MAXIMA 35 S

WALL-MOUNTING GAS BOILER,
PRE-MIXED
CONDENSING SYSTEM BOILER

INSTRUCTIONS FOR USE,
INSTALLATION
AND MAINTENANCE

Seasonal Efficiency
(SEDBUK)
band A (91.0%)
IMPORTANT

Your “benchmark” Installation, Commissioning and Service Record Log Book will be enclosed in your customer information pack. “This record must be completed and left with the end user”.

Ferroli is a member of the Benchmark initiative and fully supports the aims of the programme. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

Please see installation and servicing guidelines.

• Read the warnings given in this manual thoroughly. They provide important information for safe installation, use and maintenance

• The instruction manual, by law must be left with the end user.

• If the appliance is sold or transferred to another owner or if the owner moves, leaving the appliance behind, always ensure that the manual is kept with the appliance for consultation by the new owner and/or installer.

• Incorrect installation or poor maintenance absolves the manufacturer from all liability for damage to persons or property.

• Installation and maintenance must be carried out in accordance with current legislation, according to the manufacturer’s instructions and by qualified Corgi registered engineer.

• Before service or maintenance work is carried out isolate the appliance from the mains electricity supply.

• In the event of malfunction or faulty operation, isolate the appliance. Do not attempt to repair or carry out any other operation on the appliance directly. Contact Ferroli or a qualified engineer only.

• Repairs or the replacement of components must be carried out exclusively by qualified personnel using original spare parts only. Failure to adhere to the above may compromise the safety of the appliance.

• To guarantee efficient operation, the appliance must be serviced once a year by a Corgi registered engineer.

• The appliance may not be used for purposes other than those for which it was explicitly designed.

• Incorrect installation and use or failure to follow the instructions provided by the manufacturer absolves the manufacturer from all liability for damage.

• After unpacking, check that the contents are correct and undamaged.

• Keep packing out of reach of children as it could be potentially hazardous.

• To clean external parts, use a damp cloth moistened with soapy water if necessary. Avoid using abrasive cleaning products and solvents.

Declaration of conformity

Manufacturer: FERROLI S.p.A.
Address: Via Ritonda 78/a 37047 San Bonifacio VR Italy
declares that this unit complies with the following EU directives:

• Gas Appliance Directive 90/396
• Efficiency Directive 92/42
• Low Voltage Directive 73/23 (amended by 93/68)
• Electromagnetic Compatibility Directive 89/336 (amended by 93/68)

President and Legal Representative
Cav. del Lavoro
Dante Ferroli
1. OPERATING INSTRUCTIONS ................................................................. 4
  1.1 Introduction .......................................................................................... 4
  1.2 Control panel ........................................................................................ 5
  1.3 Turning ON and OFF ............................................................................ 7
  1.4 Adjustments ......................................................................................... 7
  1.5 Maintenance ....................................................................................... 7
  1.6 Faults ................................................................................................. 7

2. INSTALLATION .................................................................................... 8
  2.1 General Instructions ............................................................................ 8
  2.2 Boiler location .................................................................................... 9
  2.3 Boiler water connections ..................................................................... 10
  2.4 Connection to the gas system ............................................................. 12
  2.5 Electrical Connections ....................................................................... 12
  2.6 Flue system ....................................................................................... 15
  2.7 Condensate outlet connection ............................................................. 21

3. SERVICE AND MAINTENANCE ........................................................ 23
  3.1 Adjustments ....................................................................................... 23
  3.2 Initial start-up .................................................................................... 24
  3.3 Maintenance ...................................................................................... 25
  3.4 Troubleshooting ................................................................................ 27

4 TECHNICAL CHARACTERISTICS AND DATA .................................... 29
  4.1 Dimensions and connections .............................................................. 29
  4.2 General view and main components ................................................ 30
  4.3 Hydraulic diagram ............................................................................ 31
  4.4 Technical data table .......................................................................... 32
  4.5 Diagrams ........................................................................................ 33
  4.6 Wiring diagram ................................................................................ 34
1. OPERATING INSTRUCTIONS

1.1 Introduction

Dear Customer,

Thank you for choosing Maxima 35 S, a FERROLI wall-mounted boiler of the latest generation, featuring advanced design and cutting-edge technology.

Maxima 35 S is a high-efficiency condensing pre-mix appliance for heating with extremely low emissions, running on natural gas or LPG.

The boiler consists of an aluminium laminar heat exchanger providing effective condensation of the water vapour contained in the flue gases, permitting extremely high efficiency.

Above the heat exchanger, in the boiler, there is a pre-mix burner, with a large ceramic surface, equipped with electronic ignition and ionization flame control, which achieves extremely low emissions while ensuring high reliability and long life operation.

The boiler is totally room sealed from the installation room: the air needed for combustion is drawn from outside. The boiler also includes a modulating speed fan, modulating gas valve, pump, expansion vessel, safety valve, temperature sensors, a safety thermostat and a low pressure sensor.

Thanks to the twin microprocessor control and adjustment system with advanced self-diagnosis, unit operation is for the most part automatic. The power for heating is automatically governed by the control system.

The user only has to set the temperature desired inside the home by means of a room thermostat and appliance temperature control. The adjustment and control system will provide optimum operation throughout the year.

The display continuously provides information on the unit’s operating status and it is easily possible to obtain additional information on the sensor temperatures, set-points, etc. or configure them. Any operating problems associated with the boiler or system is immediately signalled by the display and, if possible, corrected automatically.
4 - Heating temperature adjustment control
To increase the heating temperature, turn the knob clockwise; anticlockwise to decrease it. The adjustment range goes from 20 to 90°C (see page 7).

5 - RESET key
The Reset key is used to reset boiler operation when it has shut down.
To reset the boiler, press Reset (5 - fig. 1).
The shutdown condition is indicated by a fault code flashing and RESET being displayed.

6 - Power key
Turning the boiler on and off (on - green light on button pushed in).

8 - Mode key
Multifunction key.

9 - MINUS key
The MINUS key is used, together with PLUS key, to enter/exit the INSTALLER TEST mode (15mins).

10 - PLUS key
The PLUS key is used, together with MINUS key, to enter/exit the INSTALLER TEST mode (15mins).

11 - Return heating temperature display
In stand-by mode, the display shows the temperature of the return heating leaving the boiler.
13 - Fan symbol
This appears when there is a call for heating, and the fan is operating.

15 - Ignition symbol
The ignition symbol appears during the ignition phase.

16 - Flame symbol
Indicates the burner is on, the small rising bars to the right indicate the burner output 1=low, 5=high.

17 - Radiator symbol
Displayed during demand or when the appliance is in standby.

18 - Flow heating temperature display
During operation, the display shows the temperature of the heating water leaving the boiler. When operating knob “4” the display briefly shows the adjustment temperature being set (see page 7 section 1.4 adjustments).

21 - Heating pump symbol
Displayed when the heating pump is operating.

22 - Appliance Frost protection
This appears when the boiler automatically comes on in frost protection, that is when the appliance temperature drops under 5°C.
The appliance shuts down when it reaches a flow temperature of 15°C.

23 - Symbol showing demand for heating
Displayed when the appliance has a demand from external controls.

24 - Delay time symbol
Displayed when the appliance is in Stand-by after the set point operating temperature is achieved.

30 - System pressure display
Displays the heating system pressure (see page 11).

34 - TEST symbol
Boiler operating in TEST mode (full power). To turn on TEST mode, hold down the “+” and “-” keys for 3 seconds. Press the “+” and “-” keys for another 3 seconds to exit. TEST operation turns off automatically after 15 minutes (Boiler operates at 100% whilst in test mode).

35 - Fault and parameter display
Displays any fault code if they should occur (see page 27 troubleshooting).
1.3 Turning ON and OFF

**Ignition**
- Open the gas isolation valve upstream of the boiler.
- Purge the air from the pipe upstream of the gas valve.
- Ensure power is on to appliance.
- Press the ON/OFF key in to turn on boiler (see fig. 1 Item 6).
- The boiler is now ready to function automatically whenever the externals controls are calling.

**Turning off**
Press the ON/OFF key (see fig. 1 Item 6).

When the boiler is turned off with this button, the P.C.B. is no longer powered and the frost protection will be disabled.
Close the gas cock upstream of the boiler and disconnect the electrical power supply.

![Warning symbol]
To avoid damage caused by freezing during long shutdowns in winter, it is advisable to drain all water from the boiler, the tap water and the system water.

1.4 Adjustments

**Room temperature adjustment (with a room thermostat)**
Using the room thermostat, set the temperature desired in the room. Controlled by the room thermostat, the boiler lights and heats the system water to the system setpoint temperature. The burner shuts down when the desired temperature in the room is reached.

A room thermostat & programmer is a mandatory requirement (building regs Doc “L” 2002).

**C.H. temperature adjustment**
To set the system flow temperature, use the C.H. control knob. Turning it clockwise increases the temperature, turning it anticlockwise decreases it.

When adjusting the control knob the display will flash for 5 seconds and display the set point temperature. It will then revert to showing actual temperature.

1.5 Maintenance

It is strongly recommended to carry out annual maintenance on the boiler and the heating system. Please refer to the “maintenance” section in this manual.

The casing, the control panel and the aesthetic parts of the boiler can be cleaned using a soft and damp cloth. Do not use abrasives or solvents.

1.6 Faults

In the unlikely event of an operating problem or component failure, the display flashes and a fault identification code appears.

Faults marked with the letter “F” cause temporary shutdowns that are automatically reset as soon as the value comes back within the boiler’s normal working range.

If together with the fault the display also shows RESET, the user must reset boiler operation by pressing the key (5 - fig. 1). The ignition cycle will thus be repeated.

If the problem remains after two attempts at resetting, contact the Ferroli Service Centre.

For other faults, refer to page 27 section 3.4 “Troubleshooting.”

Before calling the Ferroli service centre, check that the problem is not due to an installation error or a problem with the gas/electricity or low water pressure in the system.
2. INSTALLATION

2.1 General Instructions

This device must only be used for the purpose for which it is specially designed. This unit is designed to heat water to a temperature below boiling point and must be connected to a heating system and/or a water supply system for domestic use, compatible with its performance, characteristics and its heating capacity. Any other use is considered improper.

BOILER INSTALLATION MUST ONLY BE PERFORMED BY QUALIFIED PERSONNEL, IN ACCORDANCE WITH ALL THE INSTRUCTIONS GIVEN IN THIS TECHNICAL MANUAL, THE PROVISIONS OF CURRENT LAW, THE RECOMMENDATION OF BS STANDARDS, ANY LOCAL REGULATIONS AND THE RULES OF COMPETENT WORKMENSHIP.

Incorrect installation can cause damage or physical injury for which the manufacturer declines any responsibility.

This appliance must be installed strictly in accordance with these instructions and regulations:

- The Gas Safety Regulations (Installations & Use).
- The Local Building Regulations.
- The Building Regulations (Part L).
- The Buildings Standards (Scotland - Consolidated) Regulations.
- British Standards Codes of Practice:
  - B.S. 5440 Part 1 Flues
  - B.S. 5440 Part 2 Air supply
  - B.S. 5449 FORCED CIRCULATION HOT WATER SYSTEMS
  - B.S. 6798 INSTALLATION OF GAS FIRED HOT WATER BOILERS
  - B.S. 6891 GAS INSTALLATIONS
  - B.S. 7671 IEE WIRING REGULATIONS
  - B.S. 4814 SPECIFICATION FOR EXPANSION VESSELS
  - B.S. 5482 INSTALLATION OF LPG
  - B.S. 7593 TREATMENT OF WATER IN DOMESTIC HOT WATER CENTRAL HEATING SYSTEMS
  - B.S. 5546 INSTALLATION OF HOT WATER SUPPLIES FOR DOMESTIC PURPOSES

Model Water Bye Laws

B.S. 5955-8 PLASTIC PIPEWORK INSTALLATION

For Northern Ireland the rules in force apply
2.2 Boiler location

The unit’s combustion circuit is sealed off from the installation room. The installation room must be sufficiently well ventilated to prevent any dangerous conditions from forming in the event of even slight gas leakage. This safety standard is required by the EEC Directive no. 90/396 for all gas units, including those with a so-called sealed chamber.

Therefore the place of installation must be free of dust, flammable materials or objects or corrosive gases. The room must be dry and not subject to freezing.

The boiler is design to be installed on a solid wall. The wall fixing must ensure a stable and effective support for the appliance, using the bracket and fixings supplied.

If the unit is enclosed in cupboard or mounted alongside, there must be space for normal maintenance work. Fig. 2 and tab. 1 give the minimum clearances to leave around the unit.

Table 1

<table>
<thead>
<tr>
<th>Minimum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.5 cm</td>
</tr>
<tr>
<td>B</td>
<td>20 cm</td>
</tr>
<tr>
<td>C</td>
<td>40 cm</td>
</tr>
<tr>
<td>D</td>
<td>60 cm (via an openable panel)</td>
</tr>
</tbody>
</table>
2.3 Boiler water connections

The heating capacity of the unit should be previously established by calculating the building’s heat requirement according to current regulations. For good operation and long life of the boiler, the plumbing system must be well proportioned and always complete with all those accessories that guarantee regular operation and running, room thermostat, trv’s and automatic bypass etc.

If the flow and return pipes follow a path where air pockets could form in certain places, it is essential to install vent valves at these points. Also, install type “A” drain cocks at the lowest points in the system to allow complete draining.

The temperature differential between the flow manifold and the return to the boiler should not exceed 20° C.

A minimum flow of 6 litres/min is required through the heat exchanger, it is therefore essential to fit a automatic bypass a min of 3 meters away from the appliance, calibrated on site.

⚠️ Do not use the water system pipes to earth electrical appliances.

Before installation, carefully flush all the pipes of the heating system to remove residues or impurities that could affect the unit’s operation (BS 7593 Building regs Doc L).

Make the connections to the appliance as shown in fig. 3.

Key

1  System flow (22 mm with isolation valve fitted)
2  Gas inlet (22 mm with isolation valve fitted)
3  System return - 22 mm with isolation valve fitted (c/w filter)
4  Condense outlet
5  Safety valve discharge 1/2" f/I

It is essential to install the isolation valves supplied between the boiler and heating system, allowing the boiler to be isolated from the system if necessary.

⚠️ The safety valve outlet must be connected to a 15 mm diameter copper pipe (with a continual fall from the boiler) to allow system water out onto the ground in the event of over-pressure in the heating circuit. If this is not done, and the drain valve trips and floods the room, the boiler manufacturer is not to be held responsible. The outlet should face back against the outer brickwork or building face to prevent harm or injury from hot water discharging in the event of an over-pressurized system.

Make the boiler connection in such a way that its internal pipes are free of stress. If a check valve is installed on the tap water circuit (where applicable), it is necessary to mount a safety valve between the boiler and this circuit (check valve minimum 3 meters from boiler).
The Isolation valve kits shown in fig. 4 are supplied as standard.

**Key**

- A = Nut
- B = Compression olive
- D = 3/4 seal (green)
- F = 1/2 gas seal (blue)
- G = Filter
- H = Cap

---

**Make Up Water**

Provision must be made for replacing water lost from the sealed system. Reference should be made to BS6798, for methods of filling and making up sealed systems. There must be no direct connection between the boiler’s central heating system and the mains water supply. The use of mains water to charge and pressurise the system directly, is conditional upon the Local Water Byelaws. Again any such connection must be disconnected after use. Ensure the filling point is on the return pipe to the boiler.

Fittings manufactured from duplex (alpha-beta) brass are not acceptable for underground use and certain water undertakings will not accept their use above ground.

**Key**

1. C.H. filling valve.
2. Temporary connection.
3. Cold water supply valve.
4. Double check valve.

**Fig. 5**
**Water treatment**

When treatment is used ferroli limited only recommend the use of proprietary Brand, such as Fernox or Sentinel water treatment products, which must be used in accordance with the manufacturers instructions. for further information contact:

- Feronx Manufacturing Co. LTD. Sentinel Division
- Tandern house, Marlowe Way Betz Dearborn LTD
- Croydon, surrey, CRO 4YS Widnes, Cheshire WA8 8ND
- Tel: 0870 5601 5000 Tel: 0151 424 5351

Note - When the boiler is installed with an existing or new system any unsuitable additives or system debris must be removed by thorough cleansing. All systems should be cleansed according to B.S. 7593.

Note - In hard water areas treatment to prevent lime scale may be necessary.

Note - It is important that the correct concentration of the water treatment product is maintained in accordance with the manufacturers instructions.

### 2.4 Connection to the gas system

⚠️ If necessary the local Gas supplier should be consulted, at the installation planning stage, in order to establish the availability of an adequate supply of gas.

An existing service pipe must not be used without prior consultation with the local Gas supplier.

A gas meter can only be connected by the Local Gas supplier, or by a Local Gas suppliers Contractor. Installation pipes should be fitted in accordance with BS6891.

Appliance inlet working pressure must be 20 mbar MINIMUM, for NG and 37 mbar minimum for propane.

Do not use pipes of a smaller size than the combination boiler inlet gas isolation valve (22 mm).

The complete installation must be tested for gas soundness and purged as described in BS6891. All pipework must be adequately supported. An isolating gas valve is provided and should be fitted on the boiler gas inlet. Please wait 10 minutes when lighting from cold before checking the gas rate. Gas pressures should be checked after the boiler has operated for 10 minutes to ensure thermal equilibrium.

The appliance has no facility to check burner pressures, a combustion test should be carried out instead, see page 26 (combustion analyser testing).

⚠️ The Isolation valve kits shown in fig. 4 are supplied as standard.

### 2.5 Electrical Connections

The unit must be installed in conformity with current national and local regulations.

**Connection to the electrical grid**

The boiler must be connected to a single-phase, 230 Volt-50 Hz electric line.

⚠️ The unit’s electrical safety is only guaranteed when correctly connected to an efficient earthing system executed according to current safety standards. Have the efficiency and suitability of the earthing system checked by professionally qualified personnel. The manufacturer is not responsible for any damage caused by failure to earth the system. Also make sure that the electrical system is adequate for the maximum power absorbed by the unit, as specified on the boiler dataplate, in particular ensuring that the cross sectional area of the system’s cables is suitable for the power absorbed by the unit.

The boiler is prewired and provided with a cable for connection to the electricity line. The connections to the supply must be made with a permanent connection and equipped with a double pole switch which
contacts have a minimum opening of at least 3 mm, and fused at max. 3A between the boiler and the line. It is important to respect the polarities (LIVE: brown wire / NEUTRAL: blue wire / EARTH: yellow-green wire) in making connections to the electrical supply.

**Standard Systems**

For a general pipe layout and wiring diagram on the “S” and “Y” plan systems please see fig. 6a, 6b, and 7a, 7b.

**MAXIMA “S” Plan**

Pipe layout

![Pipe layout diagram](image)

Wiring diagram

![Wiring diagram](image)
MAXIMA “Y” Plan

Pipe layout

MAXIMA
FERROLI
BOILER

Auto air vent

Automatic bypass
(minimum flow of 6l/min.)

Heating return

Heating flow

Wiring diagram

Honeywell V4073H mid position
The heating system must have an automatic bypass capable of passing 6 litres/minute

240 Vac fused at 3 amps

Terminal 4 - SWITCH LINE
230V A/C

Room Thermostat

Cylinder Thermostat

fig. 7a

fig. 7b
The user must never change the unit’s power cable. If the cable gets damaged, switch off the unit and have it changed solely by professionally qualified personnel. If changing the electric power cable, use solely “HAR H05 VV-F” 3x0.75 mm² cable with a maximum outside diameter of 8 mm.

Access to the electrical terminal board

Follow the diagram shown below to access the electrical connection terminal board (A fig. 8). The layout of the terminals for the various connections is given in section 4.6 wiring diagram fig 23.

Room thermostat

CAUTION: the externals controls must supply 230V - 50Hz to terminal n° 4 (fig. 8).

2.6 Flue system

The unit is “type C” with a sealed chamber and forced draught, the air inlet and flue outlet must be connected to one of the following flue systems. With the aid of the tables and methods of calculation indicated, before commencing installation, it is first necessary to check that the flue system does not exceed the maximum permissible length. The current standards and local regulations must be observed.

It should be noted that only Ferroli flue system and accessories must be used on this appliance, as per BS 5440 2000 and C.E. test certification.
Connection with concentric flue system

The unit can be connected to a concentric air/flue duct with a wall or rooftop outlet as shown on the following drawings. Numerous accessories are available on request to meet the various installation requirements. Please refer to our “flue manual” or the price list.

Standard concentric flue installation

Horizontal flue installation

1. Define the position for installing the unit.
2. If using standard flue (1KWMA53A) this must be installed level, for non-standard flue lengths over 1mtr a fall of 3 mm per metre should be incorporated.
3. Make a hole of diameter 10 - 20 mm greater than the nominal diameter of the concentric pipe used.
4. If necessary, cut the end pipe to size, ensuring that the external pipe protrudes from the wall by between 10 and 60 mm (Fig. 10a and 10b). Remove the cutting burrs.
5. Connect the flue to the boiler, positioning the seals correctly. Seal the flue into the wall with silicone or sand + cement and cover with wall seals provided.

Flue seals should be lubricated with a silicone type grease to prevent damage (grease not supplied)

**Vertical Outlet**

The total length in equivalent metres of the concentric flue must not exceed the maximum lengths stated in the following table, note that each bend gives rise to the stated reduction. For example, a duct = 60/100 composed of 1 bend of 90° +1 horizontal metre + 2 bends of 45° + 1 horizontal metre has a total equivalent length of 4 metres.

**Vertical flueing**

The installation of a concentric vertical flue can be carried out as follows, Install the appliance as previously mentioned in this manual.

1. Connect onto the flue assembly at the top of the appliance a concentric vertical adaptor part number 1KWMA71W.
2. Use the required amount of 1mtr flue extensions (part number 1KWMA56U) inserting them spigot down ensuring the seals are well lubricated with silicone grease (not supplied) and correctly located into the sockets.
3. If required 45° bends (Part number 1KWMA64A) may be used with a resistance value of 0.5mtrs each, the flue should be routed in such away to avoid any unnecessary deviation and thus minimise the amount of bends required.
4. The termination should be made through our concentric flue outlet (part number 1KWMA83U) in conjunction with a roof slate pitched (part number 1KWMA82U) or flat roof (part number 1KWMA81U) The storm collar must be fixed on using the three screws provided and sealed with an external grade silicone (not supplied).
5. For longer flue lengths a 125mm concentric flue system is available.
6. All flue installations must comply with BS5440 part 1 and must only be of Ferroli manufacture. The vertical flue must continually rise and be supported throughout its length. The flue must be inspected whilst commissioning the appliance to ensure it is sound throughout its length.

This information is for guidance purposes and Ferroli will in no way be held responsible for incorrect installation following this guide.

<table>
<thead>
<tr>
<th>Table 2a</th>
<th>Ø mm 60/100</th>
<th>Ø mm 80/125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum permissible duct length (Horizontal)</td>
<td>5 m</td>
<td>12 m</td>
</tr>
<tr>
<td>Maximum permissible duct length (vertical)</td>
<td>6 m</td>
<td>12 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2b</th>
<th>Reduction factors for bends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentric bend at 90° - Ø 60/100 mm</td>
<td>1 m</td>
</tr>
<tr>
<td>Concentric bend at 45° - Ø 60/100 mm</td>
<td>0.5 m</td>
</tr>
<tr>
<td>Concentric bend at 90° - Ø 80/125 mm</td>
<td>0.5 m</td>
</tr>
<tr>
<td>Concentric bend at 45° - Ø 80/125 mm</td>
<td>0.25 m</td>
</tr>
</tbody>
</table>
**Connection with 80 mm pipe system**

The unit can be connected to a system of separate air/flue pipes for a wall or rooftop outlet as shown on the fig. 11 - 12. Numerous accessories are available on request to meet the various installation requirements.

Please refer to the flue manual catalogue or the price list for additional components.

To check you do not exceed the maximum permissible flue length, it is necessary to make a simple calculation before installation:

1. For each component, tables 4 - 5 provide an “equivalent loss in metres”, depending on the position of installation of the component (with air intake or flue extraction, vertical or horizontal).

   The loss is called “equivalent length” since it is compared to the loss of one metre of flue (defined as equal to 1). For example, a bend at 90° of Ø80 in flue run has an equivalent loss of 2.5 linear metres, i.e. it has a loss equal to that of 2.5 metres of flue length.

2. After completely designing the layout of the system, add up the losses in equivalent metres, depending on the installation position, of all the components and accessories in the system.

3. Check that the total calculated loss is less than or equal to 55 equivalent metres, i.e. the maximum permissible for this model of boiler.

For complete flue options please contact FERROLI or check our comprehensive flue manual.

---

**Table 3**

<table>
<thead>
<tr>
<th>Ref.</th>
<th>N° Pieces</th>
<th>Description</th>
<th>Equivalent loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
<td>Vertical flue pipe Ø80</td>
<td>25.6 m</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>Vertical air pipe Ø80</td>
<td>16.0 m</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Vertical flue terminal</td>
<td>12.0 m</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Two pipe adaption kit (1KWMR54A)</td>
<td>0.0 m</td>
</tr>
</tbody>
</table>

**Total** | **53.6 m**
# Table of flue and accessory

## Table 4

<table>
<thead>
<tr>
<th>Description</th>
<th>Accessories Ø 80</th>
<th>Equivalent losses in metres (linear)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Ø 80 male-female</td>
<td>KWMA63W • 1.00 m</td>
<td>1 1 1.6 2</td>
</tr>
<tr>
<td>Bend 45° Ø 80 mm male-female</td>
<td>KWMA65W</td>
<td>1.2 1.8</td>
</tr>
<tr>
<td>Bend 90° Ø 80 mm male-female</td>
<td>KWMA67W</td>
<td>1.5 2.0</td>
</tr>
</tbody>
</table>

## Table 5

<table>
<thead>
<tr>
<th>Description</th>
<th>Accessories Ø 80</th>
<th>Equivalent losses in metres (linear)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horiz. flue terminal</td>
<td>KWMA86A</td>
<td>5</td>
</tr>
<tr>
<td>Horiz. air terminal</td>
<td>KWMA85A</td>
<td>2</td>
</tr>
<tr>
<td>Ver. flue terminal</td>
<td>KWMA84U</td>
<td>12</td>
</tr>
</tbody>
</table>

The stated loss values refer to genuine Ferroli flue accessories.

## Terminal Position

![fig. 13](image-url)
### Minimum Dimensions of Flue Terminal Positions

<table>
<thead>
<tr>
<th>Position</th>
<th>Description</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Directly below an opening, air brick, opening windows, etc.</td>
<td>300mm</td>
</tr>
<tr>
<td>B</td>
<td>Above an opening, air brick, opening windows, etc.</td>
<td>300mm</td>
</tr>
<tr>
<td>C</td>
<td>Horizontally to an opening, air brick, opening windows, etc.</td>
<td>300mm</td>
</tr>
<tr>
<td>D</td>
<td>Below gutters, soil pipes or drain pipes</td>
<td>75mm</td>
</tr>
<tr>
<td>E</td>
<td>Below eaves</td>
<td>200mm</td>
</tr>
<tr>
<td>F</td>
<td>Below balconies or car port roof</td>
<td>200mm</td>
</tr>
<tr>
<td>G</td>
<td>From a vertical drain pipe or soil pipe</td>
<td>150mm</td>
</tr>
<tr>
<td>H</td>
<td>From an internal or external corner</td>
<td>100mm</td>
</tr>
<tr>
<td>I</td>
<td>Above ground roof or balcony level</td>
<td>300mm</td>
</tr>
<tr>
<td>J</td>
<td>From a surface facing the terminal</td>
<td>600mm</td>
</tr>
<tr>
<td>K</td>
<td>From a terminal facing the terminal</td>
<td>1200mm</td>
</tr>
<tr>
<td>L</td>
<td>From an opening in the car port (e.g. door, window) into the dwelling</td>
<td>1200mm</td>
</tr>
<tr>
<td>M</td>
<td>Vertically from a terminal on the same wall</td>
<td>1500mm</td>
</tr>
<tr>
<td>N</td>
<td>Horizontally from a terminal on the same wall</td>
<td>300mm</td>
</tr>
<tr>
<td>O</td>
<td>From the wall on which the terminal is mounted</td>
<td>N/A</td>
</tr>
<tr>
<td>P</td>
<td>From a vertical structure on the roof</td>
<td>150mm</td>
</tr>
<tr>
<td>Q</td>
<td>Above intersection with roof</td>
<td>300mm</td>
</tr>
</tbody>
</table>

**NOTE**

N/A = Not applicable

In addition, the terminal should not be nearer than 150mm (fanned draught) or 300mm (natural draught) to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame. Separation distances are linked to the rated heat inputs as shown.

Condensing Terminal Positions: If the flue is to be terminated at low level, then the potential effect of the plume must be considered.

The plume should not be directed:  
- across a frequently used access route  
- towards a window or door  
- across a neighbouring property
**Connection to collective flues or single flues with natural draught**

If you are then going to connect the Maxima 35 S boiler to a collective flue or a single flue with natural draught, the flue must be expressly designed by professionally qualified technical personnel in conformity with the standards and rules in force.

In particular, flues must have the following characteristics:

- Be sized according to the method of calculation stated in the standard
- Be airtight to the products of combustion, resistant to the fumes and heat and waterproof for the condensate
- Have a circular or square cross-section (some hydraulically equivalent sections are permissible), with a vertical progression and with no constrictions
- Have the ducts conveying the hot fumes adequately distanced or isolated from combustible materials
- Be connected to just one unit per floor, for at most 6 units in all (8 if there is a compensation duct or opening)
- Have no mechanical suction devices in the main ducts
- Be at a lower pressure, all along their length, under conditions of stationary operation
- Have at their base a collection chamber for solid materials or condensation of at least 0.5 m, equipped with a metal door with an airtight closure.

**2.7 Condensate outlet connection**

The boiler is equipped with an internal air-trap to drain off the condensate. Fit the inspection bowl A and the hose B, pushing it on for approximately 3 cm.

Fill the air-trap with approximately 0.5 l. of water and connect the hose to the waste system or soakaway.
**Condensate discharge**
Where possible the condensate should discharge into an internal soil pipe or waste system. The minimum pipe diameter required is 22 mm, a trap has already been fitted to the appliance with a flexible tail to facilitate the connection to the condensate discharge pipe.

The pipe should be a solvent weld plastic, **not** copper, as the condensate has a pH value of 4 (slightly acidic).

Where it is not possible to terminate internally, the condensate discharge pipe may be run outside (see below drawing).

Any external run is subject to freezing, in severe weather conditions. To avoid this the pipework should be installed to dispose of the condensate quickly, with as much as possible run internally, before passing through the wall.

Pipework external to the building should be increased in diameter to 32 or 40 mm solvent weld. It should be run to a external drain or soakaway, with a maximum length of 3 metres.

When a soakaway (condensate absorption point) is used, it should be constructed as shown below, or use a specifically designed unit, for example McAlpine SOAK1GR available from most plumbing and heating stockists.
3. SERVICE AND MAINTENANCE

3.1 Adjustments
All adjustment and conversion operations must be carried out by Qualified Personnel such as the Ferroli Technical Service. FERROLI declines any responsibility for damage or physical injury caused by unqualified and unauthorized persons tampering with the device.

Gas supply conversion
The unit can function with either Natural Gas or LPG (commercial propane) and is factory-set for use with one of the two gases, as clearly shown on the packing and on the unit’s dataplate. Whenever a different gas to that for which the unit is preset has to be used, a conversion kit will be required, proceeding as follows:

1. Remove the casing.
2. Open the combustion chamber.
3. Unscrew the gas coupling A on the air/gas venturi.
4. Replace the injector in the mixer with the one contained in the conversion kit.
5. Refit the coupling A and check the connection is gas tight.
6. Apply the sticker, contained in the conversion kit, near the dataplate.
7. Fit the combustion chamber and casing back on.
8. Check inlet working pressure.
9. Set CO₂ mixture as detailed, (page 26 combustion analyser testing).
3.2 Initial start-up

Commissioning must be performed by Qualified Personnel.
Checks to be made at initial start up, and after all maintenance operations that involved disconnecting from the system or an intervention of a safety device.

Before lighting the boiler:
• Open any isolation valves between the boiler and the system.
• Check the tightness of the gas system, proceeding with caution and use gas leak detection fluid to detect any leaks an connections.
• Fill the water system and make sure that all air contained in the boiler and the system has been vented by opening the air vent valve on the boiler and any vent valves on the system.
• Make sure there are no water leaks in the system, connections or boiler.
• Make sure the electrical system is properly connected.
• Make sure that the unit is connected to a good earthing system.
• Make sure there are no flammable liquids or materials in the immediate vicinity of the boiler.
• Vent and spin pumps.
• Ensure flue system is correctly fitted, including terminal locations.

Ignition
• Open the gas valve upstream of the boiler.
• Purge the air from the installation pipework to the appliance.
• Swith on boiler fused spur.
• Press the ON/OFF key (see fig.1).
• The boiler is now ready to function automatically whenever the externals controls are calling.

In case of an electrical power failure while the boiler is working, the burner will go out. When power returns, the boiler will run the self-test cycle again, after which the burner will automatically re-ignite (if there is still demand for heat).

Checks during operation
• Check for water leaks.
• Check the efficiency of the flue and air ducts while the boiler is operating.
• Check that the water is circulating properly between the boiler and the systems.
• Make sure that the gas valve modulates correctly in the heating phase.
• Check for correct ignition of the boiler by performing various tests, turning it on and off with the room thermostat or remote control.
• Make sure that the fuel consumption indicated on the gas meter corresponds to that given in the technical data table in section 4.4
3.3 Maintenance

⚠️ The following operations are strictly reserved for Qualified Personnel, such as corgi registered engineers or Ferroli personnel.

Seasonal inspection of the boiler and flue

It is advisable to carry out the following checks at least once a year:

- The control and safety devices (gas valve, thermostats, etc.) must function correctly.
- The flue terminal end piece and ducts must be free of obstructions and leaks.
- The gas and water systems must be sound.
- The burner and exchanger must be clean.
- The electrodes must be free of scale and correctly positioned.
- The water pressure in the cold water system must be approx 1 bar; otherwise, bring it to that value.
- The expansion vessel must be filled to 1 bar cold with zero system pressure.
- The gas flow and pressure must correspond to that given in the table 10 section 4.4.
- The circulating pumps must be vented and free of debris.
- The returned filter cleaned.
- The condensate trap inspection bowl should be cleaned & free of debris.
**Opening the casing**

To open the boiler casing, you will need to follow the sequence and the instructions of fig. 17 given below.

1) Using a screwdriver, fully unscrew & remove the 2 screws “A”
2) Open by pulling the panel “B”
3) Lift and take off the panel “B”

![fig. 17](image)

**Cleaning the boiler and burner**

The body and burner must not be cleaned with chemical products or wire brushes. Special care must be taken over all the sealing systems pertaining to the sealed chamber (gaskets, cable clamps, etc.). In addition, it is necessary to pay attention after performing all these operations to check and carry out all the phases of ignition and thermostat operation, the gas valve and circulation pump.

⚠️ After these checks, make sure there are no gas leaks.

**Combustion analyser testing**

It is possible to analyse the combustion through the air and flue sampling points shown in fig. 18.

To make the measurement, it is necessary to:

1) Open the flue sampling point
2) Insert the probe;
3) Press the “+” and “-” keys for 5 seconds to turn on TEST mode;
4) Wait 10 minutes for the boiler to stabilize
5) Take the measurement.

- CO₂ reading should be 8.7 to 9.0 % CO₂.
- Propane CO₂ should be 9.5 to 10%.

![fig. 18](image)
3.4 Troubleshooting

Fault Diagnosis

In the event of operating problems or a fault, the display will flash and a fault identification code appears.

Faults marked with the letter “F” cause temporary shutdowns that are automatically reset as soon as the value comes back within the boiler’s normal working range.

If together with the fault the display also shows RESET, the user must reset boiler operation by pressing the key (5 - fig. 1). The ignition cycle will thus be repeated.

Table 9

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible cause</th>
<th>Cure</th>
</tr>
</thead>
</table>
| F1          | No burner ignition                                  | • No gas  
• Detection or ignition electrode fault  
• Defective gas valve  
• Faulty full auto control
|            |                                                     | • Check the regular gas flow to the boiler and the air has been eliminated from the pipes.  
• Check that the electrodes are correctly positioned and free of any deposits  
• Check and change the gas valve  
• Check and change full auto |
| F2          | Flame detected with the burner off                 | • Ionization electrode defected  
• Main board defected
|            |                                                     | • Check the ionizing electrode wiring  
• Check the CVBC |
| F3          | 100°C Safety thermostat trips                       | • Flow sensor not active or located correctly  
• No system circulation
|            |                                                     | • Check the correct positioning and operation of the flow sensor  
• Check the pumps |
| F5          | Fan fault                                           | • Fan connection or fan damaged, debris in fan  
|            |                                                     | • Check the wiring and check the fan  
• Clear debris if required |
| F8          | Flame circuit fault                                 | • Ionisation probe fault  
• Mains interference
|            |                                                     | • Check and if necessary change the ionisation probe  
• Check the earthing |
| F9          | No communication between the full auto and the gas valve | • Incorrect wiring  
• Check full auto  
• Damaged gas valve
|            |                                                     | • Check the wiring  
• Check the full auto  
• Change the gas valve |
| F10 to F22 | Microprocessor fault                                | • Microprocessor operating fault
<p>|            |                                                     | • Cut off and restore the electricity supply. If the trouble remains, check and/or change the main P.C.B. |</p>
<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible cause</th>
<th>Cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>F25</td>
<td>Software fault</td>
<td>• Software operating fault</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cut off and restore the electricity supply. If the trouble remains, check and/or change the main P.C.B.</td>
</tr>
<tr>
<td>F26</td>
<td>Flame absence after ignition phase</td>
<td>• Blocked flue system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low gas pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clear the obstruction from flue, from outlet pipes and from air inlet</td>
</tr>
<tr>
<td>F30</td>
<td>CH flow sensor fault</td>
<td>• Sensor damaged or short circuited</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F31</td>
<td>CH flow sensor fault</td>
<td>• Sensor damaged or wiring broken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F34</td>
<td>Supply voltage under 190V. or over 250V.</td>
<td>• Electric mains fault</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the electrical system</td>
</tr>
<tr>
<td>F35</td>
<td>Irregular mains frequency</td>
<td>• Electric mains fault</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the electrical system</td>
</tr>
<tr>
<td>F36</td>
<td>Main P.C.B. fault</td>
<td>• Faulty main P.C.B.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Water on P.C.B.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Change the P.C.B.</td>
</tr>
<tr>
<td>F37</td>
<td>Incorrect system water pressure</td>
<td>• Pressure too low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sensor damaged</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fill the system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the sensor</td>
</tr>
<tr>
<td>F38</td>
<td>Incorrect system water pressure</td>
<td>• Pressure too high above 3 - 5 bar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the fill loop not passing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the safety valve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the expansion vessel</td>
</tr>
<tr>
<td>F40</td>
<td>Pressure sensor fault</td>
<td>• Sensor damaged or wiring broken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F41</td>
<td>Return sensor fault</td>
<td>• Sensor damaged or wiring shorted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F42</td>
<td>Return sensor fault</td>
<td>• Sensor damaged or wiring shorted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F43</td>
<td>Flue gas sensor fault</td>
<td>• Sensor damaged or wiring shorted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F44</td>
<td>Flue gas sensor fault</td>
<td>• Sensor damaged or wiring shorted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring or change the sensor</td>
</tr>
<tr>
<td>F45</td>
<td>Pressure sensor not connected</td>
<td>• Wiring broken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check the wiring</td>
</tr>
</tbody>
</table>
4 TECHNICAL CHARACTERISTICS AND DATA

Key

1. System flow (22 mm with isolation valve fitted)
2. Gas inlet (22 mm with isolation valve fitted)
3. System return - 22 mm with isolation valve fitted (c/w filter)
4. Condense outlet
5. Safety valve discharge 1/2" F/I

fig. 19
4.2 General view and main components

Key

5 Combustion chamber
7 Gas inlet
10 CH flow
11 CH return
14 Safety valve
16 Premix fan
19 Combustion chamber
21 Gas injector
22 Ceramic burner
29 Flue outlet manifold
32 Heating pump
34 Heating flow sensor
35 Air separator
36 Automatic air vent
44 Gas valve
49 Safety thermostat
56 Expansion vessel
82 Detection electrode
83 C.V.B.C control unit
145 Pressure gauge
154 Condensate outlet pipe
161 Heat exchanger
179 Heating flow non return valve
186 Return sensor
188 Ignition electrode
191 Flue temperature sensor
196 Condensate collector
201 Fan venturi
246 System pressure sensor

fig. 20
4.3 Hydraulic diagram

Key

- 7  Gas inlet
- 10  CH flow
- 11  CH return
- 14  Heating safety valve
- 16  Premix fan assembly
- 32  Heating pump
- 34  Flow temperature sensor
- 35  Air separator
- 36  Automatic air vent
- 44  Gas valve
- 49  Safety thermostat
- 56  Expansion vessel
- 145  System pressure gauge (water gauge)
- 154  Condensate outlet pipe
- 179  Heating flow non return valve
- 161  Heat exchanger
- 186  Return sensor
- 201  Fan venturi
- 246  System pressure sensor

fig. 21
## 4.4 Technical data table

### Table 10

<table>
<thead>
<tr>
<th>Powers</th>
<th>P&lt;sub&gt;max&lt;/sub&gt;</th>
<th>P&lt;sub&gt;min&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi Heating power</td>
<td>kW</td>
<td></td>
</tr>
<tr>
<td>Useful Heating Power 80° C - 60° C</td>
<td>kW</td>
<td></td>
</tr>
<tr>
<td>Useful Heating Power 50° C - 30° C</td>
<td>kW</td>
<td></td>
</tr>
<tr>
<td>Natural Gas delivery (G20)</td>
<td>m³/h</td>
<td></td>
</tr>
<tr>
<td>Natural Gas supply pressure (G20)</td>
<td>mbar</td>
<td>20</td>
</tr>
<tr>
<td>LPG flow rate (G31)</td>
<td>kg/h</td>
<td>2.72</td>
</tr>
<tr>
<td>LPG supply pressure (G31)</td>
<td>mbar</td>
<td>37</td>
</tr>
<tr>
<td><strong>Combustion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO₂ (G20 - Natural Gas)</td>
<td>%</td>
<td>8.7-9.0</td>
</tr>
<tr>
<td>Gas nozzle (G20 - Natural Gas)</td>
<td>Ø mm</td>
<td>5.9</td>
</tr>
<tr>
<td>CO₂ (G31 - Propane)</td>
<td>%</td>
<td>9.5-10</td>
</tr>
<tr>
<td>Gas nozzle (G31 - Propane)</td>
<td>Ø mm</td>
<td>4.4</td>
</tr>
<tr>
<td>Flue temperature 80° C-60° C</td>
<td>°C</td>
<td>70</td>
</tr>
<tr>
<td>Flue temperature 50° C-30° C</td>
<td>°C</td>
<td>45</td>
</tr>
<tr>
<td>Flue flow rate</td>
<td>kg/h</td>
<td>57</td>
</tr>
<tr>
<td>Quantity of condensate</td>
<td>kg/h</td>
<td>3.96</td>
</tr>
<tr>
<td>pH of condensation water</td>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td>Energy marking (92/42 EEC directive)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx emission class</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>Heating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating temperature adjustment range</td>
<td>°C</td>
<td>20 - 90</td>
</tr>
<tr>
<td>Maximum working temperature in heating</td>
<td>°C</td>
<td>90</td>
</tr>
<tr>
<td>Maximum working pressure in heating</td>
<td>bar</td>
<td>3</td>
</tr>
<tr>
<td>Minimum working pressure in heating</td>
<td>bar</td>
<td>0.8</td>
</tr>
<tr>
<td>Expansion vessel capacity</td>
<td>litres</td>
<td>10</td>
</tr>
<tr>
<td>Expansion vessel pre-filling pressure</td>
<td>bar</td>
<td>1</td>
</tr>
<tr>
<td>Total boiler water content</td>
<td>litres</td>
<td>2</td>
</tr>
<tr>
<td><strong>Dimensions, weights connections</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td>mm</td>
<td>780</td>
</tr>
<tr>
<td>Width</td>
<td>mm</td>
<td>480</td>
</tr>
<tr>
<td>Depth</td>
<td>mm</td>
<td>367</td>
</tr>
<tr>
<td>Weight empty</td>
<td>kg</td>
<td>53</td>
</tr>
<tr>
<td>Gas system connection</td>
<td>(With isolation valve fitted)</td>
<td>mm</td>
</tr>
<tr>
<td>Heating system connections</td>
<td>(With isolation valves fitted)</td>
<td>mm</td>
</tr>
<tr>
<td>Maximum length of separate flues D=80°*</td>
<td>m&lt;sub&gt;eq&lt;/sub&gt;</td>
<td>55</td>
</tr>
<tr>
<td>Max electrical power absorbed</td>
<td>W</td>
<td>150</td>
</tr>
<tr>
<td>Electric power drawn by the circulator (Speed I-II-III)</td>
<td>W</td>
<td>45-70-95</td>
</tr>
</tbody>
</table>

*Measurement given in equivalent linear metres – cfr FERROLI calculation system*
4.5 Diagrams

Head available for the system

Key

1 - 2 - 3 = Pump selector positions (Ferroli 15/60)
A = Boiler losses of head

fig. 22
4.6 Wiring diagram

Key

16     Fan
32     Heating pump
34     Heating flow temperature sensor
44     Gas valve
49     Safety thermostat
72     Externals controls
81     Ignition electrode
82     Detection electrode
98     Power switch
137    System pressure sensor
186    Return sensor
191    Flue temperature sensor

fig. 23
Should you require help with any difficulties  
call our Technical Service Helpline on  
08707 282 885

Phone numbers:

Installer ______________________

Service Engineer ______________

BECAUSE OF OUR CONSTANT ENDEAVOUR FOR IMPROVEMENT DETAILS  
MAY VARY SLIGHTLY FROM THOSE QUOTED IN THESE INSTRUCTIONS.

Please note - to avoid incurring unnecessary expense, in the event of a boiler shut down, check  
this in not caused by lack of electricity supply, gas supply or low water pressure before calling  
our Customer Service Helpline.

Lichfield Road, Branston Industrial Estate, Burton Upon Trent, Staffordshire DE14 3HD  
Tel. 08707 282 885 - Fax 08707 282 886