

**HYUNDAI**NEW THINKING.
NEW POSSIBILITIES.**Technical Service Bulletin**

GROUP

**ENGINE
ELECTRICAL**

NUMBER

14-EE-001-1

DATE

AUGUST 2014

MODEL(S)

**SONATA (YF/LF),
ELANTRA (UD/MD),
GENESIS SEDAN(DH)****SUBJECT:****ABSORBENT GLASS MAT (AGM) BATTERY**

This TSB supersedes TSB 14-EE-001 to update the batteries installed in the 2015MY Sonata (LF) vehicles.

Description:

Starting with the 2014 model year, there are two types of batteries installed on Hyundai vehicles: Conventional Flooded (wet cell) type and Absorbent Glass Mat (AGM) type. Although the battery external appearances are similar, the internal construction and characteristics of the batteries are different. This difference impacts GR8 Battery Testing and Diagnostic Charging.

★ IMPORTANT

- The replacement battery must be the same type of battery originally installed from the factory.
- The correct battery type selection, either “Flooded” or “AGM”, must be selected during GR8 Battery Testing and Charging to ensure correct results.
- Charging with an incorrect battery type selection will damage and shorten the life of the battery.
- Always check the battery specification label affixed on top of the battery before working on the battery and be sure to select the appropriate battery type.
- Always enter the “SAE CCA” value printed on the battery specification label for the GR8 battery CCA rating.

Applicable Vehicles:

- 2014MY ~ Sonata (YF) 2.4L
- 2014MY ~ Elantra (UD/MD) 1.8L with Automatic Transmission
- 2015MY ~ Genesis Sedan (DH) 3.8L / 5.0L
- 2015MY ~ Sonata (LF)

Warranty Information:

Normal warranty applies.

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

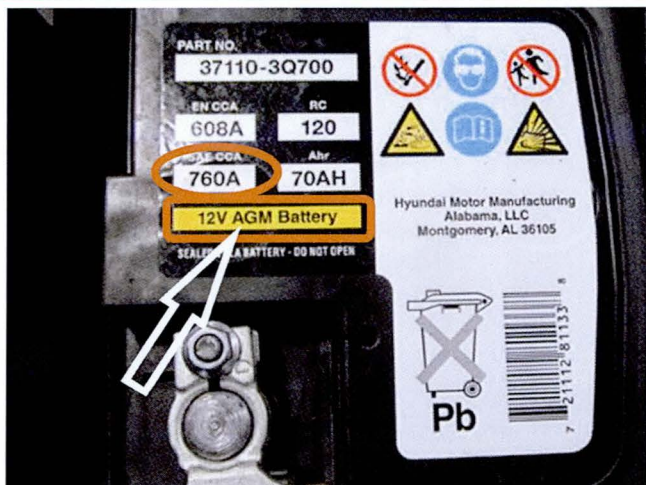
SUBJECT:

ABSORBENT GLASS MAT (AGM) BATTERY

Specification Label Examples

2014 Sonata (YF) 2.4L, 2015 Sonata (LF) 2.0L Turbo & 1.6L **AGM Battery**

Sonata (YF) **Flooded Battery**



Elantra (UD/MD) **AGM Battery**

Elantra (UD/MD) **Flooded Battery**



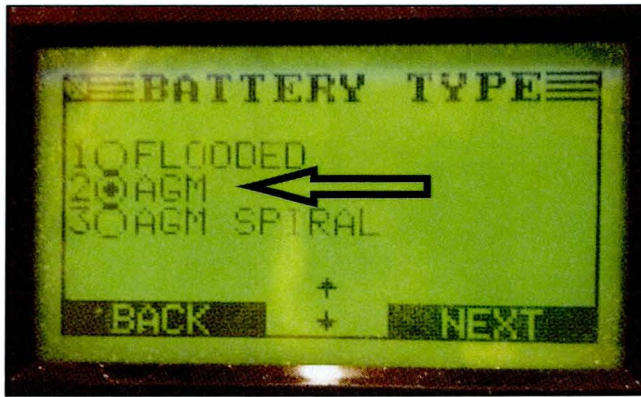
2015 Genesis Sedan (DH) **AGM Battery**

2015 Sonata (LF) 2.4L **AGM Battery**



AGM Battery Testing/Charging:

When testing or charging an AGM battery using the Midtronics GR8 Diagnostic Battery Tester/Charger, it is important to select the correct Battery Type in the setup menu. The GR8 will configure the optimum voltage and current charge rates for the type of battery that is selected.



The AGM battery is sensitive to overcharging and heat. Severe overcharging can damage and may deform the battery.

- The GR8 battery tester/charger has AGM battery settings and is the required tool for warranty.
- You must use a voltage regulated battery charger if GR8 is unavailable.
- Never allow the battery temperature to exceed 125°F during charging.
- Immediately stop charging any battery that becomes very hot or makes hissing noises.

Refer to **TSB 14-EE-002** for more details on how to use the GR8 Battery Tester.

The latest Battery Application Guide can be found at:

http://www.hyundaiflashdrive.com/storage/reference-material/pn-reference-charts/battery_app_guide.pdf

AGM Battery General Information:

AGM batteries used in Hyundai vehicles are flat plate style and the case resembles that of a conventional flooded battery.

The AGM battery uses a fiberglass mat separator that is wrapped around the positive plates and holds the electrolyte in place with capillary action.

The battery cells consisting of the lead plates, electrolyte, and fiberglass mat are tightly packed into the case partitions. This tight packing or compression holds the electrolyte absorbed in the glass matting resulting in a battery that is spill proof, impact and vibration resistant. As a result, it has very low internal resistance.

The lower internal resistance increases the voltage output, decreases charging time, and reduces losses to heat as power flows through the battery.

In general, AGM batteries may provide a longer service life than conventional flooded batteries.

Key benefits of AGM batteries:

- 3 times higher cycle capability
- Higher deep discharge capability
- Faster current delivery
- Faster charge capability
- Low self-discharge
- Maintenance Free
- Low / No gas output
- Spill proof