PRO Charging Systems

Sentinel10® Charger/Maintainer – Quick Start Guide



The Sentinel10 Charger/Maintainer performs 3 major tasks:

- Tests each battery to determine if it is OK to charge.
- Charges up to 10 individual batteries to full-charge levels
- Maintains charge by automatically restarting a charge

OPERATING NOTES:

- **<u>DO NOT</u>** connect more than one battery to a single channel
- **DO NOT** connect multiple outputs to a single battery or allow Red/Black clips to touch each
- **<u>DO NOT</u>** connect charge outputs to batteries installed in a battery pack configuration, such as those found in golf carts and other similar applications.
- Always plug output cords into charger first, then connect clips to battery terminals.
- Battery discharged to less than 2.4 volts will not pass the charger's initial battery test and that channel, consequently, may not turn on.
- Dependent on a battery's capacity and level of charge, it can take several hours to days to fully charge/maintain battery.

<u>NOTE</u>: Charger is factory-set in MODE 1 – charge/maintain up to 32AH AGM and Flooded 12V Lead acid type automotive batteries. For other battery voltages or chemistry types, refer to manual.

<u>STEP #1</u> - Rack Applications: Assemble rack with charger before applying AC power. Locate battery cables and power brick clear of all foot traffic. Use enclosed peel-n-stick and Velcro® strips to attach the charger to one end of the rack. The (5) enclosed rubber feet may not be needed when using the battery display rack. Position charger so that front panel indicator lights can easily be seen.



Attach Velcro® strips to the back of the charger and to the end panels on the battery rack (4 Places). Locate the power supply under the rack out of the way. Suggested layout for charger placement and cable routing. Locate the charger so that the indicator lights face front of rack.





Plug AC Power Cord into charger (only goes in one way) and attach each of the 10 output cables to one of the 10 jacks on the front of the charger.

- Connect the red battery clip to the Positive (+) battery terminal and connect the black battery clip to the Negative (-) battery terminal.
- Repeat for each battery in the display rack.
- Plug the Charger AC power cord into a working electrical outlet and verify that the lights for each of the 10-channels is either blinking yellow, solid yellow or solid green. If any lights are alternately blinking yellow/green, it indicates a charging error occurred on that channel. Refer to the LCD display and manual for further information concerning the error.

<u>STEP #2</u> - LED Status Indicator Lights: The LEDs on the front of the charger are used to indicate what each of the 10 Channels is doing.

- Yellow LED Flashing Battery testing in progress
- Yellow LED Solid Continuous charging
- Green LED Solid Battery charged
- Yellow/Green LEDs flash alternately Charging failure has occurred on that channel

<u>STEP #3</u> - LCD Display: Lights up when AC Power applied and indicates charge status details and current charge mode for each of the 10 charging channels.

- Use the Menu pushbutton near the display to step the display through each of the 10 channels
- Digital readout displays battery voltage and charge current for each of the 10 channels
- Status codes appear in lower left corner of display. A full list of all status codes is available in the On-Line User Manual, but the most common codes include:
 - NoBt No Battery attached
 - **cCCT** Constant Current charge mode
 - cCVT Constant Voltage charge mode
 - **cTOP** Battery Top-off Mode
 - cFIN Charging Finished

STEP #4 - If Yellow/Green flashing light charge error occurs:

- Press and release the MENU Select to advance the LCD display to that channel indicating an error. If the Error Message indicates an obvious issue such as 'Wrong Battery Type' where a 12V battery may have been connected to a 6V MODE select, correct the issue.
- Refer to the full User Manual for a more detailed explanation about the charge error.
- Connect the battery to a different channel. If the new channel works, the problem may be with the charger or if error is still present then the problem may be with the battery or battery type.
- If the fault is with the charger and cannot be corrected, contact PCS Technical Support/RMA for assistance. (615) 471-5327

