

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 Instalación,  
Montaje y Funcionamiento  
para el **INSTALADOR**

**GB**

## Control Panels

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

Installation, Assembly  
and Working Instructions  
for the **INSTALLER**

**F**

## Tableaux de Contrôle

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

Instructions d'Installation,  
de Montage et de Fonctionnement  
pour l'**INSTALLATEUR**

**D**

## Kontroll-Schalttafeln

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

Installations-, Montage-  
und Betriebsanleitung  
für den **INSTALLATEUR**

**I**

## Quadri di Controllo

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

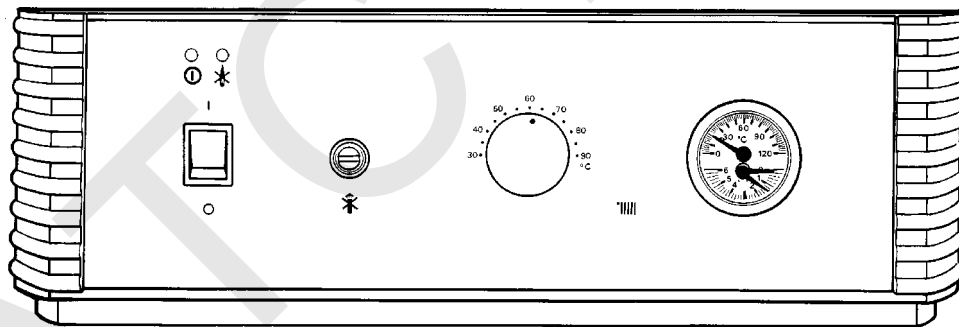
Istruzioni per l'Installazione,  
il Montaggio e il Funzionamento  
per l'**INSTALLATORE**

**P**

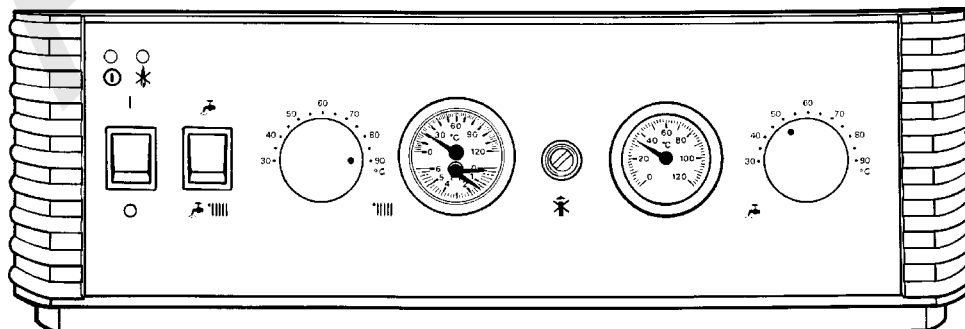
## Quadros de Controlo

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

Instruções de Instalação,  
Montagem e Funcionamento  
para o **INSTALADOR**

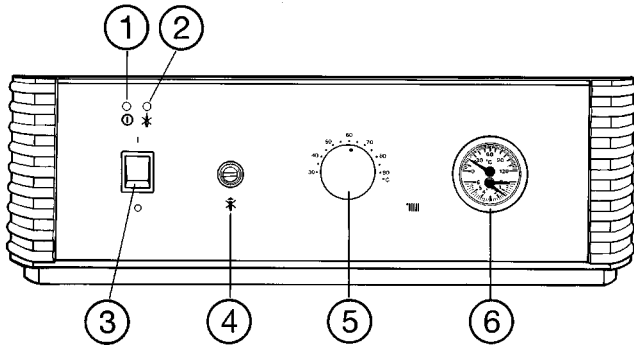


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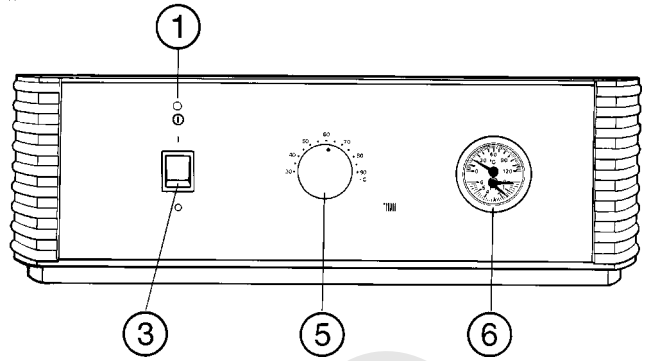


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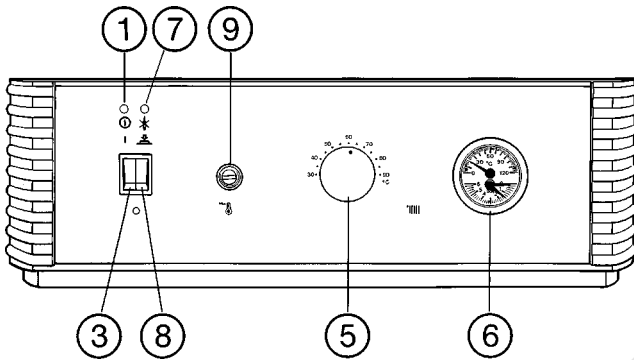
**Principales componentes/Main Components/Principaux composants  
Hauptkomponenten/Componenti principali/Principais componentes**



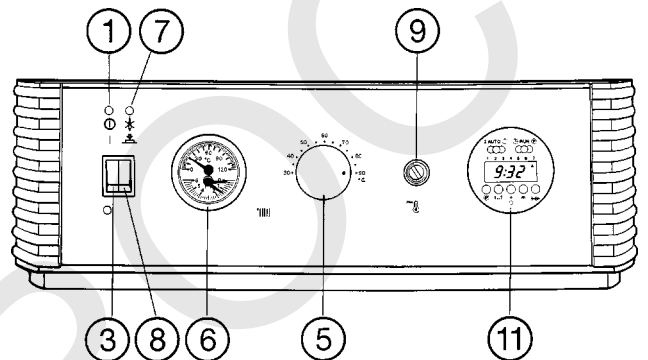
**CC-138 / G100/20 - 30 - 40 - 50**



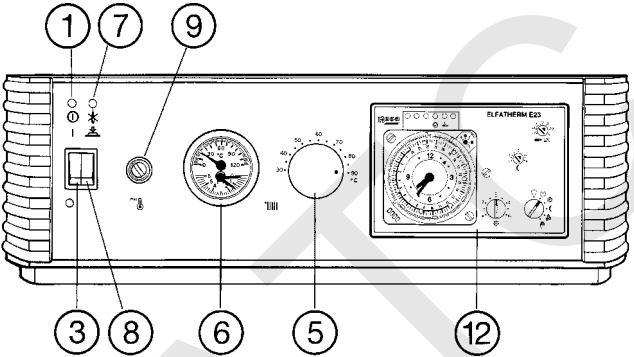
**CC-139 / G100/70 - 90 - 110**



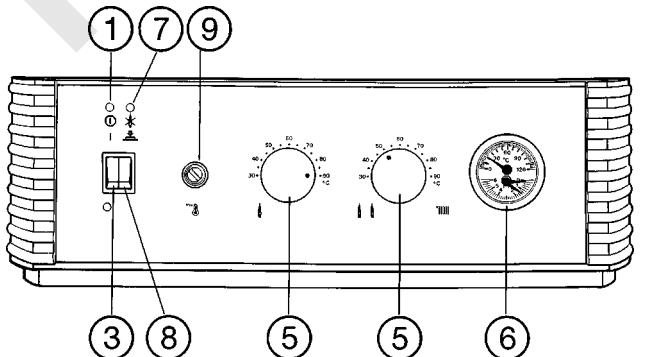
**CC-140 / G100/20 - 30 - 40 - 50 IE  
CC-141 / G100/70 IE**



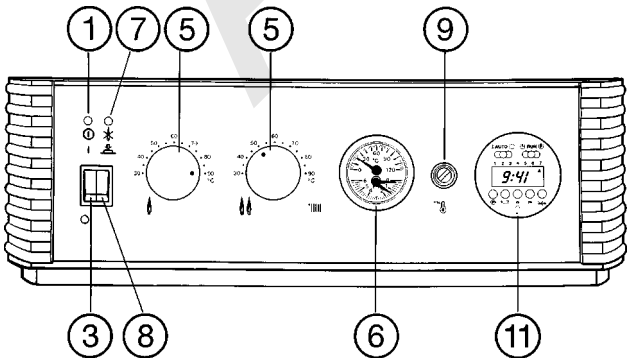
**CC-140 R / G100/20 - 30 - 40 - 50 IE  
CC-141 R / G100/70 IE**



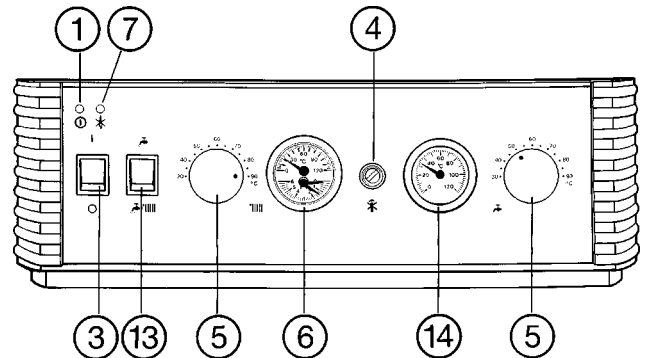
**CC-140 C / G100/20 - 30 - 40 - 50 IE  
CC-141 C / G100/70 - 90 - 110 IE**



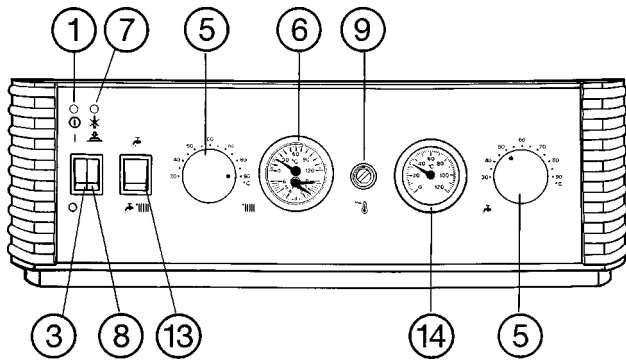
**CC-142 / G100/90-110 IE**



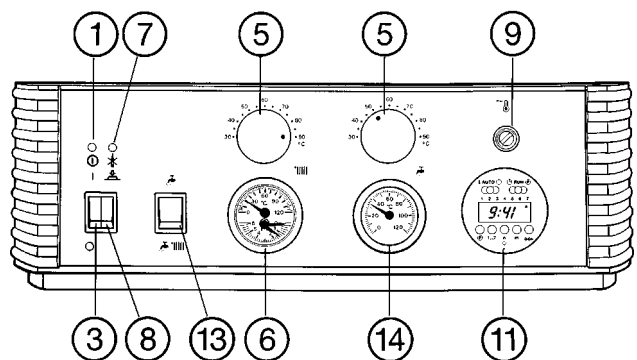
**CC-142 R / G100/90 - 110 IE**



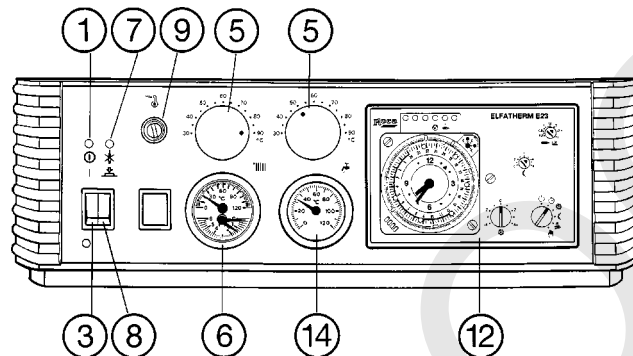
**CC-143 / G100/20 - 30 - 40 GTA**



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



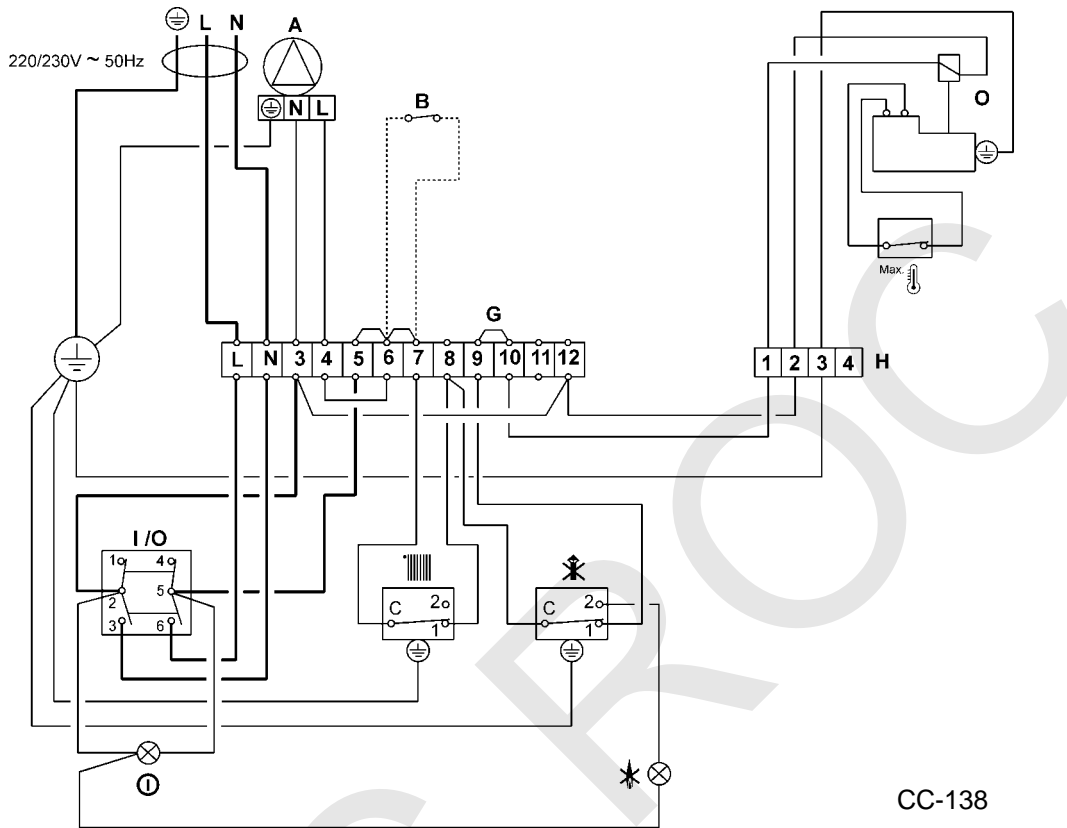
CC-144 R / G100/20 - 30 - 40 IE GTA



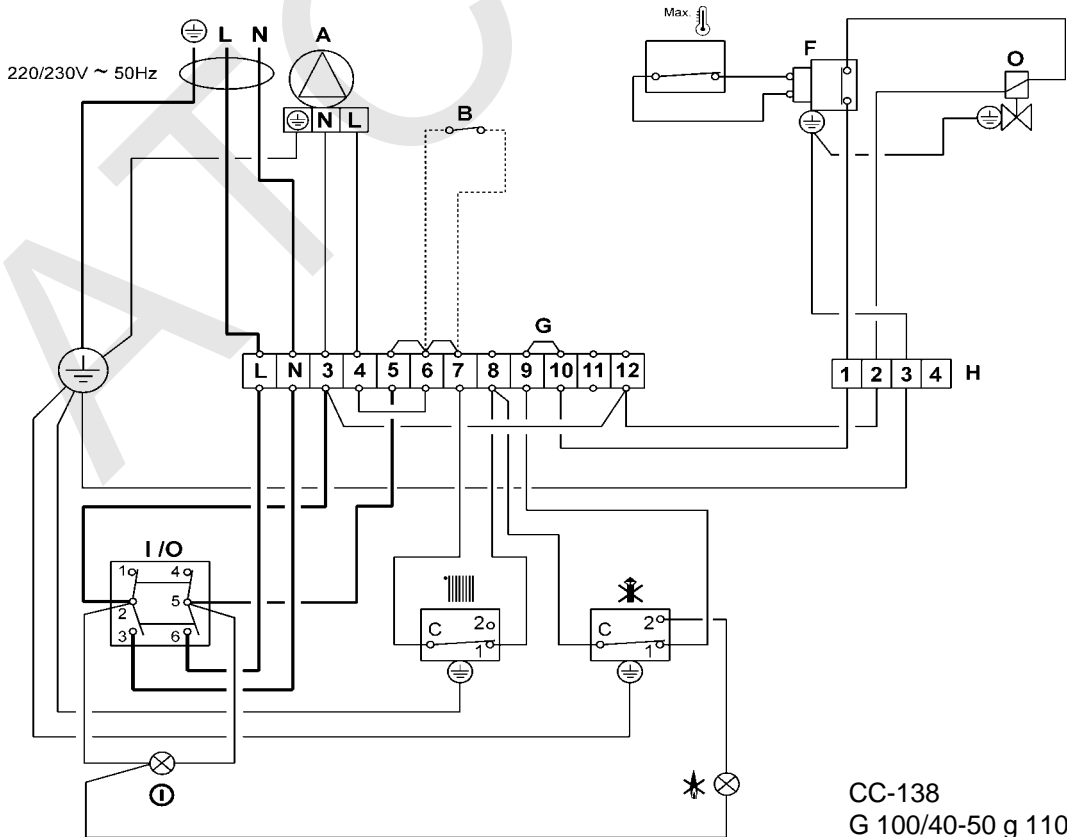
CC-144 C / G100/20 - 30 - 40 IE GTA

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

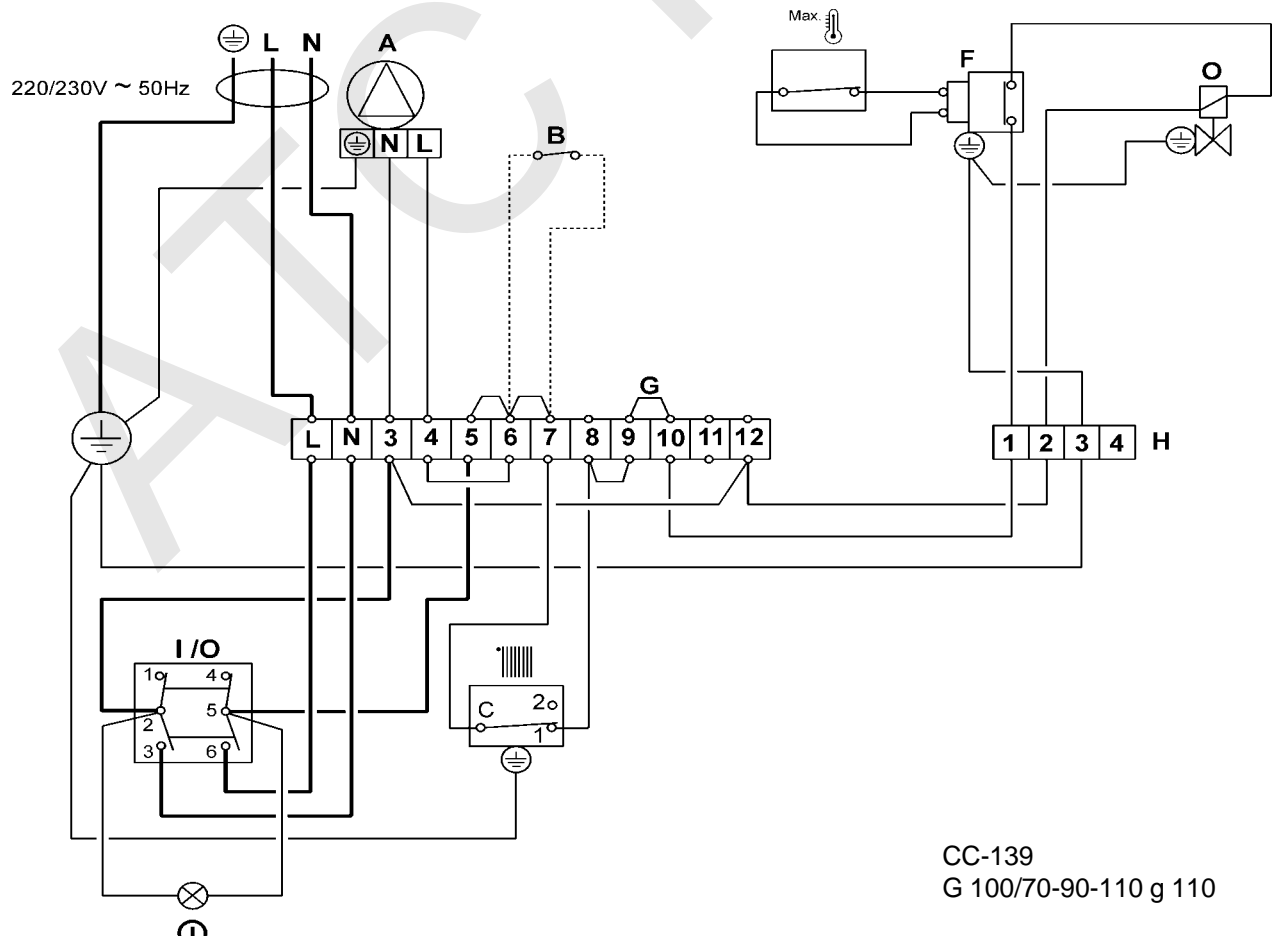
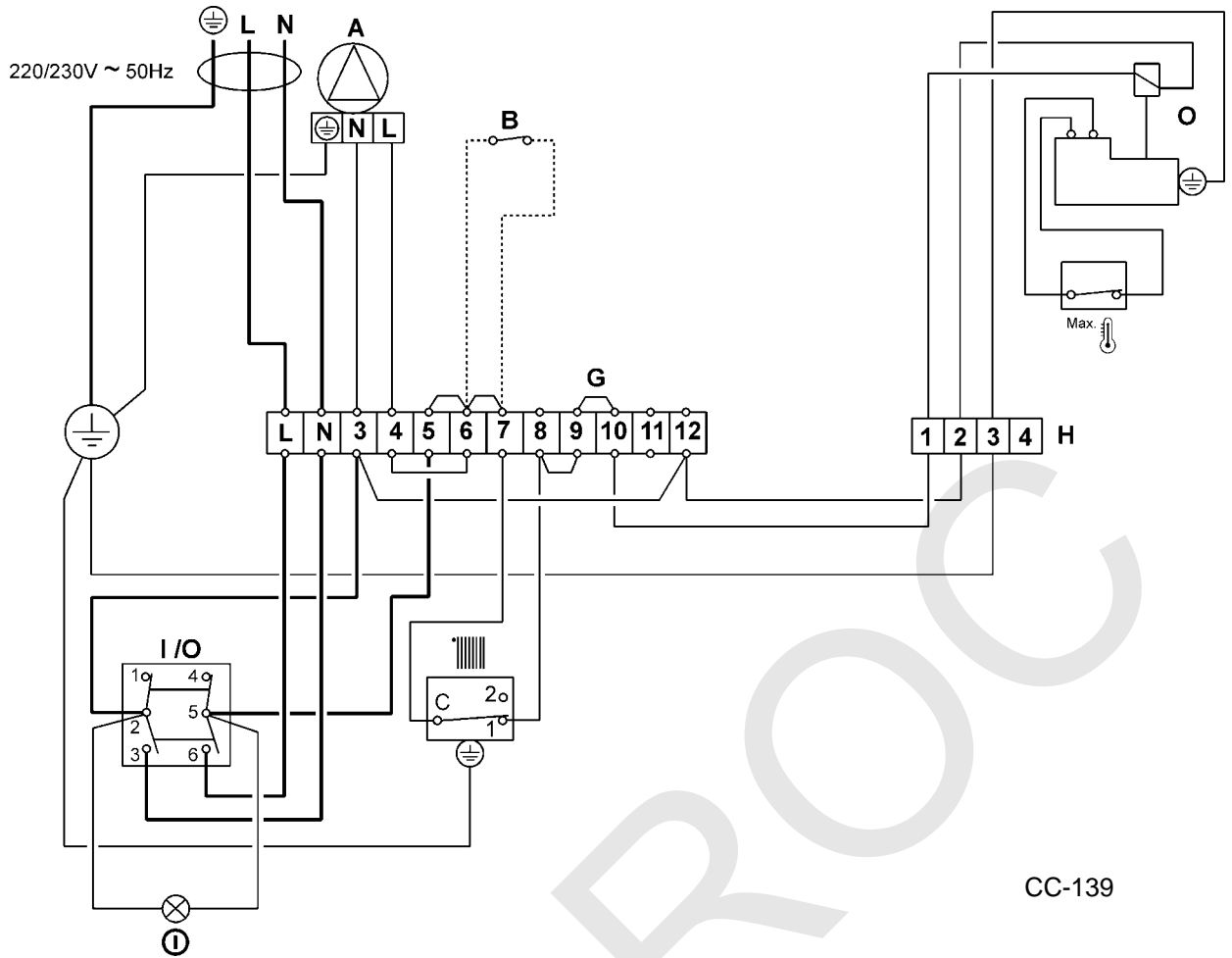
Esquemas de conexionado eléctrico y de principio de funcionamiento  
 Electrical & Schematic Wiring Diagrams  
 Schémas de raccordement électrique et principe de fonctionnement  
 Elektrische Schalbilder und Betriebsschaltpläne  
 Schemi elettrici e principi di funzionamento  
 Esquemas de ligação eléctrica e princípio de funcionamento

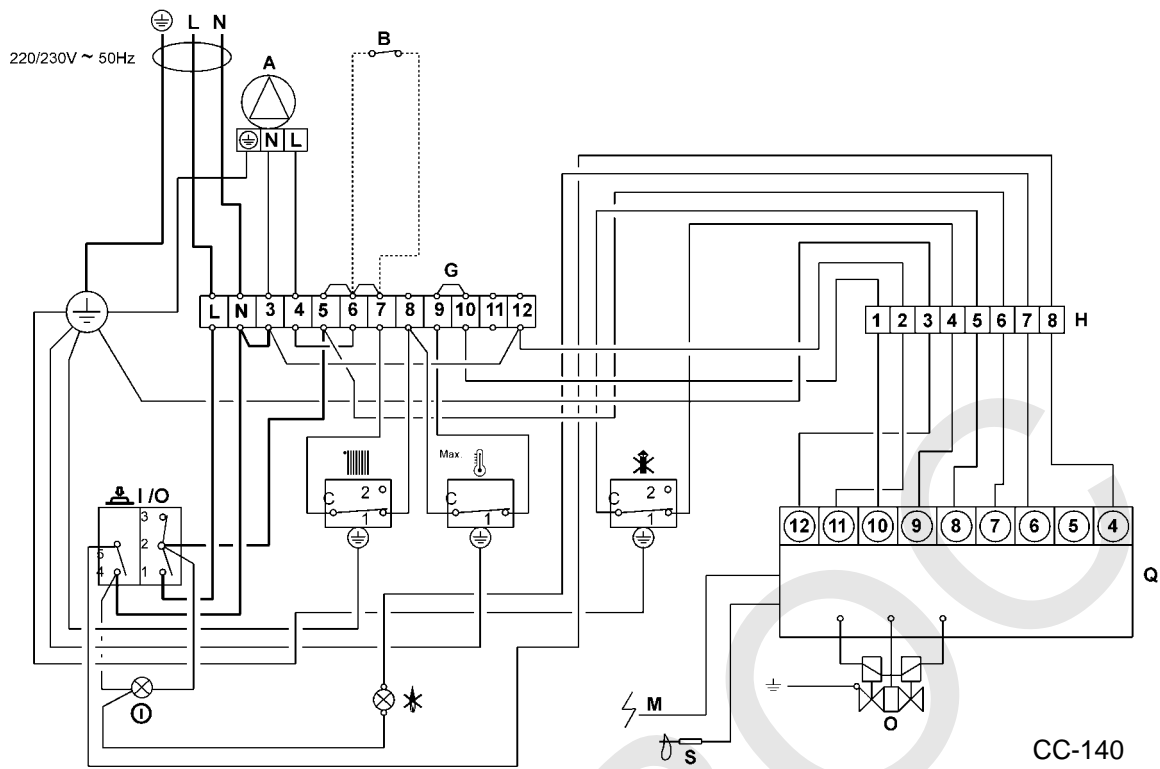


CC-138

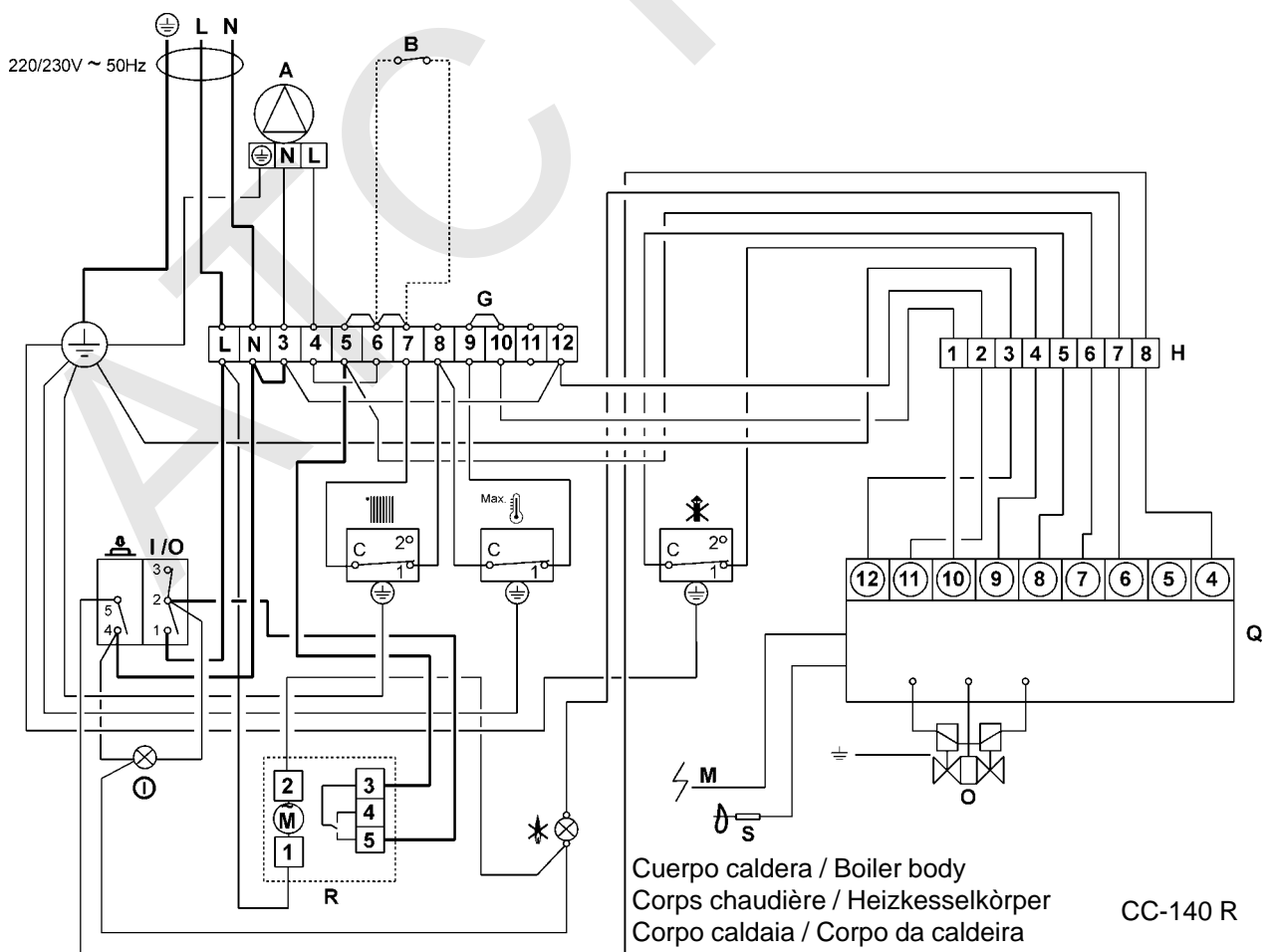


CC-138  
 G 100/40-50 g 110

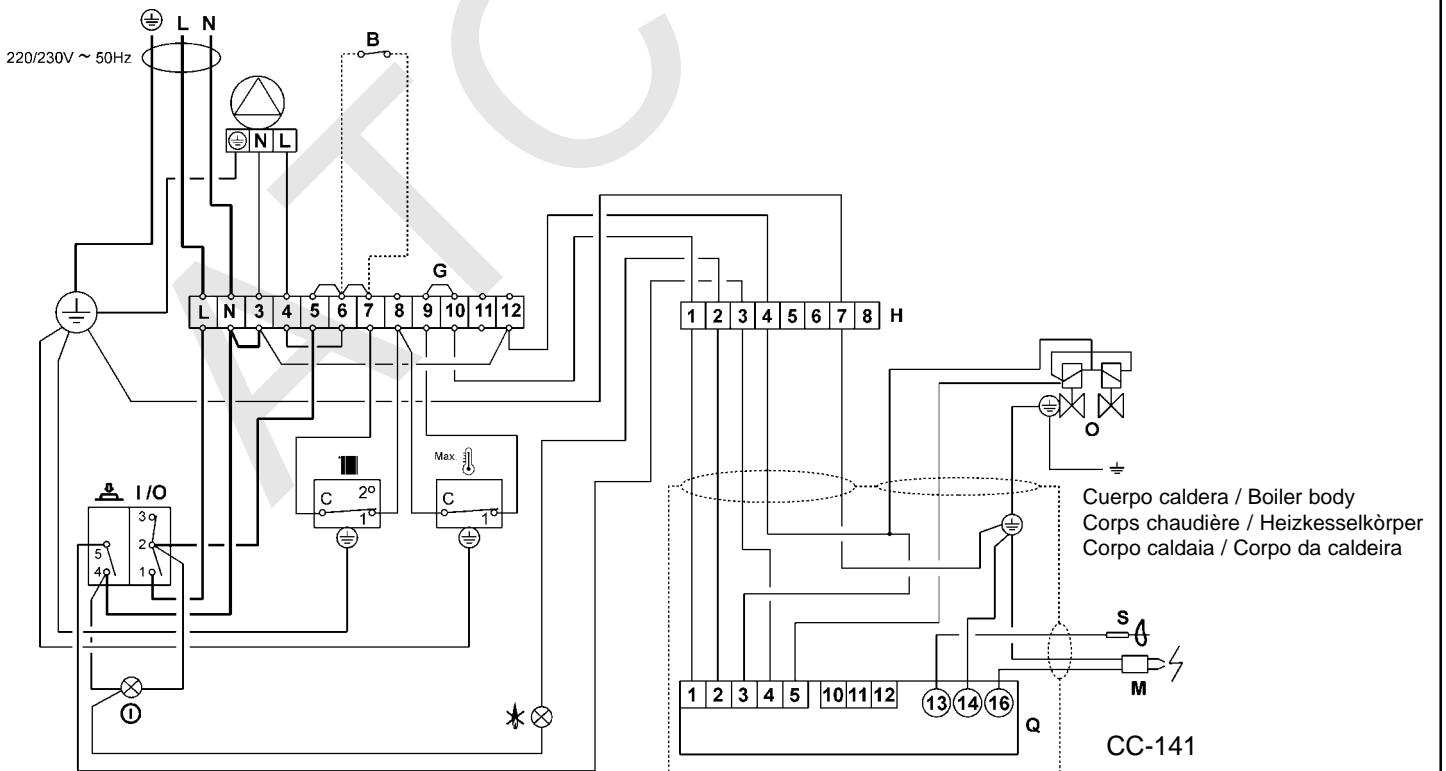
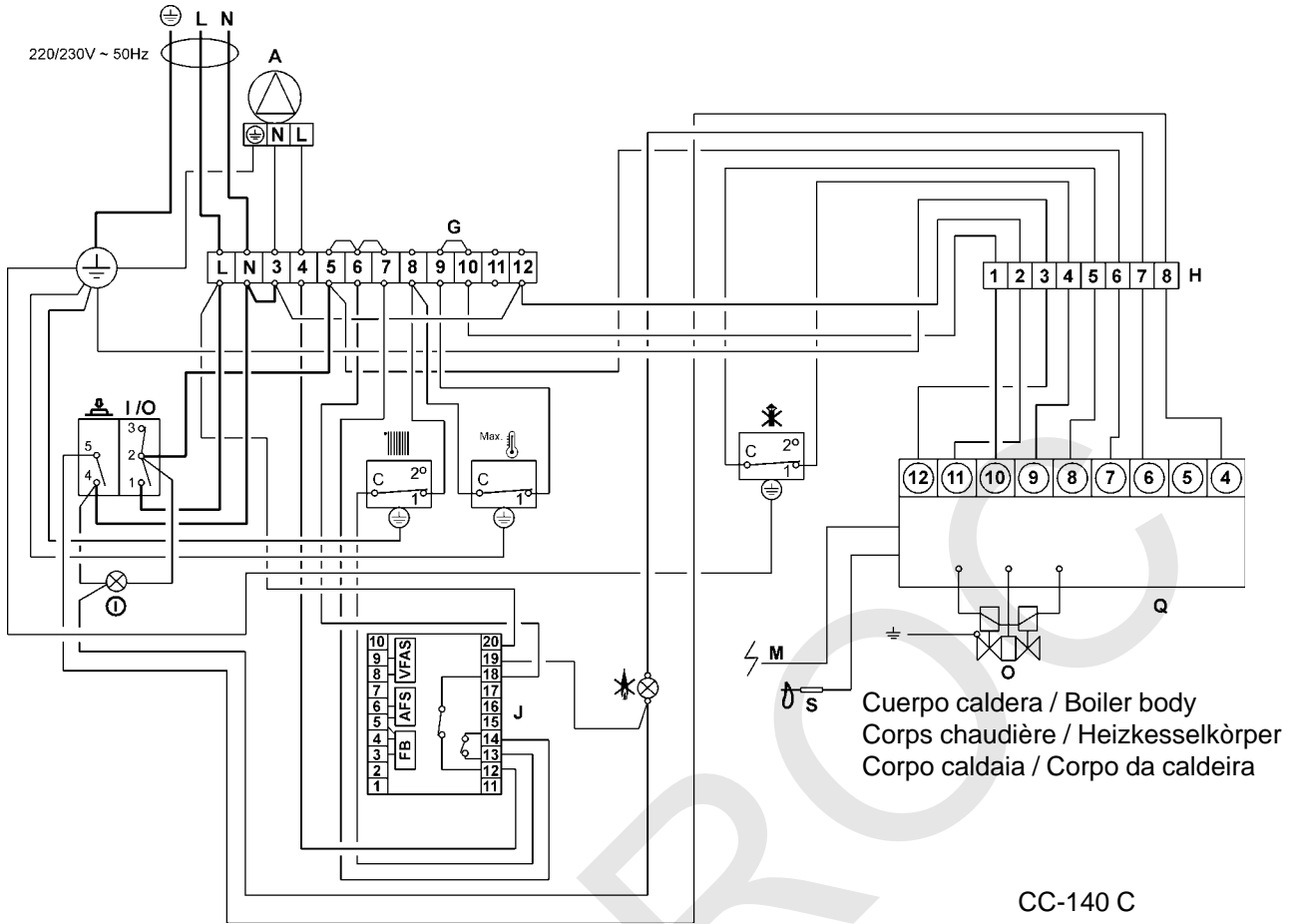




Cuerpo caldera / Boiler body  
 Corps chaudière / Heizkesselkörper  
 Corpo caldaia / Corpo da caldeira

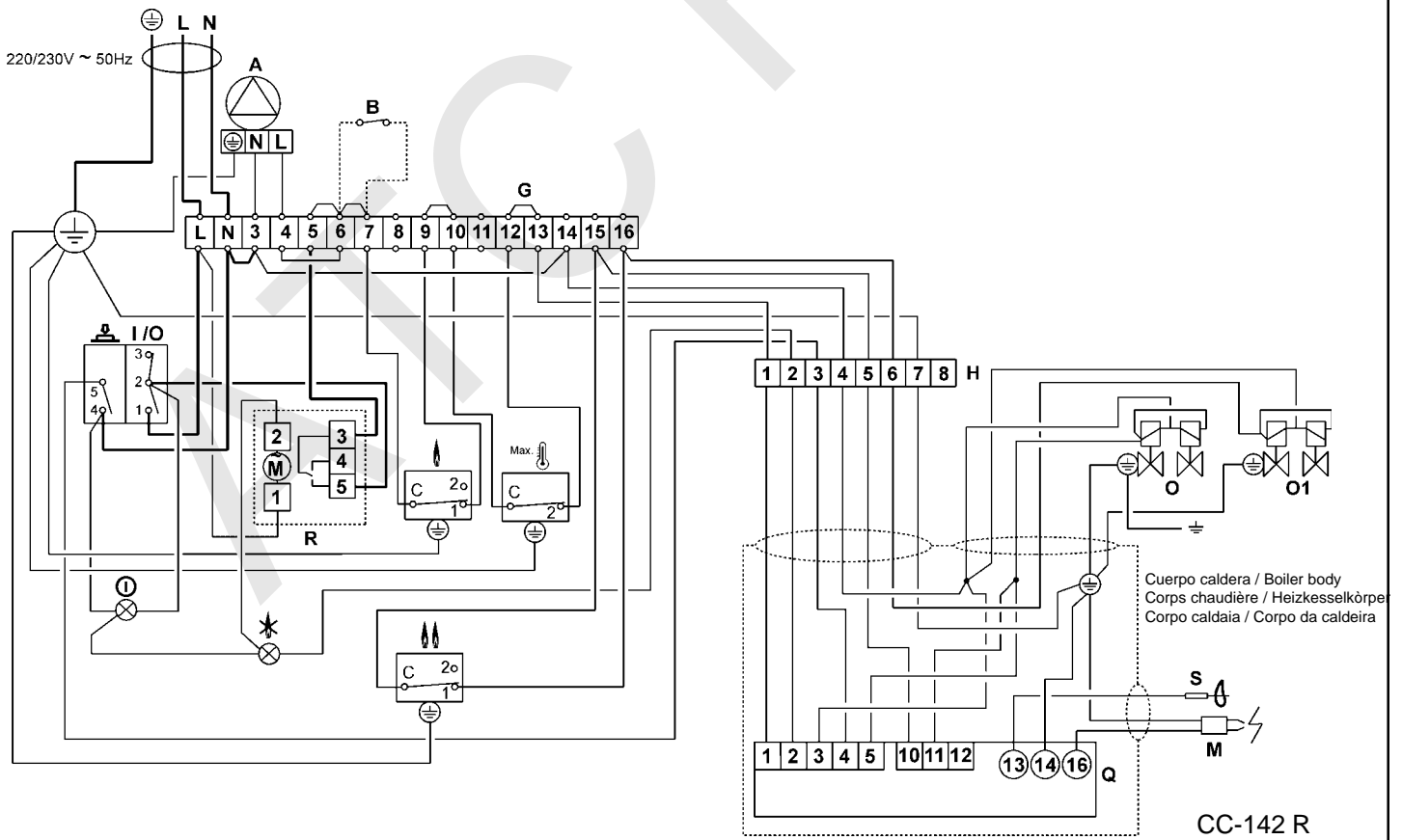
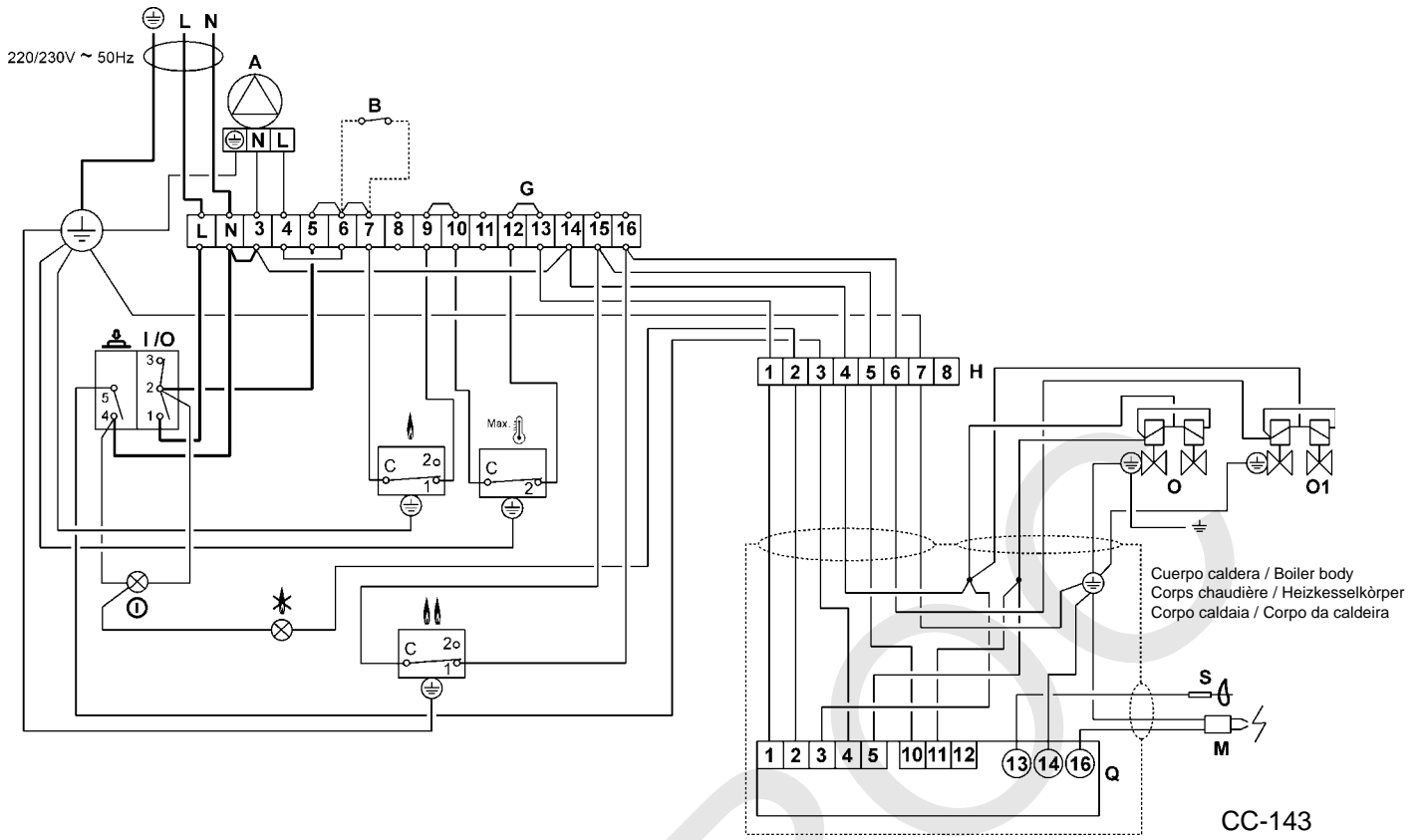


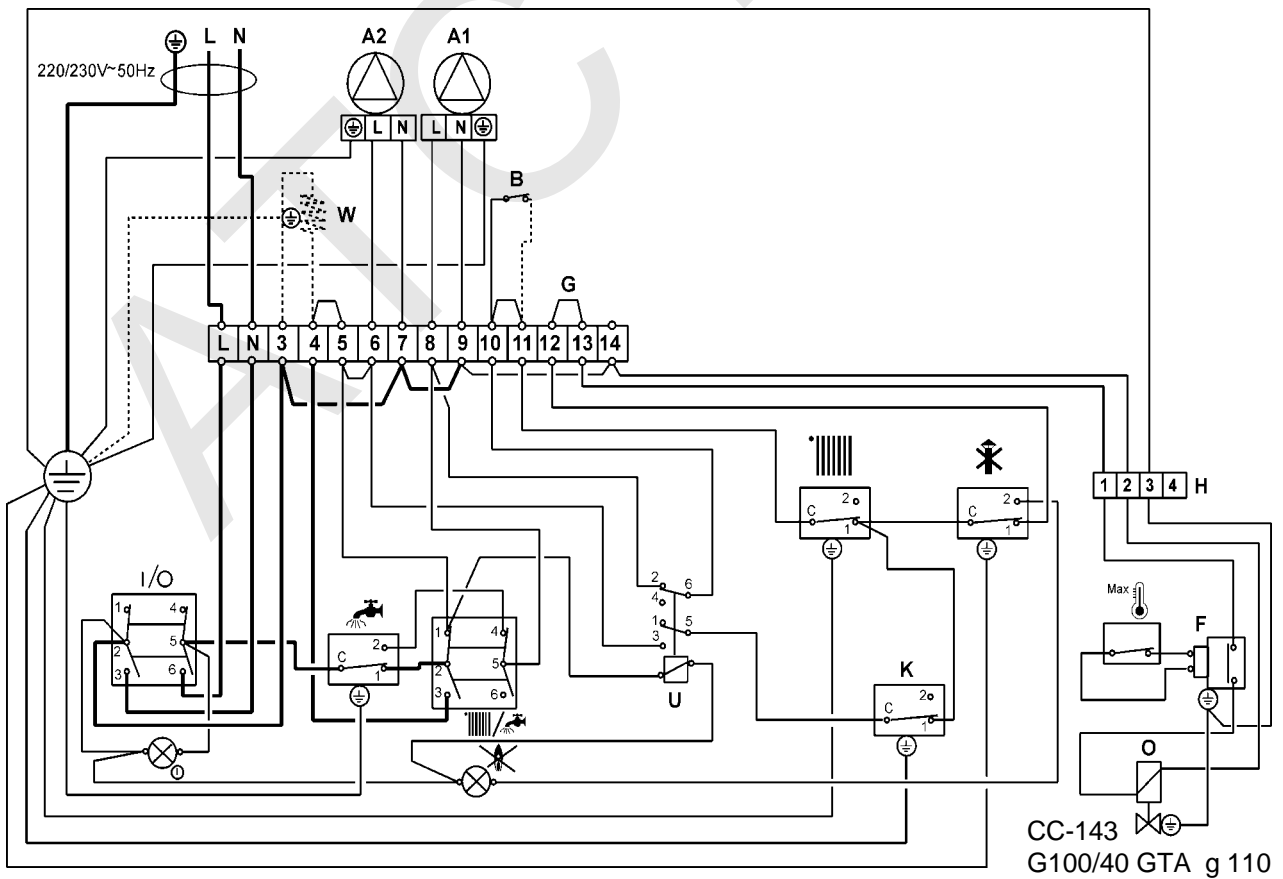
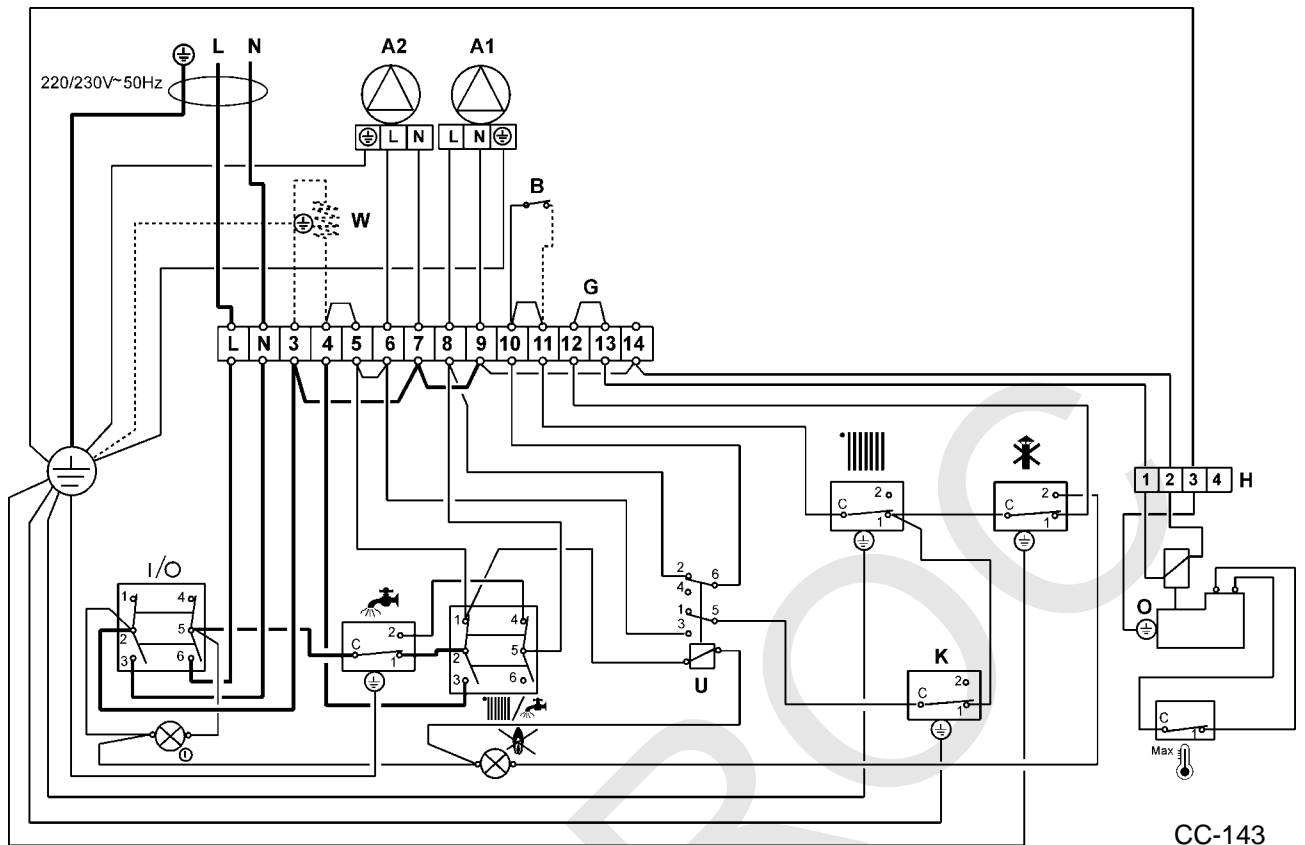
Cuerpo caldera / Boiler body  
 Corps chaudière / Heizkesselkörper  
 Corpo caldaia / Corpo da caldeira

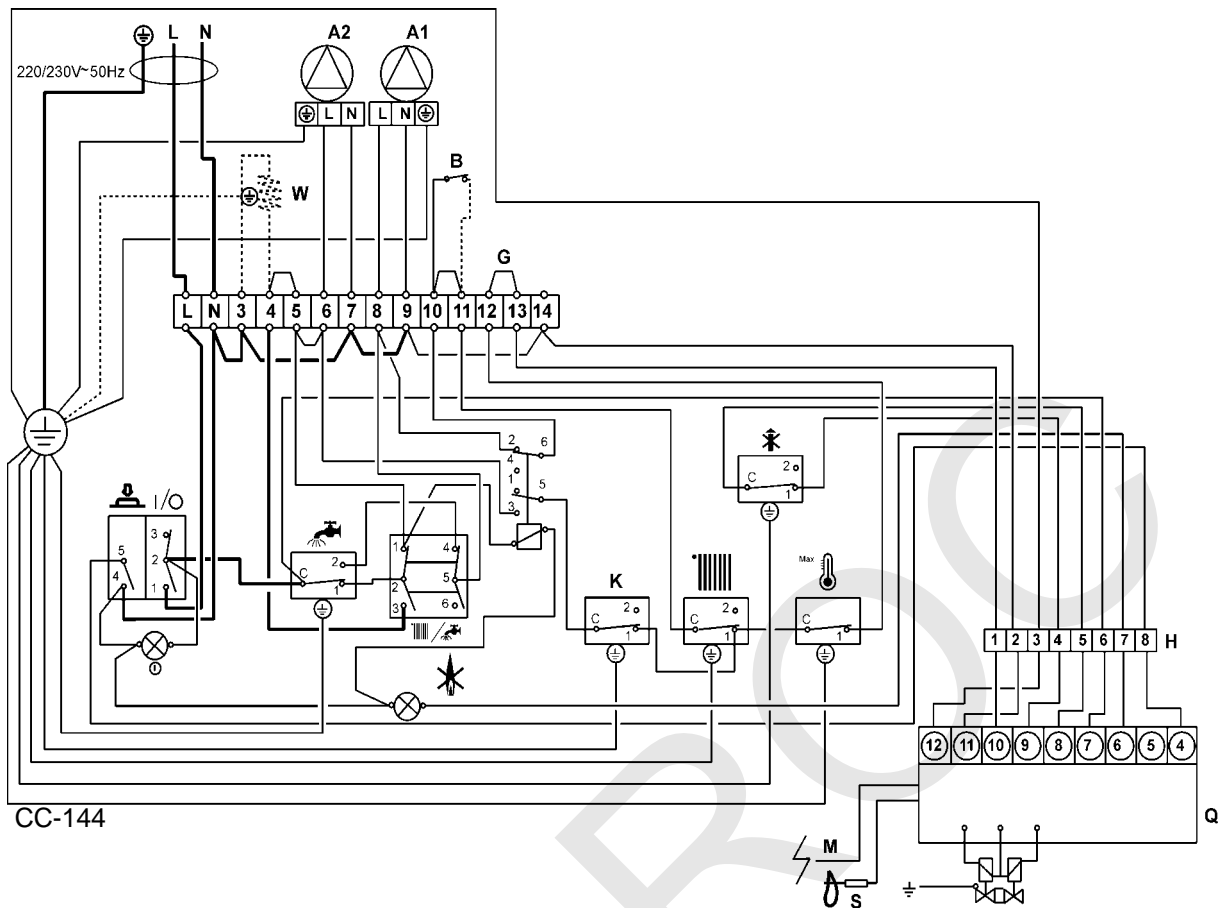






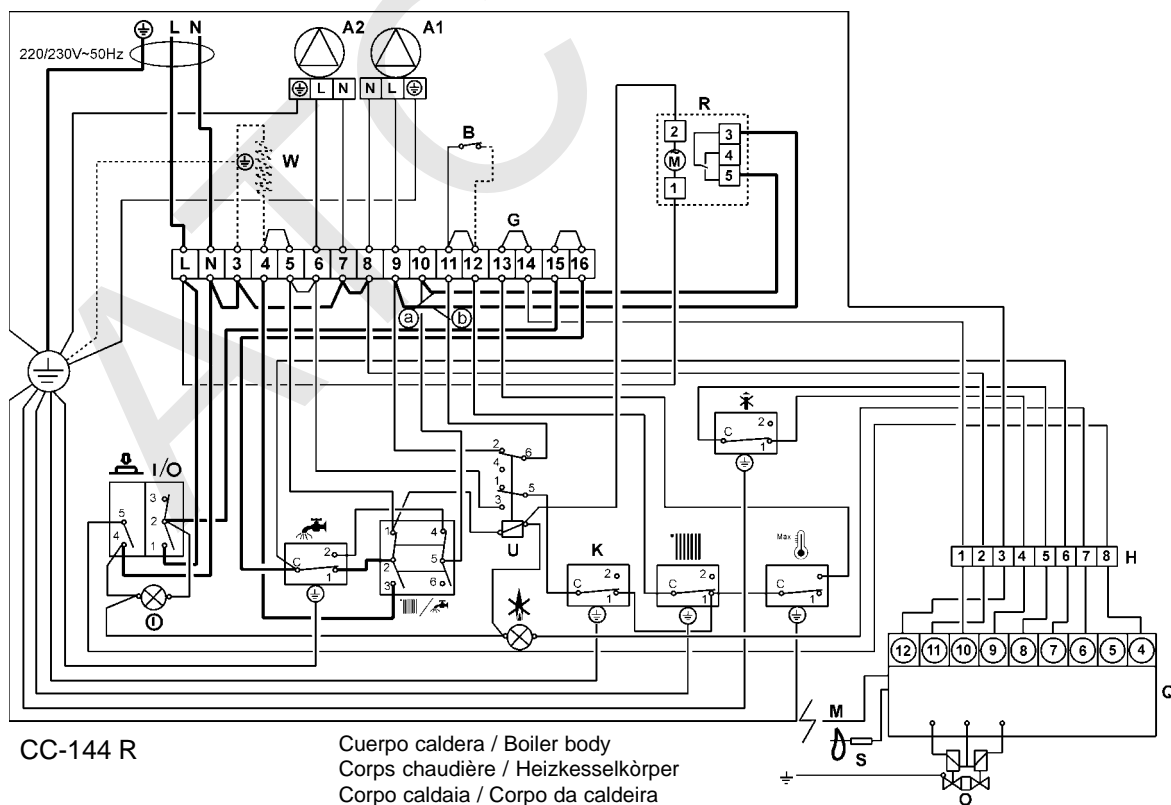






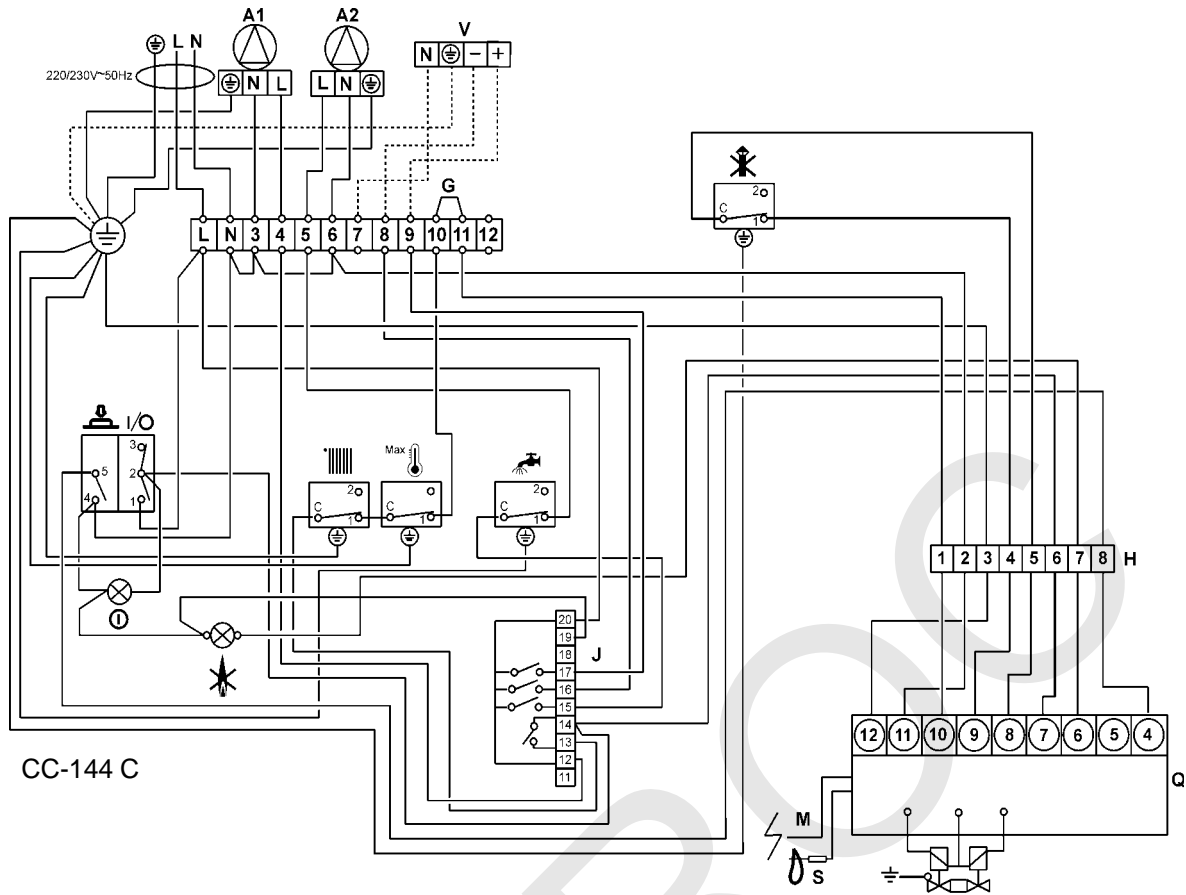
CC-144

Cuerpo caldera / Boiler body  
 Corps chaudière / Heizkesselkörper  
 Corpo caldaia / Corpo da caldeira



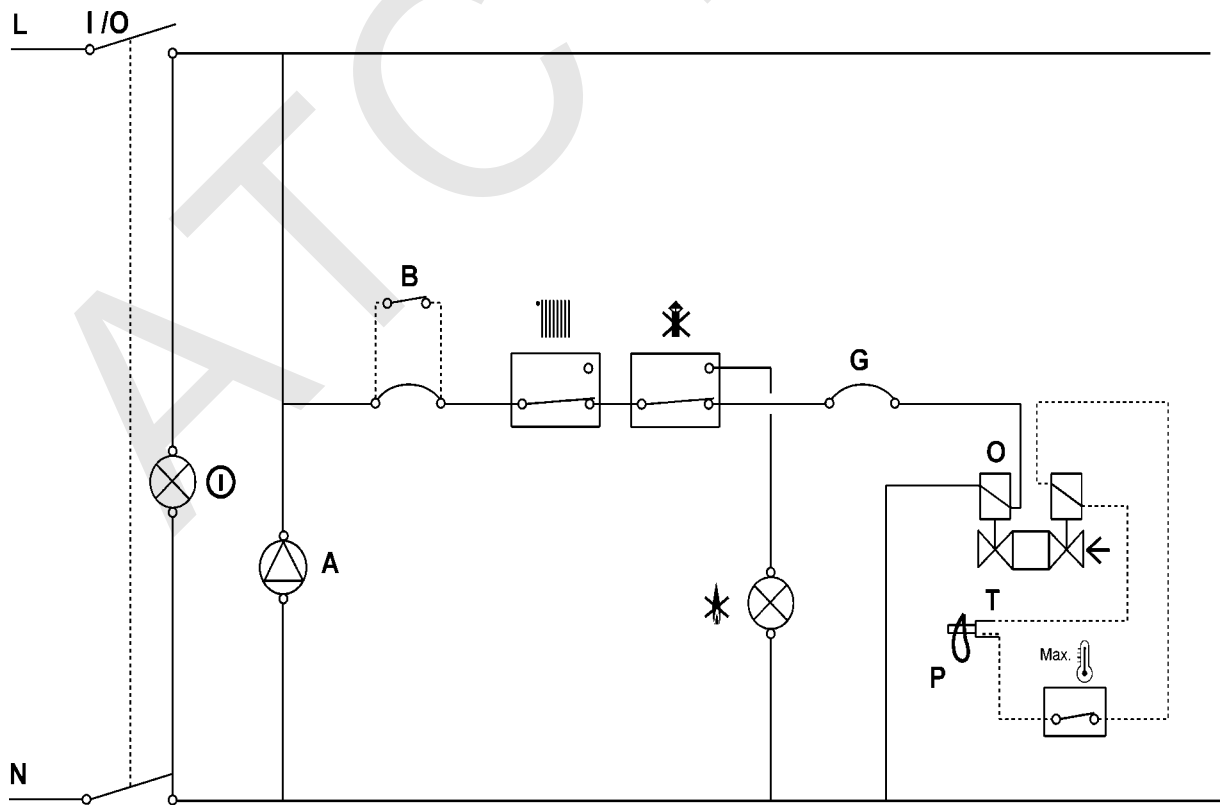
CC-144 R

Cuerpo caldera / Boiler body  
 Corps chaudière / Heizkesselkörper  
 Corpo caldaia / Corpo da caldeira

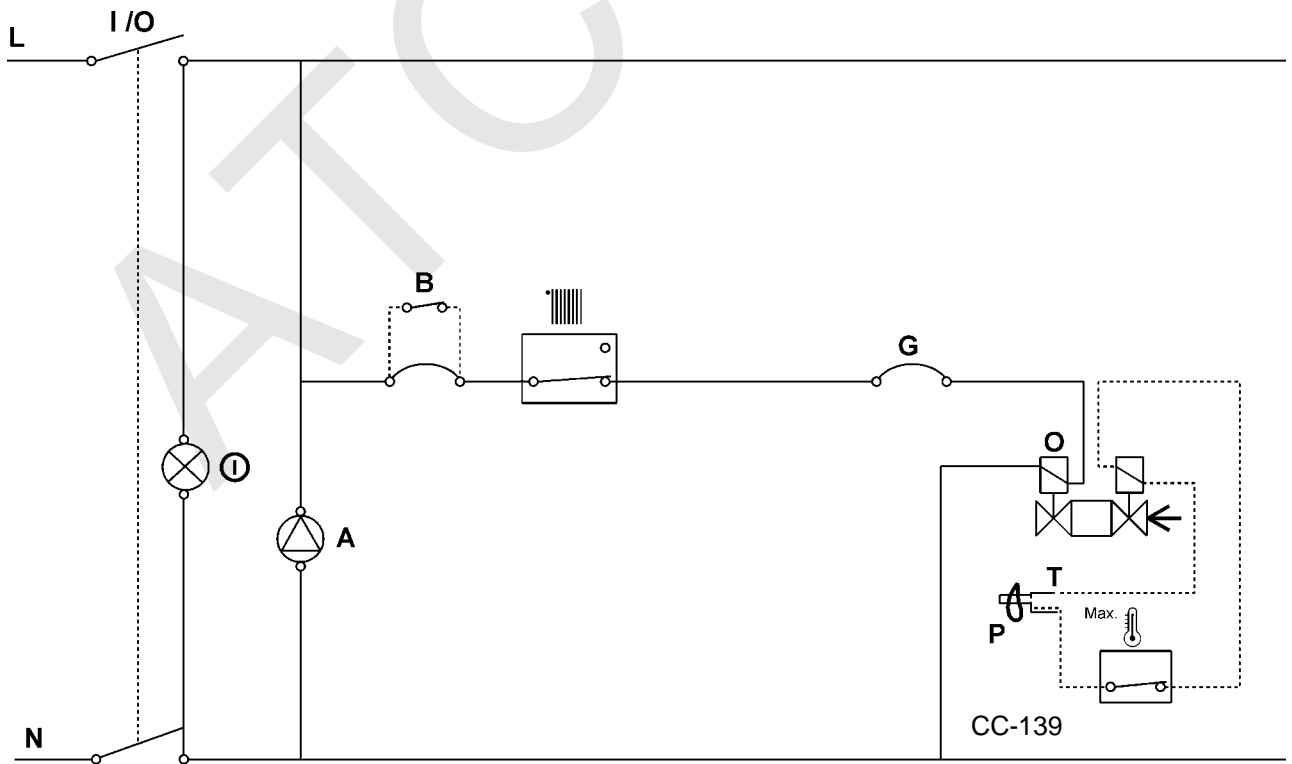
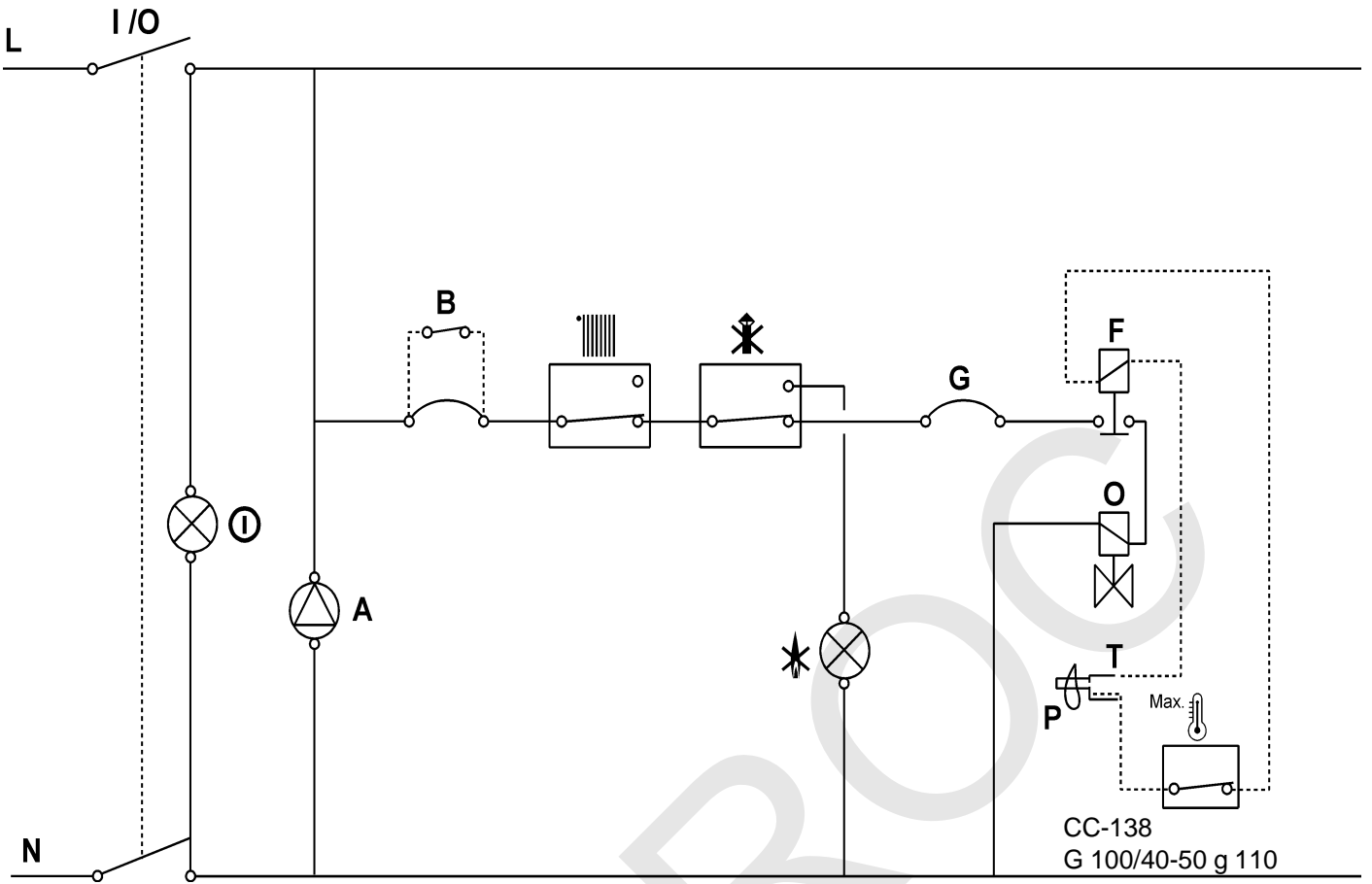


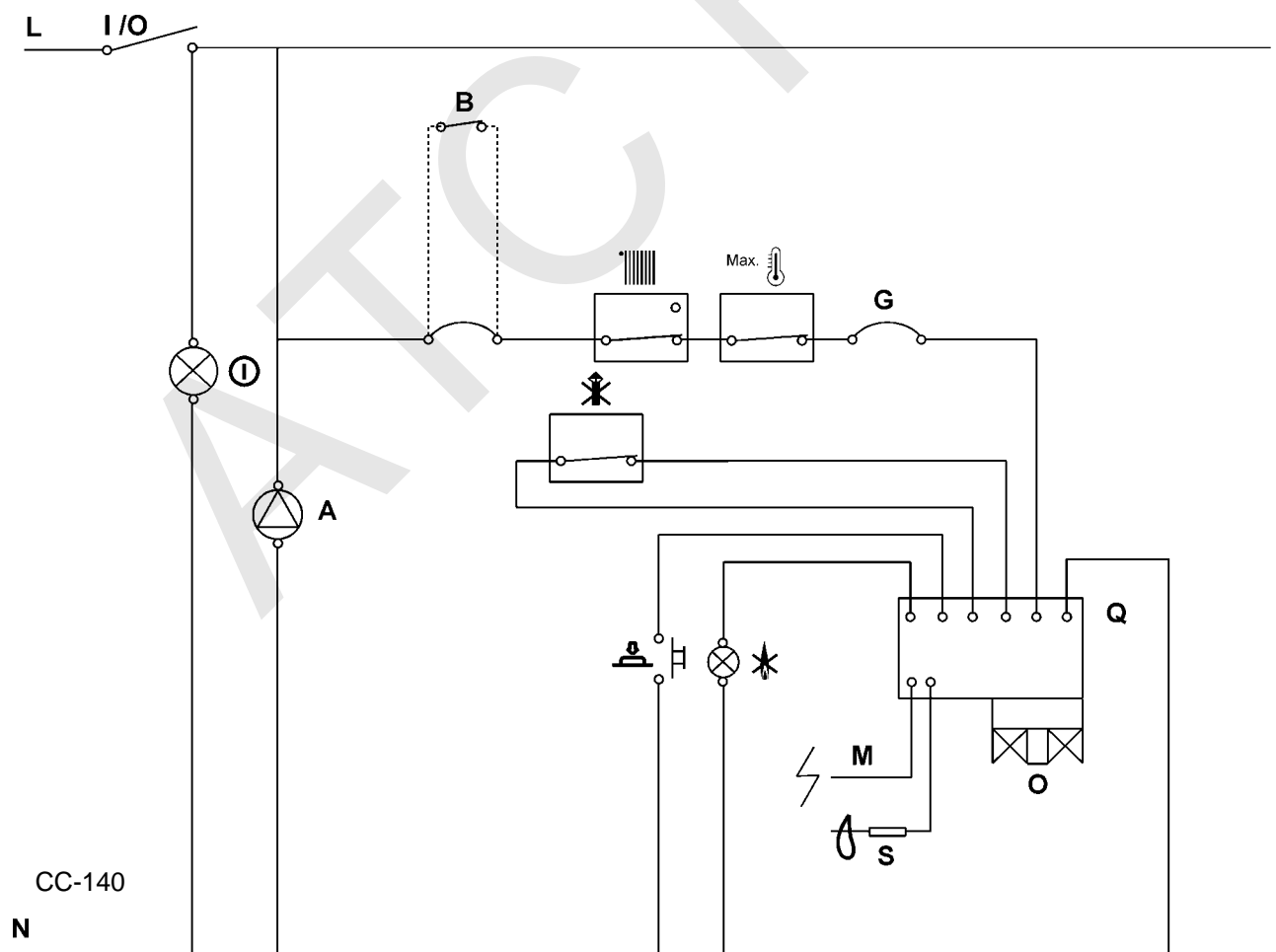
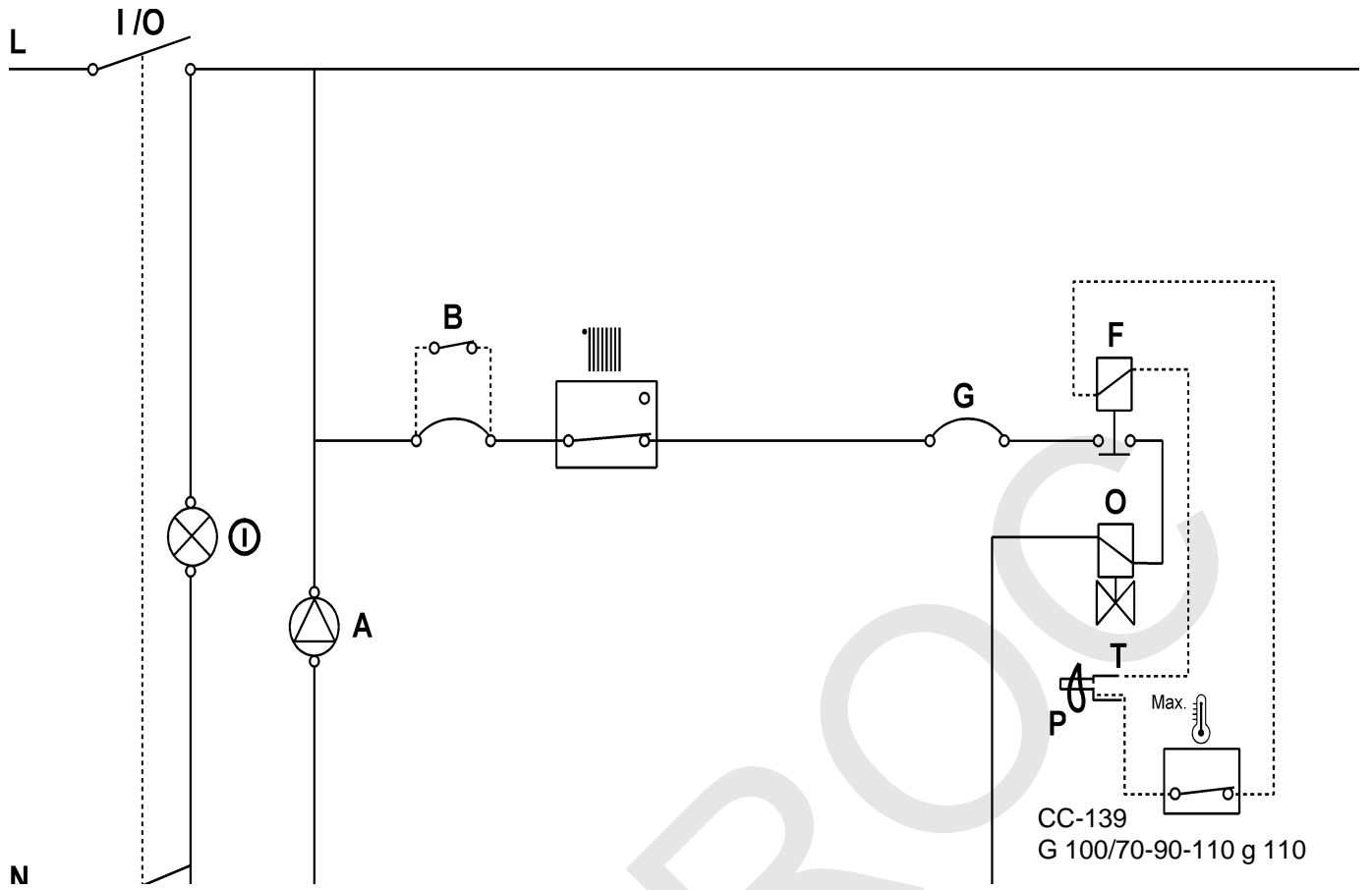
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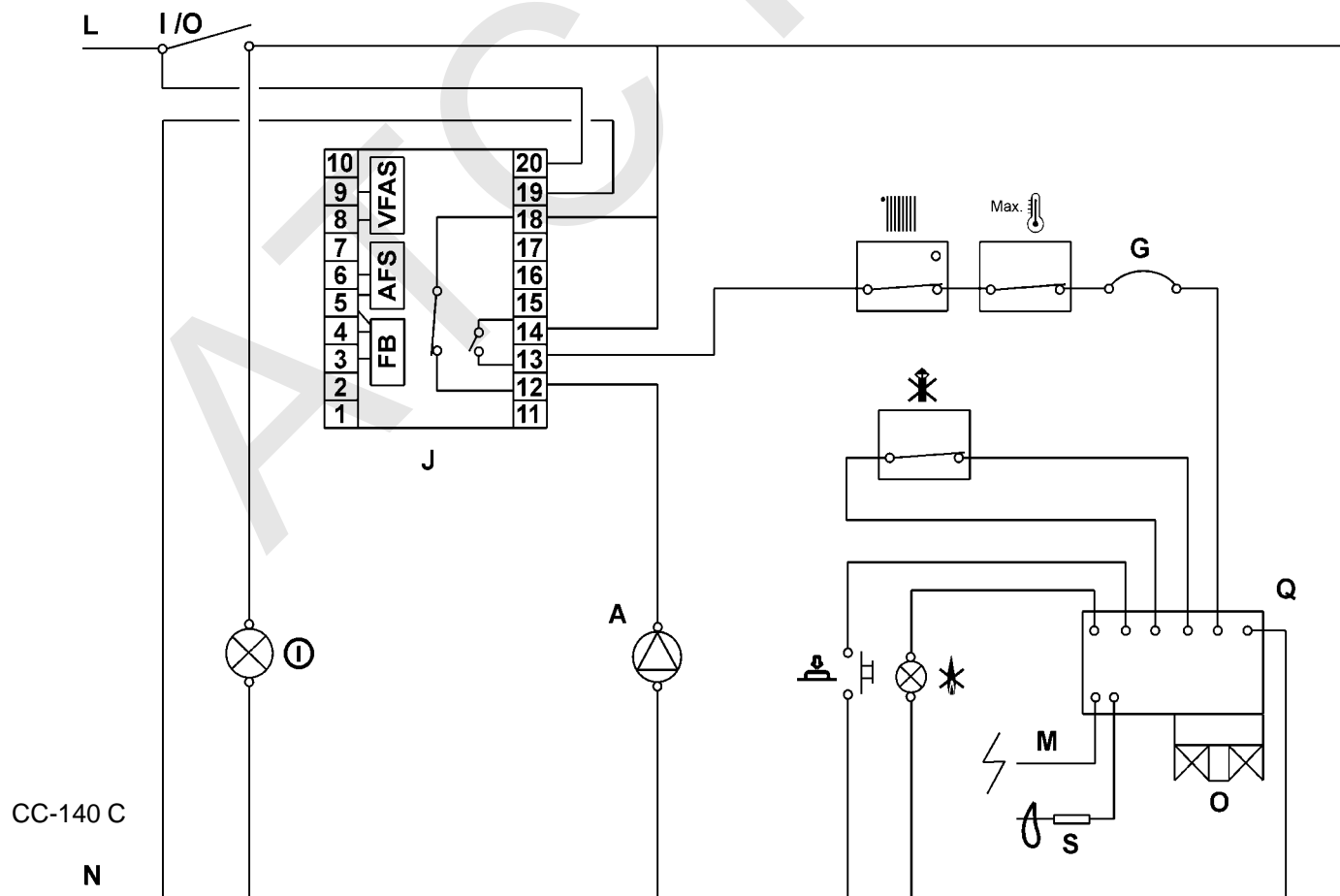
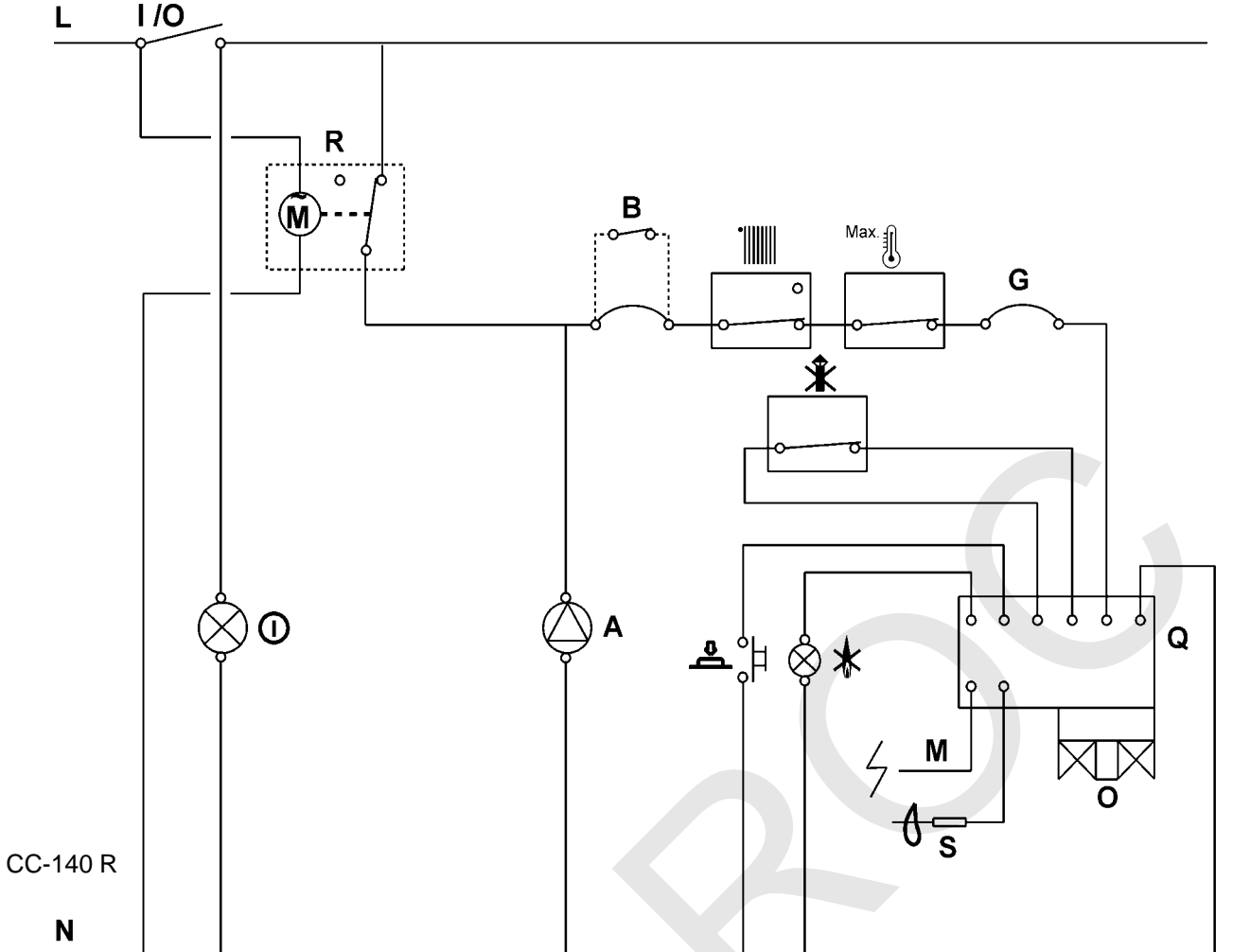
Cuerpo caldera / Boiler body  
 Corps chaudière / Heizkesselkörper  
 Corpo caldaia / Corpo da caldeira

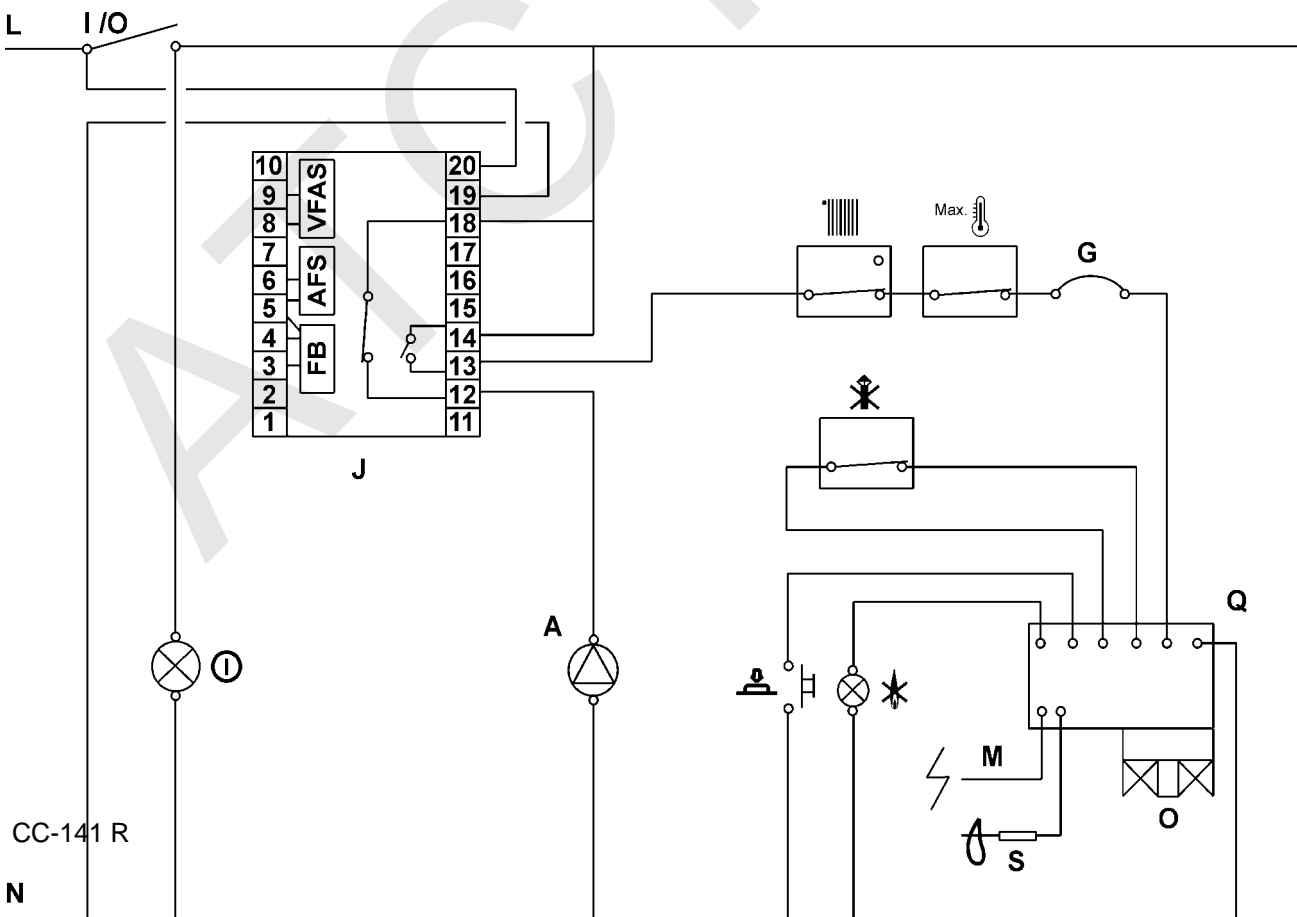
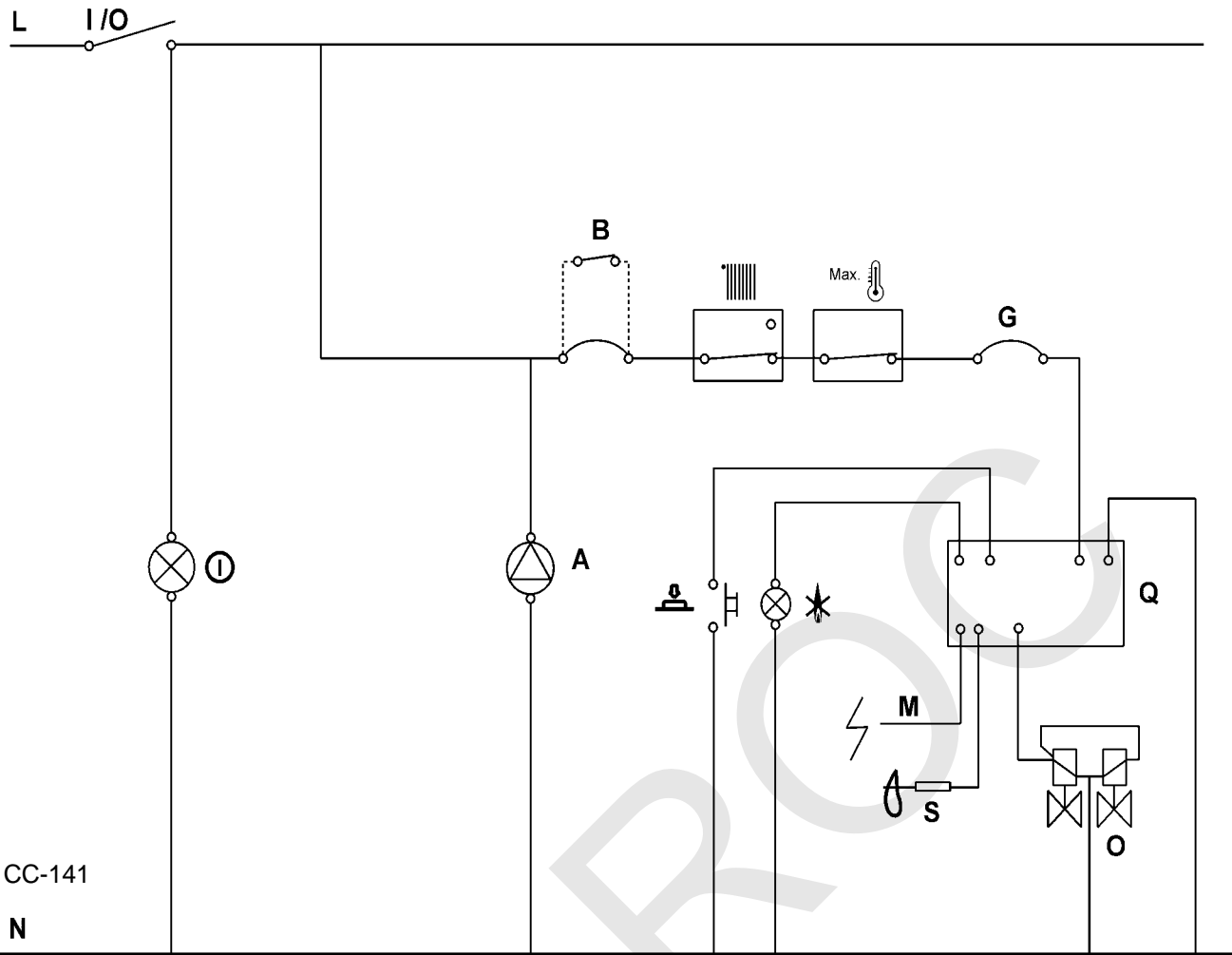


CC-138

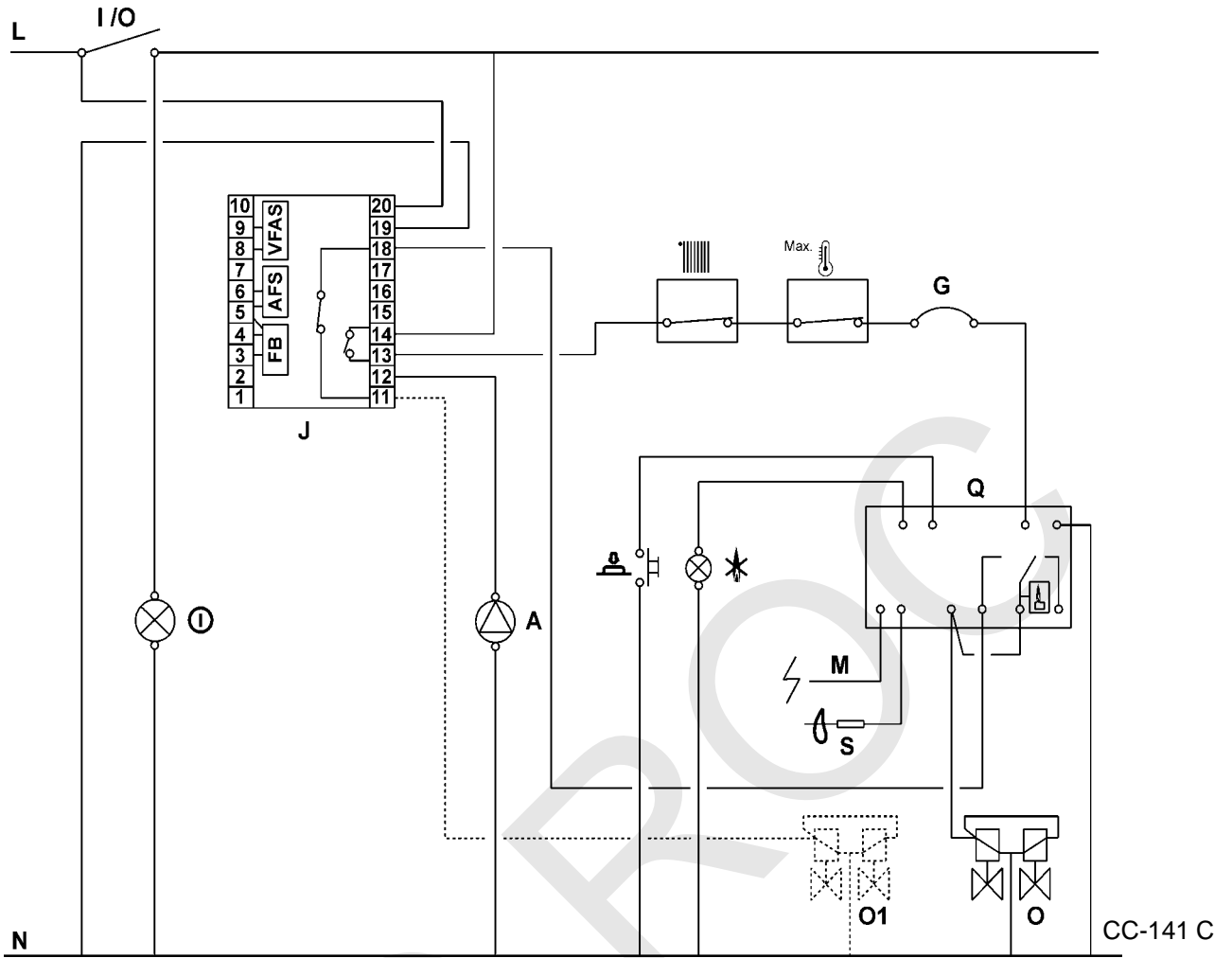




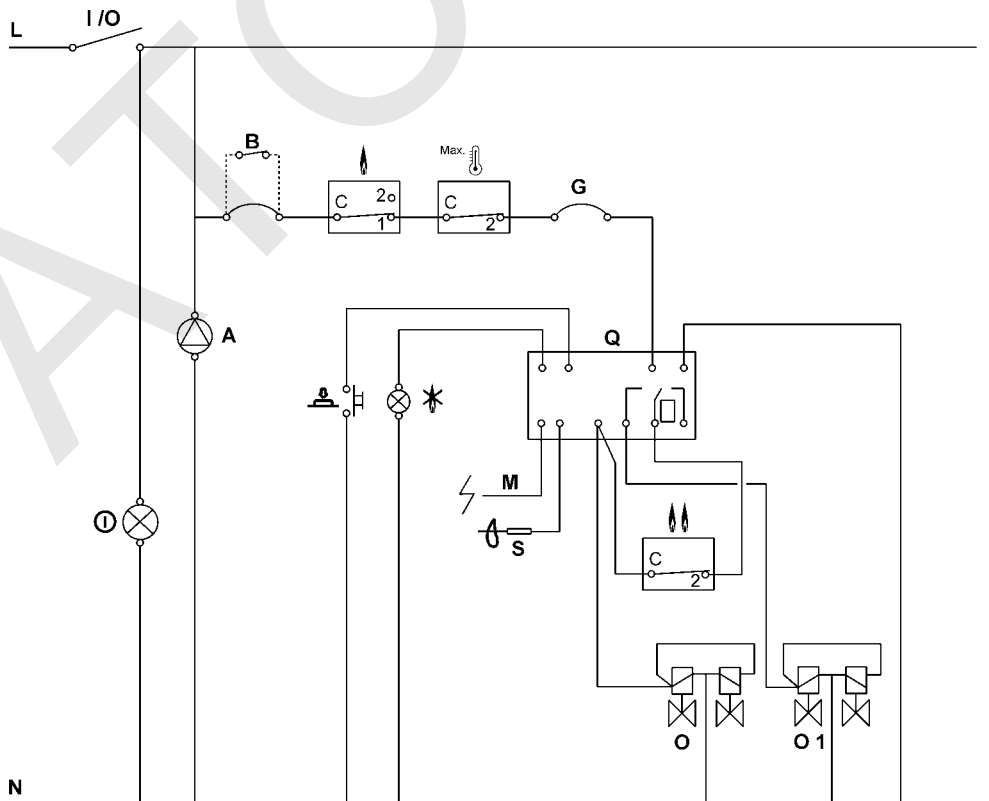




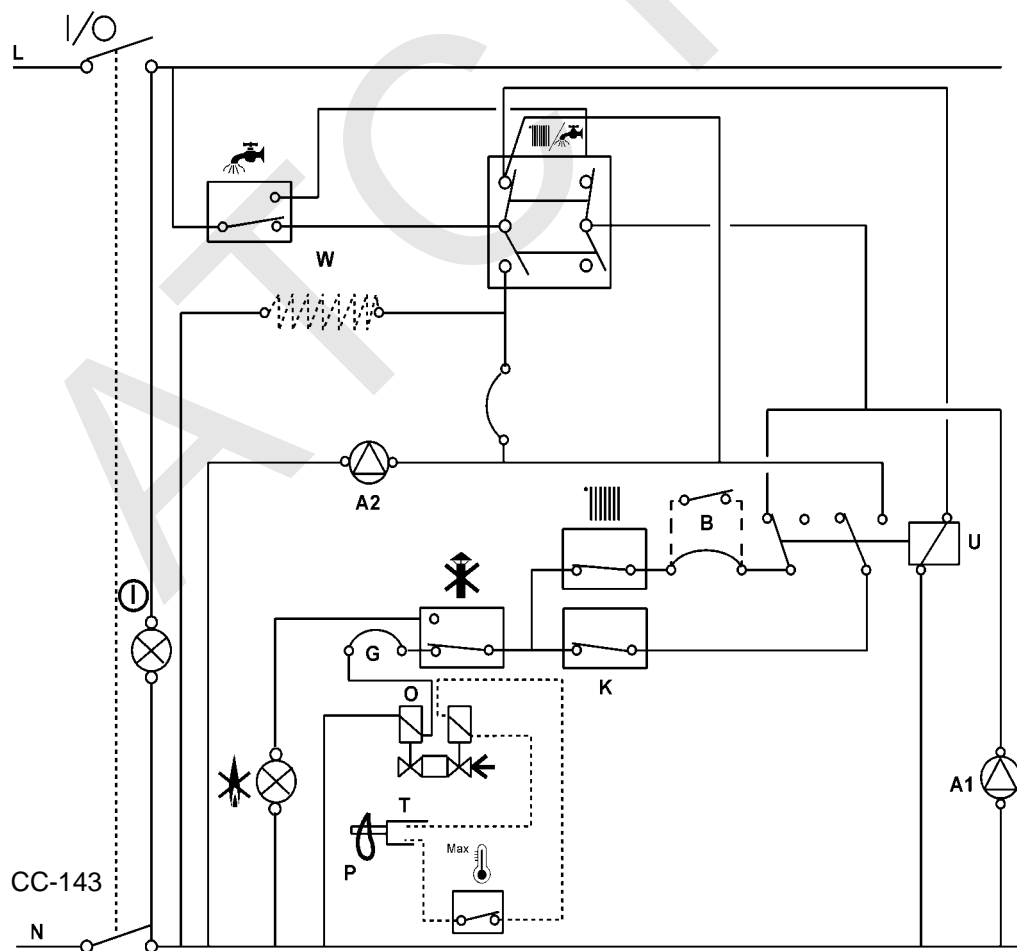
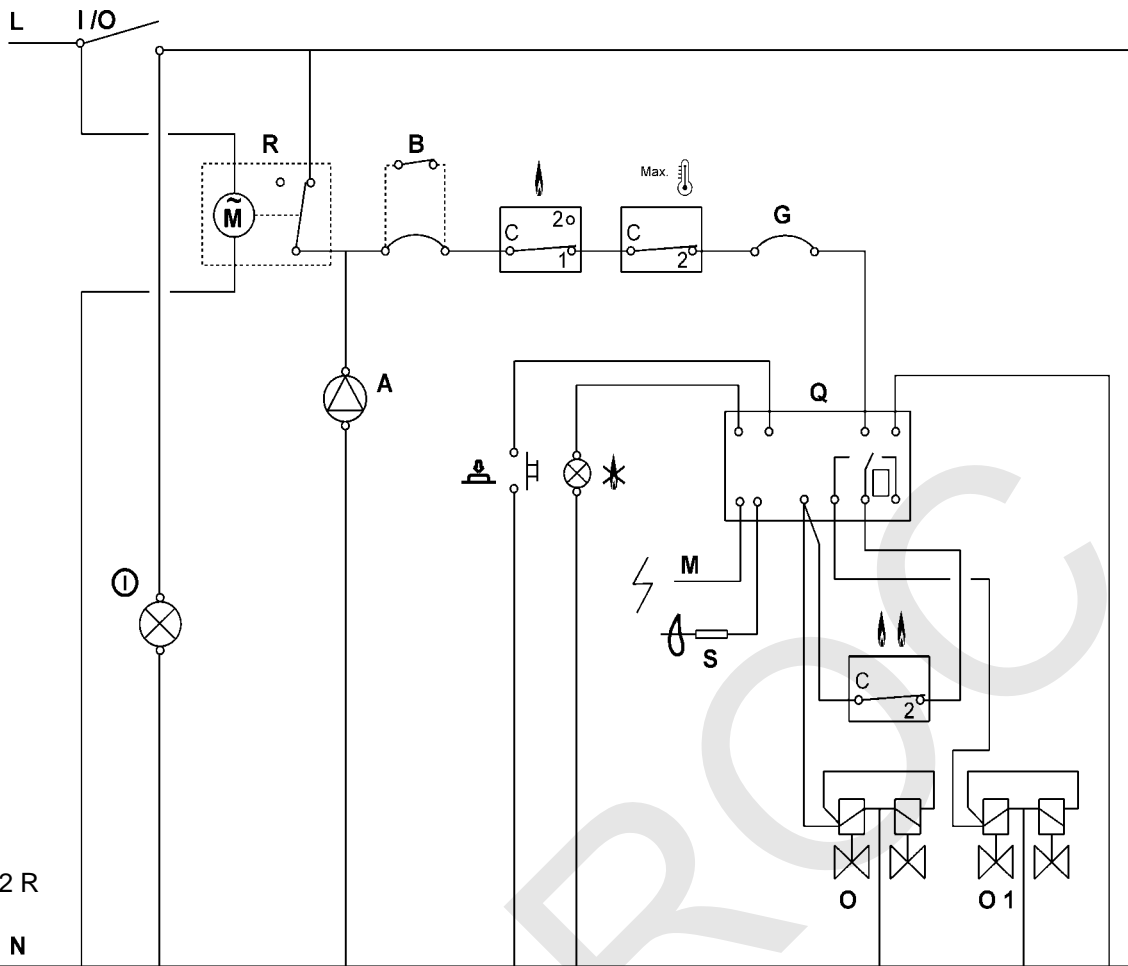


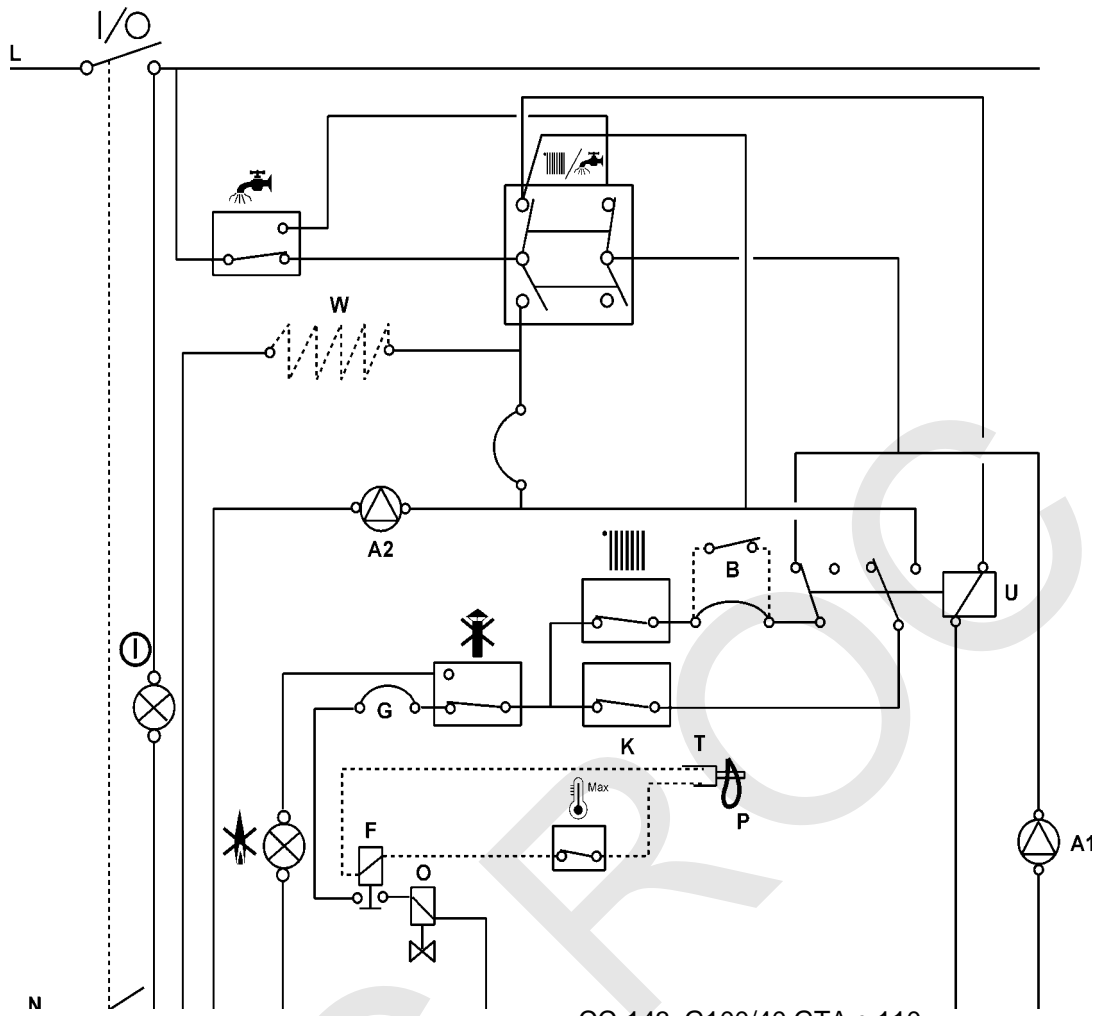


CC-141 C

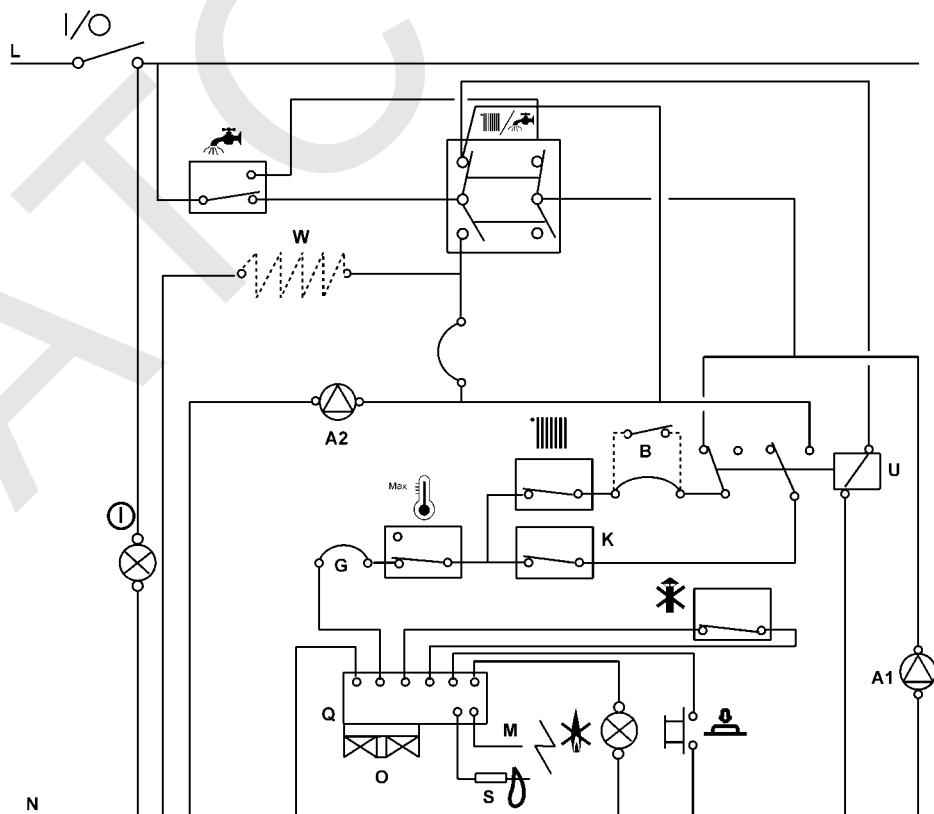


CC-142

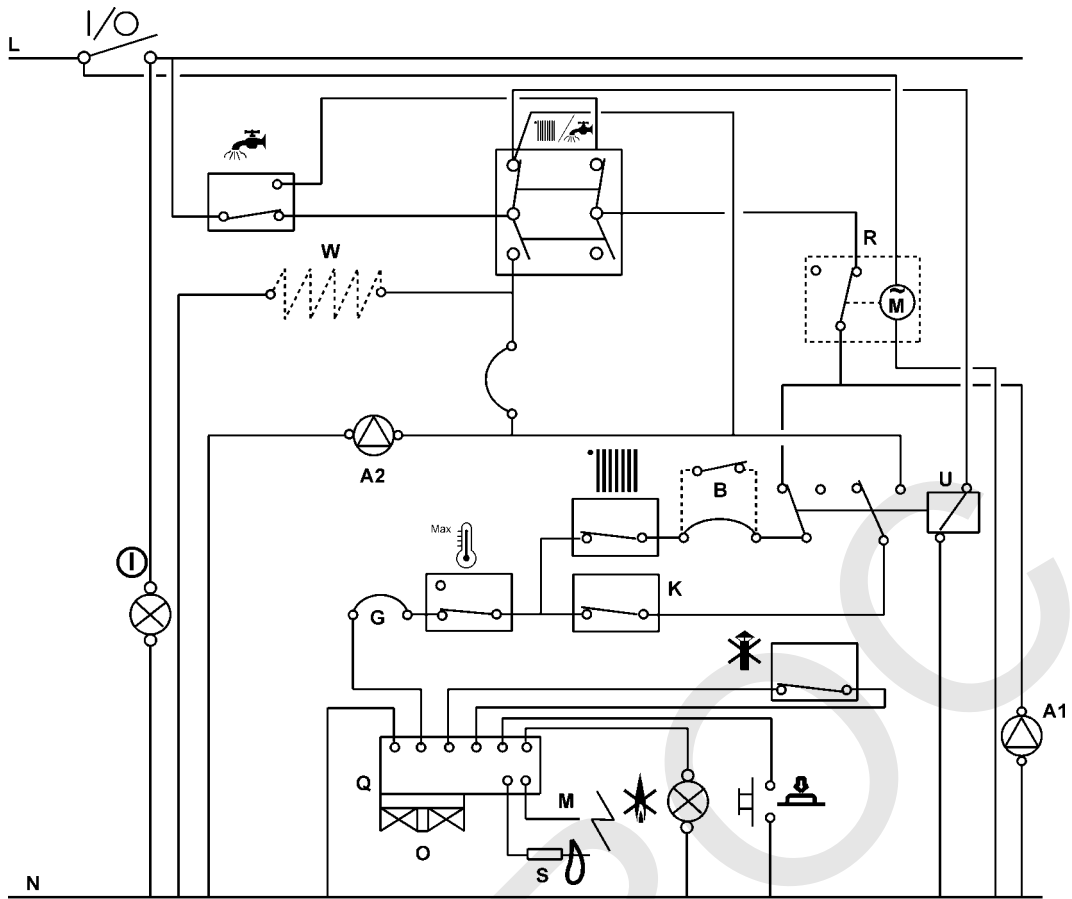




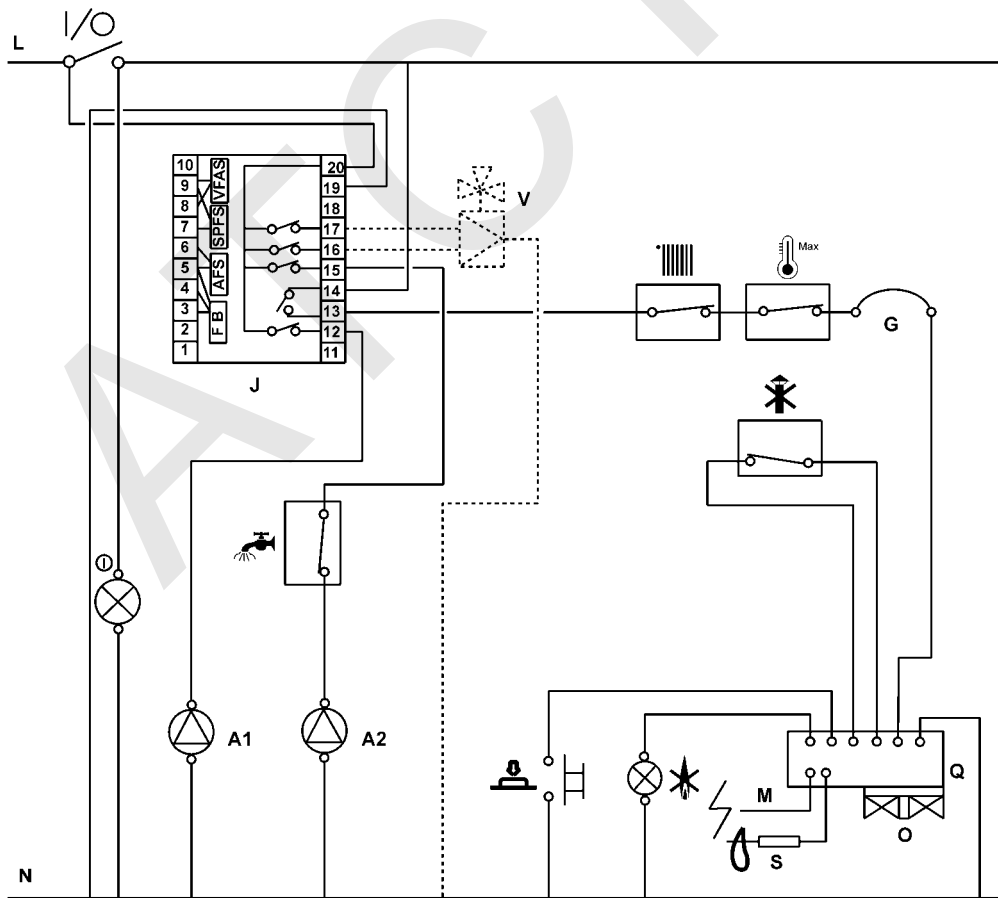
CC-143 G100/40 GTA g 110



CC-144













CC-144 R



CC-144 C

# Leyenda general / General legend / Légende Générale Hauptlegende / Legenda Legenda geral

I/O	Interruptor general Main On/off switch Interrupteur général Hauptschalter Interruttore generale Interruptor geral		Termostato regulación 1ª llama 1st stage (low fire) control thermostat Thermostat de régulation 1 <sup>ère</sup> allure Regelthermostat 1. Flamme Termostato regolazione 1ª fiamma Termostato de regulação 1ª chama
	Interruptor "invierno/verano" "Summer/winter" switch Interrupteur "Hiver/Eté" Schalter "Winter/Sommer" Interruttore "inverno / estate" Interruptor inverno/verão		Termostato regulación 2ª llama 2nd stage (high fire) control thermostat Thermostat de régulation 2 <sup>nd</sup> allure Regelthermostat 2. Flamme Termostato regolazione 2ª fiamma Termostato de regulação 2ª chama
	Termostato regulación Calefacción CH control thermostat Thermostat de régulation Chauffage Regelthermostat Heizung Termostato Riscaldamento Termostato de regulação Aquecimento Central		Indicador de tensión Power ON indicator lamp Indicateur de tension Spannungsanzeige Indicatore di tensione Indicador de tensão
	Termostato regulación agua sanitaria DHW control thermostat Thermostat de régulation eau sanitaire Regelthermostat Heißwasser Termostato Acqua Calda Sanitaria Termostato de regulação Água Quente Sanitária		Indicador bloqueo por reflujo humos Flue limit thermostat lockout lamp Réarmement défaut de flamme ou refoulement des fumées Anzeige Blockierung durch Rauchrückströmung Indicatore blocco per debordamento fumi in ambiente Indicador de bloqueio por anti-retorno de fumos.
	Termostato detección reflujo humos Flue limit thermostat Thermostat détection refoulement des fumés Überwachungsthermostat Rauchrückströmung Termostato sicurezza debordamento fumi in ambiente Termostato de regulação Água Quente Sanitária		Rearme fallo llama Burner lockout reset button Indicateur défaut de flamme Rücksetzung nach Störung der Brennerflamme Riarmo blocco di fiamma Rearme falha de chama
	Termostato de seguridad Overheat thermostat Thermostat de sécurité Sicherheitsthermostat Termostato di sicurezza Termostato de segurança		
A/A1	Circulador Calefacción Heating pump Circulateur Chauffage Umlaufpumpe Heizung Circolatore Riscaldamento Circulador Aquecimento Central	K	Termostato mantenimiento caldera 80°C 80°C boiler "holding temp." thermostat Thermostat fixe chaudière 80°C. Thermostat zur Erhaltung der Kesseltemperatur 80°C. Termostato mantenimiento caldaia 80°C Termostato de manutenção caldeira 80°C
A2	Circulador servicio sanitario DHW pump Circulateur service sanitaire Umlaufpumpe Heißwasserbetrieb Circolatore servizio sanitario Circulador Serviço Água Quente Sanitária	M	Electrodo de encendido Ignition electrode Electrode d'allumage Zündelektrode Elettrodo di accensione Eléctrodo de acendimento
B	Termostato ambiente (opcional) Ambient thermostat (optional) Thermostat d'ambiance (option) Raumthermostat (optional) Termostato ambiente (opcional) Termostato ambiente (opcional)	O	Válvula gas / Válvula gas 1ª llama G100/90-110 IE. Gas valve/1st stage gas valve G100/90-110 IE Vanne gaz / Vanne gaz (1 <sup>ère</sup> allure pour G100/90-110 IE) Gasventil / Gasventil 1. Flamme G100/90-110 IE. Valvula gas / Valvula gas 1ª fiamma G-100/90-110 IE Válvula de gás / Válvula de gás 1ª chama G100/90-110 IE
F	Válvula de seguridad Safety valve Soupape de sécurité Sicherheitsventil Valvola di sicurezza Válvula de segurança	O1	Válvula gas 2ª llama G100/90-110 IE 2nd stage gas valve G100/90-110 IE Vanne gaz(2 <sup>ème</sup> allure pour G100/90-110IE). Gasventil 2. flamme G100/90-110 IE. Valvula gas 2ª fiamma G100/90-110 IE Válvula de gás 2ª chama G100/90-110 IE
G	Conexión seguridades Safeties connections Connexion sécurités Anschluß Sicherheitselemente Connessioni di sicurezza Ligações de segurança	P	Llama piloto Pilot flame Veilleuse Pilotflamme Fiamma pilota Queimador piloto
H	Conector Connector Connecteur Stecker Connettore Ponto de ligação	Q	Programador Programmer Programmateur Programmiereinheit Programmatore Programador
J	Central de regulación Control Centre Centrale de régulation Regelwarte Centralina di termoregolazione Central de regulação	R	Reloj programador Timer Horloge programmable Zeitschaltuhr Orologio programmatore Relógio programador
		S	Sonda ionización Ionization rod Sonde ionisation Ionisierungsfühler Sonda ionizzazione Sonda de ionização
		T	Termopar Thermocouple Thermocouple Thermopaar Termocoppia Termopar
		U	Relé Relay Relais Relais Relè Relè
		V	Servomotor válvula 3 vías (opcional) 3-way motorized valve (optional) Servomoteur vanne trois voies (option) Servomotor 3-Wege-Ventil (optional) Servomotore valvola a tre vie (optional) Servomotor, válvula de 3 vias (opcional)
		W	Resistencia calefactora (opcional) Electric heater element (optional) Résistance électrique (option) Heizwiderstand (optional) Resistenza riscaldante (opcional) Resistência aquecimento (opcional)

## Delivery

- Those control panels which are not part of the assembled boiler are shipped in a single package, with all the components fully assembled and wired.

## Installation

Not needed.

The maximum power that the components not supplied with the boiler can draw is:

For "base" and "R" control panels:

- Pump : 1000 W 350 W
- Electric heater element : 2800 W

For "C" control panels:

- Pump : 350 W
- 3-way valve : 350 W

## Assembly

- For those control panels which are not part of the assembled boiler, please refer to the Instructions for the INSTALLER that come with the boiler.

For the control panels which incorporate a control centre, please fit the probes or remote control, according to the Instructions for "ELFATHERM E23 Electronic Control Centres" provided (see page 13).

## Electrical connections

Make the electrical connections in accordance with the wiring diagrams provided.

The installation should include a switch, a circuit breaker or other omnipolar disconnect switch to isolate all power supply lines to the unit.

The connection of external appliances not supplied with the boiler should be done through approved wiring harness (insulation temperature 105°C) of the following sizes:

- Pump: 3 x 0,75 mm<sup>2</sup>
- Ambient thermostat: 2 x 0,75 mm<sup>2</sup>
- Safety devices: 2 x 0,75 mm<sup>2</sup>

Approved wiring harness of the same characteristics and size (3 x 2.5 mm<sup>2</sup>) should be used for connecting the power supply.

(NG100/IE). Please note that the power supply wiring harness must be connected to the mains in such a way that tools are necessary for changing the polarity.

Note: An ambient thermostat may also be wired to terminals 10 and 11 in control panels CC-143 and CC-144, to terminals 11 and 12 in control panels CC-144-R and to terminals 6 and 7 in all other control panels, after removing the existing jumper plugs.

To connect the electric heater, remove the jumper plug between terminals 4 and 5.

Timer "M" is factory-set for Heating control. For the control of central Heating and Domestic Hot Water, remove jumper 15-16, put a jumper across 9-10 and shift (a) and (b) to 15 and 16.

### Caution:

For G100/IE and G100IE/GTA boilers, when the power supply is through Live/Neutral, it is essential to make the connections so that Live coincides with Live and Neutral with Neutral, otherwise the ionization control will "lock-out" the boiler.

When the electrical supply is through Live/Live, the connection polarity is not important.

## Operation

Please refer to the schematic wiring diagrams enclosed.

## 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 and so it does not have a "KAS" potentiometer, because this control would have no application in G100 or G100IE boilers.

### Note:

Characteristics and performance qualities subject to change without notice