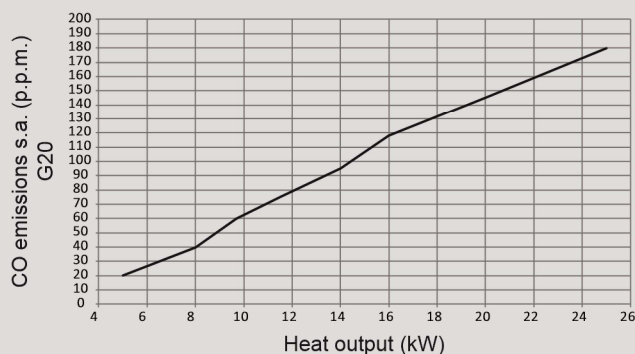
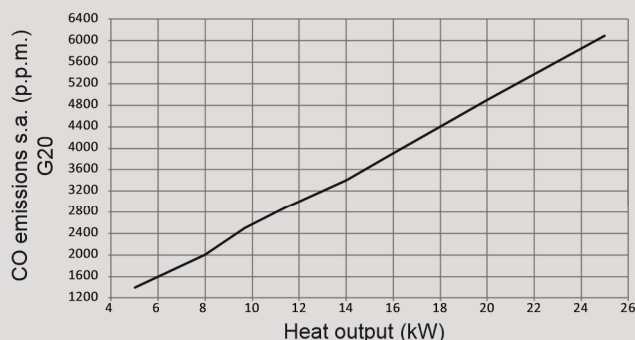


## Start Condens 25 Kis

Thermal output curve - emissions (MTN)

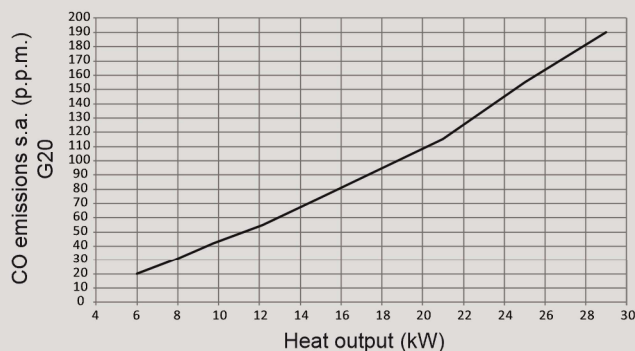


Thermal output curve - no. of fan rotations (MTN)

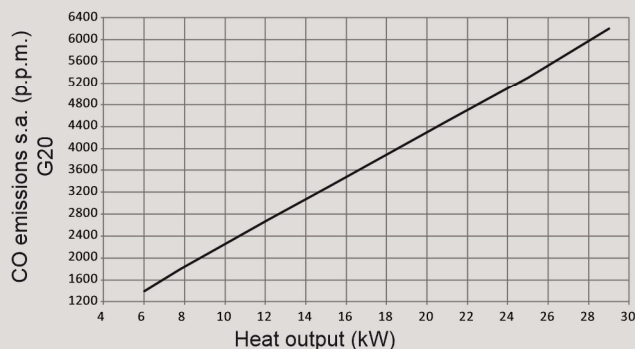


## Start Condens 29 Kis

Thermal output curve - emissions (MTN)



Thermal output curve - no. of fan rotations (MTN)



## 5 - Conversions from one type of gas to another

The boiler is designed to operate with methane gas (G20) according to the rating plate. It may however be converted from one type of gas to another by using the special kits supplied on demand.

- Methane conversion kit
- LPG conversion kit

⚠ The conversion must be carried out solely by the Technical Assistance Service or by **RIELLO** personnel authorised by even when the boiler is already installed.

⚠ Refer to the instructions supplied with the kit for assembly.

⚠ After conversion, adjust the boiler again following the indications in the specific section and apply the new identification label contained in the kit.

Conversion from a family gas to other family gas can be performed easily also when the boiler is installed.

This operation must be carried out by professionally qualified personnel. The boiler is designed to operate with methane gas (G20) according to the product label. It is possible to convert the boiler to propane gas, using the special kit.

For disassembly, refer to the instructions provided below:

- Disconnect the boiler from the electricity supply and turn off the gas tap
- Remove in the following order: air distribution box cover and casing
- Remove the fixing screw of the instrument panel
- Turn the instrument panel forward
- Remove the gas valve (A - Fig. 20)
- Remove the nozzle (B - fig. 20) and replace it with the one in the kit
- Fit the gas valve again
- Extract the silencer from the mixer
- Open the two half-shells by levering on the relative hooks
- For 25 KIS models: Replace the air diaphragm (C - Fig. 21) positioned inside the silencer
- For 29 KIS models: insert the air diaphragm (C - Fig. 21) inside the silencer
- Reassemble the air distribution box cover
- Power-up the boiler and open the gas tap.

Adjust the boiler as described in chapter "Settings" referring to the data concerning the LPG.


⚠ Conversion must be carried out by qualified personnel.

⚠ After the transformation, apply the new rating plate included in the kit.

## 6 - Commissioning

⚠ The commissioning of the boiler must be carried out by qualified personnel.

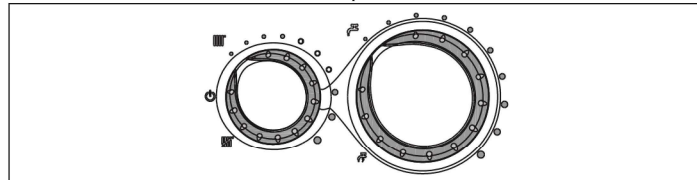
Each time the boiler is electrically powered the display shows a series of information, then the boiler begins an automatic venting cycle that lasts about 2 minutes

The display shows the symbol .

Turn the mode selector to the required position.

## 6.1 - Winter

Turn the function selector to within the adjustment range. The boiler produces domestic hot water and heating water. The boiler lights automatically in response to a heat request. The digital display indicates the heating water temperature. The boiler lights automatically in response to a request for domestic hot water. The display indicates the domestic hot water temperature.



## Adjustment of the heating water temperature

To adjust the heating water temperature, turn the mode selector to within the adjustment range (turn clockwise to increase the value and anticlockwise to reduce the value).

Depending on the type of system, the most suitable temperature range can be pre-selected:

- standard systems 40-80 °C
- floor installations 20-45°C.

For details see paragraph "Boiler configuration".

heating water  
temperature



domestic hot water  
temperature


45°C

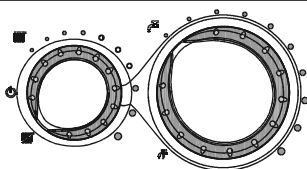
### Adjusting the heating water temperature with an external probe connected

When an external probe is installed, the delivery temperature is automatically selected by the system, which quickly adjusts the ambient temperature according to variations in the outside temperature. If you want to alter the temperature value (increasing or reducing the value automatically calculated by the electronic card), use the heating water temperature selector: turn it clockwise to increase the temperature, or anticlockwise to reduce it.


The correction possibility is between -5 and +5 levels of comfort, shown on the digital display by rotating the knob.

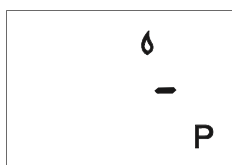
### 6.2 - Summer



The standard domestic hot water-only mode is activated by turning the selector to the summer symbol . The boiler lights automatically in response to a request for domestic hot water. The digital display indicates the temperature of the domestic hot water.

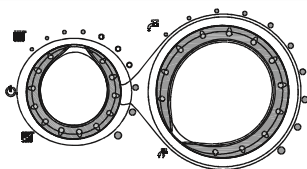


### 6.3 - Pre-heating (faster hot water)


Turning the domestic hot water adjustment knob to the symbol  activates the pre-heating function. Bring the domestic hot water temperature adjustment knob back to the required position. This function keeps the water in the domestic hot water exchanger hot, to reduce standby times when a request is made. When the pre-heating function is enabled, the display shows the symbol **P**.

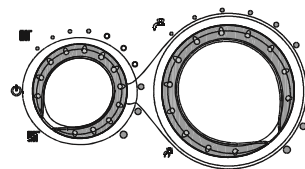


The display indicates the outlet temperature of the heating water or the domestic hot water based upon the request in progress. During burner ignition, following a pre-heating request, the monitor shows the flashing **P** symbol. To deactivate the pre-heating function, rotate the domestic hot water temperature adjustment knob back to the symbol . The symbol **P** switches off. Bring the domestic hot water temperature adjustment knob back to the required position. This function cannot be activated when the boiler is OFF: function selector to off  (OFF).



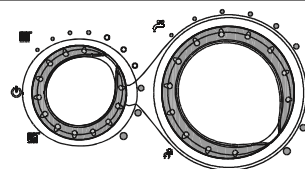
### 6.4 - Adjustment of the domestic hot water temperature

To adjust the domestic hot water temperature (for baths, showers, kitchen etc.), turn the dial with the symbol  clockwise to increase the value, or anticlockwise to decrease the value (mi. value 37°C - max. value 60 °C). The boiler is in standby until the burner switches on following a heat request. The boiler continues to function until the temperatures set on the boiler are reached, or the heat request terminates; it will then go back to standby. In the case of a temporary stop the digital display shows the fault code.



### 6.5 - Heating Temperature Control function (H.T.C.)

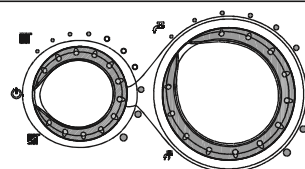
Turn the heating water temperature selector into sector highlighted with white markers to activate the H.T.C. self-adjusting system: depending on the temperature set on the ambient thermostat and the time taken to reach it, the boiler automatically varies the heating water temperature by reducing operating time, thereby achieving increased comfort and energy savings.




### 6.6 - Reset function

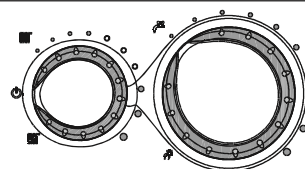
To restore normal operation, turn the function selector to off, wait 5-6 seconds, and then turn it to the required position. At this point, the boiler will restart automatically.

**NOTE** - If the attempts to reset the appliance do not activate operation, contact the Technical Assistance Centre.




### 6.7 - Temporary switch-off

In the event of temporary absences (weekends, short trips, etc.) set the mode selector to  (OFF).



**A** In this way (leaving the electricity and fuel supplies enabled), the boiler is protected by the following systems:

- **Antifreeze:** when the temperature of the water in the boiler drops below 5°C the circulator starts and, if necessary, the burner at minimum output to bring the water temperature to safety values (35°C). During the antifreeze cycle, the symbol  appears on the digital display.
- **Circulator antiblocking:** an operation cycle is activated every 24 h.

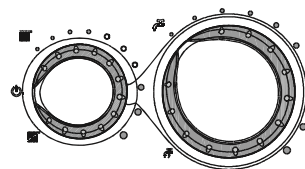
### 6.8 - Switching off for lengthy periods

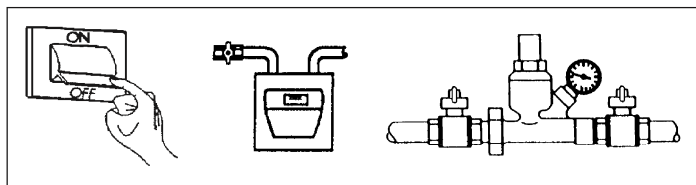
If the *START CONDENS* Ki boiler is not used for a long time, the following operations must be carried out:

- Set the mode selector to off (OFF)
- Set the system's main switch to "off"
- Close the fuel and water taps of the heating and domestic hot water system.
































**A** In this case, the anti-freeze and circulator anti-locking systems are deactivated.

- Drain the heating and domestic water system if there is any risk of freezing.






## 7 - Display and fault codes

| Boiler status                               | Display  | Type of alarm             |
|---|--|---------------------------|
| Off status(OFF)                             | Off  | None                      |
| Stand-by                                    | -  | Signal                    |
| ACF alarm lockout module                    | A01            | Definitive lockout        |
| ACF electronics fault alarm                 | A01            | Definitive lockout        |
| Limit thermostat alarm                      | A02   | Definitive lockout        |
| Tacho fan alarm                             | A03   | Definitive lockout        |
| Water pressure switch alarm                 | A04            | Definitive lockout        |
| NTC domestic water fault                    | A06   | Signal                    |
| NTC heating outlet fault                    | A07   | Temporary stop            |
| Heating outlet probe over-temperature       | A07   | Temporary then definitive |
| Outlet/return line probe differential alarm | A07   | Definitive lockout        |
| NTC heating return line fault               | A08   | Temporary stop            |
| Heating return line probe over-temperature  | A08   | Temporary then definitive |
| Outlet/return line probe differential alarm | A08   | Definitive lockout        |
| Cleaning the primary heat exchanger         | A09   | Signal                    |
| NTC flue gases fault                        | A09   | Signal                    |
| Flue gases probe over-temperature           | A09   | Definitive lockout        |
| Parasite flame                              | A11    | Temporary stop            |
| Low temperature system thermostat alarm     | A77   | Temporary stop            |
| Temporary pending ignition                  | 80°C flashing  | Temporary stop            |
| Water pressure switch intervention          |   flashing | Temporary stop            |
| Calibration service                         | ADJ   | Signal                    |
| Calibration installer                       | ADJ   | Signal                    |
| Chimney sweep                               | ACO   | Signal                    |
| Vent cycle                                  |   | Signal                    |
| Preheating active function                  | P  | Signal                    |
| Preheating heat request                     | P flashing   | Signal                    |
| External probe presence                     |   | Signal                    |
| Domestic water heat request                 | 60°C    | Signal                    |
| Heating heat request                        | 80°C    | Signal                    |
| Antifreeze heat request                     |   | Signal                    |
| Flame present                               |   | Signal                    |



To restore operation (reset alarms):

### Faults A01-02-03

Position the mode selector on  (OFF), wait for 5-6 seconds and then turn it to the required position.

If the reset attempts do not reactivate the boiler, request the intervention of the Technical Assistance Centre.

### Fault A 04

In addition to the fault code, the digital display displays the symbol . Check the pressure value indicated by the water gauge: if it is less than 0.3 bar, position the function selector on  OFF and adjust the filling tap until the pressure reaches a value between 1 and 1.5 bar. Then turn the function selector to the required position.

The boiler will carry out a venting cycle lasting about 2 minutes. If pressure drops are frequent, request the intervention of the Technical Assistance Centre.


### Fault A 06

The boiler functions normally but does not guarantee a constant domestic hot water temperature, which remains set at around 50°C. The intervention of the Technical Assistance Service is required.

### Fault A 07-A 08

Contact the Technical Assistance Centre.

### Fault A 09

Position the mode selector on  (OFF), wait for 5-6 seconds and then turn it to the required position.

If the reset attempts do not reactivate the boiler, request the intervention of the Technical Assistance Centre.

### Fault A 09

The boiler is equipped with an auto-diagnostic system which, based on the total number of hours in certain operating conditions, can signal the need to clean the primary exchanger (alarm code 09 and flue gas probe meter >2.500).

Once the cleaning operation has been completed, reset to zero the total hour meter with special kit supplied as an accessory following procedure indicated below:

- Switch off the power supply
  - Remove the housing
  - Turn the instrument panel after unscrewing its fixing screw
  - Undo the fixing screws of the cover to access the terminal board
- While electrically supplying the boiler, press the C button for at least 4 seconds to verify the meter has been reset and then disconnect and reconnect power to the boiler; the meter value is displayed after the signal "- C -".

 Live electrical parts (230 Vac).

**NOTE** - The meter resetting procedure should be carried out after each in-depth cleaning of the primary exchanger or if this latter is replaced. To check the status of the totalled hours, multiply the value read by 100 (e.g. value read 18 = total hours 1800 - value read 1= total hours 100).

The boiler continues to operate normally with the active alarm.

### Fault A 77

The fault is self-resetting, if the boiler does not restart contact the Technical Assistance Centre.

## 8 - Maintenance

Periodic maintenance is an "obligation" required by law and is essential to the safety, efficiency and lifetime of the boiler.

It allows for the reduction of consumption, polluting emissions and keeping the product reliable over time.

Before starting maintenance operations:

- Perform the analysis of the combustion products to check the boiler operation status then cut the electrical supply by turning off the system's general switch
- Close the fuel and water taps of the heating and domestic hot water system.

The appliance must be systematically controlled at regular intervals to make sure it works correctly and efficiently and conforms to legislative provisions in force.

The frequency of controls depends on the conditions of installation and usage, it being anyhow necessary to have a complete check carried out by authorized personnel from the Servicing Centre every year.

- Check and compare the boiler's performance with the relative specifications. Any cause of visible deterioration must be immediately identified and eliminated.
- Closely inspect the boiler for signs of damages or deterioration, particularly with the drainage and aspiration system and electrical apparatus.
- Check and adjust – where necessary – all the burner's parameters.
- Check and adjust – where necessary – the system's pressure.
- Analyze combustion. Compare results with the product's specification. Any loss in performance must be identified and corrected by finding and eliminating the cause.