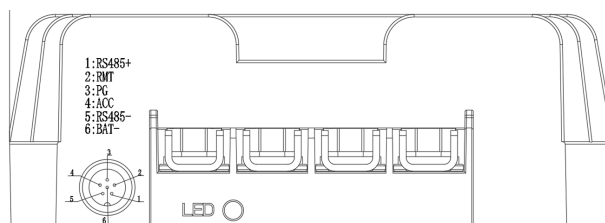


WG-BC900M Windows Operation Manual

British English edition | Duplicate bilingual text and screenshots consolidated

1 Hardware and application

To connect a WG-BC900M series product to a host computer over RS485, use a Windows computer and a USB-to-RS485 serial converter. The converter and wiring are shown below.



USB-to-RS485 converter (left); charger signal connector and pin numbering (right).

Signal cable: translated colour key

Pin	Wire colour	Signal
1	Red	RS485+
2	Green	RMT
3	Orange	PG
4	Yellow	ACC
5	Black	RS485-
6	White	BAT-

Application

Use the WG-BC900M-Windows.exe application. The supplied desktop icon is labelled WG-BC900M Window V1.02.



Application icon supplied in the source manual.

2 Detailed operating instructions

2.1 Prepare the connection

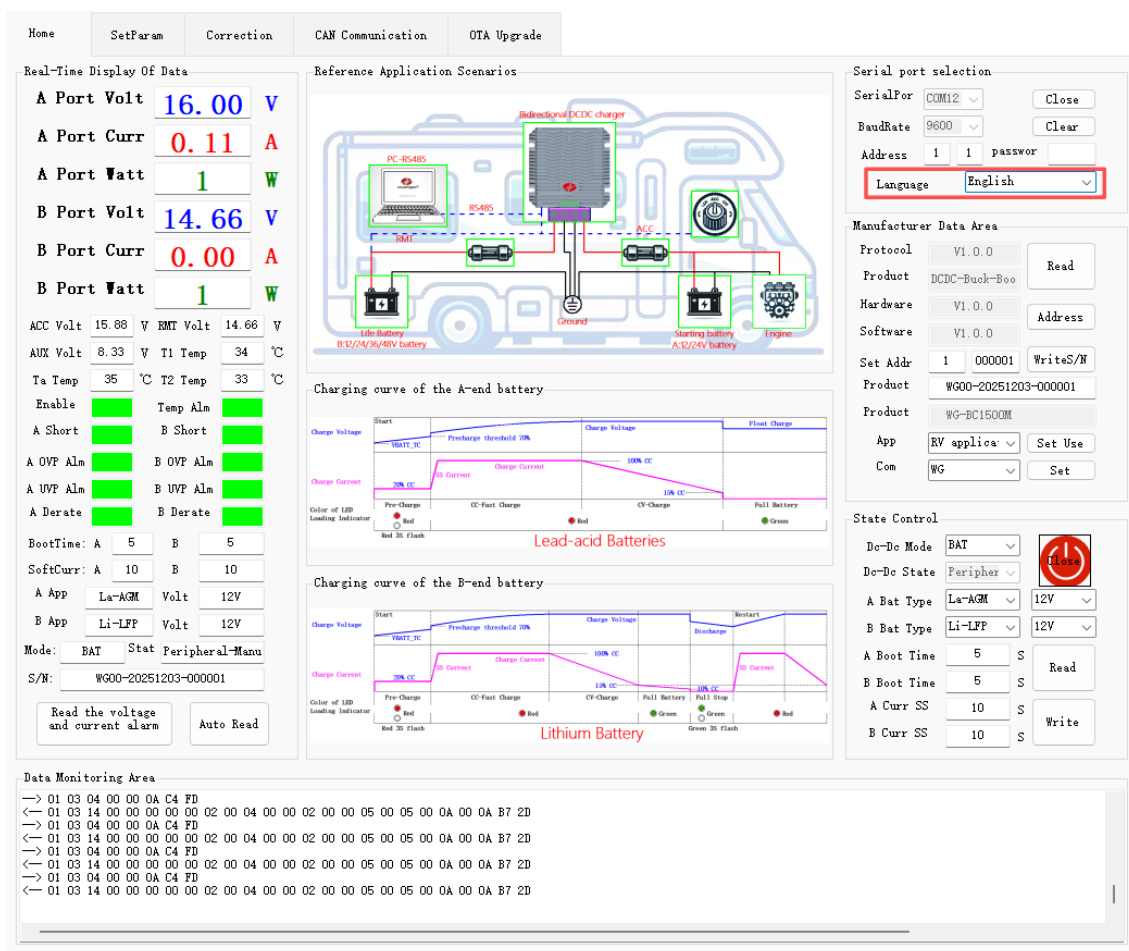
Insert the USB-to-RS485 converter into the computer's USB port. Windows normally installs the driver automatically. If it does not, install the driver supplied for your converter. In Device Manager, locate the converter under Ports (COM & LPT) and note its COM port.

Device Manager: port identification
Ports (COM & LPT)
Silicon Labs CP210x USB to UART Bridge (COM11)

The Device Manager screenshot shows COM11, whereas the application examples use COM12. Select the port actually assigned to your converter.

2.2 Launch the application and open the serial port

1. Run WG-BC900M-Windows.exe.
2. Select English from the Language list.
3. Select the USB-to-RS485 serial port (COM12 in the example; ports are detected automatically).
4. Select a baud rate of 9600.
5. Click the button to open the serial port.



The screenshot displays the WG-BC900M Windows application interface. The top navigation bar includes tabs: Home, SetParam, Correction, CAN Communication, and OTA Upgrade. The main interface is divided into several sections:

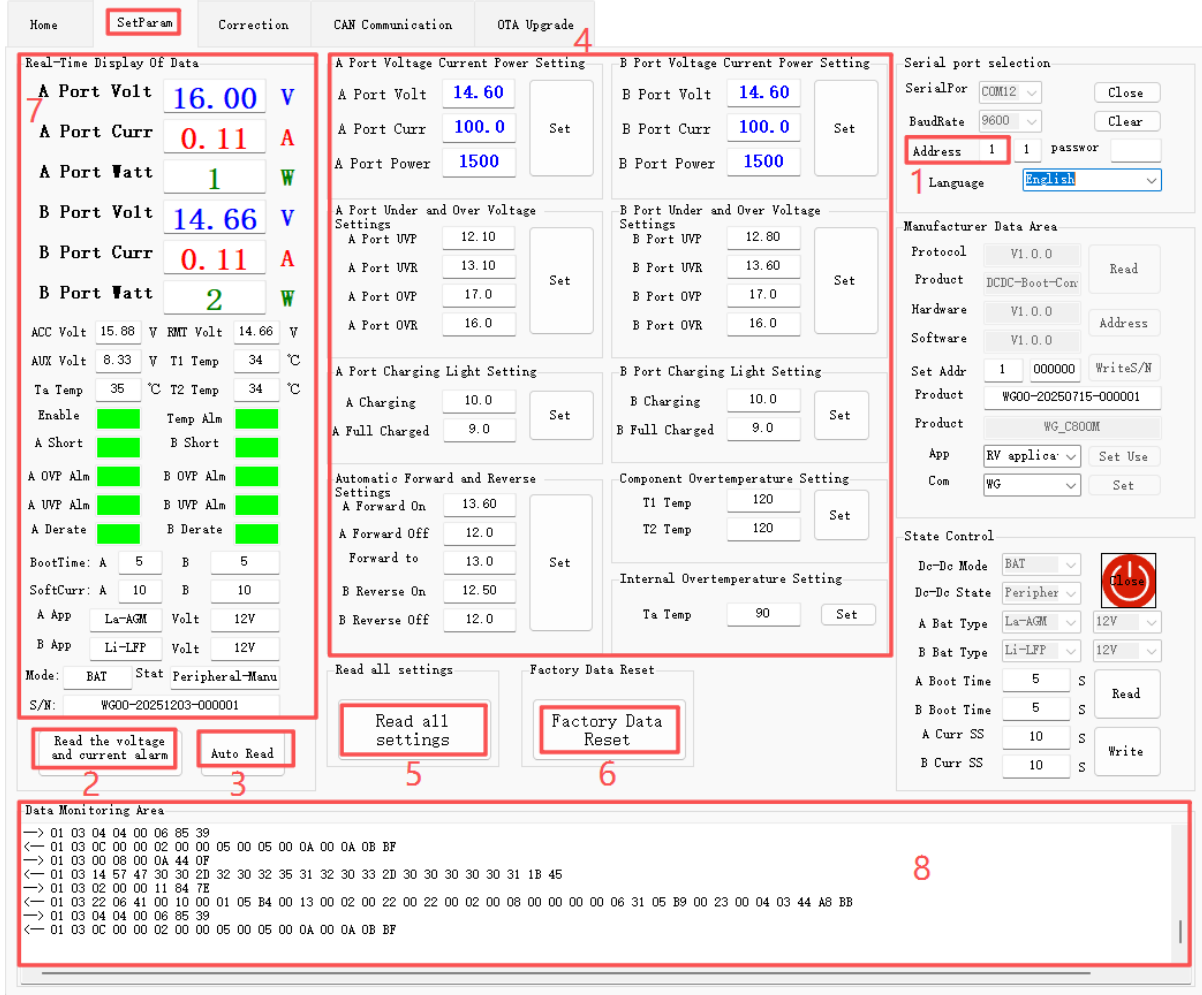
- Real-Time Display Of Data:** Shows various voltage and current readings for two ports (A and B), including ACC Volt, AUX Volt, Ta Temp, and T2 Temp. It also displays alarm status for A Short, B Short, A OVP Alm, B OVP Alm, A UVP Alm, B UVP Alm, A Derate, and B Derate. BootTime and SoftCurr are also shown.
- Reference Application Scenarios:** Contains two diagrams. The top diagram shows a vehicle system with a PC-RS485, RS485, Bidirectional DCDC charger, A/C, and a Starting battery. The bottom diagram shows a charging curve for the A-end battery (Lead-acid Batteries) and the B-end battery (Lithium Battery).
- Serial port selection:** A dialog box with fields for SerialPort (COM12), BaudRate (9600), Address (1), and Password (1). A Language dropdown is set to English. Buttons for Close, Clear, and a red power button are present.
- Manufacturer Data Area:** Displays protocol (V1.0.0), product (DCDC-Buck-Boo), hardware (V1.0.0), software (V1.0.0), set address (1), and product ID (WG00-20251203-000001). Buttons for Read, Address, WriteS/N, and Set are available.
- State Control:** Includes dropdowns for Do-Do Mode (BAT), Do-Do State (Peripheral), A Bat Type (La-AGM), B Bat Type (Li-LFP), A Boot Time (5s), B Boot Time (5s), A Curr SS (10s), and B Curr SS (10s). Buttons for Read and Write are present.
- Data Monitoring Area:** Displays a list of data points with their corresponding values and units.

English interface. The Language control is highlighted; SerialPort and BaudRate are directly above it. The screenshot shows Close because the port is already open.

2 Detailed operating instructions (continued)

2.3 Read data and configure parameters

The numbers below correspond to the numbered areas in the screenshot.



The screenshot shows the 'SetParam' tab of the WG-BC900M Windows Operation Manual. The interface is divided into several sections:

- Real-Time Display Of Data** (Callout 7): Displays real-time data for A and B ports, including Volt, Curr, and Watt. It also shows ACC Volt, AUX Volt, Ta Temp, T2 Temp, and various alarm status indicators (Enable, A Short, B Short, A OVP Alm, B OVP Alm, A UVP Alm, B UVP Alm, A Derate, B Derate). BootTime and SoftCurr are also displayed.
- A Port Voltage Current Power Setting** (Callout 4): Displays settings for A Port Volt (14.60 V), A Port Curr (100.0 A), and A Port Power (1500 W). It also includes settings for A Port Under and Over Voltage, A Port Charging Light Setting, and Automatic Forward and Reverse Settings.
- B Port Voltage Current Power Setting** (Callout 4): Displays settings for B Port Volt (14.60 V), B Port Curr (100.0 A), and B Port Power (1500 W). It also includes settings for B Port Under and Over Voltage, B Port Charging Light Setting, and Component Overtemperature Setting.
- Serial port selection** (Callout 1): Displays SerialPort (COM12), BaudRate (9600), Address (1), and Language (English).
- Manufacturer Data Area**: Displays Protocol (V1.0.0), Product (DCDC-Boot-Con), Hardware (V1.0.0), Software (V1.0.0), Set Addr (1), Product (WG00-20250715-000001), and App (RV applica).
- State Control**: Displays Do-De Mode (BAT), Do-De State (Peripher), A Bat Type (La-AGM), B Bat Type (Li-LFP), A Boot Time (5), B Boot Time (5), A Curr SS (10), and B Curr SS (10).
- Data Monitoring Area** (Callout 8): Displays a list of data points and their corresponding values.

Numbered callouts are placed on the screenshot to indicate specific areas of interest:

- 1: Address field in Serial port selection.
- 2: Read all voltages, currents, temperatures and module faults/warnings button.
- 3: Auto Read button.
- 4: A Port Voltage Current Power Setting and B Port Voltage Current Power Setting sections.
- 5: Read all settings button.
- 6: Factory Data Reset button.
- 7: Real-Time Display Of Data section.
- 8: Data Monitoring Area.

Parameter page with the source's numbered callouts retained.

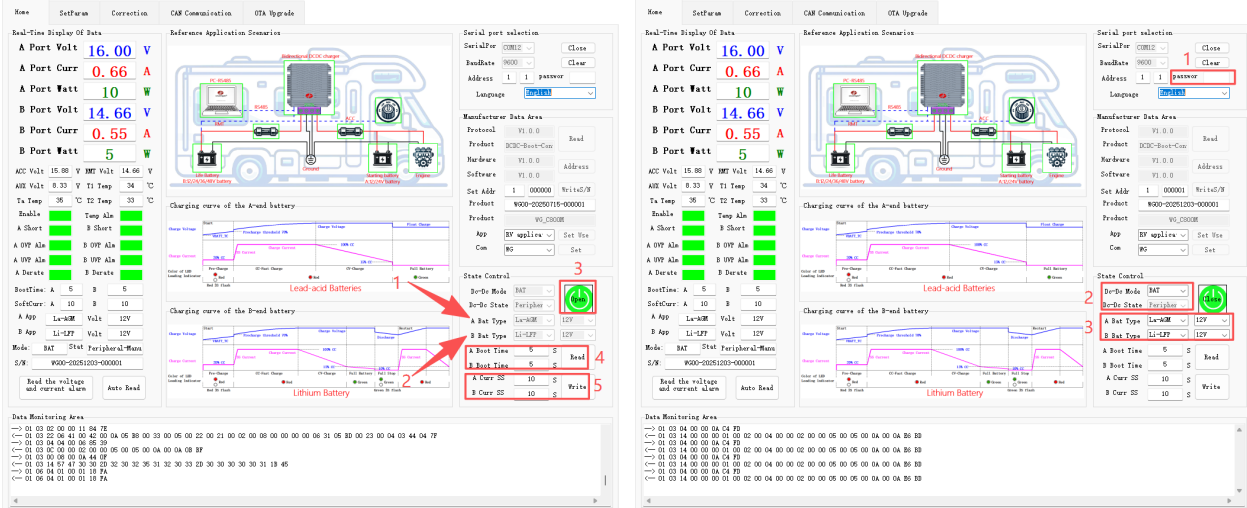
1. Confirm that the module address is 1 (the default).
2. Read all voltages, currents, temperatures and module faults/warnings.
3. Read voltages, currents, temperatures, faults/warnings, control status and serial number automatically.
4. Set all parameters for terminals A and B.
5. Read all current parameter settings.
6. Restore factory settings.
7. View live operating data, control status and serial number.
8. View transmitted and received data.

2 Detailed operating instructions (continued)

2.4 Charging curves, power control and timing

1. View the charging curve for battery A.
2. View the charging curve for battery B. Different battery types have different charging curves.
3. Use the remote on/off button: red indicates on; green indicates off.
4. Set the start-up delay. The source describes A as forward and B as reverse.
5. Set the charging-current soft-start time. The source again describes A as forward and B as reverse.

Cross-document conflict: both protocol maps describe A-side output timing as reverse and B-side output timing as forward. The manual's direction wording is retained here but is not confirmed.



Left: charging curves and timing controls. Right: password, operating mode and battery selection.

2.5 Control modes and battery types

1. Changing the control mode requires a password and is intended for technically qualified users.
2. Set the operating mode and operating state.
3. Select the battery type and its charging curve, and choose the battery pack's nominal voltage: 12 V, 16 V, 24 V, 36 V, 48 V, etc.

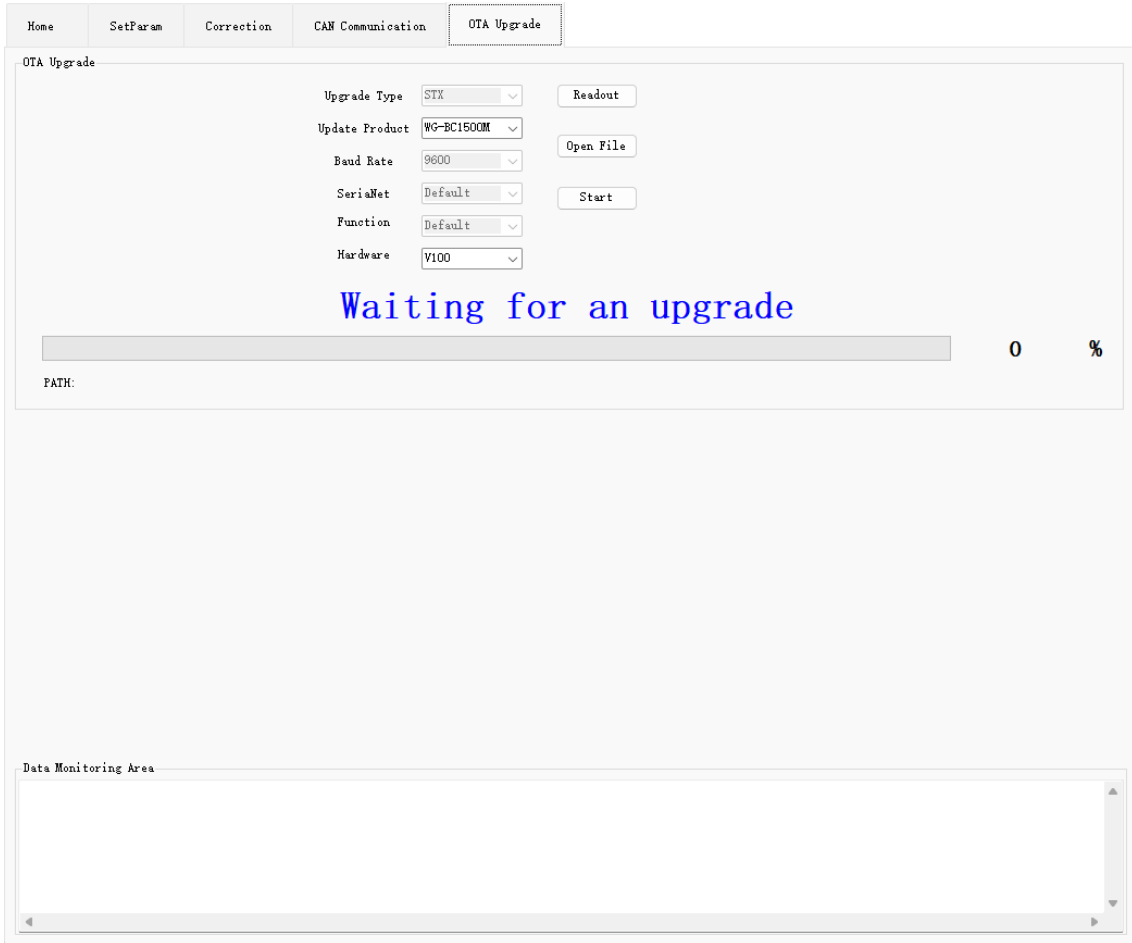
Cross-document evidence from the English Home screen

The screenshot on source page 2 shows BAT with register 0x0402 = 0x0002, A battery La-AGM / 12 V with 0x0404 = 0x0000, and B battery Li-LFP / 12 V with 0x0405 = 0x0200. The displayed response CRC checks correctly. The parameter-page screenshot on source page 3 also shows 0x0208 = 2 with BAT displayed; its CRC checks correctly. This supports Battery = 2 for both power-mode registers and battery chemistry in the upper byte. See Appendix A of the companion protocol for the full comparison.

2 Detailed operating instructions (continued)

2.6 OTA upgrade

The product provides software communication functions for further development and integration into power systems. It also supports OTA remote upgrades, as shown below.



OTA Upgrade page. Controls include Upgrade Type, Update Product, Baud Rate, SerialNet, Function, Hardware, Readout, Open File and Start. The source screenshot shows WG-BC1500M in Update Product.

Notes supplied by the manufacturer

WG-BC900M-Windows.exe provides access to all custom functions in this series. Successfully applied settings are retained when power is removed.

Custom configuration is intended for technically qualified users. Users without the required technical knowledge should not change the settings. Permanent damage to the charging module caused by improper operation is excluded from the product warranty.

The application is continually updated, and supported products may differ. Contact customer service with any questions. Wengao Electronics reserves the final right of interpretation.