

## Top Tips

# Servicing Absorbed Glass Mat (AGM) Batteries

As vehicles have evolved and grown in their electrical demands, more and more vehicle manufacturers have turned to AGM ("Absorbed Glass Mat") batteries as their prescribed battery for vehicles coming off of their production lines. With more stability, cycling capacity, and reliable power, AGM batteries can be found in nearly 1 out of 4 vehicles today and continue to rapidly grow year after year.



Ensure the best customer experience by choosing an original equipment (OE) equivalent or better replacement battery. Confirming that all customer vehicle settings are restored is also vital regarding battery replacement procedures.

Read on to learn more about the unique AGM battery features, AGM testing and inspection processes, customer-facing equipment reset procedures, and proper battery selection and application.

# 1

### Identify AGM battery features.

The easiest way to determine if you are working with an AGM battery is to identify the part number. Usually, the acronym "AGM" will be included in the part number itself, and the letters "A-G-M" should also be stamped on the battery case or sticker. Another identifying agent of an AGM battery is a sticker or stamp indicating that the "battery cannot be spilled."

# 2

### Understand AGM battery chemistry.

AGM batteries are lead-acid based. Some unique aspects make them more powerful and efficient, such as using a glass mat, which provides a more stable and even pathway for the electrolyte to travel between electrodes. This design gives AGMs a balanced charging rate and **improves vibration and corrosion resistance**, leading to a longer battery life.

AGM batteries are also designed for deep cycling, which can add to their longevity. Another benefit of AGM batteries is that they are maintenance-free; you do not need to check the internal water/acid levels. These batteries provide a more robust option with advanced technology, guaranteeing the customer's vehicle will start in even the most extreme conditions.

## 3

### **Test and inspect AGM batteries accurately.**

AGM batteries need to be tested differently. This is due to the electrolyte's saturated fiberglass mat design. When testing AGM batteries specifically, you must use the AGM settings on the provided battery tester. If this is missed or the battery is tested like a flooded lead-acid battery, erroneous data will be provided. As with any battery, still check the physical appearance of the battery; bulging of the case on an AGM battery could still be a sign the battery may need to be replaced.

## 4

### **Choose the best battery application.**

Choosing a replacement battery can often feel overwhelming. Selecting a battery that meets the vehicle requirements for cold cranking amps and the correct physical dimensions is crucial to ensuring it fits the vehicle's specific requirements. The Duralast® brand offers multiple battery options depending on the market your repair shop services. Duralast Power Pro AGM batteries meet or exceed OE specifications and are backed by a four-year free replacement warranty. Duralast Platinum Elite AGM batteries provide the highest quality and durability and are backed by a five-year free replacement warranty.



## 5

### Reset warning lights and customer settings.

All the vehicle's electrical features and accessories rely on battery power. Many of these systems lose their memory settings when the battery is replaced. For example, some radios have security settings that lock the radio when there is a loss of power. Features such as memory seats and steering wheel settings should be either preserved or reset to guarantee customer satisfaction. An easy way to prevent losing the customer's saved settings is by plugging in an auxiliary power source to the accessory port. This ensures that all modules in the vehicle are still powered during the removal and replacement of the battery.

When replacing a battery, some vehicles may require you to enter specific information into the electronic control module. Information such as the battery group size and the date and time of replacement must be logged. Use a diagnostic scan tool to record related information accurately. Failure to do so can result in a future battery system misdiagnosis and issues with potential warranty claims.

In some cases, you may be required to use a specialized battery rest tool. There are certain makes and models that calculate the remaining life of the battery installed in the vehicle. This type of battery rest tool contains an OBDII dongle to program the new battery information directly into the ECM. The module uses this information to determine charging rates and to optimize battery life. This tool provides a simplified approach to restoring the battery specifications inside the ECM.

## 6

### Validate charging system performance.

In most scenarios, following the proper diagnostic procedures will lead to the replacement of a defective battery. However, this is not always the case. A defective alternator cannot produce a proper voltage and can make the battery appear weak, potentially misleading a technician to believe the cause is a failed battery. If the battery voltage is low, charge it completely before testing it. This can confirm whether or not the battery is the culprit of the suspected issue or just a byproduct of a related charging problem. Taking a comprehensive diagnostic approach will help you complete battery services with confidence.

For more information on Duralast ProPower® batteries, visit [autozonepro.com/propowerbatteries](https://autozonepro.com/propowerbatteries).

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