

CC-138, CC-139, CC-140, CC-140 R, CC-140 C
CC-141, CC-141 R, CC-141 C, CC-142, CC-142 R
CC-143, CC-144, CC-144 R, & CC-144 C

Roca

E

Cuadros de Control

para calderas G100, G100 IE, G100/GTA
y G100 IE/GTA

Instrucciones de Funcionamiento,
Limpieza y Mantenimiento
para el **USUARIO**

GB

Control Panels

for Boilers G100, G100 IE, G100/GTA
and G100 IE/GTA

Operating, Cleaning
and Maintenance Instructions
for the **USER**

F

Tableaux de Contrôle

pour Chaudières G100, G100 IE, G100/GTA
et G100 IE/GTA

Instructions de Fonctionnement,
de Nettoyage et de Maintenance
pour l'**USAGER**

D

Kontroll-Schalttafeln

für die Heizkessel G100, G100 IE, G100/GTA
und G100 IE/GTA

Betriebs-, Reinigungs-
und Wartungsanleitung
für den **BENUTZER**

I

Quadri di Controllo

para Caldeiras G100, G100 IE, G100/GTA
e G100 IE/GTA

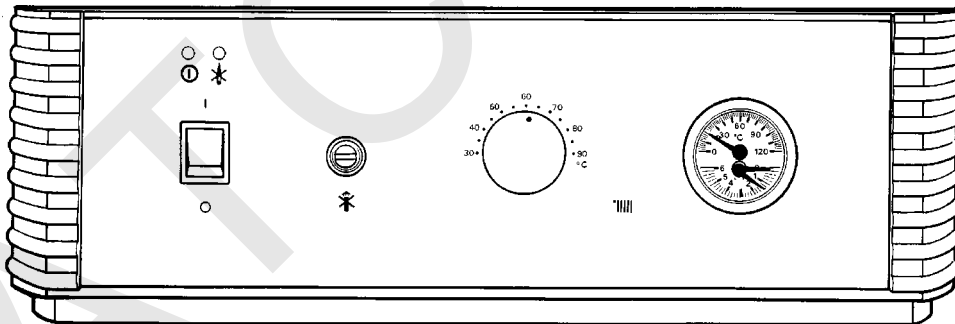
Istruzioni per il Funzionamento,
la Pulizia e la Manutenzione.
per l'**UTENTE**

P

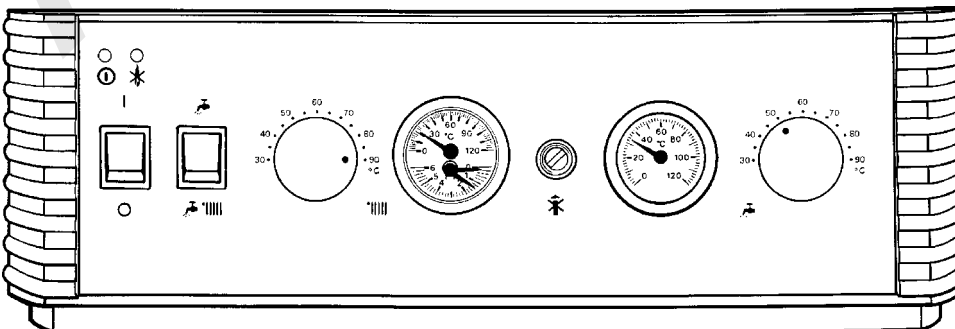
Quadros de Controlo

para Caldeiras G100, G100 IE, G100/GTA
e G100 IE/GTA

Instruções de Funcionamento,
Limpeza e Manutenção
para o **UTENTE**

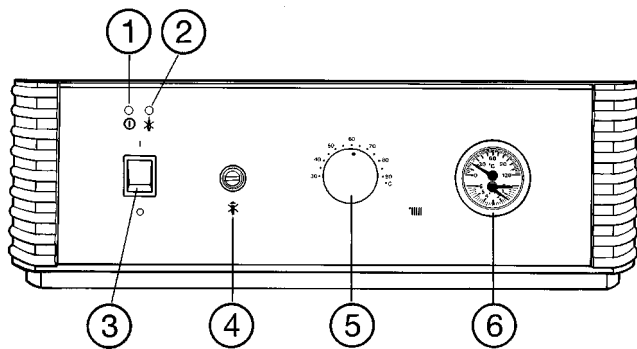


CC-138

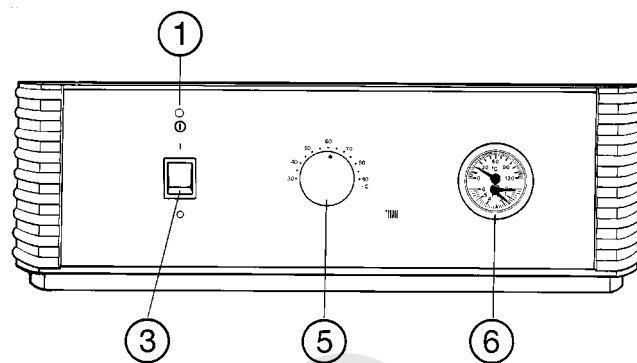


CC-143

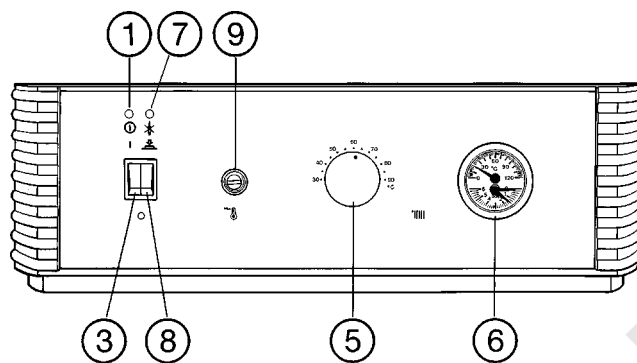
**Principales componentes / Main components / Principaux composants
Hauptkomponenten / Componenti principali / Principais componentes**



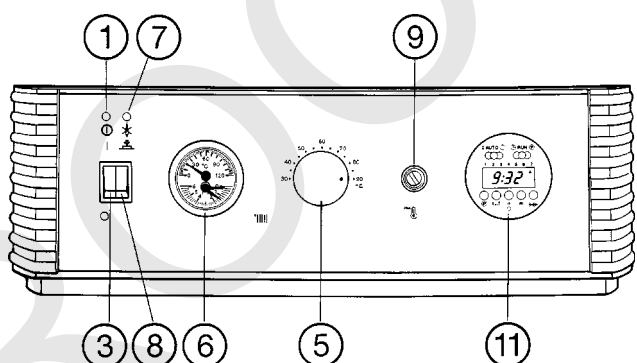
CC-138 / G100/20-30-40-50



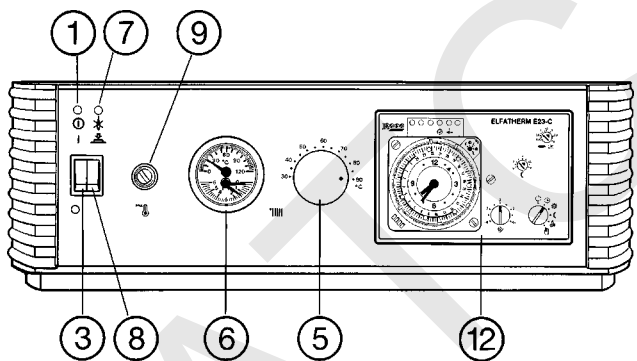
CC-139 / G100/70-90-110



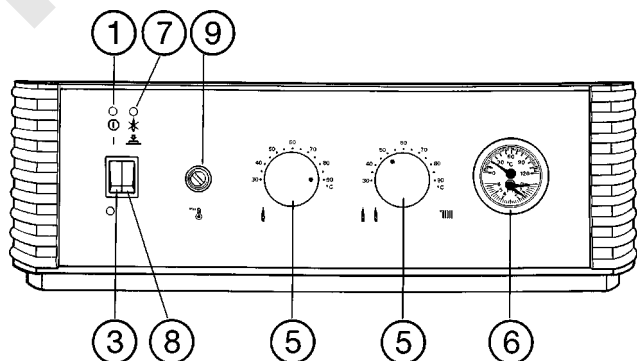
CC-140 / G100/20-30-40-50 IE
CC-141 / G100/70 IE



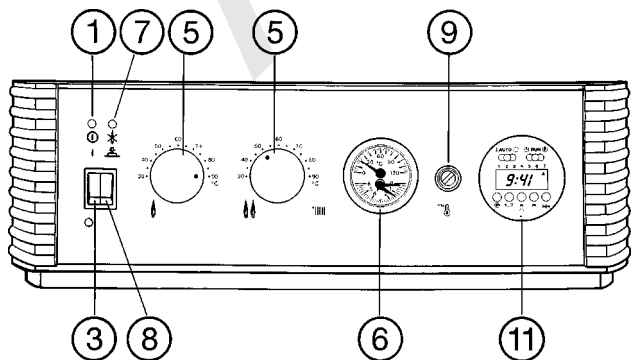
CC-140 R / G100/20-30-40-50 IE
CC-141 R / G100/70 IE



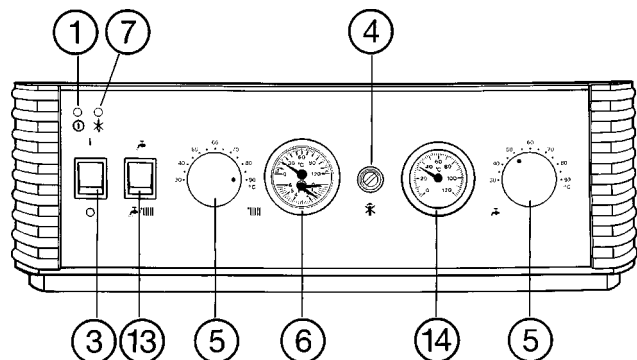
CC-140 C / G100/20-30-40-50 IE
CC-141 C / G100/70-90-110 IE



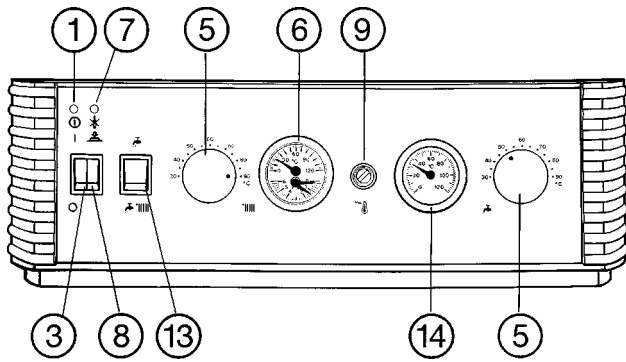
CC-142 / G100/90-110 IE



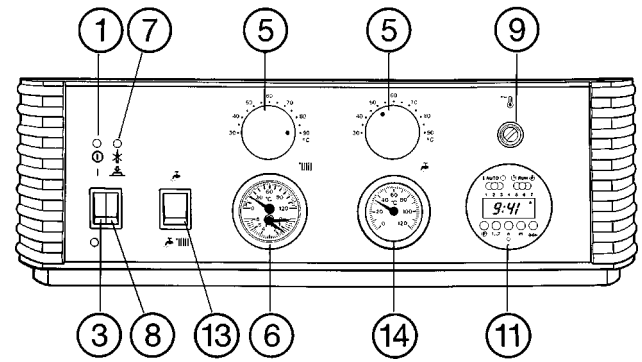
CC-142 R / G100/90-110 IE



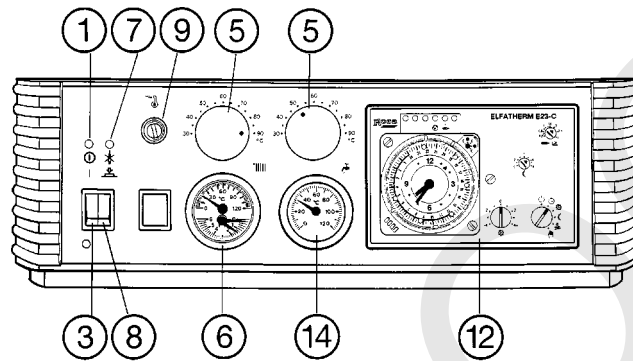
CC-143 / G100/20-30-40 GTA



CC-144 / G100/20-30-40 IE GTA



CC-144 R / G100/20-30-40 IE GTA



CC-144 C / G100/20-30-40 IE GTA

- | | | |
|--|--|---|
| <p>1 - Piloto verde señalización tensión
- Power ON lamp (green)
- Voyant vert de signalisation tension
- Grüne Kontrolleuchte für Spannung
- Spia verde segnalazione tensione
- Sinalizador luminoso de cor verde, sinalização de tensão</p> <p>2 - Piloto rojo señal bloqueo reflujo humos
- Flue limit thermostat lockout lamp (red)
- Voyant rouge signal blocage refolement des fumées
- Rote Kontrolleuchte für Blockierung aufgrund von Rauchrückströmung
- Spia rossa segnale blocco debordamento fumi in ambiente
- Sinalizador luminoso de cor vermelha, sinal de bloqueio anti-retorno de fumos</p> <p>3 - Interruptor general tensión
- Main On/Off switch
- Interrupteur général de tension
- Hauptstromschalter
- Interruttore generale di tensione
- Interruptor geral de tensão</p> <p>4 - Termostato detección reflujo humos
- Flue limit thermostat
- Thermostat détection refolement des fumées
- Überwachungsthermostat Rauchrückströmung
- Termostato sicurezza debordamento fumi
- Termostato detecção anti-retorno de fumos</p> <p>5 - Termostato regulación
- Control thermostat
- Thermostat de régulation
- Regelthermostat
- Termostato regolazione
- Termostato de regulação</p> | <p>6 - Termohidrómetro
- Combined temp./altitude gauge
- Thermohydromètre
- Thermohydrometer
- Termoidrometro
- Termohidrómetro</p> <p>7 - Piloto rojo fallo llama quemador
- Burner lockout lamp (red)
- Voyant rouge défaut flamme brûleur
- Rote Kontrolleuchte für Störung der Brennerflamme
- Spia rossa blocco fiamma bruciatore
- Sinalizador luminoso de cor vermelha, falha de chama do queimador</p> <p>8 - Pulsador rearme bloqueo por reflujo o fallo llama
- Lockout reset button
- Poussoir de réarmement de blocage pour refolement des fumées ou défaut de flamme
- Druckschalter für die Rücksetzung bei Blockierung durch Rauchrückströmung oder Störung der Brennerflamme
- Pulsante riarmo blocco debordamento fumi e mancanza di fiamma
- Botão de rearme, bloqueio anti-retorno de fumos ou falha de chama</p> <p>9 - Termostato seguridad 110°C
- Overheat thermostat 110°C
- Thermostat de sécurité 110°C
- Sicherheitsthermostat 110°C
- Termostato sicurezza 110°C
- Termostato de segurança 110°C</p> <p>10 - Termostato detección reflujo humos (interior) CC-138-140/R/C-143-144/R/C.
- Flue limit thermostat (interior) CC-138-140/R/C-143-144/R/C.
- Thermostat détection refolement des fumées (intérieur) CC-138-140/R/C-143-144/R/C.</p> | <p>- Überwachungsthermostat Rauchrückströmung (innen) CC-138-140/R/C-143-144/R/C.
- Termostato rilevazione riflusso fumi (interno) CC-138-140/R/C-143-144/R/C
- Termostato detecção anti-retorno de fumos (interior) CC-138-140/R/C-143-144/R/C.</p> <p>11 - Reloj programador
- Timer
- Horloge programmable.
- Zeitschaltuhr
- Orologio programatore
- Relógio programador</p> <p>12 - Central de regulación
- Control centre
- Centrale de régulation
- Regelwarte
- Centralina di termoregolazione
- Central de regulação</p> <p>13 - Interruptor de servicio
- Service mode switch
- Interrupteur de service
- Betriebsschalter
- Interruttore di servizio
- Interruptor de serviço</p> <p>14 - Termómetro
- Thermometer
- Thermomètre
- Thermometer
- Termometro
- Termómetro</p> |
|--|--|---|

Main features

- They incorporate regulation and control devices which contribute to fuel conservation.
- Easier system start-up and stop operations.
- The "R" version has a built-in timer for selecting the operation mode which will best suit your requirements.
- The "C" version has an electronic control centre which permanently monitors the system in accordance with the outside temperature values.
- Stylish and finished to match the boilers they are to be installed in.

Operation

Please refer to the same chapter in the "Operating, Cleaning and Maintenance Instructions for the USER" supplied with the boiler.

Timer (with "R" version control panels only)

The timer comes into service when the main On/off switch (1) is "turned ON". Please refer to the Timer instructions in the INSTALLER and USER booklets provided.

Control Centre

(with "C" version control panels only)

Control Panels CC-141C and CC-144C incorporate Control Centre model E23Q and E23MQS, respectively. Please refer to the Instructions for "ELFATHERM E23 Electronic Control Centres" provided (see pages 13 to 15). Control Panel CC-140C incorporates Control Centre model E23C. It operates exactly like model E23Q, with the only exception that the E23C controls one burner instead of two. However, here is a description of their main component functions.

Control Centre (Fig. 18)

- 1 - Slope Selector
- 2 - Sun Selector
- 3 - Moon Selector
- 4 - Timer
- 7 - Programme Selector

Slope Selector

- Evaluate the slope of the installation, based on the design temperatures.

$$\text{Slope} = \frac{\text{Increase of flow water temp}^*}{\text{Ambient Temp.} - \text{Outside Temp.}}$$

* Difference between the maximum anticipated flow temperature and the minimum for the heat output of a radiator (30°C).

Evaluation example

Calculate the slope of an installation, based on:

- Maximum flow water temperature = 80°C
- Ambient temperature (comfort) = 20°C
- Outside temperature = -5°C

$$\text{Slope} = \frac{80 - 30^*}{20 - (-5)} = 2$$

- Use potentiometer (1) to select the Slope calculated for the installation in question.

Sun Selector

The relationship between the positions of the Sun potentiometer and the ambient temperature is shown in the table below:

Position SUN	Reduction / Increase in ambient temperature
-4	-8 °C
-2	-4 °C
0	0 °C
+2	+4 °C
+4	+8 °C

Moon Selector

This selector allows the corresponding ambient temperature to be reduced according to the position of the Sun Selector. The relationship between the positions of the Moon potentiometer and the ambient temperature are shown in the table below.

Position MOON	Reduction in ambient temp.
0	0 °C
-2	4 °C
-4	8 °C
-6	12 °C
-8	16 °C

Timer (Fig. 10)

Daily programme

It is factory-set. The red (Sun) and blue (Moon) cams should be moved alternatively on the rotary ring to the times chosen for the start of both programmes.

To set the time on the clock, move the minute hand (28) until the real time coincides with the symbol ▲.

Weekly programme

- Remove the rotary ring, press-fitted on the dial.
- Turn the minute hand (28) until the pin (30) on the green ring moves to a notch on the yellow one.
- Turn the minute hand (28) until the clock is set at the right time.
- Turn the rotary ring and snap it onto the dial. The rotary indicator (29) should point to the day being set (I-Monday, VII = Sunday), and the symbol ▲ must show the real time
- Set the desired weekly programme for alternate Sun-Moon operation using the cams supplied.

Switching from weekly to daily programme

- Remove the press-fitted rotary ring from the dial.
- Turn the minute hand until the pin (30) on the yellow ring moves to fit the notch in the green one.
- Set the time on the clock.
- Turn the rotary ring and snap it onto the dial.
- Set the daily Sun-Moon programme.

Programme Selector

The control centre is switched "off". The clock works.

The installation comes into service when the outside temperature drops below 0°C, governed by the Moon programme and thus being always protected against the risk of freezing.

Regulation according to the alternate Sun-Moon programmes established.

Permanent regulation by the Sun programme.
 Permanent regulation by the Moon programme.

Regulation cancelled based on the outside temperature. The pump is switched "on" and the burner is working at full output. This programme allows for the combustion analysis to be conducted.

Emergency programme in case of faulty operation of the control equipment.

Adjust the boiler temperature through the thermostat. The pump is switched "on".

Service indicator lamps

Under the cover (9) are the pump and burner run lamps.

Cleaning

No specific cleaning is required.

Maintenance

At least once a year, call a qualified technician to check that all the components are working correctly.

Note:

Characteristics and performance qualities subject to change without notice.