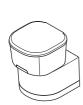
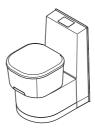
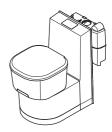
# NOMETIC SANITATION SANEO



**Cassette toilet** 

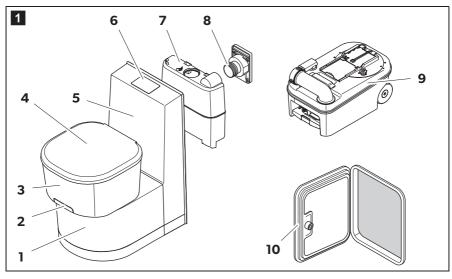


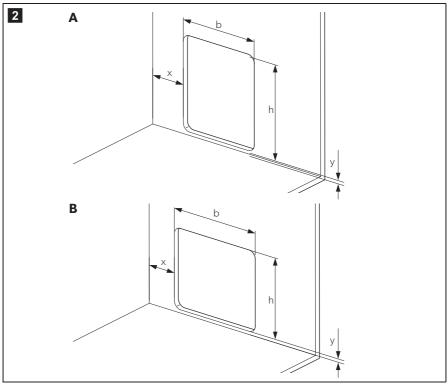


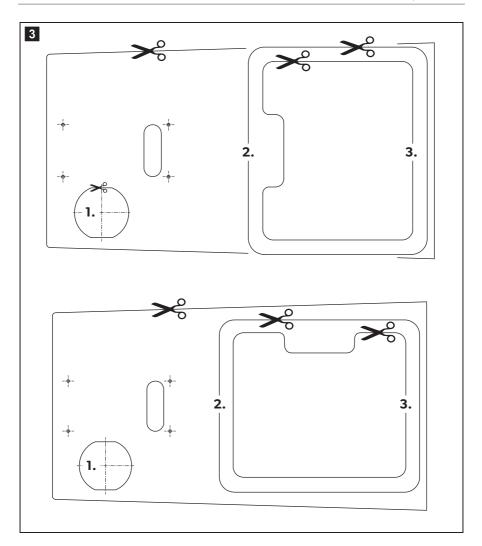


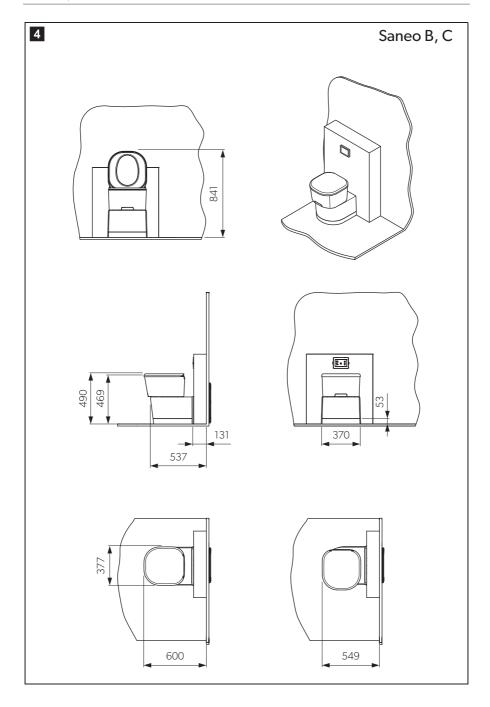
Saneo $^{\$}$  B, Saneo $^{\$}$  C, Saneo $^{\$}$  BLP, Saneo $^{\$}$  CLP, Saneo $^{\$}$  BS, Saneo $^{\$}$  CS, Saneo $^{\$}$  BW, Saneo $^{\$}$  CW

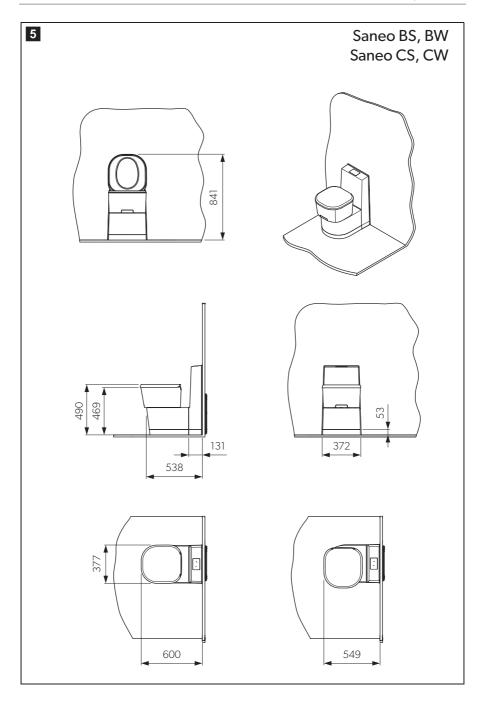
	Installation Manual19
DE	<b>Kassettentoilette</b> Montageanleitung31
FR	<b>Toilettes à cassette</b> Instructions de montage
IT	<b>Toilette a cassetta</b> Indicazioni di montaggio57
NL	Cassettetoilet Montagehandleiding

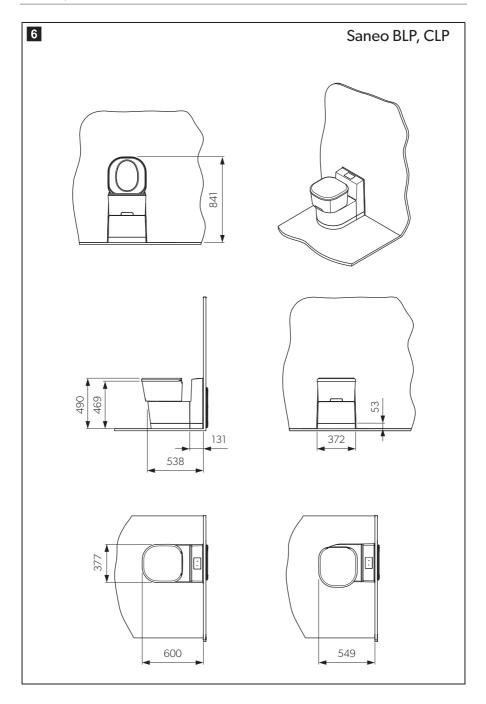


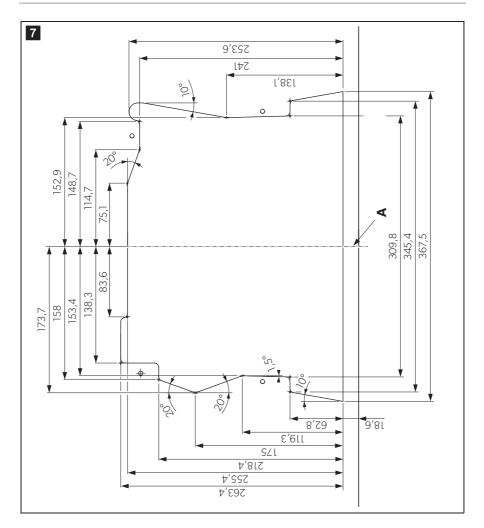


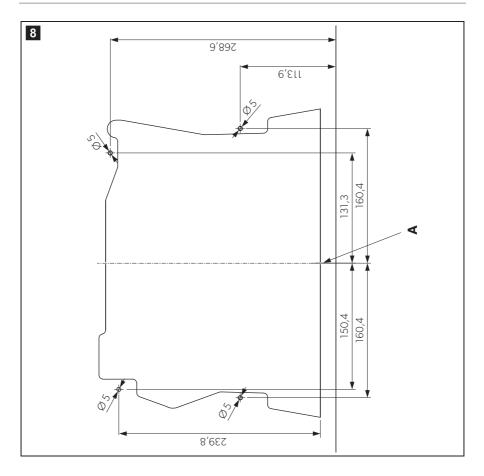


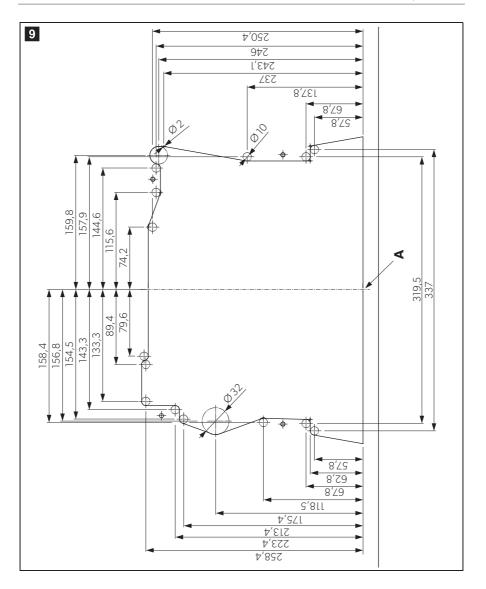


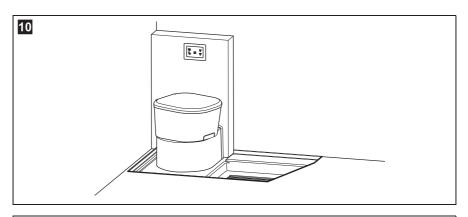


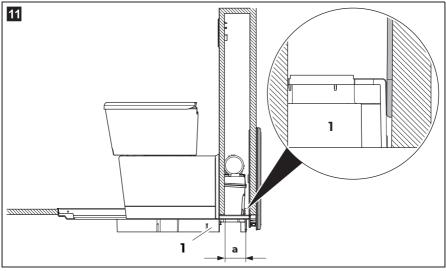


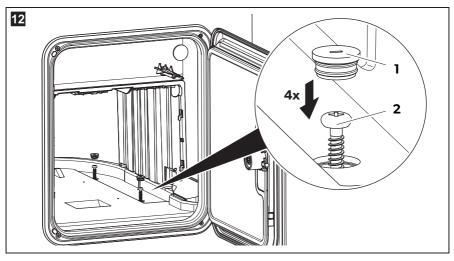


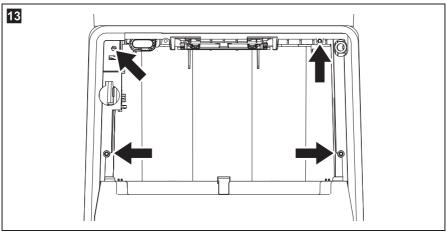


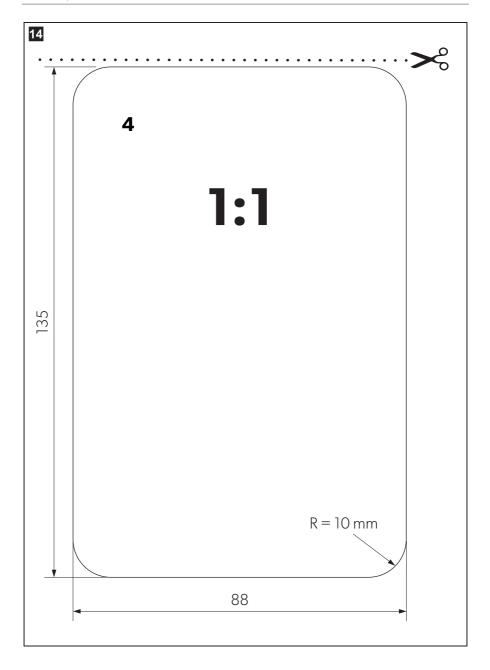


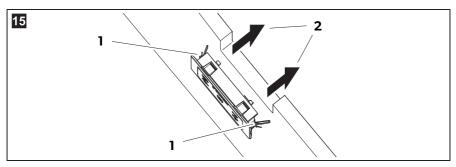


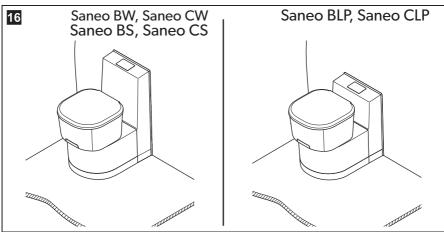


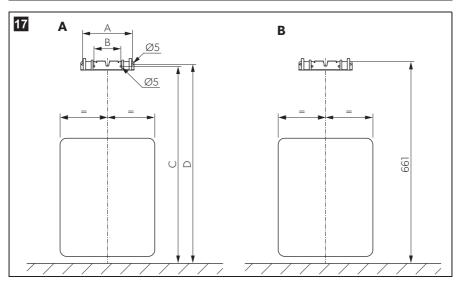


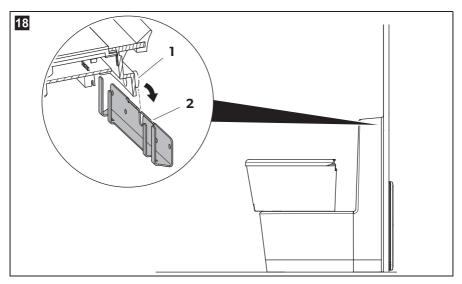


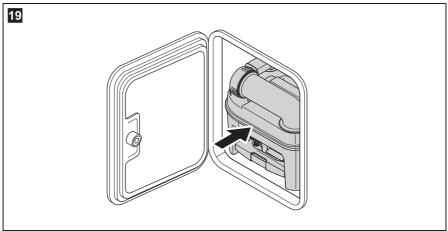


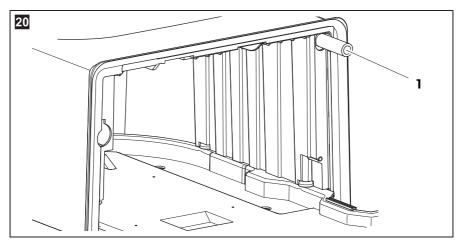


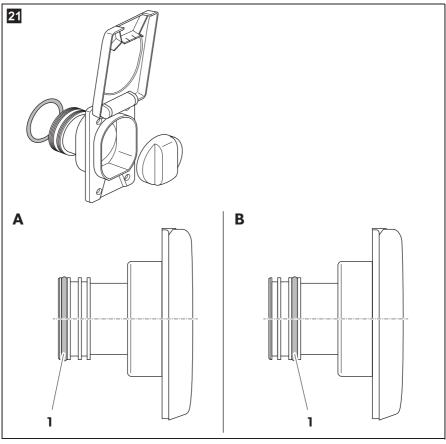


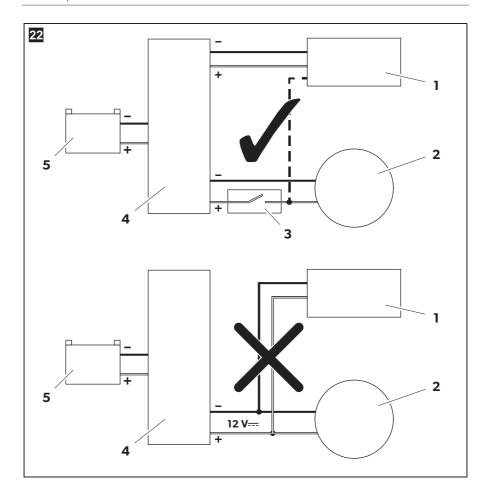


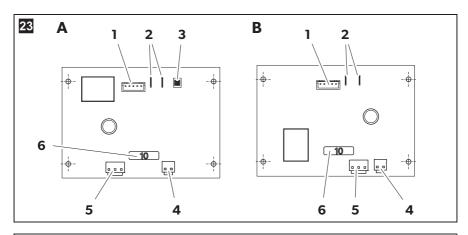


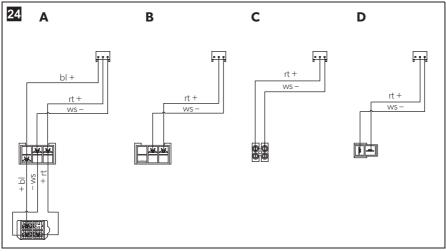












Please read this instruction manual carefully before installation and first use, and store it in a safe place. If you pass on the product to another person, hand over this instruction manual along with it.

## **Table of contents**

1	Expl	anation of symbols
2	<b>Safe</b> 2.1 2.2	ty instructions20General safety21Installation instructions21
3	Inter	nded use21
4	Tech	nical description     22       Description of the components     22
5	5.1 5.2 5.3 5.4 5.5	Illing the toilet 23 Installing the service door 23 Making wall cutouts 23 Setting up the toilet 24 Setting up the Saneo B, Saneo C toilet 24 Setting up the Saneo BW, Saneo CW, Saneo BS, Saneo CS, Saneo BLP, Saneo CLP toilets 26
	5.6 5.7	Water connection
6	Elect	trical connection
7	Tech	<b>nical data</b> 30

## 1 Explanation of symbols



#### **WARNING!**

**Safety instruction:** Failure to observe this instruction can cause fatal or serious injury.



#### **CAUTION!**

**Safety instruction:** Failure to observe this instruction can lead to injury.



#### **NOTICE!**

Failure to observe this instruction can cause material damage and impair the function of the product.



#### **NOTE**

Supplementary information for operating the product.

## 2 Safety instructions

The manufacturer accepts no liability for damage in the following cases:

- Faulty assembly or connection
- Damage to the product resulting from mechanical influences and excess voltage
- Alterations to the product without express permission from the manufacturer
- Use for purposes other than those described in the operating manual

The declaration of conformity can be requested from the manufacturer (contact information on the back).

## 2.1 General safety



#### **WARNING!**

- This device can be used by children aged 8 years or over, as well as by
  persons with diminished physical, sensory or mental capacities or a
  lack of experience and knowledge, providing they are supervised, or
  have been taught how to use the device safely and are aware of the
  resulting risks.
- Cleaning and user maintenance must not carried out by unsupervised children
- Children must be supervised to ensure that they do not play with the device.
- The toilet may be installed only by trained personnel.



- All components of the system must be installed in frost-free areas. In freezing temperatures, there is a risk of damage caused by frost.
- Do not use antifreeze. These agents may damage the cassette toilet.
- The operating pressure (water pressure) of the solenoid valve should not exceed 6 bar. The solenoid valve is damaged by excessive pressure.
- The electrical installation must comply with national and local regulations.

In Europe: EN 1645-1, EN 1646-1, EN 1648-1, EN 1648-2.

## 2.2 Installation instructions

The toilet must be installed so that it is easily accessible for service work, easy to de-install and install, and easily removed from the vehicle.

## 3 Intended use

The toilet is designed for installation and use in recreational vehicles such as campervans or motor caravans.

## 4 Technical description

The cassette toilet Saneo consists of a toilet permanently installed in the vehicle and a removable, mobile cassette as a holding tank. The cassette is externally accessible through a door. Depending on the model, the toilet gets the rinse water from a tank integrated in the housing or from a freshwater tank in the vehicle.

The following model versions of the toilet are available:

- Saneo B, Saneo C: freestanding, without water tank, without console
- Saneo BS, Saneo CS: freestanding, without water tank, with console
- Saneo BW, Saneo CW: freestanding, with a water tank in the console
- Saneo BLP, Saneo CLP: freestanding, without water tank, low console

Saneo C models can be equipped with an interval flush (optional). The water is pumped into the toilet bowl in short spurts in order to achieve improved flush wetting and cleaning. The wetting and cleaning depend on the amount of water available in the vehicle.

## 4.1 Description of the components

No. in fig. 1, page 3	Label
1	Housing for cassette tank
2	Draining slider for toilet bowl
3	Rotatable toilet bowl, plastic or ceramic
4	Lid and seat, removable
5	Console
6	Control panel with level indicator and flushing
7	Only Saneo BW, CW: Integrated freshwater tank
8	Only Saneo BW, CW: Tank flap (closable tank flap optional)
9	Cassette tank
10	Service door

## 5 Installing the toilet

## 5.1 Installing the service door

You can find the description for installing the service door in the enclosed document ( Dometic Seitz SK 5, optional and model-dependent).

## 5.2 Making wall cutouts

#### Service door wall cutout

- ➤ Make a rectangular opening in the outer wall with the following dimensions (fig. 2 , page 3):
- **A:** For service door SK5 vertical:
  - $y_{min} = 12.5 \text{ mm}, y_{max} = 22 \text{ mm}$
  - w = 310 mm ± 1 mm
  - $h = 360 \text{ mm} \pm 1 \text{ mm}$
- **B:** for service door SK5 horizontal:
  - $-y_{min} = 12.5 \text{ mm}, y_{max} = 26 \text{ mm}$
  - w = 360 mm ± 1 mm
  - $h = 310 \text{ mm} \pm 1 \text{ mm}$

The dimension x results from the placement of the toilet. Please note the position of the service door (template (3) and (4) on the packaging).

## Wall cutout for the tank flap

For the Saneo BW and Saneo CW models, mount a tank flap for the integrated water tank.

➤ Using the template (fig. 3 1, page 4) create an opening in the outer wall. The template is greatly reduced in size in the instructions. For the original, see the packaging.

You can find the installation description of the tank flap in chapter "Installation of the tank flap" on page 27.

## 5.3 Setting up the toilet



#### **NOTICE!**

All components of the system must be installed in frost-free areas. In freezing temperatures, there is a risk of damage caused by frost.

- ➤ Install the toilet according to the description for the respective model version.
- > Set up the toilet so that it is flush to a vertical wall only.
- ➤ Leave at least 60 mm space to the side walls so that the swivelling of the upper part of the toilet (with seat) is not restricted.
- ➤ For the installation, use the dimensional drawings and templates:
  - Saneo B, Saneo C: fig. 4, page 5
  - Saneo BS, Saneo CS: fig. 5, page 6
  - Saneo BW, Saneo CW: fig. 5, page 6
  - Saneo BLP, Saneo CLP: fig. 6, page 7
  - **Milling dimensions:** fig. **7**, page 8
  - **Drill holes:** fig. **8**, page 9
  - Radii: fig. 9 , page 10



#### **NOTE**

- For the templates for milling dimensions, drill holes and radii, observe the symmetry point of the toilet (fig. 7 A, page 8, fig. 8 A, page 9, fig. 9 A, page 10).
- When installing the toilet in a wet room, the manufacturer recommends that you connect the toilet to the shower tray.

## 5.4 Setting up the Saneo B, Saneo C toilet

The freestanding models Saneo B and Saneo C have no integrated water tank. Set up this model so that the wall behind it can accommodate the control unit of the toilet, the electrical connections and possibly a water tank. It is ideal if you put a box in front of the room wall (fig. 10, page 11).



#### **NOTE**

Exemplary installation in a shower tray is shown in fig. 10, page 11 and fig. 11, page 11.

Note that the cassette protrudes 112 mm out of the cassette housing (fig. 11, page 11).

➤ Place the housing base (fig. 11 1, page 11) flush with the installation frame of the service door (fig. 11 2, page 11) so that there is a clean transition and no gap.

#### **Anchoring the Saneo B, Saneo C toilets**

- ➤ Place the toilet in the desired position.
- Tightly fasten the base plate with four screws (fig. 12 2, page 12).
- ➤ Insert the caps (fig. 12 1, page 12).
- ➤ Then bolt the toilet housing to the wall (using a maximum of 4 bolts, not included) (fig. 13, page 12).



#### **NOTE**

1:1 template available from the manufacturer.

➤ Slide in the mobile tank cassette (fig. 19, page 15).

## Installation of the control and operating panel of the Saneo B, Saneo C toilets

Install the control and operating panel in the wall in the immediate vicinity of the toilet at an easily accessible location.

- For the control and operating panel, create an opening in the wall using the true-to-scale template (fig. 14, page 13).
- ➤ Connect the electrical cables to the couplings for installation of the operating and control panel (chapter "Electrical connection" on page 28).



#### CAUTION!

There is a risk of injury due to the springs springing back!

Press the retaining springs of the control and operating panel in and push it into the wall cutout (fig. 15, page 14).

# 5.5 Setting up the Saneo BW, Saneo CW, Saneo BS, Saneo CS, Saneo BLP, Saneo CLP toilets

These models have a wall connection console. The control and operating panel is integrated in the wall connection console.

Models Saneo BW and Saneo CW feature a built-in water tank, while models Saneo BS and Saneo CS do not have a water tank.

Set up all models with wall connection console directly against the room wall (fig. 16, page 14). A previously attached wall bracket is used to secure the toilet and the wall bracket

Screw on the wall bracket, level, at the following height (fig. 17, page 14): Variant A:

Model	Α	В	С	D
Saneo BW, Saneo BS	170 mm	96 mm	645 mm	652 mm
Saneo CW, Saneo CS	170 mm	96 mm	645 mm	652 mm
Saneo BLP, Saneo CLP	170 mm	96 mm	462 mm	469 mm

#### Variant B:

- Saneo BW, Saneo BS: h = 661 mm
- **Saneo CW, Saneo CS:** h = 661 mm
- Saneo BLP, Saneo CLP: h = 478 mm
- ➤ Put the entire toilet module into the desired position in front of the wall bracket.
- ➤ Lift the toilet and hook the housing into the wall bracket (fig. 18, page 15).
- ➤ Tightly fasten the base plate with four screws (fig. 12 2, page 12).
- ➤ Insert the caps (fig. 12 1, page 12).
- ➤ Slide in the mobile tank cassette (fig. 19, page 15).

## 5.6 Water connection



#### **NOTE**

For the Saneo xW models with an integrated water tank, the water connection is installed at the factory.

➤ Connect the water supply using a smooth hose connection (fig. 20 1, page 16). The connection socket is not included in the scope of delivery.

#### ➤ Perform a leak test.



#### NOTICE!

The operating pressure (water pressure) of the solenoid valve should not exceed 6 bar.

The solenoid valve is damaged by excessive pressure.

#### Performing a measurement to test the flushing output



#### **NOTE**

Water supply (vehicle-side pump):

The toilet requires a min. of 7 l/min provided by the vehicle at the outlet of the hose connection of the toilet in order to ensure satisfactory flushing output of 5 l/min.

For performing a measurement to test the flushing output, there are two variants:

#### Variant 1:

- ➤ Disconnect the hose connection of the toilet from the vehicle line.
- ➤ Place the open end of the line into a bucket.
- ➤ Actuate the flushing for 1 minute using the toilet operating unit.
- ➤ Measure the volume of water in the bucket.

  The volume of water that is in the bucket corresponds to the water flow rate in I/min.

#### Variant 2:

- ➤ Disconnect the hose connection of the toilet from the vehicle line.
- ➤ Connect a Gardena water meter to the toilet water line.
- ➤ Actuate the flushing using the toilet operating unit.
- ➤ Read the water flow in I/min on the Gardena water meter.

## 5.7 Installation of the tank flap

For the Saneo BW and Saneo CW models, mount a tank flap for the integrated water tank.

- ➤ Using the template (fig. 3 1, page 4) create an opening in the outer wall.
- ➤ Seal the tank flap water tight (for example, with butyl rubber).



- ➤ Put the tank flap on the tank.
- ➤ Tightly fasten the tank flap with four C4x25 countersunk screws (not included).
- ➤ Slide the O-ring onto the inner tube of the tank flap (fig. 21, page 16):
  - **A:** Position of the O-ring with a wall thickness of 30 mm 50 mm
  - **B:** Position of the O-ring with a wall thickness of 20.5 mm 30 mm
- ➤ Grease the O-ring. This makes it easier for the filler neck to be connected with the upper part of the tank.

## 6 Electrical connection



#### **WARNING!**

The electrical system must be wired by qualified personnel.



#### **NOTICE!**

- Do not connect the toilet to the voltage supply directly in parallel with other power-consuming devices.
- Do not connect the control of the toilet to a pressurised water pump.
- The rated capacity of an external water pump must not exceed 100 W.



#### **NOTE**

- The external water pump is not included in the scope of delivery.
- A pre-fuse is not necessary, because the toilet is internally fused.

## Key for fig. 22, page 17:

Item	Label
1	Toilet
2	Water pump
3	Switch
4	Fuse/main terminal box
5	12 V supply

The layout of the touch-switch control unit (fig. **23** A, page 18) and of the tact-switch control unit (fig. **23** B, page 18) is as follows:

Item	Label
1	5-pin connector for Reed sensors cassette tank and micro-switch cassette
2	Only Saneo BW, CW: Float level indicator, water tank
3	Jumper (only touch-switch control unit)
4	Only Saneo B, C, BS, CS, BLP, CLP: Valve connection
	Only Saneo BW, CW: Internal pump connection
5	12 V supply
6	Fuse (10 A)

Connect the toilet via the main terminal block of the vehicle to its own power supply (fig. 22, page 17 and fig. 23 5, page 18). Use the corresponding cable (fig. 24, page 18):

Pos./cable colour	Label
А	Saneo B, BS, BLP, C, CS, CLP (do not use when using a pressurised water pump)
В	Saneo BW, CW
С	Saneo B, BS, BLP, C, CS, CLP with pressurised water pump (Australia)
D	Saneo BW, CW (UK)
wt	White cable, earth (–)
rt	Red cable, input (+)
bl	Blue cable, output (+) Control line for an external pump (do not use when using a pressurised water pump)

## 7 Technical data

	Dometic Saneo		
Input voltage:	12 V <del></del>		
Current consumption:	Max. 2 A with internal pump Max. 10 A with external pump		
Max. person weight:	150 kg		
Dimensions:	See fig. 4 , page 5 to fig. 9 , page 10		
Operating temperature:	0 °C to +50 °C		
Capacity:	16 I (cassette tank) 7 I (freshwater tank, optional)		
Test mark:	(E) 10 R-047317		



#### **NOTE**

Water supply (vehicle-side pump):

The toilet requires a min. of  $7 \, \text{l/min}$  provided by the vehicle at the outlet of the hose connection of the toilet in order to ensure satisfactory flushing output of  $5 \, \text{l/min}$ .