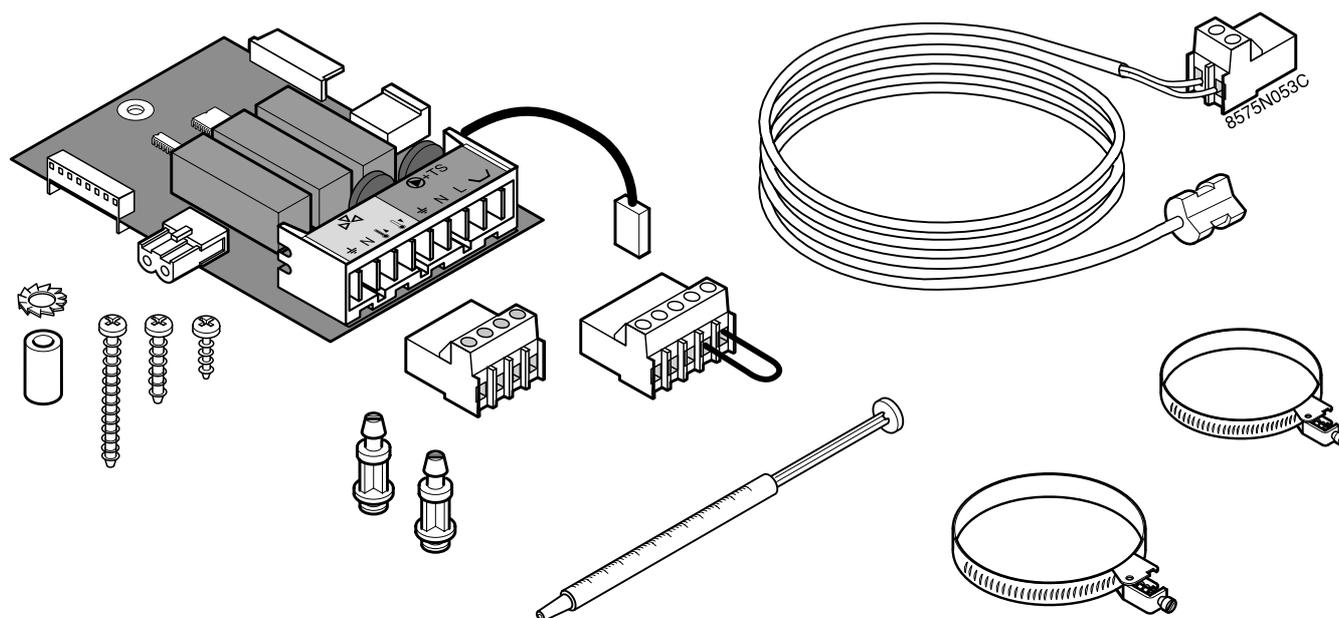


# FM48

## PCB + sensor for a mixing valve



Can be connected to the following appliances:

- GTU C 120 D
- GT 120 D
- GT 220 D
- GT 330 DIEMATIC-m3
- GT 430 DIEMATIC-m3
- GT 530 DIEMATIC-m3
- CA 430
- CA 530
- C 210 ECO
- C 230 ECO
- C 310 ECO
- C 610 ECO
- ELIDENS DTG 130 Eco.NOx Plus
- ELITEC DTG 130 D
- DTG 230 DIEMATIC-m3
- DTG 330 DIEMATIC-m3
- INNOVENS MC 15/25/35
- MIT module for heat pump

The PCB + sensor option is used to control a mixing valve with a bi-directional electromechanical or an electrothermal motor and its associated circulating pump.

The addition of one or two PCB + sensor for a valve circuit options allows the regulation of one or two circuits with mixing valve. The "mixing valve" circuits can be independently programmed.

The option must be fitted during the electrical connection of the panel.

**⚠ Only qualified professionals may carry out electrical connections, always with the power off.**

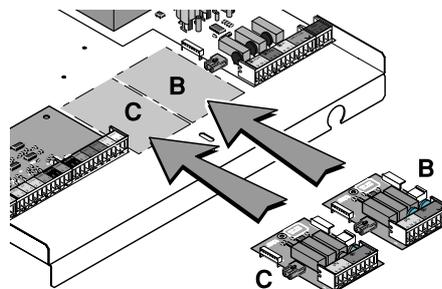
**⚠ Do not modify the connections inside the control panel.**

Make the electrical connections of the appliance according to:

- The instructions of the prevailing standards,
- The instructions on the circuit diagrams provided with the appliance,
- The recommendations in the instructions.

**i Plate B:**  
To connect a circuit with mixing valve (Hydraulic circuit **B**).

**Plate C:**  
To connect a second circuit with mixing valve (Hydraulic circuit **C**).



# Contents

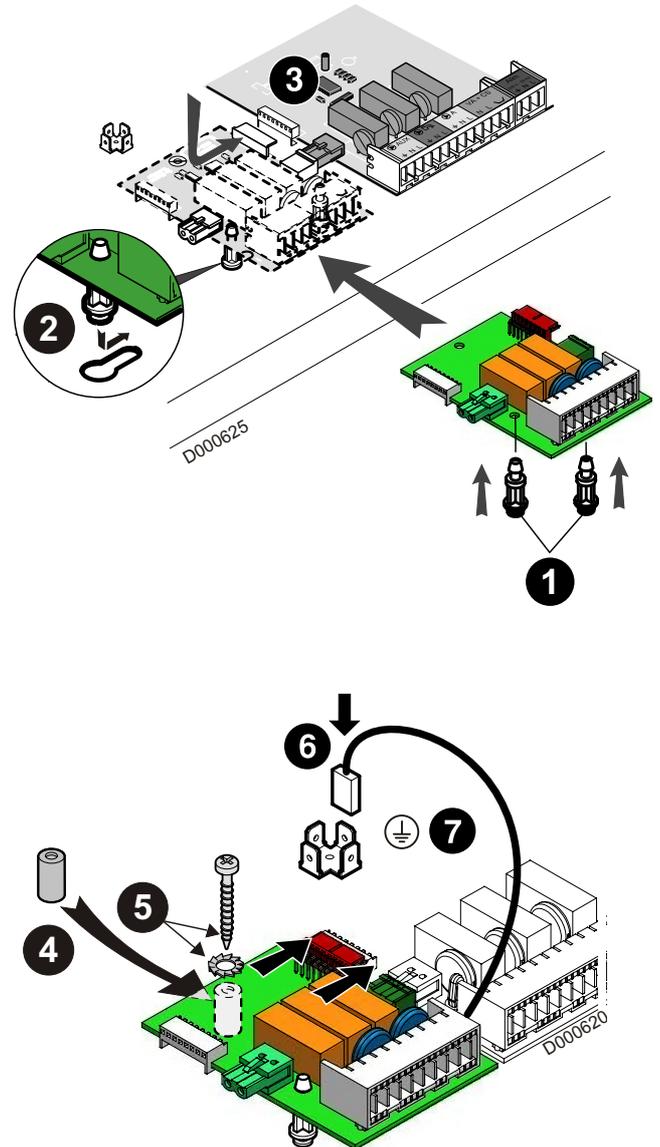
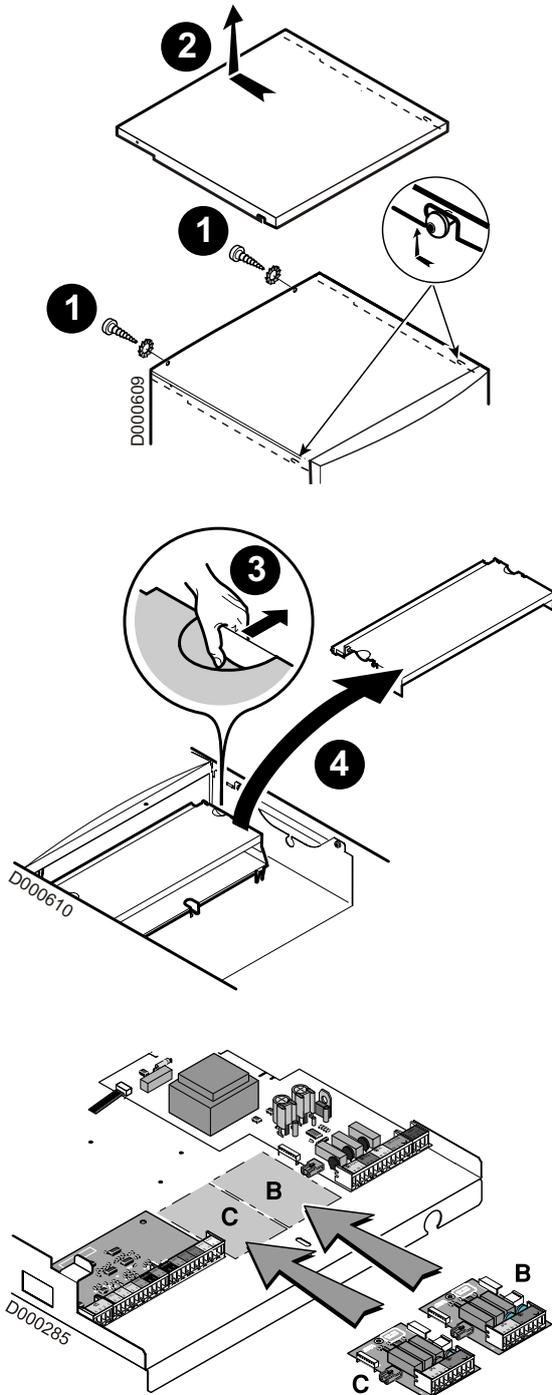
---

<b>1</b>	<b>Fitting the PCBs</b>	<b>4</b>
1.1	GTU C 120 D - GT 120 D - GT 220 D	4
1.2	GT 330 DIEMATIC-m3 (Separate panel)	5
1.3	GT 330 DIEMATIC-m3 - CA 430 - CA 530 (Side panel)	6
1.4	GT 430 DIEMATIC-m3 - GT 530 DIEMATIC-m3	7
1.5	C 210 ECO - C 310 ECO - C 610 ECO	8
1.6	C 230 ECO	9
1.7	ELIDENS DTG 130 Eco.NOx Plus	10
1.8	ELITEC DTG 130 D	11
1.9	DTG 230 DIEMATIC-m3 - DTG 330 DIEMATIC-m3	12
1.10	INNOVENS MC 15/25/35	13
1.11	MIT module for heat pump	14
<b>2</b>	<b>Mounting the sensors</b>	<b>15</b>
<b>3</b>	<b>Electrical connections</b>	<b>16</b>
3.1	Cable routing	16
3.1.1	GTU C 120 D - GT 120 D	16
3.1.2	GT 220 D	16
3.1.3	GT 330 DIEMATIC-m3 (Separate panel + Side panel) - GT 430 / 530 DIEMATIC-m3	17
3.1.4	CA 430 - CA 530	17
3.1.5	C 210 ECO - C 310 ECO - C 610 ECO - C 230 ECO	18
3.1.6	ELIDENS DTG 130 Eco.NOx Plus	18
3.1.7	ELITEC DTG 130 D	19
3.1.8	DTG 230 DIEMATIC-m3 - DTG 330 DIEMATIC-m3	19
3.1.9	INNOVENS MC 15/25/35 - MIT module for heat pump	20
		21
		22
<b>4</b>	<b>Activation / deactivation of the boiler circuit (Direct circuit A)</b>	<b>23</b>

# 1 Fitting the PCBs

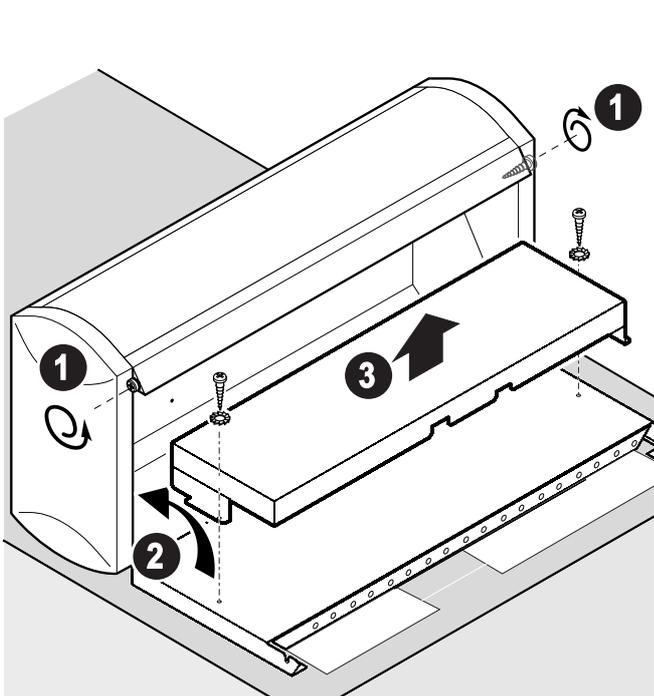
## 1.1 GTU C 120 D - GT 120 D - GT 220 D

 Cut the power supply to the boiler.

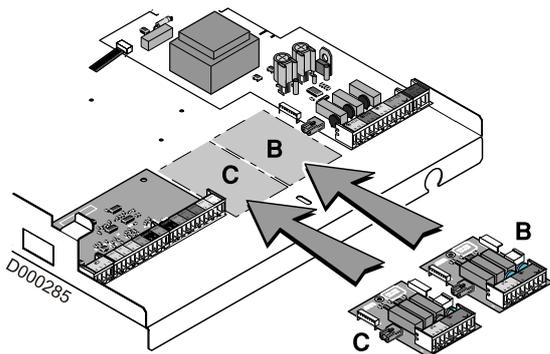


## 1.2 GT 330 DIEMATIC-m3 (Separate panel)

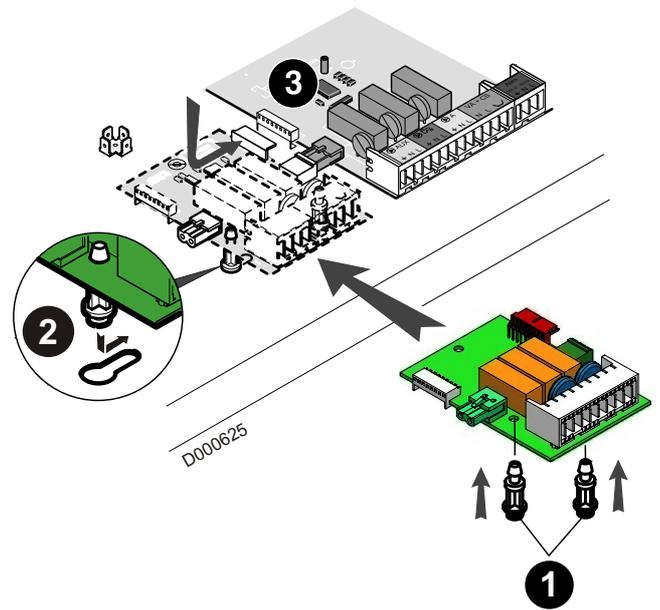
 Cut the power supply to the boiler.



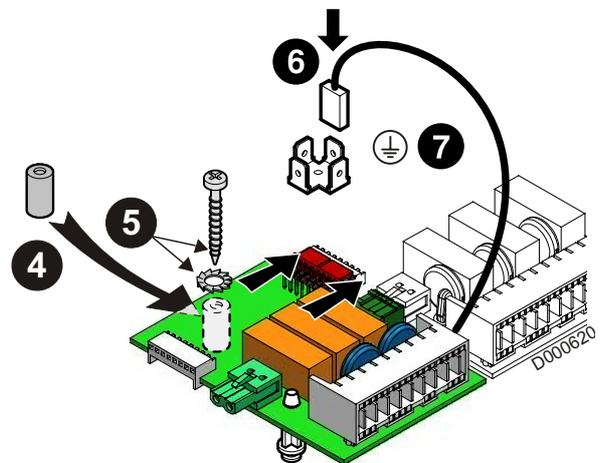
M0005



D000285



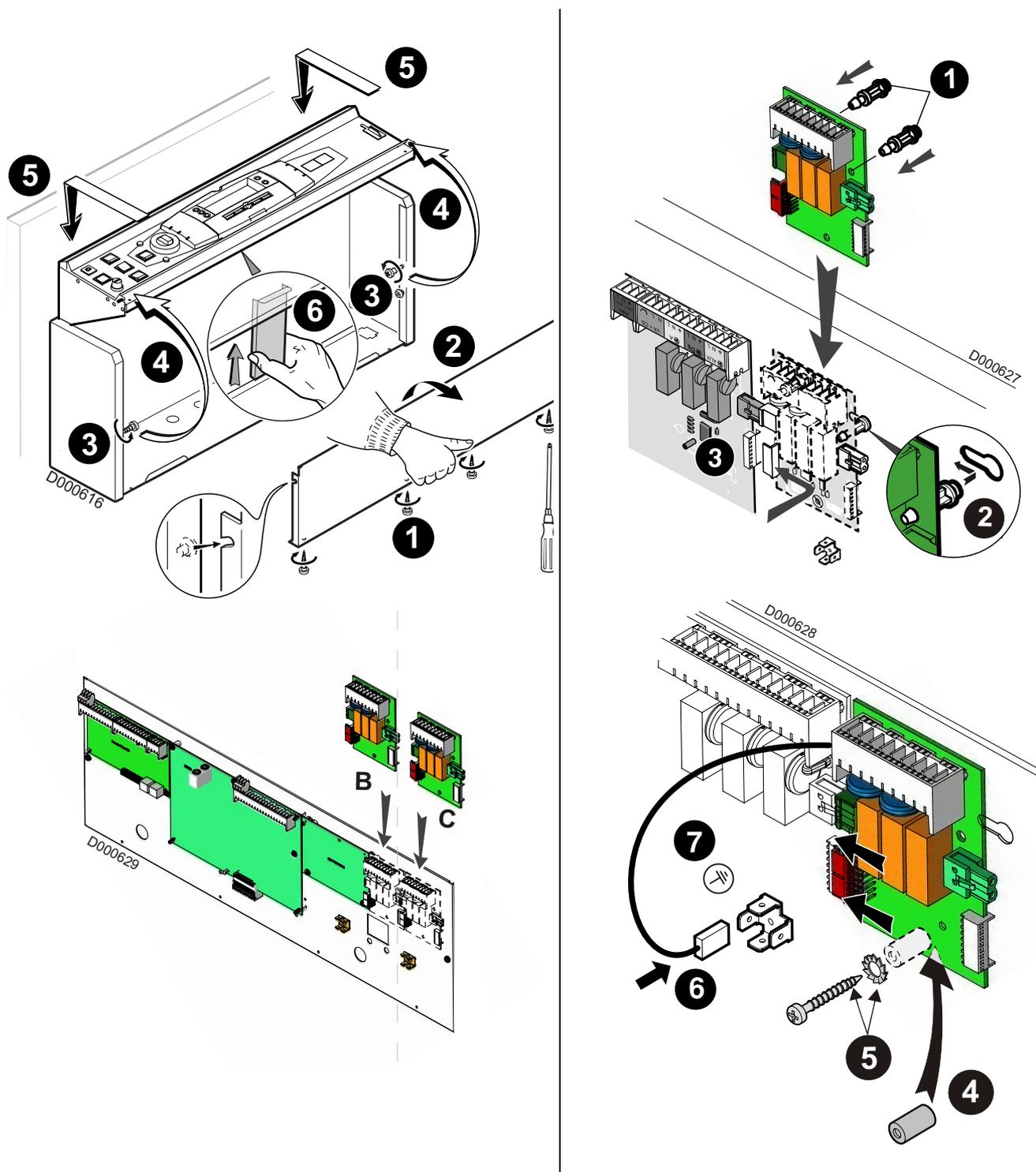
D000625



D000620

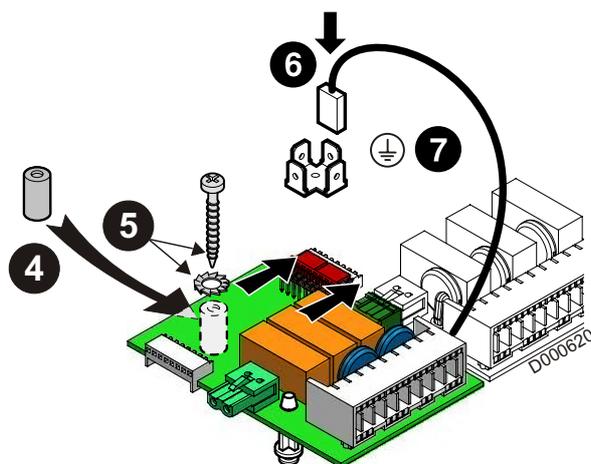
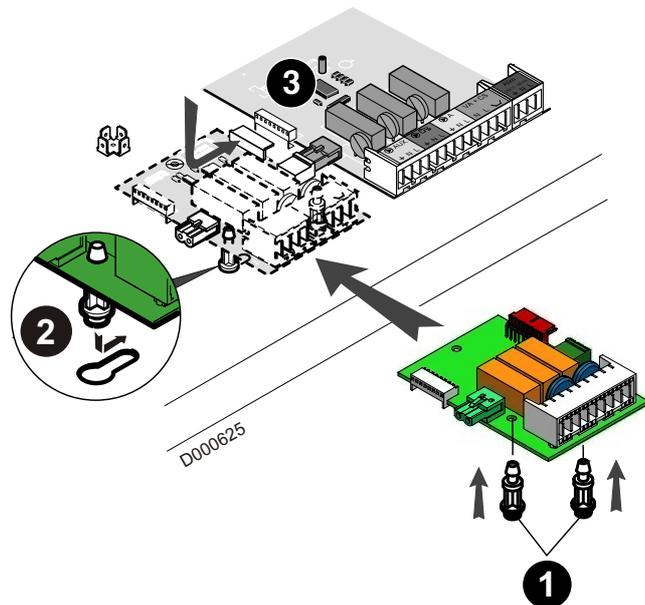
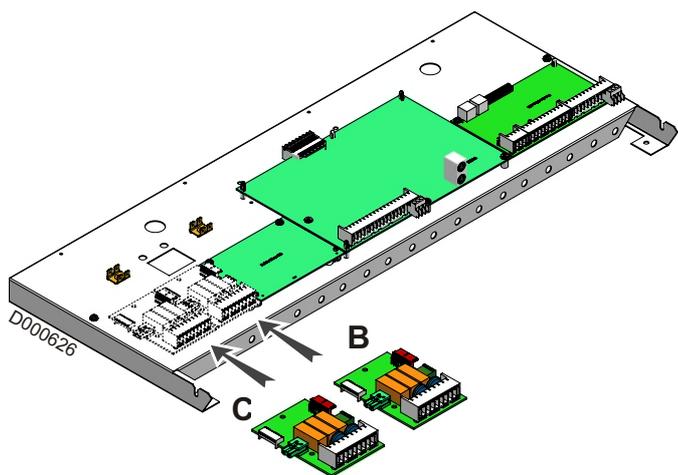
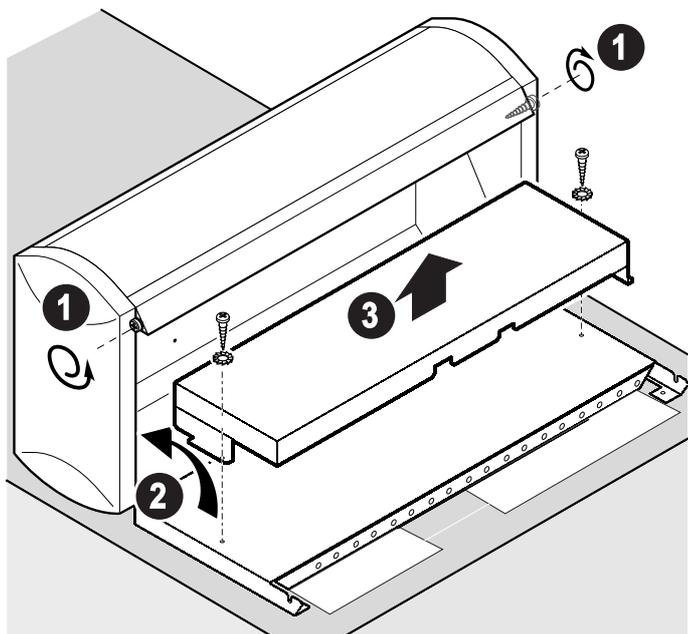
## 1.3 GT 330 DIEMATIC-m3 - CA 430 - CA 530 (Side panel)

 Cut the power supply to the boiler.



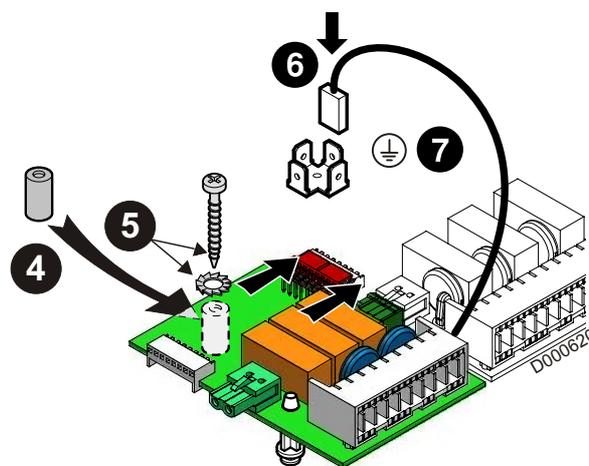
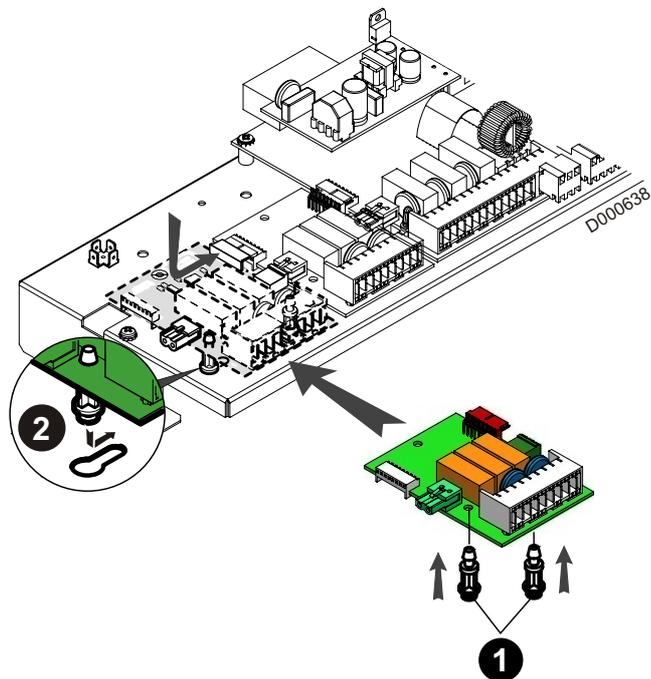
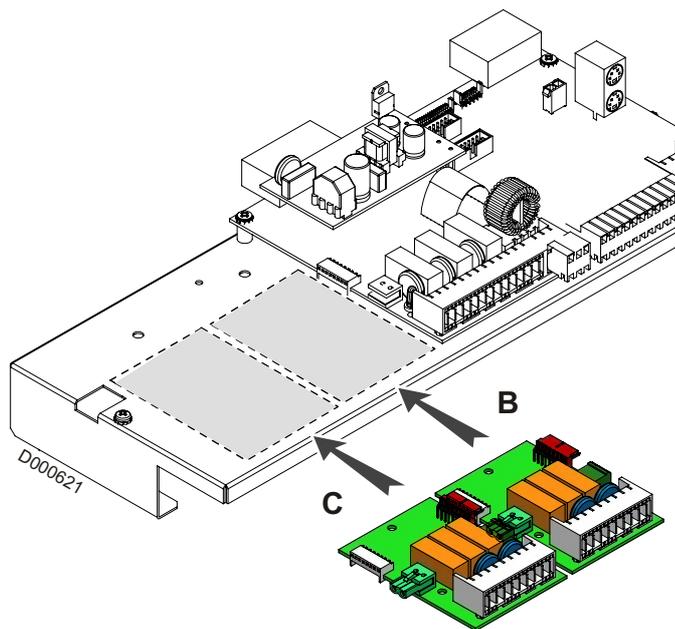
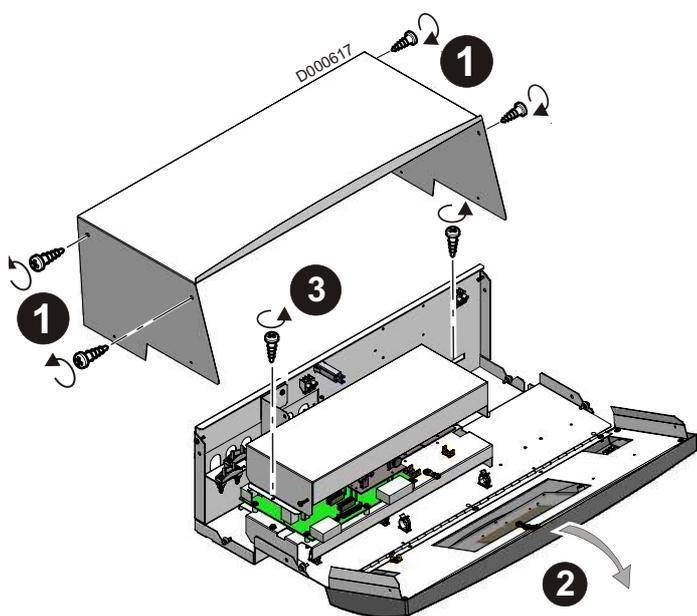
# 1.4 GT 430 DIEMATIC-m3 - GT 530 DIEMATIC-m3

**⚠** Cut the power supply to the boiler.



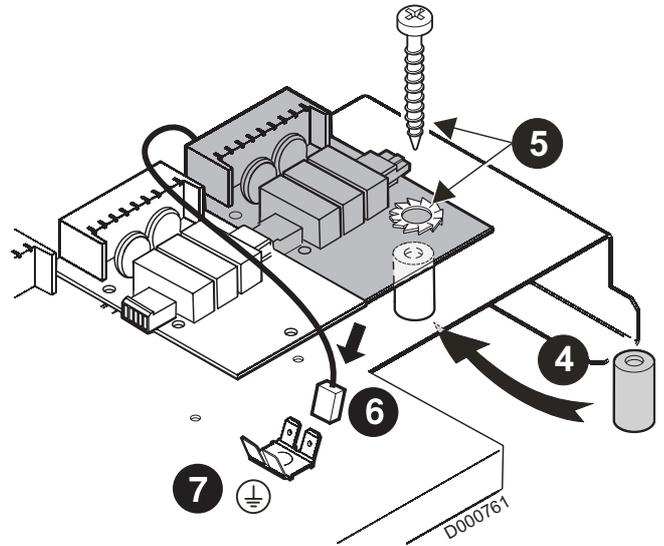
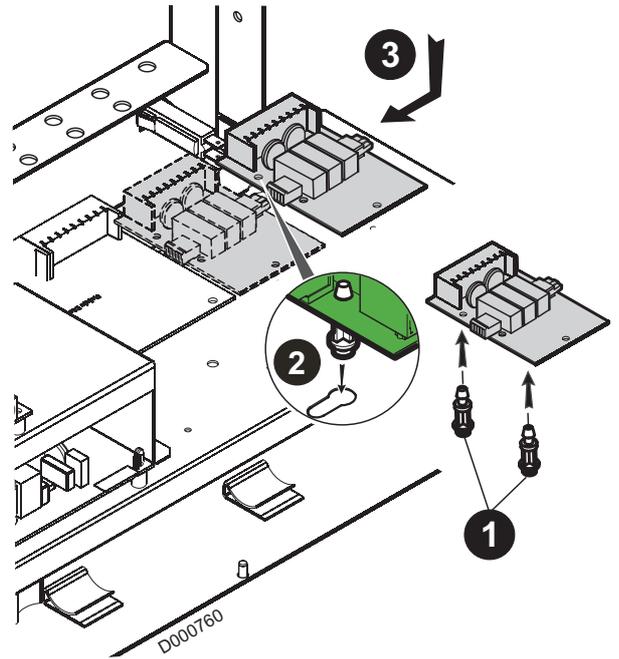
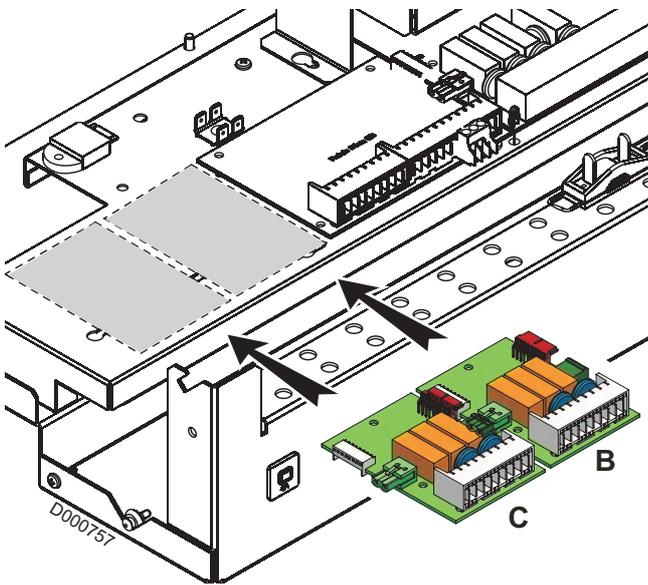
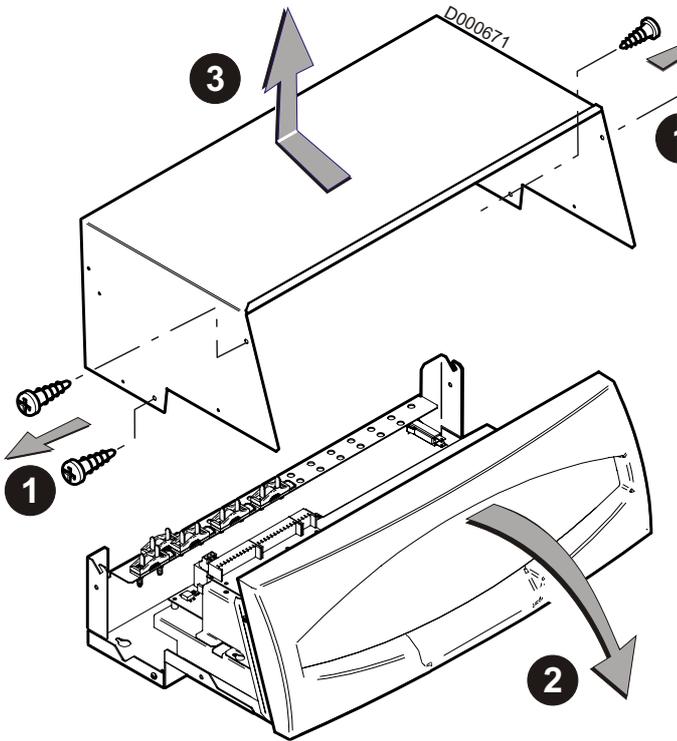
# 1.5 C 210 ECO - C 310 ECO - C 610 ECO

**⚠** Cut the power supply to the boiler.



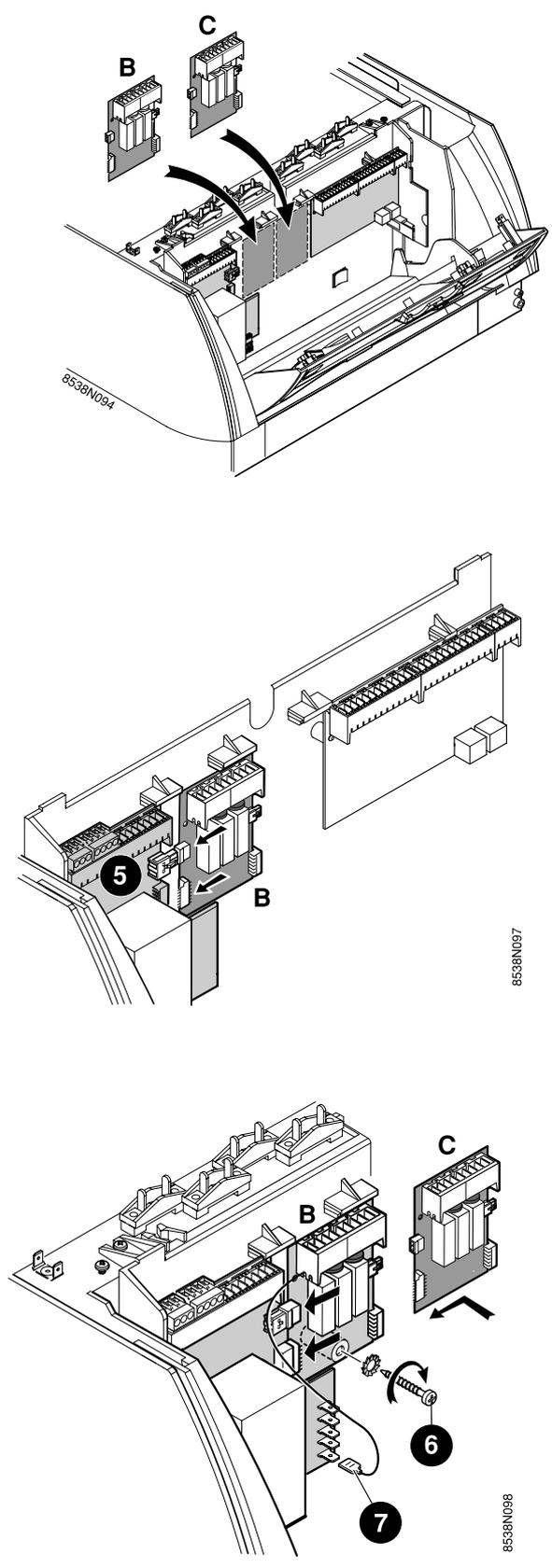
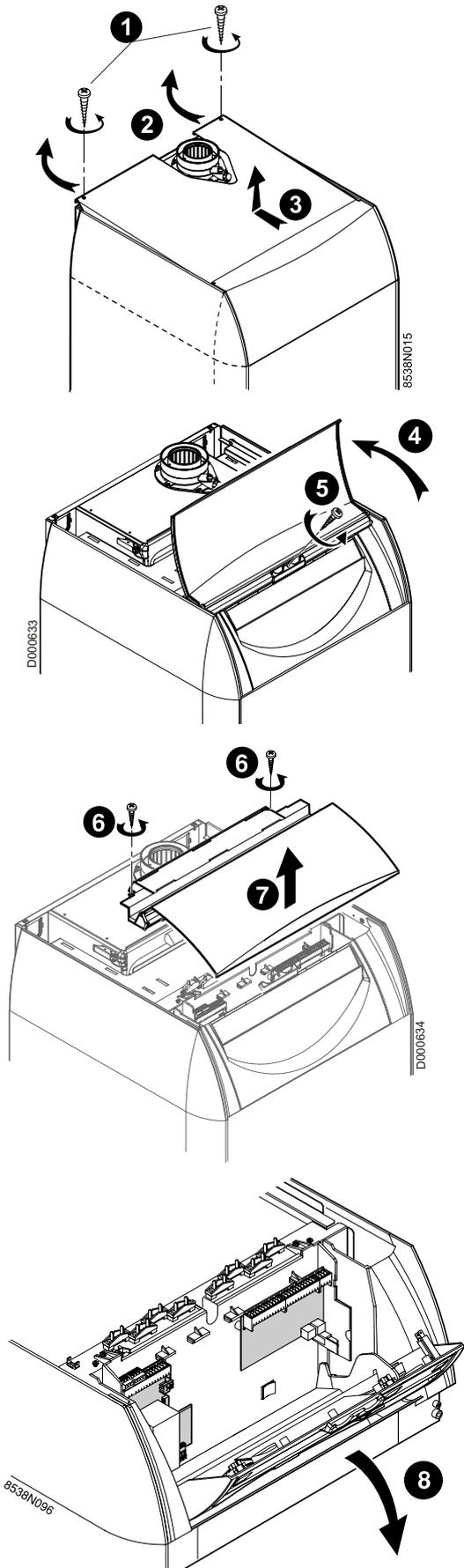
# 1.6 C 230 ECO

**⚠ Cut the power supply to the boiler.**



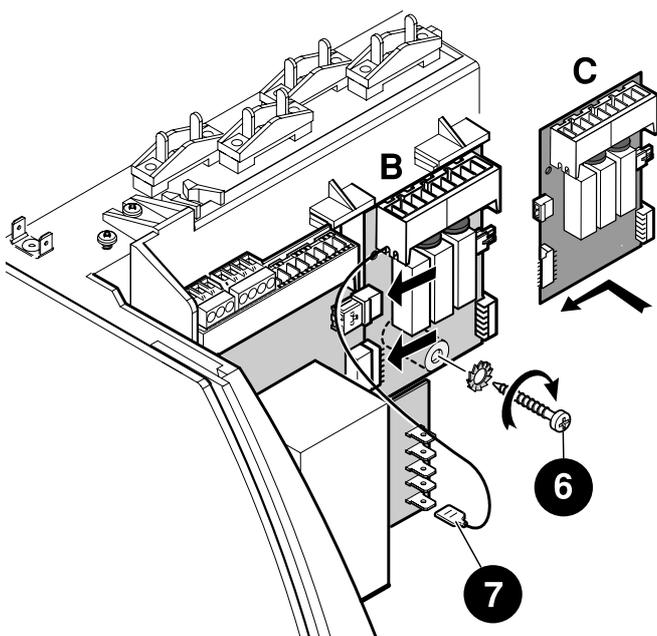
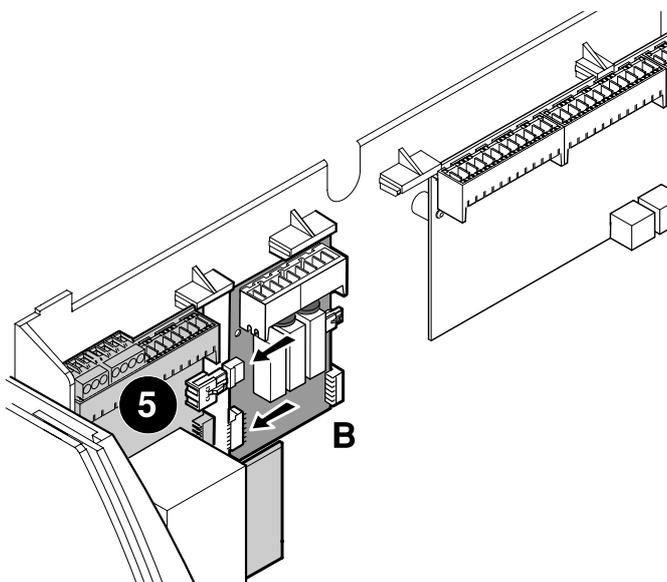
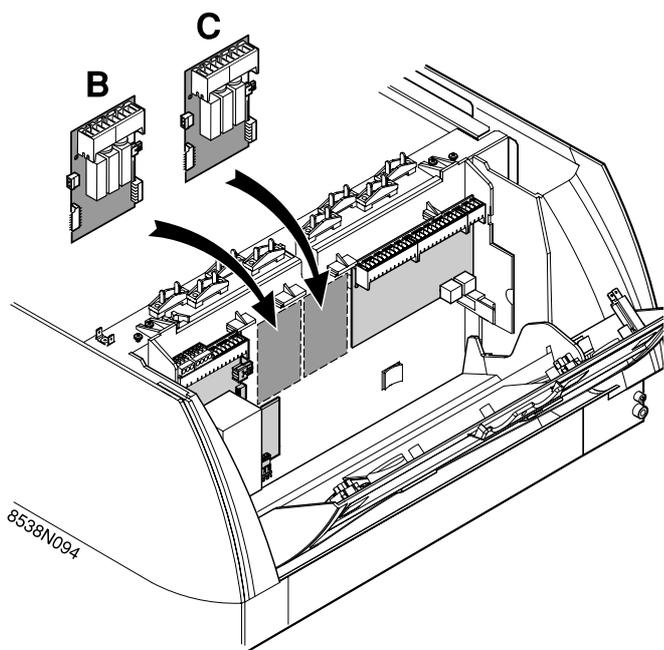
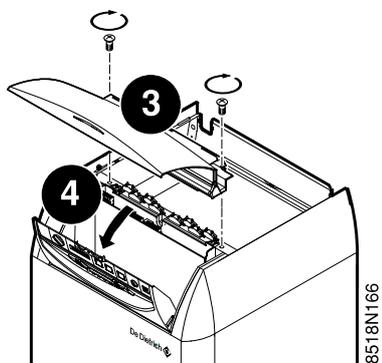
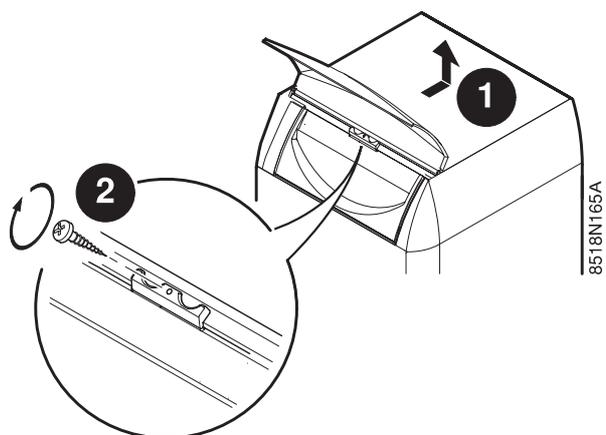
# 1.7 ELIDENS DTG 130 Eco.NOx Plus

**⚠ Cut the power supply to the boiler..**



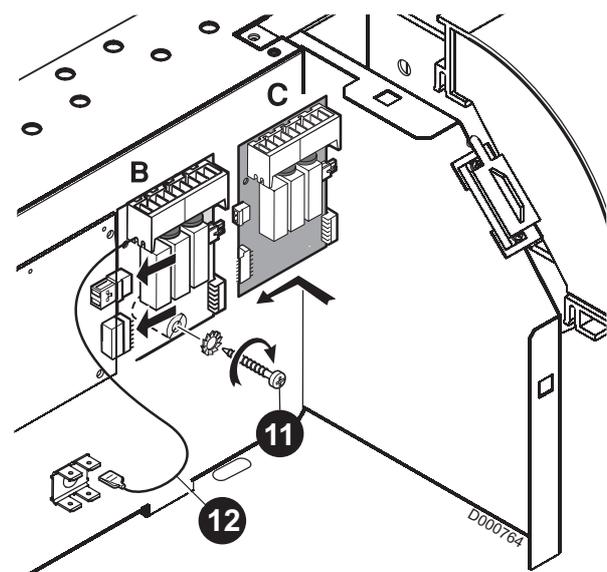
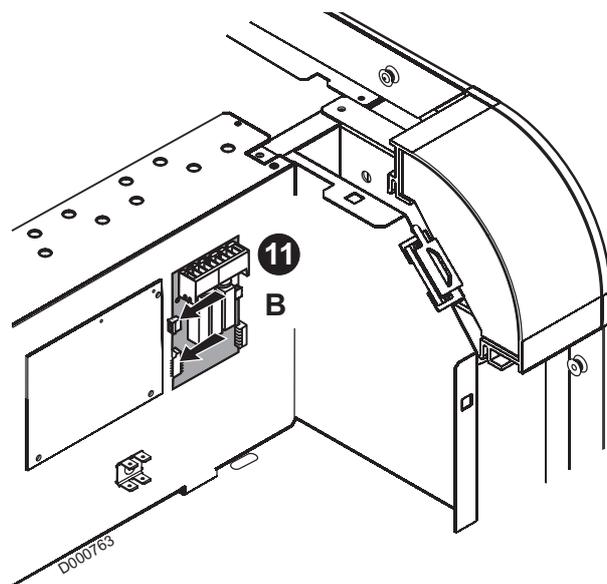
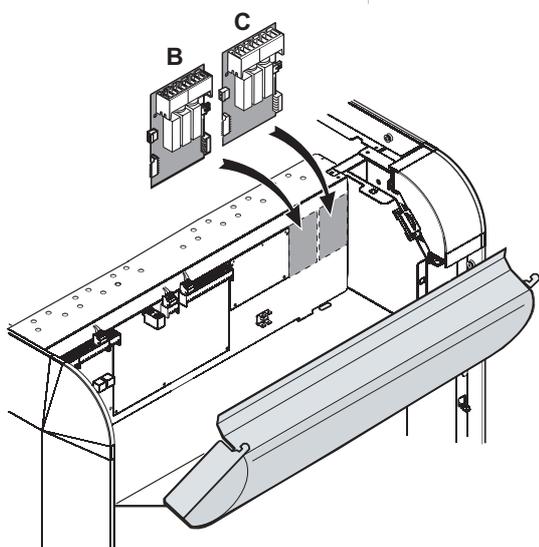
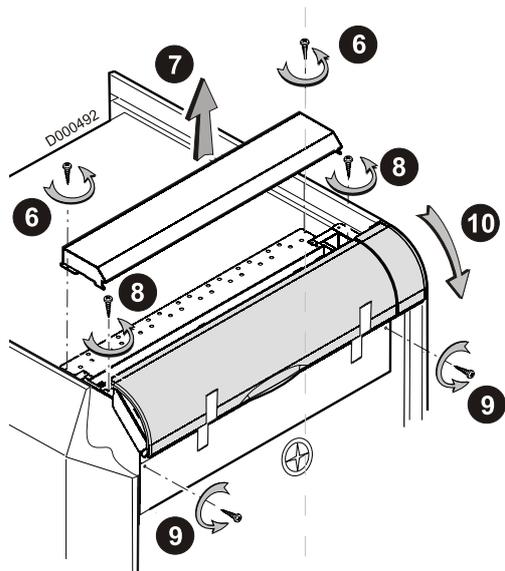
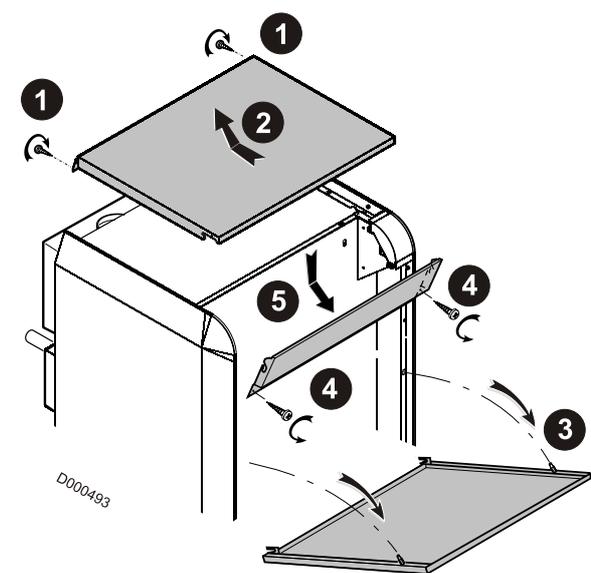
## 1.8 ELITEC DTG 130 D

 Cut the power supply to the boiler.



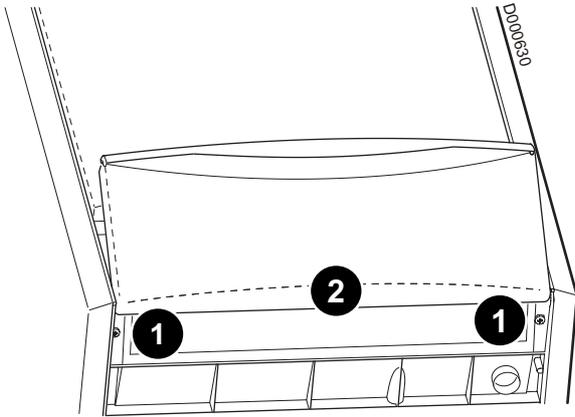
## 1.9 DTG 230 DIEMATIC-m3 - DTG 330 DIEMATIC-m3

 Cut the power supply to the boiler.

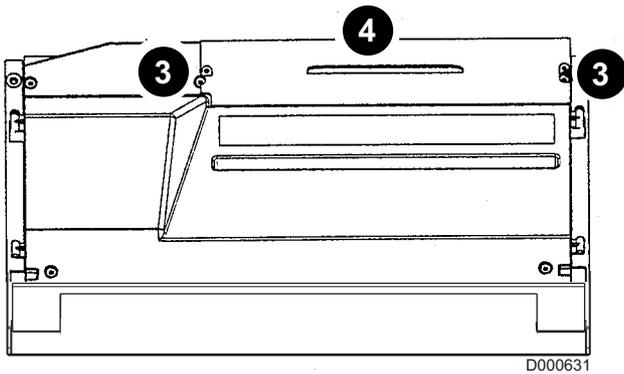


# 1.10INNOVENS MC 15/25/35

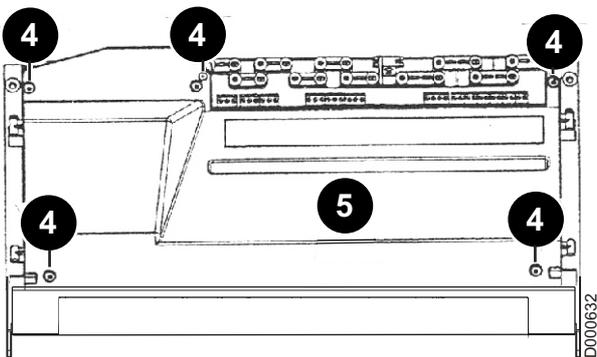
**⚠ Cut the power supply to the boiler.**



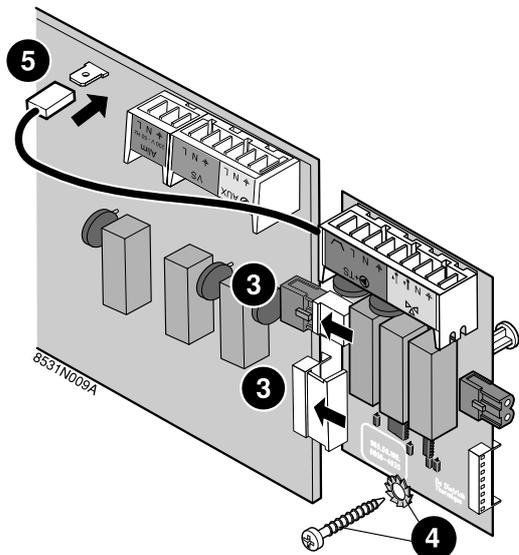
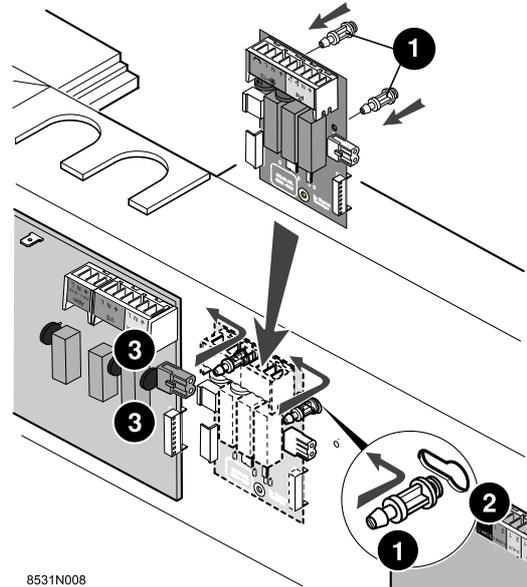
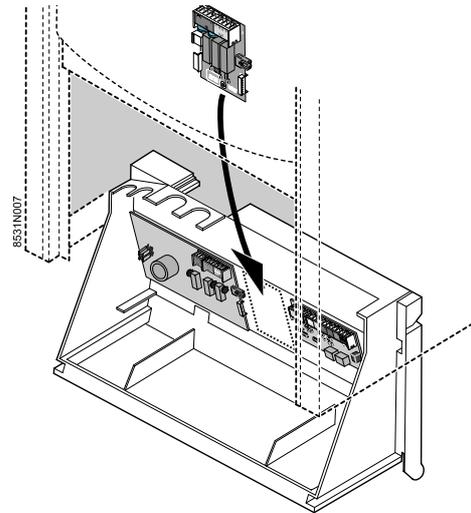
1. Unscrew the 2 lateral holding screws in the control panel.
2. Tilt the control panel forward.



3. Unscrew the 2 screws.
4. Remove the panel cover.

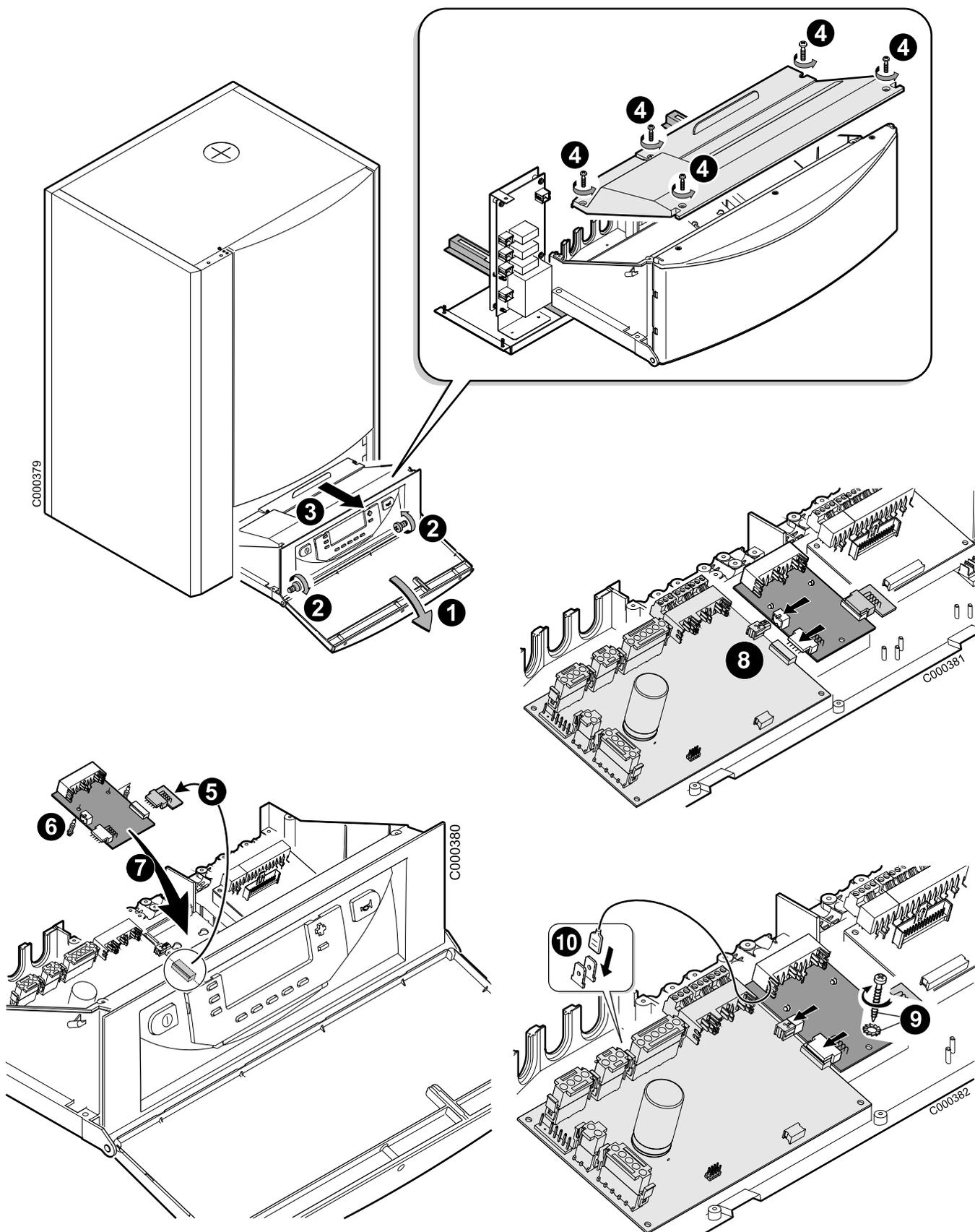


5. Unscrew the 5 screws.
6. Lift and remove the cover.

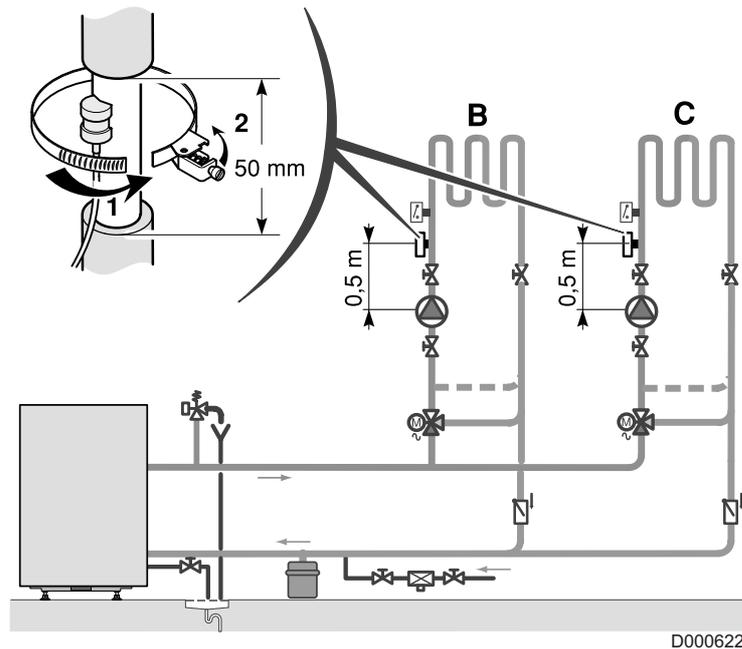


## 1.11 MIT module for heat pump

 Cut the power supply to the boiler.



## 2 Mounting the sensors



### B: Circuit B

**C: Circuit C** (No **circuit C** for wall-hung condensing boilers and MIT).

The flow sensor with connecting cable (length 2.5 m) and connector plug should be fitted to the outlet circuit pipe concerned and must be connected to the point provided in the control panel as shown hereafter.

The flow sensor after the valve must be positioned around 0.5 m after the 3 way valve or after the heating pump if this is fitted to the outlet.

**i** For the MIT column, the sensor should be placed on the brass pipe between the 3-way valve and the hose.

Cut the pipe insulation by 50 mm.

At the point where the sensor is fitted, thoroughly clean the pipes (there must be no trace of paint) and coat them with the ready-to-use contact paste provided in the syringe.

Secure the sensor with the collar provided for this purpose.

 The flow sensor must not be covered by the insulation around the pipe.

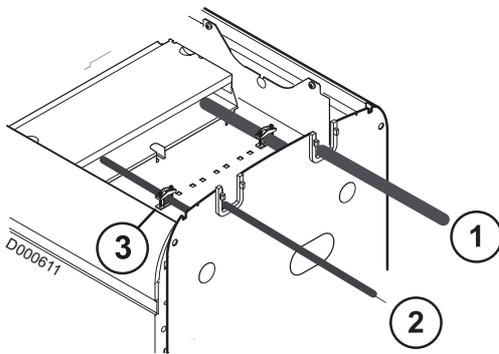
# 3 Electrical connections

## 3.1 Cable routing

**⚠ Separate the sensor cables from the 230 V cables:**

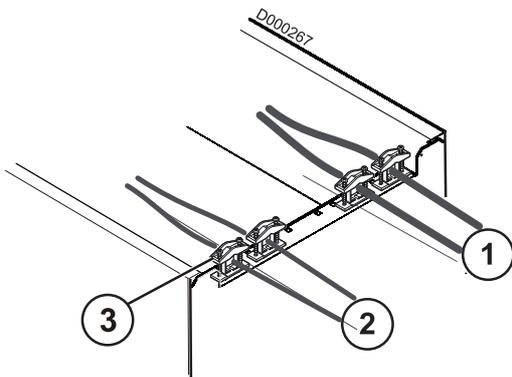
- In the boiler : Use the 2 wire guides on either side of the boiler.
- Outside the boiler : Use 2 pipes or cable guides at least 10 cm apart.

### 3.1.1 GTU C 120 D - GT 120 D



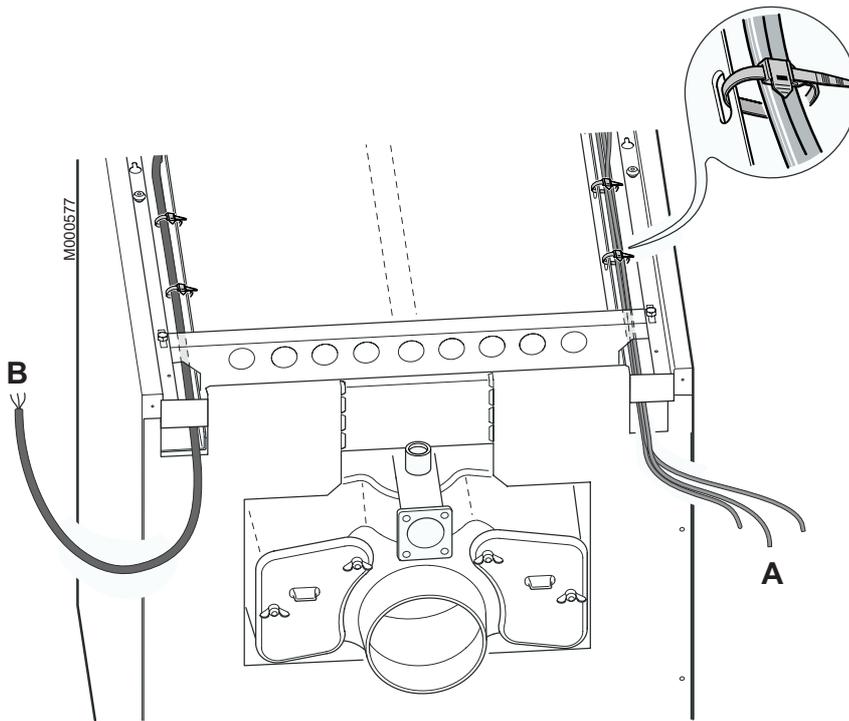
1. Electricity supply 230 V
2. Sensors
3. Cable clamps

### 3.1.2 GT 220 D



1. Electricity supply 230 V
2. Sensors
3. Cable clamps

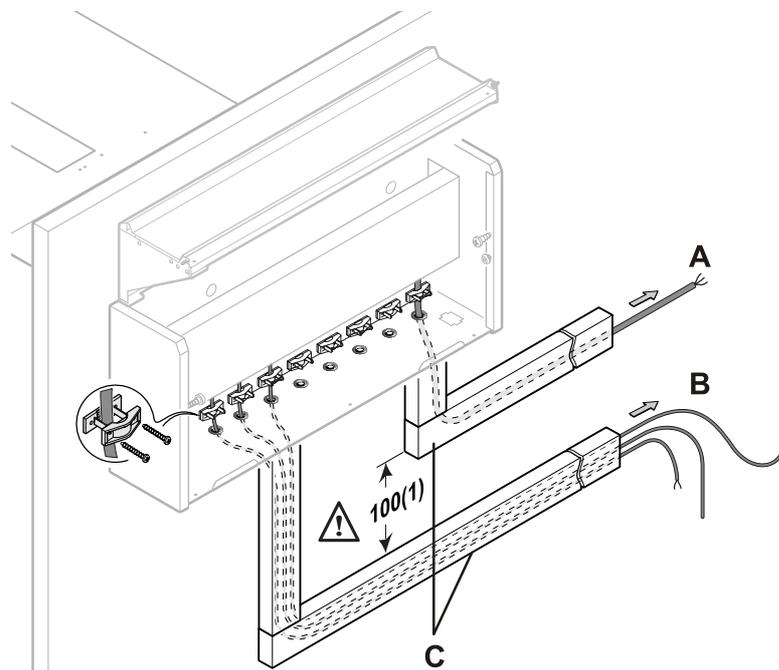
### 3.1.3 GT 330 DIEMATIC-m3 (Separate panel + Side panel) - GT 430 / 530 DIEMATIC-m3



A. Sensors

B. Electricity supply 230 V

### 3.1.4 CA 430 - CA 530



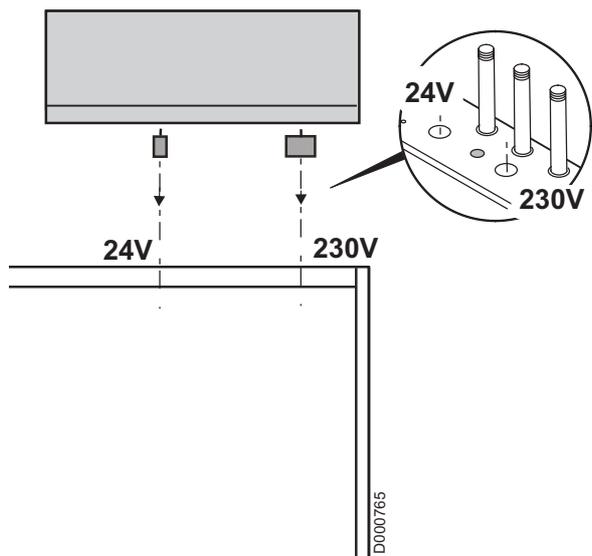
A. Electricity supply 230 V

B. Sensors

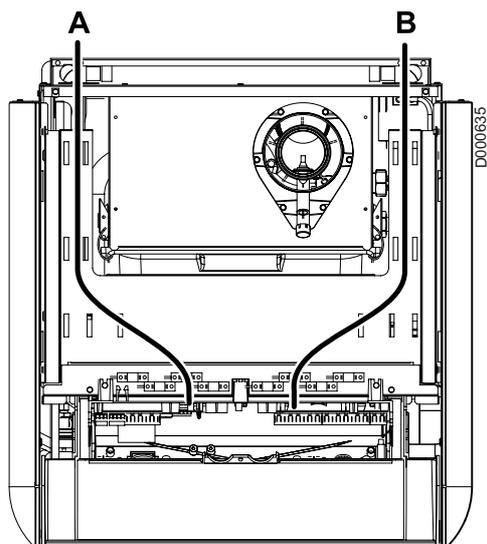
C. not supplied

(1) Dimensions are given in millimeters.

### 3.1.5 C 210 ECO - C 310 ECO - C 610 ECO - C 230 ECO



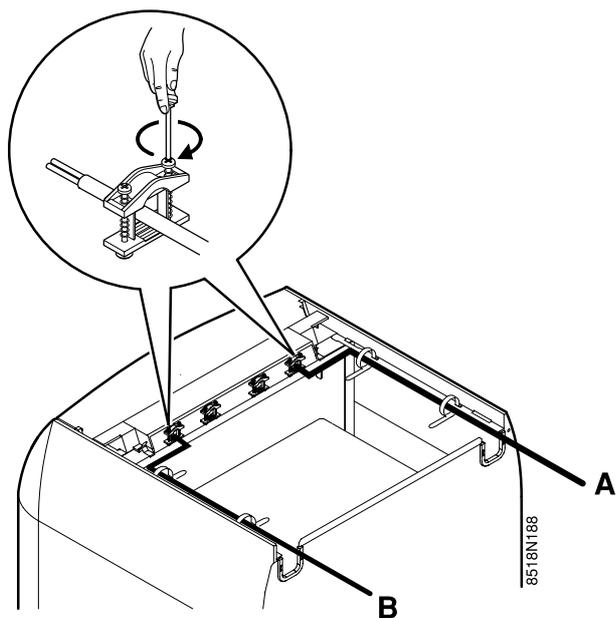
### 3.1.6 ELIDENS DTG 130 Eco.NOx Plus



A. Electricity supply 230 V

B. Sensors

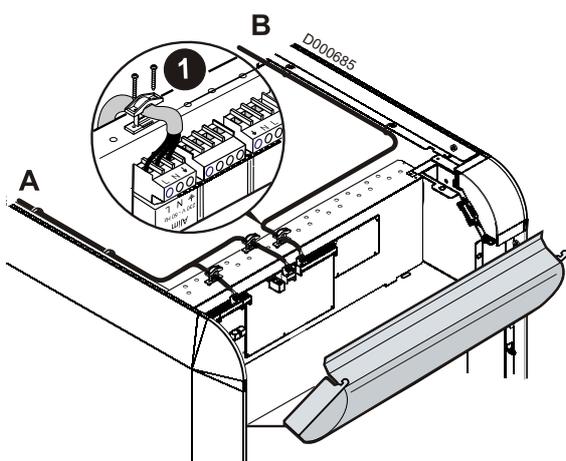
### 3.1.7 ELITEC DTG 130 D



A. Electricity supply 230 V

B. Sensors

### 3.1.8 DTG 230 DIEMATIC-m3 - DTG 330 DIEMATIC-m3

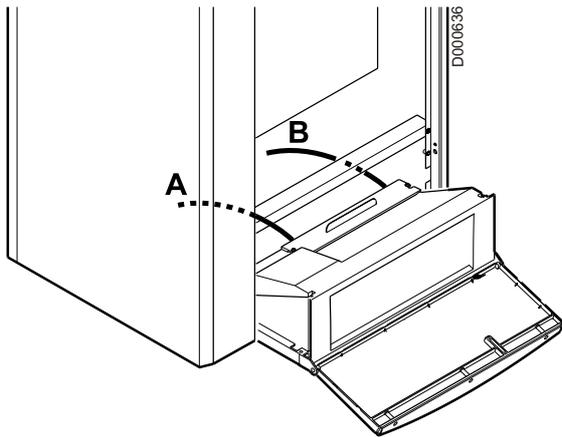


A. Sensors

B. Electricity supply 230 V

### 3.1.9 INNOVENS MC 15/25/35 - MIT module for heat pump

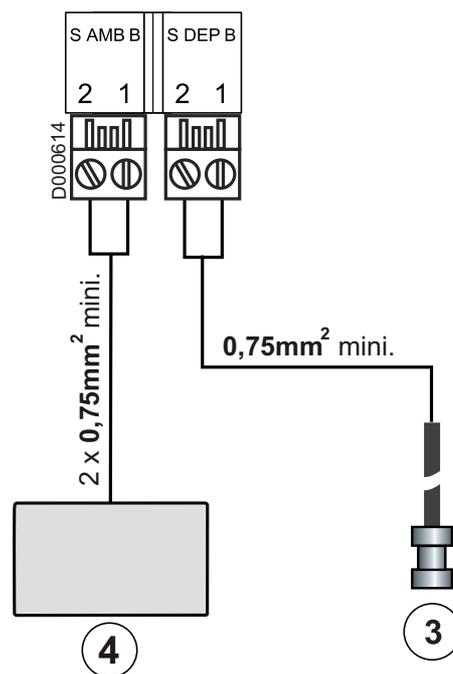
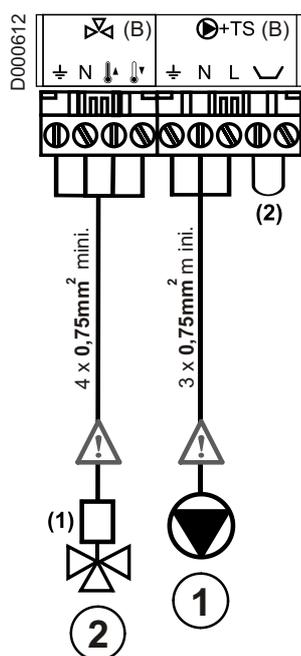
---



**A.** Electricity supply 230 V

**B.** Sensors

## 3.2 Connecting circuit B



1. Pump circuit B

2. 3 way valve circuit B

(1) **If using a two-way motor:**

Connect open to terminal , close to terminal  and neutral to terminal **N**.

**If using a thermal motor:**

Connect between terminal  (open) and terminal **N**. \*1 control panel

(2) Safety thermostat

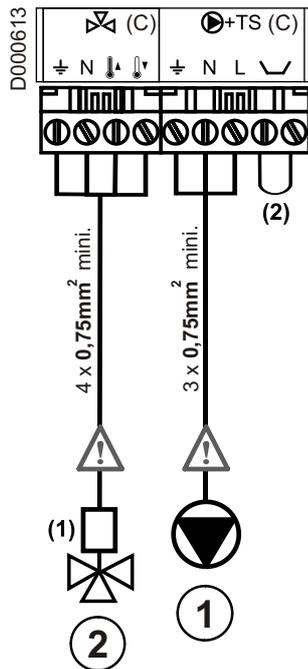
If using underfloor heating, it is imperative that a temperature limit of 50°C is installed and a safety thermostat set to 65°C (cf. NF P 52-303-1) is fitted, which interrupts the operation of the circulating pump in the circuit concerned should overheating occur.

Remove the bridge and connect the safety thermostat wires.

3. Outlet sensor circuit B

4. Remote control - package FM 51 or FM 52

### 3.3 Connecting circuit C



1. Pump circuit C
2. 3 way valve circuit C

(1) **If using a two-way motor:**

Connect open to terminal , close to terminal  and neutral to terminal **N**.

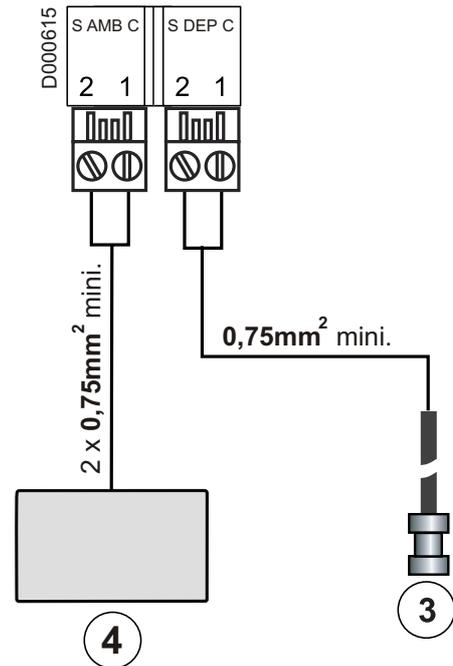
**If using a thermal motor:**

Connect between terminal  (open) and terminal **N**. \*1 control panel

(2) **Safety thermostat**

If using underfloor heating, it is imperative that a temperature limit of 50°C is installed and a safety thermostat set to 65°C (cf. NF P 52-303-1) is fitted, which interrupts the operation of the circulating pump in the circuit concerned should overheating occur.

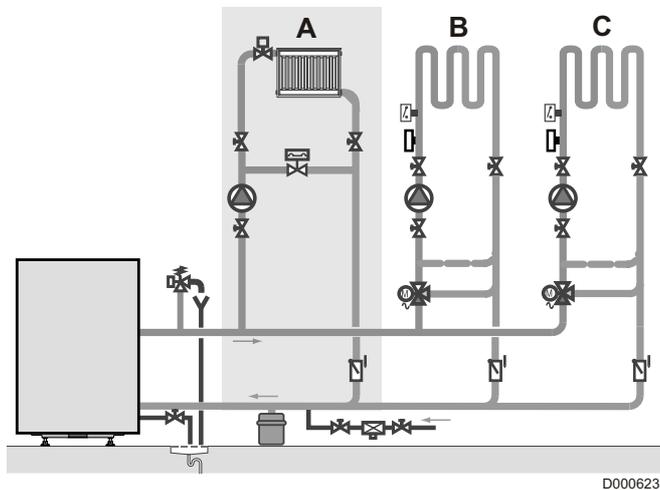
Remove the bridge and connect the safety thermostat wires.



3. Outlet sensor circuit C
4. Remote control - package FM 51 or FM 52

# 4 Activation / deactivation of the boiler circuit (Direct circuit A)

## ■ Installation WITH boiler circuit



A: Circuit A

B: Circuit B

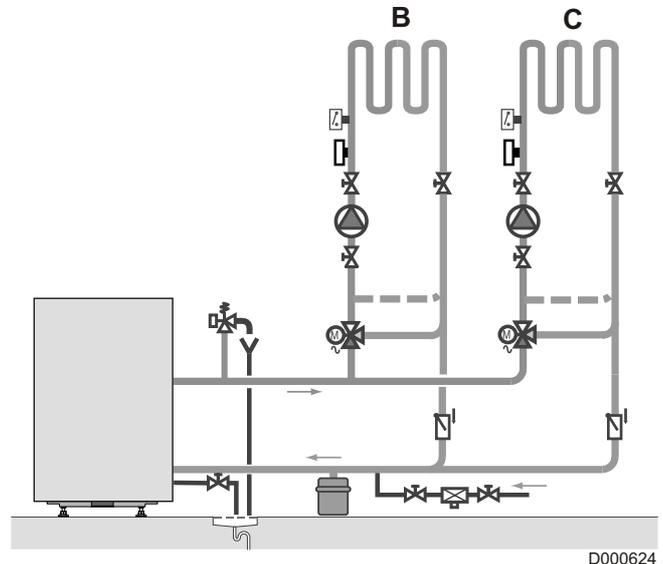
C: Circuit C

**i** No **circuit C** for wall-hung condensing boilers and MIT.

### The direct circuit A MUST BE ACTIVATED

- Press on the installer key  for 5 seconds using a screwdriver or a point of a pencil.
- Call up the menu **#FITTER PARAM.** using key , and then the parameter **CIRC. A** by pressing successively on key .
- Check that the parameter **CIRC. A** is correctly set to **HEAT.**

## ■ Installation WITHOUT boiler circuit



B: Circuit B

C: Circuit C

**i** No **circuit C** for wall-hung condensing boilers and MIT.

### The direct circuit A MUST BE DEACTIVATED

- Press on the installer key  for 5 seconds using a screwdriver or a point of a pencil.
  - Call up the menu **#FITTER PARAM.** using key , and then the parameter **CIRC. A** by pressing successively on key .
- Set the parameter **CIRC. A** to **DISAB.** using the + key.

**DE DIETRICH THERMIQUE S.A.S****www.diedietrich-thermique.fr**

Direction des Ventes France  
57, rue de la Gare  
F- 67580 MERTZWILLER  
☎ +33 (0)3 88 80 27 00  
☎ +33 (0)3 88 80 27 99

**DE DIETRICH REMEHA GmbH****www.diedietrich-remeha.de**

Rheiner Strasse 151  
D- 48282 EMSDETTEN  
☎ +49 (0)25 72 / 23-5  
☎ +49 (0)25 72 / 23-102  
info@diedietrich.de

**NEUBERG S.A.****www.diedietrich-heating.com**

39 rue Jacques Stas  
L- 2010 LUXEMBOURG  
☎ +352 (0)2 401 401

**VAN MARCKE****www.vanmarcke.be**

Weggevoerdenlaan 5  
B- 8500 KORTRIJK  
☎ +32 (0)56/23 75 11

**DE DIETRICH****www.diedietrich-otoplenie.ru**

129164, Россия, г. Москва  
Зубарев переулок, д. 15/1  
Бизнес-центр «Чайка Плаза»,  
офис 309  
☎ +7 (495) 221-31-51  
diedietrich@nnt.ru

**DE DIETRICH****www.diedietrich-heating.com**

Room 512, Tower A, Kelun Building  
12A Guanghua Rd, Chaoyang District  
C-100020 BEIJING  
☎ +86 (0)106.581.4017  
+86 (0)106.581.4018  
+86 (0)106.581.7056  
☎ +86 (0)106.581.4019  
contactBJ@diedietrich.com.cn

**ÖAG AG****www.o eag.at**

Schemmerlstrasse 66-70  
A-1110 WIEN  
☎ +43 (0)50406 - 61624  
☎ +43 (0)50406 - 61569  
diedietrich@o eag.at

**WALTER MEIER (Klima Schweiz) AG****www.waltermeier.com**

Bahnstrasse 24  
CH-8603 SCHWERZENBACH  
+41 (0) 44 806 44 24  
Serviceline +41 (0)8 00 846 846  
☎ +41 (0) 44 806 44 25  
ch.klima@waltermeier.com

**WALTER MEIER (Climat Suisse) SA****www.waltermeier.com**

Z.I. de la Veyre B, St-Légier  
CH-1800 VEVEY 1  
☎ +41 (0) 21 943 02 22  
Serviceline +41 (0)8 00 846 846  
☎ +41 (0) 21 943 02 33  
ch.climat@waltermeier.com

**DUEDI S.r.l.****www.duediclima.it**

Distributore Ufficiale Esclusivo  
De Dietrich-Thermique Italia  
Via Passatore, 12 - 12010  
San Defendente di Cervasca  
CUNEO  
☎ +39 0171 857170  
☎ +39 0171 687875  
info@duediclima.it

**DE DIETRICH THERMIQUE Iberia S.L.U.****www.diedietrich-calefacccion.es**

Av. Príncep d'Astúries 43-45  
08012 BARCELONA  
☎ +34 932 920 520  
☎ +34 932 184 709

AD001-AG

© Copyright

All technical and technological information contained in these technical instructions, as well as any drawings and technical descriptions supplied, remain our property and shall not be multiplied without our prior consent in writing.

25/06/2012



85754453 01

94863616

**De Dietrich**

DE DIETRICH THERMIQUE

57, rue de la Gare F- 67580 MERTZWILLER - BP 30