

MAIN

Multipoint Water Heater

User, Installation & Service Instructions

About the Heater

See inside cover for models covered by these instructions.
This is a non spouted, gas fired, multipoint water heater.
For use with Natural Gas (G20) Only at 20 mbar and for use in GB/IE Only.

About Safety

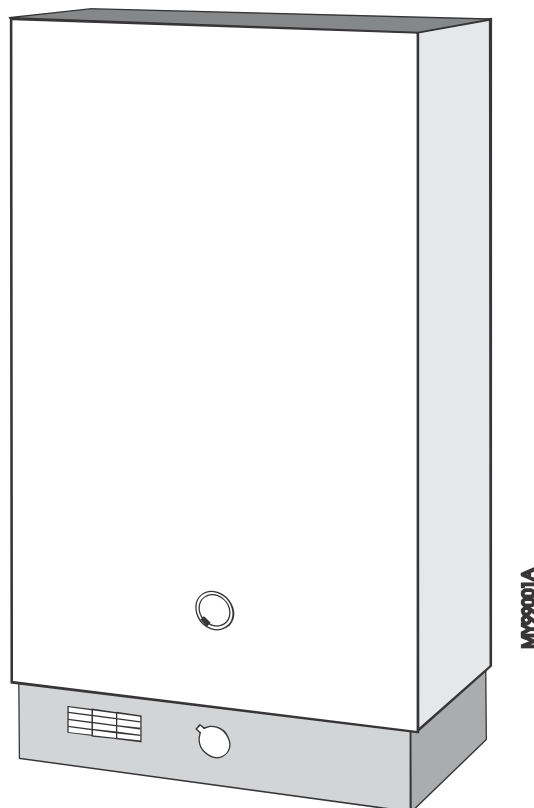
The Gas Safety (Installation and Use) Regulations.

“ In your own interest, and that of safety, it is law that all gas appliances are installed by competent persons, in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution.”

Installation must be in accordance with the User, Installation & Servicing Instructions and the rules in force.

Polythene bags used for packaging are a potential hazard to babies and young children and **MUST BE CAREFULLY DISPOSED OF IMMEDIATELY.**

Leave these instructions with the user for use on future calls.



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Models covered by these Instructions.

Mersey Super - G.C. No. 52 476 38
Medway Super - G.C. No. 52 476 39
Thames - G.C. No. 52 476 40

Important - Installation, Commissioning, Service & Repair

This appliance must be installed in accordance with the manufacturer's instructions and the regulations in force. Read the instructions fully before installing or using the appliance.

In GB this must be carried out by a competent person as stated in the Gas Safety (Installation & Use) Regulations.

Definition of competence: A person who works for a CORGI registered company and holding current certificates in the relevant ACS modules, or valid ACoP equivalents, is deemed competent.

In IE this must be carried out by a competent person as stated in I.S. 813. "Domestic Gas Installations".

Important – Failure to install and commission this appliance to manufacturer's instructions may invalidate the warranty. This note does not affect your statutory rights.

Warning - The addition of anything that may interfere with the normal operation of the appliance without express written permission from the manufacturer or his agent could invalidate the appliance warranty. In GB this could also infringe the GAS SAFETY (Installation and Use) REGULATIONS.

CORGI

All CORGI registered installers carry a CORGI identification card and have a registration number. Both should be recorded in your boiler Log Book.

You can check your installer is registered by telephoning +44 (0) 1256 372300 or writing to:-

CORGI. 1 Elmwood, Chineham Business Park, Crockford Lane, Basingstoke, RG24 8WG.

Introduction and User Information

- Samples of the Main multipoint water heaters have been examined by Advantica Technologies Limited, a United Kingdom Notified Body. The range is certified to comply with the essential requirements of the Gas Appliance Directive 90/396/EEC and are therefore permitted to carry the CE Mark.
- This appliance is not suitable for use with a swivel spout.
- This appliance is room sealed instantaneous water heater designed to supply hot water to several taps which may be situated in different rooms, but not necessarily at the same time.
- The pilot is lit by a piezo spark igniter; batteries or electricity are not required.
- The main burners will automatically light when a domestic hot water tap is turned on and go out when the tap is turned off.
- **Ensure that the clearances shown in (Page 7, Installers section) are maintained at all times.**
- **Please take time to read through these instructions to familiarise yourself with the water heater.**
- This appliance contains an energy cut-off device that will shut down the gas supply to the appliance if the water in the heat exchanger exceeds the anticipated temperature limit. Although intended to guard against an internal fault, it may be triggered inadvertently by other causes, especially during the summer months when the inlet water temperature is unusually high. Allow the appliance to cool before re-lighting.

WARNING:

If the energy cut-off device is reacting to an internal fault, the shut down may be accompanied by noises from the heat exchanger and pipework, and it is possible that STEAM will come out of the hot tap when turned on. If this occurs, arrange for the appliance to be serviced.

Your installer/engineer will recommend replacement of the Pressure Relief Valve Assembly to ensure continued safety.

- **Running Costs.** To work out the approximate running costs per hour for this fire, perform the following calculation:-

$$\text{Heat Input in kW} \times \text{Cost Per kWh} = \text{Running Cost Per Hour}$$

Heat inputs for the various settings are shown in the Technical Data & Costs per kWh are shown on your gas bill.

- **Washing Machines**

Information regarding the use of washing machines with this appliance is shown at the rear of these instructions.

- **Shower Systems**

Information regarding the use of shower systems with this appliance is shown at the rear of these instructions. In hard water areas, shower roses may require regular cleaning as scale may form and restrict the flow of water.

The **Mersey Super** is **Not** suitable for use with a shower system.

- **WARNING:**

The Outer Case of this Appliance MUST BE CORRECTLY positioned and secured in place before any attempt is made to light the burners. If in doubt, call your Installer.

- **IMPORTANT:**

If it is known or suspected that a fault exists on the appliance, it must not be used until the fault has been corrected by a competent person.

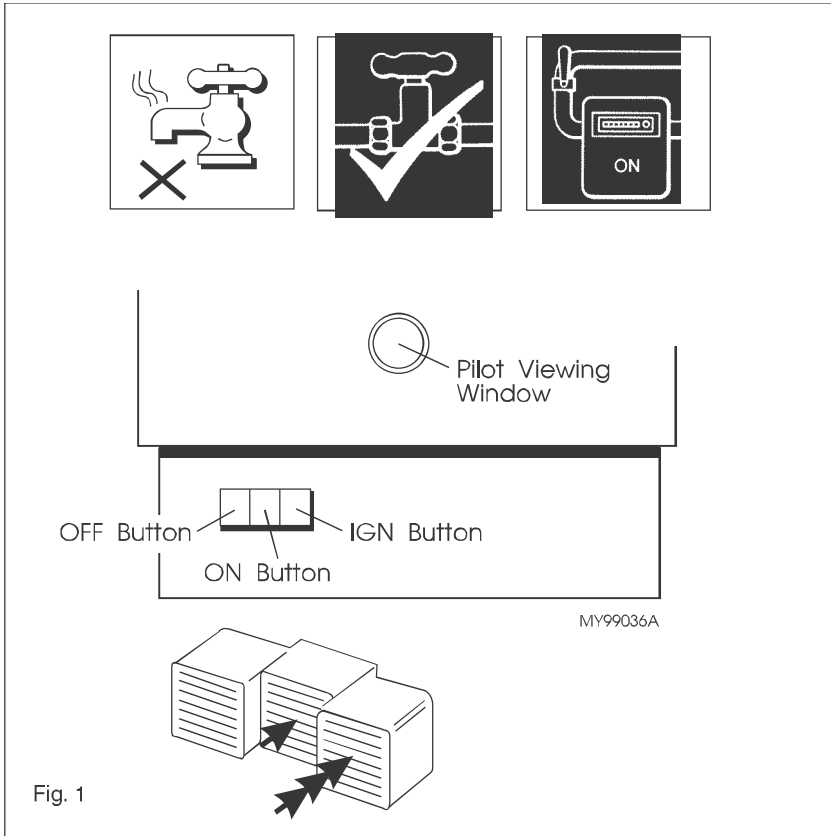
- **REPLACEMENT PARTS:**

WARNING: The use of replacement parts on this appliance which are not recommended by Potterton may affect the product safety, performance and warranty.

We recommend that replacement parts be obtained only from Curzon branches or other recognised Potterton spares outlets.

Read Through Before Lighting or Operating

Light the Pilot



CAUTION: Should the pilot flame ever be found to have gone out, press the OFF button ● and wait at least 5 minutes for any residual gas to dissipate before relighting the pilot.

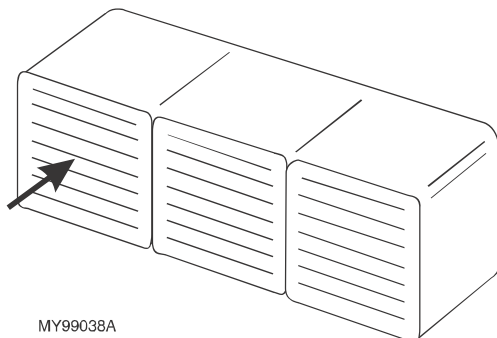
1. Ensure that the gas and water supplies are turned ON, that all domestic hot water taps are turned OFF.
2. Fully depress and hold the ON button Ⓞ and repeatedly press and release the IGN button ⚡ until the pilot is lit. The pilot flame can be observed through the pilot viewing window.
3. Hold the ON button Ⓞ in for a further 10 seconds after the pilot is lit, then release. If the pilot goes out, repeat the lighting operation keeping the ON button Ⓞ depressed a little longer.

Obtain Hot Water



- Once the pilot is lit and the appliance is in the working position, hot water will be obtained by turning on any of the hot taps.

Shut Down the Pilot



- If the heater is in regular use the pilot may be left alight.
- If the heater is not going to be used for long periods press the OFF button ●. The gas supply to both the pilot and main burner will now be shut off.
- Check through the pilot viewing window that the pilot flame is extinguished.

To Alter the Settings

Medway Super

The temperature selector fitted to this appliance gives access to a wide range of outlet temperatures. Because the temperature of the water in the mains supply varies with the seasons, the selector can be used to compensate for this and the effect it has upon the temperature of the water delivered to the hot taps.

In hard water areas, temperatures above 60 °C encourage rapid scale formation and the selector should be used to keep the water below this temperature.

By turning the selector between '+' and '-', you can draw water from the hot taps that ranges from very hot to hand warm, however, when using a shower supplied with water from this appliance, the selector should be set in a high position and the shower mixer itself be used to achieve a comfortable temperature. This ensures that the control of the shower temperature is at the point of use, and that the selector could not accidentally be turned up, causing discomfort to the shower user.

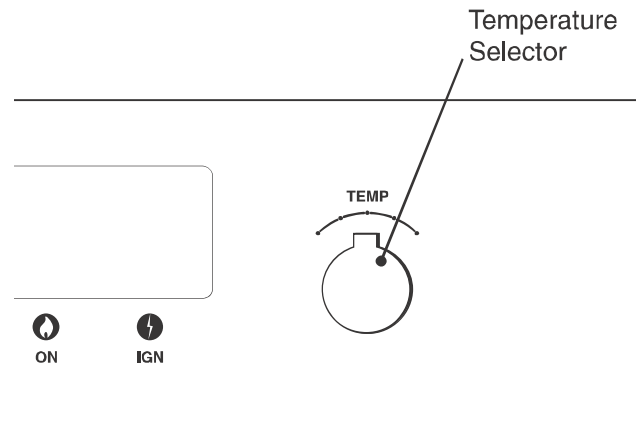


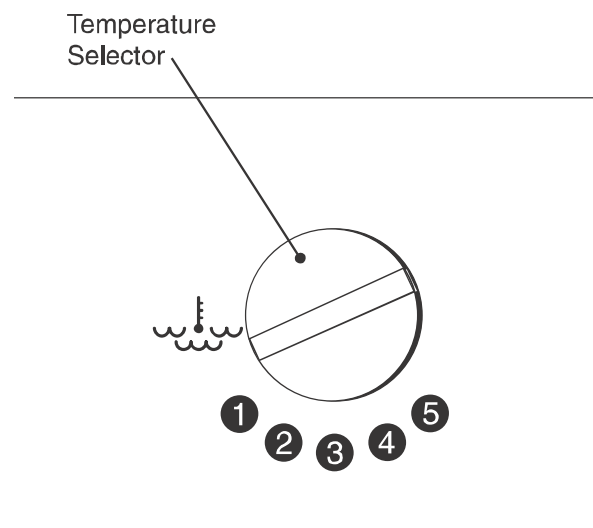
Fig. 4

Thames

This appliance has a temperature selector with the widest adjustment range of any Main Instantaneous Water Heater. The actual temperature selected in the lower part of the range will be subjected to the effect of seasonal temperature variations in the mains supply. This means that the lowest setting will give an obviously lower temperature in winter than in the summer.

The appliance has an integral thermostat which automatically comes into operation to guard against the selection of excessively high temperatures. There are two benefits here, the first being safety, the second is hard water scale. In hard water areas, temperatures above 60 °C encourage rapid scale formation and the thermostat helps to avoid this.

By turning the selector between '5' and '1', you can draw water from the hot taps that ranges from very hot to hand warm, however when using a shower supplied with water from this appliance, the selector should be set in a high position and the shower mixer itself be used to achieve a comfortable temperature. This ensures that the control of the shower temperature is at the point of use, and that the selector could not accidentally be turned up, causing discomfort to the shower user.



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Fig. 5

Care of your Appliance

Cleaning

The outer casing is stoved enamel and should be cleaned with warm, soapy water. **DO NOT USE ABRASIVE POWDERS SINCE THEY WILL SCRATCH THE ENAMEL SURFACE.**

Frost Precaution

In frosty weather the pilot should be left alight. If the house is to be unoccupied for several days the heater should be drained. Place a suitable receptacle below the appliance.

IMPORTANT

Check that the water service cock is fitted correctly. The arrow on the service cock must point towards the appliance.

If it points the other way **DO NOT** attempt to drain the appliance and contact your Installer.

1. Turn **OFF** the gas at the gas service cock - A.
2. Turn **OFF** the water at the water service cock - B.
3. Turn **ON** a domestic hot water tap to release the pressure - C.
4. Remove the drain screw in the water service cock, drain the appliance and refit the drain screw - D.
5. Turn **OFF** the domestic hot water tap - E.

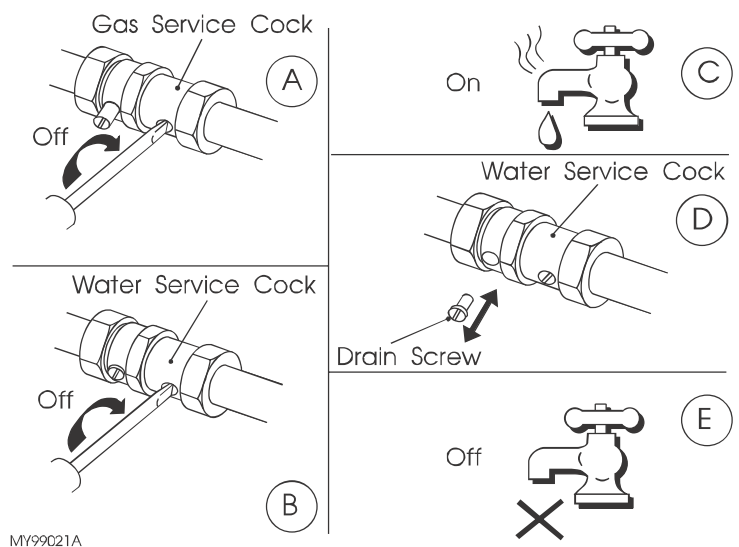


Fig. 6

Servicing

As with all gas appliances, to ensure long life and safe, trouble free operation, your appliance must be inspected and serviced at regular intervals by a competent person.

This should include a check to ensure continued clearance of combustion products and that there is no excessive build up of scale on the heat exchanger in hard water areas.

The frequency of servicing will depend upon the particular installation conditions and usage but in general, once per year should be adequate.

If service or spare parts are required, always quote the Appliance Identification Number and G.C. Number shown on the Identification Badge.

The Identification Badge is brightly coloured and located underneath the controls tray at the front of the appliance and will be visible after removal of the bottom cover.

This is the end of the User Instructions,
Page 7 onwards are for the Installers use only.

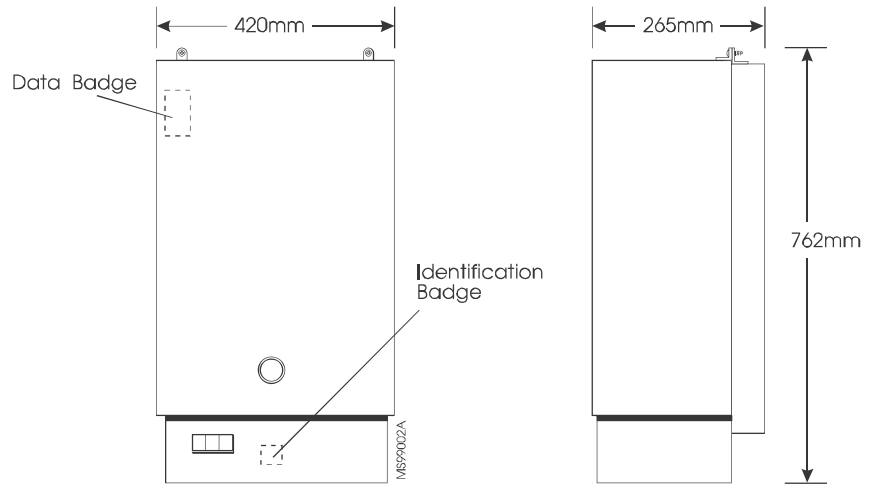
1. Dimensions, Clearances & Product Specification

Minimum Clearances

For ease of servicing, allow as much clearance as possible below the appliance.

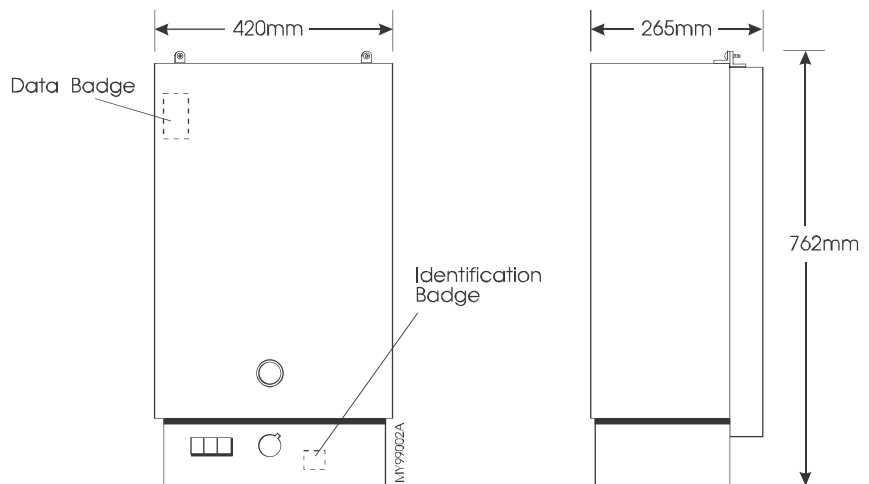
If the appliance is to be installed in a cupboard, DO NOT USE THE CUPBOARD FOR STORAGE.

Mersey Super



Note: All models - the data badge will be visible after removing the outer case. The identification badge will be visible after removing the bottom cover.

Medway Super



Thames

Clearance for All Appliances:

Above: 60mm (from case)

Below: 75mm

Sides: 5mm (each)

Front: A clearance of 220mm is required in front of the appliance for access during servicing. The front clearance can be reduced to 10mm providing the door/cover installed can be removed to expose the entire case front.

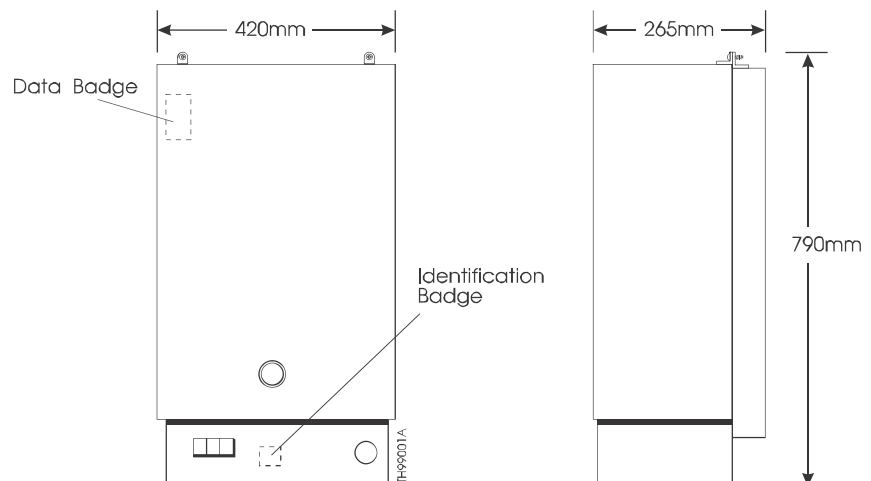


Fig. 7

Product Specification

Heat Input figures are quoted as gross.		Models		
		Mersey Super	Medway Super	Thames
Output	kW	22.7	23.3	23.3
Input	kW	30.3	30.3	30.3
Gas rate	m Δ /h	2.91	2.91	2.91
Burner Pressure**	mbar	12.5	12.5	12.5
Burner Injector Size	mm	1.2	1.2	1.2
Pilot Injector Size	mm	0.27	0.27	0.27
Appliance Weight				
Installed with Water	kg	18.6	18.6	18.5
Water Capacity	litre	0.75	0.75	0.75
Flow Rate	l/min	6.5 (at 50 °C rise)		
Maximum Pressure Head	bar	13		
Minimum Pressure Head Requirement at Water Heater	bar	1 (Under Flow Conditions)		
Connections	- Gas mm - Water mm	15 (Copper Tail) 15 (Compression)		
Telescopic Flue Kits	mm (in)	100 - 150 (4 - 6)	Sales Code 31/10321	
		150 - 230 (6 - 9)	Sales Code 31/10322	
		230 - 380 (9 - 15)	Sales Code 31/10323	
		380 - 610 (15 - 24)	Sales Code 31/10324	
SeDuct Flue Kit			Sales Code 31/12968	
Finish		White stoved paint with contrasting chassis		
Classifications		CAT 1 ₂ H C ₁₁ , C ₂₁ ,		
CE Pin No.		87AP121	87AP125	87AP124

Notes:

* Additional external pipework and fittings may affect the resistance and must be taken into account on installation.

** The nominal burner pressure should be 12.5 mbar and will only be obtained if the appliance inlet pressure is correct at 20 mbar even when the appliance is running at full heat input. The meter should be capable of passing 3 m Δ /h of natural gas plus the requirements of any other gas appliances. See also Section 3.2, page 12.

Conversions: **kW to Btu/h** = kW x 3412.14, **m Δ /h to ft Δ /h** = m Δ /h x 35.31, **mbar to in wg** = mbar x 0.4

2. Installation Requirements

• Codes of Practice

The appliance is suitable only for installation in GB and IE and should be installed in accordance with the rules in force. In GB, the installation must be carried out by a CORGI Registered Installer. It must be carried out in accordance with the relevant requirements of the:

- Gas Safety (Installation & Use) Regulations.
- The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland), Building Regulations (Northern Ireland).
- The Water Fittings Regulations or Water byelaws in Scotland.

Where no specific instructions are given, reference should be made to the relevant British Standard Codes of Practice.

In IE, the installation must be carried out by a Competent Person and installed in accordance with the current edition of I.S. 813 "Domestic Gas Installations" and the current Building Regulations.

• Health and Safety Information

Under the Consumer Protection Act 1987 and Section 6 of the Health and Safety at Work Act 1974, we are required to provide information on substances hazardous to health. Small quantities of adhesives and sealants used in the product are cured and present no known hazards. The following substances are also present.

Important: Later products are fitted with heat exchangers that have a painted coating (in place of lead/tin) and present no known hazards.

Insulation and Seals

Material - Man Made Mineral Fibre.

Description - Boards, Ropes, Gaskets.

Known Hazards - Some people can suffer reddening and itching of the skin. Fibre entry into the eye will cause foreign body irritation which can cause severe irritation to people wearing contact lenses. Irritation to respiratory tract.

Precautions - Dust goggles will protect eyes. People with a history of skin complaints may be particularly susceptible to irritation. High dust levels are only likely to arise following **harsh** abrasion. In general, normal handling and use will not present high risk, follow good hygiene practices, wash hands before, touching eyes, consuming food, drinking or using the toilet.

First Aid - Medical attention must be sought following eye contact or prolonged reddening of the skin.

Heat Exchanger

Material - Copper with lead/tin coating.

Description - Finned copper tube.

Known Hazards - Inhalation or ingestion of lead dust or fumes may cause headache and nausea.

Precautions - Unused heat exchangers present minimal

risk to health other than normal hygiene practices would demand regarding washing before eating etc. Deposits found on or below a heat exchanger that has been in use could contain lead oxide. Avoid inhalation by using a vacuum cleaner in conjunction with other cleaning tools when servicing the boiler.

• Energy Cut-Off Device

This appliance contains an Energy Cut-Off Device that will shut down the gas supply to the appliance if the water in the heat exchanger exceeds the anticipated temperature.

• Under Draining Board Installations

This appliance can be installed under a draining board, a kit (Sales Code 22/18276) is available that contains connection bends and a sheet showing recommended pipework layouts.

• Ventilation

It is not necessary to have a purpose provided air vent in the room or internal space in which the Water Heater is installed. If the Water Heater is to be installed in a cupboard or compartment, permanent air vents are not required. Detail recommendations for air supply are given in BS 5440:2.

• Installation

IMPORTANT: The area of wall covered by the appliance must be flat.

The clearances required around the Flue Terminal are shown on the Flue Template supplied with the Terminal Pack.

The appliance must be fitted on an external wall to allow the Flue Terminal to pass directly through the wall to the outside air.

The Water Heater is suitable for installation against a combustible wall e.g. wood cladding, provided the flue duct is not closer than 25mm to combustible material. A non-combustible sleeve should be installed to surround the flue duct to provide a 25mm annular space. Further guidance is given in BS5440:1

If the water heater is to be fitted into a building of timber frame construction then reference must be made to the current edition of Institution of Gas Engineers Publication IGE/UP/7/ (Gas Installation in Timber Framed Housing).

If the appliance is to be installed into a "SEDUCT" the minimum duct required is 228 mm (9 in.) deep, 349 mm (15fi in.) wide.

This appliance may take the place of an existing appliance and will mount onto the original flue terminal of any of the following: AVON, BRISTOL, MEDINA, MEDINA D/L, MEDWAY, MERSEY, SEVERN 3, SEVERN 4, SEVERN 5 and TRENT.

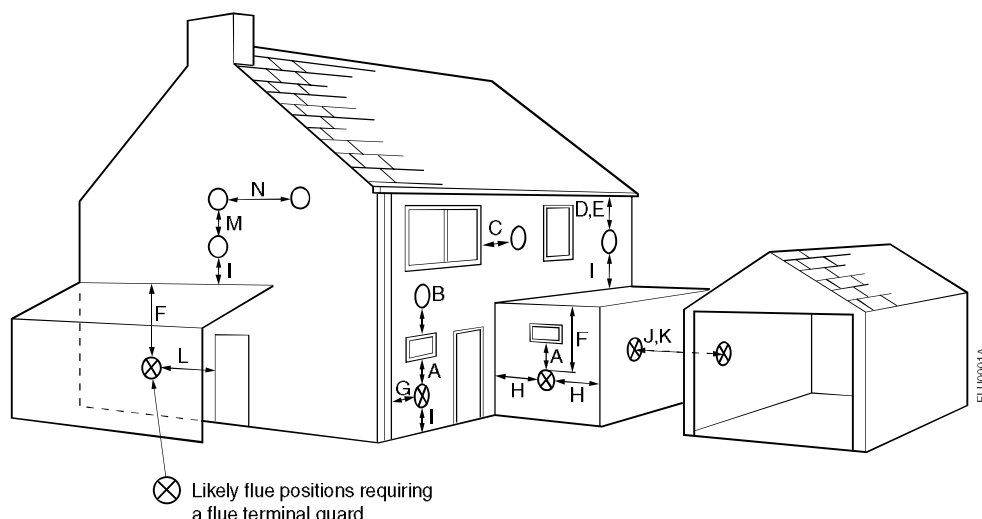


Fig. 8

• Siting the Flue Terminal

The following guidelines indicate the general requirements for siting balanced flue terminals.

For GB recommendations are given in BS 5440 Pt. 1.

For IE recommendations are given in the current edition of I.S. 813 "Domestic Gas Installations".

The terminal must be positioned such that the combustion products can disperse freely at all times.

In certain weather conditions a terminal may steam and positions where this could cause a nuisance should be avoided.

If a terminal is less than 2m above a balcony, above ground, or above a flat roof to which people have access, then a suitable terminal guard must be fitted. A terminal guard is available (Part No. 205792), this should be fitted centrally about the terminal.

If the terminal discharges onto a pathway or passageway, check that the combustion products will not cause a nuisance and that the terminal will not obstruct the passageway.

If the flue terminal is fitted within 1 metre of a plastic gutter, within 500 mm of a painted eave or a painted gutter, an aluminium shield of at least 1 metre long, should be fitted to the underside of the gutter or painted surface. An air space of 5 mm should be left between shield and gutter.

IMPORTANT: It is absolutely ESSENTIAL, to ensure that products of combustion discharging from the terminal cannot re-enter the building, or any other adjacent building, through ventilators, windows, doors, natural air infiltration, or forced ventilation/air conditioning. If products of combustion are found to be re-entering any building, the appliance MUST be turned OFF IMMEDIATELY.

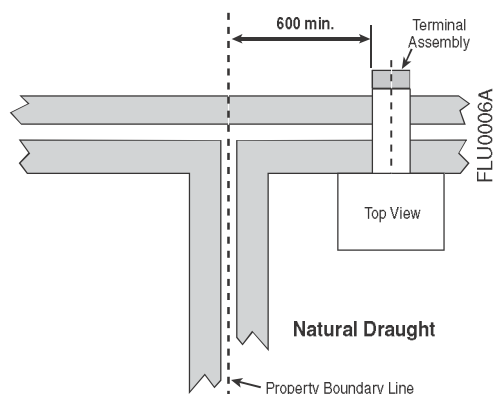
Terminal Position with Minimum Distance (mm)
For IE, refer to I.S. 813 "Domestic Gas Installation".

Natural Draught Balanced Flue

A^a	Directly below an opening, air brick, opening windows, etc.	1500
B^a	Above an opening, air brick, opening window, etc.	300
C^a	Horizontally to an opening, air brick, opening window, etc.	600
D	Below gutters, soil pipes or drain pipes.	300
E	Below eaves.	300
F	Below balconies or car port roof.	600
G	From a vertical drain pipe or soil pipe.	300
H	From an internal or external corner.	600
I	Above ground, roof or balcony level.	300
J	From a surface facing a terminal.	600
K	From a terminal facing the terminal.	600
L	From an opening in a <i>carport</i> (e.g. door, window) into the dwelling.	1200
M	Vertically from a terminal on the same wall.	1500
N	Horizontally from a terminal on the same wall.	300

^a In addition, the terminal should not be nearer than 300 mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame. See BS 5440 Pt. 1.

The distance from a natural draught appliance terminal installed parallel to a boundary may not be less than 600 mm in accordance with the diagram below.



3. Installation

3.1 Location

1. If the appliance is to be fixed to a suitable existing terminal first isolate and remove the old appliance. Leave the flue terminal in place. Retain the fixing nuts and washers. Make good any damage to the brickwork or plaster around the terminal. Cut off the existing pipework at a convenient point below the appliance.

Important: Refer to the template supplied with the flue for the positions of the new water inlet, water outlet and gas pipes.

2. If installing a new flue terminal, guidance is given on the template sheet supplied with the terminal pack.

Note: Where the appliance is to be installed into a SEDUCT the minimum duct required is 228mm (9in) deep, 349mm (15in) wide.

3. Where the building regulations require it, a flue terminal guard should be fitted symmetrically around the outer part of the flue terminal.
4. Unpack the water heater. Find the bags of accessories before discarding the packaging.
5. Slide off the bottom cover then remove the three screws securing the outer case and carefully lift it off.
6. Use the self adhesive discs supplied to cover the unwanted fixing holes in the back of the new appliance as shown.

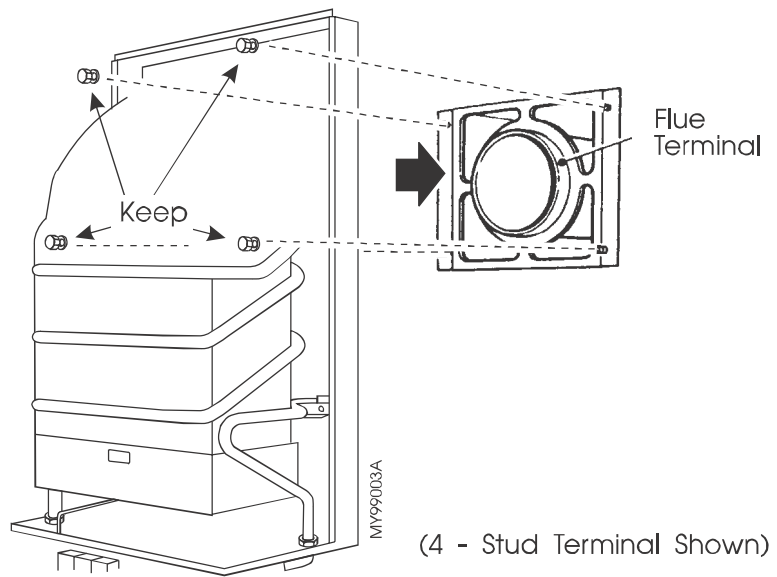


Fig. 9

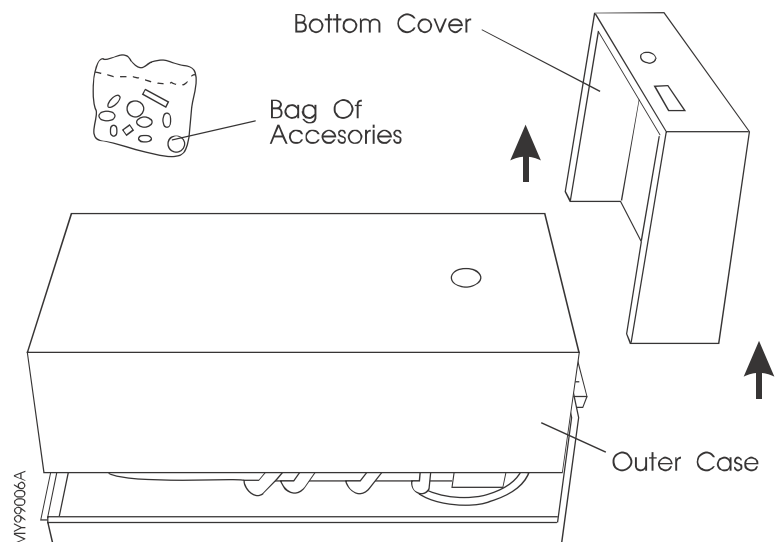


Fig. 10

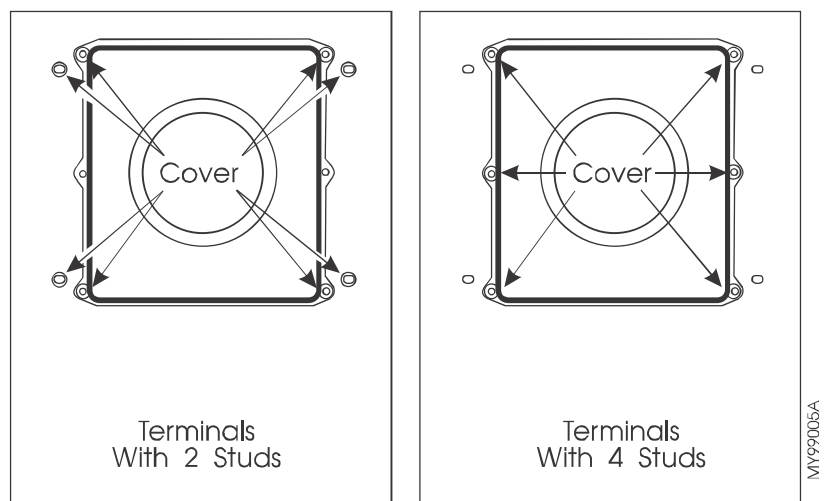


Fig. 11

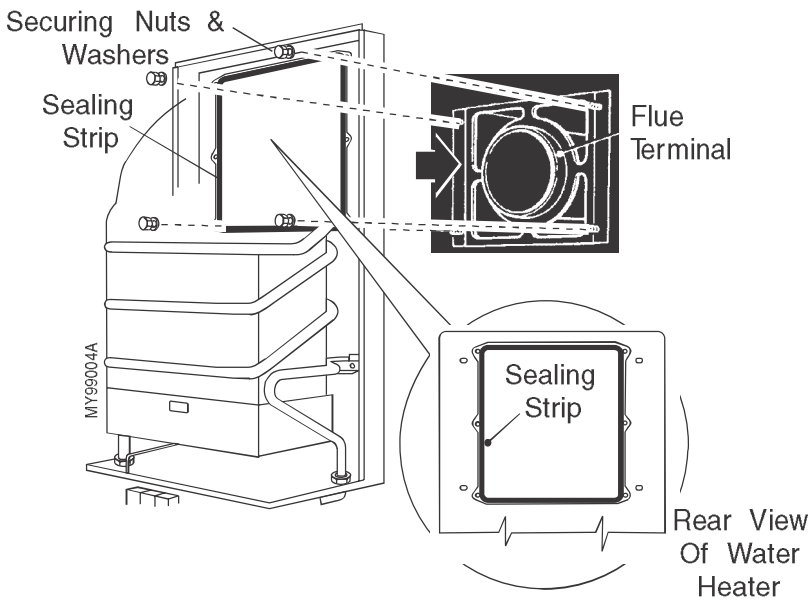


Fig. 12

7. Fit the flue terminal sealing strip (packed separately in the carton) into the recess around the flue aperture in the back of the appliance.
8. Lift the appliance into position, locating the flue outlet into the circular duct on the flue terminal.
9. Secure with the appropriate nuts and washers.

3.2 Gas Connection

The meter and supply pipes must be capable of delivering this quantity of gas in addition to the demand from any other appliances in the house and must be governed at the meter.

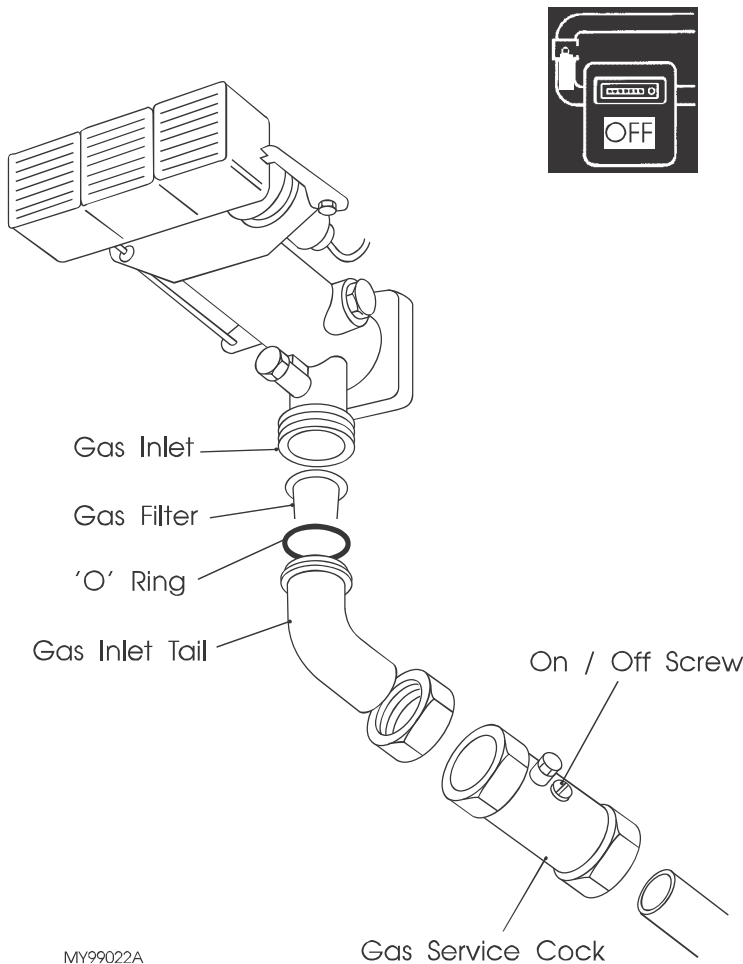
The pipe diameter required will depend on the distance from the gas meter and the number of bends used.

The gas installation should be in accordance with the relevant standards. In GB this is BS 6891. In IE this is the current edition of I.S. 813 "Domestic Gas Installations".

1. Assemble the filter, 'O' ring and inlet tail to the gas inlet.
2. Depending on whether the main supply pipe is to be routed vertically or horizontally to the appliance, connect the gas service cock (stamped 'GAS') either directly to the gas inlet tail or within the supply pipe.

Note: The service cock should be as close to the appliance as possible and the ON/OFF screw in an accessible position.

3. Ensure that the gas supply is isolated.
4. Connect to the gas supply.
5. Turn the gas supply on and purge according to; in GB BS 6891 and in IE the current edition of I.S. 813 "Domestic Gas Installations".



MY99022A

IMPORTANT: DO NOT TRY TO LIGHT THE APPLIANCE AT THIS STAGE. TO ALLOW THE MAIN BURNER TO IGNITE WITHOUT THE OUTER CASE SECURED IN POSITION IS A HAZARD.

Fig. 13

3.3 Water Connections

IMPORTANT: Flush out all foreign matter from the supply pipe before connecting to the service cock.

1. Assemble the filter, olive and inlet tail to the water inlet. **Note:** The inlet tail need not be used as a vertical supply can be routed directly onto the water inlet.
2. Depending on whether the main supply pipe is to be routed vertically or horizontally to the appliance, connect the water service cock either directly to the water inlet tail or within the supply pipe. **Note:** The service cock should be as close to the appliance as possible and the ON/OFF screw in an accessible position.
3. Ensure that the mains water supply is turned OFF.

IMPORTANT: When routing the supply pipe to the appliance, ensure that it can be lowered by approx. 25 mm to allow for disconnection when servicing.

4. Connect the hot water supply pipes to the water outlet - 15 mm compression.
5. Turn ON the mains water supply, turn ON the water service cock and open all the hot water outlets to allow water to flow. Purge the air from the system by closing the hot water outlets starting with the lowest level and ending with the outlet at the highest level.
6. Check for water leaks and remedy if found.

IMPORTANT: DO NOT TRY TO LIGHT THE APPLIANCE AT THIS STAGE.

3.4 Lint Filter

This appliance has a lint filter fitted around the base of the pilot tube.

Ensure that the filter gauze is located inside both end caps and that the complete assembly is correctly seated over the union nut at the base of the pilot tube.

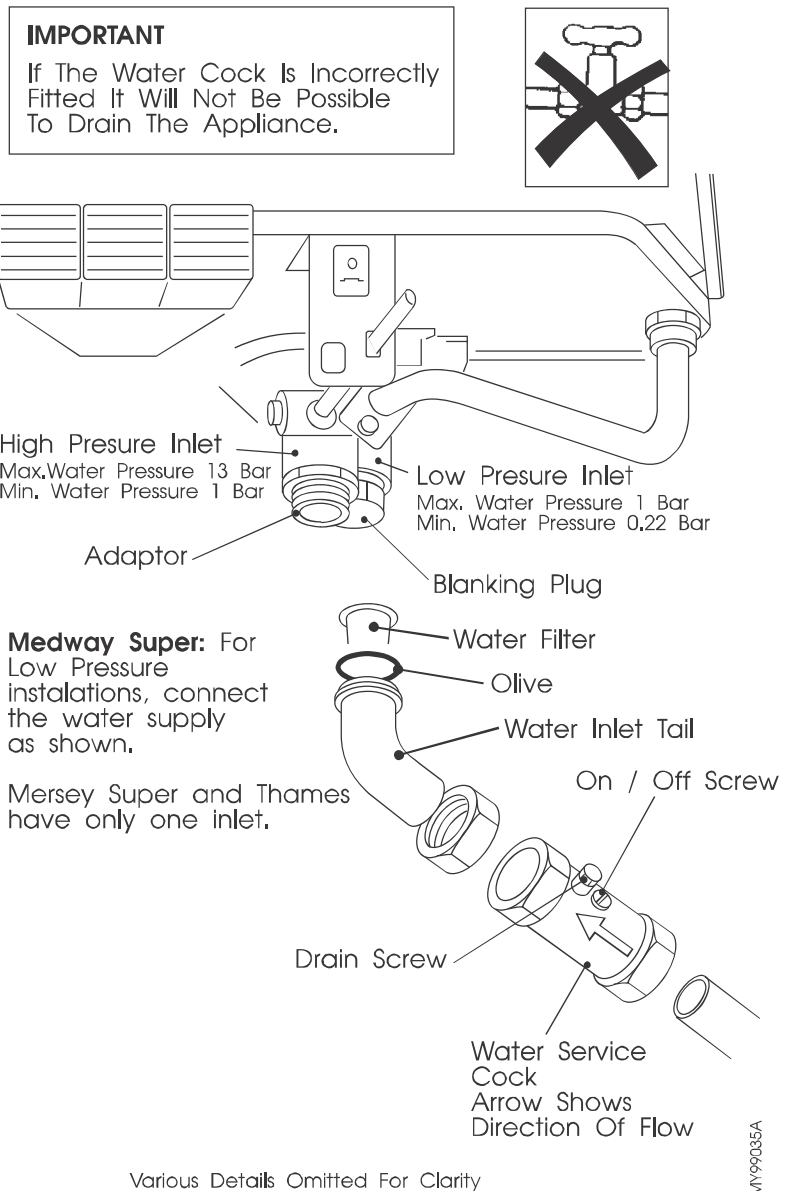


Fig. 14

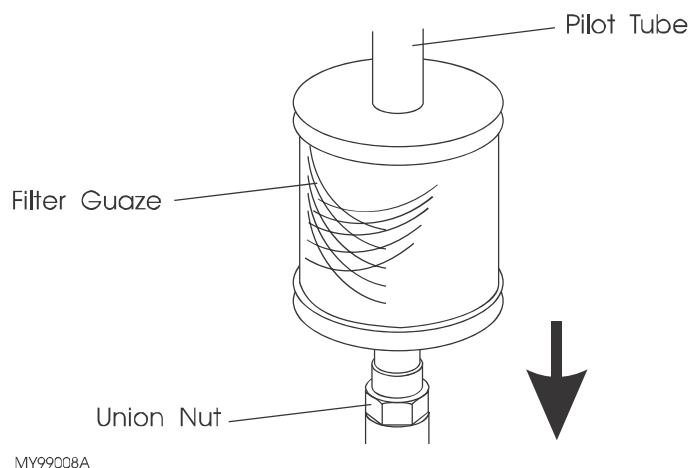


Fig. 15

4. Commissioning

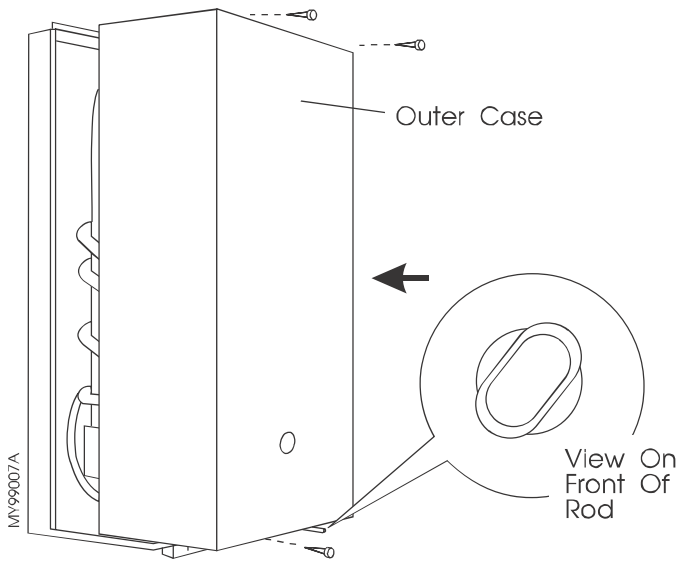


Fig. 16

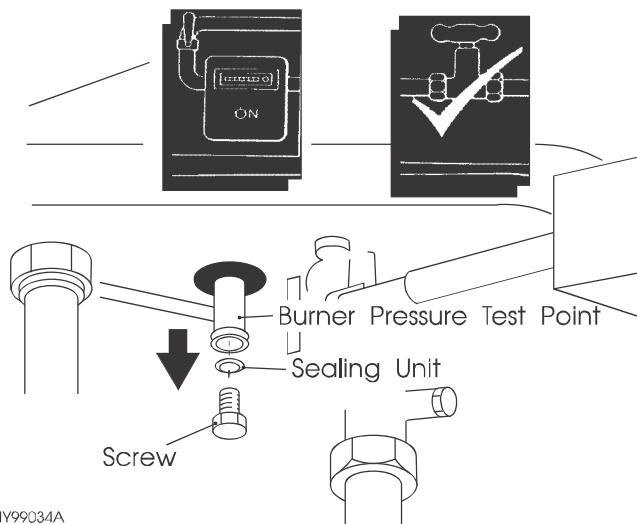


Fig. 17

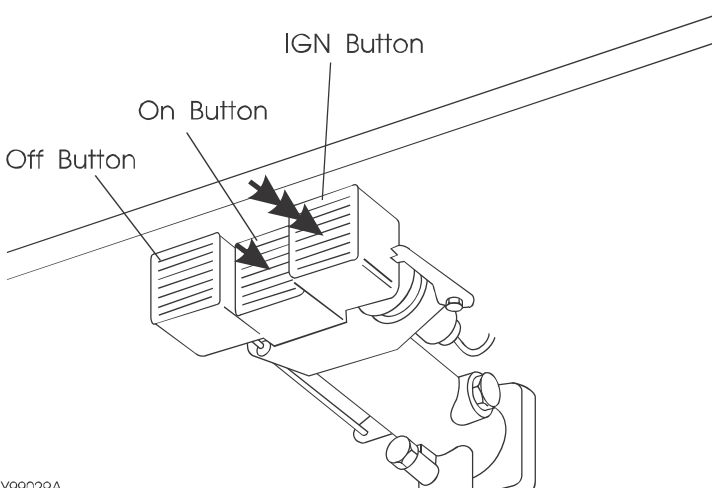






Fig. 18

WARNING:

The outer case of this appliance is not merely a cosmetic device. It is a functioning component in the air supply to the burner and **MUST BE** replaced with great care **NOW**, before any attempt is made to light the burners.

TO ALLOW THE MAIN BURNER TO IGNITE WITHOUT THE CASE IN POSITION IS A HAZARD.

1. Refit the outer case ensuring it is correctly seated then secure (3 screws). Ensure that the temperature selector control rod (if fitted) is set at its maximum setting.
2. Ensure that the gas and water supplies are turned ON.
3. Ensure that all hot water outlets are closed.
4. Remove the screw and sealing ring from the burner pressure test point and attach a pressure gauge.
5. Fully depress and hold the ON button  and repeatedly press and release the IGN button  until the pilot is lit. The pilot flame can be observed through the pilot viewing window.
6. Hold the ON button  in for a further 10 seconds after the pilot is lit, then release. If the pilot goes out, repeat the lighting operation keeping the ON button  depressed a little longer.
7. Test for gas soundness using a suitable leak detection fluid on all external gas joints.
8. Open a hot water outlet and the burner will ignite. Allow the water to run for a few minutes then check the burner pressure - it should be 12.5 mbar (5 in w.g.), if the pressure is not correct see the FAULT FINDING section.

Note: Check the gas rate check, the gas consumption after 3 minutes running should be approximately 2.91 m³/hr (102.8 ft³/hr).

9. Turn the temperature selector spindle (if fitted) from right to left, there will be a noticeable change in the outlet temperature. Turn the rod back to the right (maximum).
10. Turn OFF the hot water outlet and press the OFF button ● on the appliance. Remove the pressure gauge and replace the screw and sealing ring.
11. Relight the pilot. Turn ON a hot water outlet and check for gas soundness at the pressure test point.
12. Turn OFF the hot water outlet. Slide the bottom cover onto the appliance. Ensure that the temperature selector spindle is aligned with the selector knob, push the bottom cover and with slight adjustment the selector will positively locate on the spindle.

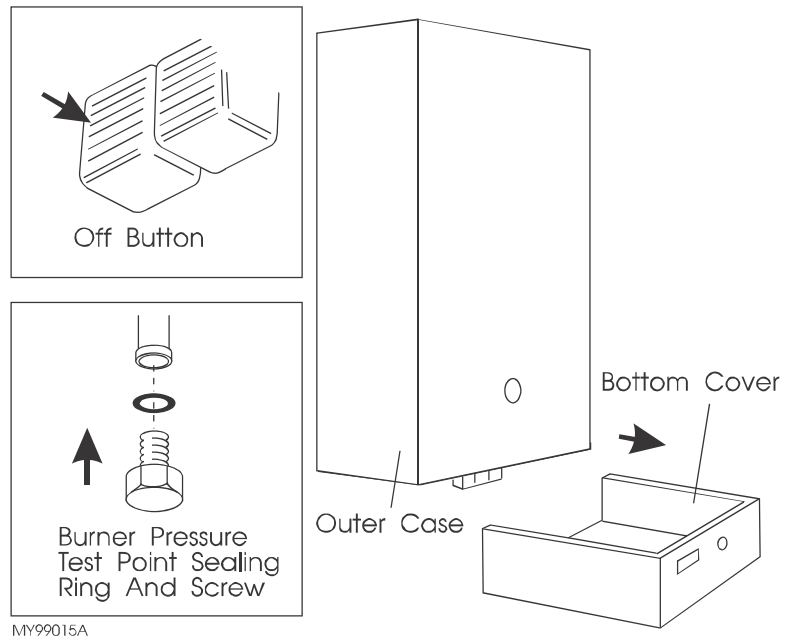


Fig. 19

- Explain to the user how to operate the appliance.
- Show the user the position of the Identification Badge.
- Advise the User that to ensure long life and safe, trouble free operation, the appliance must be inspected and serviced at regular intervals by a competent person.
- Leave these Instructions with the User future use.

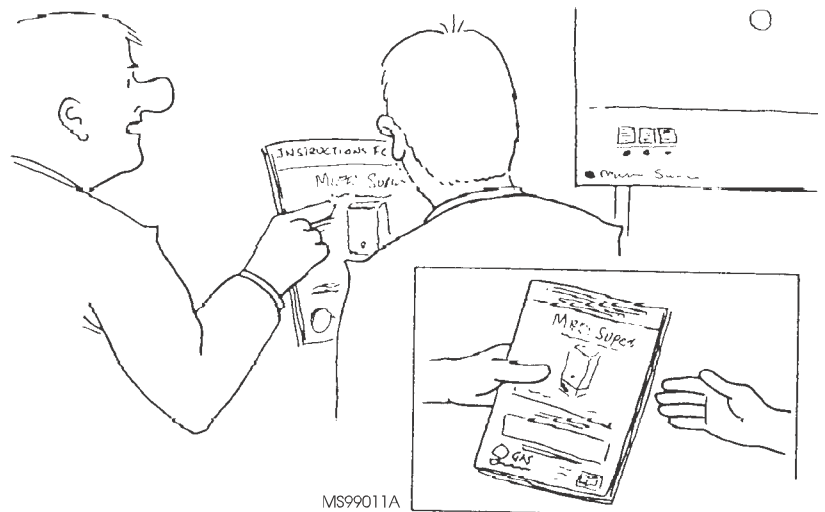


Fig. 20

5. Servicing

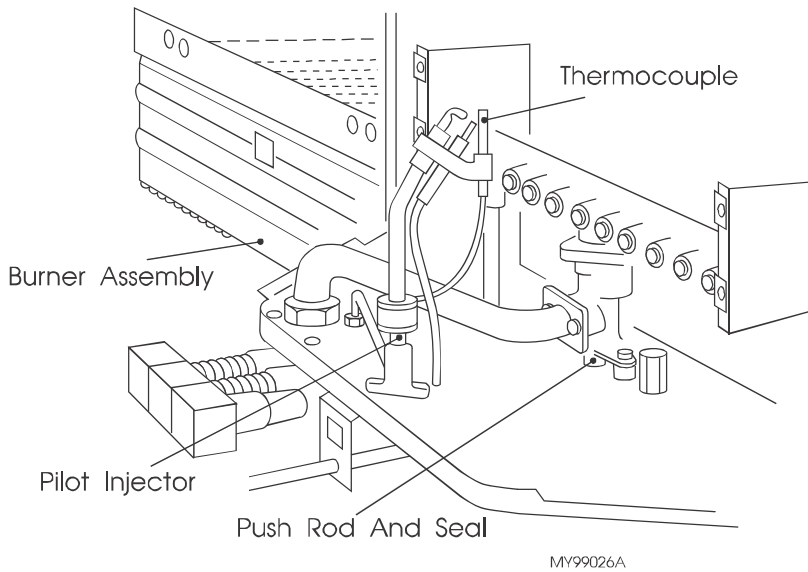


Fig. 21

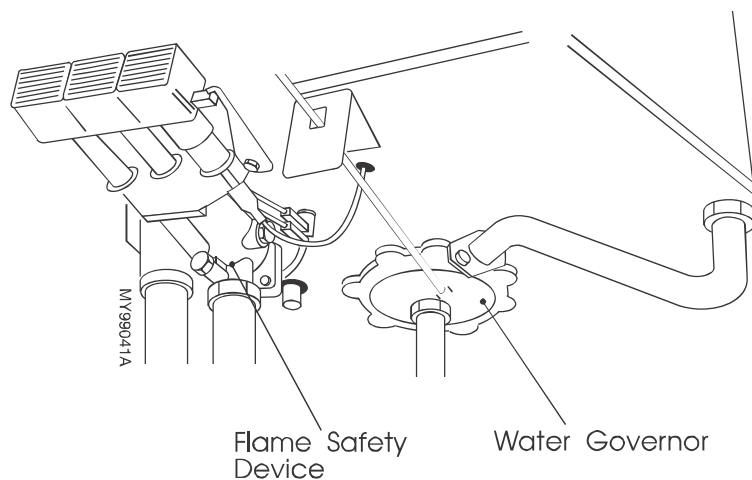
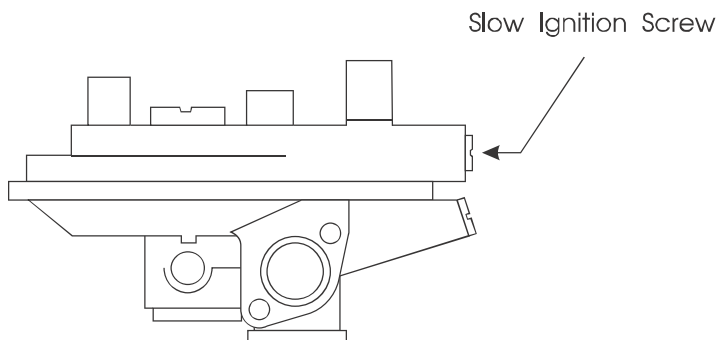


Fig. 22



View On Side Of Water Governor

MY99011A

Fig. 23

Note: In hard water areas, scale may build up on the push rod, seals and on the underside of the diaphragm housing. They may require regular descaling and regreasing.

Operate the appliance noting any faults in the component units.

Carry out the servicing procedure then correct any other faults by reference to 'Replacement of Parts', in which section you will find details of how to dismantle and reassemble the following detailed components.

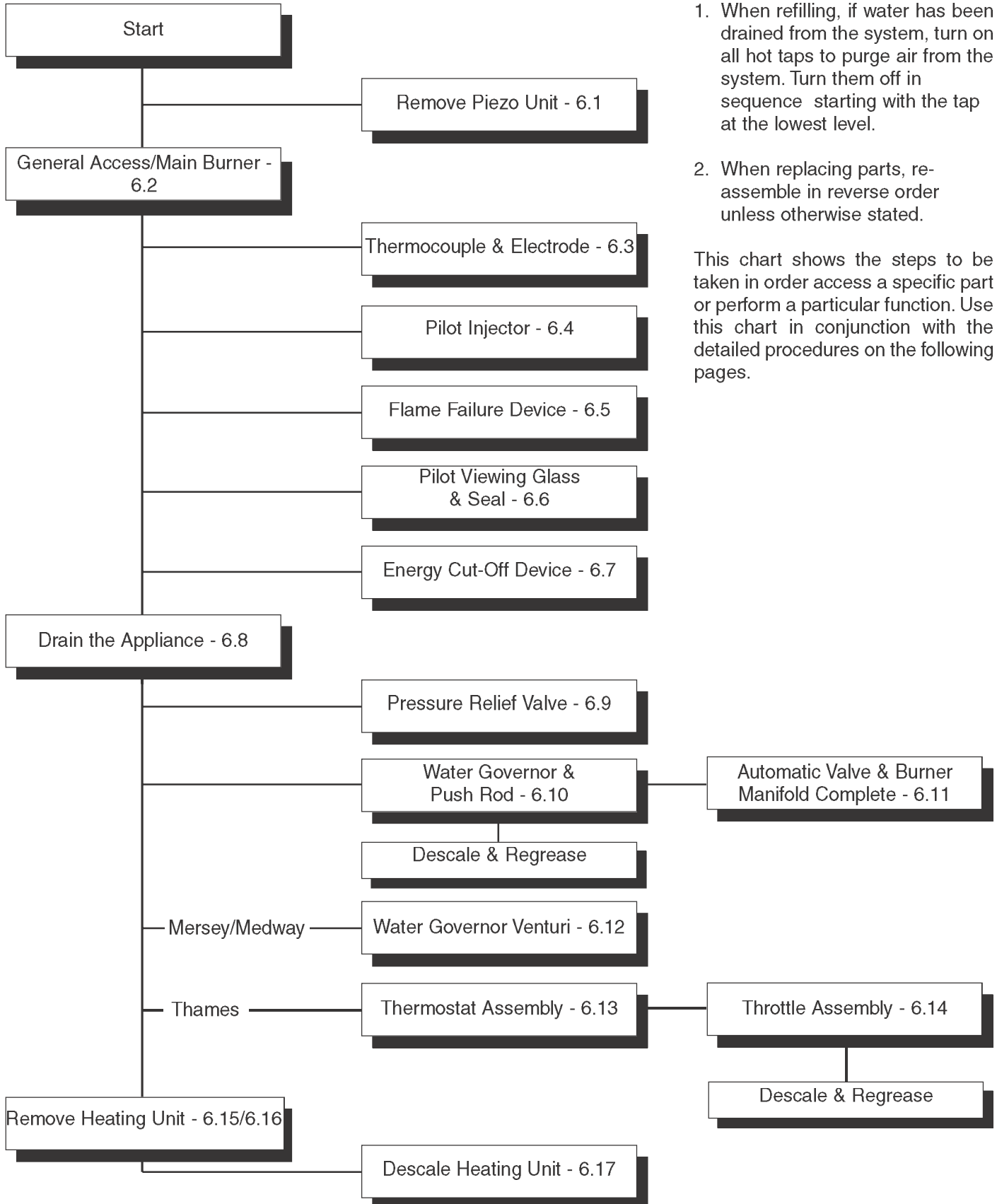
Check that the burner ignition is smooth and quiet when a hot tap is opened. The burner ignition has been factory set and should not need adjustment. However, if adjustment is required a slow ignition screw is fitted to the appliance and is situated above the cap screw in the water governor body (Fig.23). The screw is factory set 2 full turns out (anti-clockwise) from the fully in position. Turning the screw clockwise delays the ignition, anti-clockwise advances the ignition.

WARNING:
NEVER OPERATE THIS APPLIANCE
WITH THE OUTER CASE REMOVED.

1. Check the piezo unit, flame safety device and thermocouple, clean or replace if necessary.
2. Remove the burner assembly and clean using a soft brush or vacuum cleaner.
3. Check the pilot injector and clean or replace if necessary. Also clean the lint filter.
4. Remove the water governor assembly complete with push rod. Replace the seals if necessary. Descale and regrease the push rod, washers and diaphragm housing using Dow Corning 111 silicone grease.
5. Check for water and gas soundness. Replace 'O' rings, sealing washers and gaskets where required.
6. Clean any deposits off the heating unit by washing or brushing. Descale the heating unit if required.

6. Replacement of Parts

IMPORTANT: THE FOLLOWING WORK SHOULD ONLY BE CARRIED OUT BY A COMPETENT PERSON.



1. When refilling, if water has been drained from the system, turn on all hot taps to purge air from the system. Turn them off in sequence starting with the tap at the lowest level.
2. When replacing parts, re-assemble in reverse order unless otherwise stated.

This chart shows the steps to be taken in order access a specific part or perform a particular function. Use this chart in conjunction with the detailed procedures on the following pages.

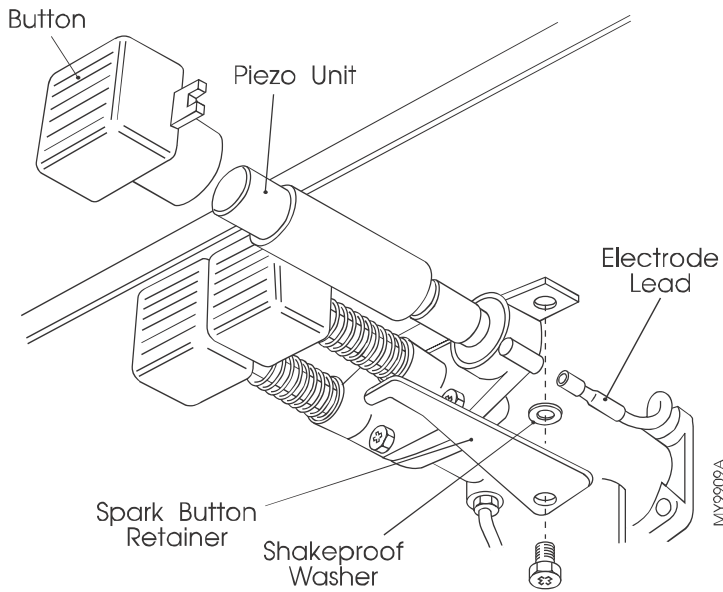


Fig. 24

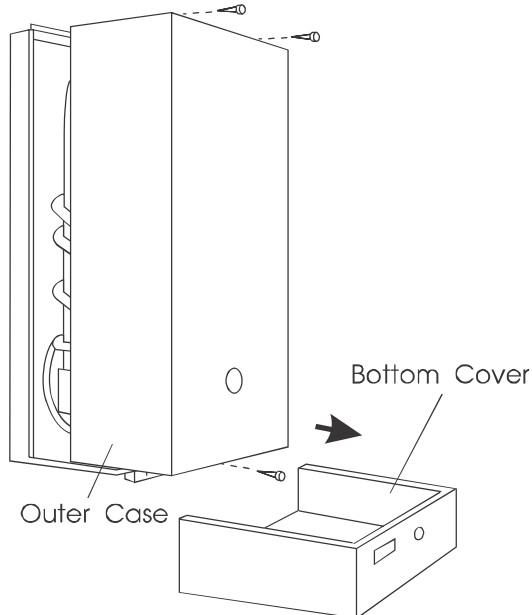


Fig. 25

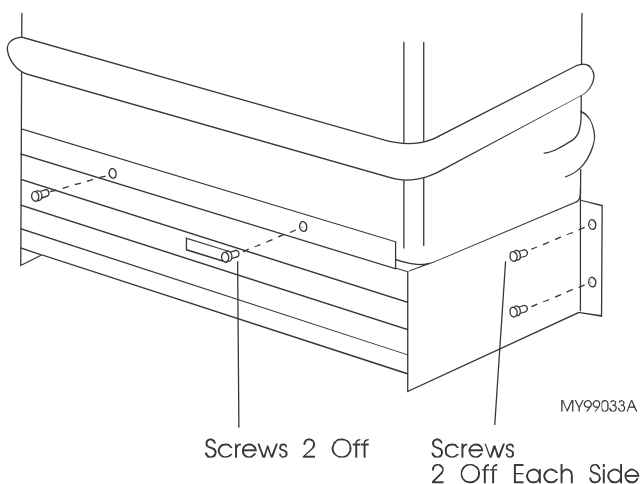


Fig. 26

6.1 Piezo Unit

It will NOT be necessary to remove the outer case.

- Slide out the bottom cover.
- Disengage the electrode lead from the piezo unit.
- Remove or loosen and pull aside the spark button retainer, taking care not to lose the shakeproof washer.
- Pull off the button and unscrew (anti-clockwise) the piezo from its housing.

Note: When refitting the bottom cover, ensure the temperature selector spindle (if fitted) is aligned with the selector. Push the bottom cover and with slight adjustment, the selector will positively locate on the spindle.

6.2 General Access/Main Burner

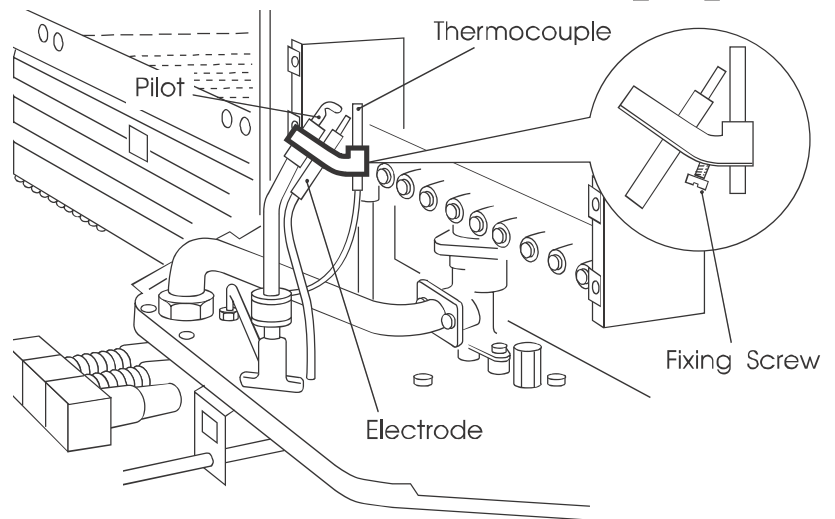
- Turn OFF the gas and water supplies at the service cocks.
- Slide out the bottom cover.
- Remove the 3 fixing screws and pull off the outer case.
- Remove 4 fixing screws from the burner assembly (2 each side).
- Remove 2 screws securing the front to the heating unit.
- Pull the burner assembly slightly forwards to clear the injectors, then pull apart and withdraw taking care not to snag the pilot assembly.

Note: If required, the burner assembly can be dismantled and the burner bars replaced individually. On re-assembly ensure that the burner inlets locate in the 14 holes.

Note: On re-assembly of the burner assembly take care not to snag the pilot assembly. Ensure the front face of the assembly has located on the two studs on the heating unit. Re-fit the bottom cover as outlined in Section 6.1.

6.3 Thermocouple & Spark Electrode

- Gain general access - See 6.2.
- Disconnect the nut securing the thermocouple to the interrupter at the chassis base.
- Disconnect the electrode lead from the back of the piezo unit, pull the lead up through the grommet and remove.
- Remove the fixing screw and bracket then lower the spark electrode.
- On re-assembly, ensure that the pilot tube bends towards the rear of the appliance. (The thermocouple will be vertical and nearest the burner manifold). The thermocouple connection need only be finger tight and a/turn.



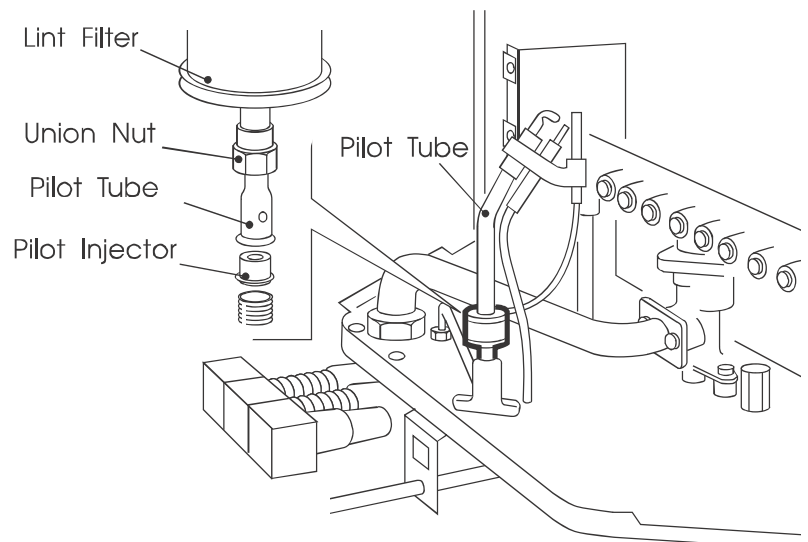
MY99028A

Fig. 27

6.4 Pilot Injector

- Gain general access - See 6.2.
- Lift up the lint filter, disconnect the union nut and carefully lift up the pilot tube taking care not to lose the pilot injector.
- On re-assembly ensure the pilot injector is correctly seated (taper side down) and that the lint filter is correctly assembled and located on the union nut.

Note: The lint filter can be cleaned if required.

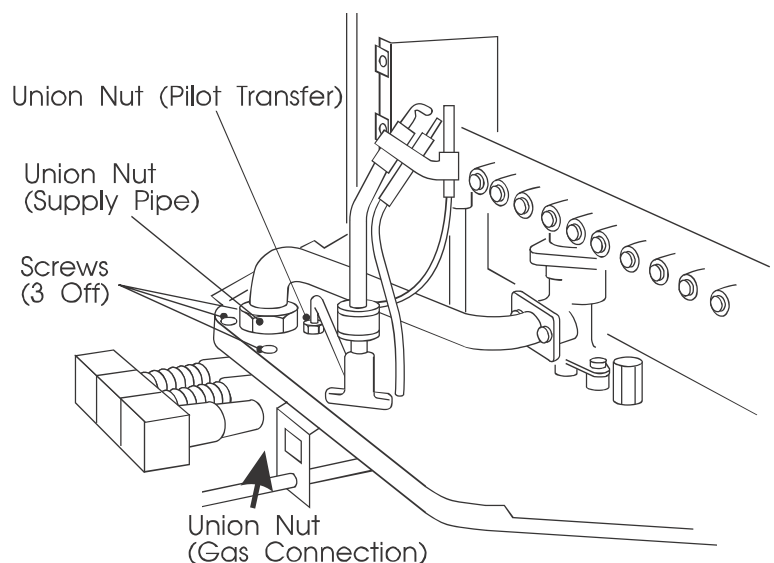


MY99024A

Fig. 28

6.5 Flame Safety Device

- Gain general access - See 6.2.
- Disengage the electrode lead from the piezo unit.
- Release the thermocouple from the back of the flame safety device.
- Release the union nuts above and below the flame safety device.
- Release the union nut securing the pilot transfer tube to the flame safety device.
- Remove the 3 screws securing the flame safety device to the chassis base and carefully withdraw the unit.
- Re-assemble in reverse order. The thermocouple connection need only be finger tight and a/turn.



MY99023A

Fig. 29

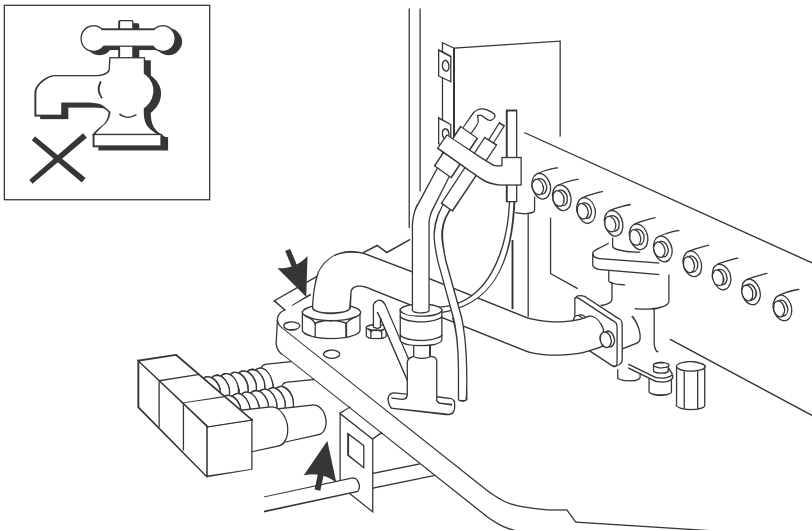
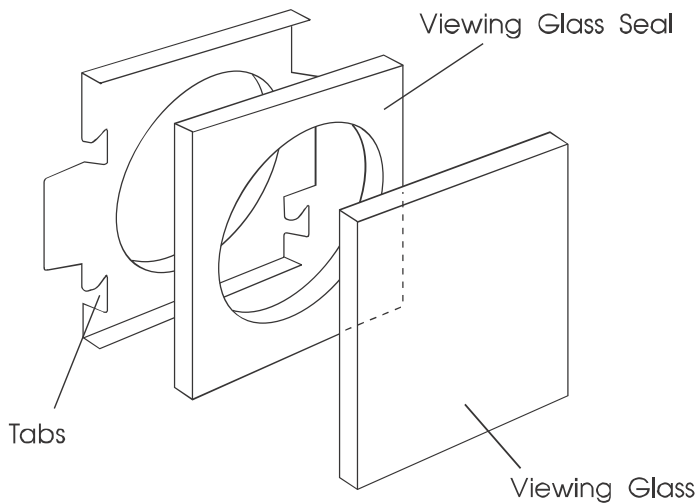
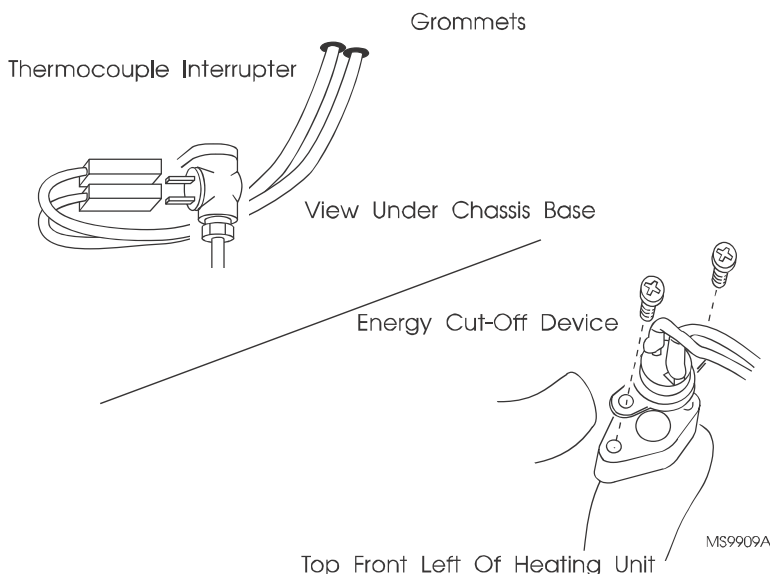


Fig. 30



MY99016A

Fig. 31



MS9909A

Fig. 32

h. Test for gas soundness as follows:-

- Ensure the water service cock is in the OFF position. This will ensure water cannot flow and open the automatic valve.

- Turn ON the gas, purge and light the pilot, this will pressurise the burner supply pipe.

- Test the gas supply to flame safety device and burner supply pipe above the flame safety device for gas soundness using leak detection fluid.

j. Re-assemble remaining parts and ensure the water service cock is in the ON position.

6.6 Pilot Viewing Glass & Seal

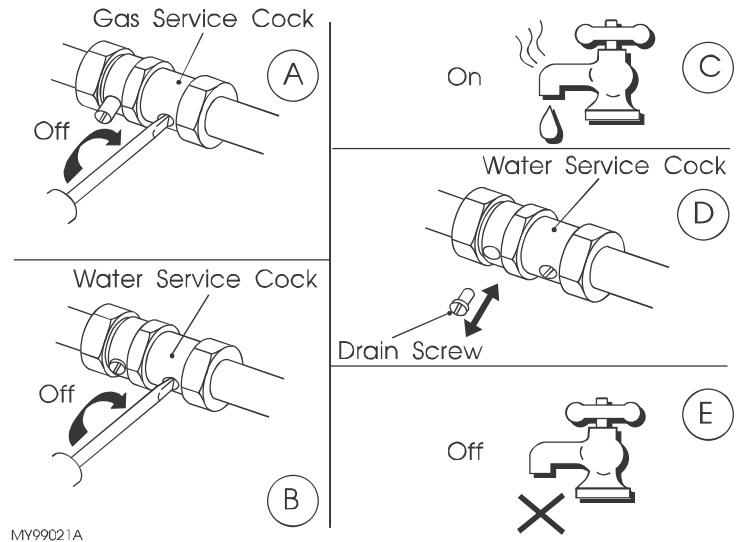
- Complete steps a., b. and c. of Section 6.2.
- The viewing glass and seal are fixed to the inside of the outer case by 2 metal tabs. Bend back the tabs and remove the glass and seal. Secure the new glass and seal to the outer case by bending over the 2 spare straight tabs.

6.7 Energy Cut-Off Device

- Gain general access - See 6.2.
- Disconnect the energy cut-off leads from the interrupter located on the underside of the chassis.
- Remove the 2 screws securing the energy cut-off device to the heating unit (located top front left).
- Pull the leads complete with grommets up through the chassis base.
- Fit the new energy cut-off device which comes complete with grommets.

6.8 To Drain the Appliance

- Ensure that the gas service cock is turned OFF.
- Ensure that the water service cock is turned OFF.
- Open a hot water outlet.
- Have a suitable container to hand .
Remove the drain screw from the water service cock and allow the water to drain.
- Close the hot water outlet.

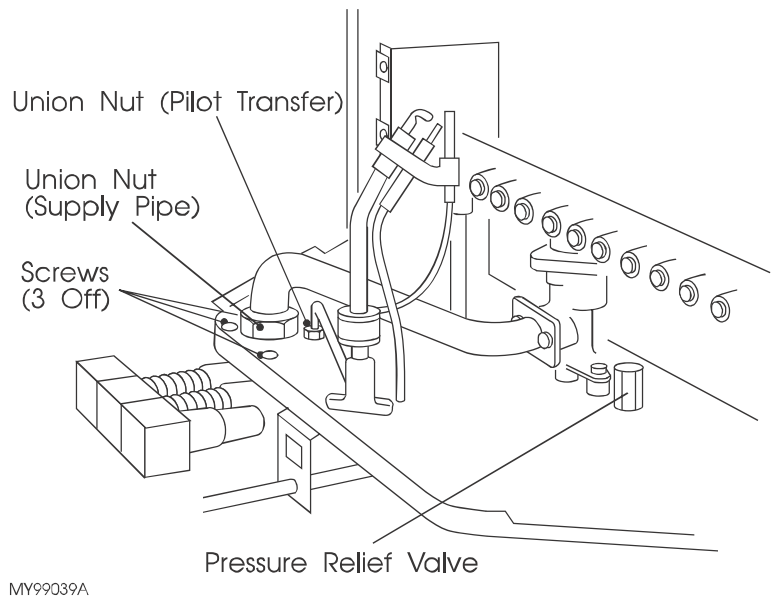


MY99021A

Fig. 33

6.9 Pressure Relief Valve

- Gain general access - See 6.2.
- Drain the appliance - See 6.8.
- Unscrew the valve and discard.
- Screw in new valve.

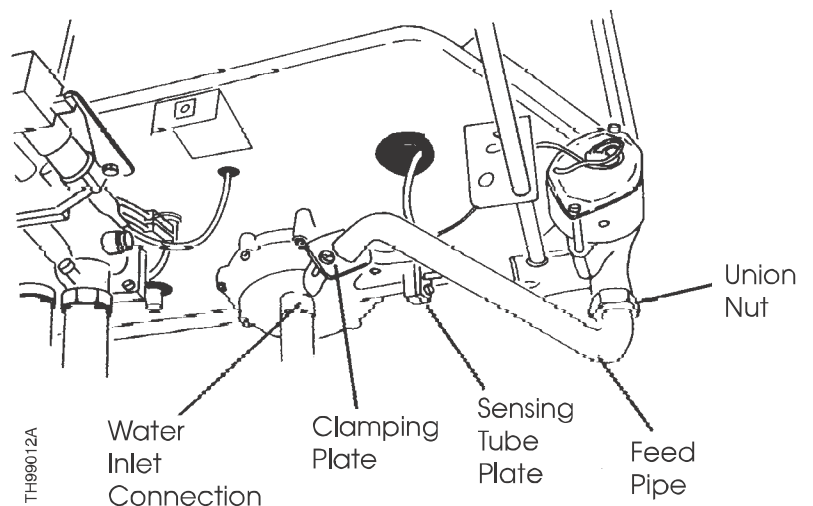


MY99039A

Fig. 34

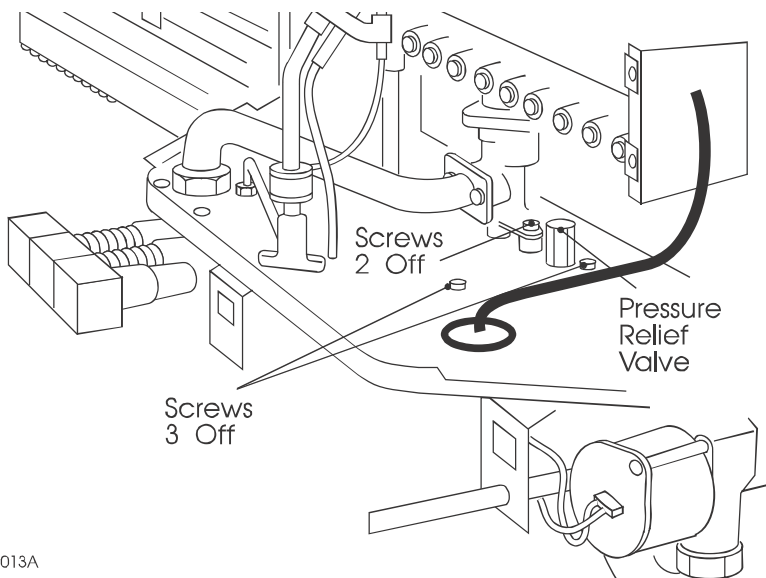
6.10 Water Governor

- Gain general access - See 6.2.
- Drain the appliance - See 6.8.
- Release the inlet water connection and lower the pipework to clear the inlet.
- Release the union nut and clamping plate then remove the feed pipe. Replace the 'O' ring.
- Remove the screw and plate securing the sensing tube to the water governor. Replace the 'O' ring.



TH99012A

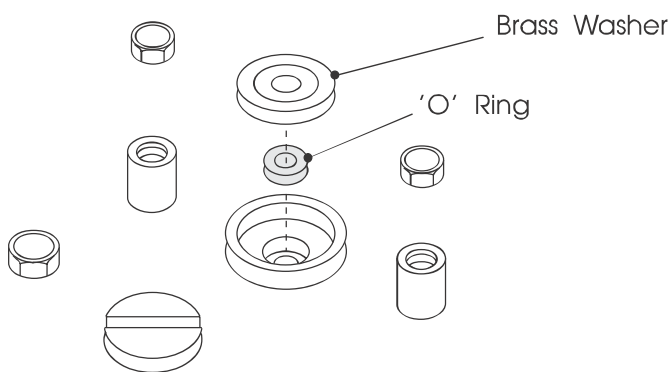
Fig. 35



TH99013A

Fig. 36

- f. Remove 2 screws above the chassis base securing the governor to the automatic valve.
- g. Remove 3 screws above the chassis base securing the governor to the chassis base.
- h. Carefully withdraw the governor complete with pressure relief valve, **TAKE CARE NOT TO BEND THE PUSH ROD. IF THE ROD IS BENT, A NEW ONE MUST BE FITTED.**
- j. Remove the push rod.
- k. Remove 8 screws Mersey/Thames, 6 screws Mersey and separate the two halves of the water governor.

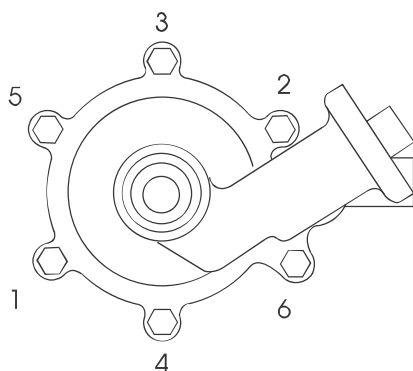


MY99018A

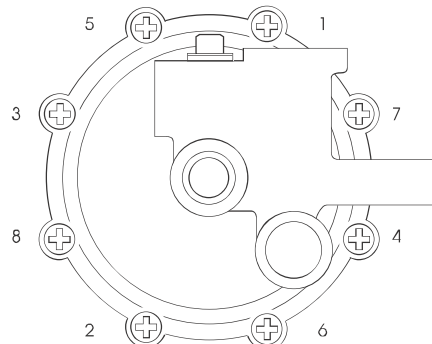
Fig. 37

Descal & Regrease

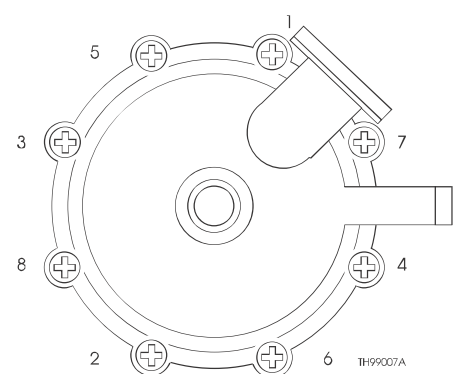
- l. Remove both the brass washer and 'O' ring from the top opening. Clean the washer.
- m. Clean the top opening then pack with a silicone grease such as Dow Corning 111. Fit a new 'O' ring and re-fit the brass washer.
- n. Hold the thrust plate, remove the fixing nut and lift out the diaphragm assembly. Clean or renew as required. On re-assembly, tighten the fixing nut finger tight plus a 1/4 turn only.
- p. Check and if necessary replace the transfer port 'O' ring.
- q. Ensure the diaphragm assembly is correctly seated then re-assemble the two halves of the governor. Insert the 8 screws and secure finger tight. Fully tighten all 8 screws in the order shown.
- r. Clean, regrease and re-fit the push rod or replace with a new one.



Mersey Super



Medway Super



Thames

MY99014A

TH99007A

Fig. 38

6.11 Automatic Valve and Burner Manifold Complete

- Gain general access - see 6.2.
- Drain the appliance - see 6.8.
- Remove the water governor - see 6.10.
- Release the union above the flame safety device. Do not lose the 'O' ring.
- Release the retaining plate (2 screws) and remove the burner supply pipe. Do not lose the 'O' ring.
- Prise the manifold location brackets apart and carefully lift out the complete assembly.

IMPORTANT: The automatic valve and burner manifold are only available as a combined assembly. Retain all screws and 'O' rings from the old assembly or renew.

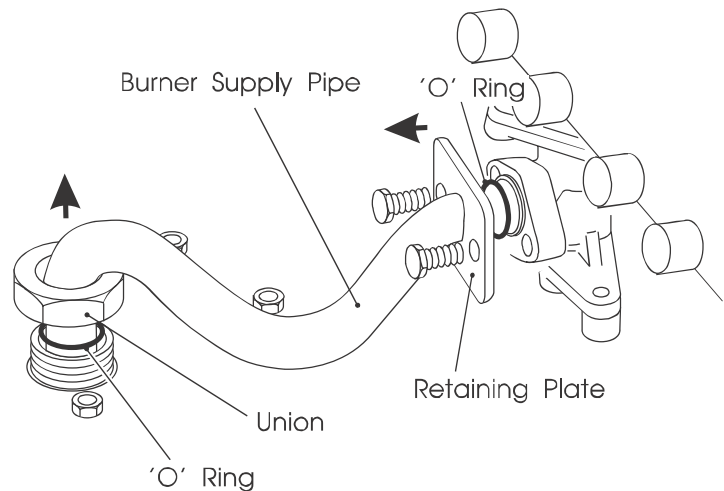
Note: On re-assembly slide the pressure test point extension tube through the grommet before locating the manifold against the location brackets.

- Re-fit the water governor.
- Re-connect the burner supply pipe.
- Test for gas soundness as follows:-
 - Ensure the water service cock is in the OFF position, this will ensure that water CANNOT flow and open the automatic valve.
 - Turn ON the gas, purge and light the pilot, this will pressurise the burner supply pipe.
 - Test the burner supply pipe joints for gas soundness using leak detection fluid.
- Re-assemble remaining parts and ensure the water service cock is in the ON position.

IMPORTANT: If the automatic valve and burner manifold complete is dismantled, it can only be tested for gas soundness under pressure AFTER blanking off all the injectors.

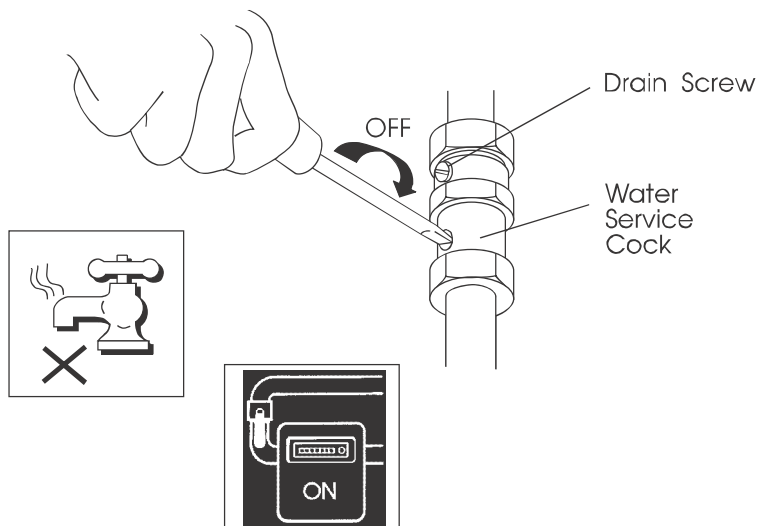
6.12 Water Governor Venturi

- Gain general access - See 6.2.
- Drain the appliance - See 6.8.
- Release the union nut and clamping plate then remove the feed pipe.
- Using a large flat bladed screwdriver that will engage both slots, remove the venturi.
- Clean and re-fit.



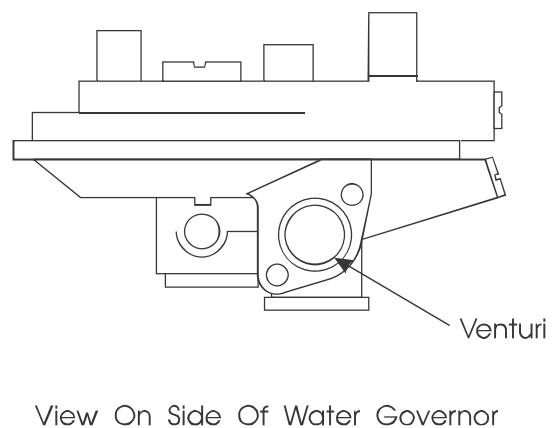
MY99020A

Fig. 39



MY99019A

Fig. 40



MY99012A

Fig. 41

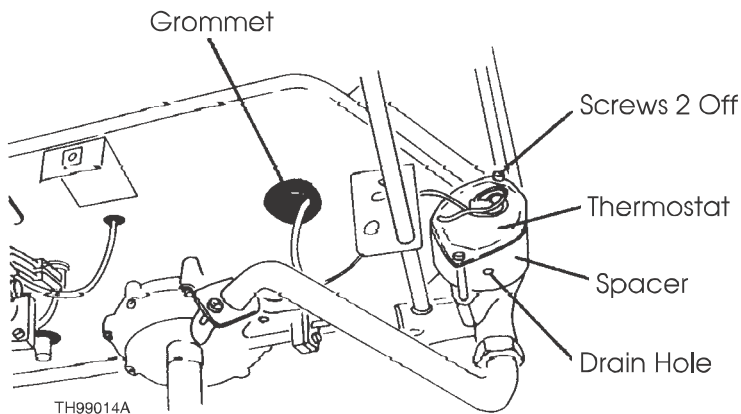


Fig. 42

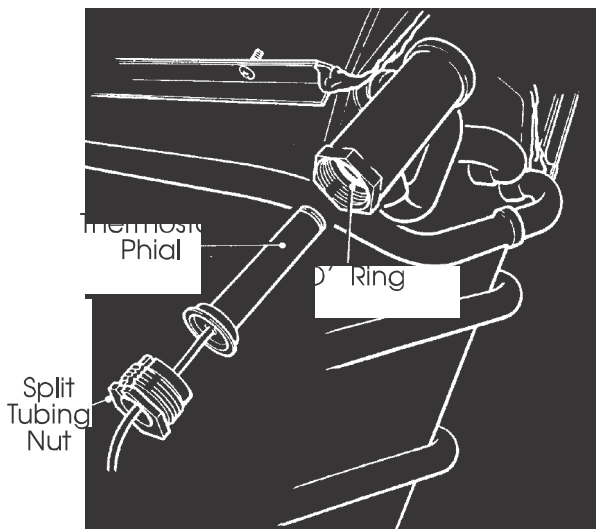


Fig. 43

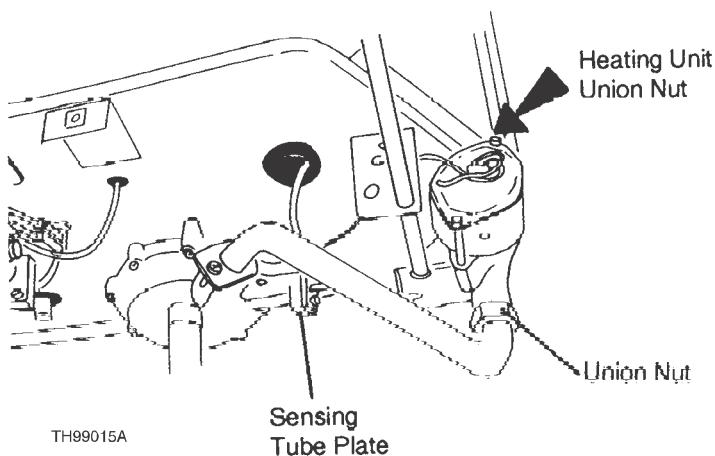


Fig. 44

6.13 Thermostat Assembly - Thames

- a. Gain general access - see 6.2.
- b. Drain the appliance - see 6.8.
- c. Remove the thermostat phial from its pocket.
CAUTION: To prevent possible damage to the heating unit, release the split tubing nut with a suitable spanner whilst supporting the phial housing hexagon boss with a second spanner.
- d. Remove the 2 long screws to detach the thermostat assembly and spacer from the throttle body.
- e. Remove the rubber grommet from around the capillary tube in the chassis base then pull the thermostat phial down through the hole.

Re-Assemble as Follows:-

- f. Feed the thermostat phial through the hole in the chassis base. Re-fit the thermostat assembly and spacer to the throttle body, ensure that the spacer is correctly located between the thermostat flange and the retaining plate and that the drain hole in the spacer is at the bottom when relative to the whole appliance.
- g. Ensure the 'O' ring is correctly seated within the thermostat phial housing, carefully insert the phial taking care not to disturb the 'O' ring. Re-fit the rubber grommet around the capillary tube in the chassis base.

6.14 Throttle Assembly - Thames

- a. Gain general access - see 6.2.
- b. Drain the appliance - see 6.8.
- c. Remove the thermostat assembly - see 6.13.
- d. Release the feed pipe union nut.
- e. Release the screw and plate securing the sensing tube to the water governor.
- f. Release the union nut securing the heating unit to the throttle at the chassis base.
Note: When removing the throttle assembly, the temperature selector spindle will disconnect itself from the throttle body. On re-assembly the rod must be positioned before the throttle is secured in place.
- g. Remove the 2 screws securing the throttle to the chassis base then remove the throttle.

Descale/Regrease & Recalibrate

- h. Remove the 2 screws securing the retaining plate to the throttle body.
- i. Strip down the throttle assembly, descale and regrease using a silicone grease such as Dow Corning 111. Replace 'O' rings as necessary.

NOTE: Removal of the internal parts may be difficult due to scaling etc, if necessary, remove the grub screw from the rear of the throttle body and screw in one of the long thermostat screws. This will force the internal parts out. **KEEP AWAY FROM FACE AND EYES.**

- j. On re-assembly, recalibrate the thermostat as follows:-
 Re-fit the grub screw.
 Turn temperature selector to '5'.
 Open a hot water outlet.
 Adjust the grub screw until water temperature is between 55° - 58° C.

WARNING: Keep the throttle body pointing away from your face and body when you turn the screw. The spring adjuster, spring and gland housing will eject from the body with a lot of force. TAKE GREAT CARE.

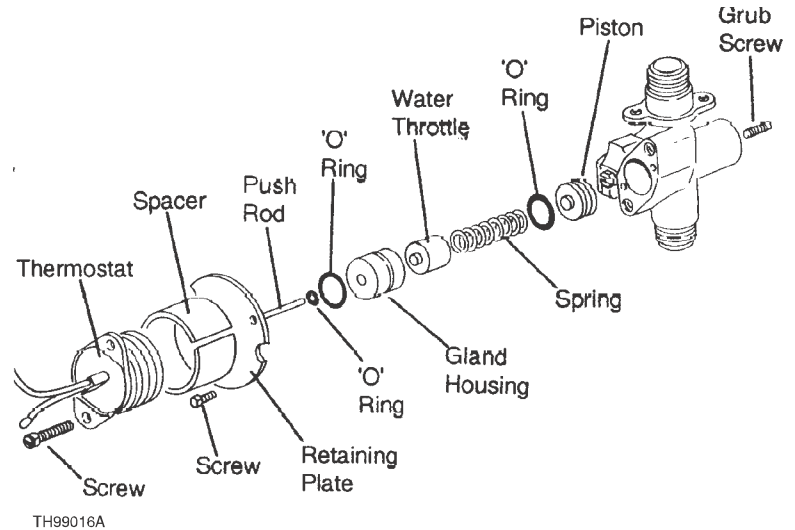


Fig. 45

6.15 Heating Unit - Thames

- a. Gain general access - see 6.2.
- b. Drain the appliance - see 6.8.
- c. Remove the 2 screws securing the energy cut-off device to the heating unit (located top front left).
- d. Remove the thermostat phial from its pocket - See 6.13.c.
- e. Disconnect the 2 unions.
- f. Remove 4 screws securing the unit to the chassis.
- g. Carefully pull the unit from the top and lift. **DO NOT** lose the 'O' rings and washers.
- h. Remove the primary flue, secured by 4 screws (2 front, 2 rear).

Note: On re-assembly, ensure that the 'O' ring is carefully seated within the thermostat phial housing and that the thermostat phial is inserted carefully to avoid disturbing the 'O' ring.

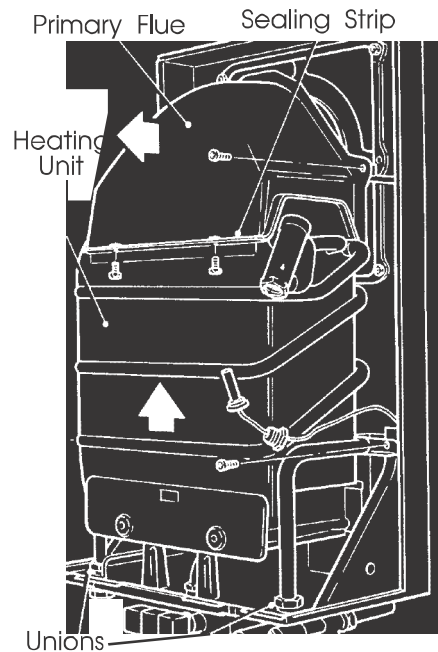


Fig. 46

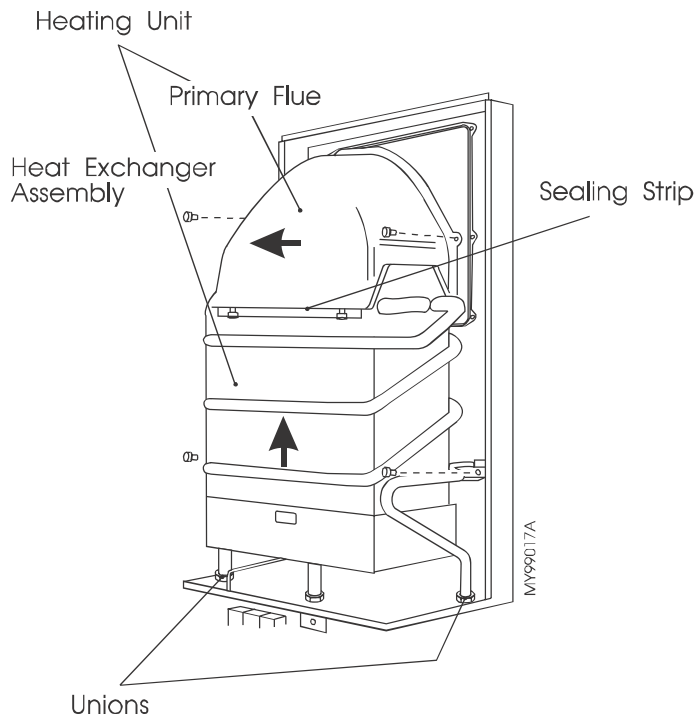


Fig. 47

6.16 Heating Unit - Mersey/Medway

- Gain general access - See 6.2.
- Drain the appliance - See 6.8.
- Remove the 2 screws securing the energy cut-off device to the heating unit (located top front left).
- Disconnect the 2 unions.
- Remove 4 screws securing the unit to the chassis.
- Carefully pull the unit from the top and lift. DO NOT lose the 'O' rings and washers.
- Remove the primary flue, secured by 4 screws (2 front, 2 rear).

6.17 Descaling the Heating Unit

WARNING: ACID/WATER SOLUTION MUST BE USED WITH EXTREME CAUTION. TAKE CARE NOT TO SPLASH ONTO SKIN OR INTO THE EYES. WASH ANY AFFECTED AREAS WITH LARGE AMOUNTS OF COLD WATER AND SEEK MEDICAL ADVICE. CARRY OUT THE FOLLOWING OPERATION OUT OF DOORS. ACID/WATER SOLUTION CAN DAMAGE FURNISHINGS ETC.

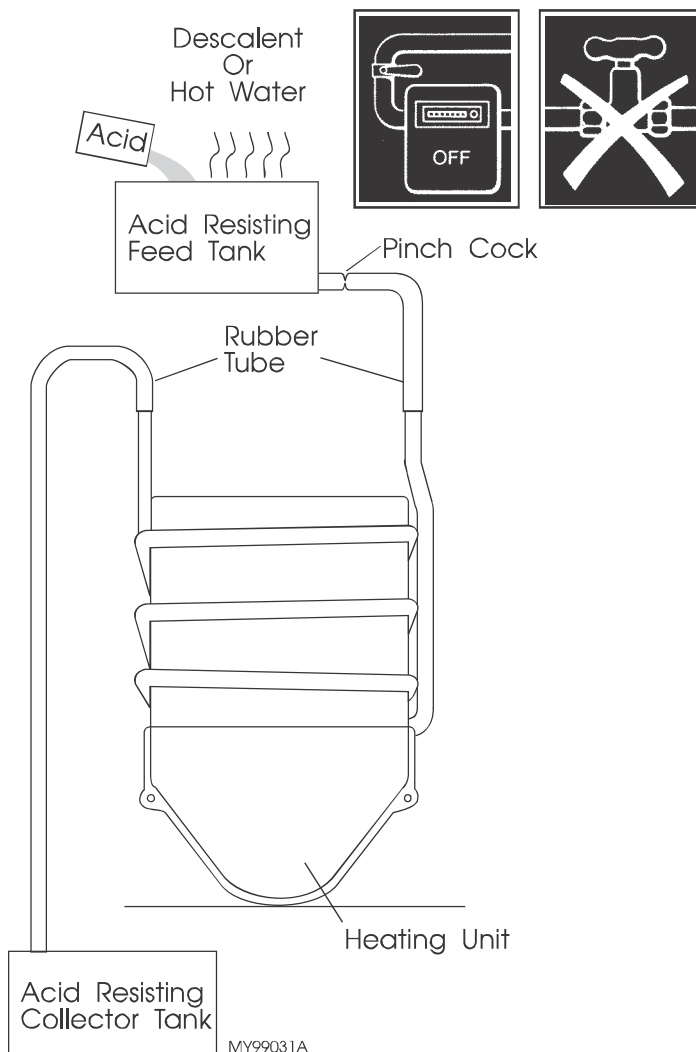


Fig. 48

- Gain general access - See 6.2.
- Drain the appliance - See 6.8.
- Remove the heating unit - See 6.16.

Note: On the Thames model it will be necessary to blank off the thermostat phial housing with a suitable plug.
- Invert the heating unit on a suitable bench or table.
- Using rubber tube and acid resisting tanks, assemble as shown in Fig.48.
- Fill the upper container with a proprietary brand of descalent or a solution of 10 parts water to 1 part hydrochloric acid. The water should preferably be hot, then add ACID to WATER, not water to acid.
- Adjust the pinch cock and allow the fluid to slowly pass through the heating unit into the collecting tank.
- Continue the process until the fluid ceases to bubble. It may be necessary to replenish the solution.
- Disconnect and thoroughly wash out the heating unit with clean water.

5. Fault Finding

SYMPTOM	POSSIBLE CAUSE	SOLUTION
PILOT WILL NOT LIGHT	1. Gas not turned on.	1. Turn on the gas at the gas service cock and/or the main gas line.
	2. Air in gas line.	2. Purge the air line by depressing and holding the centre ON button, this may take 2-3 mins.
	3. Incorrect pilot lighting procedure.	3. Follow the lighting instructions located on the bottom cover or refer to these Instructions.
	4. Electrode lead not connected to the rear of the spark igniter.	4. Re-connect the electrode lead.
	5. Incorrect spark gap.	5. The gap between the electrode tip and the pilot hood should be 3-4mm.
	6. Current tracking to earth.	6. Check the electrode lead is routed clear of all metal parts.
	7. Pilot injector blocked.	7. Clear injector by blowing through or replace with pilot injector Part No. 19/12690. Also clean the lint filter located at the base of pilot tube.
	8. Faulty components.	8. Replace any faulty components found. Piezo Unit - Part No. 10/11935. Electrode Assembly - Part No. 10/17493.
	9. No gas to the appliance.	9. Call in your local gas supplier.
PILOT LIGHTS BUT WILL NOT REMAIN ALIGHT	1. Thermocouple connections loose.	1. Tighten the connections.
	2. Pilot flame 'soft' or too small to heat the thermocouple tip.	2. Pilot injector partially blocked, clear by blowing through or replace. Check the gas inlet pressure is correct - 20 mbar. Also clean the lint filter located at the base of the pilot tube.
	3. Thermocouple worn out or damaged.	3. Replace the thermocouple - Part No. 10/17461.
	4. Faulty magnet unit in the flame safety device.	4. Replace flame safety device - Part No. 10/13477.
	5. Energy cut-off device connections loose.	5. Tighten connections.
	6. Energy cut-off device may be faulty.	6. Check for continuity and replace if necessary - Part No. 10/17792.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
PILOT LIT BUT MAIN BURNER WILL NOT LIGHT ON WATER FLOW	1. Gas inlet pressure low.	1. Call in your local gas supplier
	2. Low water flow caused by blocked water filter.	2. Clean the debris from the filter.
	3. Faulty diaphragm. Will also cause a high water rate.	3. Replace the Diaphragm Assembly - Part No. 10/17572.
	4. Automatic gas valve push rod jammed. May also cause a high water rate.	4. Dismantle clean and regrease using Dow Corning 111 silicone grease. Handle the push rod with care, do not bend.
	5. Slow ignition screw incorrectly set. Will also cause a high water rate.	5. See Fig.23 for the position of the screw. Turning the screw clockwise delays the ignition, anti-clockwise advances the ignition. The screw should be set 2 full turns out (anti-clockwise) from the fully in position. When correct the burner ignition should be smooth and quiet when a hot water outlet is opened.
	6. Thermostat throttle stuck in the open position. Will also cause a high water rate.	6. Descale, regrease and replace 'O' rings as necessary.
NO OR LOW WATER FLOW RATE	1. Blocked water filter.	1. Clean the debris from the filter.
	2. Heat exchanger blocked with lime.	2. Descale or replace - Part No. 10/17558.
	3. Loss of service water main pressure.	3. Contact your Local Water Authority.
HIGH WATER FLOW RATE		
See LOW WATER TEMPERATURE		
HIGH WATER TEMPERATURE	1. Automatic gas valve push rod sticking. Water rate will be normal.	1. Dismantle clean and regrease using Dow Corning 111 silicone grease. Handle the push rod with care, do not bend.
	2. Thermostat bellows perforated.	2. Replace thermostat assembly - Part No. 10/13486.
LOW WATER TEMPERATURE	1. Temperature selector set to '1'/'-'.	1. Turn selector to '5'/'+'.
	2. Gas pressure too low.	2. Check and clean gas filter, also check gas inlet pressure.

SYMPTOM	POSSIBLE CAUSE	SOLUTION	
LOW WATER TEMPERATURE CONT	3. Faulty diaphragm. Will also cause a high water rate.	3. Replace the Diaphragm Assembly - Part No. 10/17534.	
	4. Automatic gas valve push rod sticking. May also cause a high water rate.	4. Dismantle clean and regrease using Dow Corning 111 silicone grease. Handle the push rod with care, do not bend.	
	5. Slow ignition screw incorrectly set. Will also cause a high water rate.	5. See Fig.23 for the position of the screw. Turning the screw clockwise delays the ignition, anti-clockwise advances the ignition. The screw should be set 2 full turns out (anti-clockwise) from the fully in position. When correct the burner ignition should be smooth and quiet when a hot water outlet is opened.	
	6. Frost damage to thermostat bulb, recognised as a crushed bulb.	6. Replace thermostat assembly - Part No. 10/13486.	
	7. Thermostat throttle stuck in the open position. Will also cause a high water rate.	7. Descale, regrease and replace 'O' rings as necessary.	
	<hr/>		
	NOISY HEATER	1. Heat exchanger scaled. Ultimately this will cause the heat exchanger fins to discolour and buckle.	1. Descale or replace - Part No. 10/17558.
2. Noisy ignition could be caused by incorrect setting of the slow ignition screw.		2. See Fig.23 for the position of the screw. Turning the screw clockwise delays the ignition, anti-clockwise advances the ignition. The screw should be set 2 full turns out (anti-clockwise) from the fully in position. When correct the burner ignition should be smooth and quiet when a hot water outlet is opened.	
3. Reduced pilot rate caused by dirt.		3. Clear injector by blowing through or replace with pilot injector Part No. 19/12690. Also clean the lint filter located at the base of pilot tube.	
4. Burner aeration ports and main flame ports blocked.		4. Carefully clean the burners with a vacuum cleaner.	

SYMPTOM	POSSIBLE CAUSE	SOLUTION
SMELL OF COMBUSTION PRODUCTS	1. Faulty case or terminal seal.	1. Check that the outer case seal - Part No. 10/17501 and terminal seal - Part No. 31/12299 are in good condition, replace if necessary. Ensure the outer case is correctly positioned.
	2. Failure to follow Instructions with regards to openable windows and doors.	2. Re-site the appliance.

SYMPTOM

UNEXPLAINED SHUTDOWN OF THE APPLIANCE

This appliance contains an Energy Cut-Off Device which reacts when the water in the heat exchanger exceeds the anticipated temperature limit. Although it is intended to guard against failure of the automatic gas valve, it may be triggered inadvertently by other causes, especially during the summer months when the inlet water temperature is unusually high.

POSSIBLE CAUSE	SOLUTION
Failure of appliance thermostat.	Repair or replace.

However, if the energy cut-off device reacts to a slowly closing automatic gas valve, the shut down of the appliance may be accompanied by noises from the heat exchanger and pipework. The pressure relief valve located on top of the water governor may also have vented water into the case. In this situation it is possible that STEAM will come out of the hot water tap when turned on.

POSSIBLE CAUSE	SOLUTION
Excessive resistance of push rod.	Exchange push rod and seals. Lubricate with Dow Corning III silicone grease and ensure free movement.

IMPORTANT NOTE

To ensure continued safe operation, we recommend that if the pressure relief valve has operated, it should be replaced immediately

6. Short List Of Spares

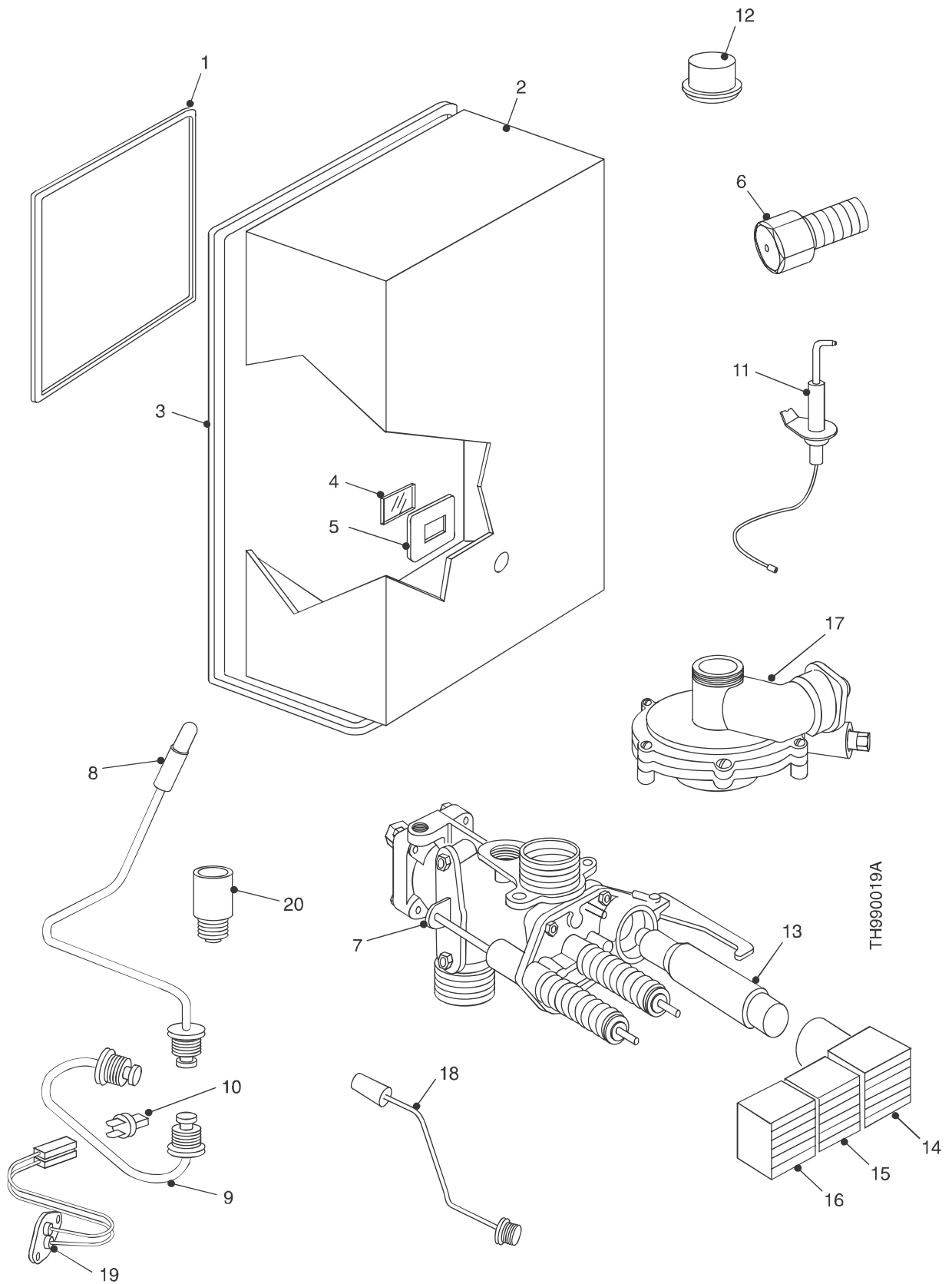


Fig. 49

Drg. Ref.	G.C. Part No.	Description.	No. Off.	Makers Part No.
1	284 957	Seal Pack - Chassis to Flue Terminal	1	31/12299
2	285 907	Case Assembly	1	10/17543
3	285 910	Case Seal - Self Adhesive Rubber	1	10/17501
4	285 908	Viewing Aperture Seal	1	10/17499
5	285 909	Viewing Aperture Glass	1	10/17500
6	285 513	Injector N.G. 1.2mm	14	19/12196
7	285 678	Flame Safety Device Assembly	1	10/13477
8	285 930	Thermocouple - Special	1	10/17461
9	285 929	Thermocouple Connection - Special	1	10/17790
10	397 688	Interrupter Insert	1	10/13846
11	285 931	Electrode Assembly	1	10/17493
12	285 679	Pilot Injector - Special	1	19/12690
13	393 492	Piezo Unit - RV 1174	1	10/11935
14	285 934	Igniter 'IGN' Button	1	10/17507
15	285 935	Starter 'ON' Button Assembly	1	10/17540
16	285 936	Stop 'OFF' Button Assembly	1	10/17541
17		Water Governor Assembly - Mersey Super	1	10/18920
		Water Governor Assembly - Medway Super	1	10/18907
		Water Governor Assembly - Thames	1	10/18900
18	285 691	Thermostat Assembly - Thames	1	10/13486
19	285 937	Energy Cut-Off Device Assembly - includes grommets	1	10/17792
20	285 942	Pressure Relief Valve Assembly - Medway Super/Thames	1	10/17866
	285 956	Pressure Relief Valve Assembly - Mersey Super	1	10/17865

Washing Machine Information

This Mersey Super, Medway Super and Thames will work in conjunction with most automatic washing machines (pressure filled type).

1. The washing machine must incorporate a pressure level switch to control the amount of water required during the washing cycle and an independent heating element, to boost the washing temperature for certain washing programmes above the normal 60 °C (140 °F) temperatures produced by this instantaneous water heater. Most modern machines use these types of controls.
2. Washing machines which use a "TIMED FILL" cycle are NOT suitable for use with instantaneous water heaters.
3. Washing machines which use a "MIXING THERMOSTAT" which attempts to mix both hot and cold water supplies to obtain a pre-determined temperature are NOT suitable for use with instantaneous water heaters.
4. The cold water supply pressure must be at least 1.7 bar.
5. Where a restrictor washer is fitted to the hot water inlet of the washing machine this MUST be removed in all cases.
6. Cold fill only type washing machines are not affected at all by instantaneous water heaters and may be used in the same household, provided it is NOT connected to the hot water supply.

INSTALLATION DIAGRAM FOR WASHING MACHINES

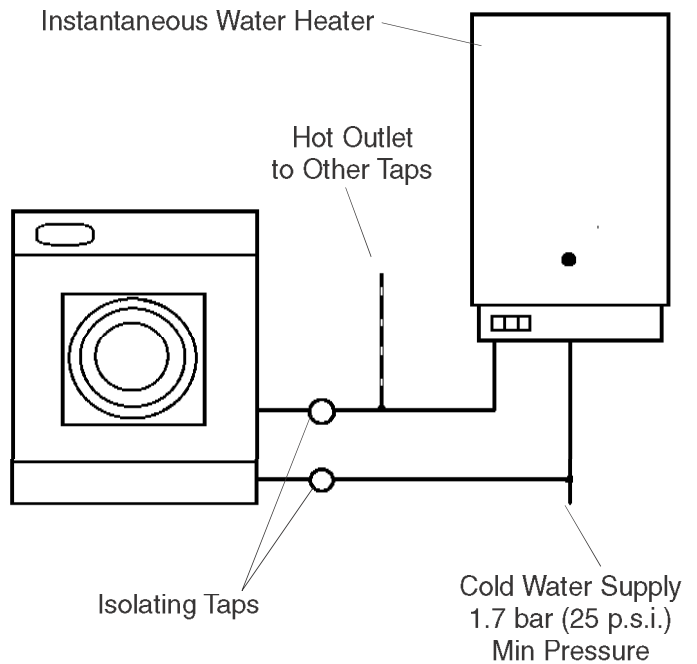


Fig. 50

Shower Information

The Medway Super and Thames will work in conjunction with many modern showers or bath/shower mixers. *The Mersey Super is not suitable for use with a shower system.*

Shower systems fed with an instantaneous water heater may result in a decreased temperature range and adjustment facility when compared with shower systems fed from storage systems although in general a satisfactory shower can be obtained with both manual and thermostatic type mixer valves.

Some manufacturers supply shower systems suitable for use with instantaneous water heaters and give specific instructions for installation and use. In these instances preference should be given to the shower manufacturers instructions.

For further information regarding shower systems contact the following manufacturers quoting the make

and model of instantaneous water heater to be used with the shower system.

Kohler Mira Limited [www.mirashowers.com]

Cromwell Road
Cheltenham
Gloucestershire. GL52 5EP.
Tel: (0870) 2410888.

Aqualisa Products Limited [www.aqualisa.co.uk]

The Flyers Way
London Road
Westerham
Kent. TN16 1DE.
Tel: +44 (0)1959 560000

In the absence of shower manufacturers specific instructions, the following is a general method of installation and adjustment for shower systems:-

INSTALLATION DIAGRAM FOR SHOWER SYSTEMS

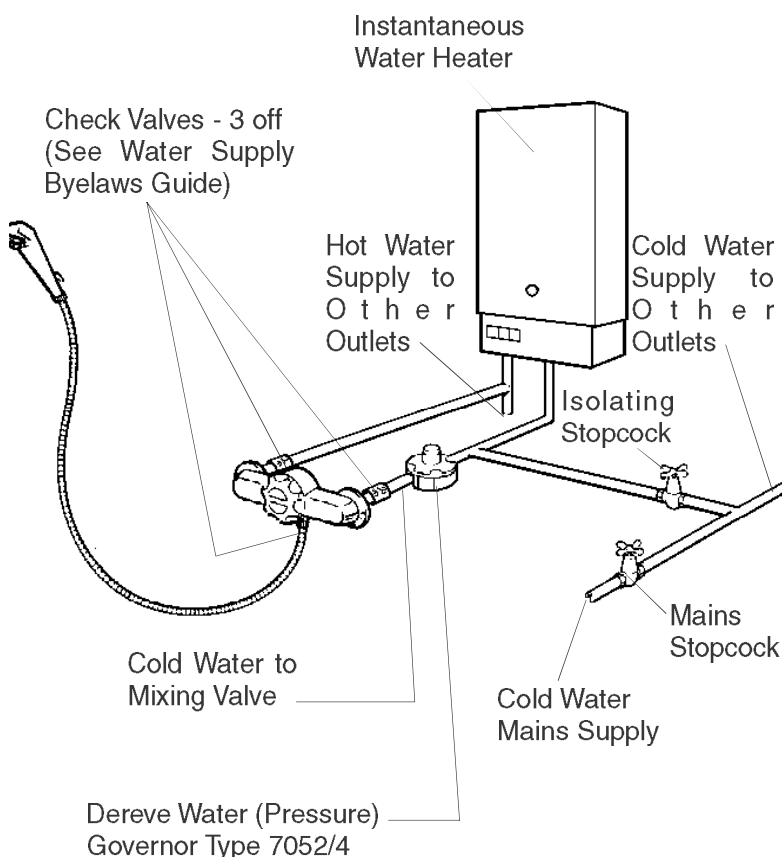


Fig. 51

1. Most instantaneous water heaters are capable of supplying several outlets, but not necessarily at the same time.
2. To obtain the best results from the shower system the Dereve Water (Pressure) Governor type 7052/4 should be installed to govern the cold supply to the shower.

For local suppliers of the governor contact:
Dereve (Flow Controls) Limited,
Park Lane,
Handsworth,
Birmingham. B21 8LE.

Tel: +44 (0)121 553 7021.

Some mixer valves may not require the fitting of a water governor, advice must be sought from the shower manufacturer.

3. The nearer the shower is to the water heater, the more satisfactory will be the shower, particularly ease of temperature selection.
4. Ideally the cold water pipes on the delivery (outlet) side of the water governor to the shower should not serve any other draw-off when the shower is in use.
5. If the shower is permanently too cold unscrew the water governor slightly, if the shower is permanently too hot screw the governor in slightly until a reasonable range is achieved.

WARNING: DO NOT ATTEMPT TO ALTER THE TEMPERATURE BY ADJUSTING THE WATER HEATER TEMPERATURE SELECTOR - THIS MUST ALWAYS BE SET AT ITS HOTTEST POSITION WHEN THE SHOWER IS IN USE.

6. When non-thermostatic type mixer valves are set with the temperature control at the maximum hot position the water temperature can rise to the full output of the water heater i.e. approximately 60 °C (140 °F).

It is therefore recommended that before stepping under the shower when operating this type of control set the mixer to a mid position and then gradually increase to the desired temperature.

7. Flexible shower hoses and rigid pipes between the mixer valve and shower head must have a minimum bore of 3/8 in.
8. Push on type shower mixers are NOT suitable.
9. The shower head must be of a low pressure type and be capable of passing approximately 13.6 l/min (3.0 gal/min) of mixed water.
10. Flow isolation should be provided on the supplies to the shower system to facilitate servicing.

ADJUSTING THE SYSTEM

Two methods are suggested for setting the system depending on whether a thermostatic or non-thermostatic shower mixer is used.

NON-THERMOSTATIC SHOWER MIXERS

1. Turn off the cold water supply to the water heater using the service tap supplied.
2. Turn the mixer temperature control to the mid position.
3. Turn the mixer flow control to maximum.
4. Turn on the cold supply to the mixer and adjust the water governor so that the cold flow from the shower head is 7.3 l/min (1.6 gal/min) This flow can be checked using a graduated container. The time taken for collecting 4.5 litres (1 gallon) should be 37 - 39 seconds.
5. Turn on the cold supply to the water heater and check the shower temperature. It should now be possible to obtain the desired shower temperature using the controls on the mixer.

THERMOSTATIC SHOWER MIXERS

1. Turn on both the hot and cold water supplies to the shower mixer.
2. Turn the mixer control to the maximum position or if graduated in degrees centigrade to 45 °C.
3. Turn the mixer flow control to maximum and adjust the water governor so that the temperature from the shower head is at 45 °C.

**Mersey Super - Medway Super -
Thames**

All loose items have been packed by
the Packer identified below

Packers Stamp No.

General Enquiries (GB)

Tel. **08706 060 780**

Technical (GB)

Tel. **08706 049 049**

Service (GB)

Tel. **08706 096 096**

Fax. **01926 410 006**

Literature Request (GB)

Tel. **08706 060 623**

Technical (IE)

Tel. **1850 560570**

All descriptions and illustrations provided in this leaflet have been carefully prepared but we reserve the right to make changes and improvements in our products which may affect the accuracy of the information contained in this leaflet. All goods are sold subject to our standard Conditions of Sale which are available on request.

MAIN

Baxi Potterton
Brownedge Road, Bamber Bridge
Preston, Lancashire. PR5 6SN

www.potterton.co.uk