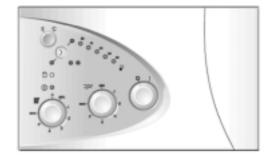
User's Manual



benchmark)

The code of practice for the installation, commissioning & servicing of central heating systems





Dear Customer,

Thank you for choosing an ARISTON boiler.

We guarantee that your boiler is a reliable and technically sound product.

This User's Manual provides detailed instructions and recommendations for proper installation, use and maintenance. Remember to keep this manual in a safe place for future reference i.e. by the gas meter.

Your local MTS Servicing Centre is at your complete disposal for all requirements.



The guarantee on this appliance is valid for 24 months from the first day of installation.

Repairs to the electric, hydraulic or gas circuits may be carried out only by your local authorised MTS Servicing Centre.

Every attempt has been made to avoid errors of any kind in this User's Manual, the Management invites customers to inform of any inaccuracies which they may find. This will help to improve our service

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IMPORTANT!

Please read this manual carefully.

For additional information, please consult the "Installation and Servicing Instructions."

Make sure to keep the manuals provided with the appliance so that they can be used by the end-user, installer or our authorised engineer.

1. GENERAL INFORMATION

MTS (GB) Limited support the **(benchmarg)** initiative. Your installer will give you, and show you how to use, a logbook which will give you important information about your boiler, and heating system. Please have this logbook to hand whenever you contact a service engineer or us.

All CORGI Registered Installers carry a CORGI ID card, and have a registration number. Both should be recorded in your boiler logbook. You can check your installer is CORGI registered by calling CORGI direct on :- (01256) 372300.

This is a combined appliance for the production of central heating (C.H.) and domestic hot water (D.H.W.). This appliance **must be used only** for the purpose for which it is designed. The manufacturer declines all liability for damage caused by improper or negligent

use.

Do not allow children or inexperienced persons to use the appliance without supervision.

If you smell gas in the room, **do not turn on** light switches, use the telephone or any other object which might cause sparks.

Open doors and windows immediately to ventilate the room.

Shut the gas mains tap (on the gas meter) or the valve of the gas cylinder and call your Gas Supplier immediately.

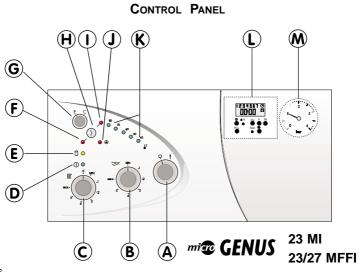
If you are going away for a long period of time, remember to shut the mains gas tap or the gas cylinder valve.

Before any intervention within the boiler it is first necessary to cut off the electrical power supply by turning the external switch to "OFF".

This manual may be kept in the front panel of the boiler.

TECHNICAL INFORMATION

GENERAL DATA		23 kW	27 kW
Heating input max-min	kW	25.6-11.0	29.8-12.0
Heating output max-min	kW	23.8-9.7	27.8-10.5
Efficiency at Maximum Thermal Capacity (see installation instructions)	%	92.9	93.5
CENTRAL HEATING			
Operating Temperature max-min	°C	82-42	82-42
Maximum-Minimum Heating Pressure	bar	3-0.7	3-0.7
Built-in expansion vessel - Total capacity	litres	6	6
DOMESTIC HOT WATER		-	-
Maximum-Minimum Temperature of			
Water for Domestic Use	°C	56-36	56-36
Working pressure max-min	bar	8-0.2	8-0.2
Flow rate ∆T 25°C	l/min	13.6	?
Flow rate ∆T 35°C	l/min	9.7	?
Minimum flow rate	l/min	2.6	2.6
ELECTRICAL DATA			
Electrical Supply/ Frequency	V/Hz	230/50	230/50
Power Consumption	W	140	155
Protection of Electrical System	IP	X4D	X4D
CATEGORY			
Nominal Pressure/Methane Gas (G20-G25)	mbar	20-25	20-25
Nominal Pressure/Liquid Gas (G30-G31)	mbar	30-37	30-37



LEGEND:

- A On/Off knob
- B Domestic hot water temperature adjustment knob
- C Central heating selection (winter) and temperature adjustment knob
- D On/Off L.E.D. (green)
- E Fume sensor L.E.D. (yellow)
- F Ignition failure (lockout) L.E.D. (red)
- G "Economy/Comfort" mode selection knob
- H Ignition failure (lockout) and/or overheat reset button
- I Overheat L.E.D. (red)
- J Low system water level L.E.D. (red)

- K Central heating temperature
 - L.E.D (yellow)
- L Time clock
- M Heating system pressure gauge

2. OPERATING INSTRUCTIONS CAUTION

Installation, start-up, adjustments and maintenance must be performed by a competent person only, in accordance with the current Gas Safety (Installation & Use) Regulations and the instructions provided. Improper installation may cause damage or injury to individuals, animals and personal property, for which the manufacturer will not be held liable.

To ensure efficient and safe operation it is recommended that the boiler is serviced annually by a competent person.

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.

HELPFUL SUGGESTIONS

To get the most out of your boiler, we have provided you with some useful advice on proper use and maintenance:

Periodically check the system pressure using the pressure gauge "**M**", make sure that the pressure is between 1.0 and 1.5 bar (the blue part on the gauge) when the system is off and cool. The warning L.E.D. "**L**" will indicate if the pressure is below the minimum recommended



value. Consult your installer for checking and refilling the system.

 The outer panels of the unit's case must only be cleaned with a damp cloth. Do not use abrasive cleaners. The control panel can be wiped with either a damp or dry cloth. Spray polishes must not be used on the control panel surface or knobs. Care must be taken in preventing any liquid entering the appliance.

PRACTICAL TIPS

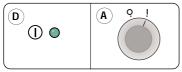
 If the water is very hard, it is recommended that a water softener be added to the system so as to reduce the formation of limescale in the boiler exchangers. This will ensure that the efficiency of the unit remains the same over time, reducing gas consumption and maintenance costs.

- If the boiler should be out of use for a prolonged period, it is recommended that the electrical power supply be disconnected and that the external gas cock be closed.
 If low temperatures are expected, the boiler and system pipe work should be drained in order to prevent frost damage.
- To improve comfort and take full advantage of the heat produced by the boiler, it is recommended that an external (room) thermostat be installed.
- It is good practice to clean and service the appliance and central heating system every year.

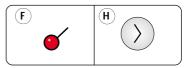
Call an Authorised Service Centre.

IGNITION PROCEDURE

Turn the selector knob "A" to the "J" position. The green L.E.D. "D" will



illuminate indicating that the boiler is ready to operate. The centralised electronic control unit will ignite the burner, without any manual intervention but in response to the request for domestic hot water or heating. If, after approximately 10 seconds, the burner has not ignited, the boiler safety devices will shut off the gas and the red L.E.D. "F" illuminates. To reset the ignition system, the reset "H" must be pressed and released. Should the 10 boiler fail to ignite a second time, check that the external gas cock is open. If the problem persists, contact an Authorised Service Centre.



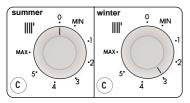
WINTER AND SUMMER OPERATING MODES

In the 'winter operating mode', the boiler will produce both central heating and domestic hot water. In the 'summer operating mode', the boiler will produce only domestic hot water.

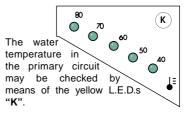
Using the knobs on the control panel,

the user can select winter or summer operating mode. Keeping the knob "C" at the "0" position selects the summer operating mode. Winter operating mode may be selected by positioning the knob "C" between the min. and max. settings.

ADJUSTING THE HEATING



It is possible to set the temperature of the heating system by adjusting the knob "**C**". By positioning the indicator somewhere between min. and max., a temperature may be obtained which varies from approximately 45°C to about 80°C.



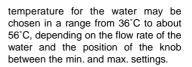
EXTERNAL (ROOM) THERMOSTAT CONTROL

If an external (room) thermostat is installed, it is recommended that the temperature of the heating system be set by means of the "C" knob, leaving

it at max in order to obtain the best performance from the boiler and to allow the regulation the external of to function efficiently.



temperature



SETTING THE HOT WATER FOR DOMESTIC USE

Both in the winter and summer mode.

the temperature of the domestic hot water mav be adjusted by using the "B" knob. A deliver v



ECONOMY/COMFORT MODE G Е

The selector knob "G" allows the user to choose the economy mode (position "E") or the (position "E") comfort mode (position "C"). The economy mode is the normal state for the operation of

the boiler, since the domestic water is heated up only when a tap is turned on.

С Е

The comfort mode is a special operating state, because the water contained in the secondary exchanger and in the primary exchanger is kept in a preheated condition, thereby allowing a quicker delivery of domestic water when required. The latter is therefore the more convenient choice.

TURNING OFF CENTRAL HEATING

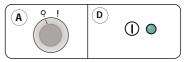
To turn off the central heating, rotate the "**C**" knob to the "0" position.

The boiler will stay in summer mode, just p r o v i d i n g domestic water on request.



TURNING OFF THE BOILER

To turn the boiler off, rotate the selector knob "A" to the "0" position (OFF); the respective green L.E.D. "D" will go off. Close the gas cock located under the boiler and turn the electricity supply switch (located outside the boiler) to



the OFF position.

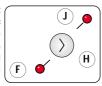
3. USEFUL INFORMATION AND TROUBLESHOOTING

BOILER SHUTDOWN SITUATIONS

The boiler is equipped with safety devices that intervene in certain situations and shut it off. Most of these situations are communicated by means of the L.E.D.s and at times the user may be able to remedy them.

SHUTDOWN DUE TO IGNITION FAILURE

In the event that the automatic ignition of the burner has failed, the red L.E.D. "**F**" will



illuminate. In order to reset the ignition, the button "H" must be pressed and released. Should the boiler fail to ignite a second time, check that the external gas cock is open. If the problem persists, contact an Authorised Service Centre.

SHUTDOWN DUE TO OVERHEATING

In the event that the safety limit is exceeded for the temperature of the water in the boiler's primary exchanger, the thermostat shuts off the boiler and the red L.E.D. "J" illuminates.

To remedy this situation, wait a few minutes to allow the exchanger to cool down, then press and release the reset button "**H**".

If this situation occurs frequently, contact an Authorised Service Centre.

SHUTDOWN DUE TO INSUFFICIENT WATER CIRCULATION

If the red L.E.D. "L" is illuminated and the boiler is off, one possible cause for this state is an insufficient



pressure of water in the system.

Check the system pressure on the pressure gauge "**M**" and if it is less than 0.5 bar, consult your installer for checking and refilling the system.

Then turn off and turn back on the boiler by means of the selector knob "A". If the boiler does not start up again and the L.E.D. "L" remains illuminated, contact an Authorised Service Centre.

If there are frequent drops in pressure

within the system, have a plumber check the heating system for possible water leaks.

TEMPORARY SHUTDOWN DUE TO DEFECTIVE DISCHARGE OF EXHAUST FUMES

The boiler is fitted with safety devices, which in the event of a defective discharge of exhaust fumes, automatically interrupts the gas supply, thereby shutting off the boiler.

The shut-off of the boiler is temporary and is indicated by the illumination of the yellow L.E.D. "E" for a period of about 15 minutes.

Once this time period has passed and the discharge state of exhaust fumes has returned to normal, the boiler automatically turns back on.

IMPORTANT!

If this situation occurs frequently, contact an Authorised Service Centre. so that they may check that the exhaust fumes are being expelled correctly and that the area is ventilated properly.

ANTI-FROST DEVICE

The boiler is fitted with a device which, in the event that the water temperature goes below 5°C, the three-way diverter valve switches to domestic hot water and the burner turns on at minimum power until the water in the boiler has reached a temperature of about 50°C. This device is only activated when the boiler is operating perfectly and

- the system pressure is sufficient;
- the boiler is powered electrically;
- gas is being distributed.

4. MAINTENANCE

Schedule an annual maintenance check-up for the boiler with a competent person.

Correct maintenance always results in savings in the cost of running the system.

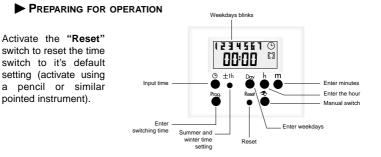
5. CHANGE OF GAS TYPE

Our boilers are designed to function either with Natural Gas (methane) or LPG gas. If you need to changeover from one gas to the other, one of our Authorised Service Centres should be contacted.

6. TIME CLOCK

The steps marked with the symbol are necessary to carry out a switching program. Do this:

- every time you wish to "Reset" time switch;
- to erase all switching times and the current time of day.





WEEKDAY

Keep the " ()" key pressed down. During the summer time period press the **+/-1h** key once.

Enter the hour using the "h" key. Enter the minutes using the "m" key. Enter the day using the "**Day**" key.

1 = Mon 7 = Sun



Release the " 🕑 " key. The colon now blinks once a second.

.AM/PM TIME DISPLAY

If you press the "+/-h" and "h" keys at the same time, the time display switches into the AM/PM mode. <u>Note:</u> If you keep the "h" and "m" keys

pressed down for more than 2 seconds, the display will enter fast forward scroll mode.

ENTERING THE SWITCHING TIMES

If your entry is incomplete, the segments not yet selected will blink in the display.

You have 20 memory locations available. Each switching time takes up one memory location.

Keep pressing the "**Prog**" key until a free memory location is shown in the display "-- : --".

Program ON or OFF with the " \checkmark " key: " \bigcirc " = ON - " \bigcirc " = OFF.

Enter the hour using "h"; enter the minutes using "m".

If a switching command is to be carried out every day (**1 2 3 4 5 6 7**) then store using the " ⁽⁾ " key, otherwise select the days it is to be carried out on by using the "**Day**" key.

When the day selection is left blank, the programmed switching instruction operates at the same time every day.



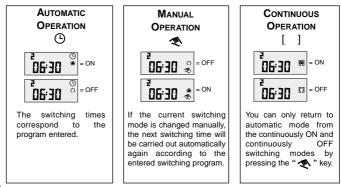
1234567	Monday Sunday
123456	Monday Saturday
12345	Monday Friday
67	Saturday Sunday
1	Monday
	(selection of single days)
7	Sunday

Store using the " ① " key or push "**Prog**" key if you are going to continue programming. The time switch enters the automatic operating mode and displays the current time of day. Begin any further entry of a switching time with the "**Prog**" switch.

If necessary, once you have finished programming and have returned to the current time display, by pressing the " ()" button, the timer will not automatically switch to the current programmed status until the next timed setting. You can put the timer into the correct mode with the " *****" key.

ADDITIONAL FUNCTIONS

Switching from summer time to winter and vice versa. Press the "+/-1h" key once.



MANUAL OVERRIDE KEY

With the " ***** " you can change the current switching settings at any time.

The switching program already entered is not altered.

READING THE PROGRAMMED SWITCHING TIMES

Pressing the "**Prog**" key displays the programmed switching times until the first free memory location appears in the display "--:-".



"Prog" key once again, the number of free memory locations will be displayed, e.g. "Fr 20". If all memory locations are occupied, the display "Fr 00" appears.



CHANGING THE PROGRAMMED SWITCHING TIMES

Press the "**Prog**" key repeatedly until the switching time you want to change is displayed. You can now enter the new data. See "**ENTERING THE SWITCHING TIMES**".

NOTES ON STORING SWITCHING TIMES:

If you end your entry of the switching times by pressing the "**Prog**" key, the switching time you have entered will be stored and the next memory location displayed.

Entry of further switching times is also carried out as described in **"ENTERING** THE SWITCHING TIMES".

In addition, a complete switching command is stored automatically after around 90 seconds provided no other key is pressed.

The time switch then enters the automatic operating mode and displays the current time again.

DELETING INDIVIDUAL SWITCHING TIMES

Press the "**Prog**" key repeatedly until the switching time you wish to delete is shown in the display.

Then set to "---" using the "h" or "m" 22 key and keep the " ()" key pressed down for around 3 seconds.

The switching time is now erased and the current time is displayed.

TECHNICAL DATA

Ambient	
temperature:	- 10°C to + 55°C
Running	
reserve:	5 h (not for 1.5 V DC)
Memory	
locations:	20
Shortest	
switching time:	1 minute
Programmable:	Every minute

Manufacturer:

Commercial subsidiary:

Merloni TermoSanitari SpA - Italy

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