- 4.) Press maintenance button again and the previous 10 error codes will be displayed.



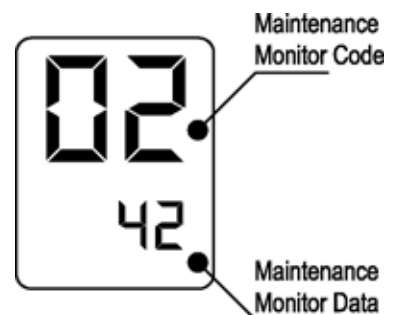
First number shown on Led display will be 1 - followed by error code then 2 and the error code.  
If error code reads — —, it means there was no error recorded.  
Press maintenance button again to return to transceiver to normal mode.

This feature is available where the appliances are connected with a deluxe controller This will enable service personnel to locate the maintenance history and faulty components, with the appliance in operation.

**NB. When the maintenance information, error history is shown, use only one controller. If two or more water controllers are used at the same time, it may not operate correctly.**

### To display Maintenance Information

1. With the controller in the "OFF" position press the Water Temperature "DOWN" (Cooler) button while holding the "ON/OFF" button to activate the maintenance monitor. Press the "ON/OFF" button a second time to set the controller in the "ON" mode. This feature can now be used with the appliance in operation.
2. The maintenance number will be shown in the Water Temperature display.
3. Data will be shown in the Clock display.
4. To select the required maintenance number, press the Water Temperature "UP" and "DOWN" buttons.



Note: REU-V3232W/WC uses Maintenance Numbers 1-12.

Display Monitor Contents			
No.	Contents	Units	Data Range
01	Water flow sensor recognition flow (Example 123 = 12.3L/min).	0.1L/min	0~400
02	Hot water Outlet thermistor temperature (Example 20 = 20°C)	°C	0~999
03	Hot water combustion time (Example 6 = 600 hours)	100 hours	000~999
04	Hot water operation frequency (Example 6 = 600 Operations)	100	0~999
05	Hot water fan frequency	Hz pulses/sec	0~999 * <b>Note 1</b>

**\*Note 1 Fan Frequency rpm Conversion**

$$(\text{rpm}) = (\text{Hz}) \times 15$$

06	Water control connection	none	0 or 1 * <b>Note 2</b>
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**\*Note 2 Water Control Connections**

Bathroom Controller

Additional controller                      Kitchen controller

“0”    1”

Controls connected	Display
No	“0”
Yes	“1”

07	Water flow servo present recognising positioning	None	0~2 * <b>Note 3</b>
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**\*Note 3 Water Flow Servo Positioning**

Servo Position	Open	Centre	Closed
Display	“1”	“0”	“2”

08	Inlet water temperature (PCB recognition value) (Example 25 = 25 °C)	°C	0~999
09	Hot water fan current flow value (Example 6 x 10 = 60 mA)	10 mA	0~999
10	Bath fill amount (this counts the litres during bath fill operation).	Litres	0~999
11	Heat exchanger exit thermistor temperature (Example 55 = 55°C)	°C	0~999
12	Bypass servo present recognition positioning (Example 0 = Closed 250 = Half open 500 = Open)	Degrees	0~500

**To return to normal operation**

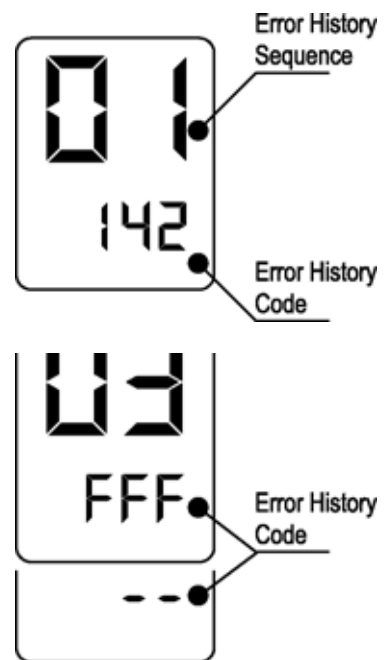
- Press the ON/OFF button again while holding down the Water Temperature "DOWN" (Cooler) button.

## Error History

### To Display Error Memory (History)

*(This feature will show the last 10 faults in sequence)*

1. Turn off at the ON/OFF button. (This can be done during operation)
2. Press the ON/OFF button while holding the Water Temperature "UP" (Hotter) button.
  - The Sequence will be shown in the Water Temperature display.
  - Error Code will be shown in the Clock display. (See service Manual for error codes).
  - Where there are less than a total of 9 errors, "FFF" or " - - " will be displayed in the Clock display.



### To return to normal operation.

- Press the ON/OFF button again while holding the Water Temperature "UP" (Hotter) button.
- This feature will automatically shut down after 3 minutes.



## 18. Gas Pressure Setting Procedure

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Refer separate Rinnai document behind front cover of appliance.

## 19. Gas Conversion Procedure

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Refer separate document available from Rinnai.

## 20. Dismantling for Service

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240 Volt potential exposure. Isolate the appliance and reconfirm with a neon screwdriver or multimeter.

**NOTE:** These dismantle procedures were written for a wide range of models, some details of the dismantling procedure may be slightly different to those depicted in this manual.

Item	Page
1. Removal of the Front Panel . . . . .	31
2. Removal of the PCB Unit . . . . .	31
3. Removal of the Water Flow Sensor, Servo and Bypass Servo . . . . .	31
4. Removal of the Bypass Servo. . . . .	31
5. Removal of Transformer . . . . .	32
6. Removal of Sparker. . . . .	32
7. Removal of the Manifold and Burner unit . . . . .	32
8. Removal of the Gas Control . . . . .	33
9. Removal of Flame rod and spark plug . . . . .	34
10. Removal of Outgoing Water Thermistor . . . . .	34
11. Removal of Heat Exchanger Thermistor. . . . .	34
12. Removal of Bypass Servo. . . . .	35
13. Removal of Anti Frost Switch . . . . .	35
14. Removal of Anti Frost heater . . . . .	36
15. Removal of the Fan Motor. . . . .	36
16. Removal of Heat Exchanger. . . . .	37
17. Removal of Thermal Fuse. . . . .	38

Unless otherwise stated, re-assembly is the reverse of dismantling.

## IMPORTANT

For some areas of dismantling you may need to isolate any or all of the following:

- \* Isolate gas supply.
- \* Disconnect electrical supply from wall socket.
- \* Isolate water supply.
- \* Drain **all** water from appliance.

### 1) Removal of the Front Panel

- a. Remove four (4) screws.



### 2) Removal of the PCB Unit

- a. Remove the front panel. (Refer Item 1.)
- b. Remove two (2) PCB unit fixing screws and pull out forward.



### 3) Removal of the Water Flow Sensor, Servo and Bypass Servo

- a. Remove the front panel. (Refer Item 1.)
- b. Remove two (2) screws and locking plates located on the water supply pipe and bypass pipe. Pull bypass pipe and water supply pipe forward to clear servo valves. Ensure O-rings are not lost or damaged.



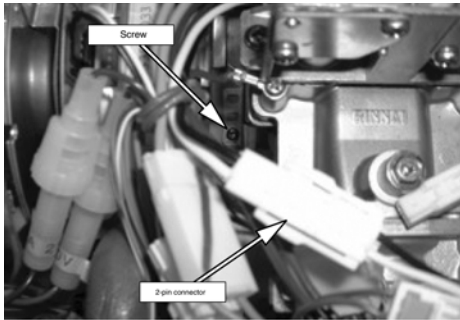
### 4) Removal of the Bypass Servo (2630WD ONLY)

- a. Remove two (2) screws from the water flow servo body, and pull the bypass servo out forwards. Ensure O-rings are not lost or damaged.

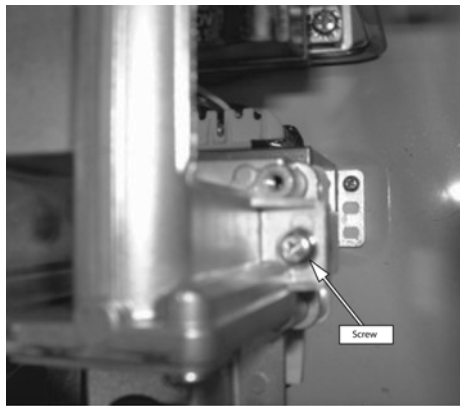


## 5) Removal of Transformer

- a. Remove PCB (Refer to 2)
- b. Remove 100 V harness and 2-pin connection

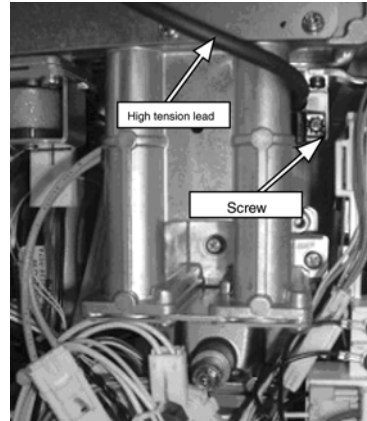


### c. Removal Transformer



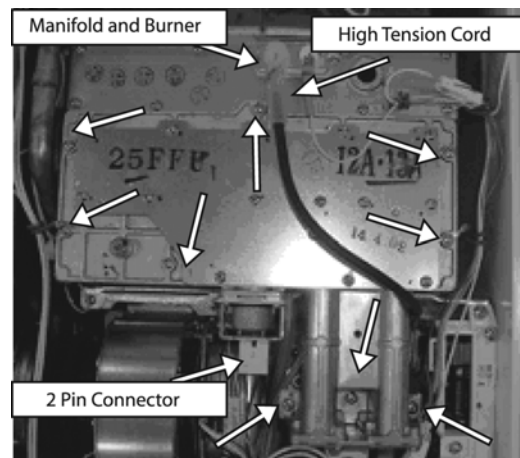
## 6) Removal of Sparker

- a. Remove sparker
- b. Remove 3 pin connector
- c. Remove high tension cord

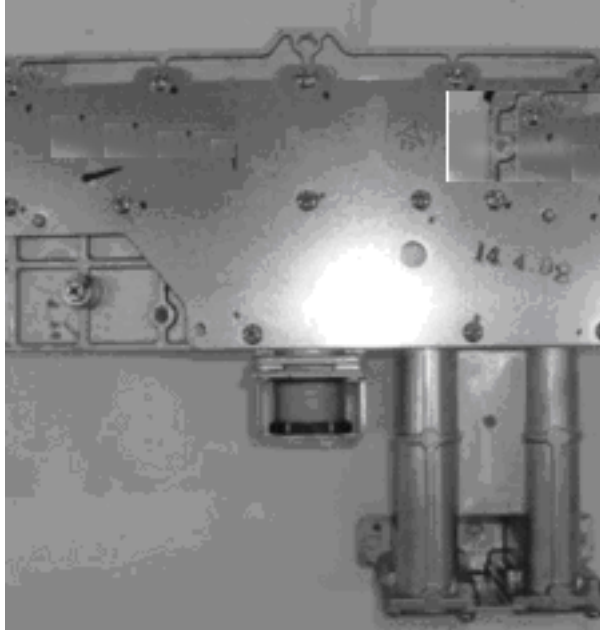


## 7) Removal of the Manifold and Burner unit

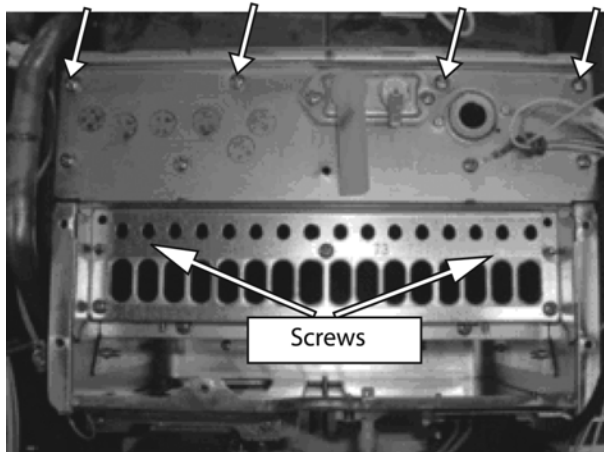
- a. Remove high tension cord and flame rod.
- b. Remove 2 pin connection of the solenoid valve
- c. Remove manifold.



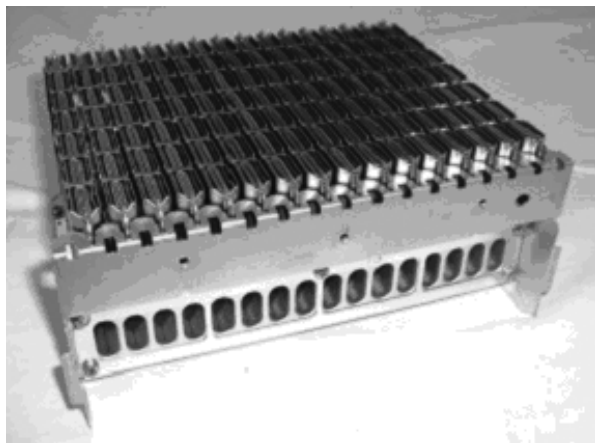
## Manifold Assembly



- a. Remove combustion chamber front panel.
- b. Remove burner unit.

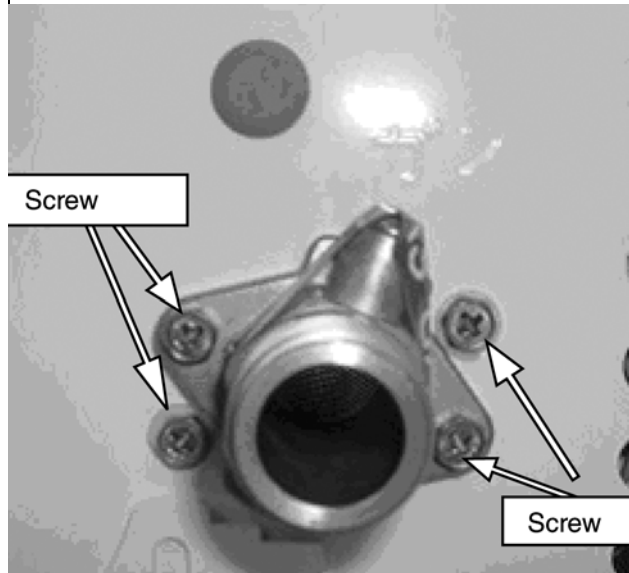


- c. Pull off burner unit

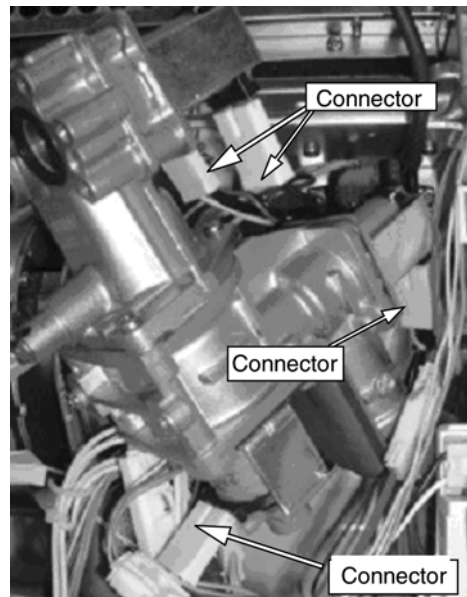


## 8) Removal of the Gas Control

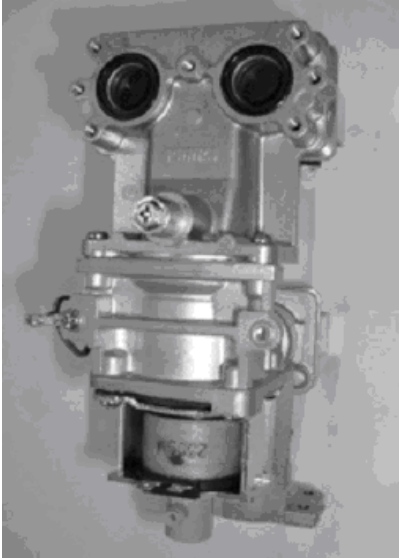
- a. Remove manifold (refer to point 7)
- b. Remove back tube
- c. Remove gas connection.



- a. Pull off connectors for gas control modulation valve and solenoid valve.

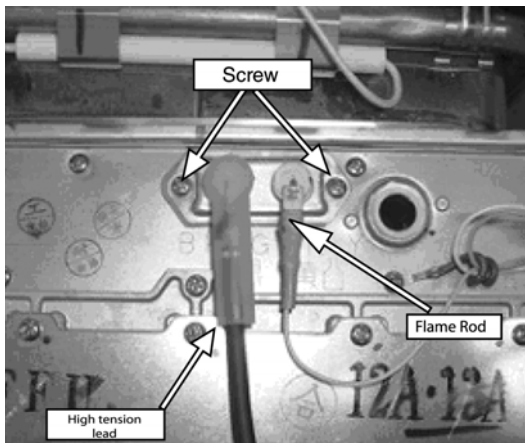


## Gas Control

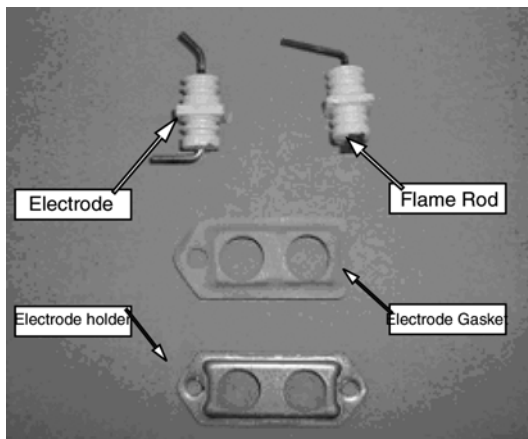


### 9) Removal of Flame rod and spark plug

- Remove flame rod terminal and tighten sparkler lead.
- Remove flame rod and spark plug.

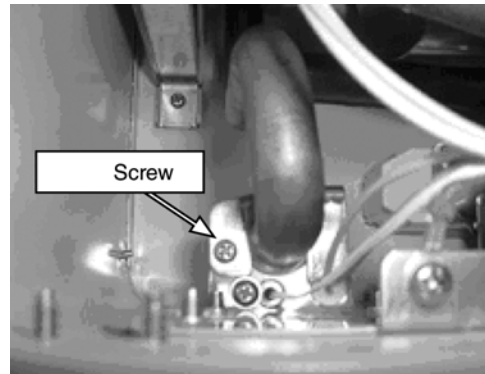


- Remove of High Tension lead



### 10) Removal of Outgoing Water Thermistor

- Remove thermistor fixing screw.
- Remove 2 pin connection outgoing water thermistor

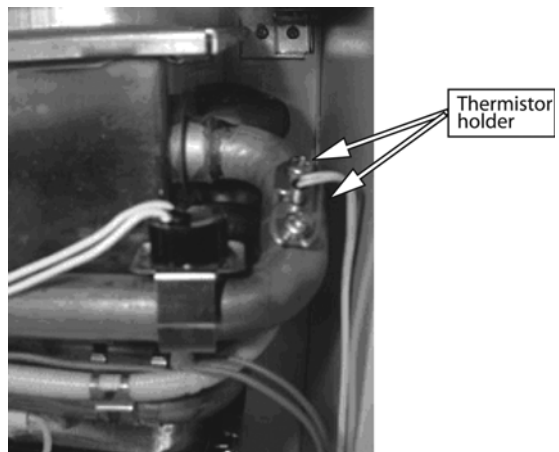


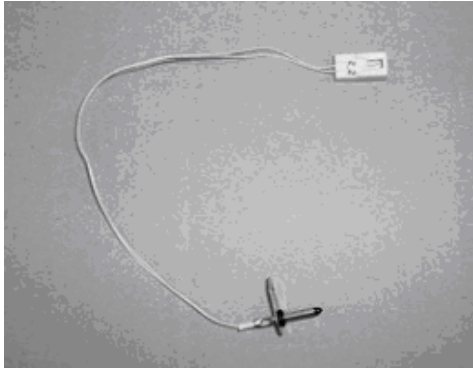
### Heat Exchanger Thermistor



### 11) Removal of Heat Exchanger Thermistor

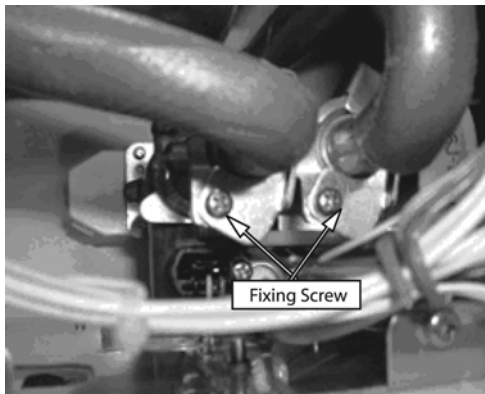
- Remove thermistor holder
- Remove 2 pin connector



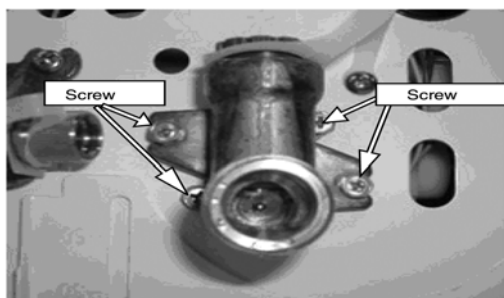


## 12) Removal of Bypass Servo

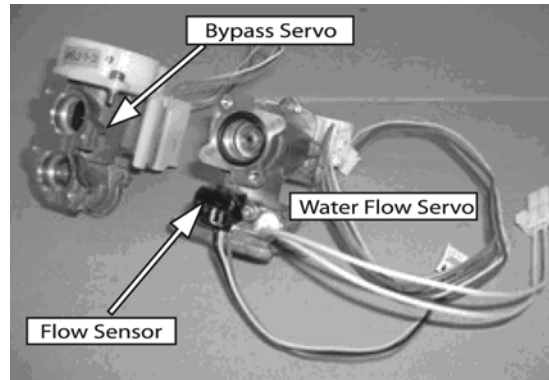
- a. Remove fan motor (Refer to point 16)
- b. Remove 3 pin connector
- c. Remove 2 pin connector
- d. Remove 6 pin connector and 5 pin connector
- e. Remove bracket for water connection tube.



### f. Removal of inlet water connection

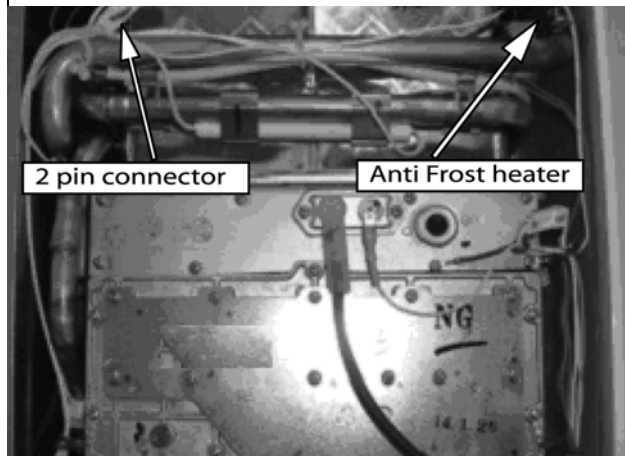


- g. Remove bypass servo and water flow servo
- h. Remove fitting screws of bypass servo
- i. Flow sensor and water flow servo



## 13) Removal of Anti Frost Switch

- a. Remove 2 pin connection for anti frost switch
- b. Remove Anti Frost switch

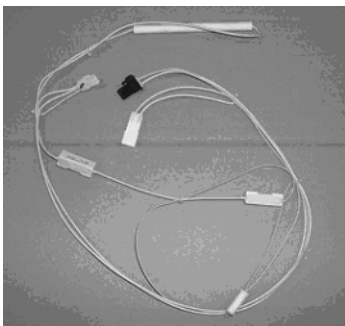


### c. Anti Frost switch



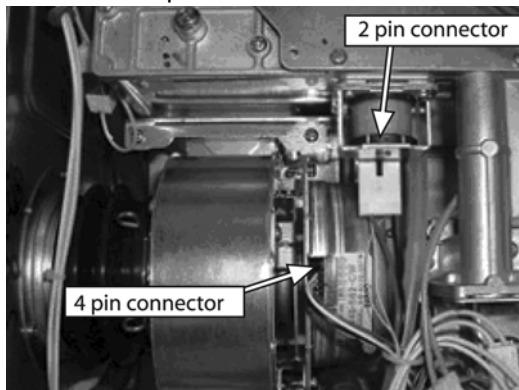
#### 14) Removal of Anti Frost heater

- a. Remove 2 pin connection of Anti Frost heater
- b. Remove bracket on hot water connection.
- c. Remove Anti Frost heater.



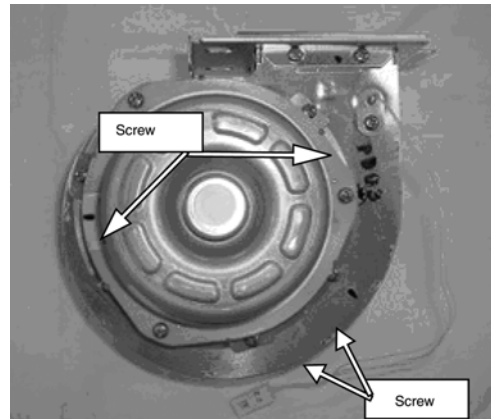
#### 15) Removal of the Fan Motor

- a. Remove 4 pin connector to fan motor.
- b. Remove 2 pin connector of solenoid valve.



- c. Remove fan motor screws (x 2)

- d. Remove fan motor assembly by sliding forward



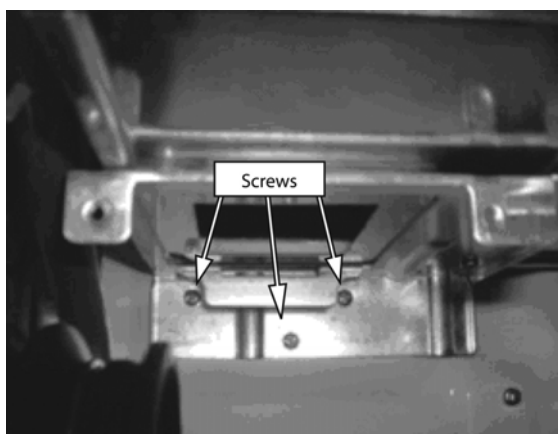
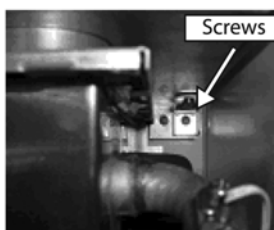
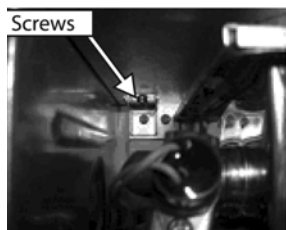
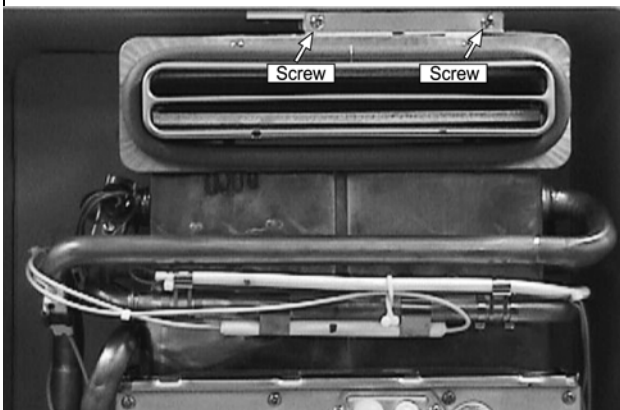
- e. Remove fan motor from housing via. 3 screws



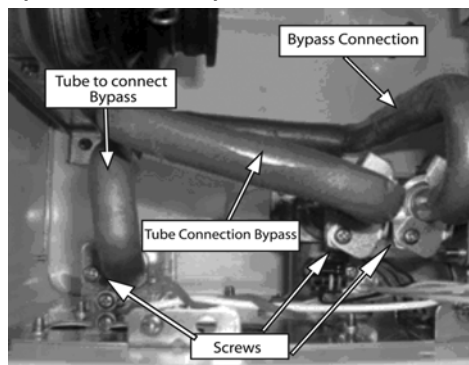


## 16) Removal of Heat Exchanger

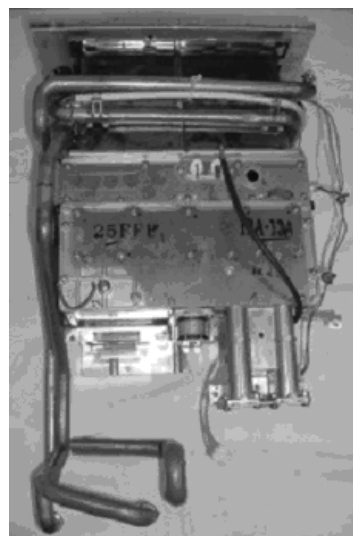
- a. Remove PCB
- b. Remove fan motor
- c. Remove 2 pin connector of thermal fuse
- d. Remove flame rod terminal of high tension cord
- e. Remove anti frost heater switch
- f. Remove 2 pin connector
- g. Remove 3 pin connector
- h. Remove fixing screws of the heat exchanger unit
- i. Remove heat exchanger screws



- j. Remove **Bypass tube - (2630WD ONLY)**



- k. Pull out **heat exchanger screws**



- l. Remove **manifold and burner unit.**
- m. Remove thermal fuse, over heat switch, sparker, hex thermistor and back pressure joint.

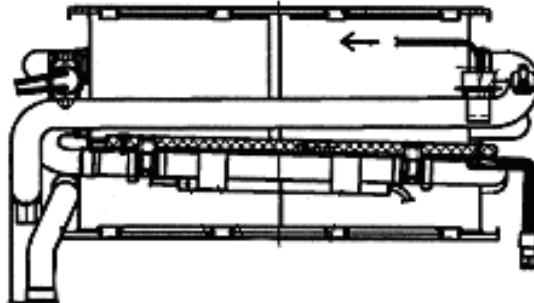


## 17) Removal of Thermal Fuse

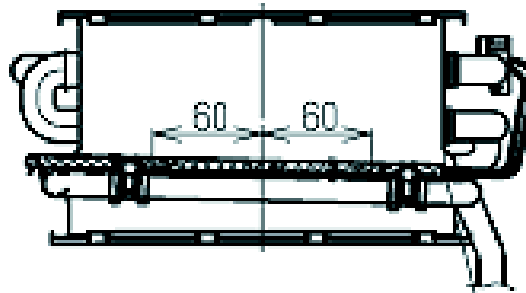
- a. Remove heat exchanger.
- b. Remove Thermal Fuse.

After removal of thermal fuse fitting procedure is as follows:

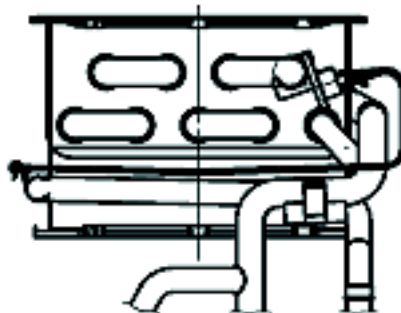
### Heat Exchanger Front



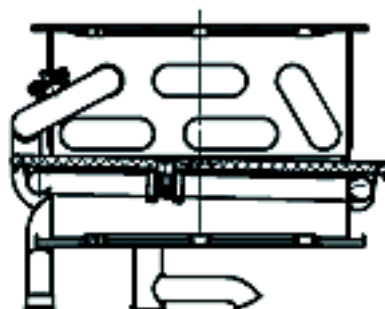
### Heat Exchanger Right



### Heat Exchanger Left



### Heat Exchanger Right



## 21. Parts List

**NOTE:**

Some Part details may have changed since publication of this manual.  
Contact Rinnai to confirm spare parts details before ordering.

Effective: 6/06/2007  
Supersedes: N/A

REU-K2430WG-AK / REU-K2430WG(50)-AK				REU-K2430WG	REU-K2430WG(50)
NO	PART NAME	RA Part Number	11 DIGIT CODE	QTY	QTY
001	CASE, Outer			1	1
003	PANEL FRONT 0 (EW)	92098713	019-3746000	1	
003	PANEL, Front Assy		019-3747000		1
003	PANEL, Front Assy		019-3748000		
004	BRKT WALL K2430WG	92093479	106-292-000	2	2
006	PLATE, Protection Heat		030-0118000	1	1
007	SEAL PANEL FRONT TOP	92086909	580-453-000	1	1
008	SEAL PANEL FRONT SIDE	92063361	510-990-000	2	2
009	HARNESS EASY CONN	92099986	106-641-000	1	1
010	Connecting Cover		538-840-000	1	1
011	SEAL HARNESS EASY CONN	92099984	580-0105000	1	1
014	Blind Gasket		510-893-000	1	1
100	INLET GAS 3/4	92081587	106-290-000	1	1
101	GAS CONTROL	92096921	114-504-000	1	1
102	MANIFOLD, Assembly - LPG	92092191	101-723-000	1	1
102	MANIFOLD, Assembly - NG	92092293	101-724-000	1	1
103	Combustion Chamber Gasket		580-547-000	1	1
104	Combustion Chamber Gasket Lower		580-0130000	1	1
105	Lean and Rich Bunsen Burner Assembly		157-090-000	16	16
106	Gas Connecting Tube Assembly		109-614-000	1	1
107	Damper		140-736-E00	1	1
108	U Burner Case Front Panel		098-902-000	1	1
109	Packing		580-440-000	1	1
110	Burner Case Bottom Panel		005-186-000	1	1
111	U Burner Case Back Panel		098-904-000	1	1
112	Combustion Chamber Front		019-2142000	1	1
113	Combustion Chamber Gasket		580-0131000	1	1
114	ELECTRODE FR	92093640	230-057-000	1	1
115	ELECTRODE	92086974	202-156-000	1	1
116	PACKING ELECTRODE RH	92086990	580-507-000	1	1
117	ELECTRODE HOLDER RH	92087006	580-505-000	1	1
118	Gas Connecting Tube Joint		197-991-000	1	1
134	O RING GAS CON	92072859	520-043-010	1	1
135	Packing		580-157-000	1	1
136	O RING B GAS	92067040	520-308-010	2	2
138	O RING (S4) TEST POINT	90195165	520-300-010	2	2
139	SCREW TEST POINT	92099956	501-275-005	2	2
140	FAN CASING	92098862	035-867-000	1	1

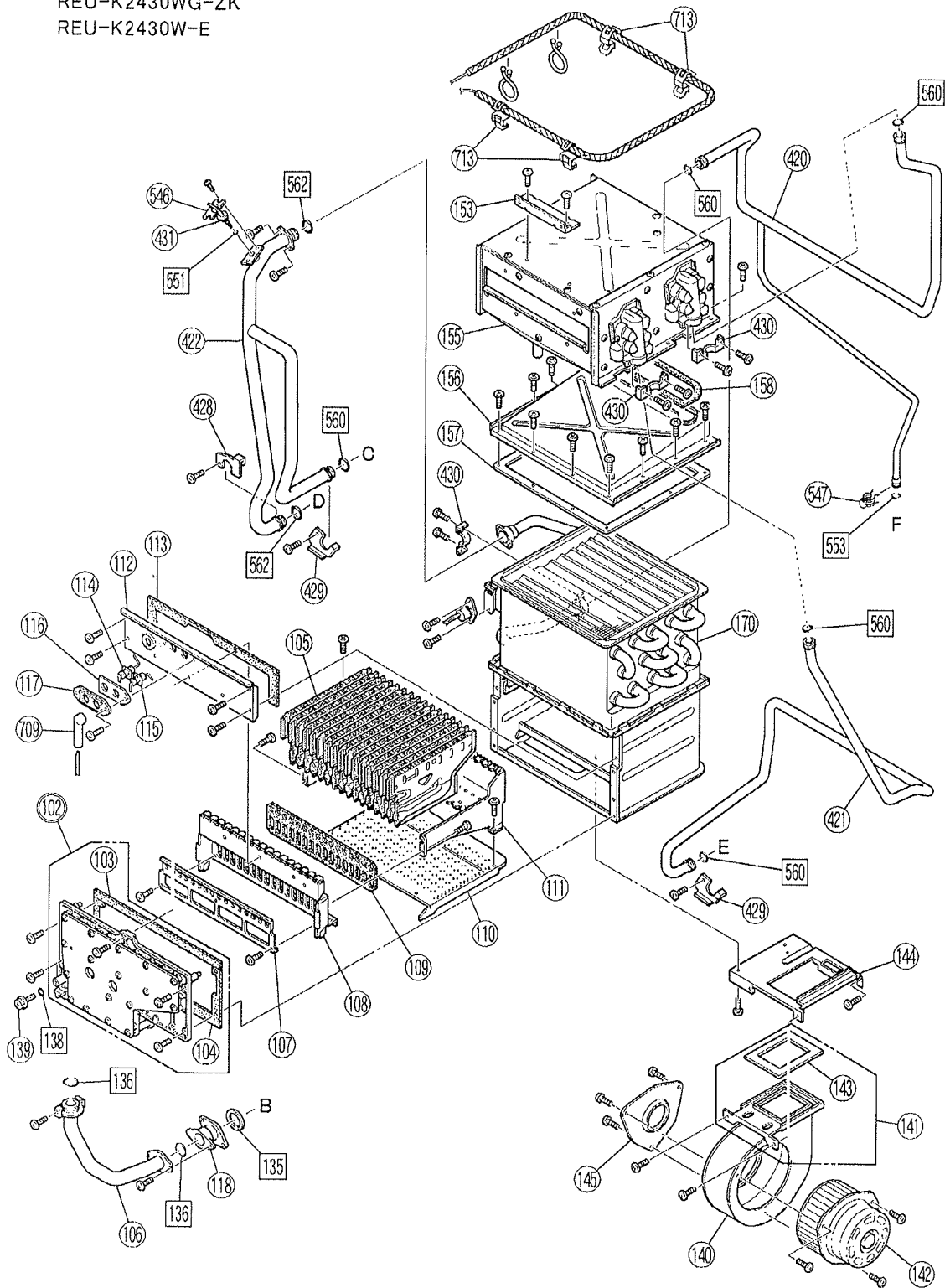
<b>REU-K2430WG-AK / REU-K2430WG(50)-AK</b>				<b>REU-K2430WG</b>	<b>REU-K2430WG(50)</b>
<b>NO.</b>	<b>PART NAME</b>	<b>RA Part Number</b>	<b>11 DIGIT CODE</b>	<b>QTY</b>	<b>QTY</b>
141	CONNECTING COMB FAN	92098870	106-320-000	1	1
142	ASSY, Fan Assembly		222-540-000	1	1
143	PACKING FAN CONECTING	92098888	580-338-000	1	1
144	Combustion Chamber Support Panel		537-0190000	1	1
145	φ42 Bell Mouth		036-201-000	1	1
153	Duct Bracket		538-755-000	1	1
155	HEAT EXCH TOP	92092211	314-620-000	1	1
156	INTERCHANGE	92092312	537-0328000	1	1
157	SEAL HEAT EXCH BTM	92092415	580-0221000	2	2
158	SEAL HEAT EXCH TOP	92092417	580-0222000	1	1
160	GASKET OUTER FLUE	92096554	580-722-000	1	1
161	EXHAUST FLUE	92098977	055-895-000	1	1
163	EXHAUST Opening Gasket		580-0362000	1	1
170	HEAT EXCH BTM	92092209	314-682-000	1	1
400	INLET WATER 3/4	92099968	333-301-NPB	1	1
401	FILTER WATER 0 LARGE	92083773	196-062-000	1	1
405	RECTIFIER WATER	92093552	330-107-000	1	1
407	WATER FLOW SENSOR	92087064	301-163-000	1	1
408	BYPASS SERVO ASSY	92092223	301-143-000	1	1
410	OUTLET WATER 3/4	92093806	333-386-000	1	1
411	Water Flow Servo Cover		098-1445000	1	1
416	VALVE PRESS RELIEF	92081751	337-048-000	1	1
420	Heat Exchanger Connecting Tube Assembly		332-0006000	1	1
421	Water Connecting Tube Assembly		332-0007000	1	1
422	Hot water Connecting Tube Assembly		332-0008000	1	1
423	Over Flow Connector		333-150-000	1	1
428	Stopper		538-515-000	1	1
429	Stopper		512-401-000	2	2
430	Pipe Fixing Bracket		538-791-000	3	3
431	THERMISTOR 1	92095030	233-246-000	2	2
432	Screw		501-295-000	1	1
434	INLET DRAIN VALVE	92097138	333-380-000	1	1
436	VALVE DRAIN	92097120	337-034-000	1	1
521	Drain Tube		513-0019000	1	1
524	Pin Band (15.5)		553-129-000	1	1
525	Pin Band (17.5)		553-131-000	1	1
546	BRKT FLAME ROD	92086388	508-836-000	1	1

<b>REU-K2430WG-AK / REU-K2430WG(50)-AK</b>				<b>REU-K2430WG</b>	<b>REU-K2430WG(50)</b>
<b>NO</b>	<b>PART NAME</b>	<b>RA Part Number</b>	<b>11 DIGIT CODE</b>	<b>QTY</b>	<b>QTY</b>
547	Quick Fastener 6-13		512-550-000	1	1
551	O ring P4 EPDM	92062249	520-209-010	2	2
552	O ring P5 EPDM	92071455	520-194-010	1	1
553	O ring P6 EPDM	92043223	520-074-010	1	1
560	O ring P14 EPDM	92062207	520-193-010	5	5
561	O ring P18 EPDM	92071182	520-049-010	2	2
562	O ring P16 EPDM	92062199	520-048-010	3	3
563	O ring P7 EPDM	92062348	520-281-010	1	1
700	ELEC CORD	92089051	206-226-000	1	1
701	Ignitor Fixing Plate		538-0476000	1	1
703	IGNITOR		098-2153000	1	1
704	SPARKER	92095026	261-157-000	1	1
705	LEAD HT	92092355	203-833-000	1	1
706	SENSOR MR	92099988	243-133-000	1	1
707	SCREW, Earth Tapping		501-737-000	1	1
709	SLEEVE ELECTRODE	92087030	518-035-000	1	1
710	Electrode Sleeve		200-0525000	1	
710	PCB		200-0526000		1
711	PCB MAIN	92097149	098-0627000	1	1
712	EC Cover A		098-2154000	1	1
712	EC Cover Z		098-2155000		
713	Thermal Fuse Bracket		537-0110000	4	4
714	SURGE ARRESTOR	92093699	210-605-000	1	1
715	Unit Bracket		538-0477000	1	1
716	Sub Circuit Board Bracket		538-0478000	1	1
721	HARNESS SENSOR	92099861	290-1512000	1	1
722	Gas Control Harness		290-1513000	1	1
723	HARNESS FUSE	92098863	290-1514000	1	1
723	Fuse Harness-2		290-1515000		
725	HARNESS REMOTE CONTROL	92099961	290-1288000	1	1
726	HARNESS WATER VALVE	92093502	290-1516000	1	1
727	FUSE THERMAL	92091317	232-190-000	1	1
728	HARNESS SPARKER	92096041	209-435-000	1	1
730	HEATER WATER FLOW	92092262	235-369-000	2	2
731	HARNESS TEMP SENSOR	92099002	235-379-000	1	1
732	HEATER A-FROST A	92091845	235-383-000	1	1
735	HEATER A-FROST B	92091947	235-381-000	1	1
736	SWITCH THERMAL	92097187	234-444-000	1	1
737	Anti Frost Heater Clip		537-155-000	3	3

<b>REU-K2430WG-AK / REU-K2430WG(50)-AK</b>				<b>REU-K2430WG</b>	<b>REU-K2430WG(50)</b>
<b>NO.</b>	<b>PART NAME</b>	<b>RA Part Number</b>	<b>11 DIGIT CODE</b>	<b>QTY</b>	<b>QTY</b>
738	Anti Frost Heater Clip		537-0194000	2	2
888	Operation Manual(RAU)		623-344-700	1	1
888	Operation Manual(RNZ)		623-349-800		

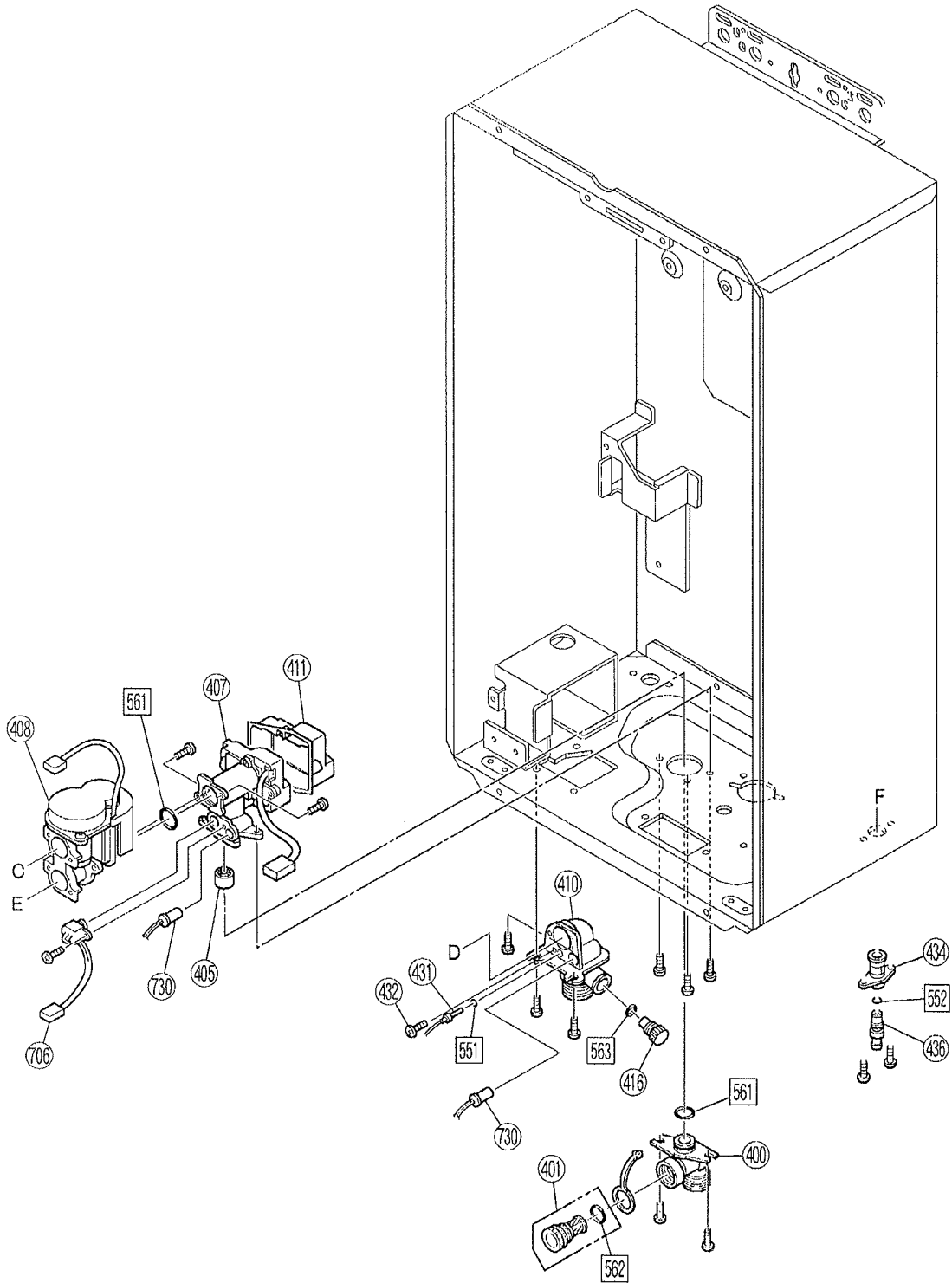


REU-K2430WG-AK  
 REU-K2430WG-ZK  
 REU-K2430W-E

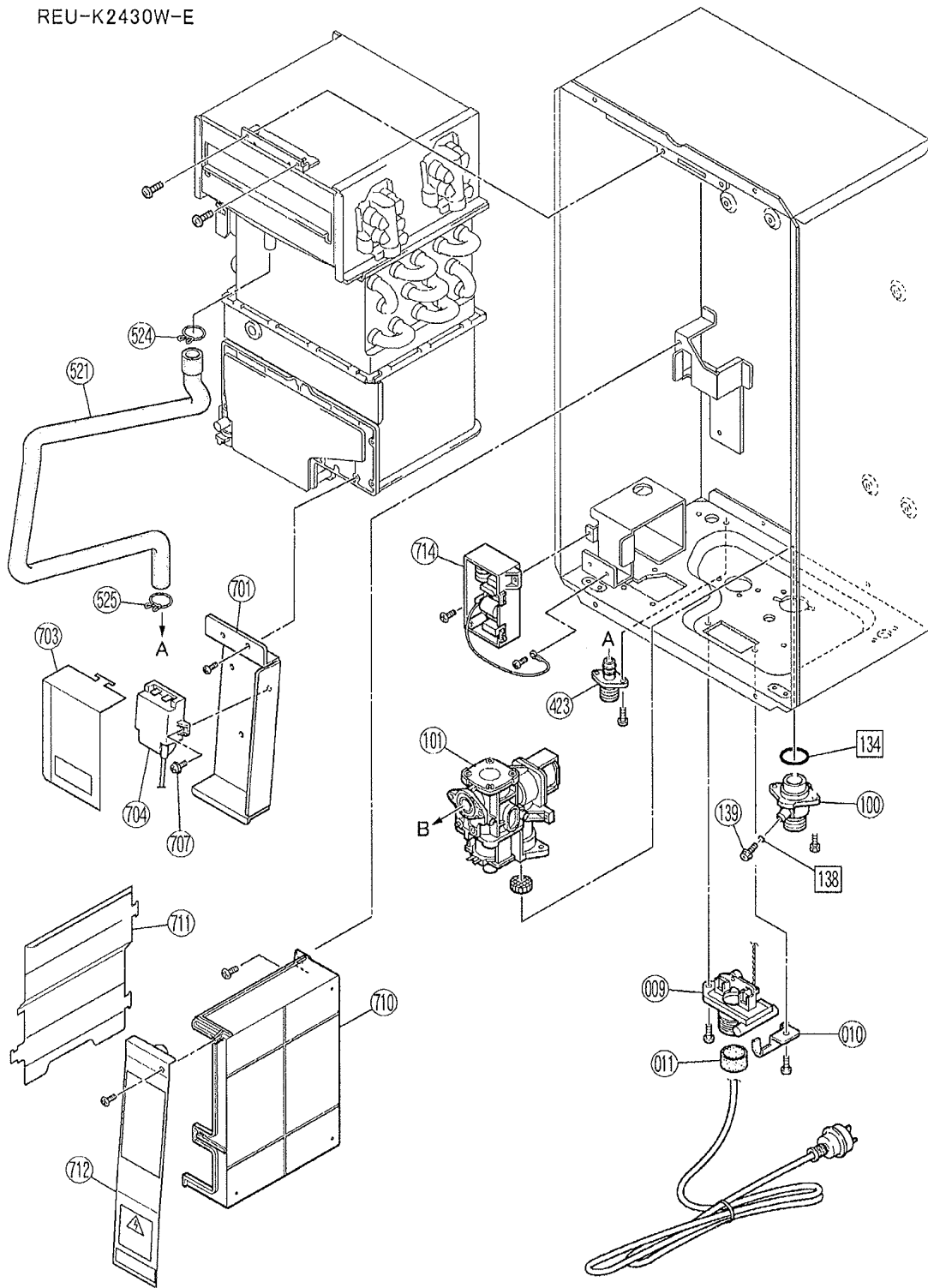




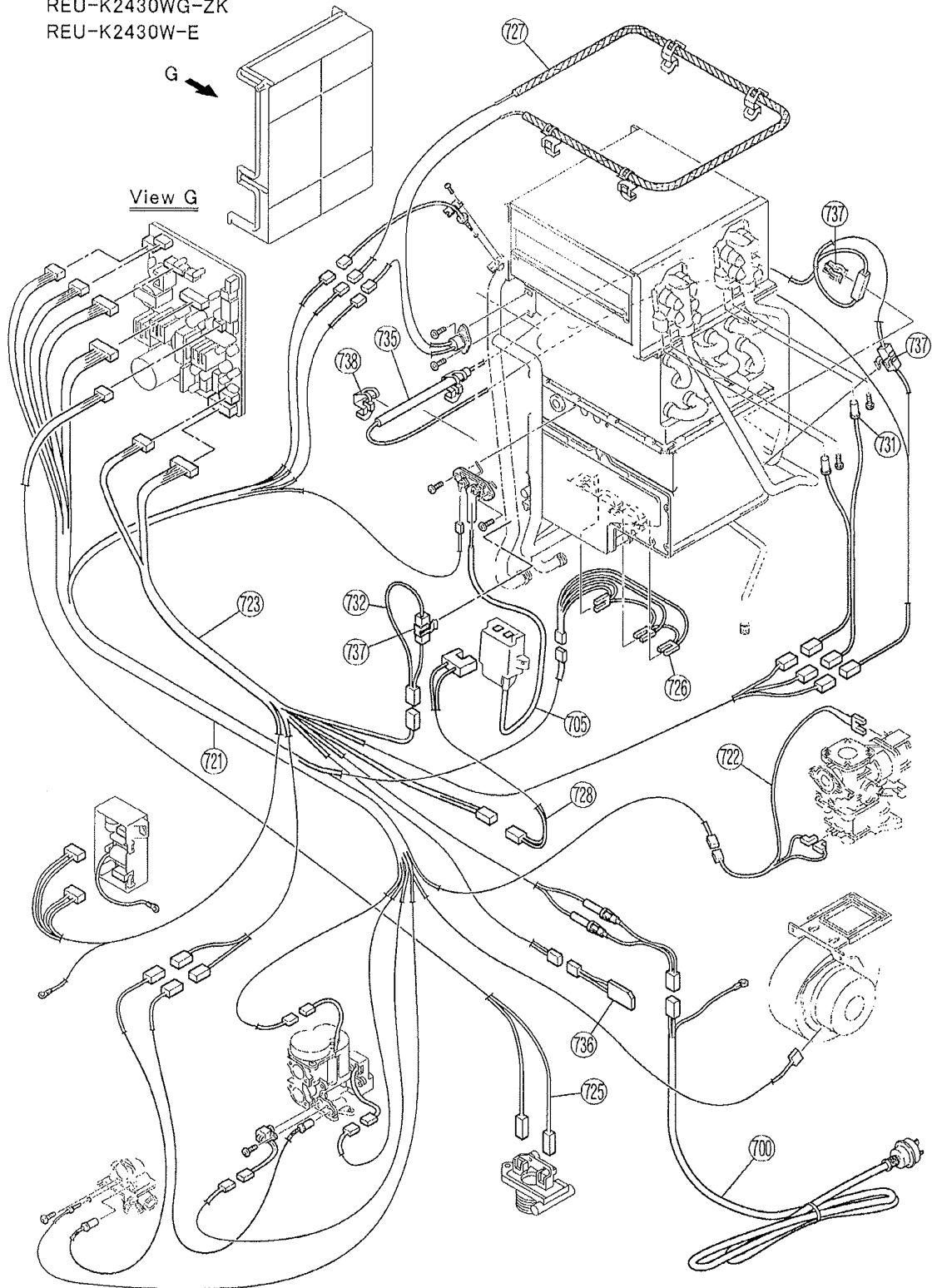
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REU-K2430W-E



REU-K2430WG-ZK  
REU-K2430W-E



REU-K2430WG-AK  
REU-K2430WG-ZK  
REU-K2430W-E



# Rinnai

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Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires a service, please call our Hot Water Service Line. Rinnai recommends that this appliance be serviced every 3 years.

Internet: [www.rinnai.com.au](http://www.rinnai.com.au)  
E-mail: [enquiry@rinnai.com.au](mailto:enquiry@rinnai.com.au)

## National Help Lines

Spare Parts & Technical Info  
Tel: 1300 555 545\*  
Fax: 1300 300 141\*

*\*Cost of a local call Higher from mobile or public phones.*

Hot Water Service Line  
Tel: 1800 000 340