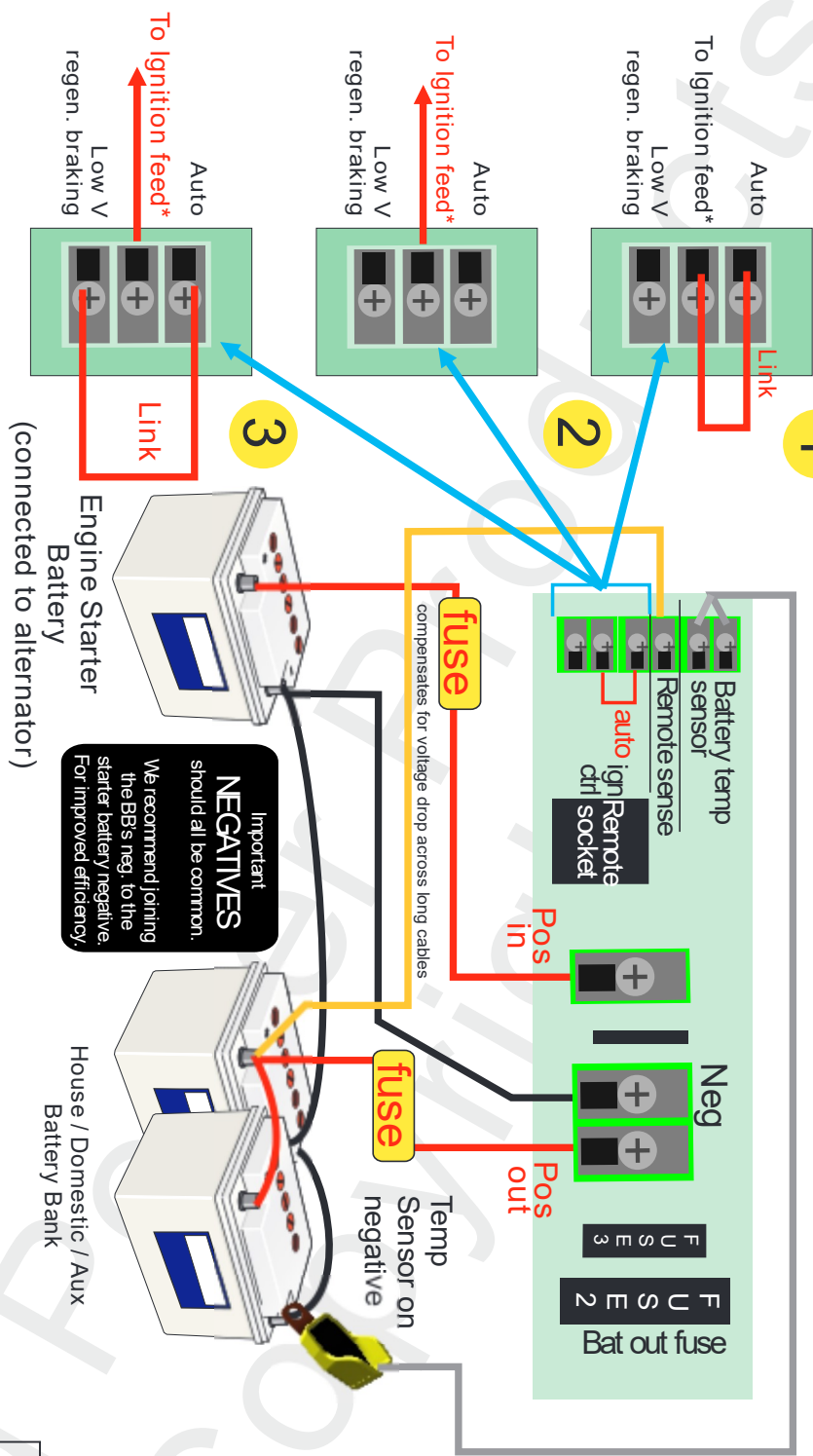


Quick Installation

Unit will work on default setting if temperature sensor not fitted



Operational Modes

1

Automatic Activation
Unit on when input voltage above 13.6V (input), off below 13.3V (input). If input voltage is 13.6V - 19.0V the regen. braking timer begins. This triggers the 120 second timer which starts when the input voltage drops to between 12.0V-13.3V. The timer and voltages can be adjusted. This allows it to be used with smart alternators/ Regen. Braking.

2

Ignition Feed w/ regen. timer.
Same as operation mode 1. The only addition is that an ignition signal is required. If you have 13.6V+ on the input terminal with no live ignition feed then the charger is in standby and not charging.

3

Ignition Feed w/o timer
Requires live signal to activate/deactivate. Suitable for smart alternator / regen. braking mode. No low voltage timers. low voltage cut off is 11.5V (x2 for 24V). Be wary of battery when leaving the ignition on in this mode.

Quick Installation

6

Quick Guide to the buttons on the front panel. Refer to Pages 8 - 11 for in depth procedure

SELECT

Press Length (seconds)	Action
<0.5	Change to status fault display.
2+	Night mode = 1/2 power for 8 hours. Repeat to revert back.
5+	Enter standby mode. Unit will sleep when input voltage drops below the set threshold. When voltage rises again, the unit resumes standby.
10+	Display software version
15+	SVEM* Stationary Vehicle Engage Mode

SVEM* Stationary Vehicle Engage Mode

Pro Batt Ultra starts charging when input is >13.1V. Turns off when input is <13.0V.

Temperature sensor battery temp sensor

Not obligatory to connect. If you wish to install, connect the temp sensor to the negative of the domestic / aux. batteries.

When temp sensor senses the temperature lower than 20Deg C the voltage shall go up on the charger's output and when the temperature is higher than 20Deg C the voltage.

Sensor shall trip the charger if the temperature of battery >55DegC

To operate the Pro Batt Ultra refer to page 7 (next page) for instructions.

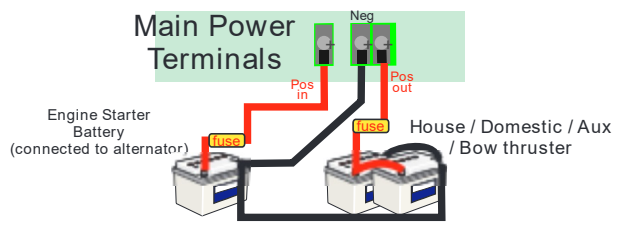
SETUP / ENTER + SELECT BUTTONS	
Press Length (seconds)	Action
2+	Force unit to float. On/off toggle.
5+	Turn unit on / off toggle.
10+	Battery type select.
20+	Change Operational on/off voltages
30+	Reset unit to default.

SETUP / ENTER	
Press Length (seconds)	Action
<0.5	Change to Voltage display mode.
5+	Toggle between 1/2 and 1/1 (full) power.
10+	Set Auto Regen. time set.
15+	Toggle Power Supply mode (provides live output voltage)

STERLING POWER

Basic Operation / Installation

Fit in a cool dry well ventilated space. Should be installed by a competent person, conforming with the laws of the country. Connect positive cables (in red) to the terminal block, as shown below. Similarly, ensure fuses are installed and negatives are common.



Ensure the charger is wired up as depicted above (larger diagram on previous page). The Pro Batt Ultra shall light up provided it has battery voltage across the Pos in and neg terminal. During the first start up you can change the battery chemistry profile.

In default mode (1) or mode (2) the Batt Ultra shall simply turns off and goes to sleep after 60 seconds (no charging) if the input voltage has not risen above 13.6V. **WARNING**, If you have it set to mode (3) (Ignition feed, w/ Low voltage link) and the ignition is live then the charger shall charge until the input battery drops to 11.5V (default) x2 for 24V. **VERY LOW**.

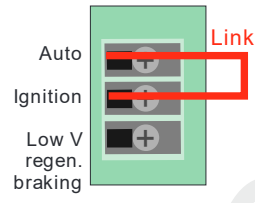
In default mode (1) or mode (2) the input voltage needs to rise to above 13.6V-19.0V (x2 for 24V) in order for the Batt Ultra to start charging. Above 13.6V, for 5 seconds, the regenerative braking timer activates (120 seconds default).

The charger, in default, requires a battery voltage on the positive output terminal (Pos out) in order to start boost (this can be changed). Ensure that there is battery voltage on the Pos out. If so, the charger shall start charging at the default charging profile (sealed lead acid).

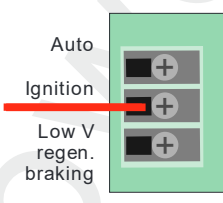
The charger shall continue to operate normally until the input voltage has dropped below 13.3V. Between 13.3V and 12.0V the unit shall remain on for 120 seconds and then turn off (provided the input voltage stays between 12.0V-13.3V). This is required to complement the regenerative braking aspect of modern Euro 5/6+ engines - where the alternator's voltage can drop below 13V for a short period of time. When the alternator's voltage rises above 13.6V the 120 second timer ends (+ reactivates the timer) and the charger remains charging.

Double all voltages for 24V, triple for 36V and quadruple for 48V.

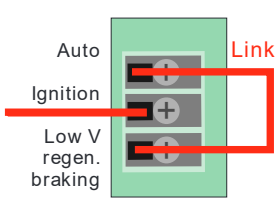
Auxiliary Control Terminals



How to connect? Link the Auto and the Ignition terminals on the block together, as shown.



How to connect? Connect ignition feed to the Ignition terminal. Can be any live feed.



How to connect? Connect ignition feed to the ignition terminal. Link Auto to Low V with bridge cable.

1) Automatic activation (default setting). The most common mode, used in 99% off all installations including vehicles with Regen. braking system. This means that the unit is voltage sensitive (no ignition feed required). When the input voltage goes to 13.6V-19.0V then the unit will simply start charging. If the voltage drops below 13.3V the unit shall turn off.

However, if the input voltage exceeds 13.6V for 5 seconds the regen. braking timer is prepped and shall become active if the input voltage drops down to 12.0V-13.3V. This timer is 120s (default - can be changed) and allows the charger to continue charging at these lower input voltages. If the voltage drops below 12.0V the charger goes to sleep irrespective of the timer. If the input voltage remains between 12.0V-13.3V for over 120s the charger also goes to sleep. To wake the charger, the input voltage needs to rise above 13.6V - this shall also reset the regen. braking timer.

2) Automatic activation w/ ignition feed. Mode 2 is identical to Mode 1. The only difference is that it requires a live signal on the ignition AND the aforementioned input voltages. For example, if you have over 13.6V on the input terminal with no live feed then the Pro Batt Ultra shall be in standby. Only once you apply the ignition feed signal the Pro Batt shall start charging. The charger turns off when you turn off your ignition. This mode is beneficial as it give you more control over when the charger operates.

3) Ignition Feed, low V w/o timer **WARNING** This mode is also an ignition feed mode, with no regen timer. It can operate with an input of 11.5V continuously (customizable). It does not adhere to the voltage thresholds like the two modes above. The unit shall enter sleep if the voltage drops below 11.5V. It shall immediately come out of sleep if the voltage rises above 11.5V. There is no adjustable timer mode for sleep, the unit simply sleeps when the ignition is off. This mode is best suited where you want the unit to turn off the second you turn the ignition off yet have the ability to have input voltage flexibility. **WARNING** with this setting - flat batteries as the charger works down to 11.5V!