

THETFORD



INSTALLATION MANUAL
SEPARATION TOILET
S220 series

EN

Original Installation Manual

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1. Disclaimer

Important information

1. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
2. Glowing cigarettes and other burning materials must not be thrown into the toilet.
3. This product must only be supplied at safety extra low voltage (SELV) corresponding to the marking on the appliance.
4. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

2. Introduction

General

This is the installation manual for the Thetford S220-S and S220-CS. The manual is meant for qualified installers who will install the toilet system in a caravan or camper.

Read the information and instructions carefully and follow them strictly to install the toilet system safely and correctly.

Also read the warnings in the user manual before testing the toilet system after installation.

Our policy is one of continuous development and improvement. Specifications and illustrations may change subsequent to publication. This document is version 212064/0226-V01 of the installation manual.

Please visit www.thetford.com for the most recent version.

If the appliance is not installed in accordance with national and European regulations, rules and standards, this will void the warranty.

Symbols

The following symbols may be used in this manual:



Warning. Risk of serious injury and/or damage.



Caution. Risk of moderate injury and/or damage.



Attention. Important information.



Note. Additional information.



Video. Additional instruction video available.

3. Safety

General



Risk of serious injury through burning, explosion, clamping, electrocution, suffocation and poisoning or damage to the product.

- Do not modify this appliance, unless the modification is authorised and carried out by the manufacturer or their agent.

- If the appliance is not installed in accordance with national and European law, regulations, rules and standards, this will void the warranty and may lead to criminal prosecution.
- Wear the correct Personal Protective Equipment during the installation. Also follow the applicable safety regulations.
- Only qualified and certified professionals are allowed to install the appliance.



The toilet can withstand a maximum load of 120kg. Make sure you do not overload the toilet.

Installation



Risk of serious injury through burning, explosion, clamping, electrocution, suffocation and poisoning or damage to the product.

- Do not install this toilet in a fixed indoor cabin or other dwelling applications. This toilet is made for use in RV and towable applications.
- To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.
- The toilet must be installed in a way that allows easy access for maintenance and repairs.
- Do not install the toilet directly on carpet. Put the toilet on a metal or wood panel that extends the full width and depth of the toilet.
- Do not drill, cut or use excessive force on the toilet walls, except for screwing predefined positions. This may damage the appliance.
- When installing the appliance, ensure cables are not trapped or damaged.
- Route the cables away from the appliance and heat sources.
- Do not allow cables to hang loose into the compartment.
- Use only genuine and approved parts and materials.

4. Serviceability

The installer of Thetford products is responsible for correct installation according to the Thetford installation instructions to ensure the functionality and serviceability of the product.

In terms of serviceability, this means that a dealer or authorised Thetford service partner must be able to remove and re-install the Thetford product within the time that is allowed according to the Thetford time-list, using standard tools and equipment.

This is to claim any warranty during the warranty period after the purchase date.

In case of any queries on this subject, a Thetford local service representative can be contacted for additional support related to the installation of the product.

5. Designation codes, drawings and models

Each product has a specific identification code, the designation code. The designation code can be found on the data badge. See *Service & questions* for the location of the data badge. The different positions of the code stand for different variations of the toilet. In these instructions, the designation will be used as reference.

Table 1: Designation example: S22 0 S - N 062 X 31 U 01

S22	0	S	-N	062	X	30	U	01
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S22	Toilet series	X	Slide out direction waste-holding tank
0	Type of water supply: none	30	
S	Type of console	U	Type of level indication
-N		01	
062			

Table 2: Available drawings and models

Designation	Description	2D drawing	3D file
S220S – x xxx x xx x xx	S220-S	LE1658	LE1658
S220CS – x xxx x xx x xx	S220-CS	LE1660	LE1660
N/A	Urine tank S220	N/A	N/A

Designation	Description	2D drawing	3D file
N/A	Solids bucket S220	N/A	N/A

The 2D drawings consist of product dimensions and screw positions.

The 2D drawings are available upon request, 3D files are only available for the professional builder.

6. Technical specifications

Table 3: Dimensions, weight and capacity

Dimensions	S220-S			S220-CS		
	H	W	D	H	W	D
mm	498	394	580	535	419	583
Empty weight	5.2 kg			6.2 kg		
Capacity urine tank	7.5 L					
Capacity solids bucket	7.1 L					

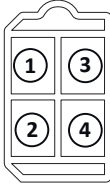
Electrical specifications



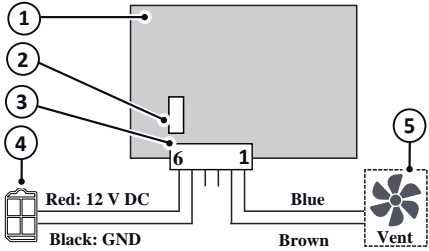
The 12V DC supply is only needed when installing the Ventilator Kit.

Power requirement	12V DC*
Fuse	1A on the VENT control panel PCB
DC power connectors	Toilet: TYCO/AMP 180901 or equivalent Supply cable counterpart: TYCO/AMP 180190

Layout of the DC power connectors

	<ol style="list-style-type: none">1. + 12 V DC (Red)2. GND (Black)3. not used (Purple)4. not used (Grey)
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Wiring diagram

	<ol style="list-style-type: none">1. S220 Vent Control PCB2. Fuse, 1 A3. 6-pole connector on PCB4. Power supply plug5. Optional Ventilator kit <p>6-Pole connector layout</p> <ol style="list-style-type: none">1. Ventilator 0 to 12 V DC (Blue)2. Ventilator ground (Brown)3. not used4. not used5. GND (Black)6. + 12 V DC (Red)
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7. Before installation

Content of the box

For the individually packaged appliance, check the content of the box:

- S220-S toilet
- 4 stainless steel screws
- User manual
- Installation manual

Gather the required tools:

- Electric saw
- Philips screwdriver no.2



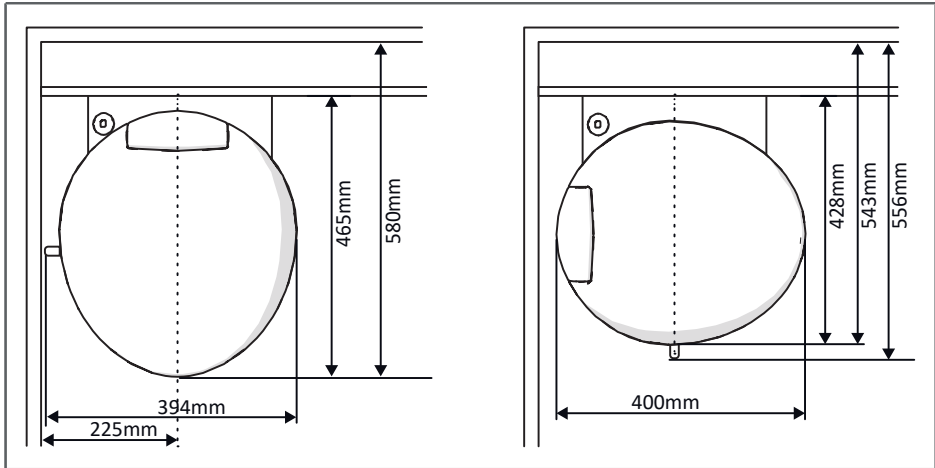
If something is missing from the box, please contact your dealer.



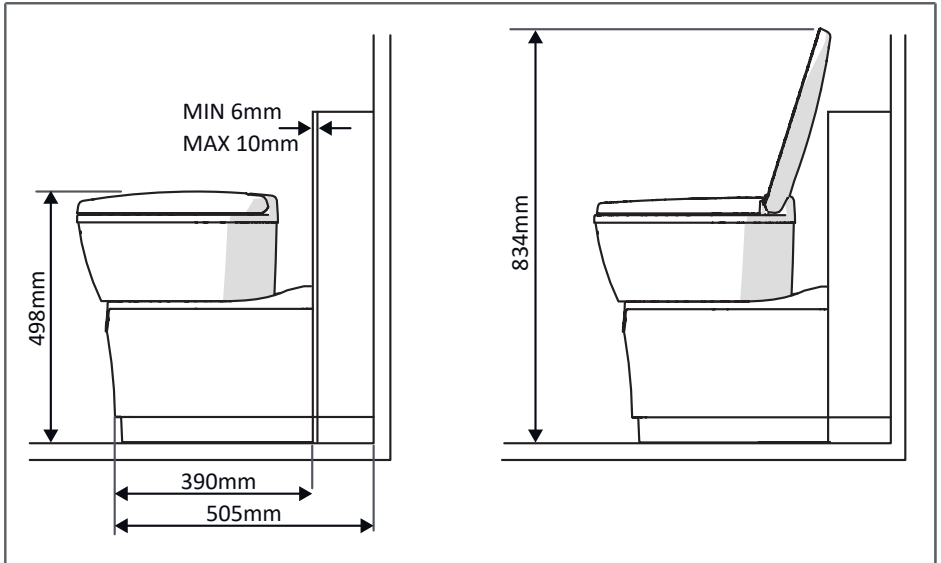
A service door is needed for the installation of this toilet.

S220-S and S220-CS dimensions

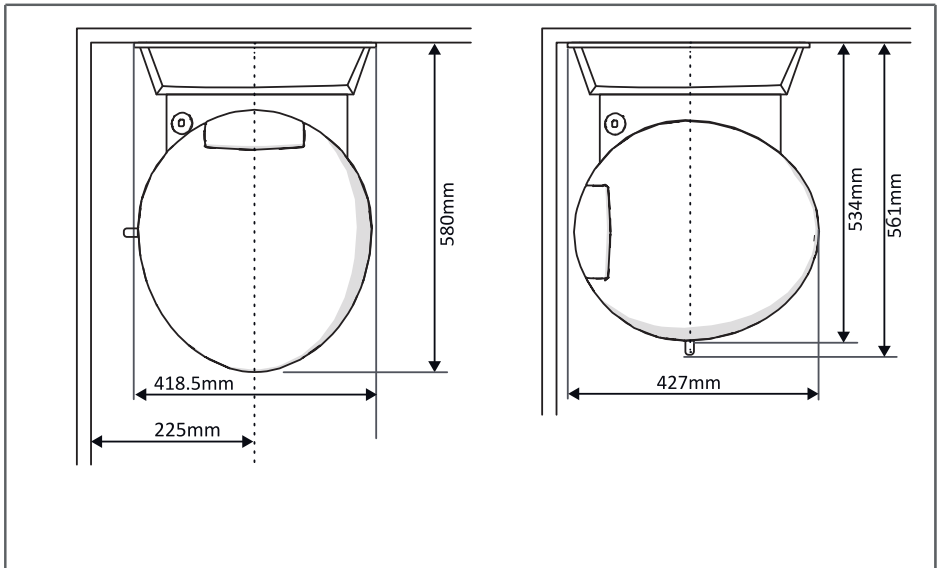
S220-S top view



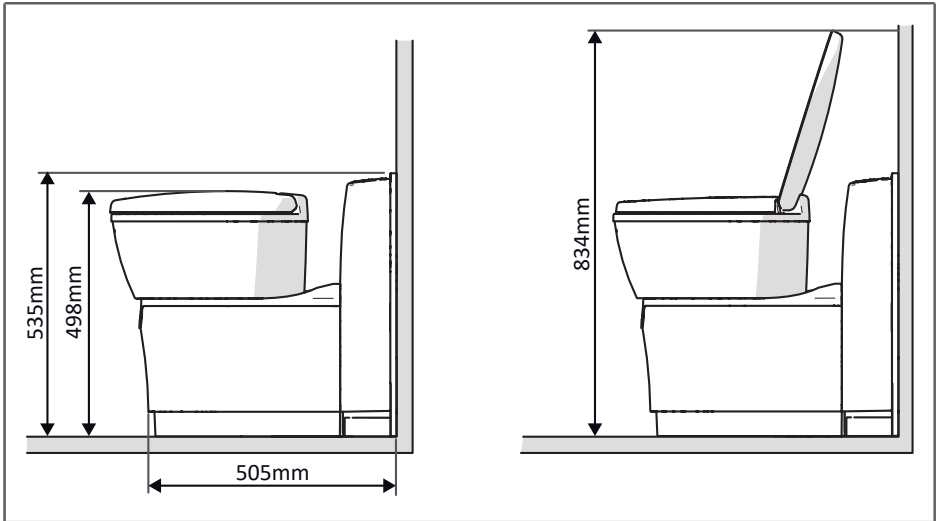
S220-S side view



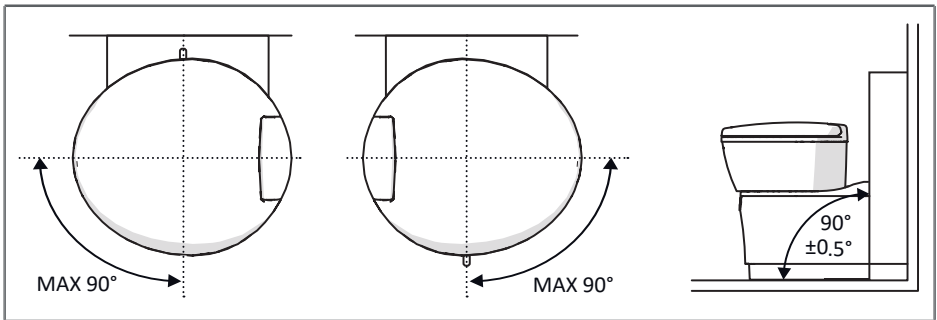
S220-CS top view



S220-CS side view



Bowl rotation and floor-wall angle



The bowl rotation and floor-wall angle are the same for all models.

8. Installation



Read the applicable instructions in chapter *Safety* first.



Make sure the cabinet is properly prepared, see *Before installation* for this.

S220-S template for installation of service door 3



A service door is needed for the installation of this toilet. Please refer to the template S220 and service door D3 for further instructions.



If a Ventilator Kit is to be installed too, Thetford advises to have the door opening in an upward direction.



See Designation codes, drawings and models for drawings of the cut-out dimensions.

- Place template D1 on the inner vehicle wall, using the bottom of the template as a reference
- Position template A (for the service door) horizontally or vertically, using the right reference holes, marked on the template with \oplus
B/C/D
- Check if the service door fits on the outside wall of the vehicle
- Drill the two reference holes in the wall
- Install the service door according to the instructions of the door
- Saw the cut-out in the inside wall, using template D2



The wall thickness needs to be between 23mm and 39mm for a service door or between 28mm and 40mm for a flush door.

- Create the inside wall
- Place template D1 on the inside wall, using the bottom of the template as a reference
- Mark the 3 holes marked with \dagger
D on the wall with an awl
- Drill the holes in the wall
- If applicable, install a shower tray

S220-CS template use and placement

- Place template C on the inner vehicle wall, using the bottom of the template as a reference
- Position template A (for the service door) horizontally or vertically, using the right reference holes, marked on the template with \oplus
B/C/D
- Check if the service door fits on the outside wall of the vehicle
- Drill the two reference holes in the wall

- Install the service door according to the instructions of the door



The wall thickness needs to be between 23mm and 39mm for a service door or between 28mm and 40mm for a flush door.

- Place template C on the inner vehicle wall, using the bottom of the template as a reference
- Mark the 3 holes marked with $\begin{matrix} \blacklozenge \\ \text{c} \end{matrix}$ on the wall with an awl
- Drill the holes in the wall
- Mount the wall bracket to the inner vehicle wall with three screws
- If applicable, install a shower tray
- Install the passive outside vent by guiding the tube to the outside, if applicable

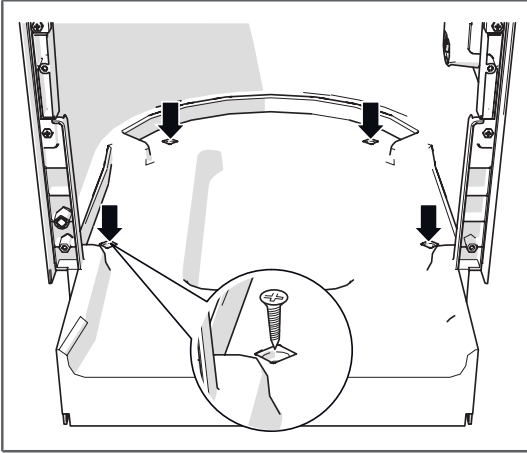
S220-CS wall bracket

Place the S220-CS over the wall bracket, prior to fixation.



- Connect the toilet to the wall bracket

S220-S floor fixation



- Slide the toilet into the cut-out and firmly against the wall
- Mount the toilet to the floor with four screws



Required torque: $1.2 \pm 0.3\text{Nm}$ for a Plywood floor.

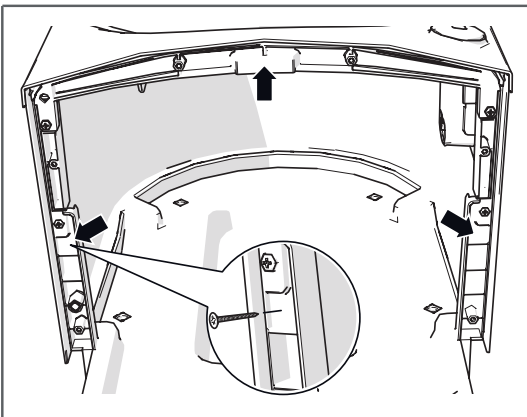


Screws are supplied by Thetford. If these are not used, use stainless steel screws.



Torque may differ if the floor is made from a different material.

S220-S wall fixation



- Connect the toilet to the inside wall with three screws



Make sure the appliance is located correctly in the designated space and the wall seal is positioned correctly.

- Ensure all fasteners are tightened with the correct amount of torque
- Ensure all connections are properly seated



Required torque: 0.9Nm.



Use stainless steel screws.

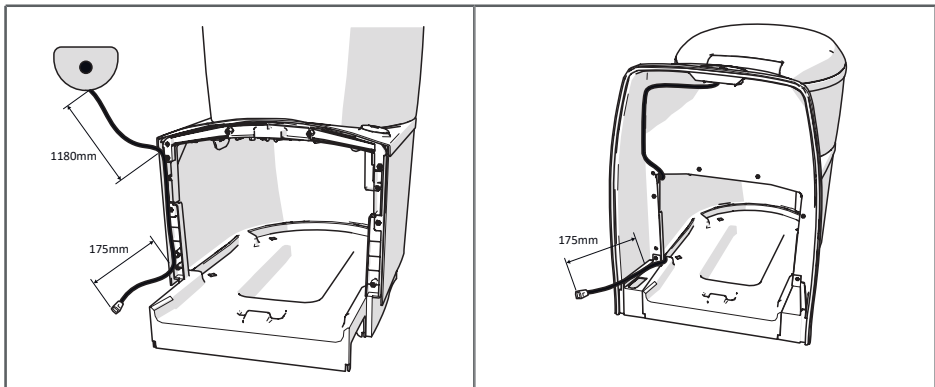
Positioning wireharness

In order to install a Ventilator Kit, now or in the future, install the wireharness.

- Use template F1 to check the necessary free space for the control panel
- Saw the cut-out for the control panel using template F2
- Install the control panel at the desired location

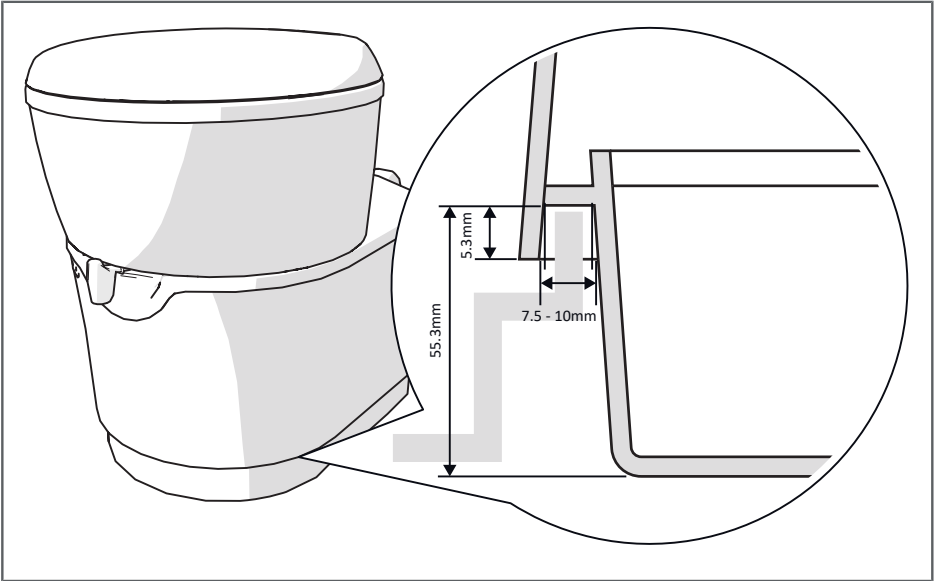
S220-S

S220-CS

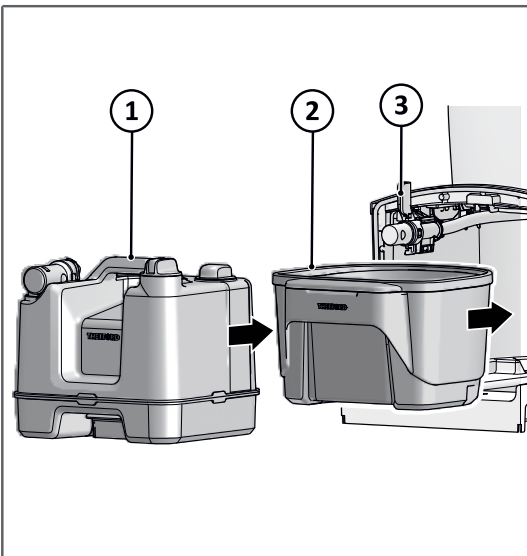


Shower tray

Install a shower tray, if applicable.



Solids bucket and urine tank



- Slide in the solids bucket (2) first
- Slide in the urine tank (1) next
- Turn the urine valve handle (3) clock-wise to the horizontal position, to secure the connection and open the valve

9. After installation



Read the applicable instructions in chapter *Safety* first.

Visual and functional checks

Check if:

- All packaging materials have been removed.
- The wall seal is positioned correctly.
- There are no leaks from the toilet bowl to the urine tank.
- The urine-holding tank and solids bucket can be removed and placed back.
- The service door opens and closes properly.
- The service door is waterproof after installation.

10. Service & questions



Read the applicable instructions in chapter *Safety* first.

Service



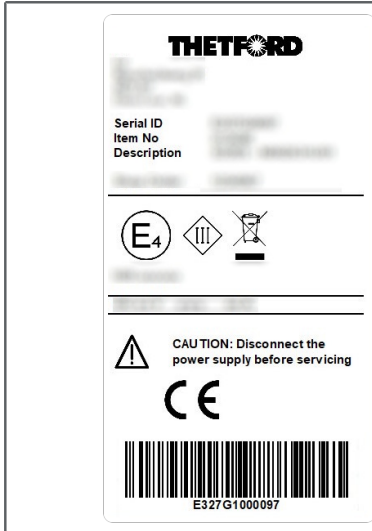
All servicing must be carried out by an approved competent person.

Questions

If you have questions about your product, parts, accessories or authorised services visit www.thetford.com.

If you contact an authorised local Service Centre in your country, provide the details of the model and serial number plus the date of purchase. The data badge can be found on the base of the toilet and underneath the urine tank.

Toilet label



Urine tank label



Warranty

For our warranty clause, please refer to the conditions mentioned on www.thetford.com.

Declaration of Conformity

Thetford hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the applicable Directives and Standards. A copy of the Declaration of Conformity can be found at www.thetford.com.

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