



U.S. SUZUKI MOTOR CORPORATION

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Dear Cavalcade Owner:

We at U.S. Suzuki Motor Corporation would like to thank you for selecting our product for your new touring motorcycle. We believe that the Suzuki Cavalcade is the finest touring motorcycle in the world.

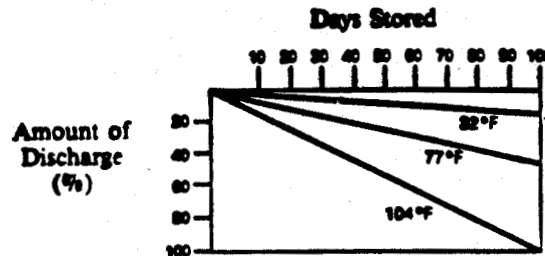
At this time of the year, many motorcyclists are preparing to store their motorcycle for the winter months. The method of storage used will affect the readiness of your motorcycle for use in the spring. In your Cavalcade Owner's Manual, on page 67, there is a section on motorcycle storage. Following these procedures will help protect your motorcycle from deterioration over the winter.

There is one component on your motorcycle that is especially sensitive to storage; the battery. Since large batteries, such as used in large touring motorcycles, are expensive to replace frequently, it only makes sense to take good care them. With this in mind, we would like to explain some things about battery maintenance to you.

(1) Batteries can discharge even when not being used.

This is usually called self-discharge. A lead/antimony battery such as used in your motorcycle will normally discharge at a slow rate, even if not connected to anything. The discharge rate is about 0.5 to 1.0% per day, and the rate of discharge increases with warm temperatures.

SELF DISCHARGE — TEMPERATURE COMPARISON



(2) Batteries can become discharged faster if connected to an accessory that constantly uses power, even with the ignition switch off.

This tendency is usually called current drain. On many large touring motorcycles there are accessories that constantly draw power, even with the ignition key turned off, such as clocks, computers, and memories. Even though the current drain is usually very small, over a period of a few weeks it may be enough to drain the battery. On the Suzuki Cavalcade, there is a clock and a C.B. radio (if so equipped) memory circuit that constantly draw power from the battery.

<u>Accessory</u>	<u>Current Drain</u>
Clock	0.4 mA
C.B. Memory	17.0 mA

On those motorcycles with the C.B. radio, the current drain of the C.B. memory may be eliminated by switching the C.B. back up switch to the "OFF" position. The C.B. memory circuit normally remembers the channel that was last used before the radio was turned off. With the C.B. memory turned off (back up switch in the "OFF" position), when the radio is turned on it will always initially be on Channel 1.

CURRENT DRAIN

Discharging Ampere	Days from 100% Charged to 50% Discharged	Days from 100% Charged to 100% Discharged
7 MA	60 Days	119 Days
10 MA	42 Days	83 Days
15 MA	28 Days	56 Days
20 MA	21 Days	42 Days
30 MA	14 Days	28 Days

(3) If the battery is allowed to remain discharged, even for a short period of time, sulfation can occur.

(4) If the battery fluid level is low enough to expose the battery plates to air, sulfation can occur.

(5) Sulfation is permanent damage to your battery.

Sulfation is the crystallization of the active lead chemicals in your battery. In extreme cases, it can cause portions of your battery to appear solid white in color. In less extreme cases, it may not be readily visible. For a battery to sulfate, it must be in a discharged state (either by self drain or current drain), or the battery fluid level must be low enough to expose a portion of the battery plates to air.

Once sulfation occurs, it cannot be reversed. The power of the battery will be reduced, depending upon the amount of sulfation.

(6) Batteries can freeze.

The more discharged the battery is, the easier it is for the battery fluid, also called electrolyte, to freeze. However, a fully charged battery may be stored at extremely low temperatures safely, and at these temperatures, the self discharge rate of the battery is very low. This means that the battery will require charging less often at these temperatures.

ELECTROLYTE FREEZING POINTS

Specific Gravity of Electrolyte	Freezing Point
1.265	-76°F
1.225	-36°F
1.200	-17°F
1.150	+ 5°F
1.100	+18°F
1.050	+27°F

BATTERY CARE

The most accurate way to check your battery is to determine the specific gravity of the electrolyte in each cell. A specific gravity is a ratio of density between one substance and another. In this case the ratio is between the electrolyte and pure water. The best way to determine the specific gravity of the battery cells is to use a syringe hydrometer. The most accurate type of syringe hydrometer uses a floating internal tube, as opposed to the type that uses floating balls. Many motorcycle dealers sell battery hydrometers; your Suzuki dealer can obtain them directly from U.S. Suzuki by ordering part #09900-28403. They are very reasonable in price, especially when compared to a battery.

STATE OF CHARGE	Syringe Hydrometer
100% Charged	1.265
75% Charged	1.210
50% Charged	1.160
25% Charged	1.120
0% Charged	less than 1.100

A fully charged battery should have a specific gravity of 1.265 in each cell. If the specific gravity is less than this, the battery should be charged.

The battery charger should be no larger than 4 amperes for the Cavalcade battery, and the use of a smaller charger will reduce the possibility of damage to the battery from overcharging. Remove the battery from the motorcycle for charging, and place it in an area away from any flames.

During the charging process, the battery fluid level should be checked frequently. If more fluid is required, add distilled water until the levels are at the proper height.

When the specific gravity of each cell is 1.265, remove the battery from the charger.

So, to sum up your battery storage procedure:

(1) If you are storing your motorcycle for more than a week, turn off the C.B. memory (if so equipped) by turning the back up switch to the "OFF" position.

(2) If you are storing your motorcycle for more than a month, disconnect the battery from the motorcycle and perform the routine maintenance it requires on a regular schedule.

If proper care is taken of your battery, your motorcycle will be ready for use in the spring without any unpleasant, expensive, surprises.

Again, thank you for purchasing our product. We hope you will enjoy it and that we will see you on the road next spring.

TECHNICAL SERVICE DEPARTMENT
U.S. SUZUKI MOTOR CORPORATION