REDRING CONTOUR 7000 SERIES VENTED (OPEN OUTLET) WATER STORAGE HEATER

INSTALLATION/USER INSTRUCTIONS

REDRING®

IMPORTANT
This booklet should be given to the customer after installation and demonstration.

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ATTENTION 

CONTOUR 7000 REMOTE

THIS MODEL IS SUPPLIED COMPLETE WITH VENTED OUTLET ARM.

TAPS OR ANY OTHER OUTLET

MUST NOT

BE FITTED TO THIS MODEL UNLESS RECOMMENDED BY REDRING

Contour 7000 Standard Models

These instructions should be read in full before commencing the installation. We recommend that the installation should only be carried out by a suitably qualified person.

The Redring Contour 7000 is **an open-outlet**, thermal Storage water heater for use with Redring recommended fittings **for one outlet only.** It operates on the displacement principle i.e., when cold water is admitted into the bottom of the tank, hot water flows out through the outlet. There are two models: 3kW, which ensures rapid reheating of the water and a 1kW unit to suit special electrical requirements.

In addition to the thermostat which controls the temperature of the water in normal use, a safety cut-out is fitted in the form of a thermal fuse. This switches off the electricity to the heater when it senses an abnormally high temperature e.g. if the unit is run without water. Replacement thermal fuses can be obtained.

Operating Instructions

If the heater is used regularly it is recommended that it is left on at all times, the thick insulation ensures economic running costs. The water is turned on and off via the water control tap.

Setting the temperature

The four settings indicated by the thermostat are:-

●●● Very hot water. This can be mixed with cold water to produce quantities of useable water greater than the actual capacity of the heater.

●● Hot water suitable for washing up.

● Warm water suitable for hand washing.

8 This setting will maintain the water in the heater just above freezing point if the heater is to be left unattended whilst subject to freezing conditions. The electricity must be left on for this facility.

Water expands when heated, thus during the initial heating of cold water admitted to the heater, drips from the outlet spout may occur.

If it is required that the adjustment of the thermostat is not available to the user of the heater, then after first establishing that the temperature is as required, the control cover can be locked off using the locking screw provided.

Installation Instructions

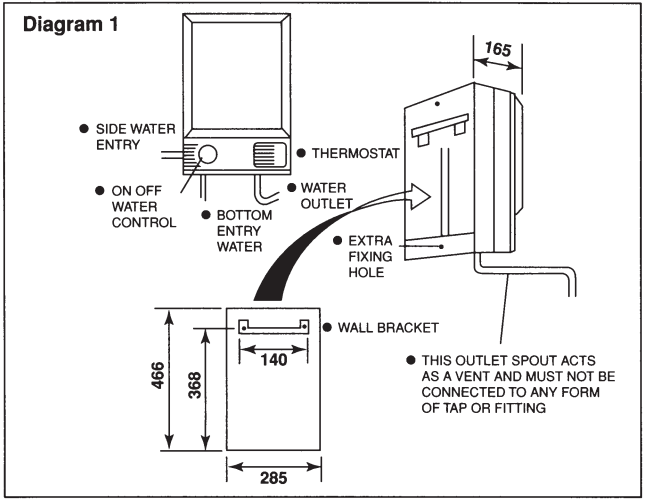
REMOVING THE FRONT COVER

1. Remove the thermostat fixing screw and cover.
2. Remove the thermostat knob by pulling forward, ensuring that the thermostat is set to minimum.
3. Release front cover by unscrewing the three fixing screws.
4. Lift the cover away to give access to plumbing and electrical connections.

FIXING

The wall bracket should be securely fixed in position (see diagram 1). The heater is then hung on the wall bracket. Further security can be obtained by marking the position of the extra fixing hole (see diagram 1) and applying appropriate wall fixing to this position.

When the unit is used above the sink with the spout supplied, it is recommended that this extra fixing position is used. The bottom of the heater should be approximately 250mm above the top of the sink. Longer length swivel outlet arms are available where required - see page 6 "Accessories".



The outlet should be at least 13mm above the maximum possible water level for any appliance that is to be filled from the heater.

PLUMBING

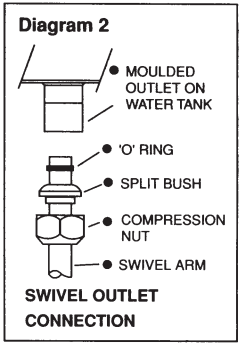
(See diagram 5 for suggested installation plans).

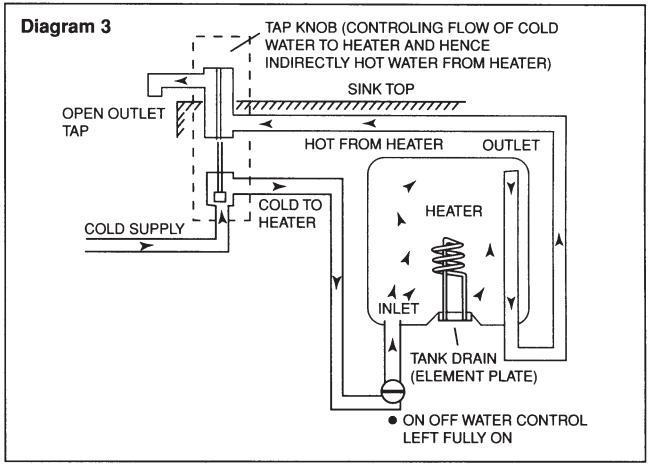
The cold water connection is made directly to the 15mm compression fitting of the cold inlet elbow. **Before final assembly ensure that the correct inlet water pressure restrictor is fitted see page 5, table A.** The inlet elbow can be rotated through 90° to give side water entry (see diagram 1) if required. Flats are moulded on the inlet elbow to ease assembly. "Knock out" sections are included to give the neatest possible installation. Should it be necessary to remove the unit for servicing the larger diameter hole requires removal to allow withdrawal of the pipework, nut & olive. Fit the swivel outlet arm to the outlet of the water tank - as shown in diagram 2. Taking extreme care not to cross thread the moulded outlet connection.

It is recommended that a water council listed isolating valve is fitted between the rising main and the unit thus allowing the unit to be removed for servicing without turning off the cold water main.

Remote

If the unit is to be used mounted below sink level it should be connected to the special open outlet tap(s) (see page 6) recommended by Redring Electric Limited according to diagram 3. The cold inlet connection to the heater is made with a compression fitting. The on/off water control should be left fully on. The economic performance of the heater will be enhanced by lagging the hot water pipe from the heater to the outlet.





Standard Installation

IMPORTANT
To ensure correct operation of this vented, open outlet water heater the flow rate/water pressure must be limited. On SITE WATER PRESSURE must be assessed and the correct restrictor fitted. IF IN DOUBT CHECK THAT THE FLOW RATE THROUGH THE HEATER IS 4L/MIN. RESTRICTOR No. 2 is pre-assembled into the end of the inlet elbow (oversink models only) and is easily replaced should restrictor 1, 3 or 4 be required. The correct restrictor will ensure that the flow rate of water through the heater is at an optimum to prevent undue mixing of the incoming cold water with stored hot water.

TABLE

Supply Pressure lb/in°	Restrictor
100-50	1
50-30	2
30-17	3
17-10	4
10 or less	NONE

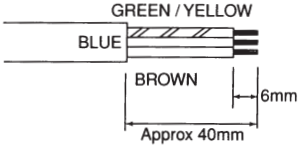
Installation Instructions

ELECTRICAL: The electrical installations must be in accordance with the current BS 7671 regulations (Formerly I.E.E.)

The heater is designed for 240V single phase A.C. supply. The live (brown), neutral (blue) and earth (green/yellow) must be connected to the designated positions in the terminal block.

The mains supply cable should be prepared as shown in below.

The cable should be heat resisting 3 core flexible PVC of 1.25mm² (minimum) permanently connected to a double pole, fused (13A), isolating switch with a contact separation of a least 3mm in all poles.

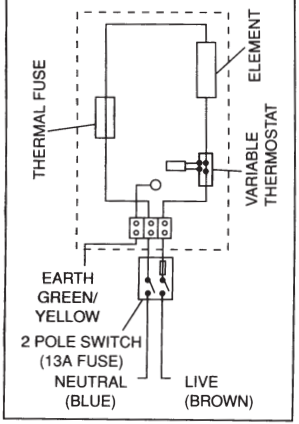


WARNING - THIS APPLIANCE MUST BE EARTHED

NOTE - THE APPLIANCE MUST BE FILLED WITH WATER BEFORE POWER IS SWITCHED ON. FAILURE TO DO THIS WILL CAUSE THE THERMAL FUSE TO OPERATE AND COULD CAUSE PERMANENT DAMAGE TO THE ELEMENT.

Diagram 4

CIRCUIT DIAGRAM



Commissioning Contour 7000 Standard Models

1. Fill the unit with water via the On/Off water tap. Water will run out of the swivel arm when full.
2. Check that the water flow through the heater is correct and that the correct restrictor has been fitted (if required) as specified on Table A, page 5.
3. Examine for water leaks.
4. Refit the front cover ensuring alignment of the on/off control knob to the square valve adaptor.
5. Replace the thermostat knob ensuring alignment of the 'D' shaped shaft and spindle.
6. Set the thermostat to minimum setting (as far anti-clockwise as possible)
7. Switch on electricity.

8. Set the thermostat to required setting.
9. Demonstrate to the user.

Draining the Tank

1. The heater must be disconnected from the electrical supply before commencing this operation.
2. Obtain a suitable vessel in which to catch the water (approximately 7 litres).
3. Unscrew the drain plug in the element plate as shown in diagram 3.
4. Ensure the heater is dried off after draining.
5. Replace the drain screw and washer.
6. Re-fill with water and check for leaks.
7. Set thermostat to minimum.
8. Switch on power supply.
9. Reset thermostat to required setting.

THE RECOMMENDED ACCESSORIES FOR THE REDRING CONTOUR 7000 ARE:-

'Standard' Accessories	Catalogue No.
Swivel Arm (450mm)	**84 780404**
Swivel Arm (600mm)	**84 780405**
'Remote' Accessories	
Dual flow kitchen mixer tap (open outlet)	**84 780401**
High necked sink tap (open outlet)	**84 780403**
High necked sink tap (cold) to match above	**84 780402**
Basin tap (open outlet)	**84 780406**
Basin tap (cold) to match above	**84 780407**

SUGGESTED INSTALLATION PLANS FOR THE REDRING CONTOUR 7000

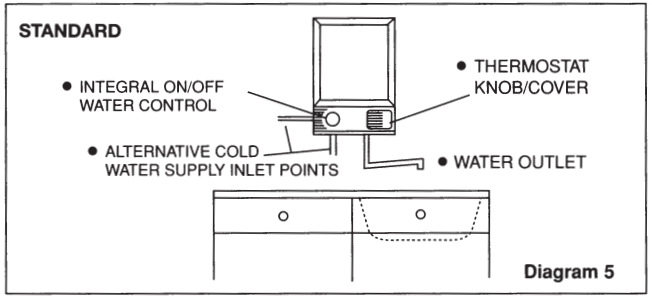


Diagram 5

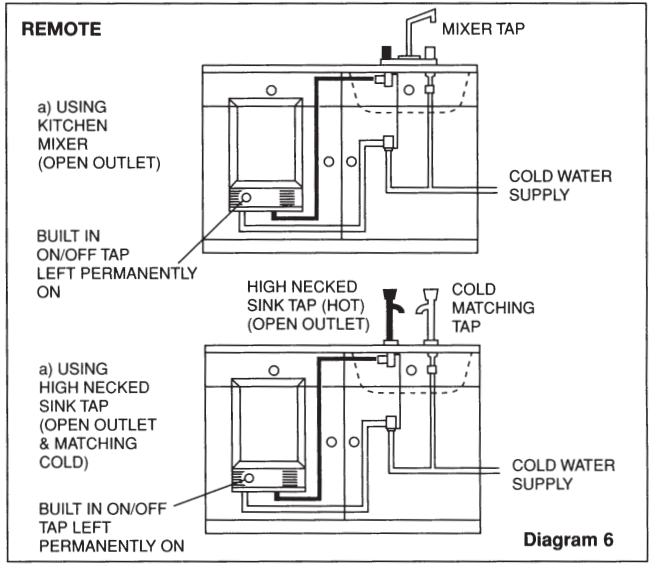


Diagram 6

Contour 7000 Remote Models

These instructions should be read in full before commencing the installation. We recommend that the installation should only be carried out by a suitably qualified person.

The Redring Contour 7000 Remote Model is **an open-outlet**, water storage heater. It stores hot water at a set temperature. The hot water is drawn off through the open outlet pipe by allowing cold water from the mains to flow into the bottom of the heater. The cold water at the bottom displaces hot water from the top.

The cold water inlet is controlled by a solenoid valve, which is actuated pneumatically from a push button. This push button can be mounted in a variety of positions. (See Fig. 1).

The hot water is stored in a plastic container which is insulated with foam. The insulation is so effective that the (standing) heat loss from the hot water is negligible.

In addition to the thermostat which controls the temperature of the water in normal use, a safety cut-out is fitted in the form of a thermal fuse. This switches off the electricity to the heater when it senses an abnormally high temperature e.g. if the unit is run without water. Replacement thermal fuses can be obtained.

Water expands when heated, thus during the initial heating of cold water admitted to the heater drips from the outlet spout may occur.

Operating Instructions

If the heater is used regularly it is recommended that the power is left on at all times. The thick insulation ensures economic running costs. The water flow is switched on and off with the push button.

Setting the temperature - Remote Models

The four setting indicated by the thermostat are:-

●●● Very hot water. This can be mixed with cold water to produce quantities of useable water greater than the actual capacity of the heater.

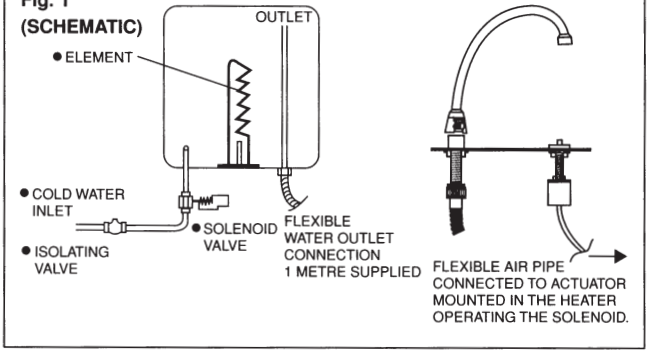
●● Hot water suitable for washing up

● Warm water suitable for hand washing

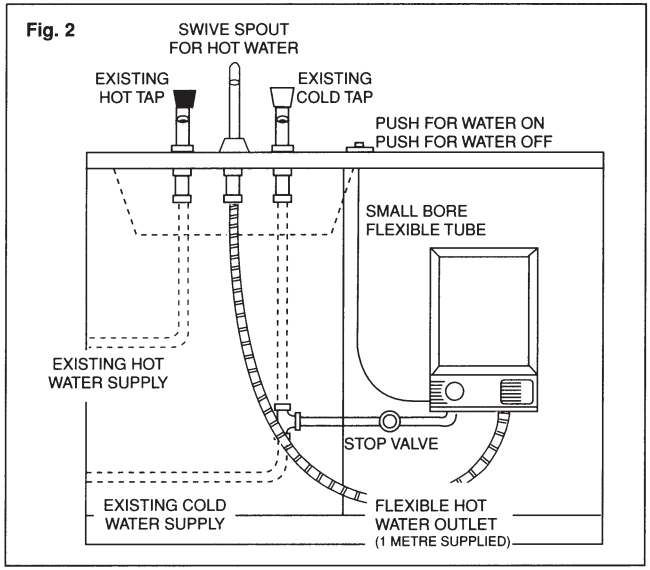
❄ This setting will maintain the water in the heater just above freezing point if the heater is to be left unattended whilst subject to freezing conditions. The electricity must be left on for this facility. **IMPORTANT** (see commissioning Page 10).

If it is required that after initial setting of the thermostat adjustment is not available to other users of the heater, then after first establishing that the temperature is as required the control cover can be locked off using the locking screw provided.

Fig. 1
(SCHEMATIC)



Schematic Installation Remote



Installation Instructions - Remote Models

REMOVING THE FRONT COVER

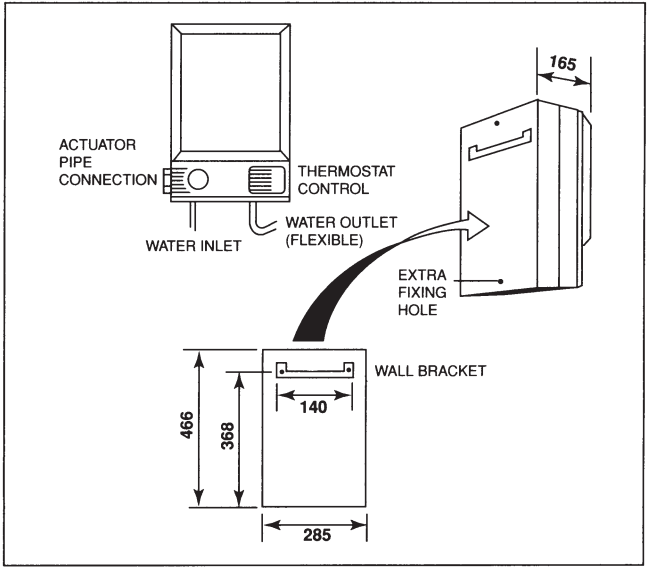
1. Remove the thermostat fixing screw and cover.
2. Remove the thermostat knob by pulling forward, ensuring **that the thermostat is set to minimum.**
3. Release front cover by unscrewing the three fixing screws.
4. Lift the cover away to give access to electrical connections

FIXING

The heater can be fitted in any convenient position under a sink, as the outlet connection is flexible. The unit should be positioned so as to gain easy access to the mains cold water supply. Leave space underneath for servicing (see Fig. 2).

A 2 metre long flexible hot water outlet hose is available Cat No. 93-762502 to meet site requirements.

The wall bracket should be securely fixed in position (see Fig. 3). The heater is then hung on the wall bracket. Further security can be obtained by marking the position if the extra fixing hole, see diagram, and applying appropriate wall fixing to this position.



Installation Instructions - Remote Models

PLUMBING

It is recommended that the cold water connection to the unit is made using 15mm outside diameter tubing, either copper to BS2871 or stainless to BS4127.

It is recommended that a water council listed isolating valve is fitted between the rising main and the unit. This will allow the unit to be removed for servicing without turning off the cold water main.

Before final assembly of the cold water inlet the appropriate restrictor insert should be selected and fitted into the end of the inlet adaptor on the heater (see Table A). The correct insert will ensure that the flow rate of water through the heater is at an optimum to prevent undue mixing of the incoming cold water with the stored hot water.

TABLE

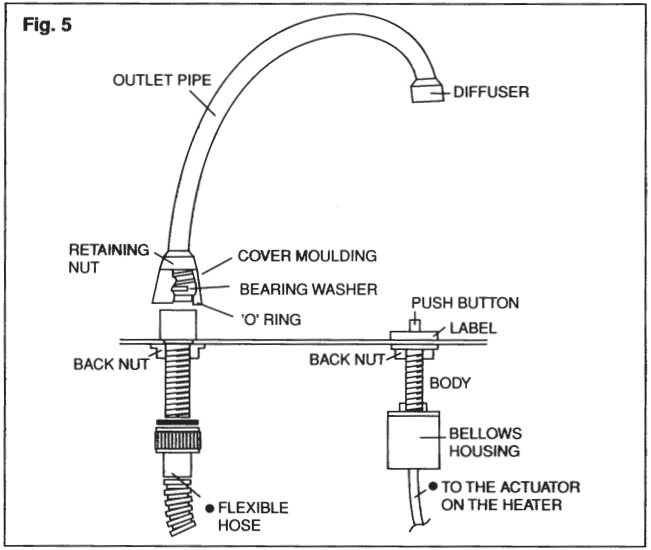
Supply Pressure lb/in°	Restrictor
100-50	1
50-30	2
30-17	3
17-10	4
10 or less	NONE

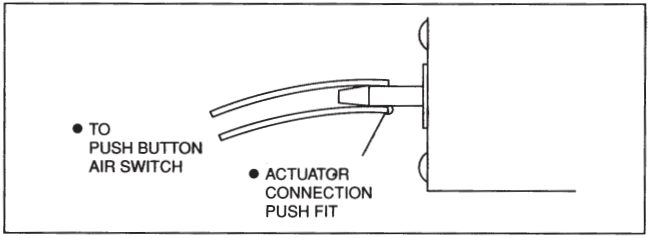
The push button actuator can be fitted in any convenient position by drilling one 17mm diameter hole ($^{21}/_{32}$"). Before drilling this position ensure there is sufficient clearance for the bellows housing. The bellows housing, (see Fig. 5), can be removed from the push button body, the body can then be positioned into the hole and locked using back nut supplied. Do not over tighten back nut on push button, finger tight only. The bellows housing should then be replaced and connected to the heater using the flexible tube supplied. (See Figs. 1, 3 & 6.) Arrange the run of the flexible air pipe to avoid kinks and other interference. Use the cable ties provided.

The special swivel outlet supplied can be fitted in any convenient position over the sink by drilling one 21mm diameter hole ($^{21}/_{32}$"). The complete outlet union can be dropped through the hole and tightly secured by the back nut (see Fig. 5). The connection from

Outlet Pipe and Air Switch Assembly

Fig. 5





the outlet to the heater is flexible to simplify plumbing in confined spaces.

WARNING - Do not fit any form of outlet not supplied by the manufacturer.

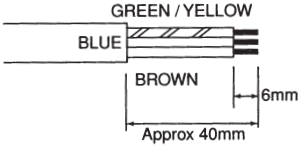
Installation Instructions - Remote Models

ELECTRICAL

The electrical installation must be in accordance with the current BS 7671 (formerly I.E.E. regulations).

The heater is suitable for 240V single phase A.C. supply. The live (brown), neutral (blue) and earth (green/yellow) must be connected to the designated positions in the terminal block.

The mains supply cable should be prepared as shown below.



WARNING - THIS APPLIANCE MUST BE EARTHED

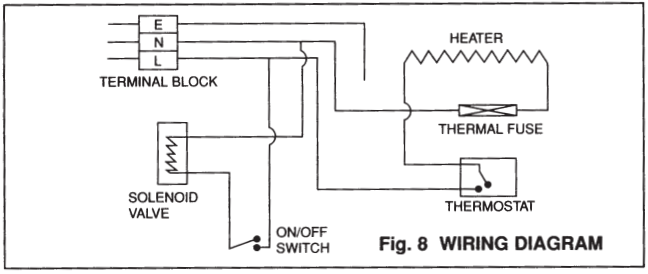


Fig. 8 WIRING DIAGRAM

The cable should be heat resisting 3 core flexible PVC of 1.25mm² (minimum) permanently connected to a double pole, fused (13A), isolating switch with a contact separation of at least 3mm in all poles.

Commissioning - Remote Models

1. Set the thermostat to min " " (as far anticlockwise as possible).
2. Switch on water at isolating valve.
3. Switch on electricity.
4. If water does not flow in 2 minutes, push button.
5. When water flows push button again to switch off.
6. Check that the water flow through the heater is correct and that the correct restrictor has been fitted (if required) Table A Page 9).
7. Examine for water leaks.
8. Fit cover and set thermostat ensuring alignment of knob 'D' shaped shaft and spindle.
9. Demonstrate to user.

Draining the Tank - Remote Models

1. The heater must be disconnected from the electrical supply before commencing this operation.
2. Obtain a suitable vessel to catch the water in (approx 7 litres).
3. Unscrew the drain screw in the element plate.
4. Ensure the heater is dried off after draining.
5. Replace the drain screw and washer.
6. Set the thermostat to minimum setting.
7. Switch on power supply.
8. Refill with water and check for leaks.
9. Reset thermostat to required setting.

Fault Diagnosis

If the appliance fails to perform satisfactorily make the following first aid checks.

1. Check that the mains supply fuses are not blown and that the mains supply is switched on.
2. Check that the cold water supply is on.
3. Check that the outlet has not been blocked in any way.
4. Check that the flexible air pipe is connected (Contour 7000 Remote only).
5. Check thermal fuse has not blown.

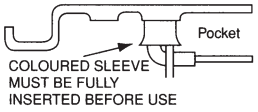
If the fault persists:-

Contact the dealer from whom you purchased the appliance or the installation engineer.

THERMAL FUSE REPLACEMENT:

If the water remains cold when the heater is turned on (with the thermostat set above ambient) the thermal fuse may have operated. Have this checked by a qualified person and ask them to check the reason e.g. water starvation. Spare thermal fuses are Redring Part No.

93-7842-01 ON MODEL 44-784001/02
93-7842-21 ON MODEL 44-784020/21
THERMAL FUSE RATED AT 128°C



WARNING

DO NOT
BYPASS THE THERMAL FUSE
RUN WITHOUT A THERMAL FUSE
USE ANY OTHER THERMAL FUSE

NOTE: The fuse assembly is inserted straight into the pocket by holding the two wires parallel. It is correctly positioned when the coloured sleeve is fully inserted into the pocket

Additional note to Redring "Contour" Handbook

"A possible reason for the thermal fuse to blow is lack of water in the tank. This can occur either during initial commissioning or as a result of a subsequent water supply interruption alllowing a "back siphonage" of water out of the tank. If the later is likely to happen in your area, we would recommend that a "single Water Check Valve be fitted."

Technical Data Summary

Capacity	-	7 litres
Loading	-	Heaters available in 3kW and 1kW ratings.
Supply	-	240V single phase supply.
Fuse Rating	-	3kW - 13 amp / 1kW - 5 amp
Safety	-	Thermal fuse for over temperature protection

Routine Maintenance: All Models

Cleaning: Do not use an abrasive cleaner as this will damage the gloss surfaces of the heater.

Redring Service

We offer a technical advisory service on the telephone to contractors and other customers with problems in the field **ring 01733 456999.**

Guarantee

We, Applied Energy Products Limited, guarantee that should this product prove to be defective by reason of faulty workmanship or material within 36 months (outside of U.K. please contact your local distributor) of the date of purchase or commencement of hire we will replace the defective parts FREE OF CHARGE on the condition that:-

a) The appliance has been correctly installed and used only on the supply circuit or voltage stamped on the rating plate.

b) The appliance has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.

c) The appliance has not been taken apart, modified or repaired except by a person authorised by us.

d) Evidence of the date of purchase in the form of an invoice, receipt (or hire purchase documents) is included with the appliance if returned under guarantee.

'This Guarantee does not affect your statutory rights'

Full details of terms and conditions are available on request from:–

REDRING®

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