

# Charging and Diagnostics

Fast. Simple. Complete.

**MIDTRONICS**

**GR-1**

**Diagnostic Conductance Battery Charger**

Diagnostic Conductance Charging simplifies solving battery problems, usually in an hour or less. The GR-1's patented Conductance Controlled Charging Technology has emerged as the industry standard for battery testing. Combining this technology with charging capabilities, the GR-1 makes battery service fast, safe, and simple.

## Features:

### Conductance Controlled Charging Technology

- Midtronics' advanced technology combines battery diagnostics with controlled charging to ensure the battery is always accurately diagnosed and charged.

### Simple

- Advanced user interface makes testing and charging simple for anyone to perform the right way, every time.

### Multiple Algorithms

- Provides accurate and efficient testing and charging of standard automotive batteries, Absorbed Glass Mat (AGM/Spiral) batteries, Gel batteries, and Group 31 heavy duty batteries.

### In-Vehicle Charging Test Routine

- Includes special in-vehicle diagnostics and charging, and a jumper post routine for charging remote or hidden batteries.

### Software Updates

- The GR-1 is fully field programmable for future algorithm and charging updates based on new battery types and chemistries.



INNOVATION



TECHNOLOGY



QUALITY



WORLDWIDE

# GR-1

## Diagnostic Conductance Battery Charger

### Specifications:

#### Model Number:

- GR1-120
- GR1-120 KIT (includes printer)

#### Functions

##### Automatic Fast Charge:

Using advanced diagnostic capabilities and Conductance Technology, the GR-1 effectively controls the charging process to quickly charge even fully discharged batteries

##### Manual Charge

##### Jump Start Vehicle:

Applies the right amount of boost charge and an available 250 amps for starting stalled vehicles in seconds

##### In-Vehicle Charging/Testing:

Includes special in-vehicle diagnostics and charging, and a jumper post routine for charging remote or hidden batteries

##### Battery Types/Algorithms:

Provides accurate and efficient testing and charging of:

- 12 V Lead Acid Battery (standard starting batteries)
- 12 V AGM/Spiral Battery
- 12 V Group 31 – Truck Battery

##### Rating Systems/Test Range:

- 100-1500 CCA
- 100-1500 CA
- 100-1500 MCA (Marine Cranking Amps)
- JIS-Japanese OEM Batteries

##### European Standards:

- 100-850 A DIN
- 100-1500 A SAE
- 100-1000 A IEC
- 100-1500 A EN

#### Charging Voltage:

0.7 volts to 17 volts, .1 resolution

#### Charging Current:

- 0 – 70 amps, 1 amp resolution
- 80 Peak amps

#### CUL Listed

#### Multiple Languages:

English, Spanish, and French are standard

#### Outputs:

- Amp hours put into the battery
- Time remaining to charge in minutes
- Voltage
- CCAs
- Charge Code

#### View Last Test:

Allows the technician to review results with the customer at the end of the charge cycle.

#### Charge Cycles:

- Diagnostic/one-hour fast charge, including unlimited trickle charge
- Manual-timed (max. 120 minutes)
- Manual-continuous

#### Software Updates:

Fully field programmable for future algorithm and charging updates based on new battery types and chemistries



GR1-120

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