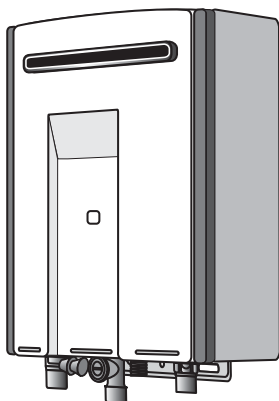


## SERVICE MANUAL



**To Suit Models:**

**REU-KM2635WD ENVIRO  
REU-KM3237WD ENVIRO**

**Does NOT Suit any other Models**



The Australian  
Gas Association

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



ISO 9001

Rinnai New Zealand has been certified to ISO 9001 Quality Assurance by Telarc.

Certified  
Product



WaterMark

AS3498 Lic W208  
SAI Global

All Rinnai products are Certified to WaterMark by SAI Global. WaterMark certification is awarded to products and fittings complying with safety and water contamination standards.

# Glossary of Terms and Symbols

---

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
ø	-	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

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*Rinnai Australia reserves the right to make modifications and change specifications without notice.*



## 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.

*This manual has been published by Rinnai Australia Engineering & Technical Group.*

*We welcome users of this manual to provide feedback and suggestions for improvement purposes.*

SM REU-KM2635WD Enviro  
SM REU-KM3237WD Enviro

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# 1. Specifications

Rinnai model name	REU-KM2635WD-AK	
Type of appliance	Temperature controlled continuous flow gas hot water system	
Operation	With / without remote controls	
Exhaust system	Fan assisted	
Installation	Wall mounted external installation	
Dimensions (mm)	H 670 x W 470 x D 257	
Weight (kg)	29	
Gas consumption (MJ/h)	Natural gas	Max 172
	Propane gas	Max 172
Connections	Gas inlet	R3/4
	Cold water inlet	R3/4
	Hot water outlet	R3/4
	Condensate outlet	R1/2
Ignition system	Direct electronic ignition	
Electrical consumption	Normal operation	Approx. 55.6 Watts
	Standby	less than 2.4 Watts (with 1 controller)
	Anti-frost protection	125 Watts
Hot water capacity (Raised 25 °C)	26 L/min	
Number of combustion stages	6 stages	
Thermal efficiency (%)	95	
NOx af	Less than 60ppm	
Temperature range(with remote)	Kitchen controller	37 ~ 75°C
	Bathroom controller	37 ~ 50°C
Default temperature control (without remote)	42, 50, 55, 60, 65, 75°C (Set by combination of Dip switches on PCB)	
Water temperature control	Simulation feedforward and feedback	
Water flow control	Water flow sensor, Electronic water flow control device and Electronic by-pass flow control device	
Nominal operating water pressure	220kPa ~ 1000kPa	
Minimum operating water flow	2.4 L/min	
Maximum water flow	35 L/min	
Power supply	Appliance	240Volts 50Hz
	Remote control	12Volts
Safety device	Flame failure	Flame rod
	Boil-dry protection	Water flow sensor
	Overheat protection (OHS)	97 °C bi-metal switch
	Overheat protection	95 °C lockout thermistor
	Fusible link	129 °C Thermal Fuse
	Pressure relief valve	Open 2.1MPa / Close 1.5MPa
	Combustion fan rpm check	Integrated circuit system
	Over current	Glass fuse (3 Amp.)
Remote controller compatibility	Kitchen control	MC-91Q-2A or MC-100V-1A or MC-503RC-1A
	Bathroom control	BC-100V-1A or MC-91Q-2A or MC-503RC-1A
	Second bathroom control	BC-100V-1A or MC-91Q-2A or MC-503RC-1A
	Third bathroom control	MC-91Q-2A or MC-503RC-1A
Remote controller cable (supplied with controller)	Non-polarized two core cable	

Rinnai model name	REU-KM3237WD-AK	
Type of appliance	Temperature controlled continuous flow gas hot water system	
Operation	With / without remote controls	
Exhaust system	Fan assisted	
Installation	Wall mounted external installation	
Dimensions (mm)	H 670 x W 470 x D 257	
Weight (kg)	32	
Gas consumption (MJ/h)	Natural gas	Max 211
	Propane gas	Max 211
Connections	Gas inlet	R3/4
	Cold water inlet	R3/4
	Hot water outlet	R3/4
	Condensate outlet	R1/2
Ignition system	Direct electronic ignition	
Electrical consumption	Normal operation	Approx. 54.1 Watts
	Standby	less than 2.87 Watts (with 1 controller)
	Anti-frost protection	125 Watts
Hot water capacity (Raised 25 °C)	32 L/min	
Number of combustion stages	6 stages	
Thermal efficiency (%)	95	
NOx af	Less than 60ppm	
Temperature range(with remote)	Kitchen controller	37 ~ 75°C
	Bathroom controller	37 ~ 50°C
Default temperature control (without remote)	42, 50, 55, 60, 65, 75 °C (Set by combination of Dip switches on PCB)	
Water temperature control	Simulation feedforward and feedback	
Water flow control	Water flow sensor, Electronic water flow control device and Electronic by-pass flow control device	
Nominal operating water pressure	220 kPa ~ 1000 kPa	
Minimum operating water flow	2.4 L/min	
Maximum water flow	37 L/min	
Power supply	Appliance	240Volts 50Hz
	Remote control	12Volts
Safety device	Flame failure	Flame rod
	Boil-dry protection	Water flow sensor
	Overheat protection (OHS)	97 °C bi-metal switch
	Overheat protection	95 °C lockout thermistor
	Fusible link	129 °C Thermal Fuse
	Pressure relief valve	Open 2.1MPa / Close 1.5MPa
	Combustion fan rpm check	Integrated circuit system
	Over current	Glass fuse (3 Amp.)
Remote controller compatibility	Kitchen control	MC-91Q-2A or MC-100V-1A or MC-503RC-1A
	Bathroom control	BC-100V-1A or MC-91Q-2A or MC-503RC-1A
	Second bathroom control	BC-100V-1A or MC-91Q-2A or MC-503RC-1A
	Third bathroom control	MC-91Q-2A or MC-503RC-1A
Remote 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 power surges.
- **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 blades) 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 to dataplate on the appliance.

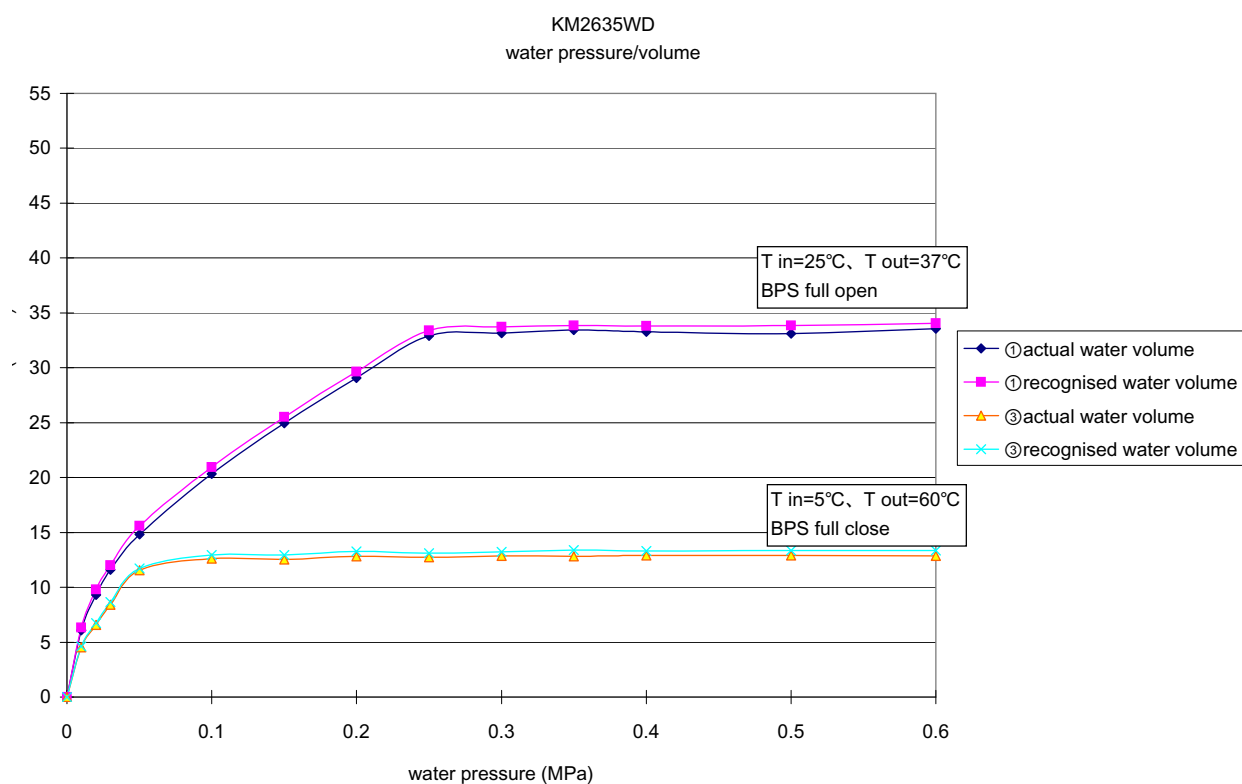


## 2. Water Flow Rates and Pressures

### REU-KM2635WD

REU-KM2635WD BPS full close														
P(MPa)	0	0.1	0.2	0.03	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.5	0.6
Q (L/min)	0	4.76	6.53	8.03	10.44	15.04	18.5	21	23.5	24	24	24	24	24

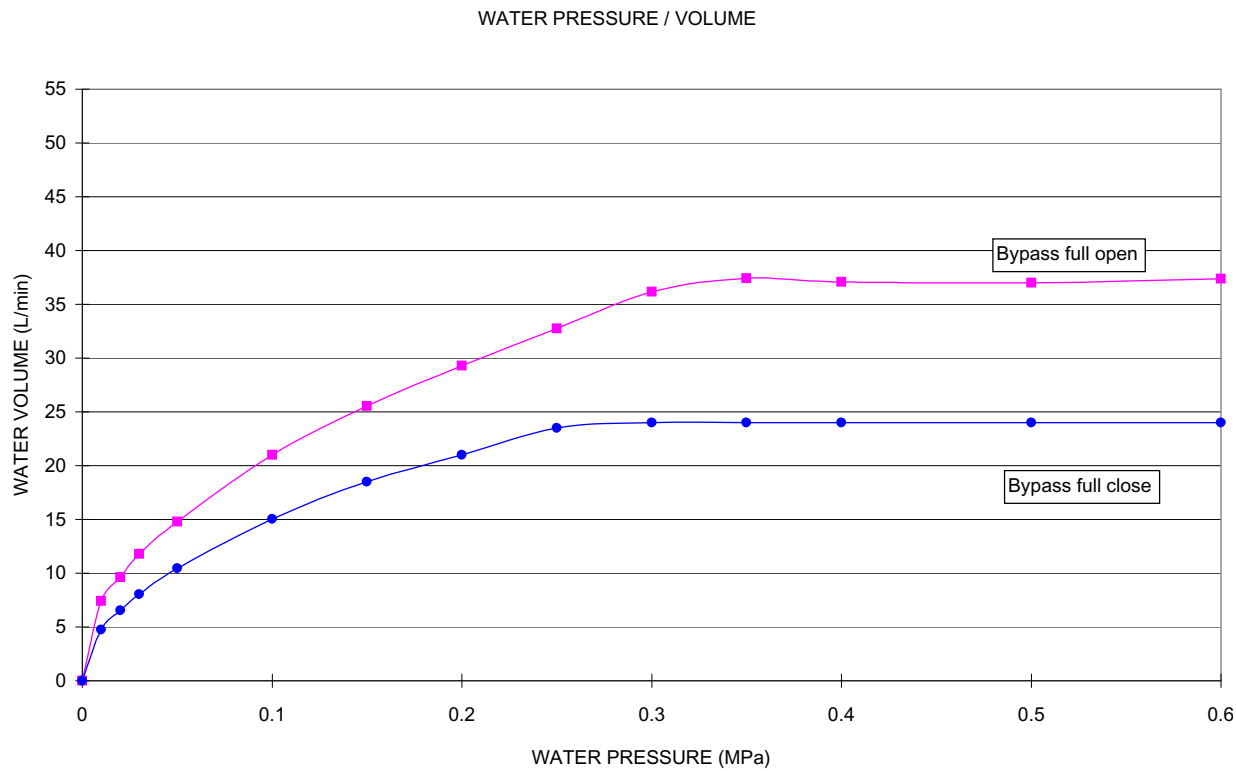
REU-KM2635WD BPS full open														
P(MPa)	0	0.1	0.2	0.03	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.5	0.6
Q (L/min)	0	7.42	9.64	11.81	14.78	20.98	25.55	29.31	32.77	36.18	37.41	37.07	36.98	37.36



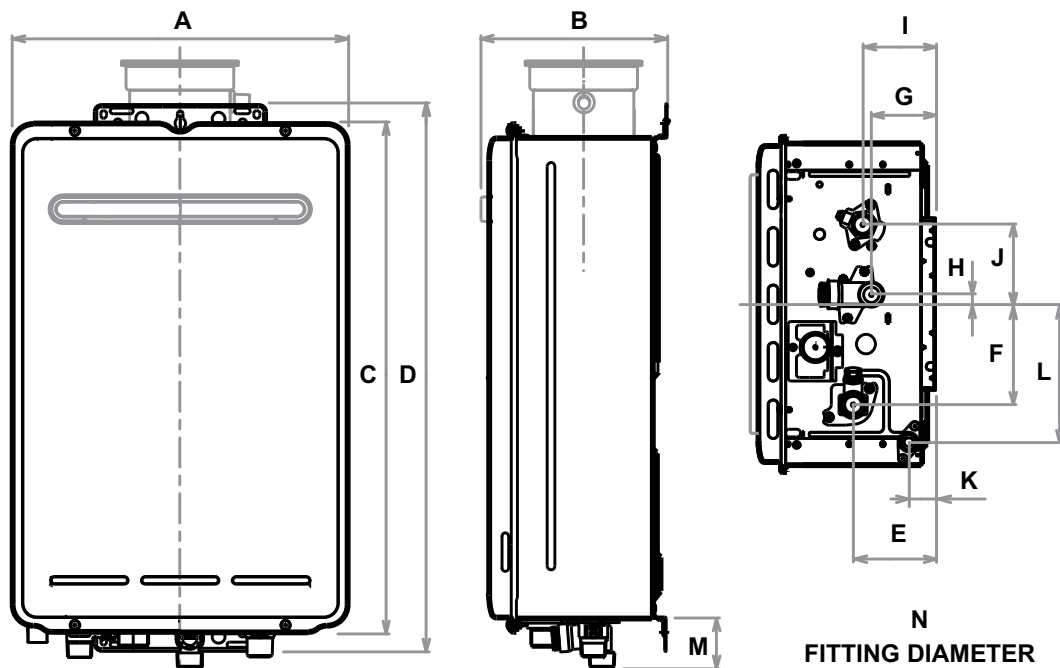
REU-KM3237WD

REU-KM3237WD BPS full close														
P(MPa)	0	0.1	0.2	0.03	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.5	0.6
Q (L/min)	0	4.76	6.53	8.03	10.44	15.04	18.5	21	23.5	24	24	24	24	24

REU-KM3237WD BPS full open														
P(MPa)	0	0.1	0.2	0.03	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.5	0.6
Q (L/min)	0	7.42	9.64	11.81	14.78	20.98	25.55	29.31	32.77	36.18	37.41	37.07	36.98	37.36

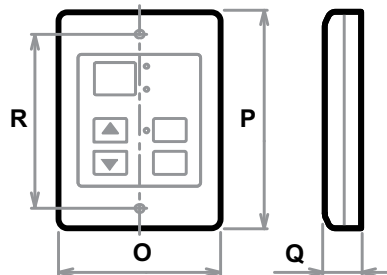


### 3. Dimensions



Dim'	Description	REU-KM3237WD	REU-KM2635WD
<b>A</b>	Width	470	470
<b>B</b>	Depth	283	283
<b>C</b>	Height - Unit	670	670
<b>D</b>	Height - Including Brackets	722	722
<b>E</b>	Hot Water outlet (from wall)	115	115
<b>F</b>	Hot Water outlet (from centre)	100	100
<b>G</b>	Cold Water inlet (from wall)	80	75
<b>H</b>	Cold Water inlet (from centre)	28	13
<b>I</b>	Gas Connection (from wall)	104	104
<b>J</b>	Gas Connection (from centre)	103	103
<b>K</b>	Condensate outlet (from wall)	138	138
<b>L</b>	Condensate outlet (from centre)	195	195
	Gas Connection Length (from base)	40	40
	Cold Connection Length (from base)	50	50
<b>M</b>	Hot Connection Length (from base)	41	41
	Condensate Connection Length (from base)	22	22
	Gas: Fitting Diameter	20	20
	Cold: Fitting Diameter	20	20
<b>N</b>	Hot: Fitting Diameter	20	20
	Condensate: Fitting Diameter	15	15

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



Dim'	Description	MC-91	MC-100V	BC-100V
<b>O</b>	Width	90	128	202
<b>P</b>	Height	120	120	104
<b>Q</b>	Depth	20	20	22
<b>R</b>	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 controllers.

### Trouble shooting

#### Water Controller not showing display - (Wired Water 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 water 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.

#### Water Controller not showing display - (Wireless Water 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 water controller.
- Ensure wireless controller has been programmed to the transceiver correctly, as per wireless water controller installation instructions.

#### Water 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)



### 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.

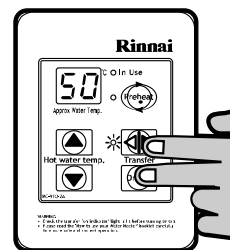


Fig. 5



Fig. 6



### 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.

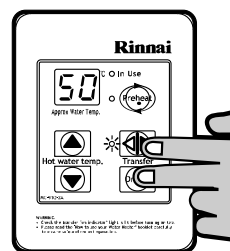


Fig. 7



**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 must be used. Water Controllers cannot be used with the 1620WS model.

The installation of the water heater and temperature controllers must be performed in accordance with the 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.

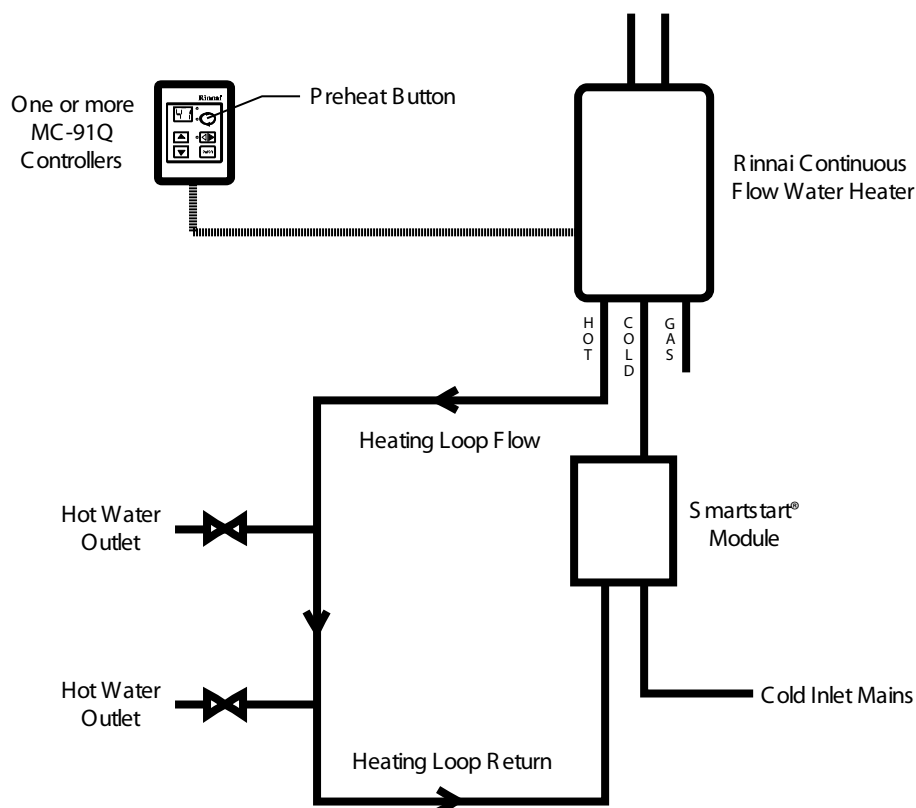
### Principle of Operation (Fig.2)

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 temperature controller is shown in Fig.2 below.

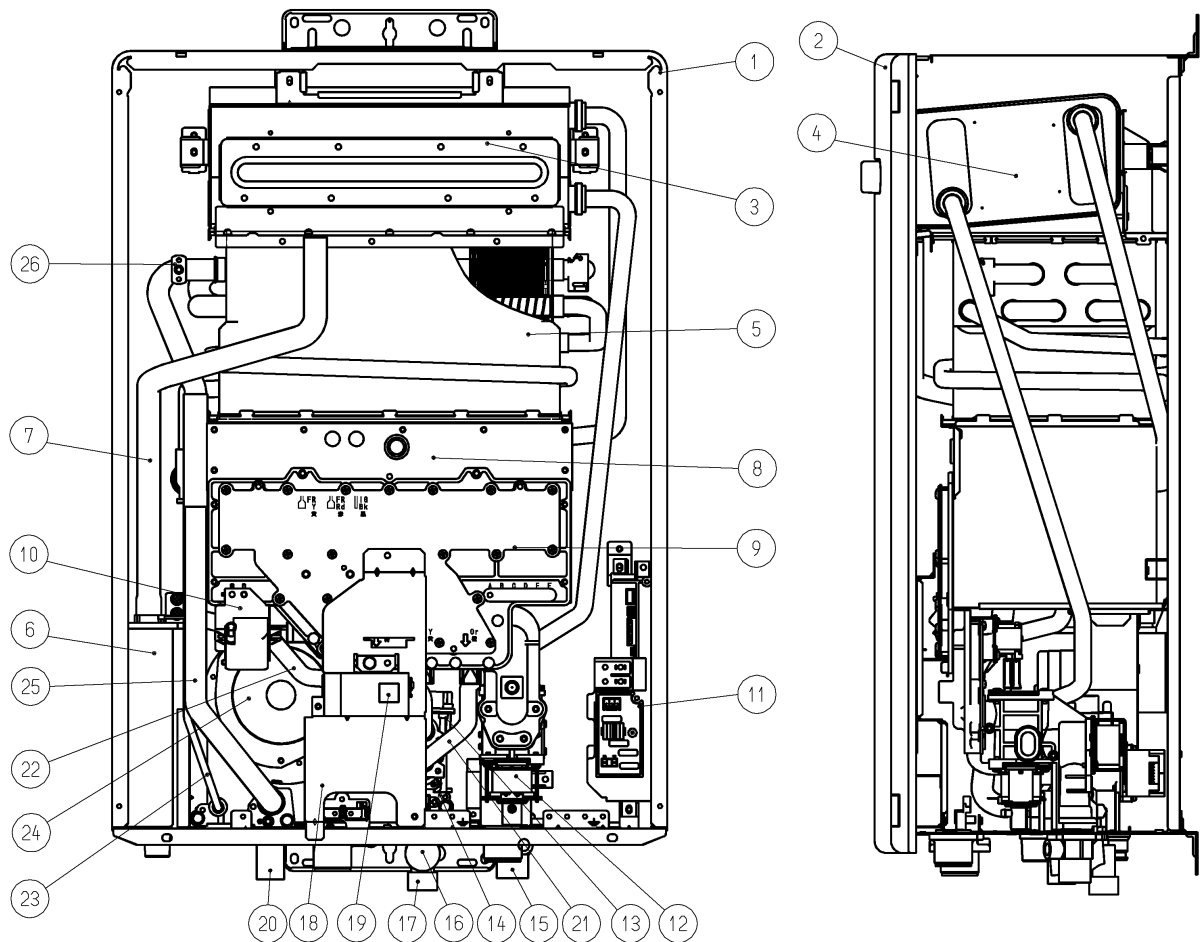
If problems are experienced with Smartstart® operation refer to the Smartstart® Service Manual.



*Figure 2 - Non Solar Hot Water Systems*

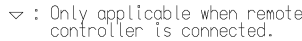


# REU-KM3237WD



NO.	NAME	MATERIAL
1	CASING ASS*Y	HOT-DIPPED ZINC-COATED STEEL SHEET
2	FRONT PANNEL ASS*Y	HOT-DIPPED ZINC-COATED STEEL SHEET
3	FLUE OUTLET	STAINLESS STEEL
4	LATENT HEX	
5	HEAT EXCHANGER	COPPER
6	TRAP	
7	DRAIN TUBE	
8	COMBUSTION CHAMBER FRONT PLATE ASS*Y	HOT-DIPPED ALUMINUM COATED STEEL SHEET
9	MANIFOLD ASS*Y	ALUMINUM CASTING
10	IGNITER	
11	P.C.B.	
12	GAS CONTROL ASS*Y	ALUMINUM CASTING
13	BY-PASS FLOW CONTROL DEVICE	
14	WATER FLOW SENSOR	
15	GAS CONNECTION	ALUMINUM CASTING
16	WATER FILTER ASS*Y	
17	WATER INLET	BRASS
18	PLATE	
19	STATUS MONITOR	
20	HOT WATER OUTLET	BRASS
21	WATER CONNECTING PIPE	COPPER
22	BY-PASS PIPE	COPPER
23	DRAIN PIPE	
24	COMBUSTION FAN	
25	HOT WATER CONNECTING PIPE	COPPER
26	HEAT EXCHANGER THERMISTOR	







## 8. Operation Principles

---

### Hot Water Operation

#### 1. Ignition

- Activate controllers (if fitted) and open the hot water tap (for full details regarding operation of controllers refer to the 'Customer Operating / 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.

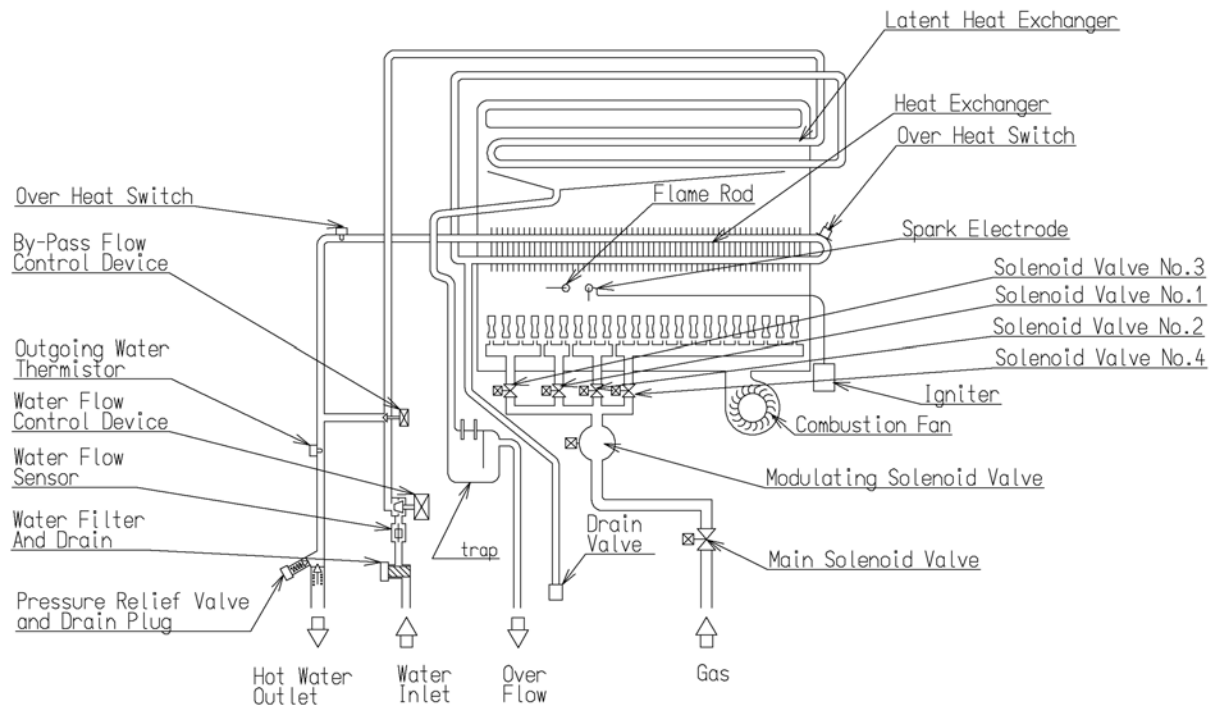
#### 2. Water Temperature and Flow

- 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 Servo 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.

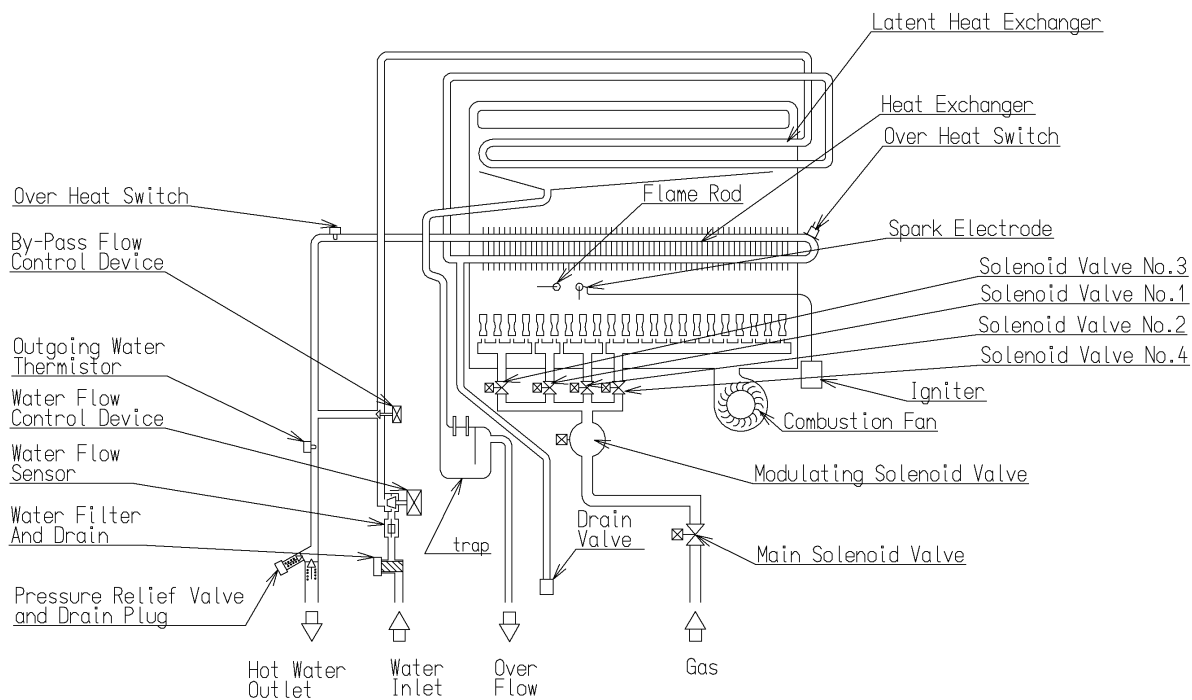
#### 3. Shut Down

- When operating in 'Bath Fill' mode, the PCB causes the Water Flow Servo 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.

## REU-KM2635WD



## REU-KM3237WD



## 9. Main Components

---

### 1) Printer 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 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 changeover solenoid valves direct gas to each of the burner banks independently. Any one, two or all of the solenoid valves may be open during operation.
- Gas flow is modulated 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 1.5 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. The 'Bypass Valve' mixes the correct proportion of cold and hot water to ensure accurate hot water delivery temperature over the available range of flow rates. The water flow and bypass valves are a combined assembly on the cold water inlet of the appliance.

### 4) Air Supply Control

- Air for combustion is supplied by a centrifugal fan driven by a variable speed DC motor. The 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 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 multi chamber aluminium alloy manifold with a total of multiple injectors, arranged in multiple rows. The middle chamber houses eight injectors, the left chamber, twelve, and the right chamber, twenty four injectors. Gas flow to each chamber is controlled by an electronic solenoid valve (refer 'Gas Flow Control' above).
- A burner assembly comprising multiple 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 ignition electrode(s).

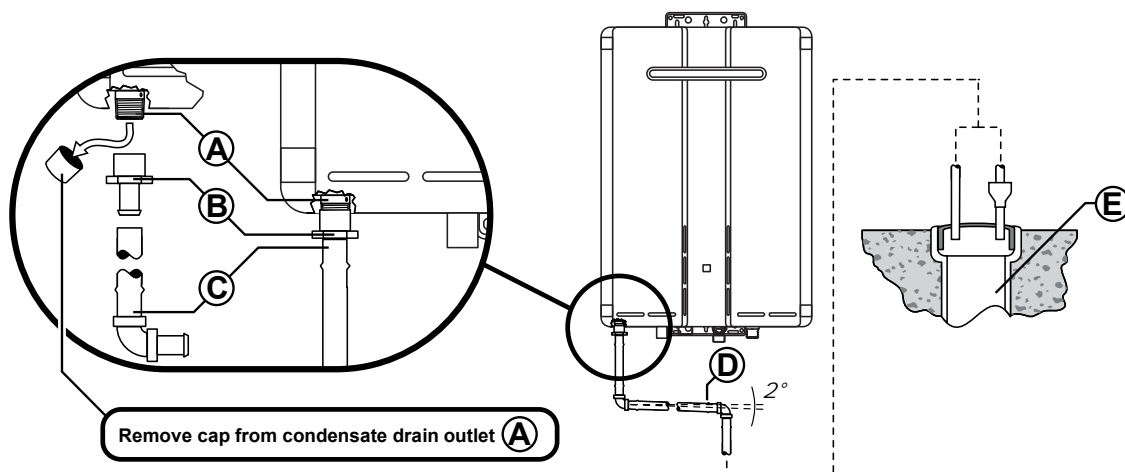
## 10. Condensate Drain

The INFINITY Enviro range of 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.

### IMPORTANT CONSIDERATIONS FOR THE CONDENSATE DRAIN PIPE



The content of AS3500.4:2003 Section 5.12 'Temperature / Pressure Relief and Expansion Control Valve Drain Lines' has been used as a guide in preparing these considerations.



- (A) Water heater drain outlet connection, 1/2" (15mm) BSP male. Condensate drain outlet connection, 1/2" (15mm) BSP male nylon. (Note: The black plastic shipping cap **MUST BE** removed from the condensate drain outlet prior to water heater operation).
- (B) PE 1/2" BSP (15mm) female to barbed irrigation system connector (13 – 19mm) or equivalent plastic fitting. Remove the 3 x R 1/2" 15 mm Black Plastic Cap from the Condensate Drain.
- (C) Drain pipe and fittings to match item (B).
- (D) Continuous fall (of at least 2°) from water heater to discharge point. Lengths and bends in accordance with 'LENGTH AND CHANGES OF DIRECTION' below.
- (E) Suitable points of discharge are deemed to be drains, sewers or pits. **DO NOT** discharge onto electrical connections, earth stakes, copper pipes, concrete paths or into a pond.

#### LENGTH AND CHANGES OF DIRECTION

Maximum length and changes of direction greater than 45° should be as follows:

Lengths and changes of direction				
Max length (Metres)	9	8	7	6
Max changes of direction >45°	3	4	5	6

#### INSTALLATION

- (a) The drain line **MUST NOT** discharge onto electrical connections, earth stakes, copper pipes, concrete paths or into a pond.
- (b) The point of discharge from each drain line shall be located so that the release of condensate does not cause a nuisance, is readily discernible and incurs no risk of damage to the building.

In view of (a) and (b), suitable points of discharge are deemed to be drains, sewers or pits.

- (c) There shall be no tap, valve or other restrictions in any line.
- (d) Each line shall fall continuously from the valve to the approved point of discharge.
- (e) Drain lines shall not discharge into a storage water heater safe tray.
- (f) The end of the condensate drain line shall be:
  - (i) not lower than 200 mm or higher than 300 mm above an unpaved surface; or
  - (ii) not lower than 75 mm or higher than 300 mm above a gravel pit not less than 100 mm in diameter in a paved surface.

- (g) Where discharging over a tundish or gully trap, drain lines shall have an air gap of a size at least twice the diameter of the drain line.

### **INTERCONNECTION OF CONDENSATE DRAIN LINES**

Condensate drain lines from multiple water heaters may be joined together provided they conform with the 'INSTALLATION' requirements as above.

### **COMMON STACK DISCHARGE**

Where individual water heaters are installed in a multistorey building, the condensate drain lines may discharge into a common stack, subject to the following:

- (a) The discharge from the common stack is to a tundish, having a discharge line, that is not less than the size of the common stack, directly connected to a fixture trap, and installed in connection with any adjacent soil or waste stack.
- (b) The discharge point of the common stack is such that any discharge is readily visible and not cause any nuisance.
- (c) The common stack is vented by extending the pipe upwards, above the roof level.

### **TUNDISH DRAIN LINES**

The drain line from any tundish shall be not less than DN 20 or less than one size larger than that of the largest drain line discharging into the tundish. Tundish drain lines shall comply with the 'INSTALLATION' requirements as above.

### **AREAS SUBJECT TO FREEZING**

In areas where water pipes are prone to freezing, the drain pipe from any valve shall be insulated and not exceed 300 mm in length. It shall discharge into a tundish through an air gap of not less than 75 mm and not more than 150 mm measured from the outlet of the drain pipe to the rim of the tundish.

# 11. Component & Circuit Checks - REU-KM2635WD



## REU-KM2635WD-AK

### 1. Combustion Fan Circuit

Check the Motor

Check the combustion fan if the error indicator displays “61”.

Measure voltages between Black-Red of the PCB connector (**L<sub>1</sub>**).

*Normal:* DC6~45V (when fan ON)

DC0V (when fan OFF)

If normal proceed to check the rotation sensor

**Faulty:** Replace PCB

Check for the Fan Rotation Sensor

a.) Measure voltages between Black-Yellow of connector (**L<sub>1</sub>**).

*Normal:* DC11~13V

If normal proceed to b.).

**Faulty:** Replace PCB.

b.) Measure voltages between Black-White of connector (**L<sub>1</sub>**).

*Normal:* DC5~10V (20~400Hz)

If normal proceed to - 2. Sparker Circuit.

**Faulty:** Replace Combustion Fan.

### 2. Sparker Circuit

a.) Measure voltages between Grey-Grey of connector (**D<sub>1</sub>**).

*Normal:* AC207~264V

If Normal proceed to b.).

**Faulty:** Replace PCB.

b.) Disconnect connector (**D<sub>1</sub>**) and measure voltage between both terminals of the sparker.

*Normal:* 1MΩ

If not sparking, adjust or replace ignition plug.

**Faulty:** Replace Sparker.

### 3. Main Solenoid Valve (SV<sub>0</sub>) Circuit (B<sub>5</sub>)

Check the main solenoid if error indicator “11” is displayed.

a.) Disconnect Main Solenoid connector (**B<sub>5</sub>**) and measure voltage between Pink-Black

*Normal:* DC11~13V

If normal, proceed to b.).

**Faulty:** Replace PCB

b.) Measure voltage between Main Solenoid connectors.

*Normal:* 37~43Ω

If normal, proceed to 4. Solenoid Valve (SV<sub>1</sub>) **Faulty:** Replace Main Solenoid.



<b>4. Solenoid Valve 1 (Small) (SV<sub>1</sub>) (B<sub>6</sub>)</b>
<p>Check Solenoid 1 if error indicator “11” is displayed.</p> <p>a.) Disconnect Solenoid 1 connector (B<sub>6</sub>) and measure voltage between Blue-Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid 1 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 5. Solenoid Valve 2 (SV<sub>2</sub>)  <i>Faulty:</i> Replace Solenoid 1</p>
<b>5. Solenoid Valve 2 (Middle) (SV<sub>2</sub>) (B<sub>7</sub>)</b>
<p>a.) Disconnect Solenoid Valve 2 connector (B<sub>7</sub>) and measure voltage between Yellow and Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b.).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid Valve 2 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 6. Solenoid Valve 3 (SV<sub>3</sub>).  <i>Faulty:</i> Replace Solenoid Valve 2.</p>
<b>6. Solenoid Valve 3 (Large) (SV<sub>3</sub>) (B<sub>8</sub>)</b>
<p>a.) Disconnect Solenoid Valve 2 connector (B<sub>8</sub>) and measure voltage between Brown and Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b.).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid Valve 2 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 6. Solenoid Valve 3 (SV<sub>3</sub>).  <i>Faulty:</i> Replace Solenoid Valve 2.</p>
<b>7. Modulating Solenoid Valve (B<sub>2</sub>)</b>
<p>a.) Disconnect Modulating Valve fasten terminals and measure voltage between terminals.(B<sub>2</sub>)  <i>Normal:</i> 67~82Ω  If normal, proceed to b.).  <i>Faulty:</i> Replace Modulating Valve.</p> <p>b.) Measure resistance between Pink-Pink of Modulating Valve fasten terminal.  <i>Normal:</i> DC2~15V  If normal, proceed to c.).  <i>Faulty:</i> Replace PCB.</p> <p>c.) Check the gas secondary pressure change when set temperature on the water control changes from 37°C to 55°C.  <i>Normal:</i> If secondary pressure changes, go to 11. Water Flow Servo Circuit.  <i>Faulty:</i> Replace Modulating Valve.</p>

## 8. Flame Rod Circuit

Check flame rod. (**B<sub>8</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 (**B<sub>8</sub>**) and appliance earth.

*Normal:* >1MΩ

If normal, replace PCB.

**Faulty:** Replace flame rod.

a.) Remove the Flame Rod terminal (**B<sub>8</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 (**B<sub>8</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 (**B<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>5</sub>**).

*Normal:* DC 11~13V

If normal, proceed to b.

**Faulty:** Replace PCB.

b.) Measure voltage between Yellow-Black of relay connector (**E<sub>5</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 19) No. 1.**

## 11. Water Flow Servo Circuit

- a.) Disconnect relay connector (**G<sub>2</sub>**), and measure voltage between Red (+) and Black (-) on PCB unit side (while operating).

*Normal:* DC5~7V

If normal: proceed to c.).

**Faulty:** Replace PCB unit.

- b.) Measure voltage between Black and Yellow with relay connector (**G<sub>5</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 (**G<sub>2</sub>**) connected (with no water flowing, water flow servo fully open).

*Normal:* DC4~6V

**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>2</sub>**) or (**E<sub>3</sub>**) or (**E<sub>4</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	100°C
Resistance	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>3</sub>**, **E<sub>4</sub>**) and measure voltage White -White.

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

Check the fuse. Black - White

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.

## 14. Electrical Fuse

- a.) Measure voltage between Yellow - Yellow on the connector (**C<sub>2</sub>**)

*Normal* : AC 207~264V

If normal proceed to b.).

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

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

*Normal*: AC 207~264V.

**Faulty**: replace surge protector unit.

## 15. Anti-frost Heater Circuit

- a.) Disconnect relay connectors 'Frost Sensing Switch' and (**C<sub>4</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 (**C<sub>4</sub>**) and measure voltage between Yellow- Yellow on each connector on heater side.

*Normal*: AC 207~264V.

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

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

## 16. Frost Sensing Switch

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

*Normal*: < 1Ω

If normal, check wiring (AC240V circuit).

**Faulty**: Replace Frost Sensing Switch.

## 12. Component & Circuit Checks - REU-KM3237WD



### REU-KM3237WD-AK

#### 1. Combustion Fan Circuit

Check the Motor

Check the combustion fan if the error indicator displays “61”.

Measure voltages between Black-Red of the PCB connector (**L<sub>1</sub>**).

*Normal:* DC15~46V (when fan ON)

DC0V (when fan OFF)

If normal proceed to check the rotation sensor

**Faulty:** Replace PCB

Check for the Fan Rotation Sensor

a.) Measure voltages between Black-Yellow of connector (**L<sub>1</sub>**).

*Normal:* DC11~13V

If normal proceed to b.).

**Faulty:** Replace PCB.

b.) Measure voltages between Black-White of connector (**L<sub>1</sub>**).

*Normal:* DC5~10V (20~400Hz)

If normal proceed to - 2. Sparker Circuit.

**Faulty:** Replace Combustion Fan.

#### 2. Sparker Circuit

a.) Measure voltages between Grey-Grey of connector (**D<sub>1</sub>**).

*Normal:* AC207~264V

If Normal proceed to b.).

**Faulty:** Replace PCB.

b.) Disconnect connector (**D<sub>1</sub>**) and measure voltage between both terminals of the sparker.

*Normal:* 1MΩ

If not sparking, adjust or replace ignition plug.

**Faulty:** Replace Sparker.

#### 3. Main Solenoid Valve (SV<sub>0</sub>) Circuit (B<sub>3</sub>)

Check the main solenoid if error indicator “11” is displayed.

a.) Disconnect Main Solenoid connector (**B<sub>3</sub>**) and measure voltage between Pink-Black

*Normal:* DC11~13V

If normal, proceed to b.).

**Faulty:** Replace PCB

b.) Measure voltage between Main Solenoid connectors.

*Normal:* 37~43Ω

If normal, proceed to 4. Solenoid Valve (SV<sub>1</sub>) **Faulty:** Replace Main Solenoid.

<b>4. Solenoid Valve 1 (Small) (SV<sub>2</sub>) (B<sub>5</sub>)</b>
<p>Check Solenoid 1 if error indicator “11” is displayed.</p> <p>a.) Disconnect Solenoid 1 connector (B<sub>5</sub>) and measure voltage between Blue-Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b.).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid 1 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 5. Solenoid Valve 2 (SV<sub>6</sub>)  <i>Faulty:</i> Replace Solenoid Valve 2</p>
<b>5. Solenoid Valve 2 (Middle) (SV<sub>2</sub>) (B<sub>5</sub>)</b>
<p>a.) Disconnect Solenoid Valve 2 connector (B<sub>5</sub>) and measure voltage between Yellow and Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b.).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid Valve 2 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 6. Solenoid Valve 3 (SV<sub>6</sub>).  <i>Faulty:</i> Replace Solenoid Valve 2.</p>
<b>6. Solenoid Valve 3 (Large) (SV<sub>3</sub>) (B<sub>6</sub>)</b>
<p>a.) Disconnect Solenoid Valve 2 connector (B<sub>8</sub>) and measure voltage between Brown and Black.  <i>Normal:</i> DC11~13V  If normal, proceed to b.).  <i>Faulty:</i> Replace PCB.</p> <p>b.) Measure resistance between Solenoid Valve 2 connectors.  <i>Normal:</i> 37~43V  If normal, proceed to 6. Solenoid Valve 3 (SV<sub>6</sub>).  <i>Faulty:</i> Replace Solenoid Valve 2.</p>
<b>7. Modulating Solenoid Valve (B<sub>2</sub>)</b>
<p>a.) Disconnect Modulating Valve fasten terminals and measure voltage between terminals.(B<sub>2</sub>)  <i>Normal:</i> 67~82Ω  If normal, proceed to b.).  <i>Faulty:</i> Replace Modulating Valve.</p> <p>b.) Measure resistance between Pink-Pink of Modulating Valve fasten terminal.  <i>Normal:</i> DC2~15V  If normal, proceed to c.).  <i>Faulty:</i> Replace PCB.</p> <p>c.) Check the gas secondary pressure change when set temperature on the water control changes from 37°C to 55°C.  <i>Normal:</i> If secondary pressure changes, go to 11. Water Flow Servo Circuit.  <i>Faulty:</i> Replace Modulating Valve.</p>

## 8. Flame Rod Circuit

Check flame rod. (**B<sub>8</sub>**) Yellow - flame rod.

Over DC1 $\mu$ A

Disconnect flame rod terminal (**B<sub>8</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 (**B<sub>8</sub>**) and appliance earth.

*Normal:* >1M $\Omega$

If normal, replace PCB.

**Faulty:** Replace flame rod.

a.) Remove the Flame Rod terminal (**B<sub>8</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 (**B<sub>8</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 (**B<sub>1</sub>**) & (**E<sub>1</sub>**) measure resistance between red and red.

*Normal:* < 1 $\Omega$

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>5</sub>**).

*Normal:* DC 11~13V

If normal, proceed to b.

**Faulty:** Replace PCB.

b.) Measure voltage between Yellow-Black of relay connector (**E<sub>5</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 19) No. 1.

## 11. Water Flow Servo Circuit

- a.) Disconnect relay connector (**G<sub>2</sub>**), and measure voltage between Red (+) and Black (-) on PCB unit side (while operating).

*Normal:* DC5~7V

If normal: proceed to c.).

**Faulty:** Replace PCB unit.

- b.) Measure voltage between Black and Yellow with relay connector (**G<sub>5</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 (**G<sub>2</sub>**) connected (with no water flowing, water flow servo fully open).

*Normal:* DC4~6V

**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>2</sub>**) or (**E<sub>3</sub>**) or (**E<sub>4</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	100°C
Resistance	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>3</sub>**, **E<sub>4</sub>**) and measure voltage White -White.

## 13. Surge Protector (C<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.



## 14. Electrical Fuse

- a.) Measure voltage between Yellow-Yellow on the connector (**C<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 (**C<sub>1</sub>**).

*Normal*: AC 207~264V.

**Faulty**: replace surge protector unit.

## 15. Anti-frost Heater Circuit

- a.) Disconnect relay connectors 'Frost Sensing Switch' and (**C<sub>4</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 (**C<sub>4</sub>**) and measure voltage between Yellow- Yellow on each connector on heater side.

*Normal*: AC 207~264V.

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

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

## 16. Frost Sensing Switch

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

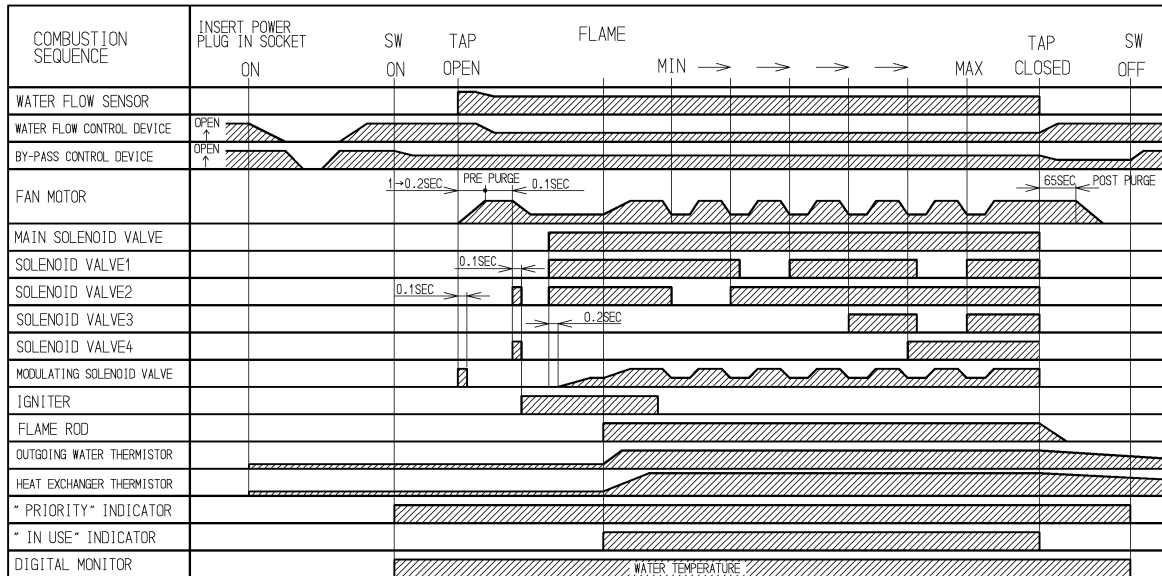
*Normal*: < 1Ω

If normal, check wiring (AC240V circuit).

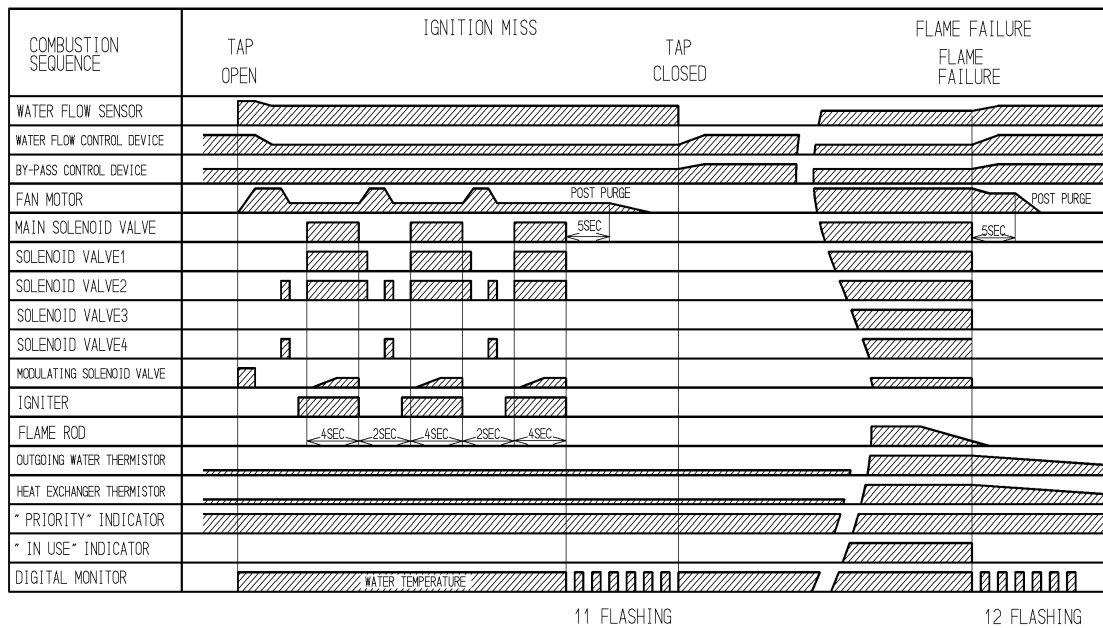
**Faulty**: Replace Frost Sensing Switch.

# 13. Time Charts

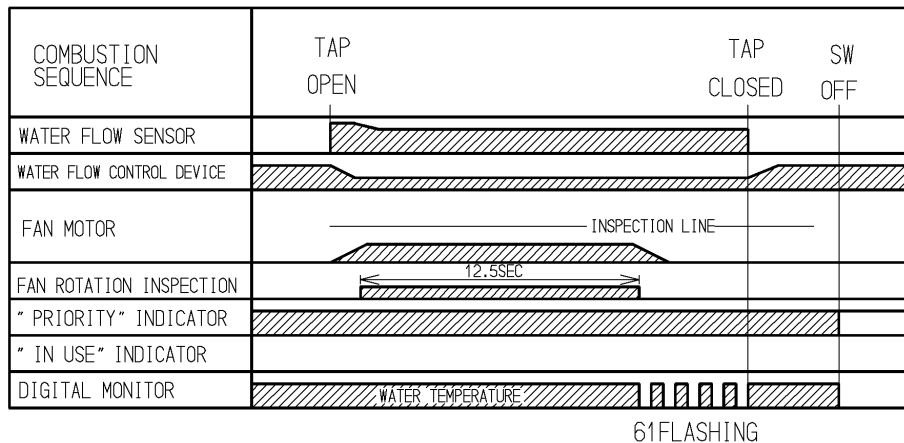
## Normal Combustion Sequence



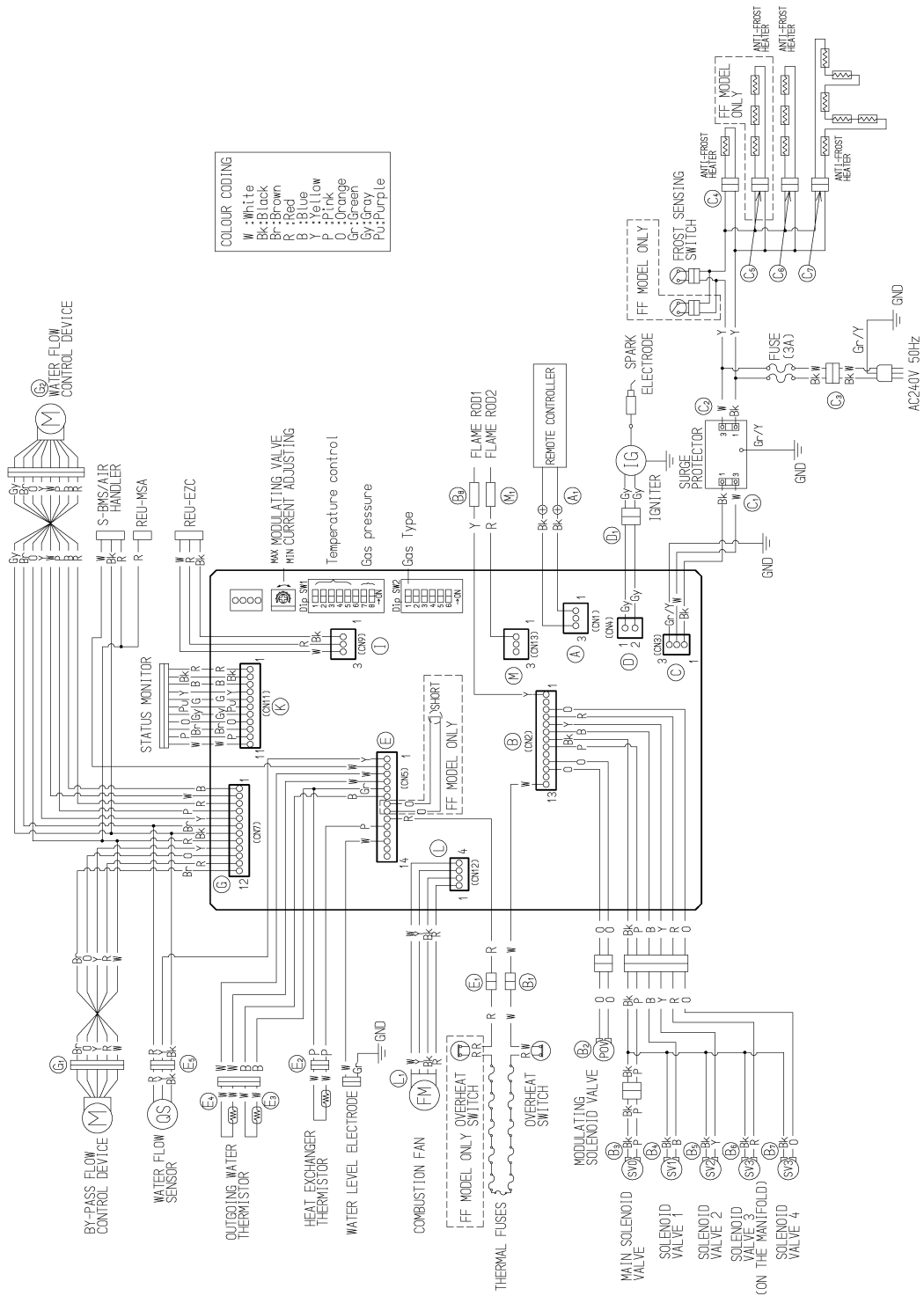
## Error Sequence (Ignition/Flame Failure)



## Pre-Purge Defect Sequence



# 14. Wiring Diagram



## 15. Dip Switch Settings

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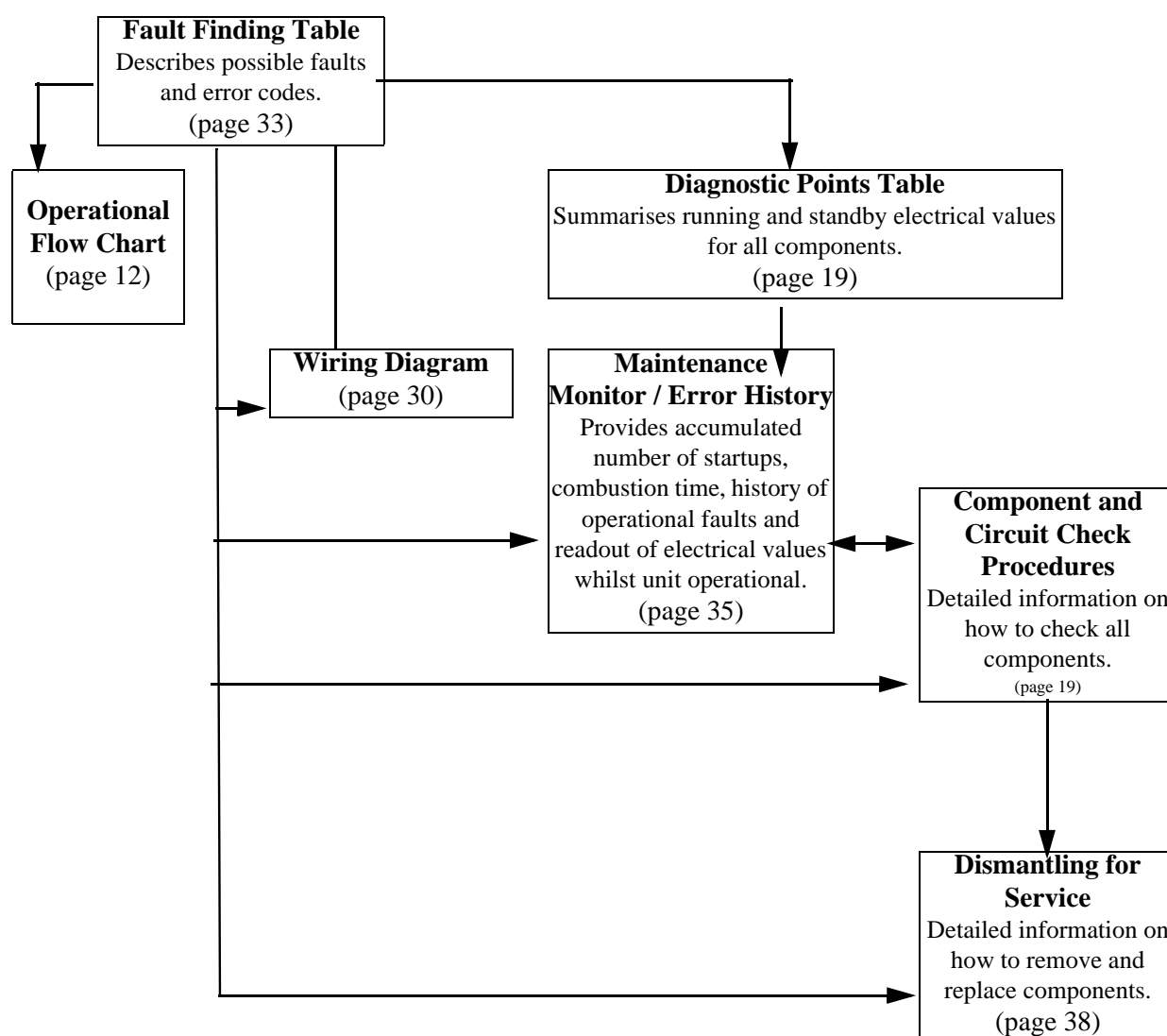
Contact Rinnai for Dipswitch settings.

## 16. 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 spark 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 remote 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
25	Condensate Pipe Blockage	Check for blockage on condensate drain path.
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 . 3. Check electrical fuse. 5. Check gas valves 6. Check spark unit. 7. Check earth leads and connections. 8. Check for short circuits. 9. Check water controller(s) - if fitted.
-	No combustion despite remote 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 spark 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 controller(s) - only if water 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

## 17. Gas Pressure Setting Procedure

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Refer separate Rinnai document behind front cover of appliance.

## 18. Gas Conversion Procedure

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Refer separate document available from Rinnai.

## 19. 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.

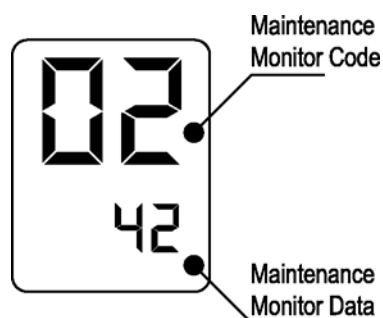
Press maintenance button again to return to transceiver to normal mode.

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.





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>
----	--------------------------	------	-----------------------

**\*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>
----	--	------	--------------------

**\*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.

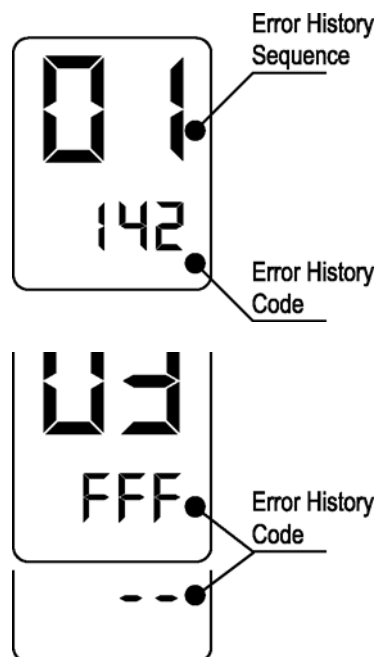
## Error History

### 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.

## 20. Dismantling for Service

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

**NOTE:** As this manual covers a wide range of models, some details of the dismantling procedure may be slightly different to those depicted in this manual.

<i>Item</i>	<i>Page</i>
1. Removal of the Front Panel . . . . .	39
2. Removal of the PCB Unit . . . . .	39
3. Removal of the Status Monitor Bracket . . . . .	39
4. Removal of Sparker . . . . .	39
5. Removal of the Manifold and Burner unit. . . . .	39
6. Removal of the Gas Control . . . . .	40
7. Removal Flame Rod and Electrode . . . . .	41
8. Removal of Outgoing Water Thermistor . . . . .	41
9. Removal of the Heat Exchanger Thermistor . . . . .	41
10. Removal of the Fan Motor . . . . .	41
11. Removal of Water Flow Servo & Sensor and by-pass Servo . . . . .	42
12. Removal of Overheat Switch . . . . .	43
13. Removal of Anti Frost Heater . . . . .	43
14. Removal of Heat Exchanger . . . . .	43
15. Removal of Thermal Fuse . . . . .	44

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.



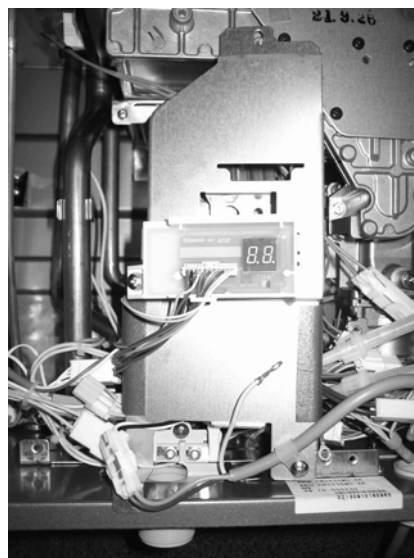
### 2) Removal of the PCB Unit

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



### 3) Removal of the Status Monitor Bracket

- a. Remove 2 fixing screws and remove bracket.



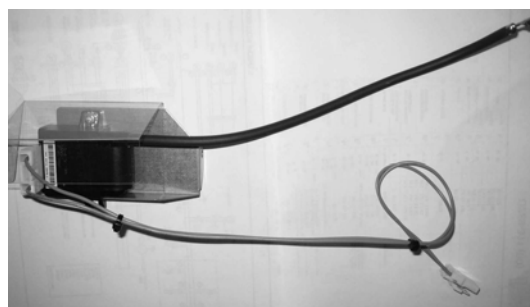
### 4) Removal of Sparker

- a. Remove 1 fixing screw
- b. Remove 3 pin connector
- c. Remove high tension cord

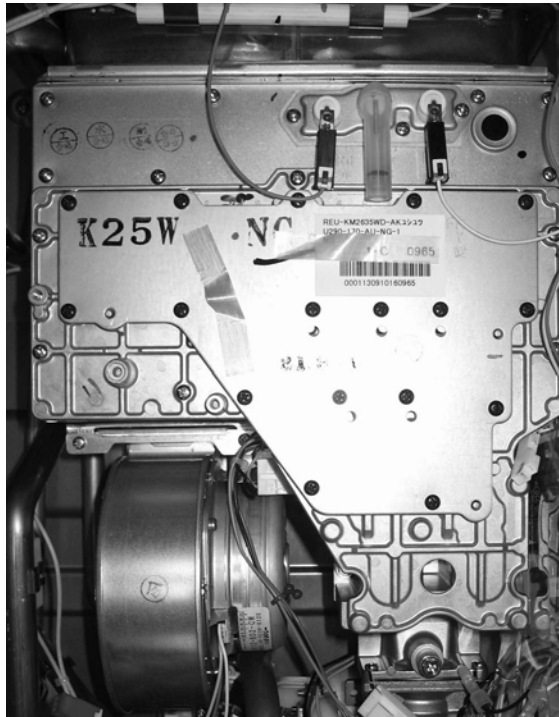


### 5) Removal of the Manifold and Burner unit

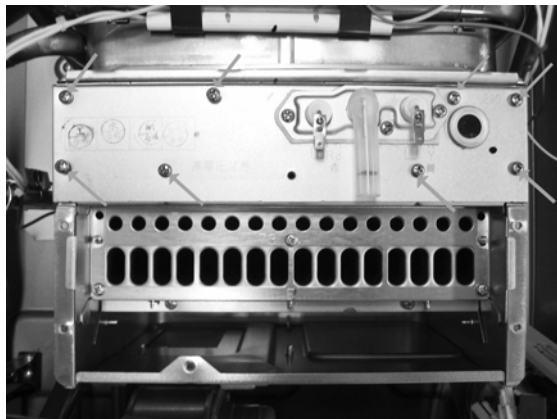
- a. Removal of flame rod
- b. Remove 2 \* 2 pin connection of the solenoid valves
- c. Remove manifold



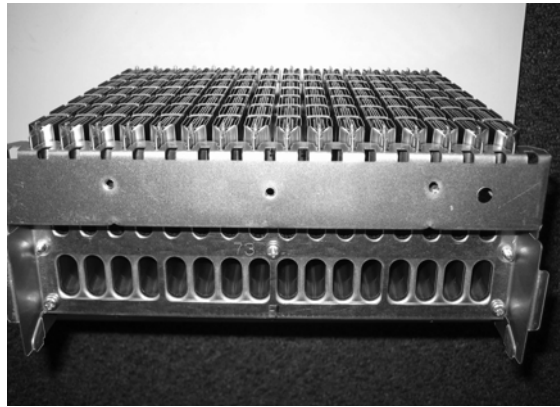
a. Manifold Assembly



- a. Remove Combustion Chamber Front Panel.
- b. Remove burner unit.



- a. Pull of burner unit.

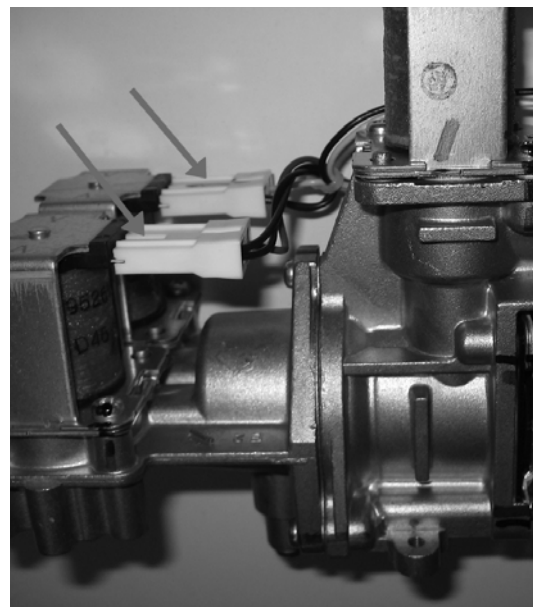


6) Removal of the **Gas Control**

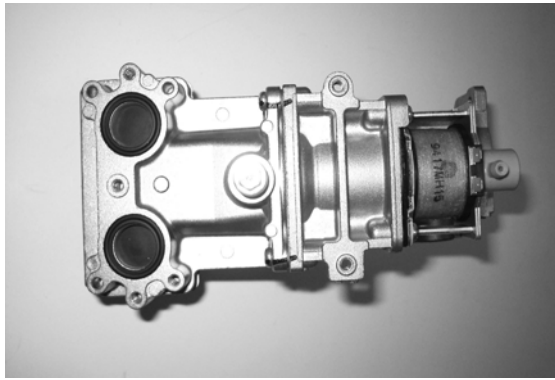
- a. Remove manifold (refer to point 5).
- b. Remove gas connection.



- c. Pull OFF connectors for gas control modulation valve and solenoid valves.

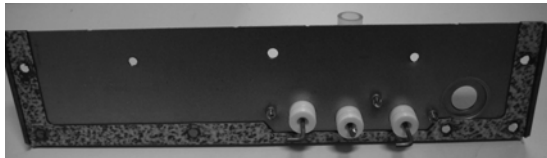
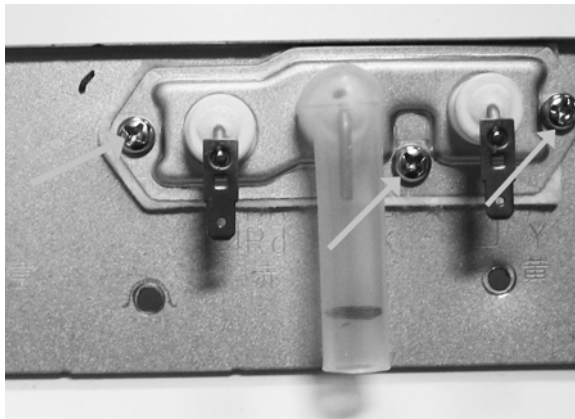


Gas Control



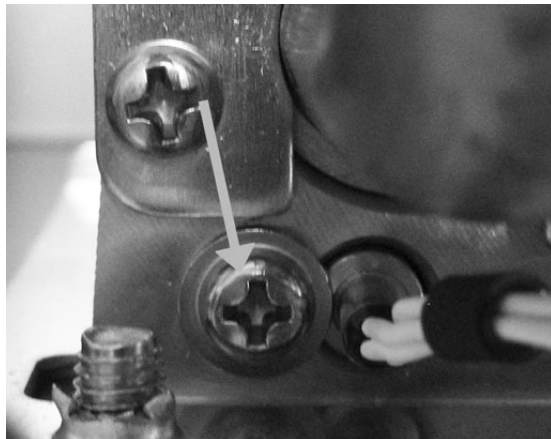
#### 7) Removal **Flame Rod and Electrode**

- a. Remove flame rod terminal and tighten sparker lead.
- b. Remove 3 fixing screws and Electrode Holder.
- c. Remove flame rod and spark plug.

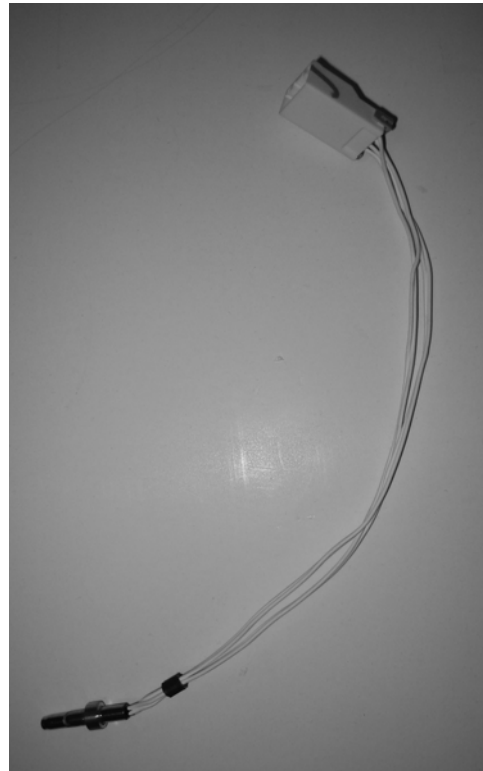


#### 8) Removal of **Outgoing Water Thermistor**

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

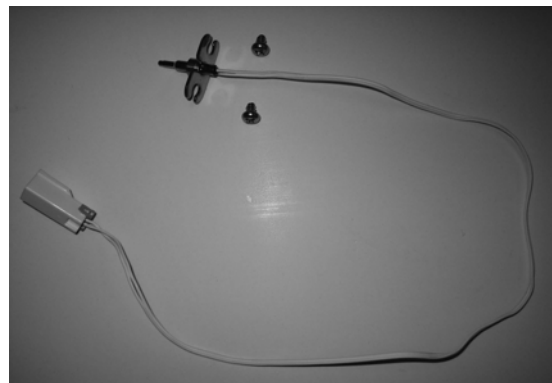


Heat Exchanger Thermistor



#### 9) Removal of the **Heat Exchanger Thermistor**

- a. Remove thermistor holder.
- b. Remove 2 pin connector.



#### 10) Removal of the **Fan Motor**

- a. Remove 4 pin connector to fan motor.



- b. Remove fan motor screws (\*2).



- c. Remove fan motor assembly sliding forward.

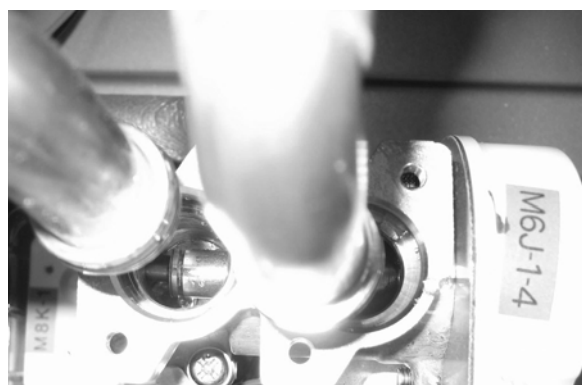


- d. Remove fan motor from housing via. 3 screws.



# 11) Removal of Water Flow Servo & Sensor and by-pass Servo

- a. Remove fan motor (Refer to point 10).
- b. Remove 3 pin connector
- c. Remove 5 pin connector and 8 pin connector.
- d. Remove bracket for water connection tube.



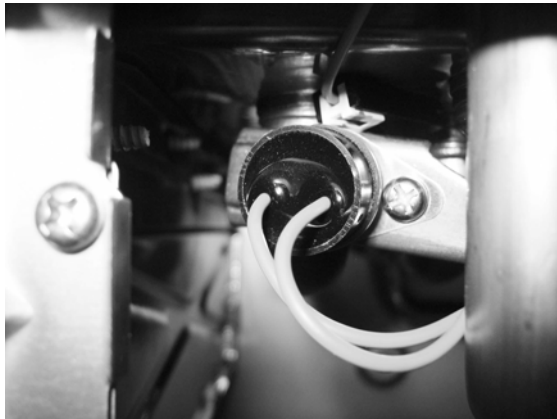
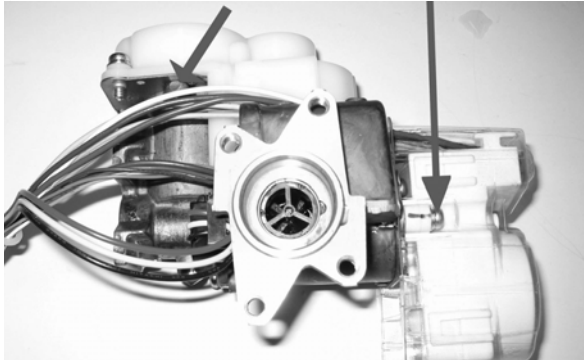
- e. Removal of inlet water connection



- f. Remove bypass servo and water flow servo

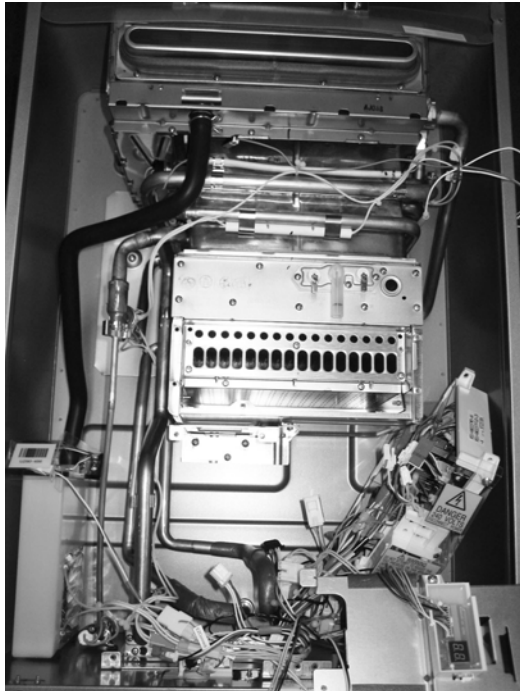
### 12) Removal of Overheat Switch

- a. Remove one fixing screw.
- b. Remove the switch.



### 13) Removal of Anti Frost Heater

- a. Remove 2 pin connection of Anti Frost heater.
- b. Remove clips on copper tube.
- c. Remove Anti Frost Heater.

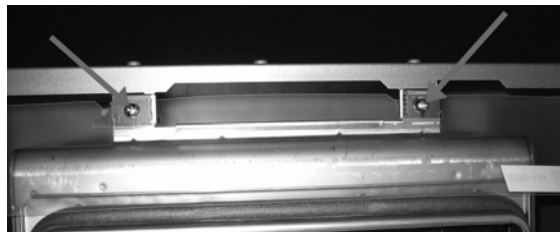


### 14) Removal of Heat Exchanger

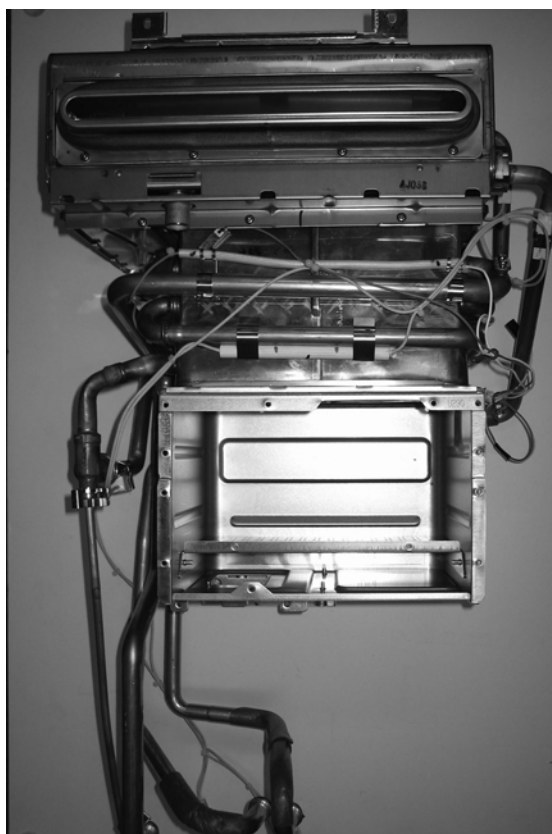
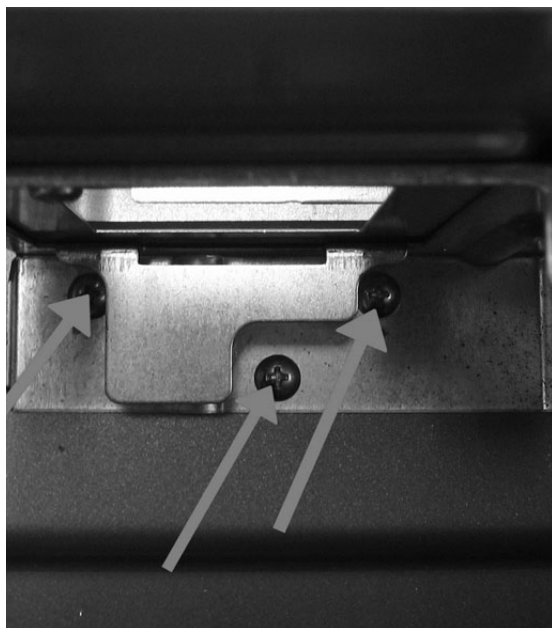
- a. Remove outlet tube.
- b. Remove drain tube.
- c. Remove condensate drain tube.



- d. Remove fixing screws of the heat exchanger unit.



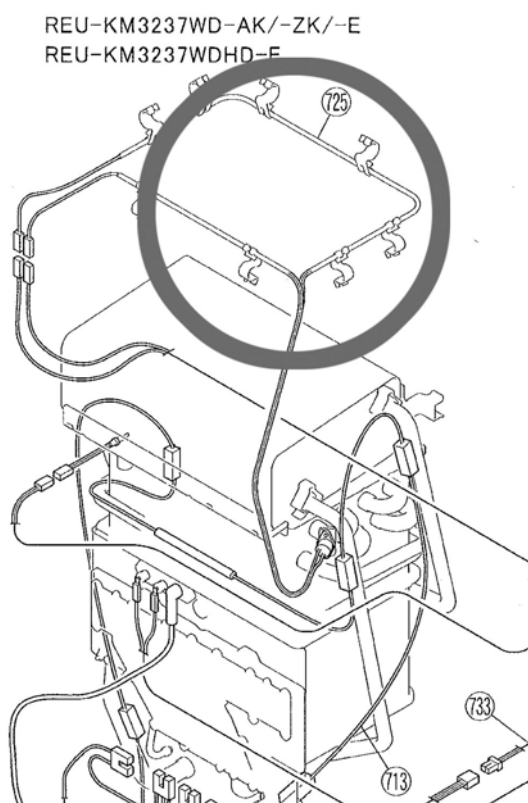




### 15) Removal of Thermal Fuse

- a. Remove Heat Exchanger.
- b. Remove Thermal Fuse.

After removal of thermal fuse, make sure the thermal fuse is fitted as follows:



## 21. Parts List

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

**“REU-KM2635WD Parts List” on page 46**

**“REU-KM3237WD Parts List” on page 50**

# REU-KM2635WD Parts List

Effective: 08/08/13 Supersedes: Feb 2010 Version 2				
INFINITY ENVIRO 26 (REU-KM2635WD-AK)			23-0393	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
001	OUTER CASE (DOES NOT INCLUDE SCREWS)	92098935	014-497-000	1
002	BRKT WALL	92093377	106-329-000	2
004	Connection Reinforcement Panel		044-182-000	1
005	Heat Protection Plate		030-941-000	1
006	PANEL FRONT	92098923	019-4319000	1
007	Gasket - Top and Bottom		580-0632000	2
008	Gasket-Side		580-0633000	2
011	Screw Cover		098-2927000	2
012	Screw Cover Rid		035-1795000	4
013	INF20 CABLE ENTRY (NEW)	92073352	106-104-000	1
014	SEAL HARNESS EASY CONN	92099984	580-0105000	1
016	Packing		510-893-000	1
017	BRACET PANEL FRONT	92098929	019-4197000	2
021	Reinforcement Bracket		044-183-000	1
022	Attachment Bracket		517-499-000	3
023	Reinforcement Bracket		044-151-000	1
025	HARNESS EASY CONN	92099986	106-641-000	1
026	SEAL HARNESS EASY CONN	92099984	580-0105000	1
027	CLIP SUPPORT	92095896	538-840-000	1
100	GAS CONTROL	92086736	120-0016000	1
101	SCREW TEST POINT	92099956	501-275-005	2
102	INLET GAS 3/4	92081587	106-290-000	1
103	BURNER ASSY LPG	92098939	000-186-000	1
103	BURNER ASSY NG	92098937	000-187-000	1
104	Burner Case Front Panel		098-902-000	1
105	Burner Case Bottom Panel		004-927-000	1
106	Packing		580-440-000	1
107	Burner Low Nox Bunsen Assy		157-090-000	16
108	Burner Case Rear Panel		098-2963000	1
109	DAMPER LP	92099906	140-597-000	1
109	DAMPER NG	92099908	140-736-E00	1
110	MANIFOLD NG	92098913	101-770-000	1
110	MANIFOLD LP	92098911	101-771-000	1
111	Combustion Chamber Packing Upper		580-547-000	1
112	Combustion Chamber Packing Lower		580-0653000	1
114	Combustion Chamber Front Panel Assy		019-4273000	1
116	ELECTRODE	92086974	202-156-000	1
117	FLAME ROD	92098996	202-233-000	2
118	GASKET ELECTRODE	92098908	580-0635000	1
119	Electrode Holder		580-0636000	1
120	Combustion Chamber Packing		580-0654000	1
125	FAN COMB ASSY	92098986	222-661-000	1
126	Fan Casing Assembly		035-1884000	1

<b>INFINITY ENVIRO 26 (REU-KM2635WD-AK)</b>			<b>23-0393</b>	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
127	CONNECTING COMB FAN	92098870	106-320-000	1
128	PACKING FAN CONECTING	92098888	580-338-000	1
129	Fan Motor Assembly		222-643-000	1
135	EXHAUST FLUE	92098915	055-995-000	1
137	Flue Outlet Packing		580-0593000	1
138	Seal Packing		580-835-000	1
143	HEAT EXCHANGER	92098928	314-803-000	1
160	HEAT EXCHANGER SECONDARY	92098926	314-805-000	1
166	Reinforcement Bracket		537-0883000	1
400	INLET WATER 3/4	92095901	333-483-000	1
401	WATER FLOW SENSOR	92098932	301-199-000	1
402	RECTIFIER WATER	92093552	330-107-000	1
403	BYPASS SERVO ASSY	92087072	301-158-000	1
404	Stop Bracket		512-401-000	2
405	Plug Band		553-119-000	1
408	OUTLET WATER 3/4" NPT	92098916	333-499-000	1
409	Stop Bracket		512-406-000	1
410	Plug Band (small)		553-065-000	1
411	VALVE PRESS RELIEF	92099944	337-152-000	1
412	FILTER WATER 0 LARGE	92083773	196-062-000	1
413	Cover		098-2780000	1
421	Drain Connection		333-493-000	1
422	VALVE DRAIN	92097120	337-034-000	1
423	Clip		512-550-000	1
424	Connecting Pipe		332-0214000	1
426	Packing		580-0641000	1
431	Connecting pipe-Inlet		332-0230000	1
432	Connecting pipe-HEX		332-0215000	1
433	CLIP HOSE/PIPE	92092485	512-249-000	2
434	Clip		512-552-000	1
440	Condensate Trap		341-370-000	1
441	Packing		580-0642000	2
442	Condensate Trap Plug	92092487	341-369-000	1
443	Condensate Drain Tube		513-0051000	1
444	Band		553-130-000	1
445	Band		553-158-000	1
446	Screw		501-0232000	2
447	HARNESS CONDENSATE	92098962	290-1795000	1
700	PCB MAIN	92098992	210-0046000	1
701	SURGE ARRESTOR	92093699	210-605-000	1
702	PC Board Cover Side		098-2929000	1
703	PC Board Cover Front		098-1869000	1
706	SPARKER	92095026	261-157-000	1

Effective: 08/08/13 Supersedes: Feb 2010 <b>INFINITY ENVIRO 26 (REU-KM2635WD-AK)</b>			<b>23-0393</b> Version 2	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
707	LEAD HT	92092355	203-833-000	1
708	SLEEVE ELECTRODE	92087030	518-035-000	1
709	THERMISTOR	92098982	233-249-000	1
710	BRKT THERMISTOR	92086388	508-836-000	1
711	Thermistor Fuse Clip		553-055-000	6
712	SWITCH THERMAL	92097187	234-444-000	1
713	HEATER A-FROST	92098976	235-401-000	1
715	HARNESS HEATER	92098974	235-402-000	1
716	BRKT HEATER	92093301	538-493-000	2
717	CLIP HEATER	92076123	537-174-000	1
718	BRKT HEATER B	92096225	537-0440000	4
720	ELEC CORD	92089051	206-226-000	1
721	HARNESS FUSE	92098954	290-1930000	1
722	HARNESS POWER	92098952	290-1931000	1
724	HARNESS PCB MAIN	92098950	290-1932000	1
725	FUSE THERMAL	92098948	290-1933000	1
726	HARNESS SPARKER	92095039	290-1398000	1
727	SENSOR MR	92099988	243-133-000	1
728	Ignitor Attachment Plate		538-0396000	1
729	HARNESS REMOTE CONTROL	92099961	290-1288000	1
730	HARNESS TWIN THERMIST	92099234	233-278-000	1
731	Solenoid Connection Harness		290-1901000	1
733	HARNESS SOLENOID	92098956	290-1903000	1
744	HARNESS HEATER	92098980	235-380-000	1
750	RELAY	92095032	210-810-000	1
751	Status Monitor Bracket		537-0881000	1
800	Screw		501-577-000	8
801	Screw		501-0234000	4
802	Washer		503-210-000	4
803	Screw		501-0235000	3
804	Screw		501-295-000	1
805	Screw		501-262-000	3
806	Screw		501-737-000	1
807	Washer		503-026-010	2
810	O RING THERMISTOR	92062249	520-209-010	2
812	O RING (S4) TEST POINT	90195165	520-300-010	1
813	O RING IN/OUT WATER	92071182	520-049-010	1
814	O RING HEAT EXCH	92062199	520-048-010	3
815	O RING HEAT EXCH	92062207	520-193-010	4
816	O RING	92062348	520-281-010	1
817	O RING CON	92072859	520-043-010	1
818	Packing		580-157-000	1
819	Screw		501-395-000	2

<b>INFINITY ENVIRO 26 (REU-KM2635WD-AK)</b>			Effective: 08/08/13 Supersedes: Feb 2010 23-0393	Version 2
			RJ 11 DIGIT CODE	QUANTITY REQUIRED
NO	PART NAME	RA PART NO.		
820	Screw		501-799-000	4
821	Screw		511-119-000	2
822	Screw		501-403-010	3
823	O RING BYPASS	92071455	520-194-010	1
824	O RING WATER 6MM	92043223	520-074-010	2

# REU-KM3237WD Parts List

Effective: 08/08/13  
 Supersedes: 08/08/13  
 Version3

INFINITY 32 ENVIRO (REU-KM3237WD-AK)			23-0213	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
001	OUTER CASE (DOES NOT INCLUDE SCREWS)	92098933	014-501-000	1
002	BRACKET WALL	92093377	106-329-000	2
004	Connection Reinforcement Panel		044-182-000	1
005	Heat Protection Plate		030-941-000	1
006	PANEL FRONT	92098921	019-4323000	1
007	Gasket-Top and Bottom		580-0632000	2
008	Gasket-Side		580-0633000	2
011	Screw Cover		098-2927000	2
012	Screw Cover Rid		035-1795000	4
013	INF20 CABLE ENTRY (NEW)	92073352	106-104-000	1
014	SEAL HARNESS EASY CONN	92099984	580-0105000	1
016	Packing		510-893-000	1
017	BRACE PANEL FRONT	92098929	019-4197000	2
018	HARNESS EASY CONNECT	92098905	106-665-000	1
019	Cover		098-2985000	1
021	Reinforcement Bracket		044-183-000	1
022	Attachment Bracket		517-499-000	3
023	Reinforcement Bracket		044-151-000	1
025	Status Monitor Bracket		537-0881000	1
026	Cable Seal Packing		580-306-000	1
027	CLIP SUPPORT	92095896	538-840-000	1
100	GAS CONTROL ASSY	92098901	114-528-000	1
101	SCREW TEST POINT	92099956	501-275-005	2
102	INLET GAS 3/4	92081587	106-290-000	1
103	BURNER ASSY LPG	92099932	000-160-000	1
103	BURNER ASSY NG	92098941	000-173-000	1
104	Burner Case Front Panel		098-985-000	1
105	Burner Case Bottom Panel		004-564-000	1
106	Packing		580-573-000	1
107	Burner Low Nox Bunsen Assy		157-090-000	22
108	Burner Case Rear Panel		098-986-000	1
109	DAMPER LP	92099936	140-788-000	1
109	DAMPER NG	92098998	140-803-000	1
110	MANIFOLD NG	92098909	101-773-000	1
110	MANIFOLD LP	92098907	101-774-000	1
111	Combustion Chamber Packing Upper		092-046-000	1
112	Combustion Chamber Packing Lower		092-047-000	1

INFINITY 32 ENVIRO (REU-KM3237WD-AK)			23-0213	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
114	Combustion Chamber FrontPanel Assy		019-4198000	1
116	ELECTRODE	92086974	202-156-000	1
117	FLAME ROD	92098996	202-233-000	2
118	GASKET ELECTRODE	92098908	580-0635000	1
119	Electrode Holder		580-0636000	1
120	Combustion Chamber Packing		580-0637000	1
125	FAN COMB ASSY	92098984	222-663-000	1
126	FAN CASING	92098862	035-867-000	1
127	Fan Connecting		106-649-000	1
128	GASKET FAN	92099942	580-580-000	1
129	Fan Motor Assembly		222-643-000	1
135	EXHAUST FLUE	92098915	055-995-000	1
137	Flue Outlet Packing		580-0643000	1
138	Seal Packing		580-835-000	1
143	HEAT EXCHANGER	92098930	314-801-000	1
152	Reinforcement Bracket		538-0597000	1
160	HEAT EXCHANGER SECONDARY	92098926	314-805-000	1
166	Combustion Chamber Bracket		537-0883000	1
400	INLET WATER 3/4	92095901	333-483-000	1
401	WATER FLOW SENSOR	92098932	301-199-000	1
402	RECTIFIER WATER	92093552	330-107-000	1
403	BYPASS SERVO ASSY	92087072	301-158-000	1
404	Stop Bracket		512-401-000	2
405	Plug Band		553-119-000	1
408	OUTLET WATER 3/4" NPT	92098914	333-500-000	1
409	Stop Bracket		512-406-000	1
410	Plug Band (small)		553-181-000	1
411	VALVE PRESS RELIEF	92099944	337-152-000	1
412	FILTER WATER 0 LARGE	92083773	196-062-000	1
413	Cover		098-2780000	1
421	Drain Connection		333-493-000	1
422	VALVE DRAIN	92097120	337-034-000	1
423	Clip		512-550-000	2
424	Connecting Pipe		332-0200000	1
426	Packing		580-0641000	1
431	Connecting pipe-Inlet		332-0231000	1
432	Connecting pipe-HEX		332-0202000	1
433	CLIP HOSE/PIPE	92092485	512-249-000	2



INFINITY 32 ENVIRO (REU-KM3237WD-AK)			23-0213	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
434	Clip		512-552-000	1
440	Condensate Trap		341-370-000	1
441	Packing		580-0642000	2
442	Condensate Trap Plug	92092487	341-369-000	1
443	Condensate Drain Tube		513-0051000	1
444	Band		553-130-000	1
445	Band		553-158-000	1
446	Screw		501-0232000	2
447	HARNESS CONDENSATE	92098962	290-1795000	1
448	Cover		098-2986000	1
700	PCB MAIN	92098992	210-0046000	1
701	SURGE ARRESTOR	92093699	210-605-000	1
702	PC Board Cover Side		098-2929000	1
703	PC Board Cover Front		098-1869000	1
704	Clip		504-021-000	1
706	SPARKER	92095026	261-157-000	1
707	LEAD HT	92092253	203-828-000	1
708	SLEEVE ELECTRODE	92087030	518-035-000	1
709	THERMISTOR	92099385	233-246-000	1
710	BRKT THERMISTOR	92086388	508-836-000	1
711	Thermistor Fuse Clip		553-056-000	9
712	SWITCH THERMAL	92097187	234-444-000	1
713	HEATER A-FROST	92098972	235-404-000	1
715	HARNESS HEATER ASSY	92098978	235-397-000	1
716	BRKT HEATER	92093301	538-493-000	2
717	Anti Front Heater Clip A		537-215-000	1
718	BRKT HEATER B	92096225	537-0440000	1
720	ELEC CORD	92089051	206-226-000	1
721	HARNESS FUSE	92098954	290-1930000	1
722	HARNESS POWER	92098952	290-1931000	1
724	HARNESS MAIN PCB	92098944	290-1941000	1
725	FUSE THERMAL	92098946	290-1940000	1
726	HARNESS SPARKER	92095039	290-1398000	1
727	SENSOR MR	92099988	243-133-000	1
728	Ignitor Attachment Plate		537-0884000	1
729	HARNESS REMOTE CONTROL	92099961	290-1288000	1
730	HARNESS TWIN THERMIST	92099234	233-278-000	1
731	HARNESS SOLENOID	92098960	290-1863000	1

INFINITY 32 ENVIRO (REU-KM3237WD-AK)			23-0213	
NO	PART NAME	RA PART NO.	RJ 11 DIGIT CODE	QUANTITY REQUIRED
733	HARNESS GAS CONTROL	92098958	290-1865000	1
734	HARNESS FAN	92098966	290-1447000	1
744	HARNESS HEATER	92098980	235-380-000	1
750	RELAY	92095032	210-810-000	1
800	Screw		501-865-000	5
801	Screw		501-0234000	4
802	Washer		503-210-000	4
803	Screw		501-0235000	3
804	Screw		501-295-000	1
805	Screw		501-0093000	3
806	Screw		501-737-000	1
807	Washer		503-268-000	2
810	O RING THERMISTOR	92062249	520-209-010	2
813	O RING IN/OUT WATER	92071182	520-049-010	3
814	O RING HEAT EXCH	92062199	520-048-010	3
815	O RING HEAT EXCH	92062207	520-193-010	4
816	O RING	92062348	520-281-010	1
817	O-ring		520-043-010.	1
818	Packing		580-157-000	1
819	Screw		501-395-000	2
820	Screw		501-799-000	4
821	Screw		511-119-000	2
822	Screw		501-403-000	3
823	O RING BYPASS	92071455	520-194-010	1
824	O RING WATER 6MM	92043223	520-074-010	2
825	O RING (S4) TEST POINT	90195165	520-300-010	2

## 22. Exploded Diagram

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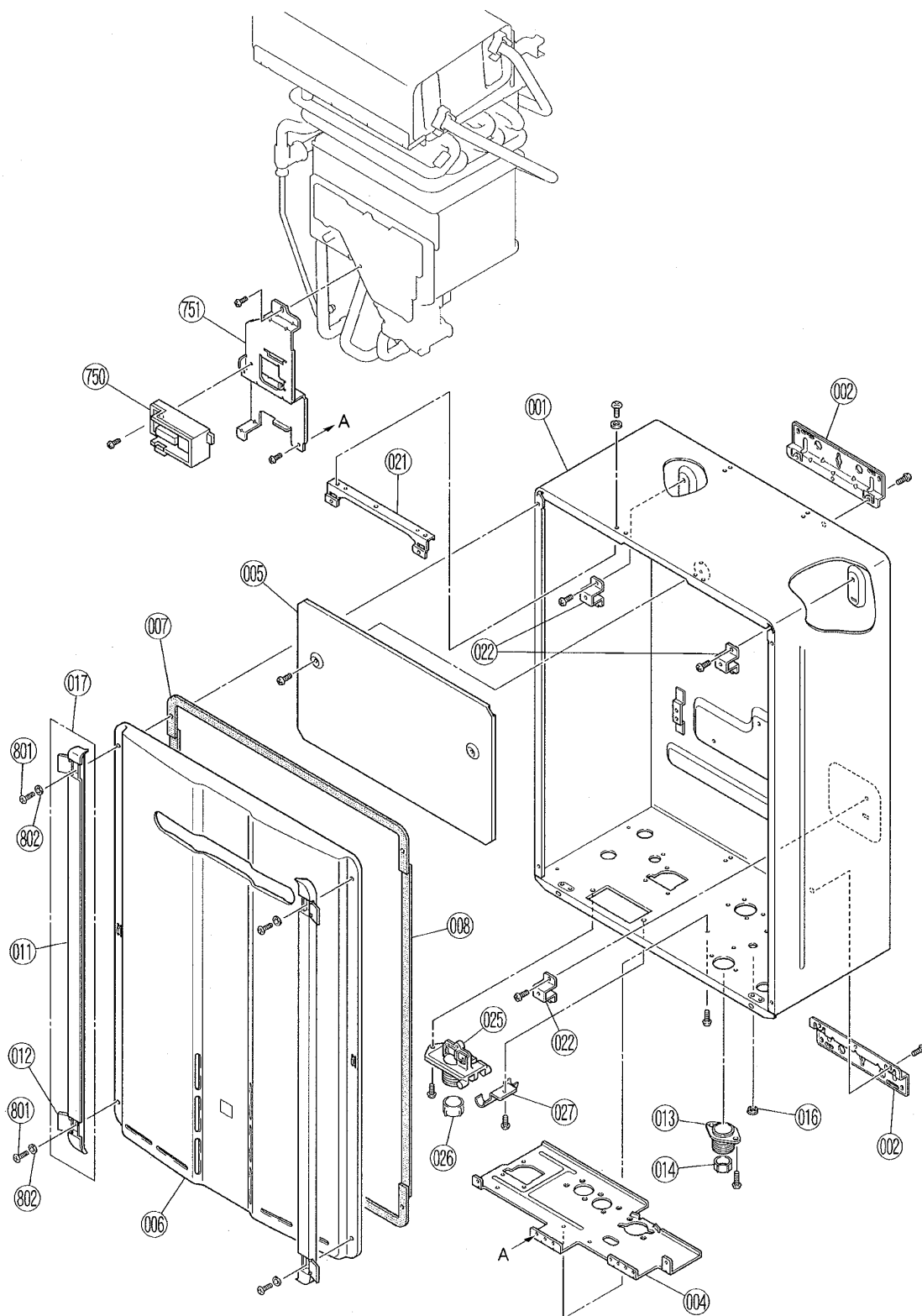
Note: Some parts details may have changed since publication of this manual. Contact Rinnai to confirm spare parts details before ordering.

**“REU-KM2635WD Exploded Diagrams” on page 55**

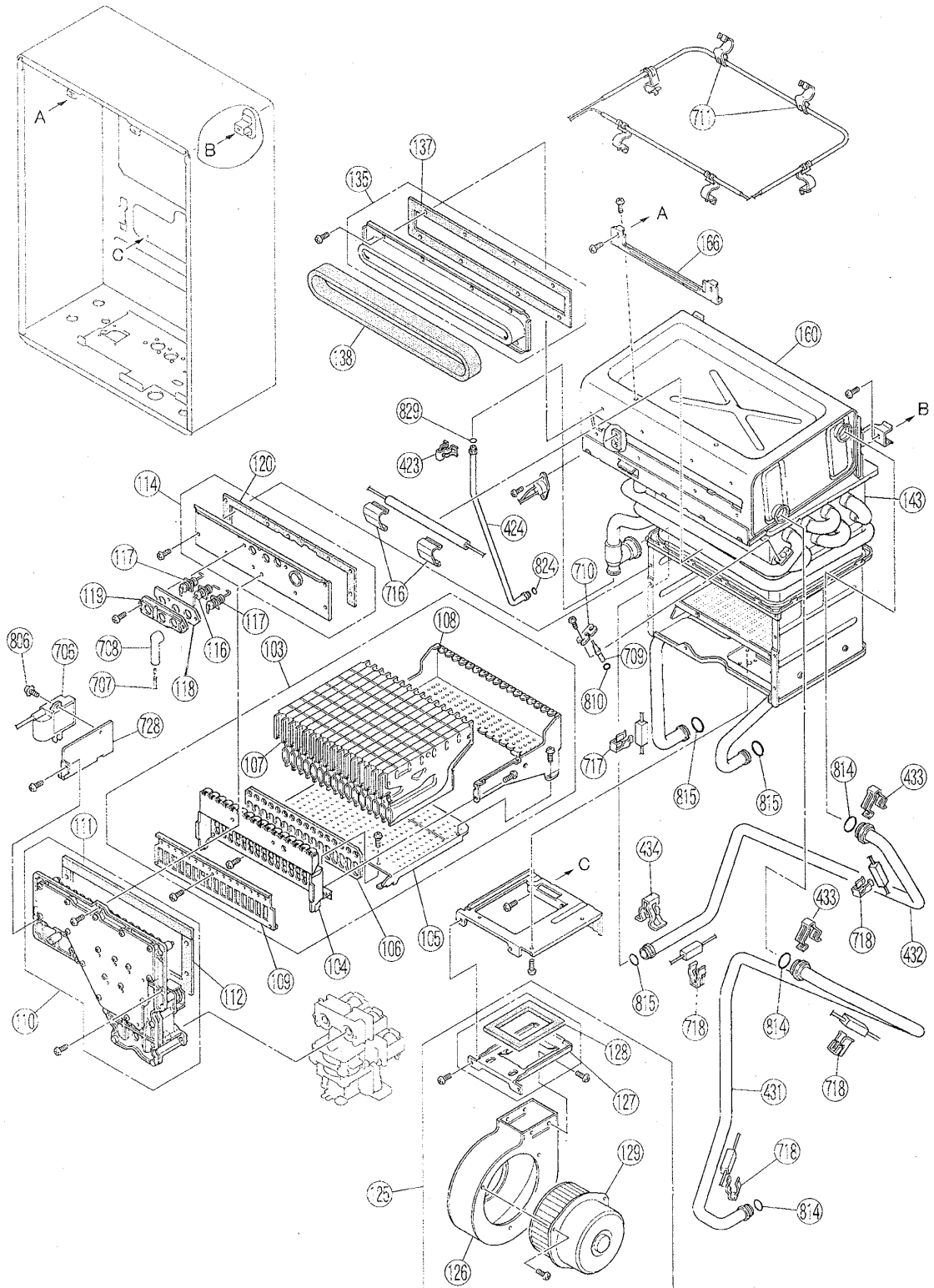
**“REU-KM3237WD - Exploded Diagram” on page 59**

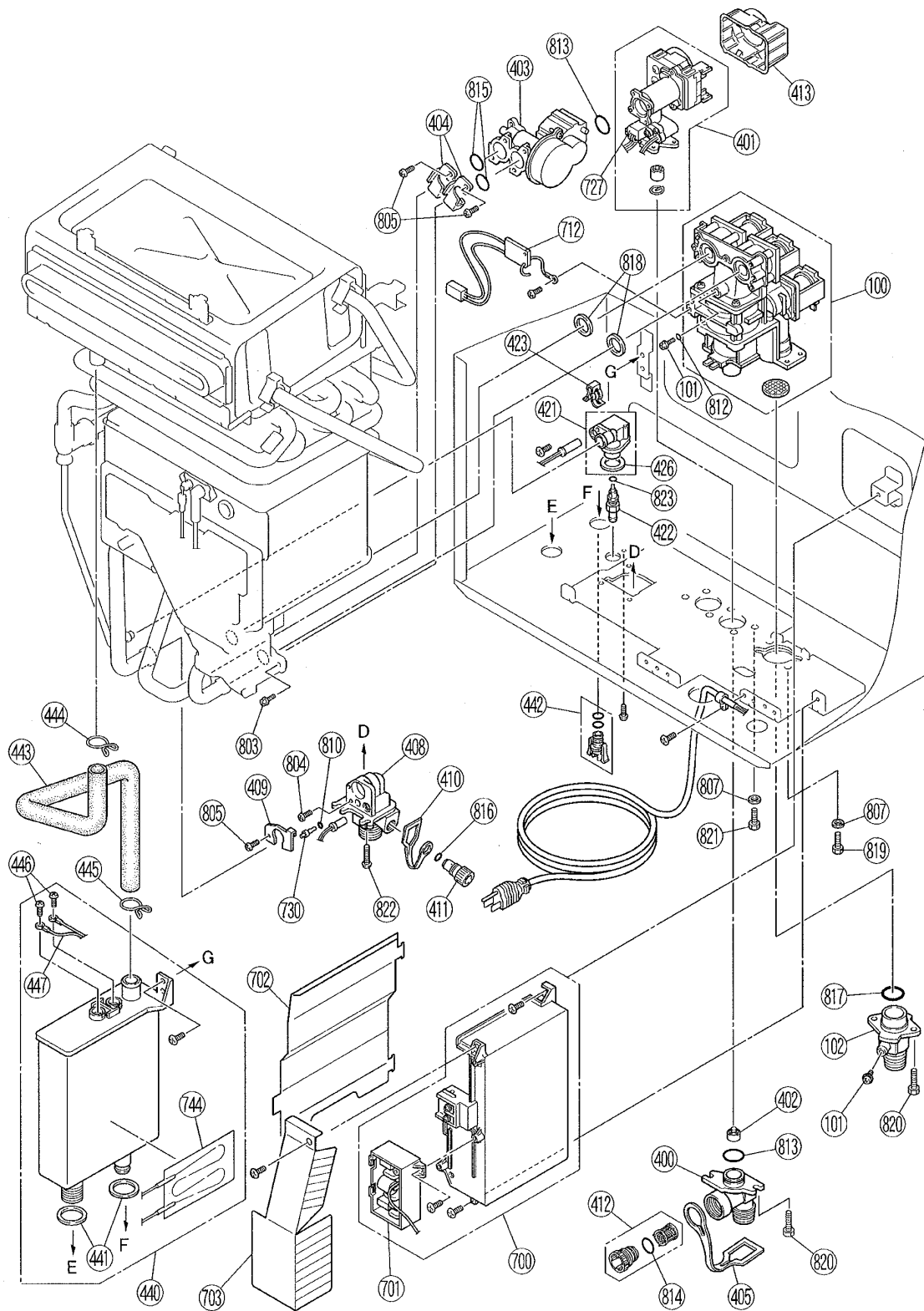
# REU-KM2635WD Exploded Diagrams

REU-KM2635WD

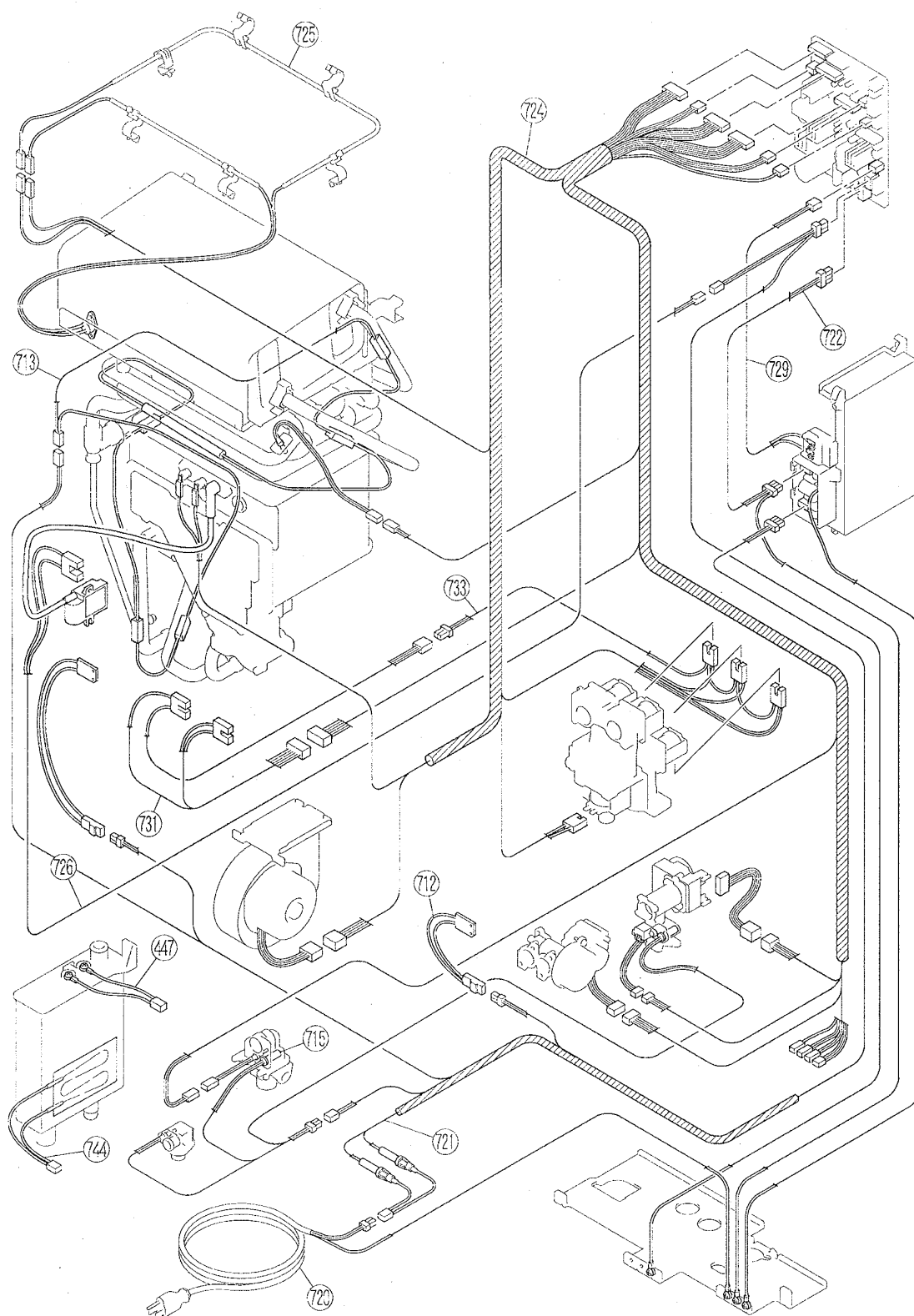


REU-KM2635WD

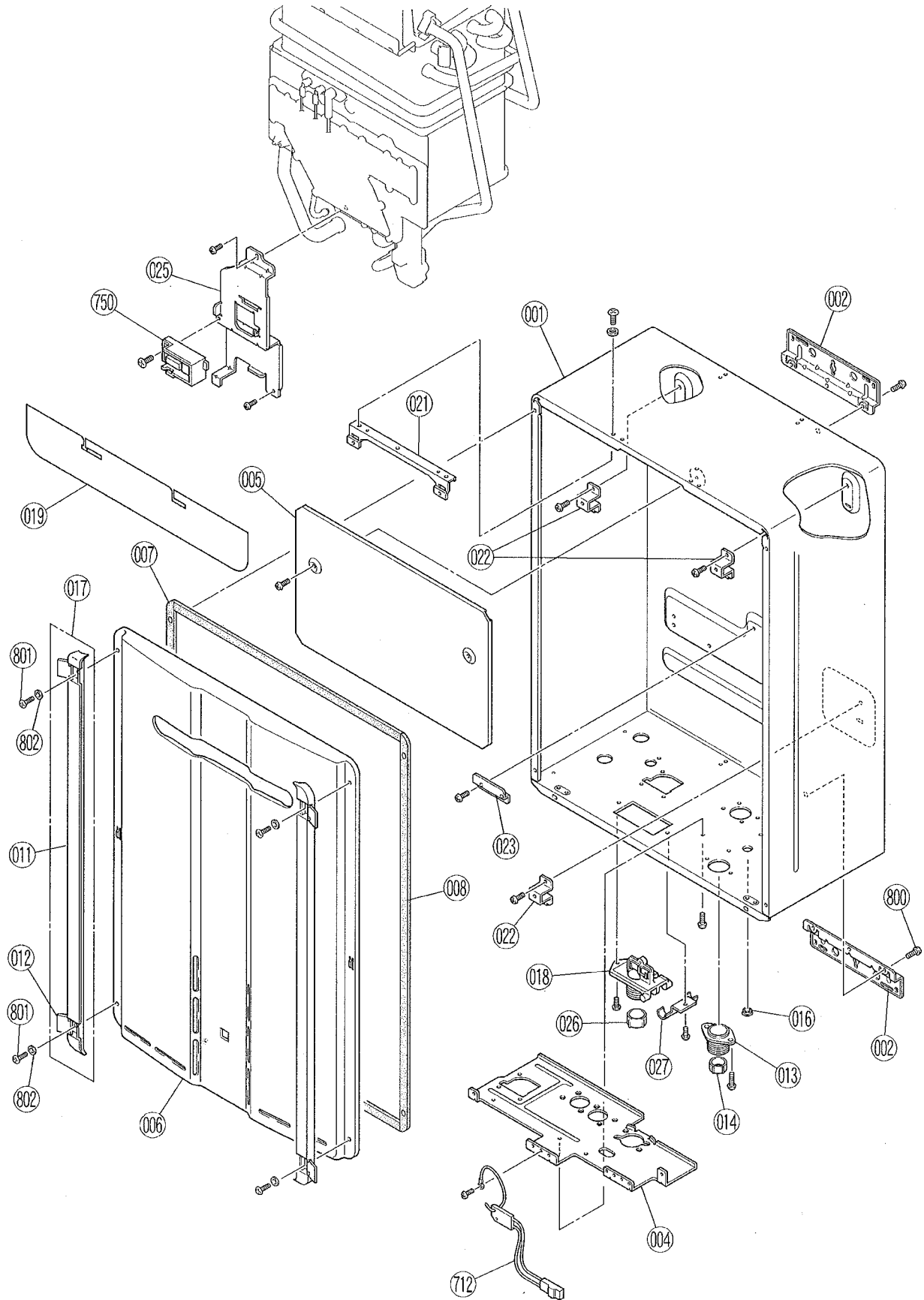




REU-KM2635WD

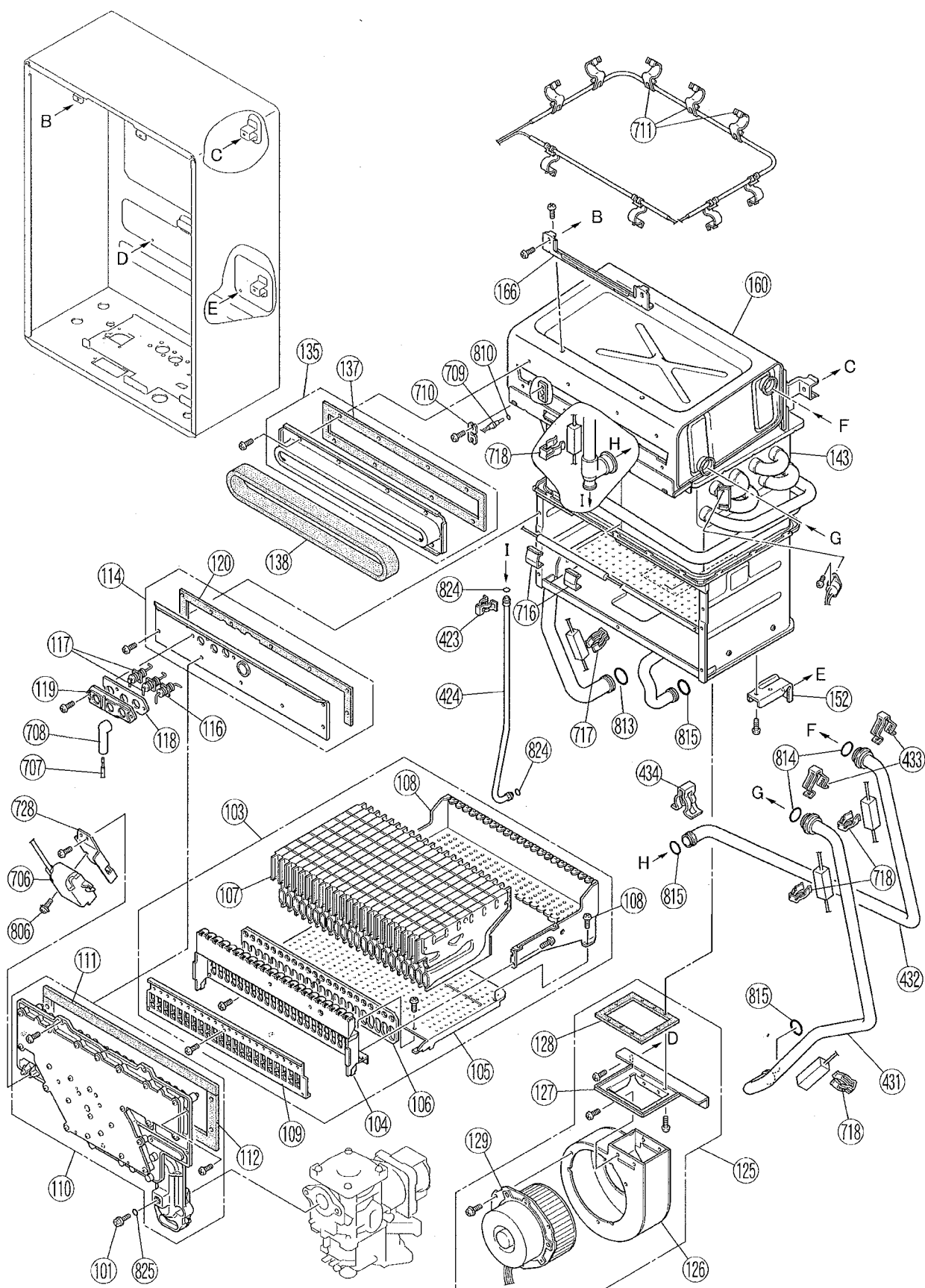


REU-KM3237WD-AK/-ZK/-E  
REU-KM3237WDHD-E

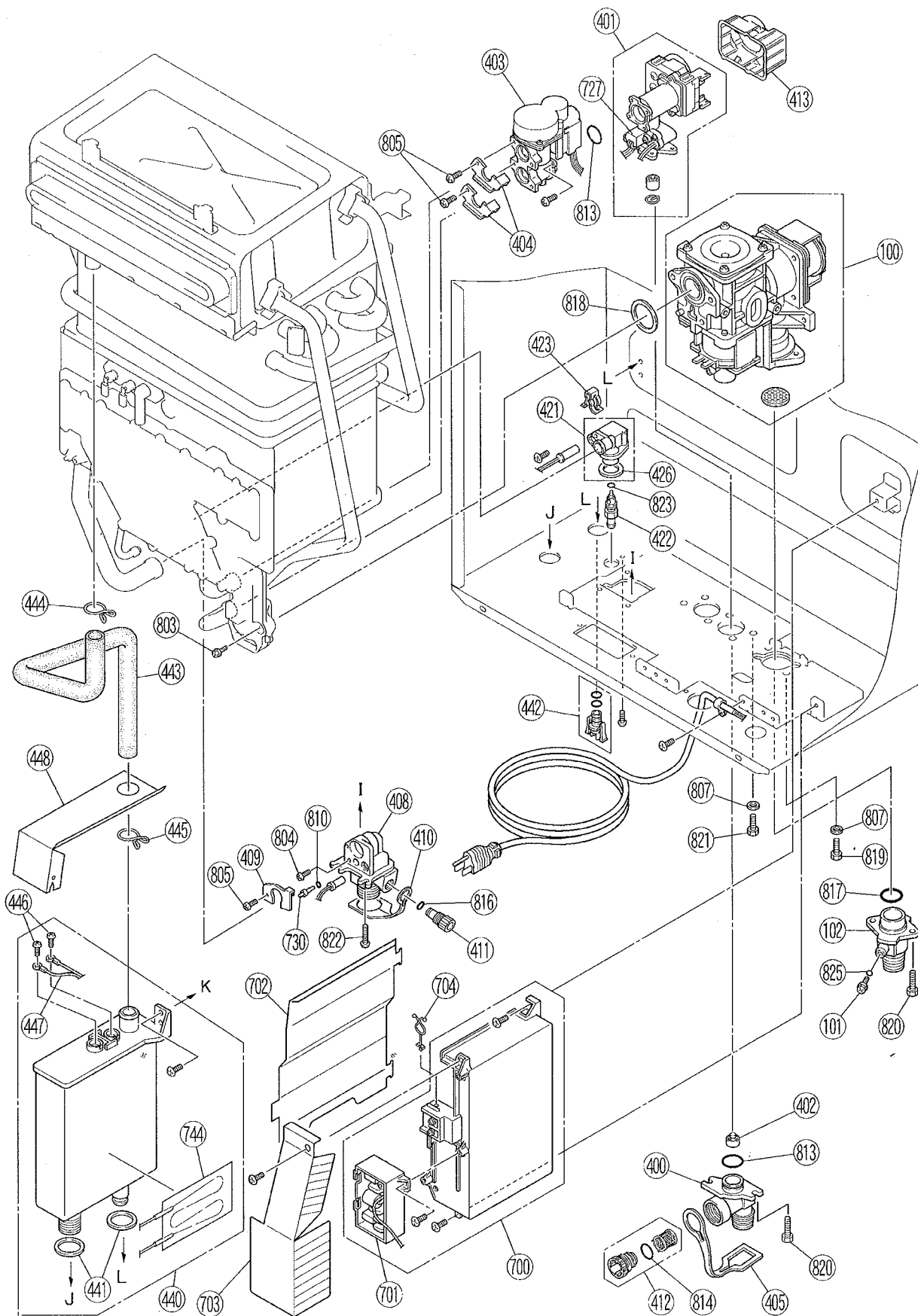




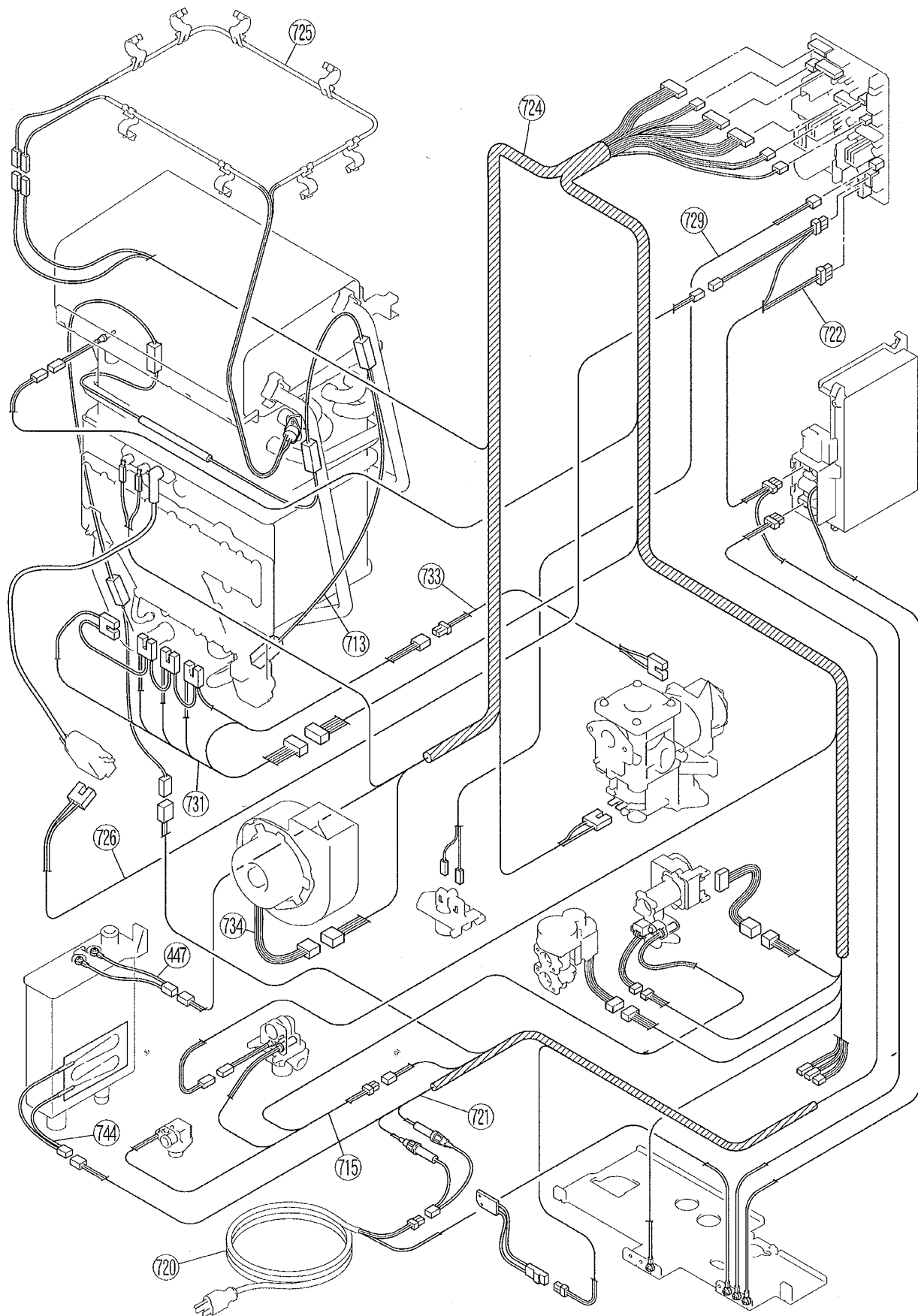
REU-KM3237WD-AK/-ZK/-E  
REU-KM3237WDHD-E



REU-KM3237WD-AK/-ZK/-E  
REU-KM3237WDHD-E



REU-KM3237WD-AK/-ZK/-E  
REU-KM3237WDHD-E



## SERVICE CONTACT POINTS

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# Rinnai

**Rinnai Australia Pty. Ltd.** ABN 74 005 138 769

### Head Office

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Braeside, Victoria 3195  
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Tel: (03) 9271 6625  
Fax: (03) 9271 6622

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 service, please call our National Help 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 Line

#### Sales & Service

Tel: 1300 555 545\* Fax: 1300 555 655\*

#### Spare Parts & Technical Info

Tel: 1300 366 388\* Fax: 1300 300 141\*

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

#### Hot Water Service Line

Tel: 1800 000 340