

Siteco Service Box Gen. 2 Operating Instructions



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I. Information

This manual explains the menu operation and associated functions of the Service Box for configuring Siteco luminaires with a suitable control unit (hereafter named CG) via the Siteco Digital Interface (SDI).

The manual is intended for information purposes for the user. Siteco Beleuchtungstechnik GmbH (hereafter named "Siteco") reserves the right to modify and retract the documentation at any time.

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II. General safety information

Warning

Operation and configuration may only be carried out by trained technical personnel.

Caution! Do not drop the device! Avoid damage to the device! If the device has been dropped or if the housing is damaged please contact a service partner.

Caution! Danger of electric shock! Never open the housing except the battery compartment. The inner contains no parts requiring maintenance (except the batteries). Service or repair work must only be carried out by qualified technicians.

Caution! Danger of fire or electric shock! Avoid any overloading of the power connections or extension cable.

Caution! Danger of fire or electric shock! Never insert foreign bodies into the openings on the housing! The objects may trigger short-circuits.

Caution! Danger of fire or electric shock! If the cable or connection plug of the device is damaged, remove the plug and contact a service partner.

Caution! Danger of fire or electric shock! Make sure the power connection cable is not crushed.

Caution! With development of smoke, noise and/or odours, switch the device off immediately and disconnect it from the power supply. Do not continue to use the device.

Repair work must only be carried out by our service partners.

Information about preconditions for correct operation

Only use the device in areas intended for this. With unintended use, incorrect installation or conversions, the control unit and/or Service Box may be destroyed. The operating authorisation and guarantee claim are then rendered invalid. Only use original Siteco accessories for the Service Box.

Maintenance information

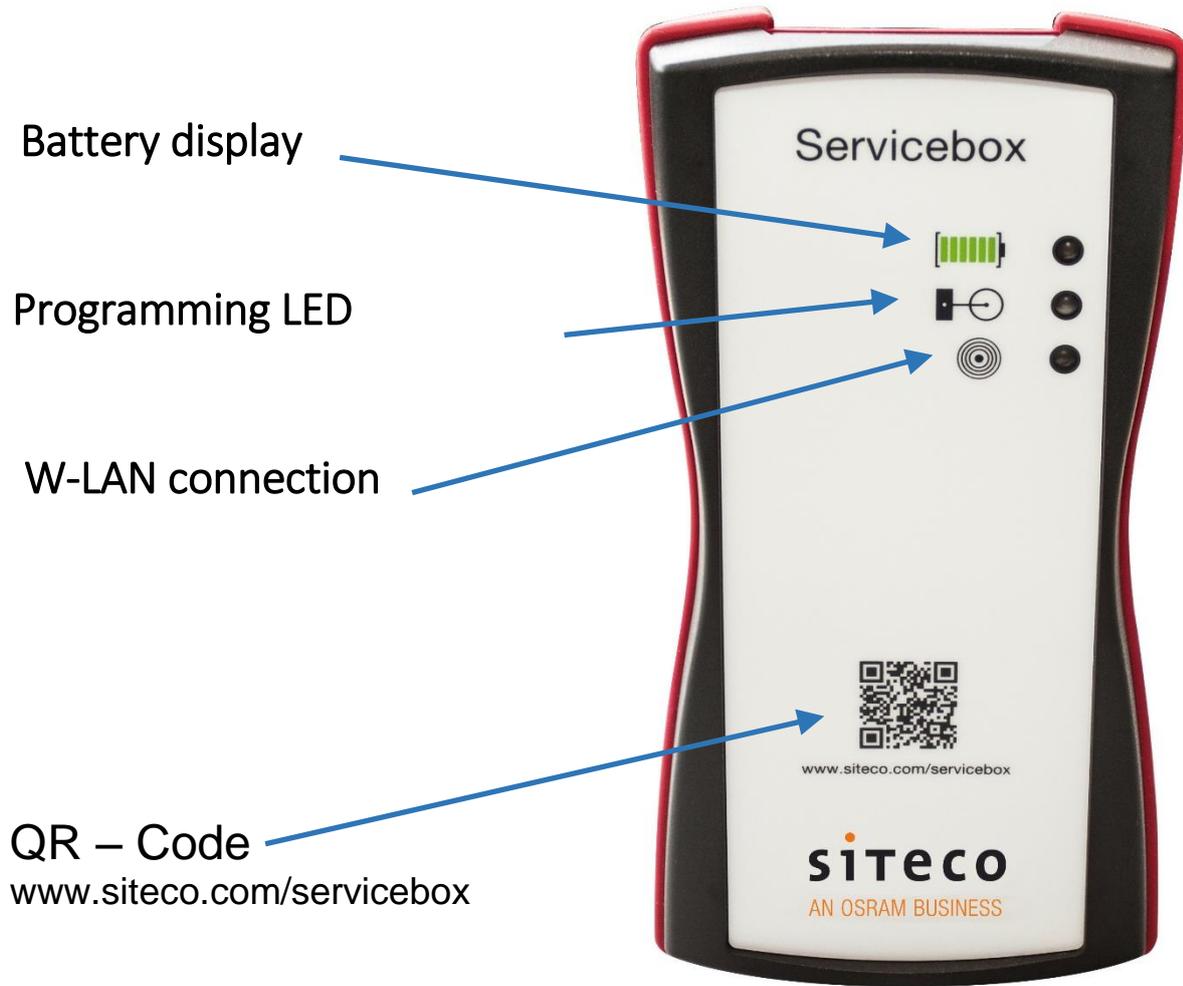
The device requires no maintenance.

For cleaning purposes, use a dry cloth for wiping the device. If necessary, a slightly damp cloth may be used to clean the device with stronger soiling. Avoid any use of strong detergents when cleaning the device.

III. Technical data

Voltage supply	6V DC
Battery	4x AA Mignon
Insulation class	II
Temperature range	0°C - +50°C
Dimensions in mm (L x W x H)	186 x 98 x 43
Protection rating	IP 54

IV. Device description



Connection for Y cable to luminaire and switching on the Service Box



V. Definition of terms

Reduced mode

Reduced mode sets the operating mode of reduced operation or behaviour of the luminaire to a pending or missing reduction signal. The following settings are possible:

Reduction with signal 230V

With pending reduction signal (phase) the luminaire switches to reduced mode.

Reduction with signal 0V

With missing reduction signal (phase) the luminaire switches to reduced mode.

Reduction via time

The luminaire switches to reduced mode via an internal timer signal (see Fig. 1).

The reduction wire is ignored.

Reduction off

The reduction wire is ignored, the luminaire always remains on Power On level.

SDI

Reduction via DALI broadcast signal. This is no complete DALI. Only dimming signals are processed. The luminaire cannot be switched off via DALI.

Reduction times

In this menu, the four times A_{Red1} , A_{Red2} , B_{Red1} and B_{Red2} are defined for the operating mode "Reduction via time". The average nominal burning duration from the last four days is taken as the time basis.

The luminaire determines the burning duration for the first time on the first day after commissioning. The luminaire **does not yet reduce in the first night** due to the missing time basis until then.

In the first three days after initial commissioning the time point at which the luminaire switches over to reduced mode may vary more strongly because the luminaire is still learning its switch-on and switch-off behaviour in this time period.

Time A_{Red 1}

This time defines the reduction time period **before** the nominal time (t_{mid}) of the burning duration of a switch-on period in which the luminaire changes to dimming status reduction value 1 (fig. 1)

Time A_{Red 2}

This time defines the reduction time period **before** the nominal time (t_{mid}) of the burning duration of a switch-on period in which the luminaire changes to dimming status reduction value 2 (fig. 1)

Time B_{Red 1}

This time defines the reduction time period **after** the nominal time (t_{mid}) of the burning duration of a switch-on period in which the luminaire changes to dimming status reduction value 1 (fig. 1)

Time B_{Red 2}

This time defines the reduction time period **after** the nominal time (t_{mid}) of the burning duration of a switch-on period in which the luminaire changes to dimming status reduction value 2 (fig. 1)

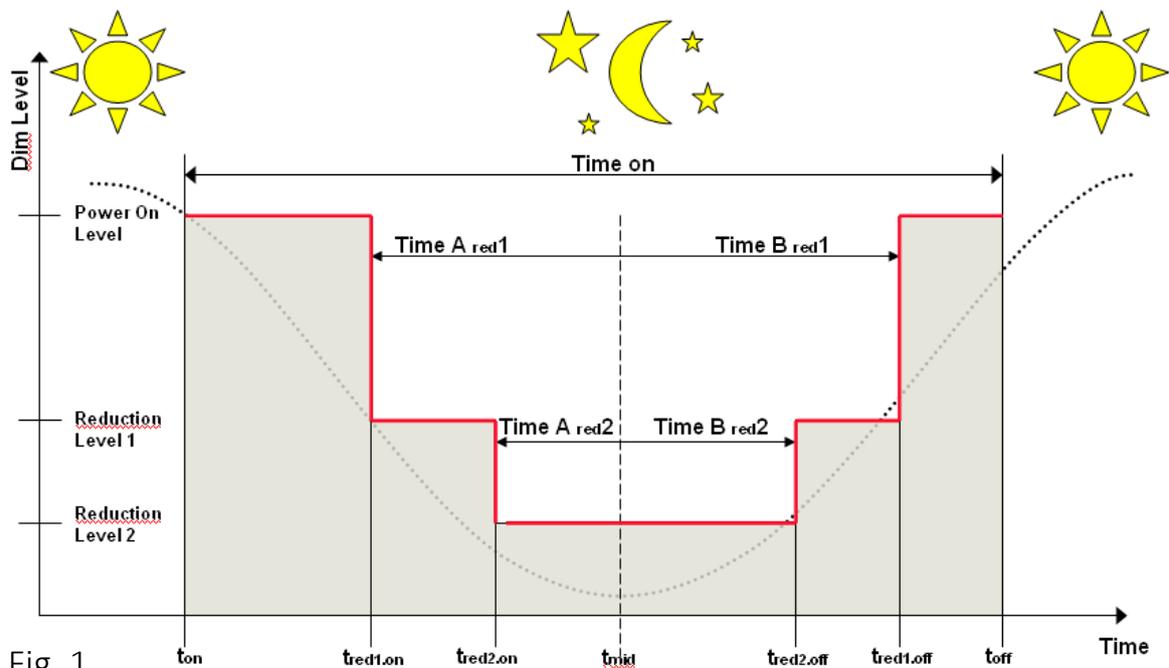


Fig. 1

Activation value

Dimming status of the luminaire in non-reduced mode. According to the operating mode (reduced mode) the luminaire immediately switches to reduction value 1 or reduction value 2 after switch-on.

Reduction value 1

Dimming status of the luminaire in reduced mode.

Reduction value 2

Dimming status of the luminaire in reduced mode. In this position the luminaire can only switch to operating mode "Reduction via internal timer".

Constant luminous flux

Activates the constant luminous flux control

Virtual midnight

Specifies the nominal time of virtual midnight of a yearly cycle.

Write parameter

Transmits the set parameter to the luminaire.

Read parameter

Reads the set parameter from the luminaire.

Continuous programming start

Starts continuous programming. The set values are transmitted continuously to the Service Box.

Continuous programming stop

Stops continuous programming.

SDI

Siteco Digital Interface (standard transmission path)

ECG

Control unit (CG); control device of the luminaire

VI. Software structure (overview)

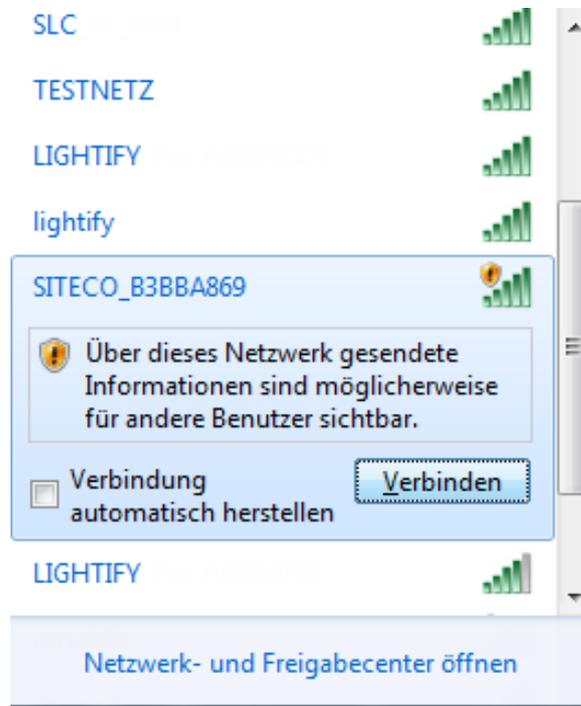


Download link:

<http://www.siteco.com/en/service/downloads/software.html>

1. Connecting/ switching on

Connect the Y-cable to the Service Box. The Service Box now establishes a W-LAN network. The W-LAN network of the Service Box always has the SSID "SITECO_B3xxxxxx". Connect the laptop with this network.



The laptop/computer now establishes a connection with the Service Box – this may take up to half a minute. Wait until your computer is connected with the network. (see fig. 2)

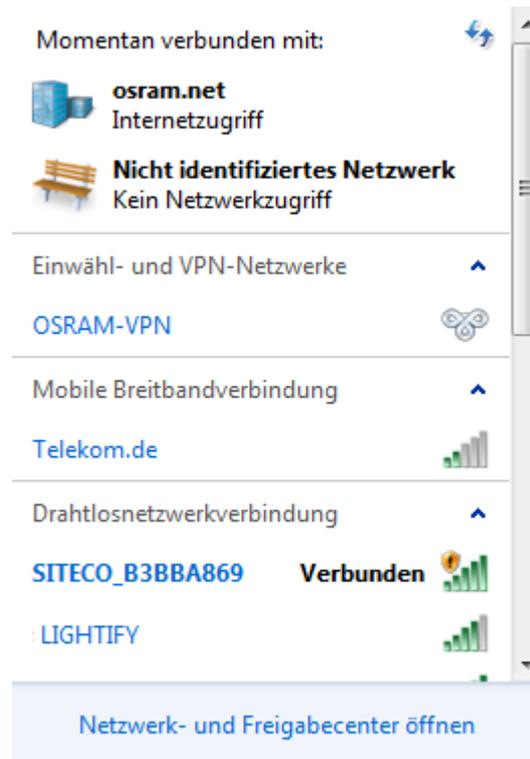


Fig. 2

If hardware errors or software errors are detected, a corresponding message is displayed on the software of the laptop or computer connected with the Service Box. In such cases please contact our support.

Now open the Service Box tool. The program window opens after a short test phase.

Software

The screenshot shows the Siteco software interface for a virtual night simulation. The interface is divided into several sections:

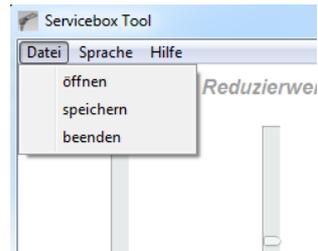
- Menu bar:** Located at the top left, containing 'Datei', 'Sprache', and 'Hilfe'.
- Dimming values:** Three sliders on the left side, labeled 'Einschaltwert', 'Reduzierwert 1', and 'Reduzierwert 2', with numerical values 198, 103, and 51 respectively.
- Reduced mode:** A section with radio buttons for 'Reduzierbetrieb' (selected), 'Reduzierbetrieb aus', 'Reduzierung bei Signal 0V', 'Reduzierung bei Signal 230V', and 'SDI'.
- Reduction times:** Four sliders on the right side, labeled 'Reduzierung 1 Beginn:', 'Reduzierung 1 Ende:', 'Reduzierung 2 Beginn:', and 'Reduzierung 2 Ende:', with time values 20:45, 06:45, 22:45, and 05:00 respectively.
- Overview diagram:** A central graph showing a light level profile over a 24-hour cycle. The y-axis represents light level with markers at 198 (Ein * Wert), 103 (Red. 1), and 51 (Red. 2). The x-axis shows time from 05:00 to 06:45. The diagram shows a constant light level of 198 during the day, a drop to 103 at 20:45, a further drop to 51 at 22:45, and a return to 198 at 05:00. Icons for sun, moon, and stars are used to indicate day and night phases.
- Data transmission:** A panel on the right side with buttons for 'schreibe Parameter', 'lese Parameter', 'Dauerparametrierung Start', and 'Dauerparametrierung Stop'.

Annotations with arrows point to these specific features:

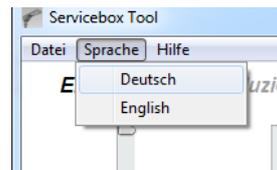
- Menu bar:** Points to the top left menu.
- Dimming values:** Points to the three sliders on the left.
- Reduced mode:** Points to the radio button section.
- Reduction times:** Points to the four sliders on the right.
- Overview diagram:** Points to the central graph.
- Data transmission:** Points to the control panel on the right.

1. Menu bar

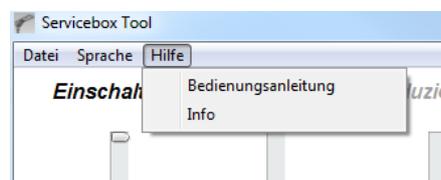
- a. **File**
Use the file tab to call up saved parameters, to save parameters or terminate the program.



- b. **Language**
This tab enables selection of the English or German language.



- c. **Help**
The help tab enables access to the operating instructions in German and English, and provides information about the current software.

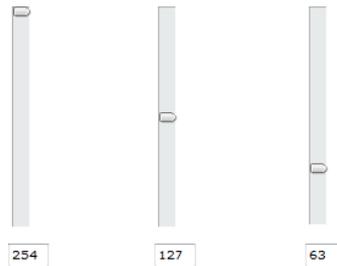


Basic settings

2. Settings for white

Use the three sliders to set the specific reduction values. The values currently saved in the luminaire are automatically displayed after the luminaire is read out. (see 6.a)

Einschaltwert Reduzierwert 1 Reduzierwert 2



- a. Activation value:
Activation value white
- b. Reduction value 1:
Reduction value 1 white
- c. Reduction value 2:
Reduction value 2 white

3. Reduced mode

The desired reduced mode for the luminaire is set in this area. The values currently saved in the luminaire are automatically displayed after the luminaire is read out. (see 6.a)

Reduzierbetrieb

- Reduzierbetrieb aus
- Reduzierung bei Signal 0V
- Reduzierung bei Signal 230V
- Reduzierung durch int. Timer
- SDI

- a. No reduced mode:
After switching on, the luminaire always switches to the predefined activation value
- b. Reduction with signal 0V:
With an 0V signal on the LST terminal the luminaire switches to reduction value 1

- c. Reduction with signal 230V:
With a 230V signal on the LST terminal night-time reduction signal the luminaire switches to reduction value 1
- d. Reduction via internal timer:
The luminaire switches to reduced mode via an internal timer signal (see Fig. 3).
The timer signal of the ECG calculates a virtual midnight from the switch-on and switch-off times of the last four nights. This enables two dimming levels to be configured on the ECG. The reduction wire is ignored.
- e. SDI:
Reduction via DALI broadcast signal on the SDI connection

4. Time settings

Use the sliders to set the two reduction times A_{Red1} and B_{Red2} in the "Reduction via time" mode. During these time periods the luminaire changes over to reduction value 1. The values currently saved in the luminaire are automatically displayed after the luminaire is read out. (see 6.a)

The times can be set in 5 minute steps from 5 min. to 8 hr. 30 mins.



- a. Reduction 1 start:
Start of reduction (see fig. 3)
- b. Reduction 1 end:
End of reduction (see fig. 3)

Use the sliders to set the two reduction times A_{Red1} and B_{Red2} in the "Reduction via time" mode. During these time periods the luminaire changes over to reduction value 1. The values currently saved in the luminaire are automatically displayed after the luminaire is read out. (see 6.a)

The times can be set in 5 minute steps from 5 min. to 8 hr. 30 mins.

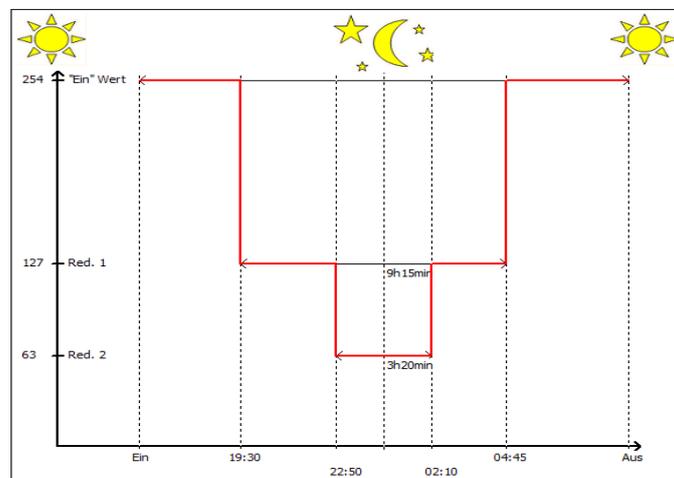


Fig. 4

- c. Reduction 1 start:
Start of reduction (see fig. 4)
- d. Reduction 1 end:
End of reduction (see fig. 4)

5. Overview diagram

The diagram shows the set values in the software. The values currently saved in the luminaire are automatically displayed after the luminaire is read out. (see 6.a)



6. Data transmission

In this area the desired settings can be transferred to the luminaire or read out again, and several luminaires configured with continuous programming.



- a. Read parameter:
After pressing the "Read parameter" button, all parameters of the ECG are read out and displayed by the software.

- b. Write parameter:
After pressing the "Write parameter" button, all modified settings are written to the luminaire. The programming LED of the Service Box lights up during this process and then flashes three times after completion. The unit connected to the Service Box outputs an acoustic and visual signal.

- c. Continuous configuration start
Pressing the "Continuous configuration start" button starts the continuous programming. The software then sends a continuous query to the luminaire connected to the Service Box.

If a luminaire is detected this is automatically programmed. During the configuration the programming LED continuously lights up. (Fig. 5)

After completion, the programming LED flashes three times. The laptop or computer also outputs an acoustic signal and the screen displays the message "Configuration successful". (Fig. 6)

If the Service Box is not connected with another luminaire after completion an error message is displayed.

If continuous configuration was set and the Service Box does not detect a luminaire for 600s, the condition is automatically terminated.

- d. Continuous configuration stop
Continuous configuration is terminated by pressing Continuous configuration stop.

During continuous programming the Y-cable must not be removed – this would disconnect the W-LAN connection.



Fig. 5



Fig. 6

7. Release Note

Release	Description	Author	Date
0	Preliminary	M. Miesgang CNT APP	24/05/2016
1	Revision	M. Miesgang CNT APP	26/06/2016
2	First Release	M. Miesgang CNT APP	05/07/2016

Subject to errors and modifications.

8. Notes



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