

SNTL300P Firmware Revision Notice

V007.1 Firmware Update for SNTL300P Battery Chargers

- **Configurable Baud Rates**

When using the SNTL300P in remote profile operation (DIP switches 5 in on position) the communication baud rate can be varied up to a maximum of 57600bps.

- **Increased protection against shorted cell batteries**

The SNTL300P maximum time in ramp to boost mode can be configured, this is the time the charger spends elevating the battery voltage to the boost target level. In batteries with shorted cell(s) the terminal voltage does not rise to this level, but current continues to flow and causes the other cells to overcharge and gas. By monitoring the time in this charger mode, the SNTL300P can

- **Parallel Operation**

The SNTL300P can now be configured to be connected in parallel with other SNTL300P chargers. Enabling this feature, will disable all battery checks and also the availability of the auto-detect DIP switch position.

The new software suite (v1.1.20) will now allow easy set up of these parameters.

The Global settings available within the Charger Configuration panel, again subject to Manager Log On Access allow the configuration of Maximum boost period, baud rate and parallel operation configurations.

Maximum boost period:

1440 (*default*) the charger will monitor time spent in ramp to boost mode, should the charger not reach the expected boost target voltage in a given time period, the unit will alarm and turn its output off for 4 hours before attempting again. This provides increased protection against batteries with shorted cell(s). Bit 10 in the alarm status register provides indication of this fault.

Baud Rate

9600 (*default*) the RS485 baud rate can be configured from the additional drop down menu. This baud rate only applies when the SNTL300P is in remote configuration mode (DIP switch 5 ON). The SNTL300P must be restarted for this change to take effect.

Parallel Operation

By enabling this option, the SNTL300P can now connected in parallel for an increased current output. This option disables all battery checking functions and therefore the battery missing check interval, battery check mode and battery missing action options. It also disables the Auto Detect DIP switch function. If this option is enabled and DIP switches 1-4 are set to off for Auto Detect, the SNTL300P will not turn its output on and will alarm.

The screenshot shows the 'Global Charger Settings' window. It contains several configuration options: 'Battery Check Interval' (input field), 'Clear 24V Auto-detect Lock-in' (checkbox), 'Charger Slave Address' (input field with '100'), 'Boost Drop-out Current' (input field with '0' and 'A'), 'Auto-boost period' (input field with '0' and 'Days'), 'Factory-profile Boost Time' (input field with '0' and 'Mins'), and 'Maximum boost period' (input field with '0' and 'Mins'). Below these are three dropdown menus: 'Battery check mode', 'Input #1 function', and 'Battery-missing action'. At the bottom, there is a 'Baud Rate' dropdown menu, a checkbox for 'Parallel charger operation', and a 'Download Global Settings' button.

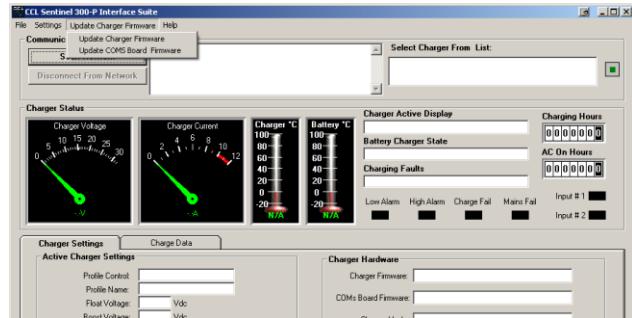
Contact Enovation Controls for details on obtaining the update and further details

Updating your firmware

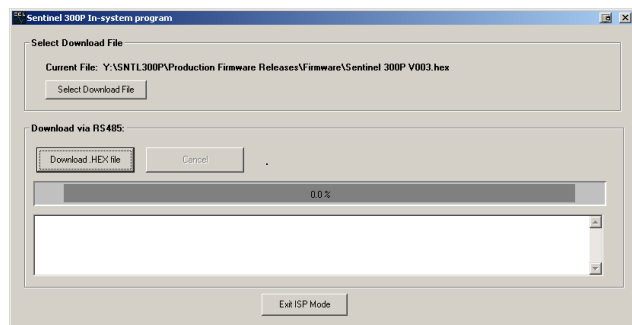
Install the SNTL300P Interface Suite as per the instructions contained with the manual.

Once installed follow standard **Connecting To Charger** section of manual to ensure charger connects correctly to software suite. Once successfully connected, select **Disconnect from Network** and follow instructions below.

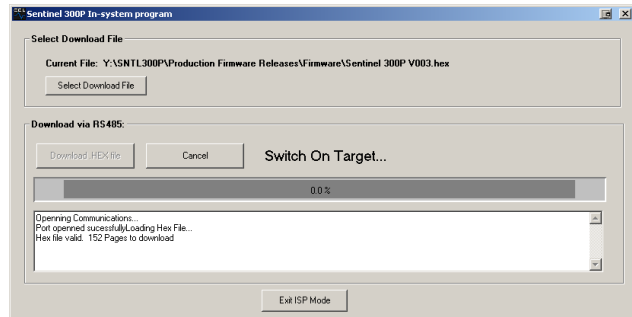
From home screen, select **update charger firmware** from Menu Bar and then select whether it is **main charger firmware** or **comms firmware** to be updated.



From the in-system programming tool select file to download using **Select Download File** Dialogue

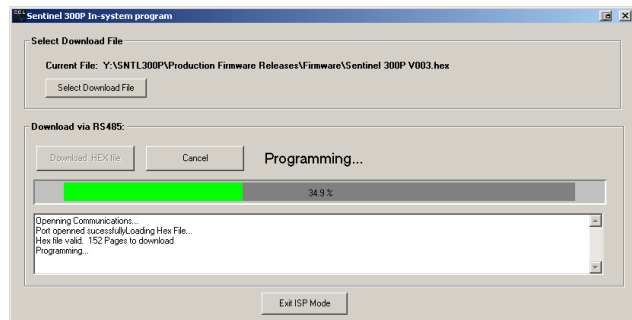


Ensure SNTL300P is not powered up, either from AC or DC power and select **Download Hex File**, follow instructions on screen to turn on charger

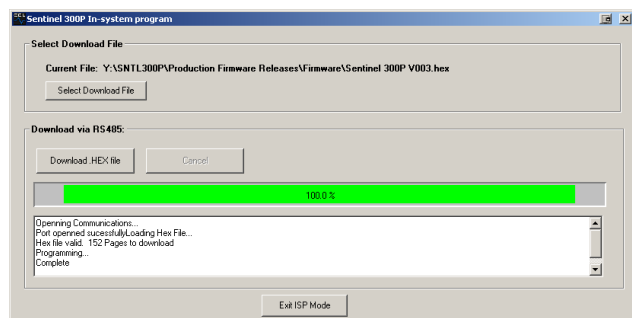


Whilst programming the **Charger Firmware** the LCD display, if connected, will cycle through reporting COMS FAILURE and attempts to restart until programming is completed and charger resets.

Whilst programming **COMS Firmware** the charger will cycle it's on board LED's, the LCD display will appear blank, with a rapid flashing LED during programming.



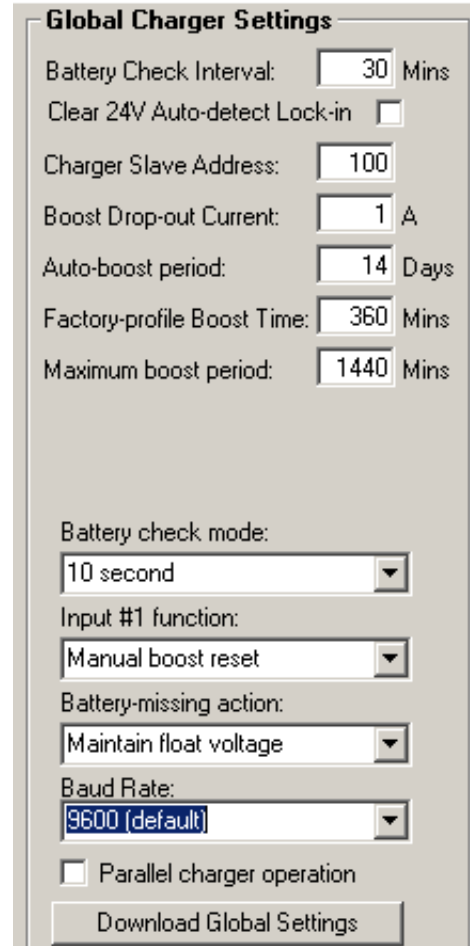
Once complete, selected **Exit ISP Mode** to return to standard Home screen and reconnect to charger.



Updating your firmware (ctd)

Upon Completion of firmware upgrade, connect to charger and set the following details to ensure correct operation of the SNTL300P.

Under Charger Configuration Tab, Enter details as shown and select [Download Global Settings](#)



The image shows a 'Global Charger Settings' dialog box with various configuration options. The settings are as follows:

Setting	Value	Unit
Battery Check Interval:	30	Mins
Clear 24V Auto-detect Lock-in	<input type="checkbox"/>	
Charger Slave Address:	100	
Boost Drop-out Current:	1	A
Auto-boost period:	14	Days
Factory-profile Boost Time:	360	Mins
Maximum boost period:	1440	Mins

Below these are several dropdown menus and a checkbox:

- Battery check mode: 10 second
- Input #1 function: Manual boost reset
- Battery-missing action: Maintain float voltage
- Baud Rate: 9600 (default)
- ☐ Parallel charger operation

At the bottom is a button labeled 'Download Global Settings'.

Refer to ci0042 - SNTL PCSUITE IOM for further information.