



BATTERY & AUTO ELECTRICAL SYSTEM ANALYSER

MDX 670P KIA



Midtronics Inc. USA is a World No.1 in Battery Management Innovation.

Since inception in 1984, Midtronics Inc. USA has held relentless singular focus of developing technologies and innovations for improving the ways batteries are tested as well as managed.

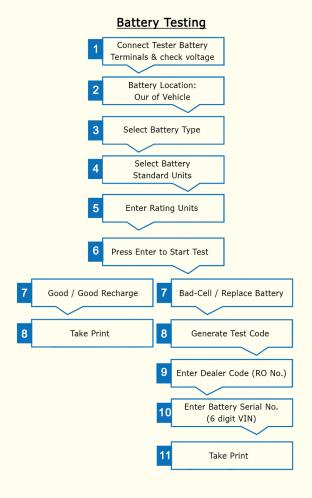
Midtronics Inc. USA - Advancing Battery Management, Electrical Diagnostic & Charging equipment is the most reliable & powerful in the industry by closely with leading vehicle OEMs & Aftermarket parts & service providers.

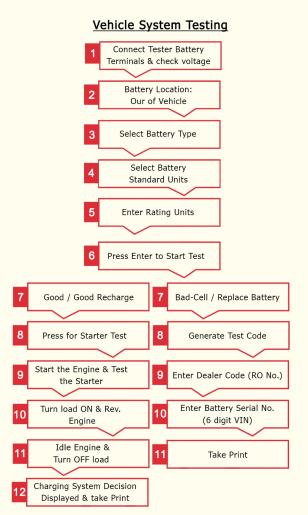
Fast! Safe!! Accurate!!!

Inspecting the Battery:

Before starting the test visually inspect the battery for:

- Cracked, buckled or leaking case, if you see any of these defects, replace the battery. Corroded, loose or damaged cables and connections. Repair or replace them as needed.
- Corrosion of the battery terminals, and dirt or acid on the case top. Clean the case and terminals using a wire brush and a mixture of water and baking soda.
- Dow electrolyte level, if the electrolyte level is too low, add distilled water to fill up to half inch above the top of the plates and fully charge the battery. Do not overfill. Corroded or loose battery tray and hold-down fixture. Tighten or replace as needed.





Battery Test Results

Decision	Interpretation
GOOD BATTERY	Return the battery to service.
GOOD-RECHARGE	Fully charge the battery and return it to service.
CHARGE & RETEST	Fully charge the battery and retest. Failure to fully charge the battery before retesting may cause inaccurate results. If CHARGE & RETEST appears again after you fully charge the battery, replace the battery.
REPLACE BATTERY	Replace the battery and retest. A REPLACE BATTERY result may also mean a poor connection between the battery cables and the battery. After disconnecting the battery cables, retest the battery using the out-of-vehicle test before replacing it.
BAD CELL-REPLACE	Replace the battery and retest.

Starter System Test Results

Decision	Interpretation
CRANKING NORMAL	The starter voltage is normal and the battery is fully charged.
LOW VOLTAGE	The starter voltage is low and the battery is fully charged.
CHARGE BATTERY	The starter voltage is low and the battery is discharged. Fully charge the battery and repeat the starter system test.
REPLACE BATTERY	Battery must be replaced before the starting system can be tested.
NO START	No vehicle start detected.
CRANKING SKIPPED	A start was not detected.

Charging System Test Results

Decision	Interpretation
NO PROBLEMS	System is showing normal output from the alternator.
NO OUTPUT	No alternator output detected.
LOW OUTPUT	Alternator not providing sufficient current to power the system's electrical loads and charge the battery.
HIGH OUTPUT	Alternator voltage output exceeds the normal limits.

Test Messages

Decision	Interpretation
BAT. TEMPERATURE	Select ambient temperature above (0 °C)
SURFACE CHARGE DETECTED	Remove the surface charge before it begins testing. Testing will resume after charge has been removed.
SYSTEM NOISECHECK LOADS	In-vehicle testing. Tester has detected computer, ignition noise or parasitic drain. Make sure all vehicle loads are off including open doors and ignition switch.
UNSTABLE BATTERY	Out-of-vehicle. Weak battery, should be charged and retested.

Error Messages

	Decision	Interpretation
	REVERSE CONNECTION	Clamp are connected in the wrong polartiy: positive to negativeor negative to positive,
Ī	CONNECT TO 12V BATTERY	Tester is not connected to the battery
	BATTERY POWER TOO LOW TO USE PRINTER.CONNECT TO FULLY CHARGED BATTERY 11.50 TO 16.00V	Battery being tested has fallen below 9 volts. Connect to a fully charged battery to use the printer.
	PRINTER OUT OF PAPER REPLACE WITH THERMAL PRINTER PAPER.2.5 IN. DIA. MAX.2.25 IN. WIDE MAX	Printer is out of thermal paper. Replace with new roll.
	LOW INTERNAL AA BATTERIES. REPLACE AA BATTERIES SOON!	Internal AA batteries are low and need to be replaced. See "Maintenance & Troubleshooting" section.



APPLE ENERGY PVT. LTD.

406 & 416, Hilton Centre, Sector - 11, CBD Belapur, Navi Mumbai - 400614. INDIA.

 $\begin{array}{lll} \text{Tel.:} + 91.22.27564032/33 & | & \text{Fax:} + 91.22.27564032 \\ \text{midtronics@appleenergy.in} & | & \text{www.appleenergy.in} \end{array}$

MIDTRONICS Advancing Battery Man

7000, Monroe Street, Willowbrook, Illinois - 60527. USA.

ajati@midtronics.com | www.midtonics.com