REAL POWER
UNREAL PERFORMANCE

CAUTION! PLEASE READ!

Proper Charging is Crucial! Charge before initial use!

Be sure to read the D Series Instruction Sheet for full instructions.

Proper Charging is crucial to the life of your XS Power battery. It is very important that the temperature of the battery remains cool with respect to the charge voltage. The chart below will help ensure proper charge voltage with different ranges of temperature.

TEMPERATURE SPECIFICATIONS

Nominal Operating Temp.	77°F (25°C)
Charge Temp. Range	32°F - 104°F (0°C - 40°C)
Discharge Temp. Range	5°F - 122°F (-15°C - 50°C)

CHARGE VOLTAGE REFERENCE CHART

Temperature	32°F (0°C)	50°F (10°C)	68°F (20°C)	77°F (25°C)	86°F (30°C)	104°F (40°C)
Charge Voltage	15.30	15.00	14.80	14.70	14.50	14.30
Float Voltage	14.10	14.20	13.75	13.65	13.50	13.35

Do Not Over-tighten Battery Terminals!

Whether using the automotive post adaptors, bolts or screws, the tightening torque should never exceed 8 ft-lbs max on any XS Power Battery!

PROP 65 WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer or birth defects or other reproductive harm. Wash hands after handling.

For more information, visit www.P65Warnings.ca.gov

Installation

• Securely fasten the battery to the vehicle. XS Power 12-volt AGM Performance batteries are designed to bolt into most automotive, truck and marine applications.

• Connect the battery. Observe polarity carefully.

• If you are running a dual battery set-up, make sure that the batteries are hooked up in parallel(positive to positive and negative to negative). Parallel doubles the amperage and reserve capacities whereas series(positive to negative) would double the voltage output.

When voltage is lower than 12.6V or storage time is longer than 6 months, the battery must be recharged as described in the **Care of XS Power 12-V AGM Battery** on the instruction sheet. (see figure 1.0 reverse)

When voltage is higher than 12.6V, the battery may be installed on the vehicle without any refresh charge.

Technical Assistance

Our Customer Service Department is eager to help you with any questions or issues you may have and are available from 8:30AM to 5:30PM, Monday thru Friday at 865-688-5953. In addition, technical support is available via FAX at 865-281-9844 or by email at tech@x-spowerbatteries.com

Be sure to check out our website for additional technical and product information.

www.xspowerbatteries.com **888-4XS-POWER** **International: 865-688-5953**

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⚠ Proper Charging Is Crucial! Charge Before Initial use!

• It is very important that proper charging techniques be used when charging AGM batteries. AGM batteries are designed for use with AGM battery chargers with a MAXIMUM output voltage of 2.4 volts per cell(14.4v for 12v batteries and 19.2v for 16v batteries). AT NO TIME during charging should the battery be subjected to more than 2.4 volts per cell. Voltage above this will cause the battery to "gas" and once oxygen is vented it cannot be restored.

• Under-charging AGM batteries is equally damaging to the life of the battery. Take special care to ensure that the battery is properly charged before the initial use by verifying the open curcuit voltage is above 2.1 volts per cell(12.6v for 12v batteries,14.7v for 14v batteries, and 16.8v for 16v batteries). Improper charging can cause damage that is permanent and WILL VOID THE WARRANTY. If you are unsure if your charger is AGM compatible, please contact **XS Power Tech Support Department** at **865-688-5953**, or email us at **tech@xspowerbatteries.com** for more details.

XS Power 12-Volt AGM Batteries

• The XS Power 12-Volt AGM Performance battery is a six cell, sealed-valve regulated, lead-acid battery. Sealed-valve regulated, lead- acid(VRLA) batteries are manufactured in two types, gel-cell and AGM(Absorbent Glass Mat). The key difference is how the electrolyte is suspended between the lead plates. AGM batteries such as the XS Power 12-Volt AGM Performance Batteries, use a fibrous material to suspend all liquid electrolyte against the plates. Even if the case were ruptured, no acid would leak. In contrast, gel-cell batteries suspend the electrolyte in a gel form and are not necessarily leakproof.

AGM batteries are similar in chemical function to flooded and maintenance free batteries in that they convert electrical energy into chemical reactions on the lead plates. AGM batteries differ in the amount of electrolyte used. AGM batteries have substantially less electrolyte than a typical flooded or maintenance free battery. Operating with less acid is possible in an AGM battery because each cell in the battery operates on a slight positive air pressure. This air pressure allows for the water produced during discharge to condensate and therefore recycle inside the battery. Hence almost no gasses escape the battery under proper charging conditions. If the battery were to be overcharged, the small amount of electrolytes could be "gassed" and vented by means of the safety valves from the battery. This is the main cause of premature AGM battery failure and therefore should be avoided. The cells are compressed before insertion into the case, which increases performance and makes the battery extremely vibration resistant. The reduced acid content of the battery allows for additional plates and therefore additional performance in an AGM design. XS Power is using this unsurpassed technology to bring high performance to the 12-Volt audio, motorcycle, marine, commercial and automotive markets.

	Model Number	Weight lbs.	Weight kgs.	Dimensions: inch			MAX Amps	CA @ 32°F	Ah C/20
				Length	Width	*Height			
*6 Volt	*D6V-38	15.21	6.9	5.75	4.50	6.13	630A	700	46Ah
XS Power Cell Specifications	D375	11.5	5.22	7.87	3.03	5.28	800A	300	17Ah
	D545	11.24	5.1	6.97	3.39	5.15	800A	276	17Ah
	D680	13.69	6.21	7.13	3.03	6.57	1000A	370	20Ah
	D925	22.26	10.1	6.50	6.93	4.92	2000A	640	32Ah
	D950	21.78	9.88	6.50	5.30	6.70	2000A	503	32Ah
	D975	28.50	12.95	7.83	5.30	6.67	2100A	604	43Ah
	D1200	35.30	16	7.80	6.54	6.69	2600A	740	55Ah
	D4700	41.19	19.14	9.48	6.93	7.48	2900A	760	62Ah
	D4800	48.20	21.87	10.94	6.93	7.48	3000A	950	74Ah
	D5100	43.20	19.6	9.02	5.43	8.19	3100A	872	66Ah
	D5100R	43.20	19.6	9.02	5.43	8.19	3100A	872	66Ah
	D3400	49.97	22.67	10.24	6.65	7.20	3300A	1150	80Ah
	D3400R	49.97	22.67	10.24	6.65	7.20	3300A	1150	80Ah
	D2400	59.52	27	10.24	6.65	8.31	3500A	1200	96Ah
	D6500	53.81	24.41	11.80	7.20	6.80	3900A	1100	86Ah
	D4900	63.80	28.94	13.89	6.93	7.48	4000A	1250	100Ah
Terminals Not Included	D2700	69.88	31.7	12.09	6.65	8.31	4300A	1300	113Ah
	D3100	78.30	35.5	12.99	6.81	8.43	5000A	1565	127Ah
	D7500	99.80	45.27	12.99	6.81	10.75	6000A	1700	140Ah

TEMPERATURE SPECIFICATIONS

Nominal Operating Temp.	77°F (25°C)
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Discharge Temp. Range	5°F - 122°F (-15°C - 50°C)

Proper Charging is crucial to the life of your XS Power battery. It is very important that the temperature of the battery remains cool with respect to the charge voltage. The chart below will help ensure proper charge voltage with different ranges of temperature.

CHARGE VOLTAGE REFERENCE CHART

Temperature	32°F (0°C)	50°F (10°C)	68°F (20°C)	77°F (25°C)	86°F (30°C)	104°F (40°C)
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WARNING/SAFETY Precautions

Warning: Lead-acid batteries of all designs produce explosive gasses. Sparks of any kind could cause a battery to explode.

Therefore:

- Never smoke when around a battery.
- Never weld or otherwise produce sparks around a battery.
- Do not allow tools or other metal objects to fall across the battery terminals- this will short circuit the battery.
- Always wear protective clothing and eye wear when servicing a battery.
- Sulfuric acid can cause severe burns. If acid comes into contact with your skin flush with water immediately. If acid comes in contact with your eyes, flush immediately with water for fifteen minutes and seek medical help promtly.
- Neutralize acid spills with baking soda and water.
- Keep all batteries out of reach of children.
- California Proposition 65 Warning: Batteries, battery posts, terminals, and related accessories contain lead and lead compounds, and other chemicals known to the State of California to cause cancer, birth defects, and reproductive harm. **Wash hands after handling!**

Caution:

⚠ Do not overcharge this battery. Use only a voltage limited automatic battery charger set at 14.4VDC±.3VDC maximum.

⚠ This is a sealed battery. Do not attempt to remove the vent caps under the top label.

RECYCLABLE Recycle used batteries in accordance with local, state, and federal law at an authorized recycling center.

Pb Battery must be recycled!

⚠ DO NOT OPEN VENT VALVES!

Care of XS Power 12-V AGM Battery

- Charge voltage is not to exceed 14.4V total for extended periods of time.(5min. max)*
- The charger used MUST HAVE an automatic shut-off.
  *Some AGM chargers may climb to a maximum voltage of 15.5VDC for a short period of time(usually less than 5min.) but will resume charging at or near 14.4VDC±.3VDC for the duration of the charge cycle. If you are unsure of your chargers capabilities, contact the manufacturer of the charger

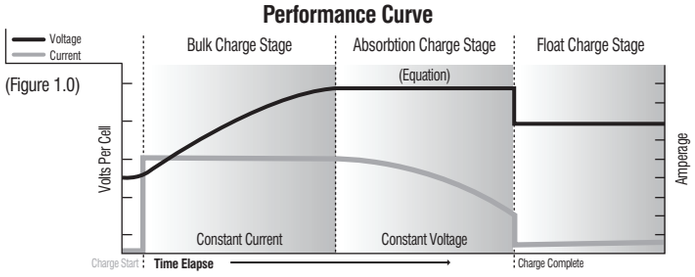
Exceeding 14.4VDC±.3VDC will cause the battery to "gas" and once the oxygen is released from the battery there is no way to restore it. The results will be reduced capacity and battery life and those results are permanent. This type of damage will cause the battery to show a proper open circuit voltage yet will not accept a charge and will become excessively hot during charging. Damage of this nature will void the warranty. Therefore ensure that your battery charger will not exceed 14.4VDC±.3VDC at any time during the charging cycle. For ease of use, we recommend recharging the battery with an XS Power IntelliCHARGER p/n 1005, as it is a totally automatic 3 stage microprocessor controlled battery charger with float charging capability. This battery charger prevents overcharging, maintains proper performance and can be left on the battery indefinitely during non-use periods.

It is very important to **NEVER USE** a charger designed for flooded 12V batteries, not even once with a **XS Power 12V AGM battery**. Furthermore, we recommend that the battery be disconnected from the rest of the vehicle's electrical system during charging.

"Off Season" Maintenance

All lead-acid batteries, both flooded and AGM designs are subject to self-discharging and this self-discharge rate is very much affected by ambient temperature in which the batteries are stored. Higher ambient temperatures will discharge the battery faster. Cool storage for batteries is the best. When voltage is lower than 12.6V or storing time is longer than 6 months, the battery must be recharged as described in the Preformance Curve diagram to the left.

Performance Curve



(Figure 1.0)