The quality leader in charging sealed and flooded lead-acid batteries

- 4 User-selectable output profiles
- Energy-efficient design
- SC1000 control
- Accurate profile monitoring system
- PT/DV/DT termination technique
- 10/3/1 warranty
- Quality-built for years of trouble-free service
The Terminator, stepping up to the charging challenges of today... and tomorrow!

- **Designed for the future**
  Named for its ability to provide a precise termination of charge every time, the Terminator is designed to keep pace with the ever-changing charging requirements of lead-acid batteries. As new technologies are implemented in the construction of new battery products, the Terminator’s flexibility and accuracy ensures that lead-acid batteries of most any type can be charged safely. The Terminator is engineered to optimally charge sealed, maintenance-free and flooded lead-acid batteries. Its Silicon Controlled Rectifier (SCR) design regulates charging current by allowing the battery to determine its own charge cycle rate in accordance with its state of discharge. It provides a constant current - constant voltage - constant current (I-E-I) charge that eliminates the possibility of overcharging, even with line voltage variations of ±10%, and allows the battery to finish at the proper current regardless of its age or temperature. Featuring the SC1000 control, the Terminator is equipped with its exclusive profile monitoring system and PT/DV/DT charge termination technique plus preprogrammed output profiles to provide the utmost in charging service and protection.

- **Rating**
  The Terminator is rated to recharge 80% discharged flooded lead-acid batteries in 8 hours or less. Some sealed lead-acid batteries may require more than 8 hours due to battery manufacturer’s charging requirements.

- **Regulation**
  The Terminator is designed to hold the constant voltage rate to within 1%, and the finish current rate to within 2%, over a wide variation in line voltage.

- **The SC1000 control**
  The SC1000 is a programmable automatic start/stop control that is universally designed for 6, 12, 18, 24, or 36 cell chargers with 100 A, 200 A, or 400 A shunts.

- **Convection cooled and quiet**
  The Terminator is designed to cool conventionally, no fans required. As a result, no dirty air is drawn into the charger and sound levels are reduced to a minimum.

- **Warranty/10-3-1**
  For the original purchaser, repair costs are minimized through a ten-year warranty on power transformers and silicon controlled rectifiers, plus three years on electronic PC boards and one year on other components.

- **Easy to change AC input voltage**
  AC input voltage change-overs take just minutes because of conveniently located taps and quick connect jumpers. Standard voltage taps include 208, 240, and 480 volt service.

- **Efficient, low cost operation**
  The energy-efficient SCR design of the Terminator converts AC input power to usable DC output power at low cost. While some chargers constantly consume power, the Terminator’s AC contactor greatly reduces the amount of idle power consumption.
User-selectable output profiles

To accommodate the charging of lead-acid batteries of various manufacturers and types, the Terminator is preprogrammed with four user-selectable output profiles: sealed gelled electrolyte, absorbed glass mat, flooded and custom. The custom profile is user-programmable, ideal for unusual application requirements, charging preferences or future technologies. The charger is factory-set with the sealed gelled electrolyte profile. Selection of a different profile is easily accomplished through dip switches located on the PC board. Plus, whenever the Terminator is not connected to a battery, the display will indicate which profile is currently selected so as to ward off potential battery charging mishaps.

The following charts show the charging characteristics of a flooded output profile and a sealed gel output profile.

Flooded Output Profile

Sealed Gel Output Profile

Profile monitoring system

The profile monitoring system serves to protect the battery from harmful overcharging. Because the Terminator and SC1000 tightly regulate the output voltage and current over a wide range of input and output loads, deviations from programmed battery profile standards are detected and the monitoring system will cause the charger to shut off.

PT/DV/DT charge termination

The SC1000 utilizes patented charge termination technique, DV/DT, or rate of change of battery voltage with respect to time, with proportional time (PT) to determine when to terminate a charge cycle. The length of time it takes the battery to reach the 80% charged point determines the sampling rate. This termination method ensures a precise charge every time, never under or over charging, even on lightly discharged batteries.

Should the user prefer a voltage/time charge termination, the SC1000 can be set for this popular termination method through available programming options.

Charge status at a glance

Quickly learn the status of the charging operation through four bright LEDs that illuminate one at a time to represent "charge in progress", "80% charged", "charge complete", and "equalize." The simultaneous flashing of all four LEDs indicates a fault condition.

Battery/charger mismatch protection

The SC1000 has the ability to discriminate and reject batteries that do not match the charger – thus providing additional protection for the battery. If the battery voltage is over or under sized, the charger will not start and the LEDs will indicate a fault condition. In cases of low battery voltage only, the control can be overridden to start the charge cycle.

Automatic start operation

Five seconds after the battery is connected, the SC1000 will automatically begin the charging operation, eliminating the need for timers or dials to be set. This delay provides time to check for proper battery connection before the charge cycle begins.

Delayed start

Program the SC1000 to delay the start of charge for 15 minutes or more, up to a maximum of 23 hours and 45 minutes, in 15 minute increments. During delayed start, the display will read "DS." Use delayed start for battery cool-down before recharging to increase battery efficiency and extend battery life. Program different delay times to stagger-start charging of batteries to ease high-peak energy demands.

Back-up timer shutdown

The SC1000 has two back-up timers. In the event that a battery is not 80% charged within 10 hours, the charger will terminate the charge cycle and the control will display a message of "0-80." If a battery is not fully charged within 5 hours after becoming 80% charged, the charger will terminate the charge cycle and display "80-E."

Automatic or manual equalize operation

An equalize charge of three hours beyond a normal DV/DT charge termination can be selected manually or automatically. Automatic equalization can be programmed by the number of charge cycles, 0-30. When the automatic equalization function is selected, the manual push-button is disabled to prevent unnecessary equalize charges.

Cool down option

The SC1000 can be programmed to delay illumination of the "Charge Complete" LED until after a specified cool down time has elapsed. During the cool down period, the display will read "COOL." Adjustable from 0-8 hours, this efficient feature helps to prevent battery overheating and extend battery life.

Refresh charge

Featuring an adjustable 8-99 hour refresh charge timer, the SC1000 can be used to provide a refresh charge to stored batteries to replace normal losses associated with storage. Similarly, in situations where it is anticipated that the battery and charger will be left connected for a period of time after charging – for instance, in the event of a long weekend or a week-long company shutdown – the SC1000 can be programmed to automatically provide a refresh charge to ensure a fully charged battery when you need it.

New battery recognition after AC fail

After an AC fail during the battery charging process, charging will resume provided there has not been a battery change. If a change occurred, the SC1000 will recognize the presence of a "new" battery and begin a new charge operation.

Battery/charger safeguards

Batteries are protected from damage because the charger is internally protected against overload and short circuits as a result of input and output fusing.

Quality-built for years of trouble-free and energy-saving service

Quality is the driving force behind our products. Engineered to be the best, our chargers and controls are designed to meet the many challenges associated with charging batteries. We remain strong in our commitment to produce quality chargers and controls that serve to meet customer charging needs as can be evidenced through our impressive line of products. Plus, we design our products to provide operating features that allow the customer to charge effectively and economically. Customers especially benefit from start options that allow charging during off-peak hours to reduce energy costs. All of our products are expertly assembled and subject to intensive quality control and test procedures before shipment to the customer to ensure many years of trouble-free and energy-saving service.
SC1000 control features

Incorporating state-of-the-art surface mount technology in the assembly of the PC board allows the feature-packed SC1000 to be compact and economically efficient. With one small board, the SC1000 controls the DC output of the charger and allows the quick and easy programming and operation of its many features. The digital display alternately reveals DC output current and the average DC output volts per cell throughout the charging operation. Programming the SC1000 is made simple by selecting the desired dip switch on the PC board and pressing push-buttons on the face of the control.

SC1000 dip switches

Dimensions

1-phase and 3-phase models

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