

STERLING BB1260-12

Sterling BB1260-12 Volt, 60 Amps - Pro Batt Ultra Battery to Battery Charger User Manual

Model: BB1260-12 | Brand: STERLING

1. INTRODUCTION AND OVERVIEW

The Sterling BB1260-12 Pro Batt Ultra Battery to Battery Charger is designed to efficiently charge your auxiliary battery bank while driving. This DC-powered smart charger is ideal for vehicles such as campers, boats, or vans, providing a significantly faster charge rate compared to a standalone alternator. It intelligently calculates the charging needs of the house bank and ensures optimal charging without risking the discharge of your starter battery.

The unit features a 4-stage battery charging process and offers 9 preset output charge profiles, with the option for a user-customizable profile to suit specific battery types and requirements.

2. KEY FEATURES

- **Advanced 4-Stage Charging:** Charges batteries 5-20 times faster than a standard alternator.
- **OEM Lock Function:** Allows the installer to lock the unit's settings, preventing tampering and misuse.
- **Automatic Regenerative Braking Friendly:** The default mode does not require an ignition feed to operate.
- **No Starter Battery Discharge Risk:** Current is not drawn from the input battery to the output battery, except during the low voltage timer for regenerative braking mode.
- **Versatile Battery Profiles:** Includes 9 preset output charge profiles and a user-customizable option.

3. SAFETY INFORMATION

WARNING: This product may contain materials cautioned by California Proposition 65. Always ensure proper ventilation and follow all local electrical codes during installation and operation.

Always disconnect power before making or breaking any electrical connections. Ensure all wiring is correctly sized for the current draw and properly fused. Do not expose the unit to water or excessive moisture.

4. INSTALLATION

The BB1260-12 charger is designed for simple connection between a starting battery and a house bank. It is crucial to ensure proper wiring and adequate ventilation for optimal performance and longevity.

Basic Connection:

1. Connect the input terminals of the BB1260-12 to your vehicle's starting battery.
2. Connect the output terminals to your auxiliary (house) battery bank.
3. Ensure all connections are secure and properly insulated.
4. Install the included temperature sensor (if applicable) on the house battery for accurate charging.



Figure 4.1: View of the Sterling BB1260-12 charger showing the input/output terminals and the overall robust casing.



Figure 5.1: Front view of the Sterling BB1260-12 charger, displaying the control panel with 'SETUP', 'ENTER', 'SELECT' buttons and the 'Preset Battery Options' table.



Figure 5.2: Angled view of the Sterling BB1260-12 charger, showing the top control panel with battery charge progress LEDs and configuration buttons.

Preset Battery Options:

The charger comes with 9 preset output charge profiles. These settings are designed to provide optimal charging for various battery chemistries. You can also set your own custom profile.

Table 5.1: Preset Battery Options (12V)

Options	Charge Volts	Boost Max (Mins)	Float Volts	Boost Max (Mins)
1) GEL I	14.10	120	13.70	480
2) AGM I	14.40	120	13.70	480
3) Sealed	14.40	120	13.70	480
4) GEL II	14.20	120	13.70	480
5) AGM II	14.60	120	13.70	480
6) Open	14.80	120	13.70	480
7) De-sulfation	15.50	30	13.80	240
8) LiFePO4	14.20	120	13.50	480
9) Custom	User Defined	User Defined	User Defined	User Defined

Note: These settings are to be used as a guide. Always refer to your battery manufacturer's specifications for precise charging requirements. Incorrect settings can damage batteries.

Configuration Steps:

1. Press the 'SETUP' button to enter configuration mode.
2. Use the 'SELECT' button to cycle through the available battery profiles.
3. Press 'ENTER' to confirm your selection.
4. For custom profiles, follow the on-screen prompts to set specific voltage and time parameters.

6. OPERATION

Once installed and configured, the BB1260-12 operates automatically. When your vehicle's alternator is running, the smart charger will begin charging the auxiliary battery bank. It will transition to float voltage once the battery is full, preventing overcharging.

The unit is designed to be 'Automatic Regenerative Braking Friendly', meaning it can operate effectively in modern vehicles with regenerative braking systems without requiring a separate ignition feed in its default mode.

7. MAINTENANCE

The Sterling BB1260-12 is designed for durability and requires minimal maintenance. To ensure optimal performance and longevity:

- Keep the unit clean and free from dust and debris.
- Periodically inspect all wiring connections to ensure they are secure and free from corrosion.
- Ensure the unit has adequate ventilation to prevent overheating. The unit features thermal power reduction to manage heat.
- The unit is housed in a 100% safe plastic box, providing robust protection.

8. TROUBLESHOOTING

If you encounter issues with your BB1260-12 charger, consider the following:

- **Inconsistent Charging:** Ensure all connections are tight and clean. Verify that the input voltage from the starter battery is sufficient (above 13.3V for automatic mode). If using an ignition feed, confirm the ignition signal is present.
- **Unit Beeping:** Refer to the LED status indicators on the unit. A beeping sound often indicates a warning or fault condition. Consult the detailed diagram for specific LED patterns and their meanings.
- **Fan Running Continuously:** The fan operates to cool the unit. If it runs for extended periods after the vehicle is off, check for proper ventilation around the unit. Ensure the unit is not in an excessively hot environment.
- **No Output/Charging:** Verify that the input battery is charged and providing sufficient voltage. Check all fuses in the charging circuit. Ensure the correct battery profile is selected for your auxiliary battery.
- **Starter Battery Drain:** The BB1260-12 is designed to prevent starter battery discharge. If this occurs, immediately check wiring for incorrect connections or short circuits. The unit should only draw current from the input battery during the low voltage timer for regenerative braking mode.

Battery to Battery Chargers 12V | 24V | 36V | 48V Non Waterproof (Drip Proof IP21)

20A-70A Input Models
(larger units overleaf)

Euro 6+ friendly

Sterling's range of Battery to Battery Chargers (B2Bs) has grown significantly over the past few years. Offering a product range in this market unsurpassed by anyone in both power and flexibility. This is in an effort to supplement the ever growing demand from the commercial vehicle, recreational vehicle and marine industries. The B2Bs have become extremely popular as they fast charge batteries as you cruise along without the need for complex wiring, touching your alternator, voiding the alternator's warranty and tampering with the electronic control units (ECUs). You can provide the onboard batteries with a fast 4 stage charging profile with a very simple and speedy installation. All of the benefits of advanced charging without any of the drawbacks. Simply connect the B2B between the battery being charged and the battery you wish to charge.

Read about regenerative braking and the test that Sterling did. **Page 15.**



3 activation modes:

1) Automatic - Default, operates on input voltage (13.3V / 26.6V on) and complements regenerative braking with low voltage timer. No ignition feed required.

2) Ignition feed with timer. As above, however, requires a live ignition feed to operate. Input voltage figures and timings, as above.

3) Ignition feed without timer. As above, however, the timer does not kick in, so it can potentially stay on indefinitely provided input voltage stays above a certain low threshold.

The default mode, which is **Automatic Regenerative Braking Friendly**, does not require an ignition feed to operate. It works on input voltage and timing algorithms (These values can be customised on the unit). This is ideal for most setups as ignition feeds are getting increasingly hard to find on modern vehicles, this new unit is therefore simple to install.

Very simple to install. No Electronic Control Unit (ECU) issues. No complex wiring. No Warranty issues. Fully prepared for smart alternators (**Regenerative braking**). 95% off installations are simply out of the box with no setup.

4 stage battery charging. The B2B charges batteries between 5-20 times faster than a stand alone alternator.

OEM lock: the unit can be locked by the installer to prevent tampering and misuse of the product by the operators. By locking the BB, you secure all previous settings in place and prevent subsequent tampering.

9 preset battery chemistry options including AGM, LiFePO₄, Gel, flooded and sealed lead acid.

Customizable profile - choose your own charging profile on the front panel.

B2B turns on at 13.6V and turns off at 13.3V (x2 for 24V). Thus, does not drain input battery. **Regenerative braking mode** shall allow the input voltage to drop to 12.2V (x2 for 24V).

Boost / Reduce Charging. The B2Bs ensure batteries get the correct charging profile irrespective of high or low input voltages.

Output charging at **12V, 24V, 36V and 48V.** Input voltages at **12V and 24V. Up to 800W rating.** Much larger model up to 3000W coming soon.

No risk of starter battery discharge. Current is **NOT** taken from the input battery and given to the output battery except during the low voltage timer for regenerative braking mode. This time frame can be increased in length or brought down to 0 seconds.

Safety features:

- 100% fire proof plastic box
- no screws to corrode
- thermal power reduction
- multi stage fan cooling

Dynamic thermal charging, the charging voltage fluctuates based on the temperature of the sensor (included ->).



1 x temperature sensor (TSAY) included in all units.

Unit is current limiting, prevents large current flow and requires less cable thickness. Adjustable current limit. The current limit can be reduced to 50%.

Night time setting allows the unit to run at 1/2 power so the fan noise is kept down.

Remote Control (Optional)

Displays: Voltage / Warnings / Temperatures. Can be used as an independent voltmeter measuring input battery voltage and output battery voltage.

Can remotely modify the Batt. the Batt. Charger:

- Force the unit to float
- Force the unit to 1/2 current limit
- Force the unit to standby
- Force the unit off
- Force the unit to Night Mode
- Reset both Remote and Charger

54mm diameter

E marked.
Suitable for
OEM fitting.



DC V (in)	DC V (out)	Current (A)	Weight (Kg)	L x W x D mm	Code
12V	12V	30A input	1.2	190 x 160 x 50	BB1230
12V	12V	60A input	1.4	190 x 160 x 70	BB1260
12V	24V	70A input	1.4	190 x 160 x 70	BB122470
12V	36V	70A input	1.4	190 x 160 x 70	BB123670
12V	48V	70A input	1.4	190 x 160 x 70	BB124870
24V	24V	35A input	1.4	190 x 160 x 70	BB242435
24V	12V	35A input	1.4	190 x 160 x 70	BB241235

Remote w/ 10m cable

BBURC

German, French, Spanish main label overlay sticker



BLUE EFFICIENCY

® Trademark of
Mercedes Benz

BLUEMOTION

® Trademark of
Volkswagen

eco

® Trademark of
Vauxhall / Opel

Econetic

® Trademark of
Ford

Figure 8.1: Detailed diagram from the Sterling BB1260-12 manual, illustrating activation modes, safety features, charging characteristics, and a comprehensive specification table.

9. SPECIFICATIONS

Table 9.1: General Product Specifications

Specification	Value
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Specification	Value
Product Dimensions	4.5 x 8 x 8 inches (4.5"D x 8"W x 8"H)
Item Weight	1 pounds
Output Voltage	12 Volts (DC)
Color	Red, White
Manufacturer	Sterling Power
Date First Available	March 6, 2018

Table 9.2: Model Specific Output Specifications

DC In (V)	DC Out (A)	Weight (Kg)	L*W*H Dims	Code	
12V	30A input	1.2	190 x 160 x 50	BB1230	
12V	60A input	1.4	190 x 160 x 70	BB1260	
12V	70A input	1.4	190 x 160 x 70	BB1270	
12V	36V	70A input	1.4	190 x 160 x 70	BB123670
12V	48V	70A input	1.4	190 x 160 x 70	BB124870
24V	24V	35A input	1.4	190 x 160 x 70	BB242435
24V	12V	35A input	1.4	190 x 160 x 70	BB241235
Remote w/ 10m cable				BBURC	

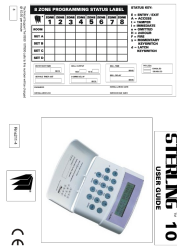
10. WARRANTY AND SUPPORT

For warranty information and technical support, please contact Sterling Power directly. Details can typically be found on their official website or through the retailer where the product was purchased. Please note that any extended protection plans offered by retailers (e.g., 2-Year or 3-Year Protection Plans) are separate from the manufacturer's warranty and are managed by the respective plan providers.



[Sterling Battery to Battery Chargers: Non-Waterproof \(Drip Proof IP21\)](#)

Information on Sterling's range of Battery to Battery Chargers (B2Bs), designed for commercial vehicles, recreational vehicles, and marine industries. Details features like 4-stage charging, activation modes, safety features, and compatibility with smart alternators and regenerative braking systems.



[Sterling 10 User Guide - Security Alarm System](#)

Comprehensive user guide for the Sterling 10 alarm system, covering operation, user functions, system tests, and troubleshooting.



[Sterling Harmony H224 Audio Interface Owner's Manual](#)

Comprehensive owner's manual for the Sterling Harmony H224 USB Audio Interface, detailing its features, connections, setup, software installation for macOS and Windows, technical specifications, and warranty information.



[Sterling KOM-PAK Hydronic Perimeter Baseboard Radiation: Features, Specs, and Ratings](#)

Detailed information on Sterling KOM-PAK Hydronic Perimeter Baseboard Radiation, including design, installation, quiet operation, superior performance, technical specifications, ratings, and dimensions. Learn about efficient hydronic heating solutions.



[Sterling VERSA-LINE JVB-SS Double Slope Installation Instructions](#)

Comprehensive installation guide for Sterling VERSA-LINE JVB-SS Double Slope commercial finned tube radiation systems. Learn proper mounting, assembly, and maintenance procedures.



[DURA-VANE II Commercial Finned Tube Radiation Installation Instructions](#)

Comprehensive installation guide for the Sterling DURA-VANE II Commercial Finned Tube Radiation (models JDVA/JDVB 07). Covers backplate mounting, element and enclosure installation, accessory fitting, and essential maintenance procedures. Includes a detailed description of the general layout and components.

