

Specification

Ignition System

Items			Specification
Ignition coil	Primary resistance		0.62 ± 10 % (Ω)
	Secondary resistance		7.0 ± 15 % (kΩ)
Spark plugs	Unleaded	Type	ILFRE6B/FK20HQR8
		Gap	1.0 ~ 1.1 mm (0.0394 ~ 0.0433 in.)

Starting System

Items			Specification
Starter	Rated voltage		12 V, 1.2 kW
	No. of pinion teeth		8
	No-load characteristics	Voltage	11.5 V
		Ampere	90A, MAX
		Speed	2,600 rpm, MIN

Charging System

Items			Specification
Alternator	Type		Battery voltage sensing
	Rate voltage		13.5 V, 110A
	Speed in use		1,000 ~ 18,000 rpm
	Voltage regulator		IC regulator built-in type
	Regulator setting voltage		14.55 ± 0.2 V
	Temperature compensation		-3.5 ± 1 mV / °C
Battery	Type		54-26 GL
	Cold cranking amperage [at -18°C(-0.4°F)]		550 A
	Reserve capacity		92 min
	Specific gravity [at 20°C(68°F)]		1.280 ± 0.01

NOTE

- COLD CRANKING AMPERAGE is the amperage a battery can deliver for 30 seconds and maintain a terminal voltage of 7.2V or greater at a specified temperature.
- RESERVE CAPACITY RATING is amount of time a battery can deliver 25A and maintain a minimum terminal voltage of 10.5V at 26.7°C(80.1°F).

• Battery type notation:

--	--

 -

--	--	--	--

①

②

③

④

① : 5HR capacity

② : Battery length

③ : Battery width

④ : Terminal location

GENESIS COUPE(BK) >2010 > G 2.0 DOHC > Engine Electrical System > General Information > Troubleshooting

Trouble Shooting

Ignition System

Symptom	Suspect area	Remedy
Engine will not start or is hard to start (Crank OK)	Ignition lock switch	Inspect ignition lock switch, or replace as required
	Ignition coil	Inspect ignition coil, or replace as required
	Spark plugs	Inspect spark plugs, or replace as required
	Ignition wiring disconnected or broken	Repair wiring, or replace as required
Rough idle or stalls	Ignition wiring	Repair wiring, or replace as required
	Ignition coil	Inspect ignition coil, or replace as required
Engine hesitates/poor acceleration	Spark plugs and spark plug cables	Inspect spark plugs / cable, or replace as required
	Ignition wiring	Repair wiring, or replace as required
Poor mileage	Spark plugs and spark plug cables	Inspect spark plugs / cable, or replace as required

Charging System

Symptom	Suspect area	Remedy
Charging warning indicator does not light with ignition switch "ON" and engine off.	Fuse blown	Check fuses
	Light burned out	Replace light
	Wiring connection loose	Tighten loose connection
	Electronic voltage regulator	Replace voltage regulator
Charging warning indicator does not go out with engine running. (Battery requires frequent recharging)	Drive belt loose or worn	Adjust belt tension or replace belt
	Battery cable loose, corroded or worn	Inspect cable connection, repair or replace cable
	Electronic voltage regulator or alternator	Replace voltage regulator or alternator
	Wiring	Repair or replace wiring
Overcharge	Electronic voltage regulator	Replace voltage regulator
	Voltage sensing wire	Repair or replace wiring
Discharge	Drive belt loose or worn	Adjust belt tension or replace belt
	Wiring connection loose or short circuit	Inspect wiring connection, repair or replace wiring
	Electronic voltage regulator or alternator	Replace voltage regulator or alternator
	Poor grounding	Inspect ground or repair
	Worn battery	Replace battery

Starting System

Symptom	Suspect area	Remedy
Engine will not crank	Battery charge low	Charge or replace battery
	Battery cables loose, corroded or worn out	Repair or replace cables
	Transaxle range switch (Vehicle with automatic transaxle only)	Refer to AT group-automatic transaxle
	Fuse blown	Replace fuse
	Starter faulty	Replace
	Ignition switch faulty	Replace
Engine cranks slowly	Battery charge low	Charge or replace battery
	Battery cables loose, corroded or worn out	Repair or replace cables
	Starter faulty	Replace
Starter keeps running	Starter	Replace
	Ignition switch	Replace
Starter spins but engine will not crank	Short in wiring	Repair wiring
	Pinion gear teeth broken or Starter	Replace
	Ring gear teeth broken	Replace fly wheel or torque converter

The Micro 570 Analyzer

The Micro 570 Analyzer provides the ability to test the charging and starting systems, including the battery, starter and alternator.

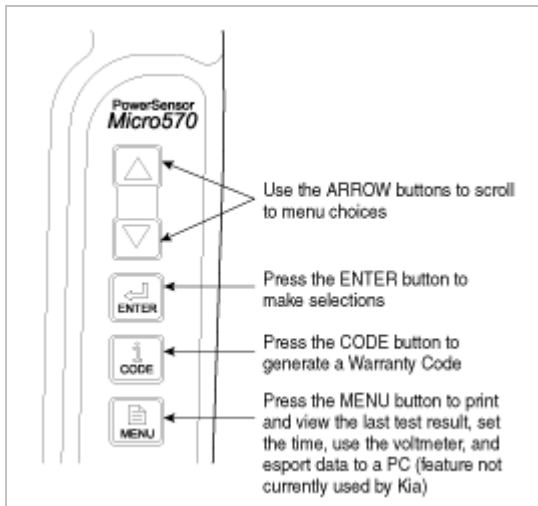
CAUTION

Because of the possibility of personal injury, always use extreme caution and appropriate eye protection when working with batteries.



Keypad

The Micro 570 button on the key pad provide the following functions :



Battery Test Procedure

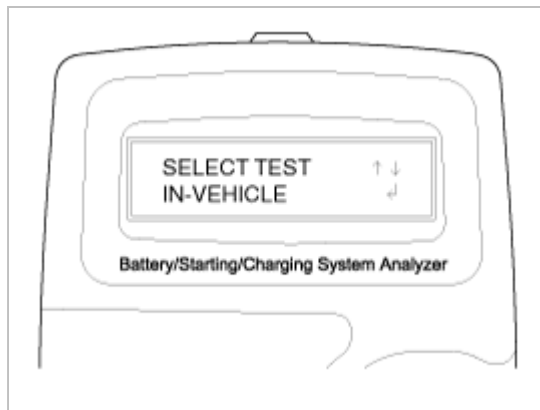
1. Connect the tester to the battery.
 - A. Red clamp to battery positive (+) terminal.
 - B. Black clamp to battery negative (-) terminal.



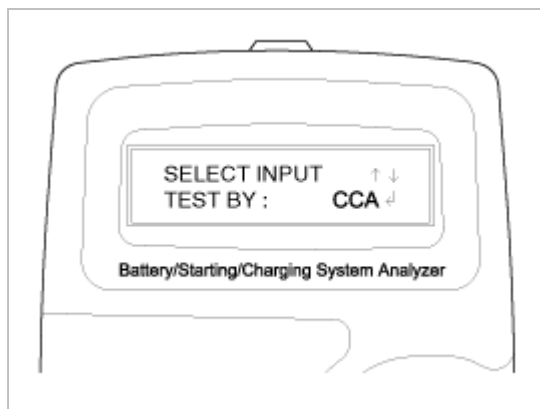
CAUTION

Connect clamps securely. If "CHECK CONNECTION" message is displayed on the screen, reconnect clamps securely.

2. The tester will ask if the battery is connected "IN-VEHICLE" or "OUT-OF-VEHICLE". Make your selection by pressing the arrow buttons; then press ENTER.



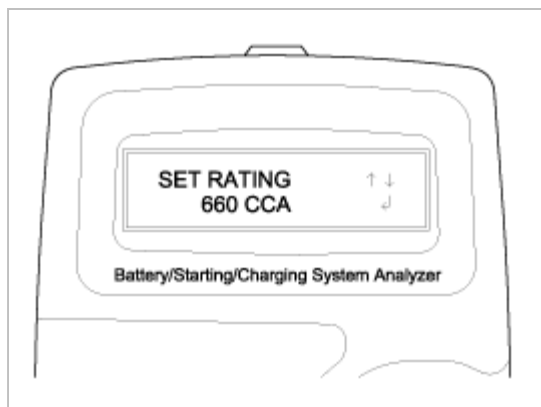
3. Select CCA and press the ENTER button.



NOTE

CCA : Cold cranking amps, is an SAE specification for cranking battery at -0.4°F (-18°C).

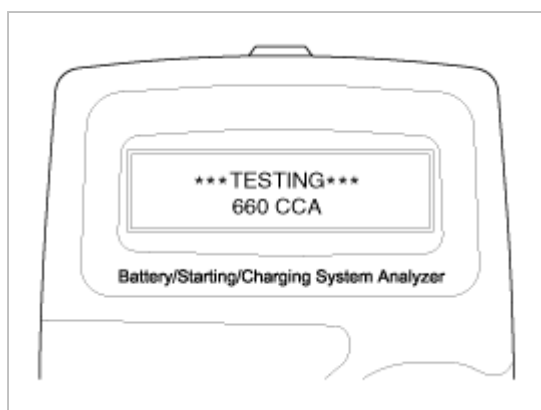
4. Set the CCA value displayed on the screen to the CCA value marked on the battery label by pressing up and down buttons and press ENTER.



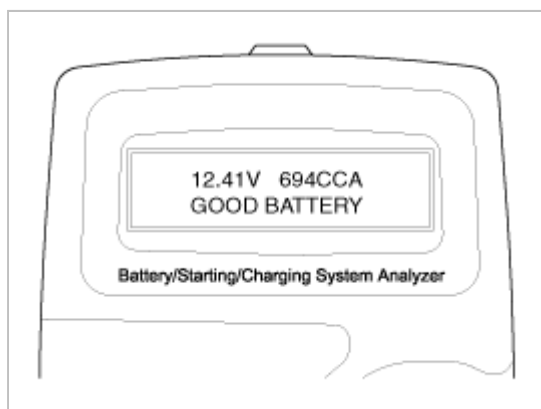
NOTE

The battery ratings(CCA) displayed on the tester must be identical to the ratings marked on battery label.

5. The tester will conduct battery test.



6. The tester displays battery test results including voltage and battery ratings.
Refer to the following table and take the appropriate action as recommended by the Micro 570.



Battery Test Results

Result On Printer	Remedy
GOOD BATTERY	No action is required
GOOD RECHARGE	Battery is in a good state Recharge the battery and use
CHARGE & RETEST	Battery is not charged properly - Charge and test the battery again. (Failure to charge the battery fully may read incorrect measurement value)
REPLACE BATTERY	Replace battery and recheck the charging system.

	<ul style="list-style-type: none"> - Improper connection between battery and vehicle cables may cause "REPLACE BATTERY", retest the battery after removing cables and connecting the tester to the battery terminal directly prior to replacing the battery.
BAD CELL-REPLACE	Charge and retest the battery. <ul style="list-style-type: none"> - If the Micro 570 recommends "REPLACE BATTERY", replace the battery and recheck the charging system.

WARNING

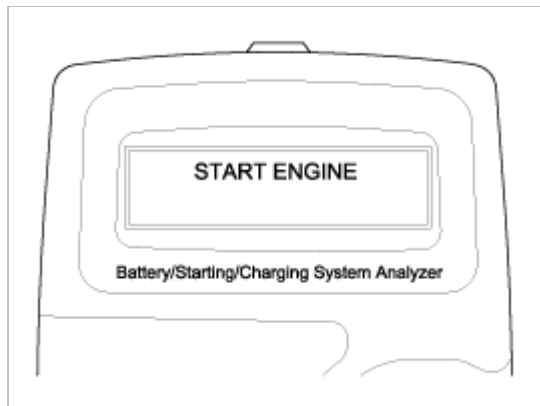
Whenever filing a claim for battery, the print out of the battery test results must be attached.

Starter Test Procedure

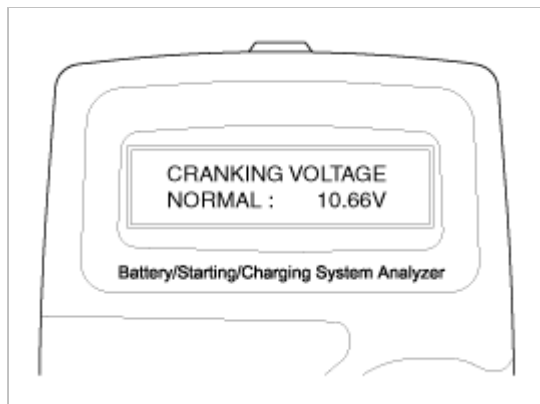
- After the battery test, press ENTER immediately for the starter test.



- Start the engine.



- Cranking voltage and starter test results will be displayed on the screen.
Refer to the following table and take the appropriate action as recommended by the Micro 570.



Starter Test Results

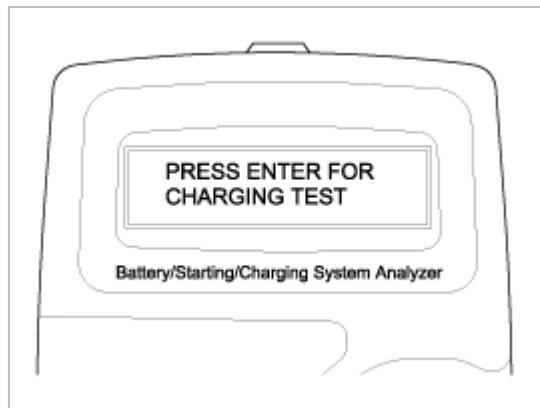
Result On Printer	Remedy
CRANKING VOLTAGE NORMAL	System shows a normal starter draw
CRANKING VOLTAGE LOW	Cranking voltage is lower than normal level - Check starter
CHARGE BATTERY	The state of battery charge is too low to test - Charge the battery and retest
REPLACE BATTERY	Replace battery - If the vehicle is not started though the battery condition of "GOOD BATTERY" is displayed, check wiring for open circuit, battery cable connection, starter and repair or replace as necessary. - If the engine does crank, check fuel system.

NOTE

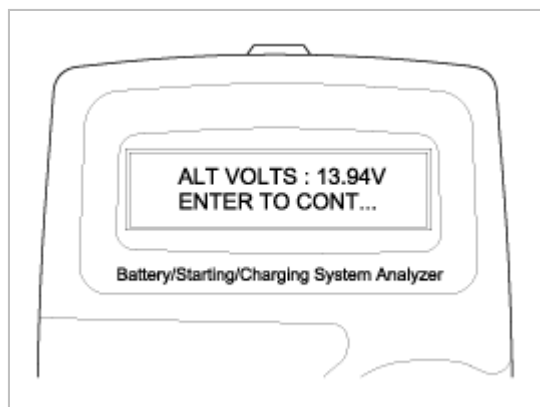
When testing the vehicle with old diesel engines, the test result will not be favorable if the glow plug is not heated. Conduct the test after warming up the engine for 5 minutes.

Charging System Test Procedure

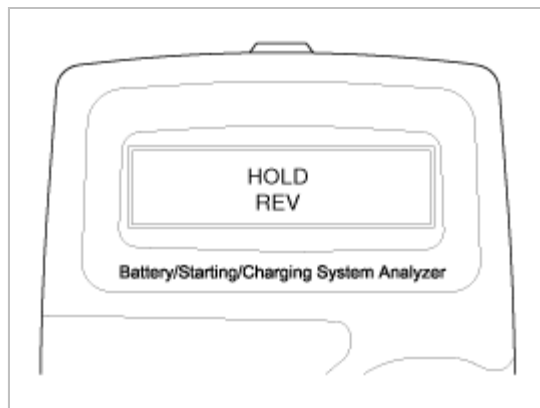
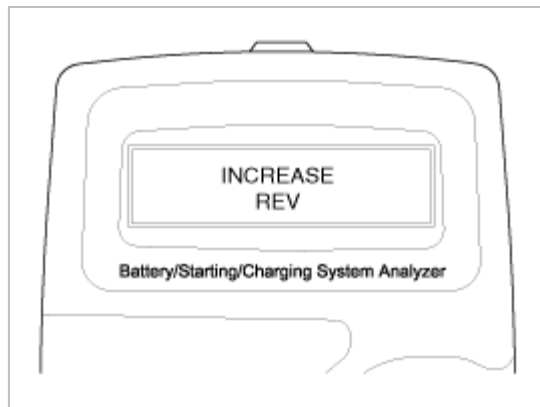
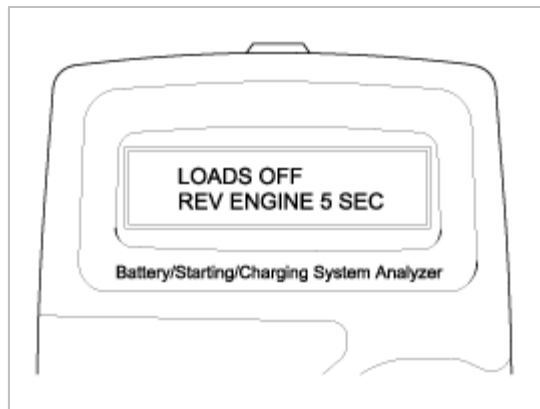
10. Press ENTER to begin charging system test.



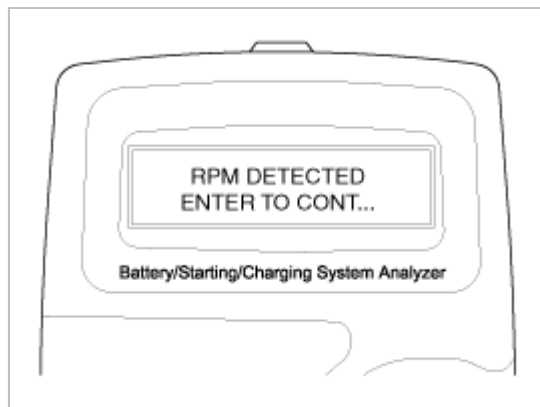
11. The tester displays the actual voltage of alternator.
Press ENTER to continue.



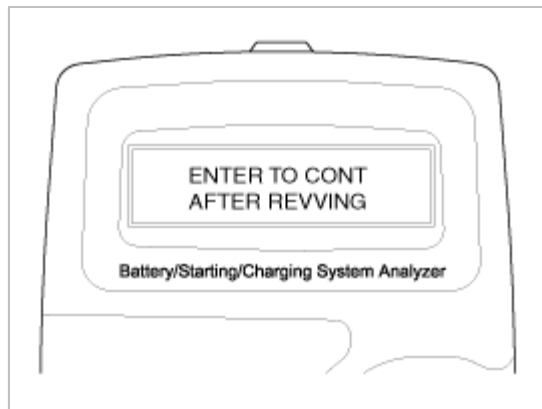
12. Turn off all electrical load and rev engine for 5 seconds with pressing the accelerator pedal. (Follow the instructions on the screen)



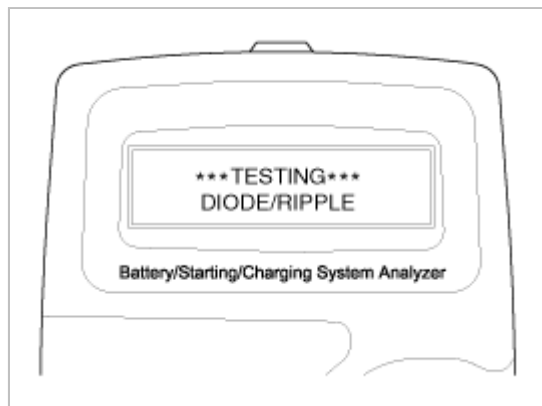
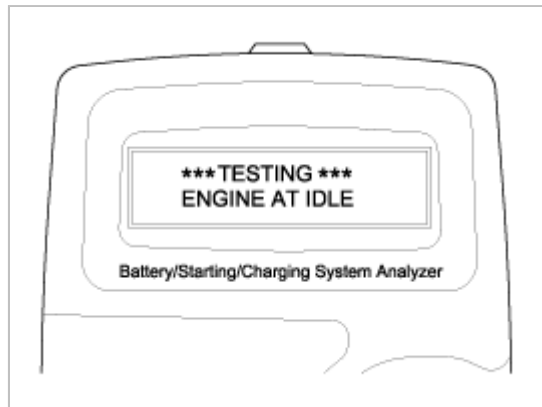
13. The message that engine RPM is detected will be displayed on the screen. Press ENTER to continue.



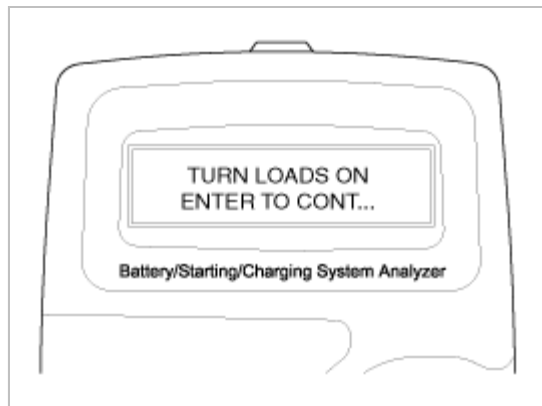
14. If the engine RPM is not detected, press ENTER after revving engine.



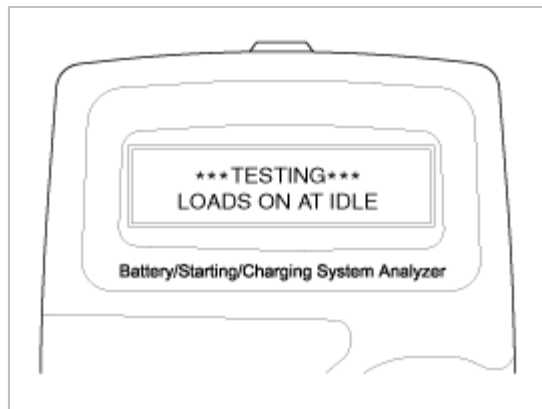
15. The tester will conduct charging system test during loads off.



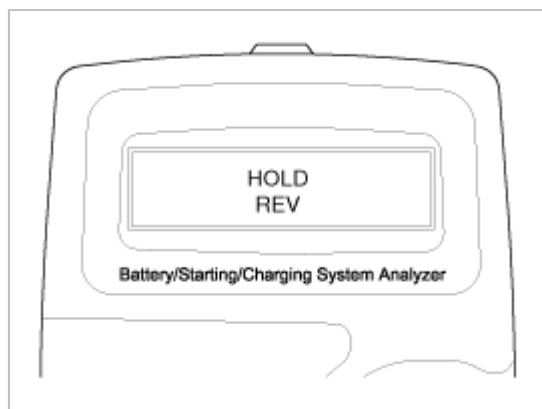
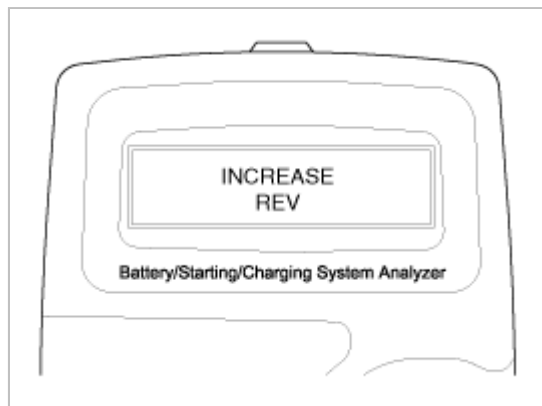
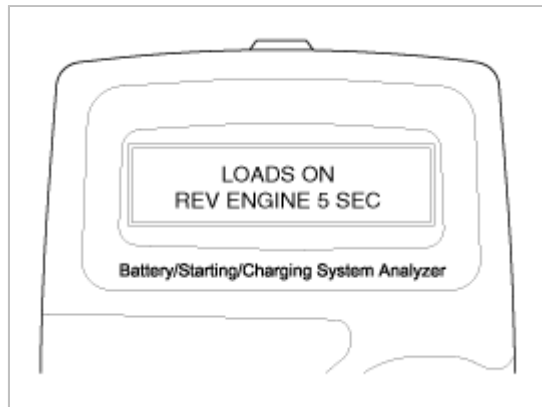
16. Turn on electrical loads (air conditioner, lamps, audio and etc). Press ENTER to continue.



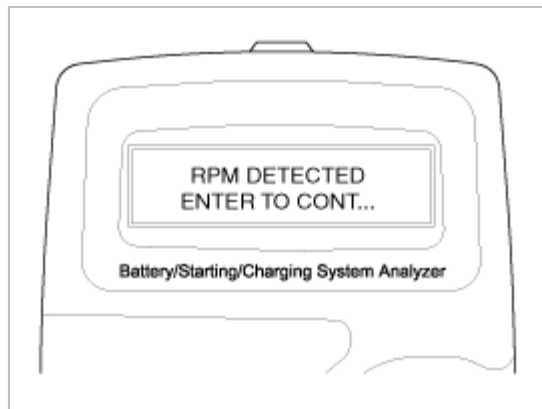
17. The tester will conduct charging system test during loads on.



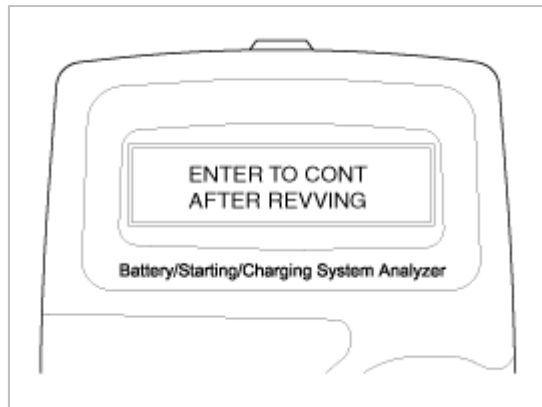
18. Rev engine for 5 seconds with pressing the accelerator pedal. (Follow the instructions on the screen)



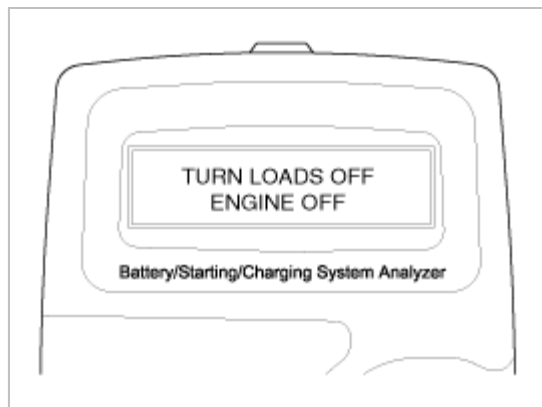
19. The message that engine RPM is detected will be displayed on the screen. Press ENTER to continue.



20. If the engine RPM is not detected, press ENTER after revving engine.

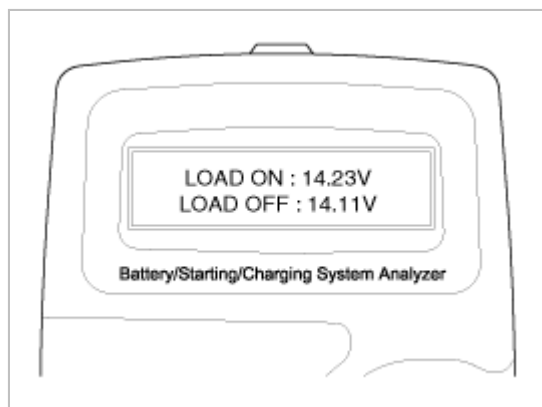


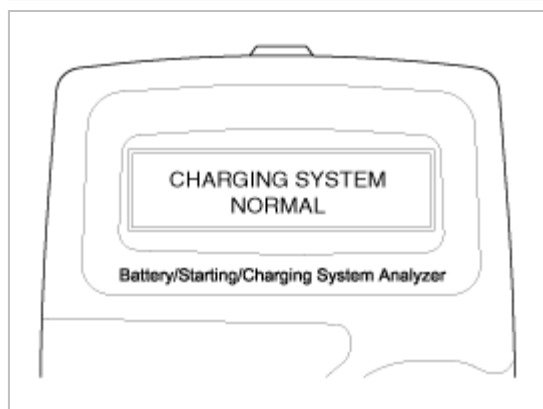
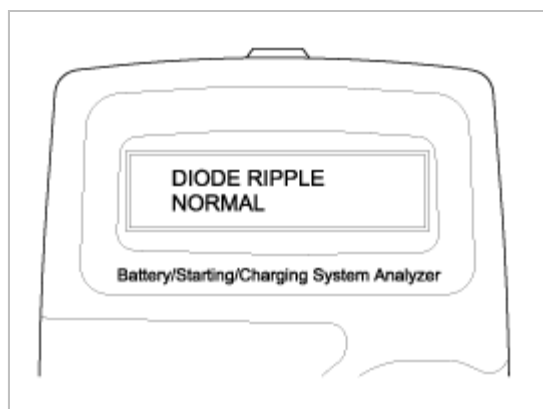
21. Turn off electrical loads (air conditioner, lamps, audio and etc). Turn the engine off.



22. Charging voltage and charging system test results will be displayed on the screen.

Shut off engine and disconnect the tester clamps from the battery. Refer to the following table and take the appropriate action as recommended by the Micro 570.





Charging System Test Results

Result On Printer	Remedy
CHARGING SYSTEM NORMAL / DIODE RIPPLE NORMAL	Charging system is normal
NO CHARGING VOLTAGE	Alternator does not supply charging current to battery <ul style="list-style-type: none"> - Check belts, connection between alternator and battery and replace belts or cable or alternator as necessary
LOW CHARGING VOLTAGE	Alternator does not supply charging current to battery and electrical load to system fully <ul style="list-style-type: none"> - Check belts and alternator and replace as necessary
HIGH CHARGING VOLTAGE	The voltage from alternator to battery is higher than normal limit during voltage regulating. <ul style="list-style-type: none"> - Check connection and ground and replace regulator as necessary - Check electrolyte level in the battery
EXCESS RIPPLE DETECTED	One or more diodes in the alternator is not functioning properly <ul style="list-style-type: none"> - Check alternator mounting and belts and replace as necessary