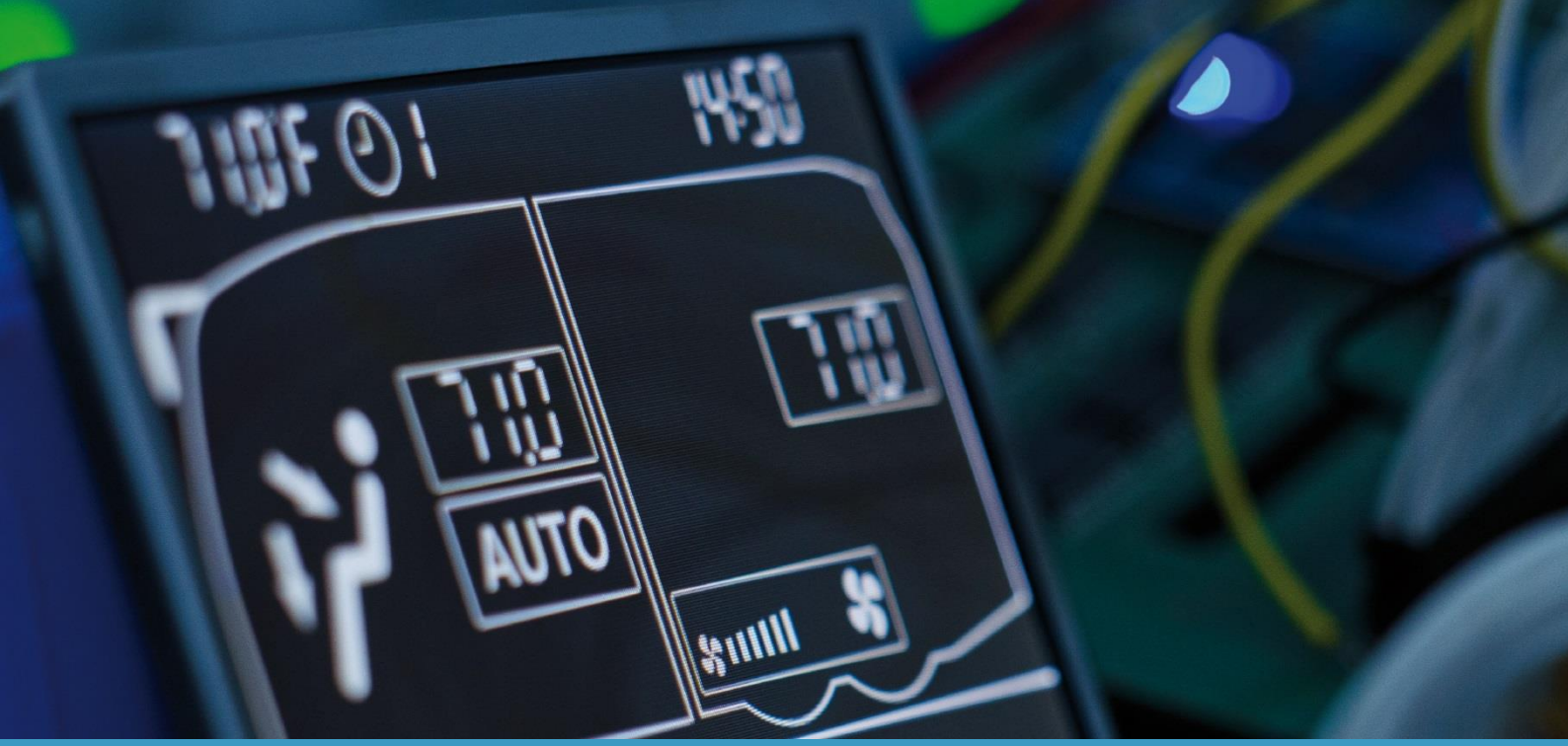

BUS BODY ELECTRONICS

SC600 REVO GLOBAL

Operating Instructions
- Busdriver

Rev. 21.11.2018
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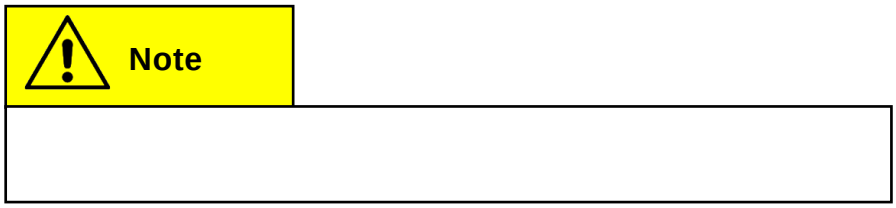
1 Introduction

1.1 Intended purpose

The SC600 is a system for controlling HVAC components (heating, ventilation, air conditioning) in buses as well as rooftop air conditioning units, heaters etc.

It consists of an operating element integrated into the dashboard (control device as human-machine interface) and a rooftop air conditioning unit or floor heating. The rooftop A/C unit, depending on the version, takes over ventilation, cooling and heating functions. In addition, air conditioning components can be controlled completely automatically. In this case, the bus driver only needs to set the desired temperature.

1.2 Symbols used



1.3 Description of the dashboard

The dashboard components are depicted and explained in the following graphic.

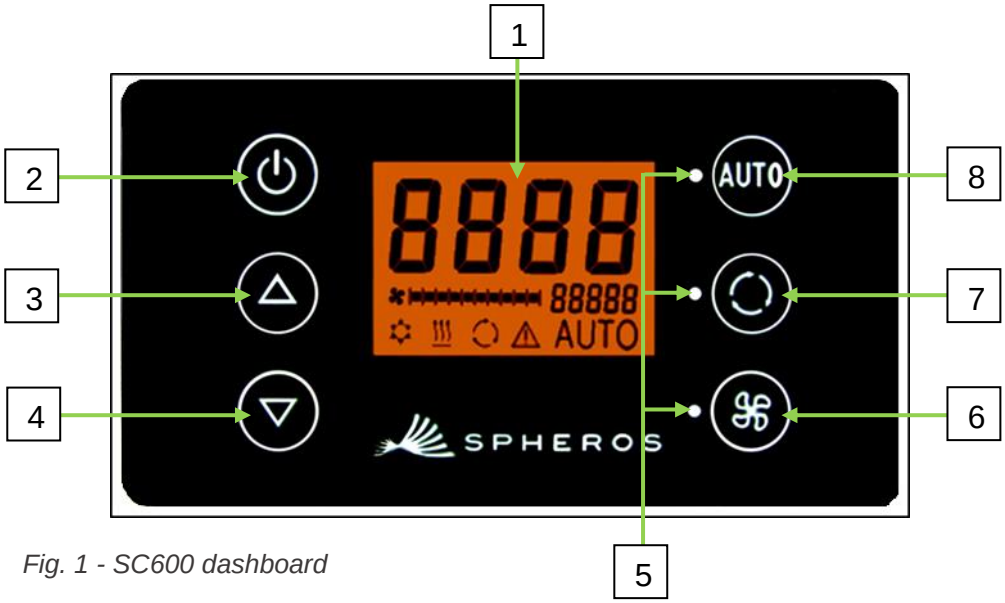


Fig. 1 - SC600 dashboard

1. Display
2. On/off button
3. Scroll UP menu key
4. Scroll DOWN menu key
5. Function status light
6. Blower button
7. Fresh air/circulation air button
8. Auto button

1.4 Description of the display screen

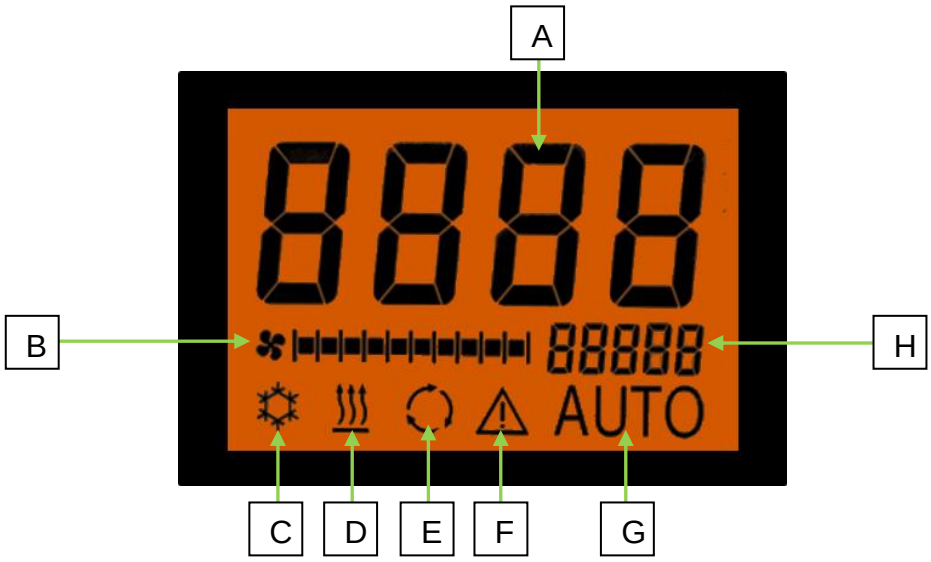


Fig. 2 - SC600 display screen

A. Inside temperature target value
B. Manual blower level
C. Cooling mode
D. Heating mode
E. Circulation air on
F. Fault display
G. Auto mode active
H. Outside temperature

1.5 Overview of modes

The SC600 contains 2 different modes – the operating mode and the fault mode.

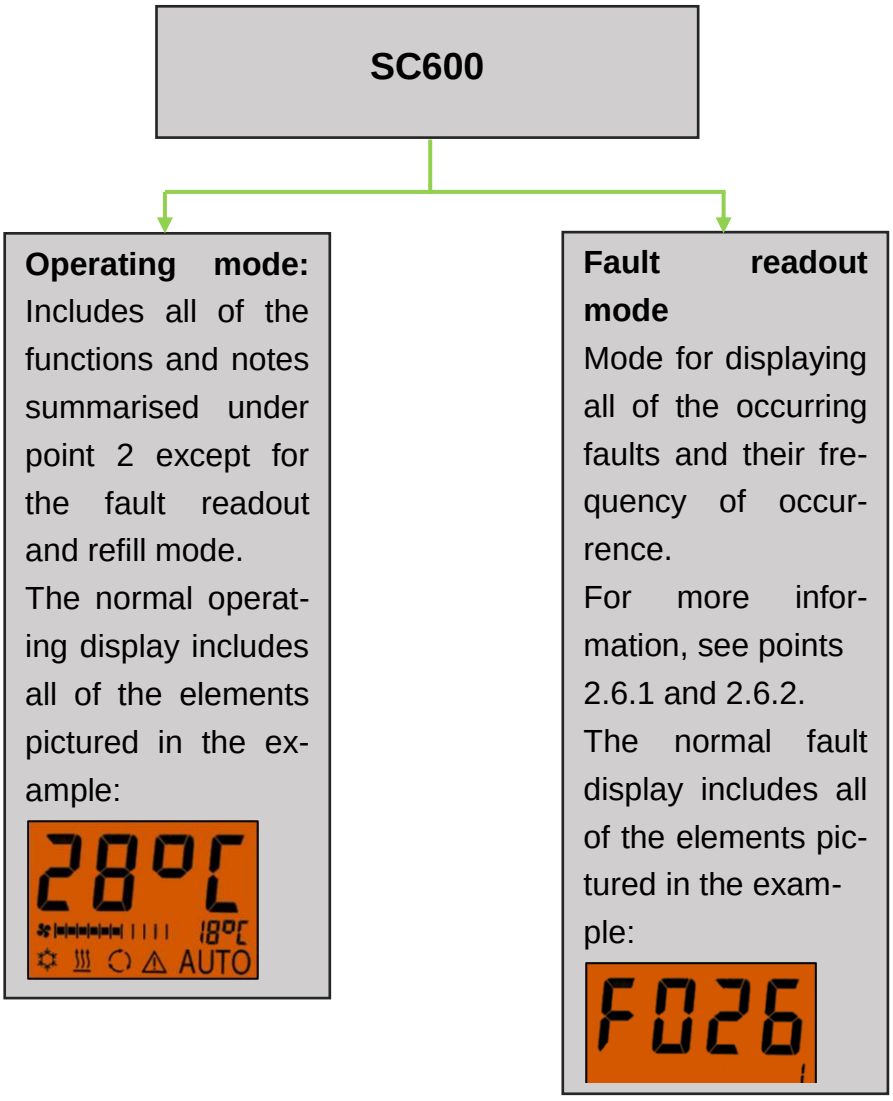


Fig. 3 - SC600 Overview of modes

2 Operation

2.1 Switching on/off

2.1.1 Switching on

Press button

➔ The temperature that was last set is now set; auto mode on (Fig. 4)

Note

Switching on system takes place only when the ignition is switched on.

Fig. 4 - SC600 Start display

2.1.2 Switching off

Press button

➔ System is switched off

Fig. 5 - SC600 auto mode is activated

2.2 Auto mode

2.2.1 Activation

AUTO Press button in deactivated mode

➔ Mode is activated - corresponding status light and function symbol in display light up (Fig. 5)

Note

If the auto mode is activated, the system automatically switches on cooling mode and heating mode as required (Fig. 6 and 7).

Fig. 6 - SC600 auto mode is activated, cooling mode

2.2.2 Deactivation

AUTO Press button in activated auto mode

➔ Mode is deactivated - corresponding status light and function symbol are off (Fig. 8)

Fig. 7 - SC600 auto mode activated, heating mode

Note

When auto mode is deactivated, the A/C compressor and heater will switch off (the former after a max. after-run period of 90 secs).
The blower is automatically adjusted if the blower level is not set automatically.

Fig. 8 - SC600 auto mode deactivated

2.3 Setting the blower manually

2.3.1 Activating the manual adjustment

Press button

➔ Manual operation of the blower is activated - the blower continues running at the current speed.

➔ 3 seconds after the blower level button is pressed, the blower level can be manually adjusted (during this period, the corresponding status light **flashes**).

Fig. 9 - Manually adjusting SC600 blower level

2.3.2 Set blower level

The blower can be set to various levels from 0 (blower speed = 0%) to 10 (blower speed = 100%).

Press button

➔ Blower level +1 (❖ ▮▮▮ ❙❙❙❙❙❙❙❙ → ❖ ▮▮▮▮▮ ❙❙❙❙❙❙).

Press button

➔ Blower level -1 (❖ ▮▮▮▮▮ ❙❙❙❙❙❙❙ → ❖ ▮▮▮ ❙❙❙❙❙❙❙❙).

Note

Adjustment can be made within the permitted limits (e.g., motor off → blower speed max. 25 %)
If the blower is reduced to under 20%, cooling and heating modes are deactivated.

2.4 Fresh air/circulation function

Press button

➔ System switches on fresh air/circulation for 10 minutes (i.e., if the fresh air function is currently active, the system switches to the circulation function and vice versa).

➔ After operating for 10 minutes, the system switches the function that best supports reaching the desired temperature.

➔ Pressing the button again within 10 minutes leads to switching the function and resetting to 10 minutes.

Fig. 10 - SC600 Circulation function activated

Note

If the fresh air flaps are closed, the corresponding status light lights up (Fig. 10).

2.5 Dehumidification

Press button for 2 seconds

➔ Air dehumidification activated (Fig. 11).

Fig. 11 - SC600 dehumidification is activated

2.6 Setting temperature

Press button

➔ Target temperature +1 °C

Press button

➔ Target temperature -1 °C

Note

The temperature can be adjusted in 1 °C steps between 15 °C and 28 °C.

Fig. 12 - adjusting SC600 temperature

2.7 Faults

Note

When active faults are present, the ⚠ function symbol in the display flashes (Fig. 13).
The warning symbol is not displayed for inactive/saved faults. In order to view inactive faults, it is necessary to switch to fault readout mode.

Fig. 13 - SC600 Faults

2.7.1 Fault readout mode

2.7.1.1 Activation

AUTO and Press buttons simultaneously for 2 seconds

➔ Mode is activated; the fault code (in this case F026) and the frequency of occurrence count (in this case 1) will be displayed (Fig. 14).

Fig. 14 - Reading out SC600 faults

2.7.1.2 Reading out faults

➔ When the code is correctly enteredScroll through the fault codes with ▲ or ▼.

➔ Reset the counter value with AUTO (if the counter shows "1" after the value is reset, the fault is still present).

2.7.1.3 Quitting

AUTO Press button for 2 seconds

➔ Standard operating display appears (Fig. 15).

Fig. 15 - Standard SC600 operating display

2.7.2 Fault overview

Fault code	Component	Cause	Remedy
F001	Operating element	➢ Internal fault	➢ Replace ECU
F017	Ice sensor	➢ Sensor defective ➢ Cable harness defective	➢ Examine cable harness ➢ Replace sensor
F018	Duct temperature sensor	➢ Sensor defective ➢ Cable harness defective	
F019	Interior temperature sensor	➢ Sensor defective ➢ Cable harness defective	
F020	Ambient temperature sensor	➢ Sensor defective ➢ Cable harness defective	
F021	Floor temperature sensor	➢ Sensor defective	

Fault code	Component	Cause	Remedy
		➢ Cable harness defective	
F022	Condenser pressure sensor	➢ Sensor defective ➢ Cable harness defective	
F025	High pressure Low pressure	➢ Coolant level too high ➢ Blower blocked ➢ Blower outage ➢ Condenser pressure sensor defective ➢ Coolant level too low ➢ Solenoid valve defective ➢ Pressure switch defective ➢ Expansion valve defective	➢ Examine axial blower ➢ Check coolant filling level ➢ Examine sensors ➢ Check for leaks ➢ Replace solenoid valve ➢ Replace pressure switch ➢ Replace expansion valve
F026	Ice sensor	➢ Icing ➢ Temperature too low	➢ Wait until sensor is thawed out
F033	Configuration fault	➢ Incompatible parameters selected	➢ Change corresponding parameters

Table 1 - REVO GLOVAL fault overview