

Advanced Technologies Simplify Fleet Management

CDAC[®]
CHARGER DATA ACQUISITION AND CONTROL

DATA-MATE[™]

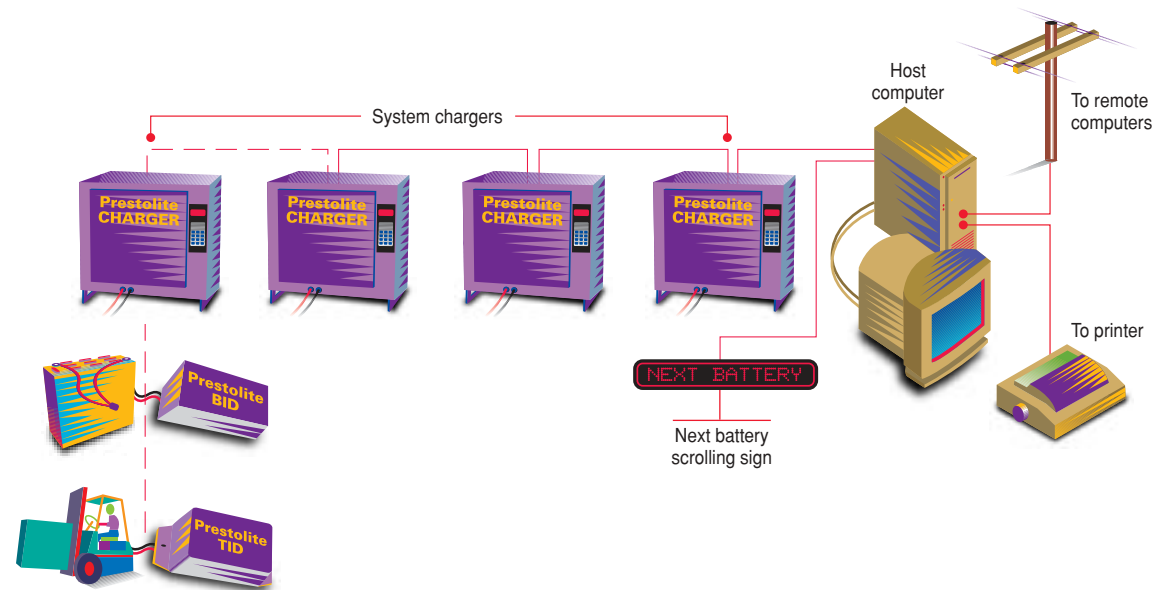
Combine the Ultra Extreme Fast Charger with either Data-Mate or CDAC, for unparalleled fleet management. Each system gives you the ability to monitor fleet operations, maximize equipment utilization, and extend battery life. Ask your dealer how the Rapid Charge and Data-Mate or CDAC can work for you!

CDAC Fleet Management Systems

Take total charge of your entire battery fleet – no matter how big... or how small. Prestolite's computer controlled CDAC fleet management systems provide unparalleled insight into battery charging operations for more effective fleet management, reducing operating costs and increasing efficiency.

For more than 80 years, innovative, high-quality Prestolite products – all backed by our unwavering commitment to customer service and support – have set the standard for the industry.

For more information on our complete line of superior Prestolite battery chargers or fleet management systems, call 1-800-367-2002.



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Because we continually improve our products, specifications are subject to change without notice.
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AMETEK[®]
PRESTOLITE POWER

2220 Corporate Drive # Troy, Ohio # 45373-1099 # 800 367 2002

ULTRA EXTREME[™] FAST CHARGER

Interactive SCR Industrial Battery Charger



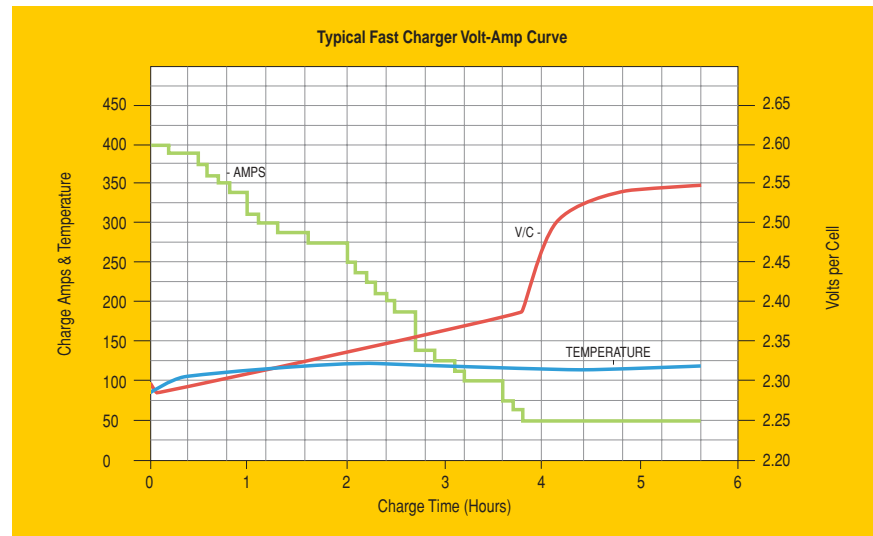
The quality leader for battery charging flexibility and temperature compensation

- ⚡ Charges 20% charged batteries to 80% in 2 hours or less
- ⚡ Rejects non-Fast Charger battery types to prevent high current charging on standard batteries
- ⚡ Up to 40A/100 start rate and a full 5.0A/100 finish rate
- ⚡ Soft start mode which determines the charging rate as the cycle is initiated
- ⚡ Compensates for battery operating temperatures automatically; from 32° F to 158° F with BID module
- ⚡ Data-Mate[™] and CDAC[®] compatible

AMETEK[®]
PRESTOLITE POWER



Flexible, temperature-compensating Ultra Extreme Fast Charger works successfully in any environment!



⚡ The world's most flexible battery charger

The Ultra Extreme Fast Charger SCR design regulates charging current by sensing the battery voltage and temperature from a BID Module to determine the charging rate in accordance with battery temperature and voltage. Fast charging of specially modified, BID equipped industrial batteries is achieved by charging at initial current rates of up to 40 amps per 100 ampere-hour of battery rating.

For safety reasons, the Ultra Extreme Fast Charger will not charge batteries that are not equipped with a properly programmed Prestolite BID Module. During the charge cycle, the charger continuously monitors the battery's temperature via the BID and adjusts its output to match temperature and state of charge throughout the charge cycle.

The BID Module also allows for completely automatic operation of the charger's multi-voltage and multi-ampere-hour feature. Upon connection, the charger reads the information programmed into the BID and identifies the battery's AH rating, cell size, and electrolyte temperature and adjusts its output curve based on this information.

The Ultra Extreme Fast Charger is internally protected against overload and short circuits by both input and output fusing. Prestolite's unique curve monitoring circuit periodically measures the output curve to ensure that the voltage and current are within the limits set at the factory.

⚡ Battery Selection

Specially modified batteries are required for use with the Ultra Extreme Fast Charger. Due to the high currents (up to 40A/100AH) supplied, the charging application must be approved by the battery supplier. Typical battery modifications required for successful operation include: dual post cells, stacked intercell connectors, and double or heavy duty output cables and SBX type connectors with loopback connections.

⚡ Charging Time

This charger has been designed to charge industrial batteries in a reduced period of time. Listed below are some typical charging times.

From	To	Time Required
20% charged	60% charged	1 Hr.
20% charged	80% charged	1 Hr. 45 Min.
0% charged	80% charged	2 Hr. 15 Min.
20% charged	fully charged	5 Hr. 15 Min.
0% charged	fully charged	5 Hr. 45 Min.

It should be noted that charging time will vary with battery temperature.

⚡ Charger design

The Ultra Extreme Fast Charger's design is based on a silicon controlled rectifier (SCR) power supply and features state-of-the-art electronics. Its microprocessor-based control is the key to what makes the Ultra Extreme Fast Charger a truly interactive industrial battery charger.

⚡ Ideal for many environments

Ultra Extreme Fast Charger is ideal for a wide variety of environments because it is capable of using various inputs, such as battery temperature, and size, to automatically adjust the output charge characteristics within the limits of its own power circuit, providing an optimum charge.

⚡ Battery identification module



With a Battery Identification (BID) module connected to the battery, the Ultra Extreme Fast Charger automatically adjusts its output to match the electrolyte temperature of the battery, compensating for temperatures ranging from 32° F to 158° F. Once the battery is connected to the charger, the Ultra Extreme Fast Charger reads the BID program information which identifies the battery along with its ampere-hour rating, voltage, construction, and electrolyte temperature.

⚡ Easy to change AC input voltage

AC input voltage change-overs are completed in minutes with conveniently located taps and quick-connect jumpers. Standard voltage taps include 240/480/575-volt service.

⚡ Warranty

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

⚡ Convection cooled, quiet

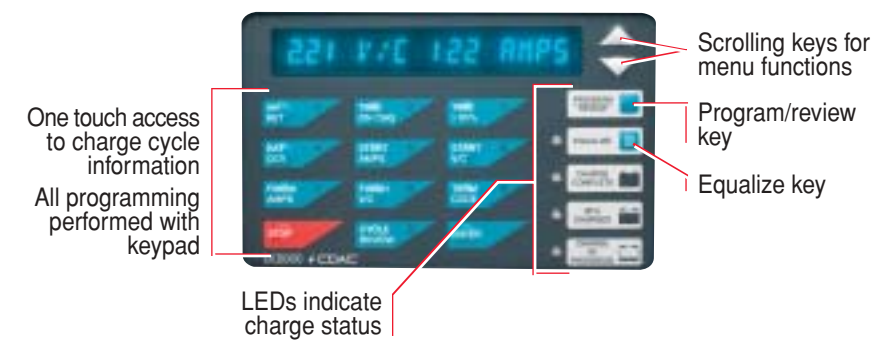
With Ultra Extreme Fast Charger, there are no fans to draw in dirty air and its low sound levels allow for quiet operation.

⚡ Functional cabinet design

Constructed from heavy-gauge sheet steel and coated with environmentally friendly, electrostatically applied polyester powder paint, Ultra Extreme Fast Charger's cabinet is incredibly durable and features a large door that opens a full 180° to provide easy access to AC connections and to facilitate any required service.

⚡ Unaffected by AC power failure

In the event of the loss of AC service, Ultra Extreme Fast Charger will resume charging precisely where it was interrupted when service is restored.



⚡ Input current balancing circuit

The three-phase Ultra Extreme Fast Charger's input current balancing circuit constantly compares the current in all three phases and adjusts the SCR firing angle to compensate for any unbalance at $\pm 10\%$ of the rated input current. Unlike other SCR chargers, it requires no factory or field calibration, and is not affected by any component changes such as SCRs, transformers, and PC boards, thus ensuring trouble-free operation over the lifetime of the charger.

⚡ UC2000 control

The flexibility of the Ultra Extreme Fast Charger is defined by the state-of-the-art micro-controller in the UC2000 charge control. Its operating functions are distributed between two boards to assist the troubleshooting and to lower maintenance costs.

The UC2000 has three main components: control board, regulator board, and keypad/display and three major functions: review, archive, and programming.

Control board provides the basic operating features of the charger including auto start/stop, Fast-charging algorithm, auto equalize, charge cycle review, real time clock and communications.

Regulator board determines the charger's DC output voltage and current through the firing or switching of the SCRs.

Keypad/display provides user-friendly interface with the charger through one-touch access to charging information. The 16-character alphanumeric display provides bright, easy-to-read messages in plain English. The control's durable membrane keypad is impervious to moisture and mechanical shock, and four highly visible LEDs laminated into the keypad convey charge status at a glance, even from a distance and over a wide viewing angle.

Review function conveys information on the most recent charge cycle and charger setup configuration. It permits up to 44 items of charge cycle information to be retrieved and displayed. One-button access is available at any time for the following nine items of charge information:

1. Ampere-hours returned
2. Total charge time
3. Time-80% to charge complete
4. Battery open-circuit voltage
5. Start amps
6. Start volts
7. Finish amps
8. Finish volts
9. Termination method

Archive function allows 20 items of information per charge cycle to be stored, retrieved and displayed. The operator may select a specific cycle or all stored cycles for review. The information from the 30 most recent charge cycles is stored in the archive records.

Programming function configures the charger for the user's specific application. All programming is performed with the keypad on the front of the charger, and its 16-character display indicates the selected function and verifies that the programming was accepted.

Automatic or manual equalize operation – An equalize charge of three hours beyond a normal DV/DT charge termination can be selected manually or be set to occur automatically.

Automatic equalization can be programmed by day of week or by number of charge cycles from 1 to 30. When any automatic equalize function is selected, the equalize button on the keypad is disabled to prevent unnecessary equalize charges. The ability to automatically equalize batteries provides an exact schedule of equalize charges for better battery maintenance and longer battery life.

Output curve monitoring – The Ultra Extreme Fast Charger's unique curve monitoring feature protects the battery from over or undercharging caused by charger component failure.

The control calculates a window for each of the four sections of the output charge curve. If, during the charge cycle, the output curve is measured to be outside any of the four windows, a charge curve error is generated and the charge cycle is terminated. If the output is temperature compensated, the windows will be adjusted accordingly.

⚡ Quality built for years of trouble free service

The Ultra Extreme Fast Charger is engineered to meet the everyday challenges associated with charging batteries. Unmatched in construction, reliability and value, the Ultra Extreme Fast Charger is subject to intensive quality control and test procedures to ensure many years of trouble-free service.