

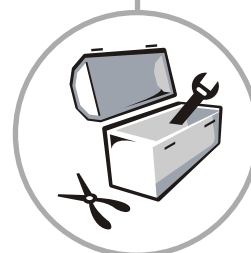
# SR 130

Domestic hot water tanks

English  
29/05/06



Installation  
instructions



Instructions for use



Technical  
instructions



CE



300009755-001-H




De Dietrich 

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## Symbols used

	<b>Caution danger</b>	Risk of injury and damage to equipment. Attention must be paid to the warnings on safety of persons and equipment.
	<b>Specific information</b>	Information must be kept in mind to maintain comfort.
	<b>Reference</b>	Refer to another manual or other pages in this instruction manual.

## Introduction

SR 130 domestic hot water calorifiers are connected to gas-fired wall-hung boilers from the City 1.24 - 1.24FF - 3.24 and 3.24FF range and to gas-fired wall-hung condensation boilers from the DPSM3 15 LP - DPSM3 25 LP - MC 15 LP and MC 25 LP - MCR 24 range.

 **For a proper operating of the boiler, follow carefully the instructions.**

### 1 Compliance

#### Compliance of design and manufacture

This product complies with the requirements of European Directive 97 / 23 / EC, Article 3, Paragraph 3, on pressure equipment.

#### Electrical compliance / Marking

This product complies to the requirements to the European Directives and following standards:


- 73/23/EEC Low Voltage Directive  
Reference Standard : EN 60.335.1.
- 89/336/EEC Electromagnetic Compatibility Directive  
Reference Standards : EN 50.081.1 / EN 50.082.1 / EN 55.014.

### 2 Important recommendations


Positioning the appliance:

- in a frost-free room.
- on a base to facilitate cleaning the room.
- as close as possible to draw-off points in order to minimise energy losses through the pipes.

Insulating the pipes.

 **Heating water and domestic water must not come into contact with each other. Domestic water must not circulate via the exchanger.**

Service the appliance regularly to ensure that it operates correctly.

 **Any operation on the installation must be performed by a qualified technician respecting professional regulations and in accordance with this document.**

Keep this document close to the place where the tank is installed.

No modifications must be made to the domestic hot water tank if the guarantee is to remain valid.

## Description

The high quality steel tank is lined with food standard quality vitrified enamel, which protects it from corrosion and preserves all the qualities of the domestic water.

The tank is protected against corrosion by a magnesium anode which should be checked every 2 years and replaced if need be.

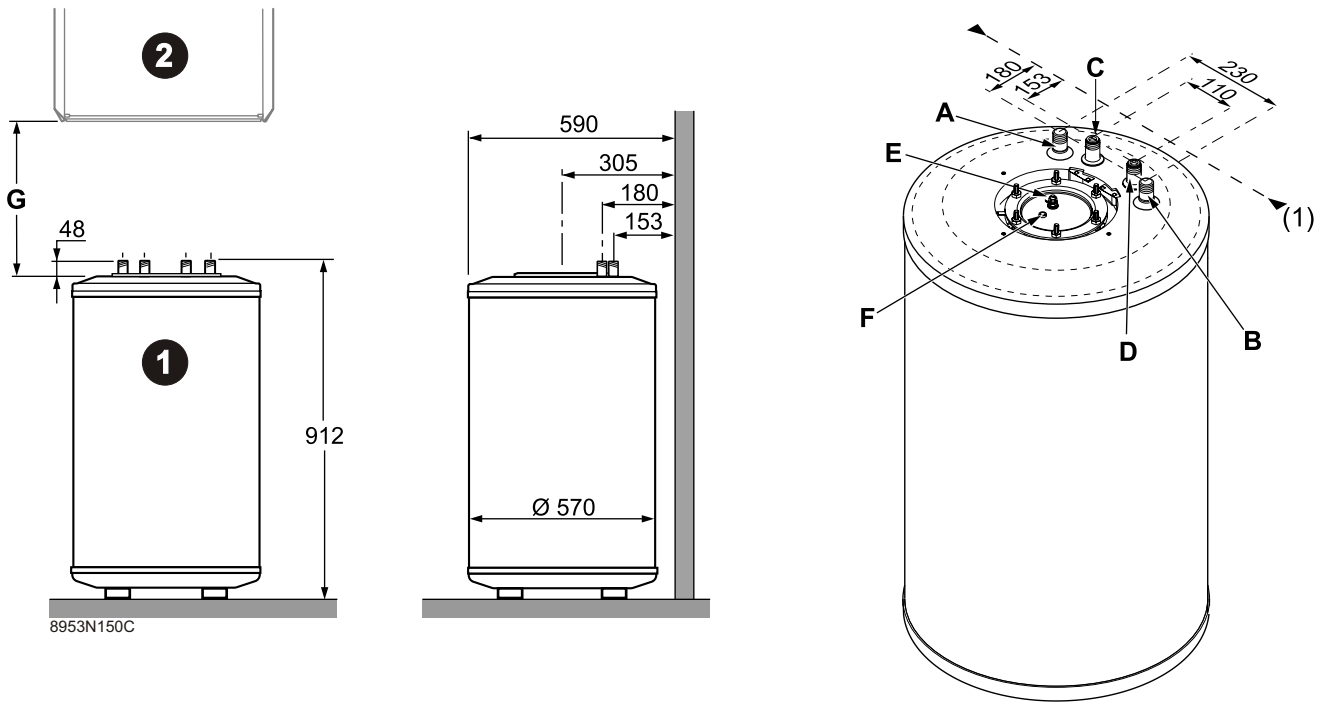
The thermal exchanger welded into the tank is made of smooth piping, the inside of which, which is in contact with the domestic water, is enamelled.

The calorifier is efficiently insulated with CFC-free polyurethane foam, which reduces thermal loss to a minimum.

The insulating material can be easily detached from the tank. A polyethylene film prevents the foam sticking to the tank. This measure facilitates the recycling of materials.

The outside casing is made of painted steel sheeting.

## 1 Main dimensions



- 1 Tank (1) wall  
2 Boiler

Boiler type	DPSM3,MC	CITY	MCR
G	216	~ 200	446

- A** Primary input G 3/4  
**B** Primary outlet G 3/4  
**C** Domestic hot water outlet R 3/4 - Red marking  
**D** Domestic cold water temperature R 3/4 - Blue marking  
**E** Magnesium anode  
**F** Sensor tube

R: Conical thread

G: Exterior cylinder thread, sealed by flat joint

## 2 Technical characteristics

Primary circuit - heating water					
Maximum operating temperature	°C			90	
Maximum operating pressure	bar			10	
Maximum operating pressure in accordance with W/TPW (4)	bar			6	
Coil water capacity	l			6	
Coil exchange surface	m <sup>2</sup>			0.9	
Secondary circuit - domestic water					
Maximum operating temperature	°C			90	
Maximum operating pressure	bar			10	
Maximum operating pressure in accordance with W/TPW (4)	bar			6	
Water capacity	l			130	
Weigh					
Empty	kg			65.5	
With water	kg			201.5	
For shipping	kg			68.5	
Performance					
Boiler type		CITY	DPSM3 or MC 15 LP/BS 130	DPSM3 or MC 25 LP/BS 130	MCR 24
Useful boiler output	kW	24	14	23.6	24
Power exchanged (1)(3)	kW	24	14	23.6	22.6
Continuous flow (1)(3)	l/h	590	345	580	555
Specific flow* (2)(3)	l/min	20	18.5	20	16.5
Draw-off capacity**(2)(3)	l/10 mm	200	200	200	165

(1) Heat exchanger inlet temperature: 80 °C (85 °C for CITY) - Domestic hot water temperature: 45 °C

(2) DHW setting: 60 °C - Average domestic hot water temperature: 40 °C - Boiler setting: 80 °C (85 °C for CITY)

(3) Cold water temperature: 10 °C - Pump in position 3

(4) Swiss Directives

\* **Specific flow:** Minimum average rise in temperature of 30K that the appliance can provide in the course of two successive draw-offs of 10 minutes separated by a stop of 20 minutes.

\*\* **Draw-off capacity:** Hot water flow at which water can be drawn off for a duration of 10 minutes with an average temperature elevation of 30 K.

## 3 Package list

DHW tank package	
Calorifier with sensors package	EE 22
Calorifier without sensors package	EE 30
For Germany only	
Linking kit:	
- Boiler CITY	EE 26
- DPSM or MC boiler	HC 13
- Boiler MCR 24	HG 30
Sensor:	
- Boiler CITY	AD 138
- DPSM or MC boiler	AD 212
- Boiler MCR 24	AD 226

## Installation

**!** Installation must be carried out in accordance with the prevailing regulations, the codes of practice and the recommendations in these instructions.

SR 130 calorifiers are designed to be placed under the wall-hung boiler.

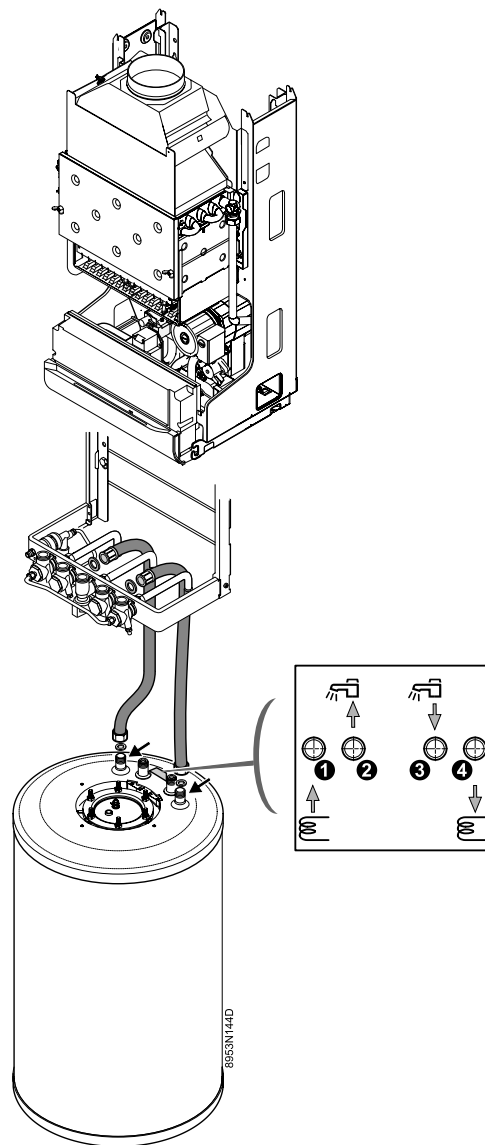
### 1 Connecting the DHW tank to the boiler (primary circuit)

**!** Prior connecting the heating circuit hydraulic connections, it is vital that the heating circuits are rinsed to prevent articles that may damage certain parts from being introduced (safety valves, pumps, non return valve...).

**!** When making the connections, it is imperative that the standards and corresponding local directives are respected.

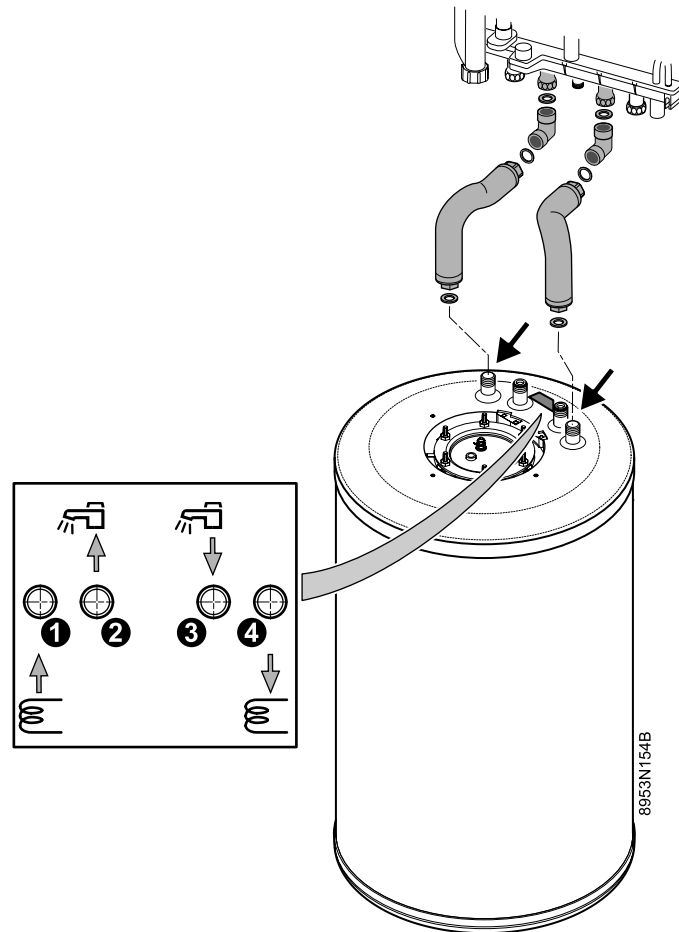
These domestic hot water tanks can operate at a maximum operating pressure of 10 bars. As a general rule, the tanks operate at 7 bars.

#### 1.1 Connecting the calorifier to a CITY boiler

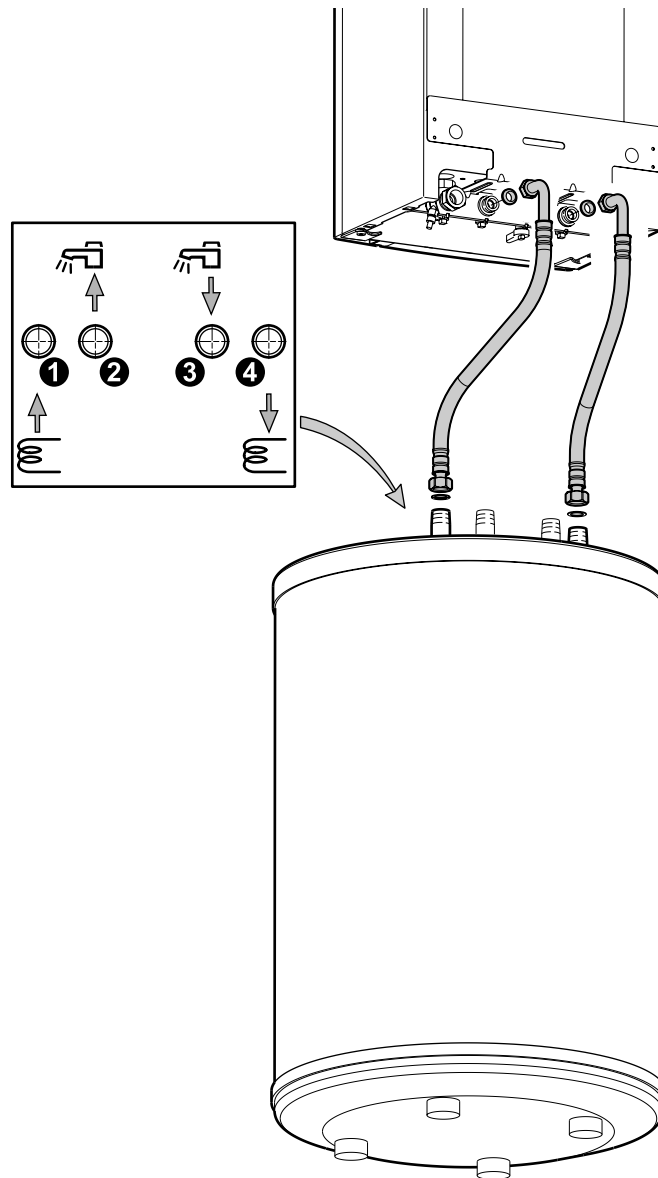


- ① Primary input
- ② Domestic hot water outlet
- ③ Domestic cold water inlet
- ④ Primary outlet

## 1.2 Connecting the calorifier to a DPSM3 or MC boiler



- ❶ Primary input
- ❷ Domestic hot water outlet
- ❸ Domestic cold water inlet
- ❹ Primary outlet



- ❶ Primary input
- ❷ Domestic hot water outlet
- ❸ Domestic cold water inlet
- ❹ Primary outlet

## 2 Connecting the tank to the domestic water circuit (secondary circuit)

### 2.1 Specific precautions

Before making the connection, **rinse the domestic water inlet pipes** to prevent the introduction of metal or other particles into the DHW tank.

### 2.2 Provision for Switzerland

Make the connections according to the instructions of the Société Suisse de l'Industrie du Gaz et des Eaux. Comply with local instructions from water distribution plants.

### 2.3 Isolation valves

Hydraulically isolate the primary and secondary circuits using stop valves to facilitate maintenance operations on the calorifier. The valves make it possible to carry out maintenance on the tank and its components without draining the entire installation.

These valves are also used to isolate the calorifier when conducting a pressurised check on the leak tightness of the installation if the test pressure for the calorifier is greater than the admissible operating pressure.

### 2.4 Connecting the domestic cold water

To carry out connection with cold water (See next page). Install a water drain in the boiler room and a "funnel-siphon" for the safety unit.

### 2.5 Safety valve

 **In compliance with the safety rules, fit a sealed safety valve to the tank's domestic cold water inlet.**

Calibration of the safety valve : output 10 bar.

For France, we recommend hydraulic safety units fitted with a membrane with the NF marking.

- Integrate the safety valve in the cold water circuit.
- Install the safety valve close to the calorifier in a place which is easy to access.

#### Dimensions

The safety unit and its connection to the DHW tank must be of at least the same diameter as the cold water supply pipe in the tank's domestic circuit.


No isolating devices should be located between the safety valve or unit and the tank.

The safety unit outlet pipe must have a uniform and sufficient gradient and its diameter must be at least equal to that of the outlet opening in the safety unit (to prevent the flow of water being hindered if the pressure is too high).

The outlet pipe in the valve or safety unit must not be blocked.

#### France

The level of the safety unit must be lower than that of the cold water inlet to enable draining. Otherwise, fit a drainage pipe to the lowest point of the tank.

 **If the mains pipes are made of copper, fit a sleeve made of steel, cast iron or any other insulating material between the tank's hot water outlet and the pipes to prevent corrosion to the connection**

The components used for the connection to the cold water supply must comply with the prevailing standards and regulations in the country concerned. Fit a non-return valve to the domestic cold water circuit.

#### Germany

Define the dimensions of the safety valve in accordance with the DIN 1988 standard :

Capacity litres	Dimension of the valve Min. dimension of the inlet connection	Heating output kW max
< 200	R or Rp 1/2	75
200 → 1000	R or Rp 3/4	150

Fit the safety valve above the calorifier to obviate having to drain the tank during servicing

Install the drainage valve at the lowest point on the calorifier.

## 2.6 Pressure reducer

If the supply pressure exceeds 80% of the valve or safety unit setting (e.g. 5.5 bars for a safety unit set at 7 bars), a pressure reducer must be installed upstream of the DHW tank. Install the pressure reducer downstream of the water meter in such a way as to ensure the same pressure in all of the pipes in the installation.

## 2.7 Bleed circuit

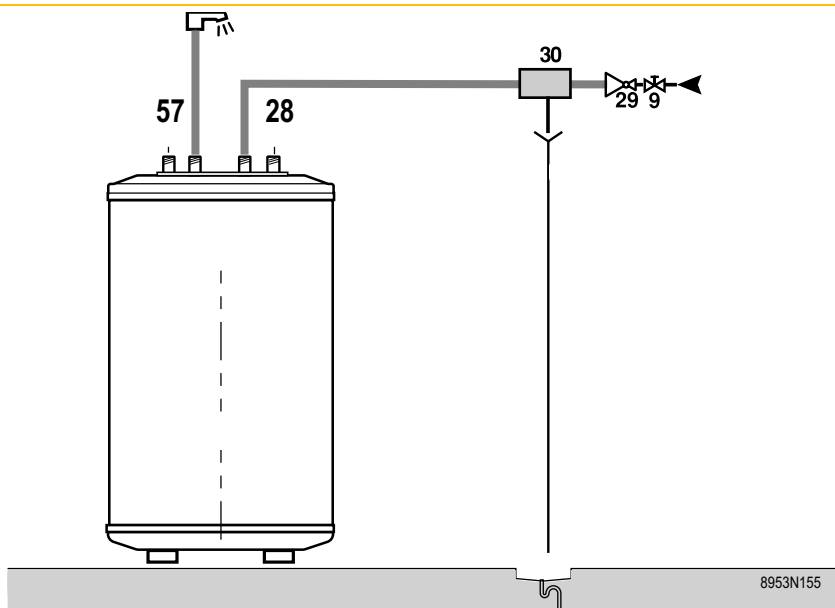
**!** During the heating process, water can flow through the bleed circuit to guarantee the safety of the installation. Do not block!

## 2.8 Measures to take to prevent hot water blow back

Fit a non-return valve to the domestic cold water circuit.

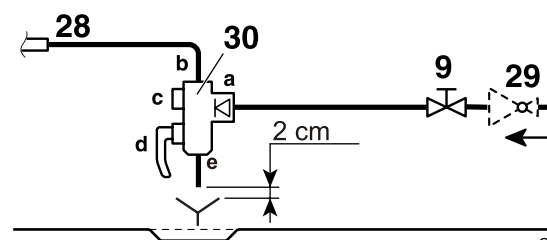
If using a closed calorifier, the non-return valve must be easily accessible

## 2.9 Hydraulic connections



- 9. Isolation valve
- 28. Domestic cold water inlet
- 29. Pressure reducer - If the supply pressure exceeds 80% of the valve or safety unit setting (e.g. 5.5 bars for a safety unit set at 7 bars), a pressure reducer must be installed upstream of the DHW tank

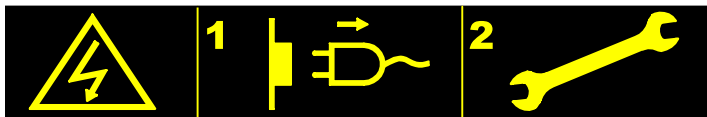
30. France: Safety unit



C000711

- a. Cold water inlet with an integrated non-return valve
- b. Connection to the DHW tank cold water inlet
- c. Stop cock
- d. safety unit 7 bar
- e. Drain opening
- Germany: 10-bar safety valve
- 57. Domestic hot water outlet

### 3 Assembly and connection of the domestic hot water sensor



D000240

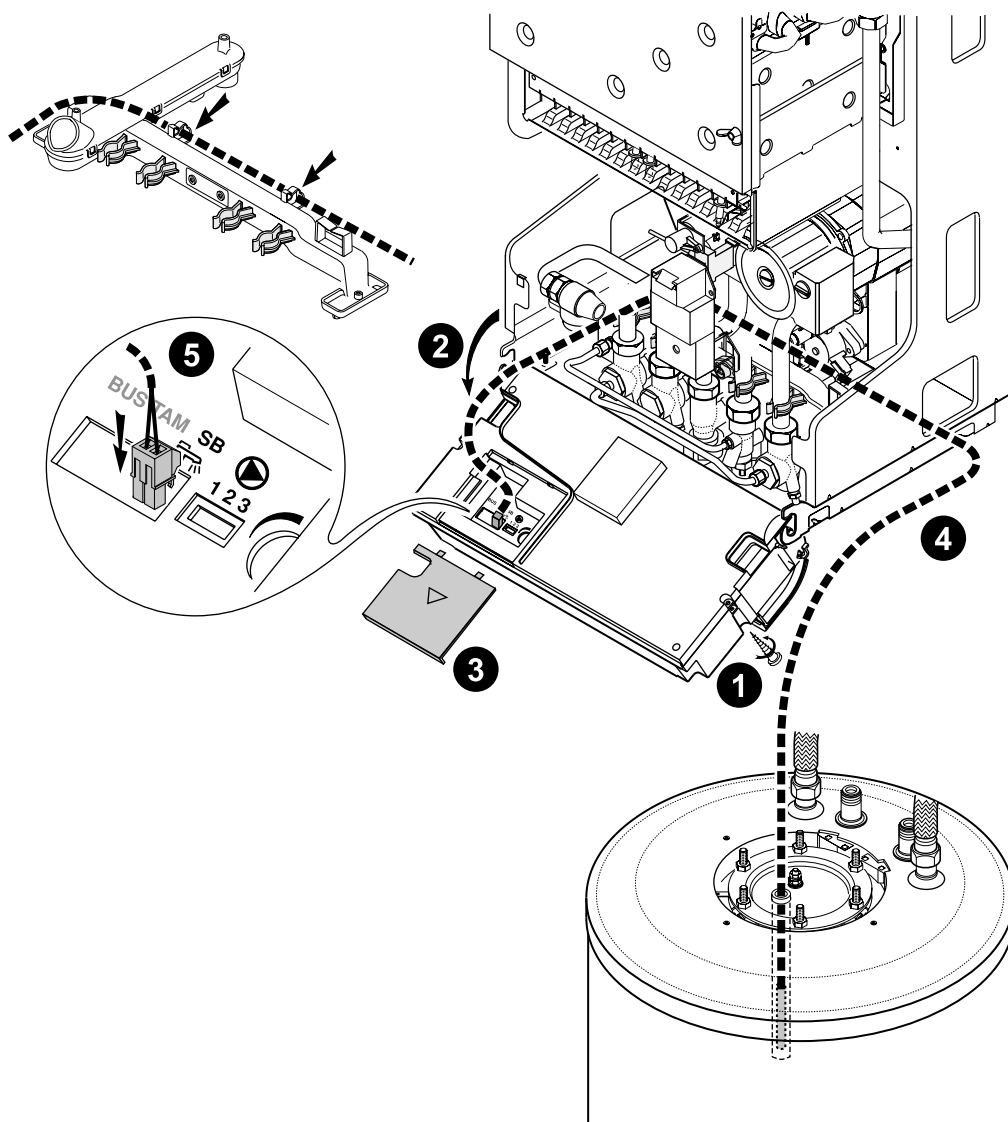
**!** The sensor must be connected before switching on the boiler.

**!** Make sure the temperature sensor is pushed all the way into the sensor socket.


#### 3.1 Connecting the DHW sensor to a CITY boiler

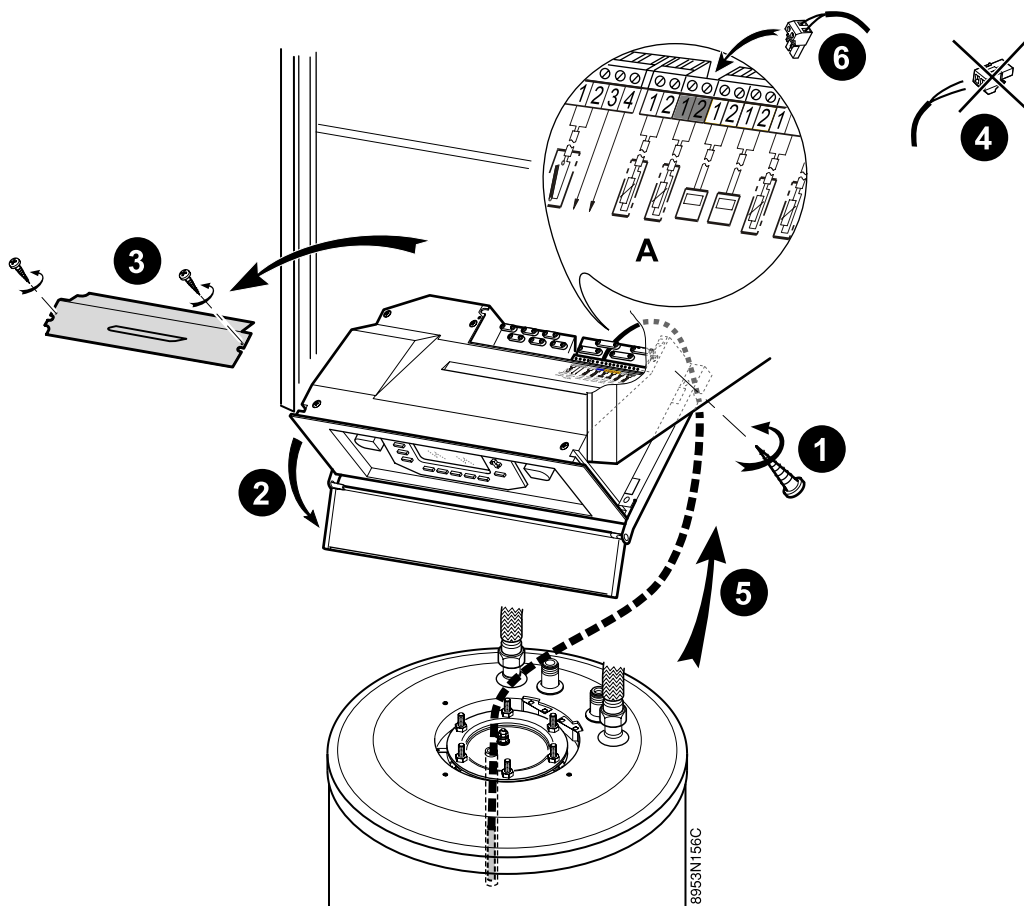
The connection for the domestic hot water sensor can be found on the back of the boiler control panel under the little flap.

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




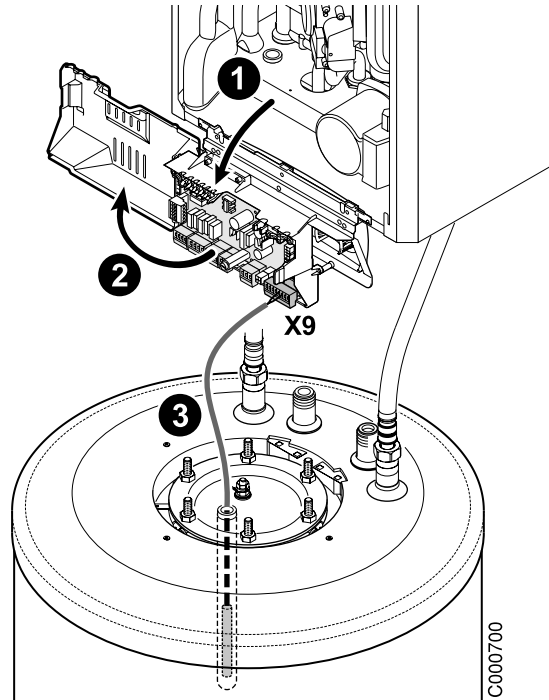
### 3.2 Connecting the DHW sensor to a DPSM3 or MC boiler

 Cut the power supply to the boiler.



### 3.3 Connecting the DHW sensor to a MCR 24 boiler

 Cut the power supply to the boiler.




### 3.4 Resistance values of the sensor in ohms according to temperature

Temperature in °C	10	20	25	30	40	50	60	70	80
Resistance in ohm	19 691	12 474	10 000	8 080	5 372	3 661	2 536	1 794	1 290

## Commissioning

1. Fill the calorifier via the cold water input pipe.
2. Carefully degas the DHW tank and the distribution network in order to eliminate noises and hammering caused by trapped air moving in the pipes during draw-off.  
To do so:
  - Fill it completely with water, leaving a hot water tap open.
  - Only reclose this valve when the flow is regular and there are no noises or hammering in the pipes.
  - Then successively degas all the hot water pipes by opening the corresponding valves.
3. Check the safety devices (particularly the valve or safety unit), referring to the instructions provided with these components.

 **During the heating process, a certain amount of water may flow through the valve or safety unit; this is caused by water expansion. This phenomenon is completely normal and must in no event be hindered.**

## Maintenance and periodic checks

### Magnesium anode

The magnesium anodes must be checked at least every 2, years. After the first check, determine the frequency of future checks on the basis of anode wear.

The anodes can be checked by two methods:

#### Inspection:

- the anode must be replaced if its diameter is less than 15 mm (original diameter = 33 mm).

#### Function test:

- disconnect the earth wire from the anode.
- measure the strength of the current between the tank and the anode ; if the current measured is less than 0.1 mA, the anode should be replaced.

If the anodes must be replaced, proceed as described below.

### Valve or safety unit

The valve or safety unit must be operated at least **once a month** in order to ensure that it is operating correctly and to be forewarned of any overpressure which would damage the DHW tank.

### Exchanger

In hard water regions, it is advisable to ask the fitter to descale the DHW tank exchanger once a year in order to maintain its level of performance.

### Cladding

The cladding of the DHW tank can be cleaned with soapy water.

### Procedures to follow for descaling, or checking or replacing the magnesium anodes

Use a new leak tight seal on the inspection trap.

1. Turn off the domestic cold water inlet.
2. Open a hot water tap.
3. Open the valve on the safety unit.
4. Remove the hood **A** using a broad-bladed screwdriver (see detail) and then remove the insulation.
5. Remove the sensor **B** from the thimble tube in the inspection trap **C**.
6. Remove the cover (**13** mm spanner).
7. Drain the calorifier.
8. Check and remplace the anode **D** if necessary (13 spanner).
9. Check the exchanger:

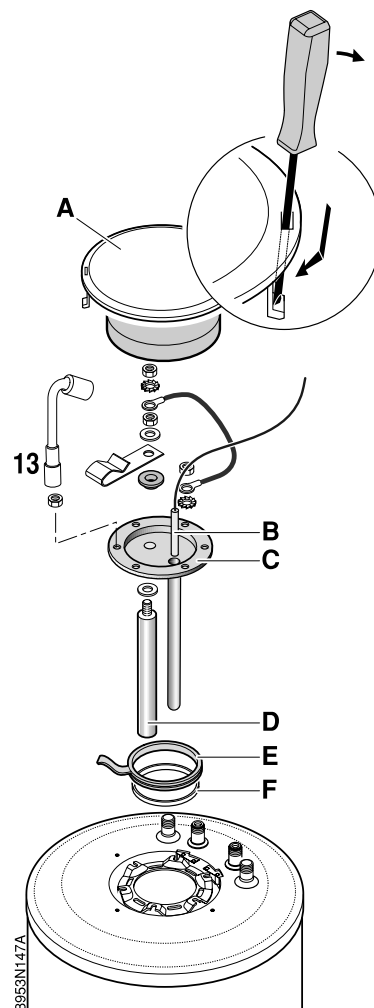
Descale the exchanger in order to maintain its performance levels.

- Remove limescale deposits in the form of sludge or strips in the bottom of the tank.
  - On the other hand, do not touch limescale adhering to the walls of the tank as it provides effective protection against corrosion and improves the insulation of the DHW tank.
10. Reassemble the parts. **Replace the leakproof seal E** on the hatch. Put it in place with the retainer ring **F** taking care to place the positioning lug on the gasket pointing to the outside of the calorifier.
  11. Make sure the temperature sensor is pushed all the way into the sensor socket.
  12. Check for leak tightness after assembly.

**⚠ The screws retaining the visit trap must be tightened to 6 Nm +1/-0. Use a dynamometric spanner. Approximately 6 Nm is obtained by holding the box spanner by the small lever.**

13. Switch on.

14. Re-assemble the cover **A**.



## Maintenance form

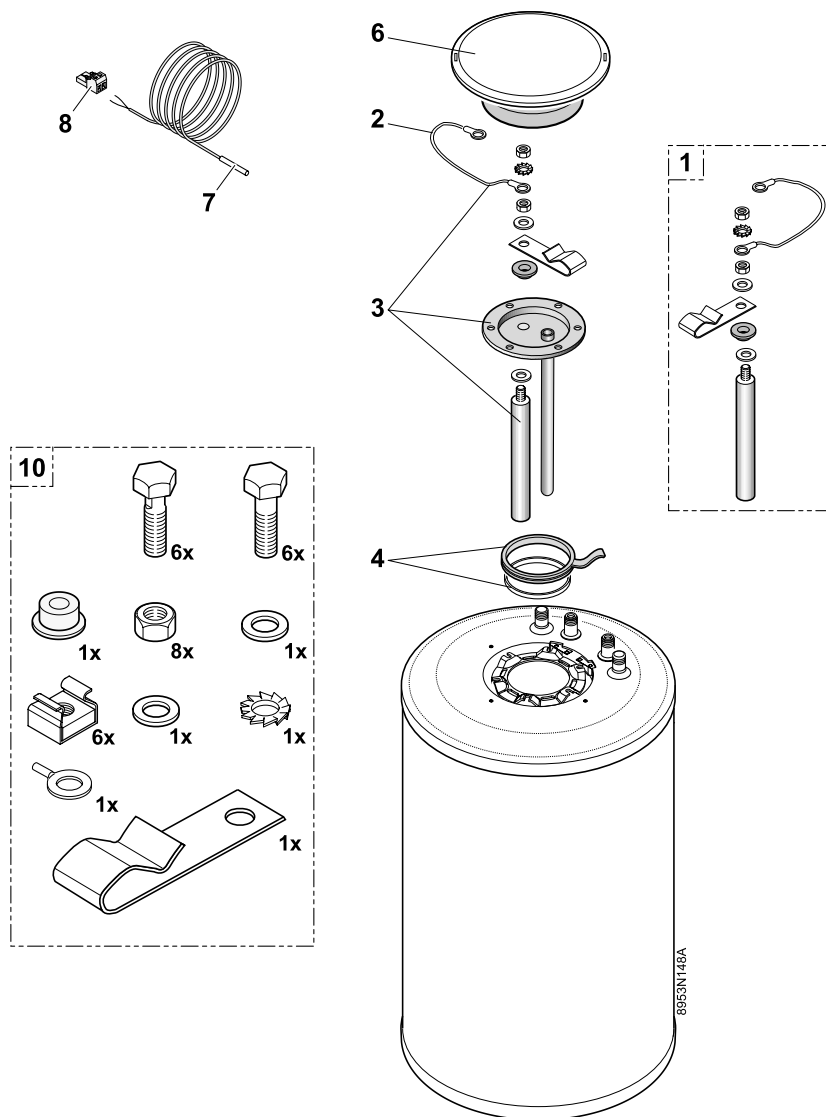
No.	Date	Checks made	Comments	By	Signature
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## Spare parts - SR 130

29/05/06 - 8953-4129B



to order a spare part, it is imperative to give the code number shown on the list, against the number of the part required.



Rep	Reference	Description
1	8953-8579	Complete Anode
2	8375-4945	Earth wire
3	8953-5528	Complete buffer tank
4	8970-5511	Seal kit 7 mm mm + retainer ring
6	8953-8593	Top cover
7	9536-2445	NTC DHW sensor 5 m
8	8199-4919	2-pin connector for DHW sensor
10	8953-5529	Accessories bag

DE DIETRICH THERMIQUE S.A.S. - Spare parts centre

4 rue d'Oberbronn - F-67110 REICHSHOFFEN - ☎ +33 (0)3 88 80 26 50 - 📠 +33 (0)3 88 80 26 98

[cpr@dedietrichthermique.com](mailto:cpr@dedietrichthermique.com)

## Warranty

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You have just purchased one of our appliances and we thank you for the trust you have placed in our products.

Please note that your appliance will provide good service for a longer period of time if it is regularly checked and maintained.

Your fitter and our customer support network are at your disposal at all times.

### Warranty terms

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Starting from the purchase date shown on the original fitter's invoice, your appliance has a contractual guarantee against any manufacturing defect.

The length of the guarantee is mentioned in the price catalogue.

The manufacturer is not liable for any improper use of the appliance or failure to maintain or install the unit correctly (the user shall take care to ensure that the system is installed by a qualified fitter).

In particular, the manufacturer shall not be held responsible for any damage, loss or injury caused by installations which do not comply with the following:

- applicable local laws and regulations
- specific requirements relating to the installation, such as national and/or local regulations
- the manufacturer's instructions, in particular those relating to the regular maintenance of the unit
- the rules of the profession

The warranty is limited to the exchange or repair of such parts as have been recognised to be faulty by our technical department and does not cover labour, travel and carriage costs.

The warranty shall not apply to the replacement or repair of parts damaged by normal wear and tear, negligence, repairs by unqualified parties, faulty or insufficient monitoring and maintenance, faulty power supply or the use of unsuitable fuel.

Sub-assemblies such as motors, pumps, electric valves etc. are guaranteed only if they have never been dismantled.

### France

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The preceding dispositions are not exclusive of benefits for the purchaser of the legal guarantee as stated in Civil Code articles 1641 to 1648.

### Belgium

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The preceding dispositions about the contractual guarantee are not exclusive of profit if the need arises for the purchaser in Belgium of the applicable legal dispositions on hidden defects.

### Switzerland

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The application of the warranty is subject to the terms and conditions of sale, delivery and warranty of the company marketing our products.

### Other countries

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The above provisions do not restrict the benefit of the legal laws regarding hidden defects applicable in the buyer's country.

## Warranty certificate

Date of purchase: .....

Retailer's stamp:

Name and address of the purchaser: .....

.....

.....

.....

.....

.....

Tel.: .....

**Information on the appliance (to be found on the rating plate):**

Model: .....

Serial number: .....



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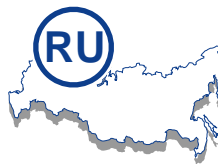
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