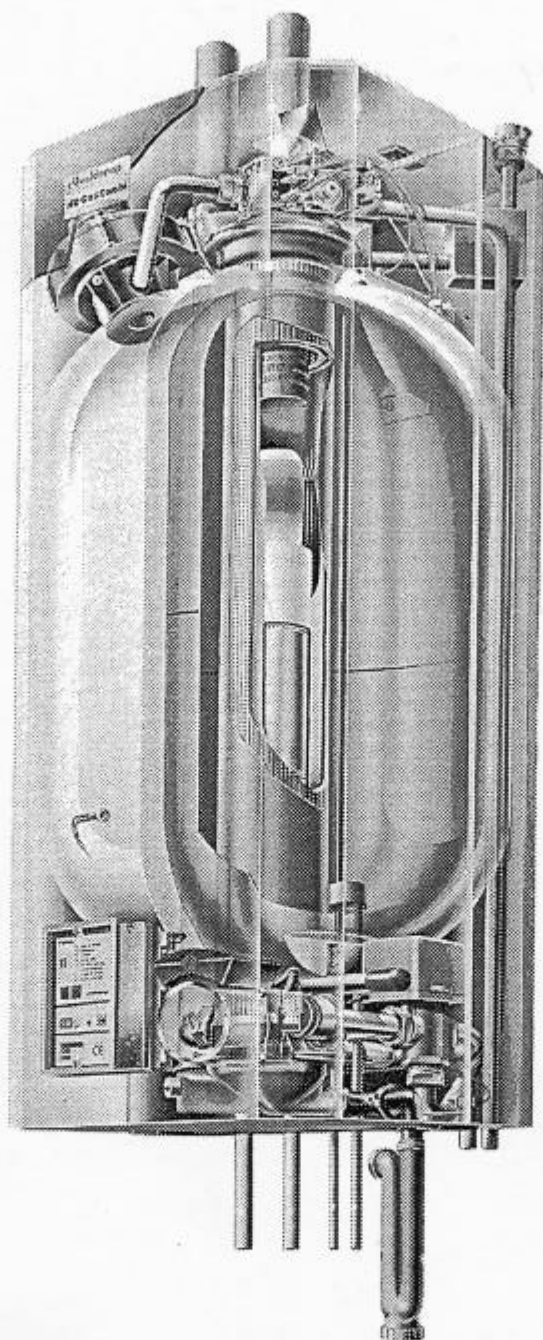


Atmos Multi



User Operating Instructions

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Introduction

Congratulations...on the purchase of your new Atmos Multi gas fired condensing boiler. You have made an excellent choice, as we are confident that it will give you many years of pleasure and comfort. We recommend that you read these operating instructions carefully, as they contain important information. Please keep these instructions in a safe place, next to the appliance for example, so that they are always within handy reach. At the back of these instructions is your proof of guarantee. Please don't forget to complete the **Guarantee Registration Card** and send it back to Atmos Heating Systems.

Should you have any questions after reading these instructions, please consult your installer who will be happy to advise you.

Product description.

The Atmos Multi is a high efficiency condensing gas fired boiler representing the highest level of technology found in today's gas boiler market.

Along with supplying all your heating needs the appliance incorporates an 80-litre hot water storage tank, supplying abundant hot water at mains pressure.

An electronic control system that constantly monitors and adjusts the appliance heat input to match the requirements of heating system ensures the Atmos Multi is extremely economical in energy consumption, heating your home with an average efficiency of over 90%.

The appliance pre-mix burner ensures that gas is burnt cleanly in an environmentally friendly manner with extremely low carbon dioxide and NOx emission.

To you as a consumer this means that the Atmos Multi condensing boiler will heat your home comfortably and economically with minimal harm to the environment, and in addition of course, lower gas bills.

IMPORTANT INFORMATION.

Note: Gas Council numbers are as follows:
24/80 – 41-249-02
24/80+ - 41-249-03
32/80+ - 41-249-04

In order to maintain peak efficiency along with optimum performance and reliability it is essential that the Atmos Multi be serviced annually by a competent person such as a CORGI Registered Engineer.

GAS SAFETY (INSTALLATION AND USE) REGULATIONS 1994

It is the law that all gas appliances must be installed and serviced by a competent person in accordance with the above regulations. Failure to install or service gas appliances correctly could lead to prosecution. It is in your interest and that of safety to ensure compliance with the law.

For electrical safety the boiler must be earthed and protected by a **3-amp fuse**.

Note. In the event of a fault the appliance should not be used until a competent person has corrected the fault.

Warning!

You are not permitted to apply changes to the unit and discharge system. Neither must the condensation discharge be changed or drained

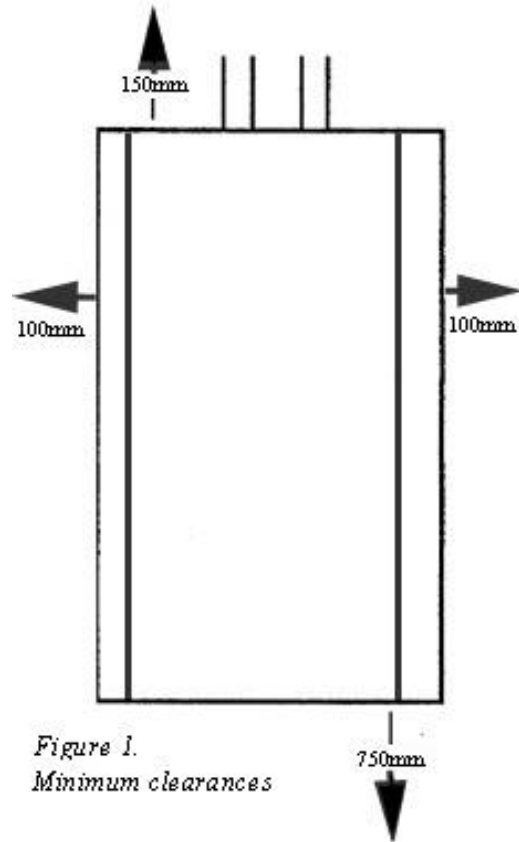
Minimum clearances

For maintenance and servicing purposes the Atmos Multi has been installed with a minimum space of 150mm above, 750mm below, 600mm to the front and 100mm to either side of the appliance case. It is essential that this space is not restricted by the addition of shelves, cupboards etc. fitted in close proximity to the appliance (*fig 1*)

2. How the Atmos Multi works

At the heart of the appliance is a specially designed aluminium condensing heat exchanger sitting centrally inside an insulated

80litre copper water storage tank.



This construction enables all your central heating and domestic hot water needs to be supplied by one very compact combined appliance.

▪ **Central heating-circuit**

When the room thermostat calls for central heating, the central heating water is pumped through narrow channels in the wall of the heat exchanger where it absorbs the heat given from the burners hot combustion gases. On leaving the heat exchanger the heated water enters a three-way valve from where it is sent to the system radiators, thus heating the home.

The central heating pump starts automatically when the room thermostat calls for heat and to dissipate any remaining heat in the heat exchanger, continues to run for a short period after the heat demand has been met. If no call for heat is made for 24 hours the three-way valve automatically switches to the central heating position and the central heating pump runs for 3 minutes to prevent its impellers

from seizing.

- **Hot water**

If there is a call for domestic hot water without central heating the appliance burner automatically fires and the three-way valve changes its outlet position cutting off the flow to the central heating radiators. The central heating water is then continually circulated from the top to the bottom of the heat exchanger indirectly heating the stored water within the storage tank.

On the hot water 'sensor' detecting a temperature of 65°C, the appliance burner automatically shuts down. On the sensor detecting a fall in water temperature the burner will re-ignite in order to maintain the stored water at a constant 65°C.

- **'Continuous comfort' option.**

When a simultaneous call is made for both central heating and hot water the three-way valve goes to a mid position, supplying heated water to both systems. This unique three-way valve output regulation prevents a drop in the temperature of the home when the stored hot water is being heated.

- **High Efficiency operation.**

A fan blows the combustion gases from the top to the bottom of the heat exchanger through purpose designed fins. On passing over the fins the combustion gases are cooled down in such a way that some of the water vapour present in these gases condenses in the lowest part of the heat exchanger. This releases an extra quantity of condensation heat, which takes the Atmos Multi efficiency to well over 90%.

The condensate formed is then discharged to the waste system by a siphon fitted to the appliance.

- **Closed design.**

The Atmos Multi is of the 'closed' design type. This means that a fan draws air for the combustion process from outside the property. The combustion gases are then discharged back to the outside atmosphere via the burner, heat exchanger and flue gas discharge. The closed design and the special construction of both the heat exchanger and the burner mean

the fan is essential to the appliance operation.

- **Cleaner combustion.**

A specially designed burner has been fitted into the top of the appliance heat exchanger. The gas and combustion air is completely mixed before arriving at the burner. This result's is a very low burner flame height which makes the appliance's compact construction possible. It also ensures that full combustion takes place in an environmentally friendly manner.

This environmentally friendly combustion system ensures that the Atmos Multi fulfils the requirements of the Dutch Gas Inspection 'Cleaner Combustion' label.

- **The control system**

Operation of the Atmos Multi is controlled and monitored by an electronic control unit that sends and processes information to and from the appliance various temperature and control components.

The appliance also has a continuously modulating burner control system. This system adapts the fan revolutions to the heat output demanded by automatically adjusting the appliance burner air/gas ratio via a pneumatic mechanical gas/air connection. This provides perfect heat output control for both the central heating and domestic hot water.

- **Most efficient start. (MES)**

MES is a comfortable energy saver that keeps the home at the required temperature as accurately as possible by using the lowest possible burner heat output - thereby providing the highest possible efficiency.

When a call for central heating is made the appliance always starts on a low burner capacity to heat the home. The amount of time the burner remains on low capacity depends upon the rise in room temperature required.. The boilers electronic control unit constantly recalculates the low burner capacity time, making the regulating system 'intelligent' in that it learns from itself.

3. Operating the Atmos Multi

▪ The room thermostat.

The central heating is controlled by a room thermostat *, which can be set to the temperature you require. The room thermostat signals the Atmos Multi electronic control unit when heating is needed and brings the appliance into operation.

Operation of the appliance then continues until such time that the room thermostat signals that the heating requirement has been satisfied.

Once satisfied, the room thermostat will then periodically signal the control unit for heat to ensure the home constantly remains at the required temperature.

* Other control systems may be applicable, please refer to your installer.

▪ The operating panel.

The Atmos Multi operating panel is located on the front of the control unit, which is situated at the bottom left-hand corner of the appliance.

Located on the operating-panel are two displays (fig 2) The uppermost 'diagnostic' display gives appliance operating or malfunction reports, the lower 'central heating water' display gives the current central heating pressure or central heating water temperature.

❖ Diagnostic display

The number shown on the diagnostic display gives the operating status of the appliance.

A number '1' displayed for example, means that there is a hot water demand.

A dot following the number e.g.'1.' means that the appliance is occupied with that relevant activity -in this case meeting the hot water demand. The various status codes shown along with their meaning are given figure 3.

The diagnostic display is also used to show boiler malfunction codes, further details of

which are given in section 8.

Figure 2: Operating panel

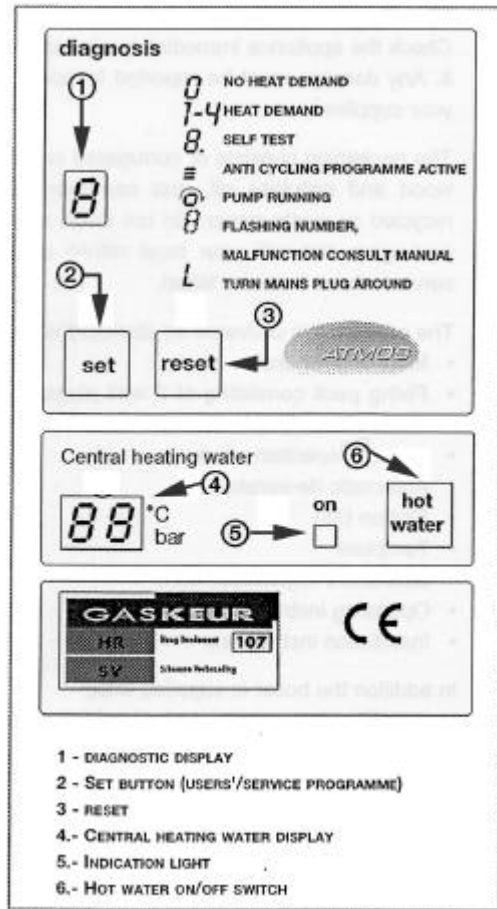
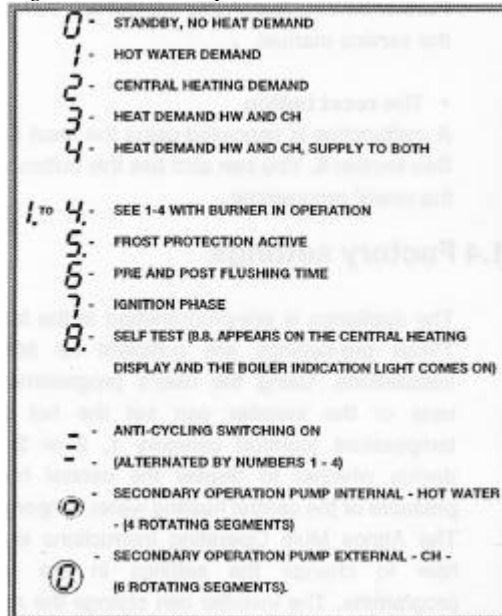


Figure 3.: Status reports



heating water display.

- **Central heating water display.**

The central heating water display indicates either the current central heating water pressure (*factory setting*) or the temperature of the central heating water (*user setting*). For further information see 'User's' programme.

- **Hot Water on/off switch.**

If required, the hot water may be switched off using the water heater on/off switch (fig. 2). Pressing this hot water switch once will switch off the hot water indication light and stop the hot water heat demand.

- **Set button.**

The set button is used to initiate an integral programme to allow changes to be made to the boiler's factory settings and other installation and service activities. To protect against accidental use the set button has to be depressed for a period of 5 seconds before activation occurs

- **Factory settings.**

The appliance settings are pre-programmed in the factory. The central heating temperature and the domestic hot water temperature, for example, are set as standard to 90°C and comfort 2 respectively. Although these standard settings are suitable for 90% of situations, the factory settings may be changed to suit individual requirements by means of the 'User' programme. You may either change the settings yourself or ask your installer to do them for you when putting the appliance into operation or carrying out a service. Your installer will be pleased to provide you with advice on this.

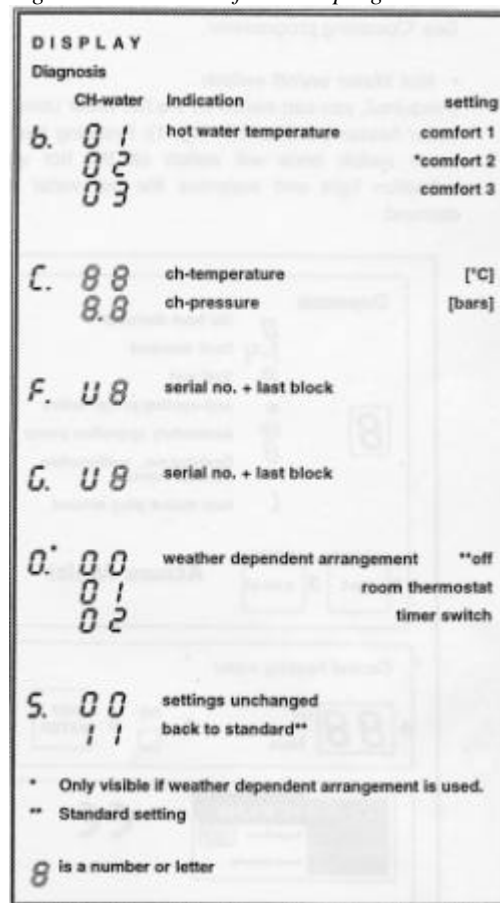
- **User's programme**

The Atmos Multi in-built user's programme allows the user or installer to change the factory settings an over view of which is given as figure 4.

User's programme access.

The users' programme is accessed by pressing the set button for approximately 5 seconds until a letter 'b' appears on the diagnostic display and the setting appears on the central

Figure 4: Overview of 'User's' programme



The next setting or report can be selected by again pressing the set button - this is the procedure for selecting all settings or reports. If you wish to change the value of a certain setting, press the hot water button until the desired value is given on the central heating water display. The programme is terminated automatically five minutes after the last action was carried out or alternatively, you can exit the programme by pressing the 'reset' button.

Example

The procedure for displaying the central heating water temperature instead of the central heating water pressure is as follows:

- Press the set button for at least 5 seconds [*the letter 'b.' will appear on the diagnostic display*].
- Briefly press the set button once [*the letter 'C.' will appear on the diagnostic display and*

the current central heating water pressure will appear on the central heating water display].

□ Press the hot water button once [*the reading of the central heating water display will then given the current central heating water temperature*].

□ Finally press the reset button to exit the users programme.

The reading has now changed to the central heating water temperature (e.g. 65°C).

▪ **Reset button.**

A lockout situation following a malfunction is cancelled using the reset button. The button is also used to exit the 'User's' programme.

4. System pressure.

On installation your installer will have filled the boiler and system to its effective working pressure of 2bar. The system pressure should be regularly checked to ensure that this pressure is maintained.

If the pressure falls below 0.5bar or rises higher than 3bar, a warning will appear on the diagnostic display {*the letter C' alternating with the operating status of the appliance*}. If this warning is given the appliance will only operate at minimum capacity.

Note! If there is a frequent drop in pressure then your installer should be consulted.

The Atmos Multi does not have an integral central heating filling and drainage tap. Your installer will have shown you where the purpose supplied filling points are located.

▪ **Re-pressurising the system**

The system may be re-pressurised by using the filling loop left with the boilers Installation & Servicing Instructions as follows:

❖ Connect the filling loop across the two manual filling valves 'A' and 'B' as shown in figure 5.

❖ When connected slowly turn the control knob on valve 'A' until the valve is fully open.

❖ Slowly open valve 'B' while observing the system pressure displayed on the appliance operating panel.

❖ Once the pressure indicated reaches 2bar turn off valves 'B'. & 'A' and remove the filling loop.

Important note! The filling loop must always be removed from valves 'A' and 'B' after the system has been pressurised in order to comply to Water Byelaws.

Note! If in doubt about re-pressurising your system, contact your installer.

5. Shutting down.

▪ **Central heating.**

To shut down the central heating leave the electrical supply to the Atmos Multi switched on and set the room thermostat to its minimum temperature.

The appliance will continue to operate for domestic hot water provided that the hot water heating is switched on.

Recommendation!

On shutting down the central heating it is recommend not to set the room thermostat lower than 15°C during the winter months. To protect the installation from freezing it is advisable to leave all radiator valves fully or partially open.

▪ **Domestic hot water.**

Leave the electrical supply to the Atmos Multi switched on and switch off the hot water heating by pressing the water heater button.

The 'on' indication light will go out (The stored water is protected against freezing in winter months by an automatic frost protection that activates on a water temperature of 15°C).

Note! The heating and domestic hot water installation must be independently protected from frost. The boiler's built-in frost protection facility will only safeguard the appliance itself.

▪ **Draining the appliance.**

If the appliance is not to be used for a long period of time during the winter months then the appliance should be drained.

To drain the appliance contact your installer or alternatively:

- ❖ Switch off the electrical supply to the appliance.
- ❖ Turn off the cold feed (butterfly valve with blue head) to the hot water tank.
- ❖ Open the highest hot water tap in the house.
- ❖ Turn the head (red) of the safety valve on the cold water inlet valve through 90°.
- ❖ The water within the storage tank will drain away through the tundish and discharge pipe. Alternatively you may connect a hose pipe to the black drain cock on the same valve and drain the water to the nearest waste outlet.
- ❖ Drain the central heating circuit by connecting a hose to the purpose supplied drain cocks fitted by your installer at the lowest points on the central heating installation

▪ **Disposal of the appliance**

Besides environment friendly operation, Atmos Heating Systems also aims to restrict harm to the environment to an absolute minimum in both the manufacturing and recycling phases.

The Atmos Multi is made of a number of primary materials, especially copper, aluminium and steel. These materials can easily be separated and recycled at the end of the life span of the appliance.

Therefore do not throw away the appliance, but make enquiries for the disposal of the appliance at your local council or scrap dealer.

6. Cleaning the appliance case.

Do not use abrasive cleaners on the outer casing of the appliance. Clean with a damp cloth only or use a small amount of detergent if necessary.

7. Smell of gas.

If a gas leak exists, or is suspected, turn off the gas supply to the appliance at the main service cock and immediately contact the 'Gas Emergency Service'.

Do not turn any electrical switches on or off. Open all doors and windows. Do not smoke and extinguish all naked lights.

8. What to do on a boiler malfunction.

A malfunction or block can be caused if the central heating installation or the appliance are not working correctly. The Atmos Multi has three types of reports:

▪ **Warning reports**

A letter that appears for one second in every five on the diagnostic panel identifies a warning report. The appliance continues operating, but the function to which the warning report relates is switched off or ignored.

▪ **Block warning**

A block is an error that occurs but which does not cause a malfunction. The appliance waits until the block has been resolved and then returns to normal operation. A constantly displayed letter on the diagnostic display indicates a block.

If one of the reports referred to above is displayed, first check:

- ❖ The room thermostat is set correctly
- ❖ The appliance gas supply tap is turned on.
- ❖ The valves on the radiators are open
- ❖ the water pressure in the central heating installation is between 1 and 2bar.
- ❖ The central heating installation has been properly de-aerated.
- ❖ The hot water heating is switched on

If the malfunction persists, proceed as follows:

Try to resolve the malfunction by pressing the reset button. If the appliance does not unlock try again after about 15 seconds.

If the appliance remains locked or if the same malfunction occurs repeatedly, note the malfunction number shown on the diagnostic display and consult your installer.

On contacting your installer make sure that you have the 'Appliance' manufacture number given at the back of these instructions

9. Guarantee information

❑ What is covered by the guarantee?

Atmos guarantees the heat exchanger and the water heater tank for material and construction faults for five years and the other parts for two years. Both periods are calculated from the date of commissioning.

This guarantee implies that the purchaser of this appliance is entitled to free delivery of the replacement part. Your installer may charge for the costs of dismantling and replacing the defective part.

Repairing or replacing parts during the guarantee period does not extend the length of the guarantee. Atmos gives a 1 year guarantee on replacement parts. Parts or appliances sent to the factory for repair or replacement must always be sent postage paid.

Defects caused by corrosion - both internally and externally - of any nature whatsoever, whatever their cause, and defects resulting from scale deposits are not covered by the guarantee.

Secondary damage, including water damage resulting from the appliance leaking, loss of earnings resulting from the failure of the appliance to perform correctly, fire, legal liability of the user to third parties and so on, do not come under the guarantee. The right to assess guarantee claims is reserved to Atmos Heating Systems, who must always be given the opportunity of inspecting the appliance on site.

❑ Who conducts the guarantee?

The provision of service and the execution of this guarantee is the responsibility of the installer from whom you bought the appliance.

❑ Guarantee stipulations

Claims can only be made on the guarantee if the enclosed *GUARANTEE REGISTRATION CARD* has been completed and signed and returned to Atmos Heating Systems within 14 days of the installation date.

A recognised installer must carry out the annual inspection and maintenance in accordance with the maintenance advice provided by Atmos Heating Systems.

If a defect occurs the appliance will be assessed as it was originally set up and connected.

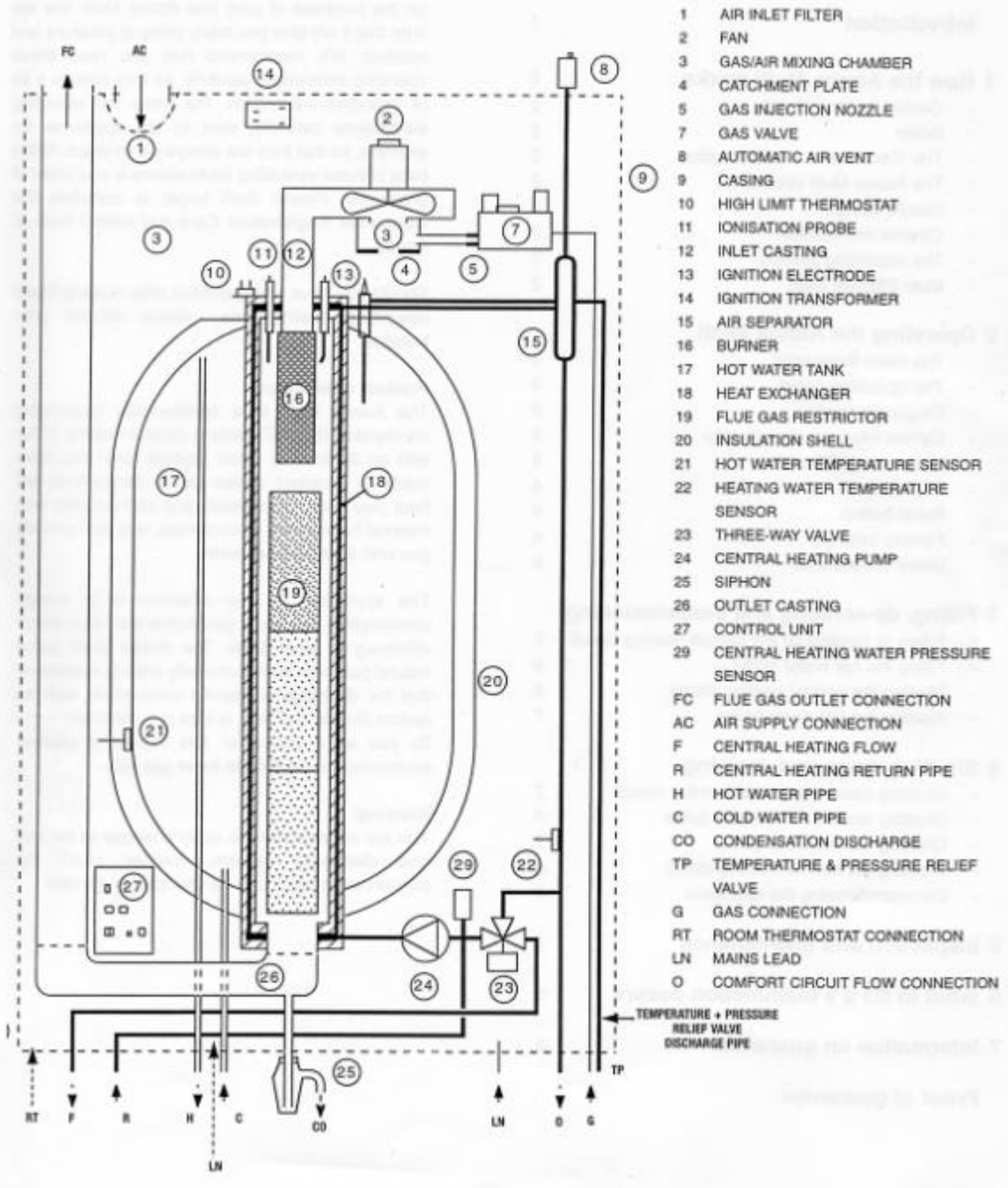
❑ Receipt, guarantee registration card and proof of guarantee

Claims can only be made on the guarantee described above upon submission of the receipt invoice together with the fully completed proof of guarantee. You must retain this *PROOF OF GUARANTEE*, which you will find at the back of these *OPERATING INSTRUCTIONS*. The appliance serial number is also stated on this document. The purchase date and the name of your supplier must be clearly stated on your receipt.

Warning!

For the correct operation of the appliance it is important that the central heating installation is clean and free of air. The installation must only be filled with clean tap water. If additives such as anti-freeze, leak sealers etc are used the guarantee will become null and void in its entirety. The only permitted additive to the system water is Sentinel X100 corrosion inhibitor.

10. Atmos Multi Schematic



- 1 AIR INLET FILTER
 - 2 FAN
 - 3 GAS/AIR MIXING CHAMBER
 - 4 CATCHMENT PLATE
 - 5 GAS INJECTION NOZZLE
 - 7 GAS VALVE
 - 8 AUTOMATIC AIR VENT
 - 9 CASING
 - 10 HIGH LIMIT THERMOSTAT
 - 11 IONISATION PROBE
 - 12 INLET CASTING
 - 13 IGNITION ELECTRODE
 - 14 IGNITION TRANSFORMER
 - 15 AIR SEPARATOR
 - 16 BURNER
 - 17 HOT WATER TANK
 - 18 HEAT EXCHANGER
 - 19 FLUE GAS RESTRICTOR
 - 20 INSULATION SHELL
 - 21 HOT WATER TEMPERATURE SENSOR
 - 22 HEATING WATER TEMPERATURE SENSOR
 - 23 THREE-WAY VALVE
 - 24 CENTRAL HEATING PUMP
 - 25 SIPHON
 - 26 OUTLET CASTING
 - 27 CONTROL UNIT
 - 29 CENTRAL HEATING WATER PRESSURE SENSOR
- FC FLUE GAS OUTLET CONNECTION
 AC AIR SUPPLY CONNECTION
 F CENTRAL HEATING FLOW
 R CENTRAL HEATING RETURN PIPE
 H HOT WATER PIPE
 C COLD WATER PIPE
 CO CONDENSATION DISCHARGE
 TP TEMPERATURE & PRESSURE RELIEF VALVE
 G GAS CONNECTION
 RT ROOM THERMOSTAT CONNECTION
 LN MAINS LEAD
 O COMFORT CIRCUIT FLOW CONNECTION

Atmos reserves the right to make changes.

Proof of guarantee

This is your proof of guarantee. Please complete the enclosed guarantee registration card and return it to Atmos within 8 days of installation (no stamp required) so that you will be entitled to make a claim on our service and guarantee should a defect occur. This will enable us to provide you with fast, efficient service.

You should, however, always report the defect to your installer first.

Manufacture number :

Installation date :

Installers name :

Address :

Post Code :

Telephone :

Fax :



Heating Systems

West March, Daventry, Northants NN11 4SA

Tel: 01327 871990 Fax: 01327 871905

Email:sales@atmos-heating.co.uk

Website:www.atmos-heating.co.uk