Kawasaki

PRODUCT SUPPORT.....SERVICE NEWS

BULLETIN NO.: 98-046D	**DATE: Jan. 1, 2007 (Rev.)**	**PAGE: 1 of 3**
TITLE: Battery Performance Rating		**RELEASE: Dealer/Customer**
SECTION: Electrical		**MODEL: All ZIV-2/ZV/-2 as shown**

Remove Service News 98-046C and replace with Service News 98-046D.

General:

Performance of Exide Batteries has been rated as shown in the following table.

Detail:

Please review the following table to answer any questions on battery capacity. Remember that some machines are equipped with more batteries than others.

Page two and three have more reference terms that may answer questions about lead acid type batteries.

MODEL	***S/N OF WHEN CHANGE TOOK AFFECT***	***BATTERY TYPE***	***EXIDE PART NUMBER***	***RESERVE CAPACITY****	***CCA CAPACITY****
50/60ZIV-2/ZV	50/60C2-0101~		N/A	65 (amp hour*)	425
65ZIV-2 65TM-2	65C3-5500~ 65C3-4500~		N/A	110 (amp hour*)	675
65ZV/ZV-2 65TMV/TMV-2	65C4-4001~ 65C4-5001~				
70ZIV-2	70C3-5555~	4D	COM-4D-P	320	1000
70ZV/ZV-2 **	70C4-5501~	4D	COM-4D-P	320	1000
80ZIV-2	80C3-5542~	4D	COM-4D-P	320	1000
80ZV/ZV-2	80C4-5001~	4D	COM-4D-P	320	1000
85ZIV-2	85C3-5513~	4D	COM-4D-P	320	1000
85ZV/ZV-2	85C4-5001~	4D	COM-4D-P	320	1000
90ZIV-2	90C3-5540~	4D	COM-4D-P	320	1000
90ZV/ZV-2	90C4-5001~	4D	COM-4D-P	320	1000
95ZIV-2	97C3-5588~	8D	COM-8D	435	1300
95ZV/ZV-2	97C4-5001~	8D	COM-8D	435	1300
115ZIV-2	11C3-5517~	8D	COM-8D	435	1300
115ZV/ZV-2	11C4-5001~	8D	COM-8D	435	1300
135ZV***	13C1-0201~	8D	COM-8D	435	1300

*See page 2. ** Includes 70TMV-2 ***Includes 135DV

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Reserve Capacity rating

A battery's Reserve Capacity represents the length of time the battery can maintain the vehicle's electrical needs in the event the alternator fails. Battery Council International defines Reserve Capacity as a measure of the time (in minutes) a lead-acid battery can deliver 25 amps at 80 degrees F and maintain terminal voltage of at least 1.75 volts/ cell.

Amp Hour Capacity rating

A unit of electrical capacity. Tells you how much power the battery will store. Current multiplied by time in hours equals ampere-hours. A current of one amp for one hour would be one amp-hour; a current of 3 amps for 5 hours would be 15 AH.

Cold Cranking Amp rating;

This industry rating measures the cranking power a battery has available to start a car's engine at 0 degrees F. Battery Council International defines it as the number of amperes a lead acid battery at 0 degrees F can deliver for 30 seconds and maintain at least 1.2 volts per cell.

How do I charge a battery?

⚠WARNING

All batteries contain acid and lead. Acid is an electrolyte solution, is corrosive and can cause injury if not regarded as dangerous.

- ***Wear proper eye and skin protection.***
- ***Charge only in an area where ventilation is adequate and the battery is unlikely to be disturbed.***
- ***Never attempt to charge a frozen battery.***
- ***Always keep vent caps in place while charging.***
- ***Never allow anyone to smoke around a charging battery.***
- ***Unplug charger before connecting the battery. Be sure to observe proper polarity when connecting charger leads to the battery.***
- ***Refer to the charger manufacturer's instructions for safe charger operation.***

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What causes a battery to fail?
Heat, vibration and malfunctioning vehicle electrical systems are the largest contributors to battery failures.

What effect does extreme heat have on my battery?
Heat is the number one cause of battery failure. Extreme heat causes the water in the battery's electrolyte to evaporate. Further, heat causes a battery's positive plate grids to corrode more rapidly. Both of these conditions are detrimental to the long-term life of a battery.

What effect does extreme cold have on my battery?
Cold temperatures dramatically reduce the effectiveness of chemical reactions within the battery, while increasing the battery's internal resistance. Both of these cause a reduction in cranking power as temperatures drop. Batteries left in a discharged state are also susceptible to freezing, which damages internal components and containers. Cars require an increased amount of cranking power in cold weather, due to the fact that motor oil is thicker and makes engines harder to crank.

Electrolyte Solution
The conductive chemical (such as acid), usually fluid or gel, in which the electricity flows within the battery, and which supports the chemical reactions required.

Cycle
A "cycle" is a somewhat arbitrary term used to describe the process of discharging a fully charged battery down to a particular state of discharge. The term "deep cycle" refers to batteries in which the cycle is from full charge to 80% discharge.

For further information, please consult the battery manufacturer.

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