

GROUP
ENGINE ELECTRICAL
NUMBER

13-EE-003

DATE

NOVEMBER, 2013

MODEL(S)

ALL MODELS

SUBJECT:

GR8 DIAGNOSTIC TESTER/CHARGER TOOL AND BATTERY WARRANTY POLICY

THIS TSB SUPERCEDES TSB 10-EE-003 to include information about using the GR8 Battery Charger/Tester on Absorbent Glass Mat (AGM) Batteries.

*** NOTE**

Two types of batteries are installed on Hyundai vehicles: Flooded (wet cell) type and AGM type. The same type of battery must be replaced.

You must enter the correct battery type during GR8 Testing and Charging to ensure correct results.

Be sure to check the battery information label affixed on top of the battery and select the appropriate battery type.

AGM Battery



Flooded Battery



Description: This bulletin describes operation of the GR8 for battery related repair work. The GR8 is a state of the art tool that checks battery health, and then performs a reliable intelligent safe charge which can quickly restore some batteries to good condition. For example, a battery may be fully revived within 1.5 hours if it has not been in a discharged state for an extended period of time.

Basic Operation and Battery Warranty Policy using the GR8:

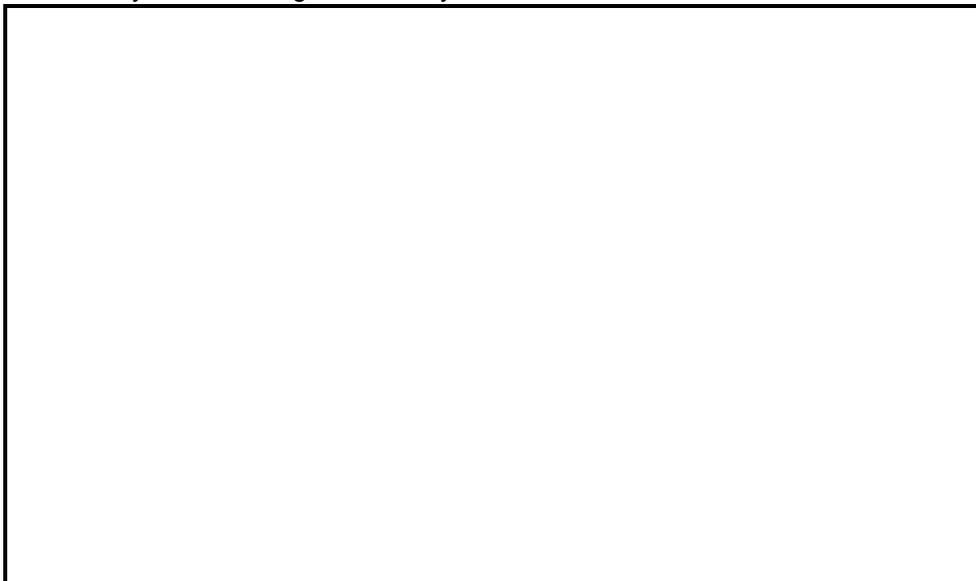
1. Perform a quick test in the Battery Test mode. If the Battery Test mode provides a "Replace Battery" result, the battery can be replaced without further steps.
2. If the Battery Test Mode produces a "Charge and Retest" result, you are then required to conduct a Diagnostic Charge that will determine whether the battery is able to be brought to a "Good Battery" condition by a full GR8 charge. If the initial diagnostic charge test finds that the charge will not revive the battery, it will usually indicate "Replace Battery" within 20 minutes on average.
3. Should the battery pass the "Diagnostic Charge" test, it will continue charging until the battery reaches a full charge condition (which can take up to 1.5 hours) and indicate "Good Battery" when completed successfully.
4. The GR8 produces printouts of the results in both the Battery Test and Diagnostic Charge modes. Both printouts must be attached to the warranty repair order with proper VIN and RO numbers entered via the GR8's keyboard.

NOTE

A "Diagnostic Charge" must be performed if the battery test resulted in "Charge & Retest".



GR8 Battery Tester/Charger Assembly:





*** NOTE**

Either the small battery tester clamps or large charger clamps can be connected to a battery at a time.

CAUTION

NEVER connect both set of small and large clamps to a battery as it can cause internal damage to the GR8 assembly.

GR8 Battery Tester Unit: Performs battery testing and initial control of the diagnostic charger. Tester can be used independent of the charger unit after a battery charge is in process. The cable from the base may be disconnected and wireless communication exists to the Charger unit. The cable should be reconnected when docked on the charger.

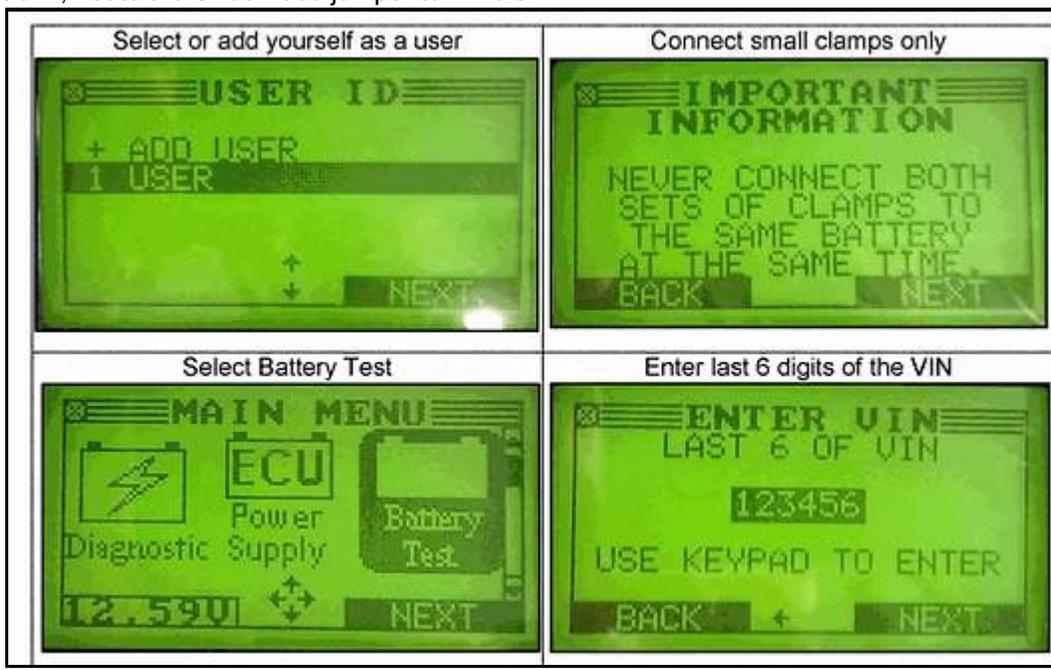
Service Procedure:

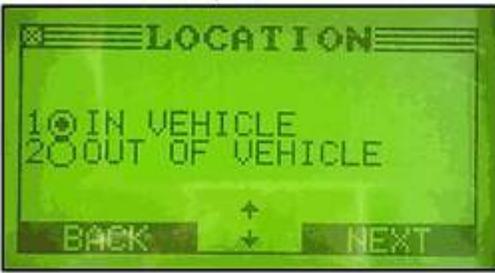
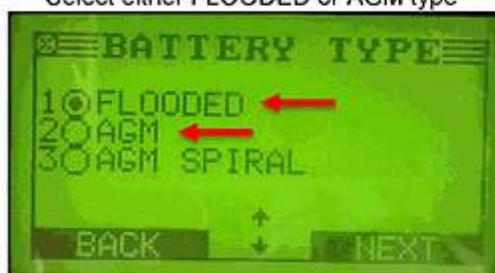
First step - Battery Test (always the initial test):

1. Press the power button on the GR8 if the Battery Tester unit is docked on the Charger unit. You should hear the Charger unit's fan come on and the Tester unit's display will light up.
2. Connect only the Battery Tester unit's small clamps to the vehicle's battery making sure that the black clamp is connected to the battery negative "-" terminal and the red cable's clamp is connected to the battery positive "+" terminal. GR8 display will warn if you connected it backwards.

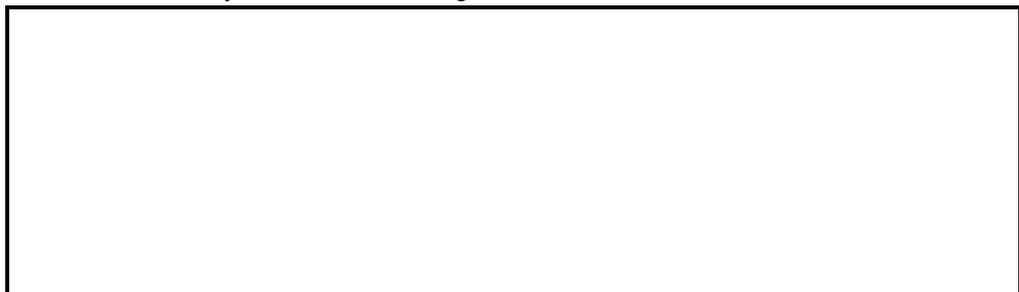
NOTE

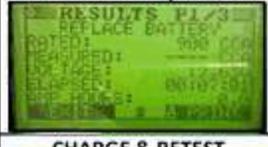
For Genesis, Equus & Sonata Hybrid, connect the Battery Test or Charger clamps directly to the battery in the trunk, not to the Underhood jumper terminals.



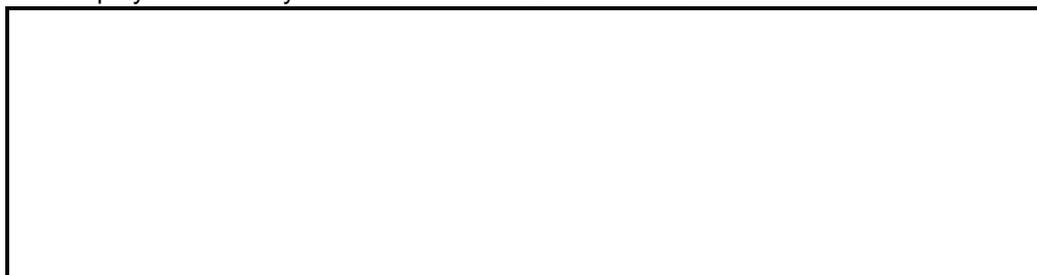
<p>Select battery IN/OUT of vehicle</p> 	<p>Select CUSTOMER CAR</p> 
<p>Select either FLOODED or AGM type</p> 	<p>Enter CCA rating of battery</p> 
<p>Select NEXT</p> 	<p>Testing is in progress</p> 
<p>Enter Repair Order number</p> 	<p>Test Result. Print for the R.O.</p> 
<p>* NOTE</p> <p>Always print out the Battery Test result to attach to the Repair Order.</p>	

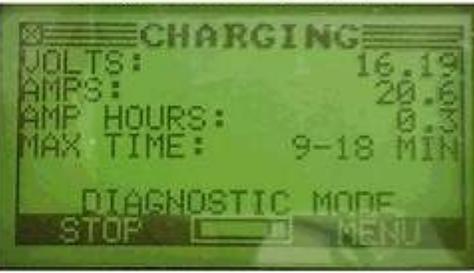
3. Follow these screen by screen instructions from left to right for each row. This example shows screens that will occur for the battery condition of "Charge & Retest":



GR8 BATTERY DIAGNOSTIC TEST/CHARGE REPAIR PROCEDURE AND WARRANTY POLICY			
1 ST STEP	2 ND STEP	3 RD STEP	CLAIM
ALWAYS BEGIN WITH BATTERY TEST FIRST: 	PERFORM DIAGNOSTIC CHARGE AS APPLICABLE:  Press YES or select Diagnostic at Main Menu: 	REPAIR ACTION	WARRANTY CLAIM TYPE
BATTERY TEST RESULT:	DIAG. CHARGE RESULT:		
GOOD BATTERY 	Charge is not applicable	None	None
GOOD – RECHARGE 	Dealer optional charge method as per →	CHARGE BY GR8 or, run engine at idle for 20 minutes	None
REPLACE BATTERY/ BAD CELL 	Charge is not applicable	REPLACE BATTERY	REPLACE 37110R00 only (Add to R.O. Print Ticket #A)
CHARGE & RETEST 	COMPLETE – GOOD BATTERY 	GR8 CHARGE ONLY	CHARGE 37110A00 only (Add to R.O. Print Ticket #B)
CHARGE & RETEST 	REPLACE BATTERY/ BAD CELL 	GR8 CHARGE ATTEMPT NO GOOD → REPLACE BATTERY	CHARGE 37110A00 + REPLACE 37110R00 (Add to R.O. Print Ticket #C)

- Follow the directions in this table based on the result of the Battery Test (first column). PRINT results at Battery Test and then after Diagnostic Charge:
- Connect only the Charger unit's large clamp set to the vehicle's battery making sure that the black clamp is connected to the battery negative "-" terminal and the red clamp is connected to the battery positive "+" terminal. GR8 display will warn if you have connected it backwards.

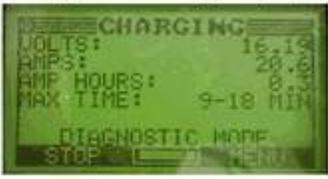
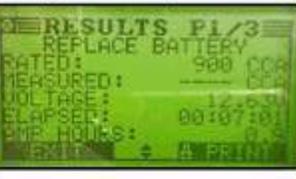


<p>Press YES to start charging</p> 	<p>Connect large clamps</p> 
<p>Diagnostic charge is in progress</p> 	<p>Charge status being displayed</p> 
<p>Good Battery condition reached</p> 	<p>Full Charge Complete</p> 

*** NOTE**

If the Diagnostic Charge results in "Good Battery", attach both Battery Test print tickets of the "Charge & Retest" result and the Diagnostic Charge "Good Battery" result per example of "Print Ticket #B" on page 9.

6. Perform the following instructions showing the GR8 screens (as shown from left to right of each row) that will occur when a "Good Battery" result is reached after charging:

<p>Charge Status Being Displayed</p> 	<p>Enter R.O. number</p> 	<p>Charge NG – Replace Battery</p> 
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*** NOTE**

If the Diagnostic Charge resulted in "Replace Battery", claim the Op Code 37110A00 for the battery charge attempt and Op Code 37110R00 for "Replace Battery". The Battery Test print tickets for "Charge & Retest" result and the "Diagnostic Charge" result must be attached as per example "Print Ticket #C" of the page 9.

*** NOTE**

Print Tickets that must be attached to the Repair Order based on the Battery Test result and Diagnostic Charge result are shown below. Also listed are the warranty claim types.

Print Ticket# A	Print Ticket# B	Print Ticket# C
	(Both tickets as shown must be attached with matching VIN, close in date, and with correct RO#)	(Both tickets as shown must be attached with matching VIN, close in date, and with correct RO#)
REPLACE 37110R00 only	CHARGE 37110A00 only	CHARGE 37110A00 + REPLACE 37110R00
BATTERY TEST=REPLACE BATTERY	1. BATTERY TEST = CHARGE & RETEST 2. DIAGNOSTIC CHARGE = GOOD BATTERY	1. BATTERY TEST = CHARGE & RETEST 2. DIAGNOSTIC CHARGE = REPLACE BATTERY

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Enter this 11-digit warranty code into the claim based on results as indicated.

7. The GR8 will show the following screens when "Replace Battery" results after a Diagnostic Charge attempt:



GR8 RESULTS	OP CODE	OPERATION	OP TIME	CAUSAL P/N	NATURE /CAUSE
Battery Test = "REPLACE BATTERY" (Ex: Print Ticket#A)	37110R00	REPLACE BATTERY	(per LTS)	Use Part Number shown in Battery Chart for models until 2011MY	N69/C40
Battery Test = "CHARGE & RETEST" and Diagnostic Charge = "GOOD BATTERY" (Ex: Print Ticket#B)	37110A00	CHARGE BATTERY	0.3 M/H		
Battery Test = "CHARGE & RETEST" and Diagnostic Charge = "REPLACE BATTERY" (Ex: Print Ticket#C)	Must be entered in order as below:				
	37110R00 +	REPLACE BATTERY +	(per LTS) +		
	37110A00	CHARGE BATTERY	0.3 M/H		

★ NOTE

Attach the Print Tickets to the Repair Order as per examples shown on the page 9 based on the GR8 results.

★ NOTE

Enter the 11-digit warranty code into the claim submission as per below:

Initial Step: BATTERY TEST Printout Result	2 nd Step: DIAGNOSTIC CHARGE Printout Result	Warranty Code is entered from:	
		BATTERY TEST Printout	DIAGNOSTIC CHARGE Printout
REPLACE BATTERY	not applicable	X	
BAD CELL - REPLACE	(do not attach to R.O.)	X	
CHARGE & REATEST	GOOD BATTERY		X
	REPLACE BATTERY or BAD CELL- REPLACE		X

Warranty Claim Information:

Dealers can find the Battery Application Guide at:
http://www.hyundaiashdrive.com/storage/reference-material/pn-reference-charts/battery_app_guide.pdf

REPLACEMENT BATTERY APPLICATION GUIDE

MODEL	YEAR	ENGINE	PART NUMBER	GROUP	CCA	RC
ACCENT	1995-	4 cyl	00275-15001	121R	600	110
AZERA	2006-	6 cyl	00275-16001	124R	700	120
ELANTRA	1992-1995	4 cyl	00275-14000	25	550	100
	1996-2010	4 cyl	00275-15001	121R	600	110
GT	2013-	4 cyl	00275-18001	H5	600	100
COUPE	2013-	4 cyl	00275-18001	H5	600	100
SEDAN	2011-	4 cyl	00275-18001	H5	600	100
ELANTRA TOURING	2009-2012	4 cyl	00275-15001	121R	600	110
ENTOURAGE	2006-2008	6 cyl	00275-16001	124R	700	120
EQUUS	2011-	8 cyl	00275-17000	H8	95 amp	
EXCEL	1985-1994	4 cyl	00275-14000	25	550	100
GENESIS						
COUPE	2010-	ALL	00275-16001	124R	700	120
SEDAN	2009-	ALL	00275-17000	H8	95 amp	
SANTA FE	2010-	ALL	00275-16001*	124R	700	120
SPORT	2013-	4 cyl	00275-16001*	124R	700	120
SCOUPE	1991-1995	4 cyl	00275-14000	25	550	100
SONATA	1989-1998	4 cyl	00275-14000	25	550	100
	1999-2013	ALL	00275-16001	124R	700	120
	2014-	4 cyl	00275-20000	H6A	760	120
HYBRID	2011-	4 cyl	00275-19000^	H6R	600	110
TIBURON	1997-2008	ALL	00275-16001	124R	700	120
TUCSON	2005-	ALL	00275-16001	124R	700	120
VELOSTER	2012-	ALL	00275-18001	H5	600	100
VERACRUZ	2007-2012	6 cyl	00275-16001*	124R	700	120
XG300/350	2001-2005	6 cyl	00275-16001	124R	700	120

Some OEM batteries are smaller. Discard the battery insulation cover if it is too small to fit the service battery.

^This battery is only stocked at the Battery Redistribution Center, not your local Distributor. Please add an additional one to two days to the normal delivery process to receive this battery.

*Some Veracruz and Santa Fe models may require a Hyundai battery post shim (P/NL 00220-68000) to fit the battery connections tight.

Hyundai Battery Replacement Application Chart:

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