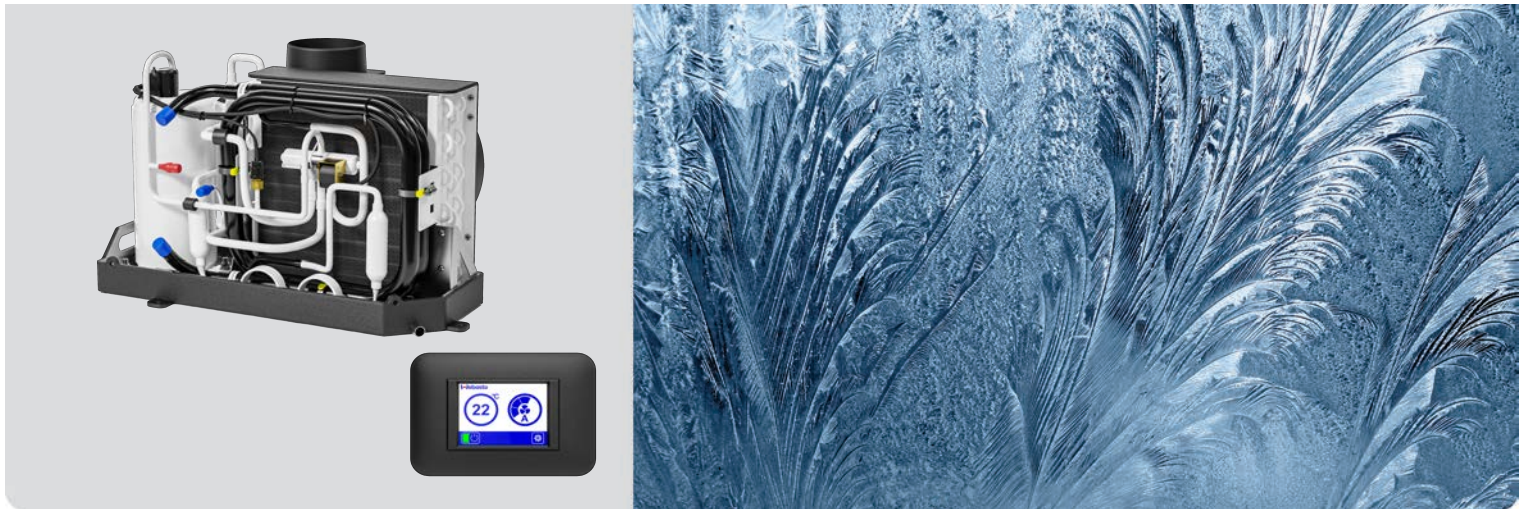


Operating Instructions

BlueCool SX-Series

Marine air conditioning systems



English

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1 About this document

1.1 Purpose of this document

The Operating Instructions (OI) are an integral part of the product and provide the information required to ensure correct and safe operation.

1.2 Using this document

Before operating the unit, read this operating instruction and the supplementary sheet "Important Information on Operating and Installation Instructions".

Keep these operating instructions ready to hand.

Hand these operating instructions on to the following owner or user of the unit.

1.3 Use of symbols and highlighting

This document uses warning labels and colours for hazard classification in accordance with ISO 3864:

See also <https://www.iso.org/standard/55814.html>.



DANGER

This signal word denotes a hazard with a high degree of risk which, if not avoided, will lead to death or serious injury.



WARNING

This signal word denotes a hazard with a moderate degree of risk which, if not avoided, may lead to minor or moderate injury.



CAUTION

This signal word denotes a hazard with a low degree of risk which, if not avoided, will lead to minor or moderate injury.



NOTE

This signal word denotes a Special Technical Feature or (if not observed) potential damage to the product.



Refers to separate documents which are enclosed or can be requested from Webasto.



Requirements for the following necessary action.

1.4 Warranty and liability

Webasto shall not assume liability for defects or damage that are the result of the Installation Instructions / Operating Instructions and the instructions contained therein being disregarded.

This liability exclusion particularly applies to:

- Improper use.
- Repairs not carried out by a Webasto service workshop.
- Use of non-genuine parts.
- Conversion of the unit without permission from Webasto.

1.5 Webasto Service App

The type label of the BlueCool SX-Series unit (see Type label) contains a QR code that can be used to call up additional technical documentation in various languages. For this purpose, please use the Webasto Service App, which can be downloaded for iOS (Apple) and Android (Google). For more information regarding the app, visit:

<https://dealers.webasto.com>

2 Safety

2.1 Intended use

The BlueCool SX-Series is used for heating and cooling on boats and ships.

The BlueCool SX-Series has been built according to the current state of technology and the recognised safety rules.



DANGER

Improper or inappropriate use may result in danger to life and limb of the user and others, as well as impairment of the unit and other property.

Any other use of this product is not permissible.

Any other use of or changes to the product, including as part of assembly and installation, will result in any and all warranty claims being voided.



WARNING

Moving parts

Risk of injury, damage to the product.

The BlueCool SX-Series must only be operated in their final installed position.



WARNING

Ignition of surrounding gases or highly flammable liquids by sparking of the BlueCool SX-Series.

You must always switch off the air-conditioning system when refuelling, or while in a petrol station area.



WARNING

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 unit by a person responsible for their safety.

- ▶ Children should be supervised to ensure that they do not play with the unit.
- ▶ Cleaning and user maintenance must not be carried out by children.
- ▶ This unit should not be accessible to the public.
- ▶ Non-observance of these precautionary measures may lead to severe or mortal injuries.

2.2 Regulations and legal requirements

Regulations on the supplementary sheet "Important Information on Operating and Installation Instructions" must be observed.

3 Operation

3.1 Description

The BlueCool MyTouch is the standard heater controller of the BlueCool SX-Series and allows for easy operation and configuration of the connected system. The screen is designed as a touch screen. System operation is described in the following.



ATTENTION

Damage to BlueCool MyTouch

The display must not come in contact with any other electrical devices. The electrostatic discharge could cause malfunctions.

Do not use pointed or sharp objects to operate the screen. Do not exert excessive pressure.

NOTE

Webasto recommends operating the screen using your fingers only. The touch sensitivity of the screen is optimized to fingertip contact. The screen may not respond if gloves are worn. Tapping at the very edge of the screen may not be recognized.

3.2 Home screen and symbols

There is a choice of 3 different designs of the Home screen with temperature and fan setting. The functions are the same.

To change the design (in Passenger menu) see chapter 3.4, "Setting level 1 (Passenger menu)" on page 5.

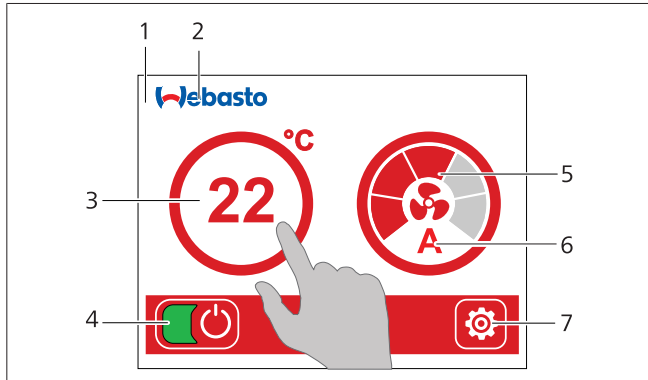


Fig. 1 Design 1

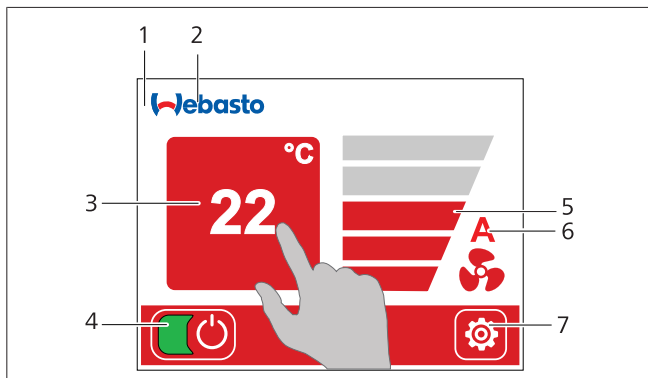


Fig. 2 Design 2

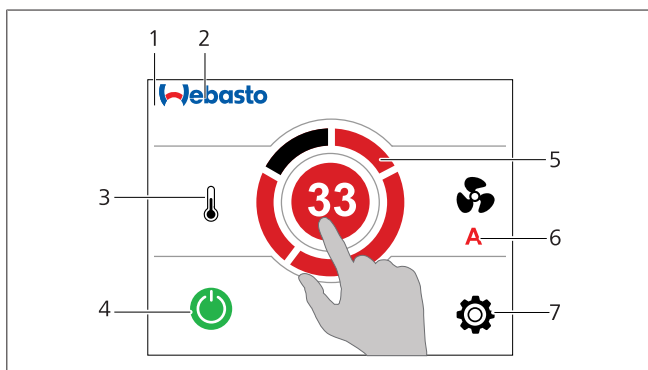


Fig. 3 Design 3

The illustrations show examples of design 1 to 3.

- 1 Home screen
- 2 Select Crew menu (and Parameter menu)
- 3 Temperature setting
- 4 ON/OFF

- 5 Fan display
- 6 Display of automatic air handler control
- 7 Settings (Passenger menu)

The symbols on the Home screen provide information on the system status. The symbols are explained in the table below:

Sym- bol	Meaning
	On/Off
	temperature
	Fan
	Settings
	Crew menu
	Notification
	Increase values
	Decrease values
AUTO	Automatic fan control
	previous
22	Setpoint temperature
	previous
	Forward
	Parameter value
	Select
	Home screen
	Scroll up
	Scroll down
	Keypad
	Display selection

3.2.1 Standby

The screen will go to Standby mode after 5 minutes if the screen remains untouched and will show an idle screen that can be selected in the settings. Tap anywhere on the screen to call up the Home screen.

3.2.2 Notification



The notification icon appears on the bottom status line to draw your attention to the current status of the system. Tap the icon to show the current status.

3.2.3 ON/OFF

When the screen is switched off:

- Tap the screen.
 - The screen switches on.

When the screen is switched on:

- Tap the green  / grey  field
 - The colour of the ON/OFF symbol indicates the operating status of the BlueCool (green = switched on).

3.2.4 Operation

After switching on, the control system starts up the air conditioning system in steps and then assumes normal operation. The control element now shows the current temperature where the temperature sensor of the air conditioning system is installed. Depending on the installation location, this may also be the temperature of another cabin for example.

After approx. 20 seconds, the base colour of the control element changes to indicate the operating mode (cooling or heating) in which the air conditioning system was started. Blue indicates cooling mode, red heating mode. The selection is dependent on the set setpoint temperature and the room temperature measured by the cabin temperature sensor. The system will assume standby mode if the cabin temperature and the setpoint temperature are the same.



NOTE

The system only cools under the following conditions:

Cabin temperature > 15 °C. Setpoint temperature < cabin temperature.






NOTE

The system only heats under the following conditions:

Cabin temperature < 29 °C. Setpoint temperature > cabin temperature.


3.2.5 Setting setpoint temperature

To set the required cabin temperature:


1. Tap on the temperature or  on the Home screen. The setpoint temperature appears to the right.
2. Tap Plus  or Minus  to increase or decrease the setpoint temperature. The Settings menu is automatically exited after 30 seconds and the value last set is adopted.



NOTE




Alternatively:
Save and exit menu immediately:
Tap Previous .

3.2.6 Setting fan speed

To set the required fan speed tap on Fan  on the Home screen.

With automatic fan control mode selected, the symbol **A** appears on the Home screen. The control system of the fan automatically adapts the fan speed.


To manually adapt the fan speed:

1. Tap the Fan symbol (design 1, 2) or .
2. You can now change the displayed fan speed by tapping Plus  or Minus .

Tap **AUTO** when you wish to return to automatic fan mode. The Settings menu is automatically exited after 30 seconds and the value last set is adopted.



NOTE

Alternatively:
Save and exit menu immediately:
Tap Previous .




3.3 System settings

The operating logic is explained based on the Timer function. The explanation also applies to other setting levels or functions.



Fig. 4 Example of system settings

Select setting level 1 (Passenger menu):

1. Tap the  Settings symbol. Setting level 1 (Passenger menu) is displayed.
2. Tap  or  to scroll between the various pages.



3. Tap Timer . The setting window for this function opens up.

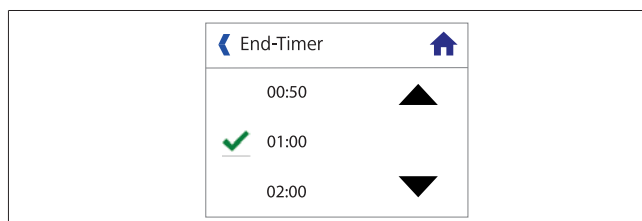







Fig. 5 Timer


4. Tap  to reduce the time interval or tap  to increase the time interval. The  symbol marks the current selection.
5. Tap on the required time to set the time interval.
6. Tap the Previous  symbol to go to the previous level. The selected settings are then adopted.

or:

Tap the Home screen  symbol to return to the Home screen.

The selected settings are then adopted.

3.4 Setting level 1 (Passenger menu)

You can access the passenger menu (setting level 1) by tapping the Settings icon from the home screen .

Setting level 1 (Passenger menu) is displayed. The available functions are:

3.4.1 Timer

Adjust the preset Start or Stop on the air conditioning system.

- With the system already switched on:
The timer acts as a remaining time counter. The air conditioning system switches off automatically after the set time runs down.
- With the system switched off:
The timer acts as a start timer. The system starts up automatically after the set time has elapsed.

It is not possible to program a switch-on and switch-off time at the same time.

3.4.2 Brightness

Adapts the screen brightness to the ambient light levels.

3.4.3 Language

Sets the operating language.

3.4.4 Design

Changes the screen design.

3.4.5 Colour

Adapts the background colour.

3.4.6 Standby

Sets the BlueCool MyTouch display to Standby mode.

In Standby mode, the available functions are:

- **Webasto logo**
 - Shows the Webasto logo.
- **Customer logo**
 - Shows an individual file in .BMP (bitmap) format, that you can load onto the BlueCool MyTouch using the BlueCool Expert tool.
- **Cabin temperature - bright**
 - Shows the current cabin temperature at high brightness levels in areas with bright ambient light.
- **Cabin temperature - dim**
 - Shows the current cabin temperature at low brightness levels in areas with little ambient light.
- **Display off**
 - No display in standby mode.
- **Operating indicator**
 - An illuminated dot indicates that the system is ready for operation.
- **Standby off**
 - The Home screen remains active.

3.4.7 Key tone

Sets whether the control element makes a sound when you touch the screen surface.

3.4.8 °C / °F

Sets the temperature display in degrees Celsius (°C) or degrees Fahrenheit (°F).

3.4.9 Cleaning

Disables the touch screen functions for 30 seconds to enable you to clean the surface without inadvertently changing the settings.

4 Faults

Status / Error message	"Alive" LED	Possible cause	Correction
AAA - Undervoltage	1x flashing, pause	Switch-off in case of undervoltage. Power supply below set undervoltage value for longer than 5 seconds. Cause is probably excessively long cable, overloading or an insufficiently high power generator output.	Check setting (default setting 195 V (230 V) or 97 V (115 V)). Do not set below 195 V (230 V) or 90 V (115 V) to prevent damage to the compressor and subsequently voiding of the warranty. Ensure a better power supply. If necessary retrofit soft starts to lower the start-up current and therefore reduce the voltage drop.
A01 – Low pressure compressor	2x flashing, pause	Compressor shut-down due to low pressure. Pressure switch defective or power circuit interruption/short circuit.	Check electrical wiring. Replace pressure switch on Schrader valve.
		Cooling mode: Air supply insufficient.	Check air supply. Difference between air inlet/air outlet temperature of evaporator at least 4 K.
		HEATING MODE: Sea water flow rate insufficient or sea water too cold (Temperature below 6 °C). Sea water strainer blocked or no intake.	Check the flow rate of the sea water circuit at the sea water outlet. Difference between in/outflow temperature of condensers approx. 5 K. At sea water temperature < 6 °C: no heating possible in reverse heating operation. Clean sea water strainer and bleed sea water circuit.
		Refrigerant shortage	Check whether refrigerant is leaking.
A02 - high pressure compressor	3x flashing, pause	Compressor shut-down due to high pressure. Pressure switch defective or power circuit interruption/short circuit.	Check electrical wiring. Replace pressure switch on Schrader valve.
		Compressor shut-down due to high pressure. Pressure switch defective or power circuit interruption/short circuit.	Check the flow rate of the sea water circuit at the sea water outlet. The minimum flow rates must be complied with. Clean sea water strainer and bleed sea water circuit.
		Heating mode: Air supply insufficient.	Check air supply. Difference between air inlet/air outlet temperature of evaporator at least 4 K. Check sea water flow, set lower setpoint temperature, increase fan speed.
		Heating mode: Sea water temperature too high	Check sea water flow, select a lower setpoint temperature, increase fan speed.
A09 - Cabin temperature sensor	4x flashing, pause	Cabin temperature sensor defective, break/short-circuit in electrical circuit, cabin temperature sensor not connected.	Connect or replace cabin temperature sensor.
A10 - Evaporator temperature sensor	5x flashing, pause	Temperature sensor of evaporator defective or power circuit interruption/short circuit.	Check electrical wiring or replace sensor.
TA11 - Set evaporator temperature exceeded ¹⁾	n/a	Evaporator temperature too low in cooling mode or too high in heating mode	No corrective measures necessary. The compressor switches off and switches on again as soon as the cut-in temperature is reached.

Status / Error message	"Alive" LED	Possible cause	Correction
INIT	6x flashing, pause	Initialisation procedure or system blocked. Electrical wiring defective, interruption in power circuit/short circuit.	Check cables and connections of pc-board and of control element. Replace defective cable, control element or pc-board.
n/a	n/a	No pc-board output. Fuse faulty or break/short-circuit in this electrical circuit.	Repair or replace fuse, rectify break/short-circuit in electrical circuit or replace pc-board.
		Pc-board damaged by high voltage (RT1 blown)	Replace pc-board.
		Electronic relay (TRIAC) defective.	Replace defective TRIAC or defective pc-board.
		Compressor not running. Compressor defective or break/short-circuit in compressor wiring.	Check electrical wiring or replace defective compressor.
		Compressor not running. Compressor overload or overload protection element on top of compressor defective.	Allow to cool down for some time or replace defective overload protection element.
		No or insufficient cooling or heating capacity. Poor air or sea water flow, soiled or circulation blocked.	Secure adequate air or sea water flow (see A01 and/or A02).
		No or insufficient cooling or heating capacity: Refrigerant shortage.	A low refrigerant level is generally indicated by low static pressure before start-up as well as non-fluctuating low pressure in connection with low high pressure reading. Check for refrigerant leaks, repair if necessary and top up required quantity of refrigerant.
		No or insufficient cooling or heating capacity: Oil block.	Leave air-conditioning system running in heating mode. Call out a refrigerant specialist if necessary. Technical datasheet available.
		No or insufficient cooling or heating capacity: Refrigerant circuit blocked. (capillary lines).	Have checked by refrigerant specialist. Technical datasheet available.
No or insufficient cooling or heating capacity: Compressor fault.	Have checked by refrigerant specialist.		
Incorrect cabin/ambient temperature or water temperature displayed. Temperature sensor positioned incorrectly, subject to interference or display values falsified.	Check whether the sensor is subject to direct fault sources such as direct sunlight or devices radiating heat. Calibrate sensor. Replace defective sensor.		

Table 1: Status / Fehlermeldung

1.

**NOTE****Fault code TA11 – Evaporator temperature value exceeded**

This code is a system information and not a fault which must be eliminated. The status indicator will go out automatically on reaching the cut-in temperature.

To request this documentation in another language, please locate and contact your local Webasto dealer. You can find your nearest dealer at: <https://dealerlocator.webasto.com/en-int>.
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