

# Charge Control Device

## Regulates Voltage Supplied From Charging System

The Charge Control Device (CCD) by Midtronics provides battery operators with a solution to prevent reduced performance and premature deterioration that can be caused by constant-current charging equipment. Battery charger/rectifier systems that supply a constant charge current to the batteries to keep them fully charged are common in the communications industry. These power plants are not temperature compensated and will deliver excessive charging voltages, particularly during low ambient temperature operation. This phenomenon has been identified as a significant contributor to premature capacity loss of installed VRLA mono-block batteries. The Midtronics CCD protects batteries from unhealthy over-charge conditions, offering another level of insurance for standby battery systems.

The Charge Control Device is a temperature-compensated, voltage-regulating device designed to protect 12 Volt mono-block batteries. Connected in parallel with the battery, it prevents excessive charge current (up to 100 milliamps per mono-block) that can cause premature capacity loss in these applications. At 25°C, the CCD maintains battery voltage between 13.62V - 13.82V DC. The CCD will not interfere with recharge currents above 100 milliamps or alter normal charging current required for optimal voltage and temperature measurements.

The use of a Midtronics CCD will extend the useable life of older power plants and increase the expected service life of the batteries deployed in these locations. The CCD represents an economical way to guarantee optimum performance.

### Specifications:

**Product Name:**  
Charge Control Device

**Product Number:**  
CCD-100

**Temperature Range:**  
-40°C to +65°C, 95% relative humidity, non-condensing

**Battery Range:**  
12V mono-blocks typically rated from 20 - 60 Amp Hours capacity at the c/10 discharge rate

**Voltage:**  
0.0 V to 18.0 V

**Voltage Accuracy:**  
+/- 20mV DC

**Current:**  
0.0 Amps to 0.1 Amps  
Charging current regulated from 0 to 100 mA

**Overcurrent Limit:**  
Limit at 100 mA

**Temperature Compensation Range:**  
13.72 V +/- 24 mV per 1°C to a minimum of 13.20 V

**Calibration:**  
Factory calibration, single point off-set

**Power Requirements:**  
Powered by charging system; no external or battery power required

**Mounting:**  
Ring terminal connector to battery posts  
Optional crimp-lock for connection to existing battery leads (14 gauge) available

**Visual Operating Display:**  
Single LED indicates current bypass

**Housing Material:**  
GE Cyclocac VW300, 94V0

**Weight:**  
Approximately 220 g

**Dimensions:**  
44.5 mm X 52.25 mm X 22.5 mm

**QS - 9000  
CERTIFIED**

**MIDTRONICS**

**Midtronics, Inc.**  
7000 Monroe Street  
Willowbrook, IL 60527  
U.S.A.  
Tel: (630) 323-2800  
Fax: (630) 323-2844  
ISO 9001 Certified

**Midtronics, b.v.**  
Lage Dijk-Noord 6  
3401 VA IJsselstein  
The Netherlands  
Tel: +31 306 868 150  
Fax: +31 306 889 015  
ISO 9002 Certified

Toll free North America: (800) 776-1995  
Visit us on the web at [www.midtronics.com](http://www.midtronics.com)

