



Saunier Duval



Bulex®

GAS VALVE (HONEYWELL)

IMPORTANT NOTE
THESE INSTRUCTIONS SUPERCEDE
THE GAS VALVE SETTING PROCEDURE CONTAINED
WITHIN THE ORIGINAL APPLIANCE LITERATURE.

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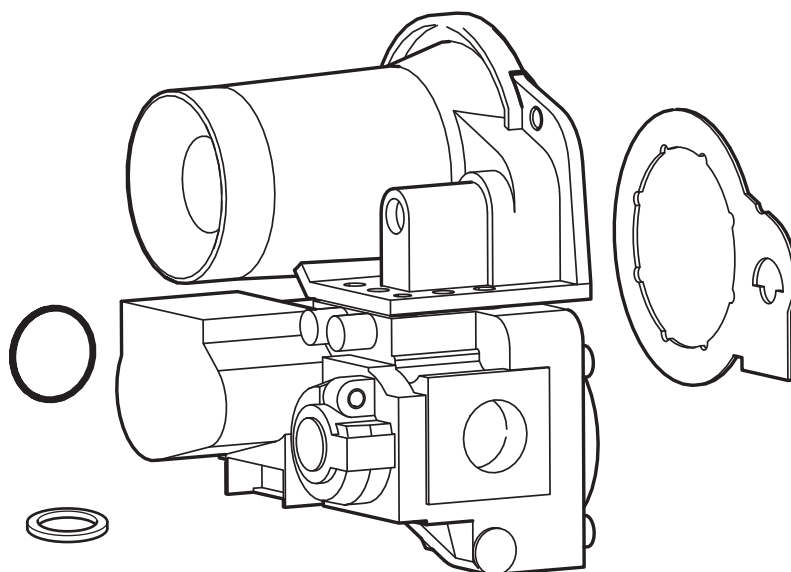
MODEL

Thema Condens F18E SB
Thema Condens F24E SB
Thema Condens F24E
Thema Condens F30E
Themaplus Condens

KIT Pt. No. 0020018436

incl.

- 1 off Gasket
- 1 off "O" ring
- 1 off washer
- 1 off Instructions



Requirements

It is the Law that any replacement of parts is carried out by a competent person approved at the time by the Health and Safety Executive.

Before commencing with the replacement of a part the boiler should be isolated from the electrical supply and the gas supply should be turned off at the gas isolation valve.

When replacing a part, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Saunier Duval.

After electrical connections have been made, checks to the earth continuity, polarity, short circuit and resistance to earth must be repeated using a suitable multimeter.

Unless stated otherwise, parts are replaced in the reverse order to their removal.

After replacing these parts you MUST always test for gas soundness and carry out functional test of the controls and check the following:

General Inspection

After the replacement of a part, the following must be checked.

- The integrity of the flue system and flue seals.
 - The integrity of the appliance combustion circuit and relevant seals.
 - Electrical, gas and water connections.
 - System pressure.
 - the combustion performance, operational gas inlet pressure and gas rates.
- refer to the following procedure.

ALL MODELS

Refer to the installation and servicing instructions supplied with your boiler to fit the replacement gas valve.

After assembly, test for gas soundness and purge in accordance with the current issue of BS6891 or in IE, the current edition of I.S.813 "Domestic Gas Installations". Do not fit the inner or front case until the commissioning has been carried out as described in the following sections.

COMPETENCY TO CARRY OUT THE CHECK OF COMBUSTION PERFORMANCE

NOTE: BS 6798: 2009 Specification for installation and maintenance of gas-fired boilers of rated input not exceeding 70kW net advises that:

- The person carrying out a combustion measurement must be assessed as competent in the use of a flue gas analyser and the interpretation of the results.
- The flue gas analyser used should be one meeting the requirements of BS7927 or BS-EN50379-3 and be calibrated in accordance with the analyser manufacturers' requirements.
- Competence can be demonstrated by satisfactory completion of the CPA1 ACS assessment, which covers the use of electronic portable combustion gas analysers in accordance with BS 7967, parts 1 to 4.
- Ensure that the gas analyser is set to the correct fuel setting.

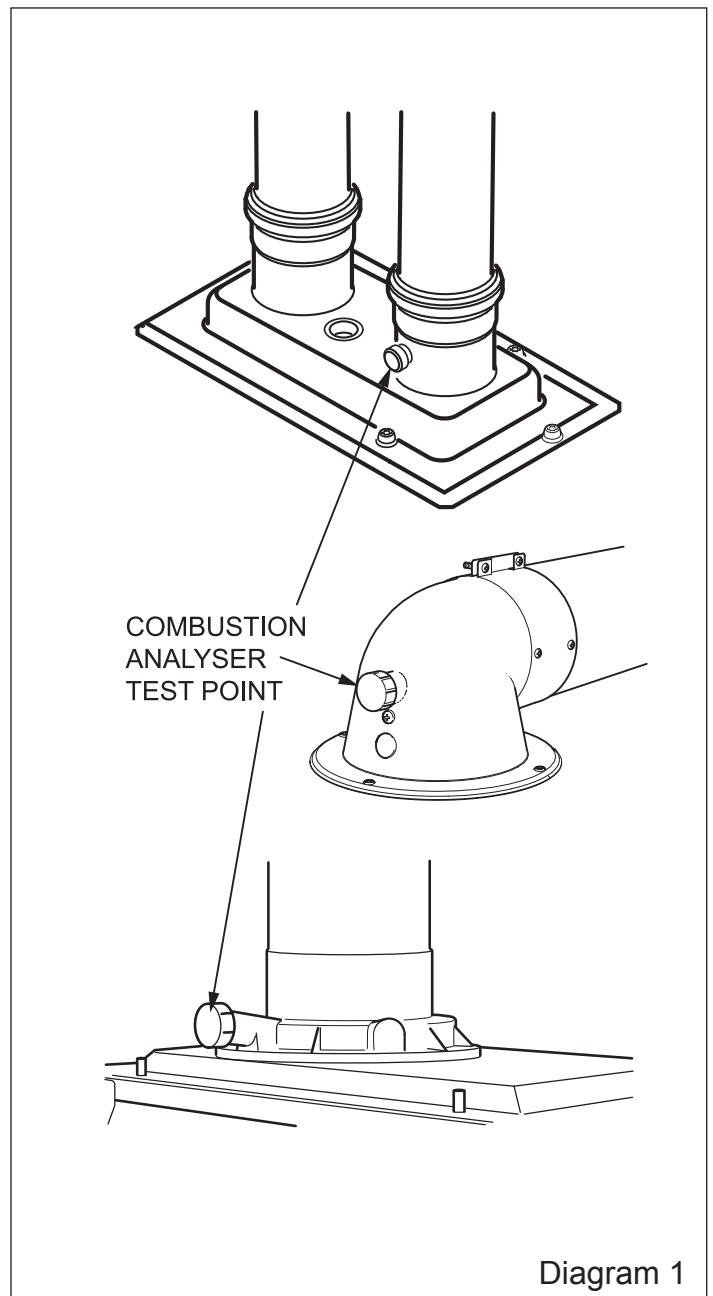


Diagram 1

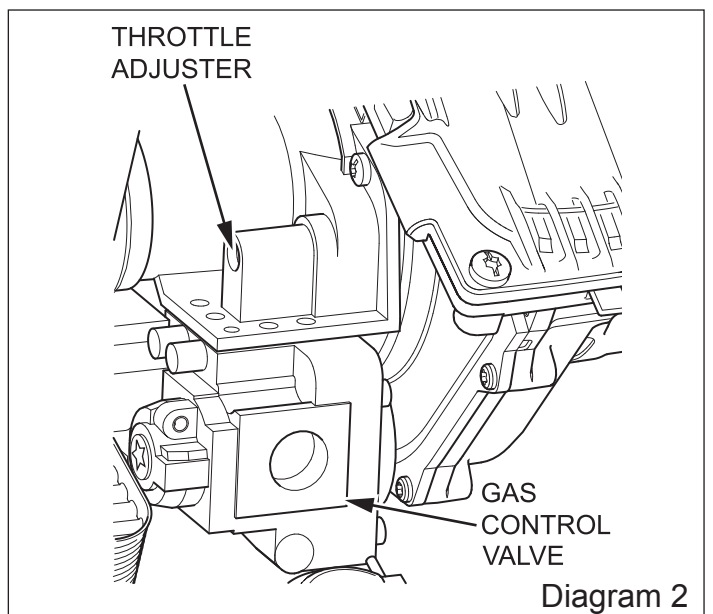


Diagram 2



NOTE: Safe combustion can only be verified by measuring CO/CO₂ ratio. This must not exceed the value shown in the table below.

ALL MODELS

With the appliance cold.
Connect a CO₂ combustion analyser to the appropriate test point, see diagrams 1.

1. Turn on the electrical supply.
2. Ensure external controls are calling for heat.
3. Turn on the gas supply.
4. Turn on the appliance.
5. The boiler should fire automatically.

Maximum Rate Check and Adjustment

Refer to the instructions supplied with your appliance and set the maximum rate.

Check and adjust CO₂ as necessary.

NOTE: Adjustment is made by turning the throttle an 1/16 of a turn, waiting 1 minute to allow the appliance to stabilise before checking or making further adjustments.

- Rotate the “throttle”(anti-clockwise to increase), to the required CO₂, refer to diagram 2 and the “SETTING” column in the table below.

Check the Gas Inlet Pressure and Gas Rate

On completion, test the gas installation for tightness using the pressure drop method and suitable leak detection fluid, purge in accordance with the above standard.

NOTE: Due to the modulating operation of the boiler and the need to check the gas inlet pressure and measure the gas rate at maximum rate, it will be necessary to force it to maximum.

Operational Gas Inlet Pressure

With ALL other gas appliances operating, check the operational supply pressure at the gas service isolation valve test point, refer to your Installation literature supplied with your appliance.

The nominal supply pressure for Natural Gas (G20) is 20mbar.

Turn the taps and appliances off, then disconnect the pressure gauge.

Additionally the safe nominal maximum heat input of the appliance can be achieved at an inlet pressure down to 15mbar.

NOTE: The BURNER PRESSURE cannot be measured and is not used to measure the gas rate.

Gas Rate

Make sure that ALL other gas burning appliances and pilot lights are off.

Check the gas rate using the gas meter test dial and stop watch, at least 10 minutes after the burner has lit, see table below for approximate rates.

In communal or LPG installations where the gas rate cannot be measured it is acceptable to measure the combustion rate as described in the servicing section. On completion, reset the boiler to normal operation by referring to the Installation and Servicing Instructions.

Completion

If it is not possible to achieve the required results for either the combustion or gas rates, it will be necessary to complete a full service of the appliance and then repeat the combustion check procedure. If after servicing and adjustment of the appliance the combustion values are still unacceptable and after further remedial work has been carried out, the appliance must be disconnected until the CO/CO₂ ratio is acceptable. Advice can be sought from the Technical Helpline 01773 828400.

Models	MAX. SETTING Nat. Gas G20 - Case Off	CO/CO ₂ MAX	MAX. SETTING LPG. G31 - Case Off
Thema Condens F18E SB	9.0%CO ₂ (+/- 0.2%)	0.004	10.1 +/- 0.2
Thema Condens F24E SB	9.0%CO ₂ (+/- 0.2%)	0.004	10.1 +/- 0.2
Thema Condens F24E	9.0%CO ₂ (+/- 0.2%)	0.004	10.1 +/- 0.2
Thema Condens F30E	9.0%CO ₂ (+/- 0.2%)	0.004	10.1 +/- 0.2
Themaplus Condens	9.0%CO ₂ (+/- 0.2%)	0.004	10.1 +/- 0.2



