

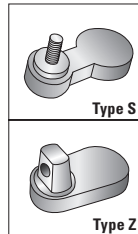
# TECHNICAL DATA SHEET

The Power Behind Performance

## CR-185 Commercial Deep Cycle Battery



### Available Terminals



Crown Battery Manufacturing Company offers a complete lineup of high-performance and low-maintenance commercial deep cycle batteries produced in standard Battery Council International group profiles for voltage, electrical capacity and physical dimension. Crown Battery's innovative and proven deep cycle product design makes it the battery of choice for many tough commercial battery applications, including commercial floor care and aerial access equipment, electric vehicles, personnel carriers, material handling systems and renewable energy systems.

### SPECIFICATIONS

<b>Model Number</b>	CR-185		
<b>Part Number</b>	1469		
<b>Nominal Voltage</b>	12 Volts		
<b>Physical Characteristics</b>	Length	15.50"	394 mm
	Width	7.00"	178 mm
	Height	14.50"	368 mm
	Weight	108 lbs	49 Kgs
<b>Terminal Options</b>	S, Z		

### ELECTRICAL SPECIFICATIONS

<b>Amp Hour Capacity</b>	20 Hr	9.25	185 Ah
	5 Hr	30.00	150 Ah
<b>KWH</b>	6 Hr	1.674	
<b>Reserve Capacity Minutes</b>	100 Amp Rate	59 Minutes	
	75 Amp Rate	85 Minutes	
	50 Amp Rate	142 Minutes	
	25 Amp Rate	341 Minutes	
<b>Internal Resistance</b>	80° F	27° C	9.5 mΩ
	104° F	40° C	102%
<b>Capacity Affected by Temperature (20 Hr Rate)</b>	80° F	27° C	100%
	32° F	0° C	65%

<b>Cover Style:</b>	Exposed Vent Opening with PROeye Monitor
<b>Cover Vent Style:</b>	Quarter-Turn Bayonet Style
<b>Container &amp; Cover Material:</b>	Black Polypropylene Plastic
<b>Case to Cover Seal Method:</b>	Heat Seal
<b>Inner-Cell Connector Type:</b>	Through Partition Weld
<b>Plate Lug to Collector Bar Fusion Method:</b>	Inverted Automated Cast-On Process
<b>Number of Plates per Battery:</b>	66 Plates
<b>Positive Grid Material:</b>	Antimony Lead Alloy
<b>Positive Grid Design:</b>	Z <sup>3</sup> Horizontal Pellet
<b>Positive Plate Dimension:</b>	5.750" x 8.000" x 0.120" 146 mm x 203 mm x 3.0 mm
<b>Negative Grid Material:</b>	Antimony Lead Alloy
<b>Negative Grid Design:</b>	Z <sup>3</sup> Horizontal Pellet
<b>Negative Plate Dimension:</b>	5.750" x 8.000" x 0.085" 146 mm x 203 mm x 2.2 mm
<b>Separator Type:</b>	Microporous Polyethylene PosiWrap™ with Glass Mat

# CR-185 Commercial Deep Cycle Battery

Crown Battery Manufacturing's team of research and development engineers welcome the opportunity to discuss your technical requirements during the design and specification stage. To access this technical assistance, please contact

**Crown Battery Manufacturing's Customer Service Department**  
800.487.2879 | sales@crownbattery.com | FAX 419.334.7124.

## Recommended Charge Profile:

Following discharge, constant current charge the CR-185 battery at 25 amperes until the battery on charge voltage measures between 2.37 and 2.40 volts per cell (14.22 – 14.4 volts).

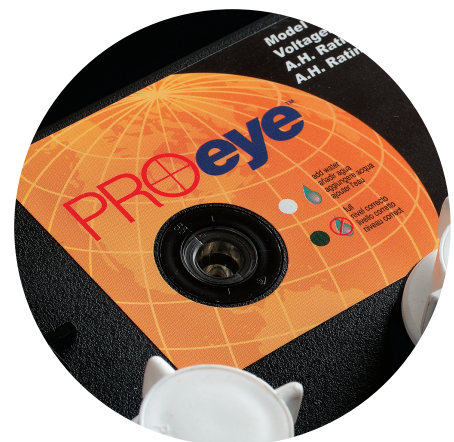
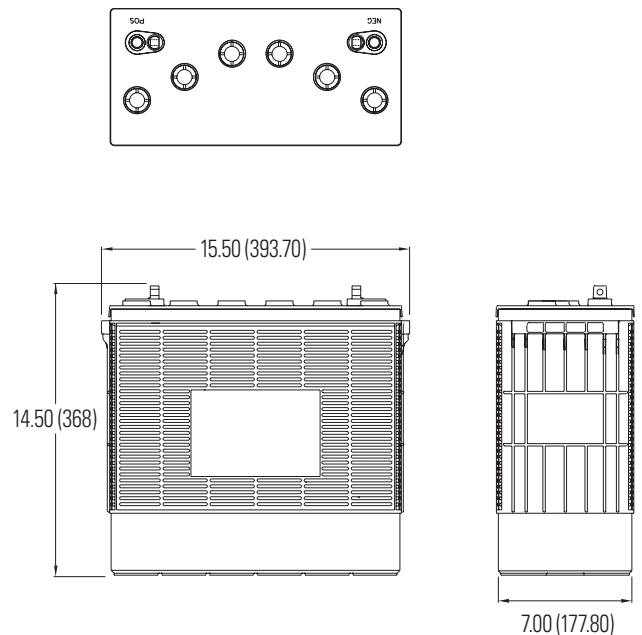
The constant voltage charge phase begins after the gassing point (2.37 - 2.42 VPC) is achieved. During the constant voltage phase, the charger voltage limit is regulated to the gassing point of 2.37 - 2.42 volts per cell, while the input current is allowed to gradually fall off. When the input current drops to the finish rate setting of 7 amperes, the charging phase will change from constant voltage to a sustained 7 ampere constant current mode. The charging cycle will be terminated by a standard approved method of charger termination similar to  $dV/dt$  or 3.5 to 5 hours from the gassing point, with factors such as ambient temperature, battery condition and depth of discharge affecting the charge completion time.

The CR-185 battery should receive a full recharge following the completion of each discharge, along with a monthly equalization service charge. During the equalization charge cycle the finish rate charge time is extended by 3 hours (6.5 to 8 hours from the gassing point).

The charge factor of the standard recharge should be equal to or greater than 1.07 (107%). The charge factor of the equalizing cycle should be equal to or greater than 1.15 (115%).

Please contact Crown Battery Manufacturing Company's engineering department with any questions regarding this charge profile specification.

Data are nominal and should not be construed as maximum or minimum values for specification or for final design. Data for this product type may vary from that shown herein.



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