

CONSUMER INFORMATION PAMPHLET

"Congratulations. You have just purchased the finest reproduction product available to the classic automotive hobbyist today! You as the purchaser should be aware that this battery is the final culmination of years of exhaustive research, and the efforts and cooperation of many people, not the least of which were the original designers of the battery during its production era.

As a reproduction item, you should be further aware that this part is NOT manufactured by General Motors Corporation-Delco Remy Division, but the tooling was faithfully reproduced from the original specifications, under license, and with the permission of General Motors Corporation, and its Delco-Remy Division. Gurdjian Battery Company has in the past been licensed by General Motors Corporation to utilize various trademarks in the manufacture of these products. Gurdjian Battery Co. has in the past, and continues to pursue additional licensing agreements with General Motors Corporation. However, in the interest of providing a service to the classic automobile enthusiast, and considering that this product offering is manufactured at least in part from materials covered under previous license agreements, they are offered to you as an accurate reproduction for so long as supplies of these materials last. We sincerely hope that you the consumer enjoy using this product as much as we enjoy bringing it to you.

NOTE: THIS BATTERY IS MANUFACTURED BY GURDJIAN BATTERY COMPANY

In order to reproduce this battery in EXACT DETAIL, certain design features available in production batteries today for purposes of consumer safety had to be eliminated such as Battery Caps with flame barriers, to provide explosion protection under charging conditions, and case sealing techniques designed to retard spillage of the electrolyte.

As a result of our uncompromising attention to original detail, you, the consumer, MUST EXERCISE EXTREME CAUTION to prevent injury to yourself, the vehicle, and others, during installation and use of the product. PLEASE READ THIS PAMPHLET IN ITS ENTIRETY BEFORE USING THIS PRODUCT."

Batteries contain SULFURIC ACID. They also contain EXPLOSIVE MIXTURES OF HYDROGEN AND OXYGEN GASES in each cell at all times. Therefore, the first section of this pamphlet is devoted to safety precautions to be followed when working around batteries. Safety precautions will be mentioned throughout the pamphlet whenever they are applicable.

HANDLING BATTERY ACID

When working with acid, such as filling batteries, wear a face shield. Protective clothing is also advisable. Use extreme care to avoid spilling or splashing electrolyte (which is dilute sulfuric acid) as it can destroy clothing and burn the skin. Therefore, always use a battery carrier to lift these batteries or lift them with your hands placed at opposite corners. If electrolyte is spilled or splashed on clothing or the body, it should be neutralized immediately with a solution of baking soda and water and then rinsed with clean water.

Electrolyte splashed into the eyes is extremely dangerous. If this should happen, force the eye open and **flood it with cool, clean water for approximately five minutes**. A doctor should be called immediately when the accident occurs and "on-the-spot" medical attention given, if possible. If a doctor cannot come to the scene of the accident immediately, follow his instructions concerning actions to take. Do not add eye drops or other medication unless advised to do so by the doctor. If acid (electrolyte) is taken internally, drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately.

If electrolyte is spilled or splashed on any surface of the car, it should be neutralized with a baking soda solution and rinsed with clean water.

DANGER OF EXPLODING BATTERY

BATTERIES EXPEL EXPLOSIVE GASES. KEEP SPARKS, FLAMES, BURNING CIGARETTES, OR OTHER IGNITION SOURCES AWAY AT ALL TIMES. ALWAYS WEAR A FACE SHIELD WHEN WORKING NEAR BATTERIES.

No one should work near a battery, either in a vehicle or on the bench unless they know and observe the safety precautions described in this pamphlet. They should be familiar with the procedures to be used if they attempt to charge or test a battery or jump start an engine. The manufacturer's instructions must be followed when any equipment such as a battery charger or tester is used.

Hydrogen and oxygen gases are produced during normal battery operation. These gases escape through the battery vents and may form an explosive atmosphere around the battery if ventilation is poor. Explosive gases may continue to be present in and around the battery for several hours after it has been charged. Flames or other ignition sources should be kept well away from the battery, as an external spark may ignite the gases within the battery resulting in an explosion and possibly shattering the battery. Anyone in the vicinity of the battery when it explodes could receive injuries, including eye injury from flying pieces of the case or cover or acid thrown from the battery. The **eyes must be shielded** when working near a battery. Never lean over it during charging, testing or "jump starting" operations. Do not break "live" circuits at the terminals of batteries because a spark usually occurs at the point where a "live" circuit is broken. Make certain the charger cable clamps or booster leads are clean and making good connections. A poor connection can cause an electrical arc which could ignite the gas mixture and explode the battery.

Be careful that tools or other metallic objects do not fall across the terminal which is not grounded and any adjacent metallic part of the vehicle which is grounded. Do not smoke when working under the hood of a car or near a battery. Never strike a match or bring any other flame in the vicinity of the battery.

CHARGING A BATTERY

The room or compartment in which the battery is being charged should be well ventilated. Do not place a battery on charge unless you are wearing a face shield. It must be assumed that **explosive mixtures of hydrogen gas are present within the battery cells at all times**. Even a battery standing idle generates small quantities of hydrogen due to the self-discharge action. This gas collects in the cells and can be exploded by a torch, match flame, lighted cigarette, sparks from loose connections or metal tools making contact between the terminals or the ungrounded terminal and adjacent metal parts which are grounded.

Once it has been determined that the vent caps are not plugged, and free from obstructions, it is recommended that vent caps be left on the battery during charging. Additionally, a wet cloth should be placed over the battery and vent caps. Always shield eyes when working around the battery and follow the precautions set forth herein.

ACTIVATION OF THIS DRY-CHARGED BATTERY-IMPORTANT

You will need:

Battery acid - 1.260 Or 1.265 gravity, battery grade electrolyte
A 10 to 20 amp battery charger that can sustain a 4-6 amp constant charge. A non-automatic charger is preferred. Automatic chargers often shut down before full charge is achieved. Trickle charging is not recommended and is often ineffective when activating a new battery. If using a starter/charger, use either the "slow" or "normal" charge mode. Do not use the "start" or "trickle" charge mode. If using a "fast" charge mode, make sure charge rate is not above recommended parameters (4-6 amps).
A hydrometer Test on known specific gravity acid to determine if it reads accurately, high, or low. This is important to know when you are measuring the effectiveness of charging. Also remember that the specific gravity is temperature related. The cooler the temperature, the higher the specific gravity.

PROCEDURE

1. Remove vent plugs from battery. Blow through them to verify proper venting.
2. Fill each cell of the battery to the split ring with 1.260/1.265 gravity battery grade electrolyte (battery acid). It will bubble and effervesce. Wait 20 - 30 minutes and check the sp. gr. You will note that it will have dropped significantly. *Use of higher or lower specific gravity electrolyte than recommended can impair battery performance.*
3. Replace the vent plugs, leave them unscrewed 1/2 turn.
4. Charge battery. This will require six (6) to twelve (12) hours. You will note that the charger ammeter will start out near maximum amperage (10-15 amps) and after about 30 minutes will have dropped to 4-6 amps. During charging, check the specific gravity of one of the center cells hourly. When the sp. gr. reaches 1.260/1.265, check all six cells. Keep charging until **all six** cells reach a sp. gr. of 1.260/1.265. This completes the "Bulk" charge.

During charging, the battery will warm and gas freely. It should not become hot or gas violently. If it does, cease charging and determine the cause. Often extreme heat and gassing is caused by an excessive rate of charge. If you cannot determine the cause, call 814/438-2050

NOTE: If the ammeter drops below 4 amps, the battery is not getting an adequate charge. If you hear a clicking noise in the charger, the circuit breaker is being tripped, indicating that the charger does not have enough power to charge the battery. Automatic battery chargers will frequently shut off before a full charge is achieved. If used, make sure sp. gr. reaches a full charge level.

5. After completing "Bulk" charge, continue charging for another three (3) hours. Sp. gr. will remain at 1.260/1.265. This is the "Absorptive" charge, bringing the battery to its maximum full charge potential. While the battery is still warm, check level of electrolyte. If the level has dropped, add acid drop by drop with the hydrometer to bring level to bottom of split ring. This is the "hot fill level". **Never again add acid to the battery. After the battery is in service, only distilled water should be added to maintain the electrolyte level.**

6. Allow the battery to rest overnight

7. Check the specific gravity. If it has dropped, put back on charger. If it has maintained at 1.260/1.265, note electrolyte level in each cell. This is the "cold fill level"

8. Tighten vent plugs. Install the battery in vehicle only after it has maintained a full charge for at least eight (8) hours.

RECHARGING A DISCHARGED BATTERY

Recharge at 4 amps. Check one of center cells with hydrometer hourly. When 1.260/1.265 sp gr achieved, measure all six cells. After **all six** cells have attained 1.260/1.265 sp gr, continue to charge for three (3) more hours.

NOTE: The ability to start a vehicle does not accurately reflect the state of charge of the battery. Only hydrometer readings can determine the state of charge. In small block applications, a 20%-30% charged battery can start the vehicle with apparent ease. In big block applications, a fully charged battery can be significantly discharged by the end of a show date and should be recharged immediately. Keeping the battery fully charged at all times will significantly increase its useful life.

Do not charge a battery unless you are thoroughly familiar with the step by step procedure. Follow the manufacturer's instructions on the charger. If the instructions are no longer legible and you do not have literature containing the instructions, obtain them from the manufacturer of the charger. Never use a charger without instructions.

OVERCHARGING AND UNDERCHARGING

The vehicle's charging system can have a profound effect upon the life of a battery. A high voltage regulator setting can cause excessive gassing and water loss, thermal runaway, and eventual damage to plates and separators. If the voltage regulator setting is too low, if there is a high

resistance in the charging circuit, or if the charging system is not capable of handling the accessory load, the battery will be in a constant state of discharge. If this happens over a long period of time, the sulfate which deposits on the plates can become hard and crystalline. In this form the plates may not accept a charge under normal conditions and may even cause short circuits through the separators due to a build-up of lead sulfate through the pores which is converted to lead shorts during recharge.

Voltage regulator settings vary among vehicle manufacturers and may not be adjustable. They should be checked with the individual manufacturer before adjustment is attempted.

TIPS FOR LONG BATTERY LIFE

1. Store your battery in a cool dry place when not in use.
2. Check hydrometer reading every 30 days after battery is activated and being stored (i.e. winter)
3. Slow charge only when battery specific gravity is shown to be low.
4. When car is started for first time after being stored, use jumper battery or charger/starter, be careful not to run starter for more than 20-30 seconds, pausing between cycles so as not to damage starter, solenoid or cables.
5. Clean battery tray thoroughly and paint with good quality paint. Then sprinkle very liberally (fill tray completely) with baking soda.
6. Make sure you use rubber spacers on corners of retainer and make sure battery cables do not touch retainer. This helps to prevent shorts on surface of battery and slow discharge.
7. Make sure cables and posts are covered with petrolatum. Also use felt washer on positive post.
8. Keep battery filled to split ring-use only distilled water. Fill when battery is at operating temperature. If filled when below operating temperature, spillage of electrolyte, secondary to expansion from warming, may occur.

KEEP FOR YOUR RECORDS

BATTERY - LIMITED WARRANTY

Name of Retailer: _____

Address of Retailer _____

Identification of Battery _____

Customer's Purchase Date _____

If this battery fails due to defects in workmanship or material and will not accept and hold a charge, the retailer or manufacturer will give the original customer a new replacement battery in exchange for the defective battery, when it is returned to the retailer within (90) days from the customer's purchase date. The new replacement battery will be equivalent group size and equal or higher grade and quality to the type of battery exchanged. If the battery has received commercial service. The period of the warranty for no charge replacement shall be one-half of the above specified periods.

This limited warranty will not be honored if the battery has been damaged or misused or if its failure has been contributed to by lack of reasonable and necessary maintenance. Implied warranties when applicable are subject to the same terms, conditions, and limitations as this limited warranty and are limited to the duration of the limited warranty. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you. The retailer or manufacturer shall not be liable for incidental or consequential losses or damages under any theory of liability, except to the extent that this limitation is found to be unenforceable under applicable state law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IMPORTANT: Please return separate warranty registration card to manufacturer with 10 days of purchase

THIS BATTERY CAN BE RECYCLED - SAVE ALL SHIPPING MATERIALS