

Reliability Assured

MIDTRONICS

EXP-1000HD

Expandable Electrical Diagnostic Platform Analyzer for Commercial/Fleet Vehicles

The EXP-1000HD from Midtronics was created specifically for the heavy-duty commercial/fleet market. Using new Dynamic Conductance Battery Testing Technology, and designed for maximum flexibility, this analyzer will quickly become your electrical diagnostic tool of choice.

Specific features for commercial/fleet maintenance include battery pack testing, multiple battery routines for up to 6 batteries, special commercial battery algorithms, and application-specific test parameters for system and cable drop testing.

Features:

- Specifically Designed for the Heavy-Duty/Commercial Fleet Market
 - Battery pack testing for effective preventive maintenance testing
 - Multiple battery routine: 1-6 batteries included in the test process
 - Special commercial battery algorithms
- Truck vs. automotive selection sets application-specific test parameters for system and cable drop testing
- New Dynamic Conductance Battery Testing Technology
- Advanced Electrical System Diagnostics featuring Digital Signal Processing
- DMM Function for Advanced Diagnostics
- Patented Conductance Cable Drop Test
- Enhanced Communications Capabilities
- Advanced User Interface
- Program Management Tools



INNOVATION



TECHNOLOGY



QUALITY



WORLDWIDE

Specially Designed for the HD/Commercial Fleet Market

- Battery pack testing for effective preventive maintenance testing
- Multiple battery routine: 1-6 batteries included in the test process and on the printed test report
- Special commercial battery algorithms for Group 31 batteries, 8D, and 4D batteries
- Truck vs. automotive selection sets application-specific test parameters for system and cable drop testing

New Dynamic Conductance Battery Testing Technology

- Combines direct temperature measurement with deep scan technology to improve accuracy and decisiveness

Advanced Electrical System Diagnostics Featuring Digital Signal Processing

- Digital Signal Processing (DSP) provides the ability to analyze the amplitude level and frequency of the diode ripple pattern for improved accuracy and identification of open or shorted diodes and open-phase conditions, (multiple diode failure or winding problems).

DMM Function for Advanced Diagnostics

- AC/DC Volts
- AC/DC Amps
- Diode test
- Volts/Amps mode
- Temperature
- Ohm meter
- Scope mode

Patented Conductance Cable Drop Test

- Interactive routines using dual cable sets for more effective analysis of voltage drop across chassis ground, starter system, alternator system, and generic system testing

Enhanced Communications Capabilities

- IR printer option
- Data card reader/writer for future upgrades

Advanced User Interface

- Large graphical screen for icons and improved explanations
- Scroll bar capability means fewer overall screens
- Icon-based menus, and hot keys improve logic and flow

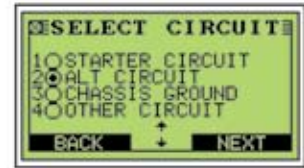
Program Management Tools

- User ID system to help drive and manage product use
- Enhanced counters report testing data, including lifetime use, results dispersion, and number of tests by user ID

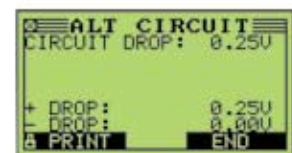
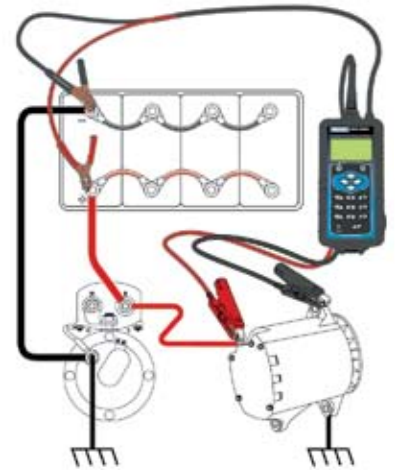
Perform preventive maintenance testing in less than five minutes to reduce operating costs and increase the reliability of your fleet.



Alternator Circuit Test Procedure



ALTERNATOR CIRCUIT



EXP-1000HD Features



Battery



Starter



Alternator



EXP1000HD

Test Report

YOUR SHOP NAME
1000 ANY ST.
YOUR TOWN, STATE
80527
USA
800-555-1212
WEBSITE.COM
SHOP ID NUMBER

10/03/2007
3:12 PM

PACK TEST

RESULTS	
CHECK BATTERY PACK	
VOLTAGE:	12.61V
RATED:	525CCA
# OF BATTERIES:	4
TEMPERATURE:	66°F

BATTERY 1
12.61V 499 CCA
GOOD BATTERY

BATTERY 2
12.61V 496 CCA
GOOD BATTERY

BATTERY 3
12.61V 505 CCA
GOOD BATTERY

BATTERY 4
12.62V 400 CCA
REPLACE BATTERY

RESULTS	
TEST #	
DATE	
TIME	

STARTER TEST

RESULTS	
CRANKING NORMAL	
VOLTAGE:	10.94V
TIME:	875ms

CHARGING SYSTEM TEST

RESULTS	
NO PROBLEMS	
NO LOAD	LOADED
14.70V	14.75V
30.50A	30.00A

MAX
MIN

NO LOAD LOADED

RIPPLE
40mV

Sample Printout

More Functions and Expandability

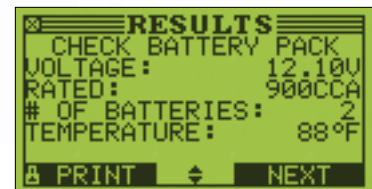
From battery, starter, and alternator diagnostics to circuit integrity testing, the EXP-1000HD is the most versatile and reliable electrical diagnostic tool on the market today.

With the ability to perform more tests with one tool, you can be more efficient, cut costs, and easily update to the newest technologies.

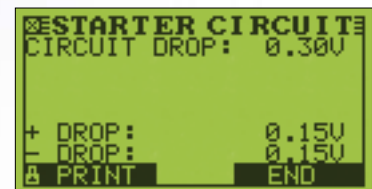
Specific testing such as battery pack tests and expanded cable drop circuit tests, are targeted directly at the heavy-duty/commercial fleet market.



Test 1-6 batteries



Battery pack test results



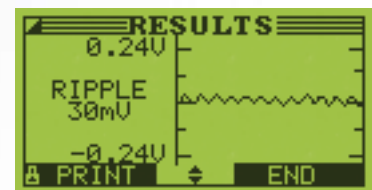
Cable drop test results

Full System Reporting

The EXP-1000HD combines battery testing, starter and charging system diagnostics all-in-one complete report, including results from individual battery tests and pack tests.

Digital Signal Processing (DSP) Capability

For advanced alternator diagnostics the EXP-1000HD uses superior DSP capability to digitize the measured alternator output voltage and evaluate the spectral content of the signal. This digitized signal allows the EXP-1000HD to combine pattern recognition with the amplitude level of the AC signal for improved accuracy and identification of open or shorted diodes and open phase conditions, (multiple diode failure or winding problems).



Charging system test results; ripple current

EXP-1000HD

Expandable Electrical Diagnostic Platform Analyzer for Commercial/Fleet Vehicles

Specifications:

- Model:**
- EXP-1000HD - Heavy-duty battery and system analyzer with, 15' battery test cable, DMM clamps and probes, carrying case, and stud adapters
 - EXP-1000HD KIT - Heavy-duty battery and system analyzer with, 15' battery test cable, IR printer, DMM clamps and probes, carrying case, and stud adapters
 - EXP-1000HD AMP - Heavy-duty battery and system analyzer with, 15' battery test cable, amp clamp, DMM clamps and probes, carrying case, and stud adapters
 - EXP-1000HD AMP KIT - Heavy-duty battery and system analyzer with, 15' battery test cable, IR printer, amp clamp, DMM clamps and probes, carrying case, and stud adapters
- Applications:**
- 6 and 12 volt HD-commercial, automotive and marine battery testing (including AGM batteries)
 - 12 and 24 volt charging system diagnostics
- Power Requirements:**
- (6) AA Alkaline batteries
- Operating Range:**
- 6 and 12 volt batteries
 - 1-6 battery pack test
 - 1-6 individual battery testing
- Rating System Range**
- | Rating System | Range |
|---------------|---------------|
| CCA | 200 – 3000 |
| JIS | By JIS number |
| DIN | 100 – 1000 |
| SAE | 100 – 3000 |
| IEC | 100 – 1000 |
| EN | 100 – 3000 |
- Display:**
- 128 x 64 pixel graphics, backlit display
- Temperature Compensation:**
- Built-in temperature measurement when prompted by analyzer
- Operating Temperature:**
- 32° F – 120° F (0° C – 49° C)
- Test Leads**
- 15 ft cable with HD dual conductor Kelvin clamps
- Housing Material:**
- ABS plastic with Santoprene overmolds
- Dimensions:**
- 9.5 in H x 4 in W x 2.5 in D
- Weight:**
- 1 lb / 427 g
- Carrying Case:**
- Heavy-duty molded plastic
- Languages:**
- English
 - Spanish
 - French-Canadian

EXP-1000HD Analyzer with Attached Battery Test Cable



Every EXP-1000HD model includes a protective molded hard-side carrying case. Regardless of which configuration you choose, the carrying case will hold all accessories, with room for future options.



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