Assembly and operating instructions for Bluetooth Connector S-BC Nr. 1430

The Votronic Bluetooth Connector S-BC serves as an interface between solar controller, battery computer and smartphone or tablet, allowing you to easily monitor the leisure batteries and solar power systems in motorhomes, caravans, boats and other vehicles.

Please read these installation and operating instructions and the safety instructions thoroughly, before you start installation

Main features:

- Solar and battery information via a common communication module
- Compact design and minimal power consumption
- Easy installation (plug & play)
- Can be retrofitted at any time
- Connection via Bluetooth 4.0
- Range up to 50m outdoors
- Free Votronic Energy Monitor App (Android and iOS)

This product requires the use of the **Votronic Energy Monitor** app for Android or iOS which is available free of charge on Google Play Store or iOS App Store.

http://energymonitor.votronic.de

GET IT ON Google Play

Download on the App Store

The Bluetooth Connector S-BC is compatible with the following devices:

- VOTRONIC solar charge controller in SR and MPP technology from 2013 (serial no. 13Vxx.xxxxx)
- VOTRONIC LCD battery computer S with smart shunt (all versions)
- VOTRONIC VPC Jupiter with Smart-Shunt (all versions)
- VOTRONIC Battery Charger, type VBCS Triple

Function

The Bluetooth Connector S-BC records data from a Votronic solar controller (from 2013) and / or a Votronic Smart-Shunt (e.g. LCD battery computer S) in its internal memory and provides this and the current status of the Votronic Energy Monitor app via Bluetooth. In this way, all information from the on-board battery, such as voltage, charge and discharge currents and state of charge, as well as all data of the solar power system can be monitored using a smartphone or tablet. You can even output the data as a CSV file for analysis purposes. The usual LCD displays (e.g. LCD Solar Computer S) can still be used.

Assembly and connection:

The Bluetooth Connector S-BC has two independent connection circuits to show the performance of the solar power installation and/or the leisure battery.

When a solar regulator is connected, the display of the 1250 LCD-Solar-Computer S or the VPC Jupiter control panel will show the information concerning the solar power system. To display information about the leisure battery, it's necessary to use a Votronic Smart Shunt. This can either be the one that comes with the Battery Computer or with a Jupiter control panel. The LCD displays of both units can still be used, even when the Bluetooth app is in use.

The Bluetooth Connector can also be connected to a Votronic VBCS Triple charger if a separate solar regulator is not being used.

After connection, the Bluetooth connector S-BC must receive a signal from the solar regulator to recognize it as "Attached". If there is no solar power available from the panel, the solar regulator will be in an "idle state" and will not provide any information: this is to save power.
As soon as the solar charge controller is active, it is recognized by the Bluetooth Connector S-BC and information is stored in the Votronic Energy Monitor App.

Installation

The connection of the Bluetooth Connector S-BC is very easy. The cables included with the unit are connected to the Votronic solar regulator or VBCS Triple Charger and/or to the Smart Shunt or VBCS Triple Charger.
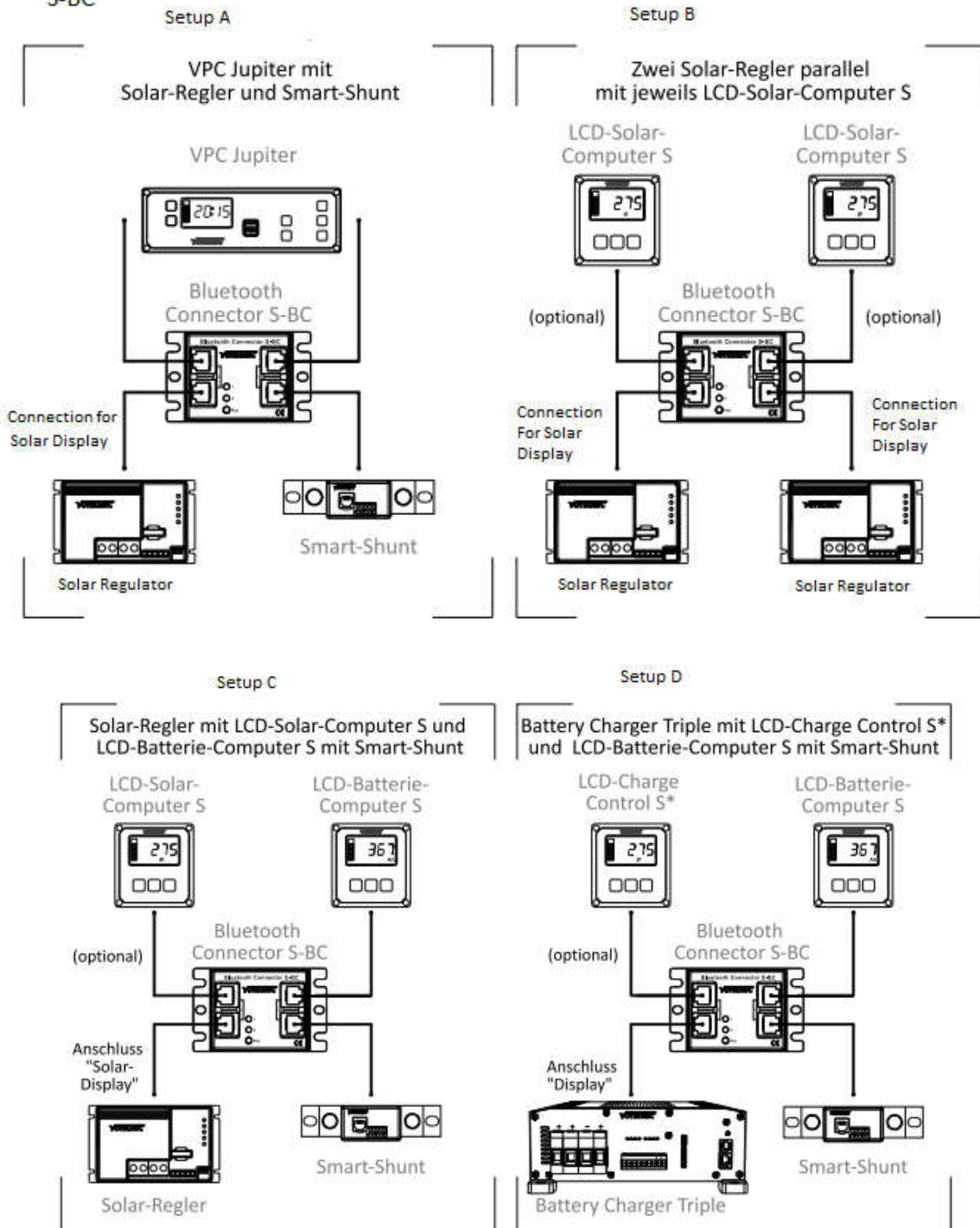
In the case of the solar controller, the display unit is optional and not necessary for the operation of the Bluetooth connector.
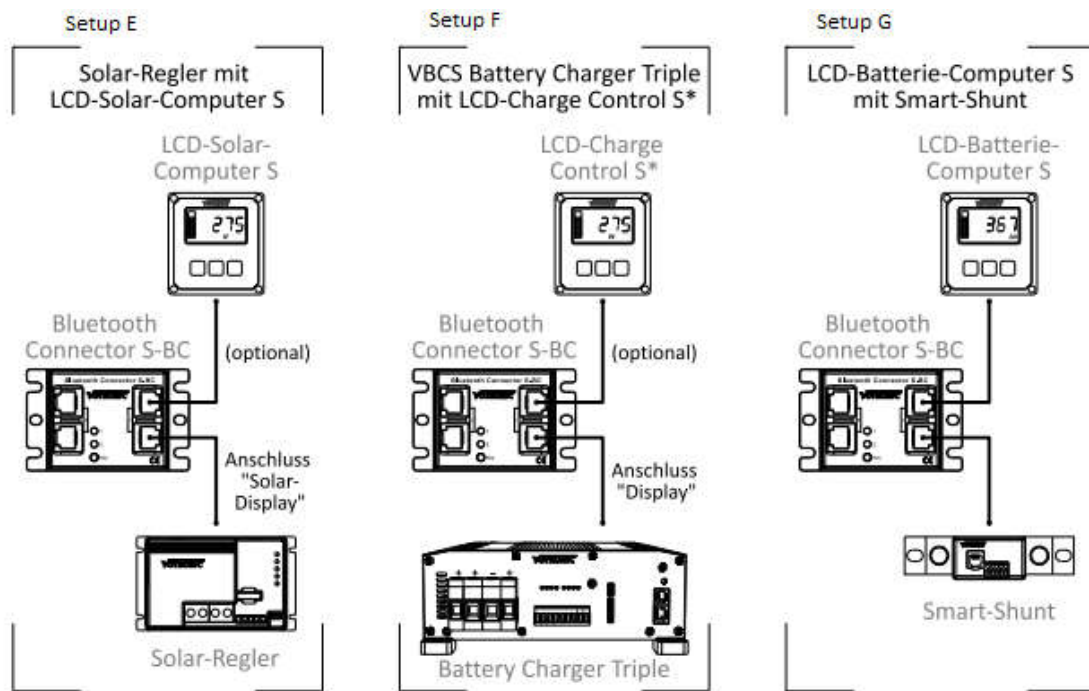
If only one Votronic device is to be connected to the Bluetooth Connector S-BC, this is always connected to the first (right-hand) connection.

The diagrams on the following pages show the possible combinations of units that are compatible with the Bluetooth Connector S-BC.

A) Jupiter control panel / Smart Shunt + solar regulator.
B) 2 x solar regulators connected in parallel.
C) Solar regulator with Solar Computer + Battery Computer / Smart Shunt. Note that the use of the display supplied with the Solar Computer is optional. The display supplied with the Battery Computer must be connected even if it's not used.
D) VBCS Triple Charger + Charge Control + Battery Computer / Smart Shunt.
E) Solar regulator + Solar Computer. The Solar Computer display is optional.
F) VBCS Triple Charger + Charge Control.
G) Battery Computer / Smart Shunt.

The following are possible connection combinations with the Bluetooth Connector S-BC

Setup A

VPC Jupiter mit
Solar-Regler und Smart-Shunt

VPC Jupiter

Bluetooth
Connector S-BC

Connection for
Solar Display

Solar Regulator

Smart-Shunt

Setup B

Zwei Solar-Regler parallel
mit jeweils LCD-Solar-Computer S

LCD-Solar-
Computer S

LCD-Solar-
Computer S

(optional)

Bluetooth
Connector S-BC

(optional)

Connection
For Solar
Display

Connection
For Solar
Display

Solar Regulator

Solar Regulator

Setup C

Solar-Regler mit LCD-Solar-Computer S und
LCD-Batterie-Computer S mit Smart-Shunt

LCD-Solar-
Computer S

LCD-Batterie-
Computer S

(optional)

Bluetooth
Connector S-BC

Anschluss
"Solar-
Display"

Smart-Shunt

Solar-Regler

Setup D

Battery Charger Triple mit LCD-Charge Control S*
und LCD-Batterie-Computer S mit Smart-Shunt

LCD-Charge
Control S*

LCD-Batterie-
Computer S

(optional)

Bluetooth
Connector S-BC

Anschluss
"Display"

Smart-Shunt

Battery Charger Triple

Setup E

Solar-Regler mit
LCD-Solar-Computer S

Setup F

VBCS Battery Charger Triple
mit LCD-Charge Control S*

Setup G

LCD-Batterie-Computer S
mit Smart-Shunt

LCD-Solar-
Computer S

LCD-Charge
Control S*

LCD-Batterie-
Computer S

Bluetooth
Connector S-BC (optional)

Bluetooth
Connector S-BC (optional)

Bluetooth
Connector S-BC

Anschluss
"Solar-
Display"

Anschluss
"Display"

Smart-Shunt

Solar-Regler

Battery Charger Triple

Security

For security reasons, a smartphone / tablet with the Votronic Energy Monitor app will need to be Paired with the Bluetooth Connector S-BC before you can access the live information and recorded data log.

Up to ten devices can be paired to the Bluetooth Connector S-BC but with each subsequent pairing, the oldest paired device is overwritten.

Up to four simultaneous connections are possible on a Bluetooth Connector S-BC.

If the batteries are disconnected or completely discharged the Bluetooth Connector loses all recorded data. However, the Bluetooth pairing data is retained.

Pairing to a Device

To pair a smartphone / tablet with the Bluetooth Connector

Press the Key button briefly once. The two LEDs will then flash alternately for about 3 minutes. During this time run the app on the desired Device to pair the tablet/phone with the Bluetooth Connector.

The six-digit PIN for this device is 173928 and it must be entered when pairing devices. If paired successfully the LEDs stop flashing alternately and both LEDs will brief light up.

This process must be repeated to pair to another device.

Failed Pairing

Pairing can only be achieved within the 3-minute window after pressing the Key button (LEDs flash alternately). You can delete all previous pairings by holding down the Key button for 3 seconds, this will give you a series of flashing LEDs to indicate this has been done. Indication of communication between the Bluetooth SB-C and a paired device is a brief flashing LED.

Action	Blinking Pattern	Number of Repetitions
Device connected	Gelbe LED / Grüne LED	2x
Device Paired	Gelbe LED / Grüne LED	1x
Pairing failed	Gelbe LED / Grüne LED	3x
All Pairings Deleted	Gelbe LED / Grüne LED	5x
Device in Pairing mode	Gelbe LED / Grüne LED	Max. 3 Min.