

***FIREPOWER®***

***USER GUIDE AND  
SAFETY INFORMATION***

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**FEATHERWEIGHT  
COLD CELL  
LITHIUM BATTERY**

***NEXT GENERATION ✦ BATTERY MANAGEMENT***

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*Thank you for purchasing a Fire Power® Featherweight Cold Cell Lithium Battery. Read the User Guide and Safety Information thoroughly before use and keep it for future reference.*

 **DANGER!**

## **IMPORTANT SAFETY INSTRUCTIONS!**



You must read and understand the **User Guide and Safety Information** completely prior to use. **Failure to comply with all instructions and warnings may result in battery failure, serious injury, death, property damage, product damage and will void the warranty.**

## **FEATURES AND BENEFITS**

- **Lithium iron polymer technology:** extremely durable lithium material
- **Cold cell technology,** ideal for snowmobile and snowbike applications down to -20°F/-29°C
- **Increased cranking amps and fast recharge rates** compared to equivalent lead acid batteries
- **50% to 70% lighter** than lead acid batteries
- **Integrated battery management system (BMS)** with cell balancing and overcharge protection
- **Built-in state-of-charge (SOC) voltage indicator**
- **Brass terminals** for optimum conductivity
- **6 to 12 times more cycle life** compared to lead acid batteries
- **Long shelf life:** up to 1 year before requiring recharging
- **Flexible mounting orientation:** can be installed in any position
- **3-year warranty**

## IMPORTANT

- Only use the lithium battery **recommended for your application** (see battery cross reference chart at [www.firepowerparts.com](http://www.firepowerparts.com)).
- This battery is **only intended for use in powersport vehicles**: motorcycle, scooter, ATV/UTV, watercraft.
- **DO NOT** use with American V-Twin engine applications.
- This battery is **not intended** for use in temperatures below  $-20^{\circ}\text{F}/-29^{\circ}\text{C}$
- **DO NOT** expose the battery to temperatures exceeding  $122^{\circ}\text{F}/50^{\circ}\text{C}$ .
- **DO NOT** use this battery in any automotive or automotive-related applications.
- **DO NOT** use this battery with any other types of battery or in parallel/series with any other batteries.
- **Wear proper eye protection and clothing** when working around batteries.
- **DO NOT** connect the positive and negative terminals together. BMS damage will occur which is not covered by the warranty.
- **PRIOR TO INSTALLATION** a full charging system test must be performed on the vehicle charging system (see **CHARGING SYSTEM WARNING**) — failure to do so could result in overcharging this battery.
- **DO NOT** install on vehicles without a solid state/electronic voltage regulator/rectifier.

- **DO NOT** install on vehicles with a defective charging system or defective/damaged voltage regulator.
- After installation and during extended periods of inactivity follow **BATTERY STORAGE** instructions.
- **DO NOT** attempt to charge or jump start this battery if there are no lights on the SOC Voltage Indicator (the battery may have lithium cell damage, see **BATTERY CHARGING**).
- **NEVER** use a battery with no lights on the SOC Voltage Indicator.
- If battery appears to have expanded or case is deformed, **DISCONTINUE USE IMMEDIATELY**.
- **DO NOT** use a desulfation type charger to charge this lithium battery.
- **DO NOT** use a charger without an automatic shutoff to charge this lithium battery.
- **DO NOT** attempt to jump-start a damaged or frozen battery.
- In the event you need to jump-start this battery with another host vehicle, make sure the host vehicle is **NOT** running and disconnect the jumper cables as soon as the vehicle starts.
- **DO NOT** use this battery to jump-start another vehicle.

 **WARNING!**

**DO NOT** charge this battery with voltage over 14.9 volts. Although the battery has a battery management system with overvoltage protection, there are limitations to this protection. **Overvoltage situations can result in battery failure, serious**

injury, death, property damage, product damage and will void the warranty.

## **CHARGING SYSTEM WARNING**



**IMPORTANT:** A full charging system test must be performed on the vehicle charging system before battery installation. **Any defect in the vehicle charging system or defect/damage to the voltage regulator could result in battery failure, serious injury, death, property damage and will void the warranty.**

If your vehicle does not have a solid state/electronic voltage regulator/rectifier, **DO NOT USE** this battery. You must install an appropriate/updated vehicle charging system before proceeding. Many mid 1990s and older vehicles do not have a solid state/electronic voltage regulator/rectifier. If you have one of these vehicles, it is mandatory to change over to this type of regulator/rectifier system before using a lithium battery.

## **BATTERY INSTALLATION**

Wear proper eye protection and clothing when working around any battery. Remove all jewelry and other metallic objects that may come into contact with the battery before proceeding with the battery removal/installation.

1. Before installation, check the SOC Voltage Indicator and charge if necessary (see **BATTERY CHARGING**).
2. Remove the negative cable, then the positive cable from your old battery, then remove the battery.

(INSTRUCTIONS CONTINUED ON REVERSE SIDE).

3. Test fit the Fire Power® Featherweight Cold Cell lithium battery. Certain batteries may come with spacer blocks which attach to the bottom of the battery. Compare the height of the Fire Power® Featherweight Cold Cell lithium battery with the old battery and adjust the height as needed.
4. Make sure the battery is properly secured in the vehicle.
5. Install the positive cable, then the negative cable. Do not over-torque the terminal bolts, suggested torque specs. are: 5mm bolts/30 inch lbs., 6mm bolts/40 inch lbs.

It is highly recommended to test for parasitic voltage drains after installation. Parasitic voltage drains occur in many powersports vehicles and can be caused by various factors (alarm system, vehicle electronic control module, etc.). Lithium batteries have a lower amp hour (AH) capacity compared to lead acid batteries and will go dead faster if there is a parasitic voltage draw. If your vehicle will be in storage for any amount of time, it is highly recommended to either disconnect the negative cable from the battery or place the battery on an appropriate/compatible battery charger/maintainer (see **BATTERY CHARGING**).

## **BATTERY CHARGING**



**DO NOT** charge this battery if there are no lights showing on the SOC Voltage Indicator (see instructions under **SOC VOLTAGE INDICATOR**). The battery may have lithium cell damage. **Charging this battery when there are no lights on the SOC Voltage Indicator may result in battery failure,**

**serious injury, death, property damage, product damage and will void the warranty.**

Although the battery has a battery management system with overvoltage protection, there are limitations to this protection. **Subjecting the battery to voltage exceeding 14.9 volts can result in battery failure, serious injury, death, property damage, product damage and will void the warranty.**

- Follow the vehicle manufacturer's recommendations for battery charging.
- **DO NOT** use a desulfation type charger.
- **DO NOT** use a charger without an automatic shutoff.
- **DO NOT** use a charger with a "boost" mode.
- **DO NOT** charge this battery with voltage over 14.9 volts.
- **DO NOT** exceed the maximum charging amps noted on the side of the battery.

When charging this lithium battery, the use of a lithium specific charger is recommended. Always follow the battery charger manufacturer's instructions. For best and safest results, remove battery from the vehicle while charging.

## **JUMP-STARTING**

**DO NOT** jump-start another vehicle from this battery.

**DO NOT** jump-start a completely dead (no charge indicator lights when the TEST button is pushed on the SOC Voltage Indicator) or a frozen battery.

It is recommended to use a good quality jump-start pack, follow all jump-start pack manufacturer's

instructions and disconnect the jump-start pack as soon as the vehicle starts.

If jump-starting from another vehicle, make sure the host vehicle is NOT running when performing this procedure and disconnect the jumper cables as soon as the vehicle starts.

## **SOC VOLTAGE INDICATOR**

To use the SOC Voltage Indicator, push the TEST button on the top of the battery.

**3 Lights:** Fully charged (13.05 volts or higher)

**2 Lights:** Partially charged, should be able to start the vehicle (12.9-13.04 volts)

**1 Light:** Recommended to charge the battery prior to use (below 12.9 volts)

**NO Light:** **DO NOT** attempt to charge or jump-start the battery. **DO NOT USE THE BATTERY!** Lithium cell damage may have occurred.

### **WARNING!**

Charging this battery when there are no lights on the SOC Voltage Indicator may result in battery failure, serious injury, death, property damage, product damage and will void the warranty.

## **BATTERY MAINTENANCE**

Inspect the battery every three months of service for loose cables, damage and corrosion.

State of charge can be checked by pushing the TEST button on the top of the battery (see **SOC VOLTAGE INDICATOR**).

## **BATTERY STORAGE**

If your vehicle is to be stored for 30 days or longer, disconnect the negative battery cable and fully charge the battery or place the battery on an appropriate/compatible charger/maintainer. This period may be shorter if your vehicle has any parasitic voltage drains (see **BATTERY INSTALLATION**).

If the battery is stored at or below 12.89 volts for any extended period of time (1 light on the SOC Voltage Indicator), cell damage may occur which is not covered by the warranty.

## **TROUBLESHOOTING**

### **BATTERY WILL NOT CHARGE**

The voltage of the battery may be too low for your battery charger to detect, check the battery charger's instructions for more information. If the battery is stored at or below 12.89 volts for any extended period of time, cell damage may occur which is not covered by the warranty.

### **BATTERY WON'T HOLD A CHARGE**

Check your vehicle for parasitic voltage drains. These voltage drains can occur in many different powersport vehicles. Lithium batteries have a lower amp hour (AH) capacity compared to lead acid batteries and will go dead faster if there is a parasitic voltage draw. If your vehicle will be in storage for any amount of time, it is highly recommended to either fully charge and disconnect the negative cable from the battery or place the battery on an appropriate/compatible battery charger/maintainer.

## **POOR PERFORMANCE IN EXTREMELY COLD TEMPERATURES**

Due to the nature of lithium chemistry in extremely cold conditions, it may be necessary to warm the battery if the machine will not turn over. This can be accomplished by applying a load to the battery (running the lights/handwarmers or repeatedly pressing the starter button). Snowmobiles may need to be pull started once in the morning. Once the battery is warm, it will have no problem starting the machine the rest of the day. The battery should then function properly. Fire Power® Featherweight Cold Cell lithium batteries are not intended for use in temperatures below -20°F/-29°C.

## **BATTERY HAS EXPANDED/BATTERY CASE OR TOP IS DEFORMED**

**DISCONTINUE USE IMMEDIATELY!** This is usually caused by an overcharge or over-voltage situation due to using an incorrect/defective battery charger or a defective vehicle charging system. Fire Power® Featherweight lithium batteries have over-voltage protections built in, but there are limitations to these systems. This can also be caused by an over-discharge issue when the incorrect battery is being used (cranking amp capacity is too low for the application or the battery is being used to jump-start another vehicle). Only use the recommended battery for your application (see battery cross reference chart at [www.firepowerparts.com](http://www.firepowerparts.com)).

## **WARRANTY**


Fire Power® Featherweight Cold Cell lithium batteries have a 3-year replacement warranty from date of purchase by the retail customer. Warranty

applies only to the original purchaser of the battery; warranty is not transferable.

**All warranties are to be processed through the dealer the battery was purchased from. Do not contact Fire Power or Western Power Sports. If you purchased your battery through Amazon or another third-party reseller, the dealer information should be noted on your invoice.**

Warranty does not cover:

- Physical damage due to abuse, improper maintenance and/or installation.
- Batteries that have been modified or disassembled.
- Use of an improper charger as noted in the **BATTERY CHARGING, BATTERY MAINTENANCE** and **BATTERY STORAGE** sections of these instructions.
- Any damage deemed to be caused by a faulty vehicle charging system.
- Batteries subjected to voltage over 14.9 volts.
- Batteries stored below 12.9 volts.
- Batteries used in any applications other than motorcycle, scooter, ATV/UTV, watercraft.
- Batteries that are not the correct capacity for the application.
- Batteries used in any American V-Twin engine applications.
- Batteries used in a total loss situation (such as a vehicle starting and/or ignition/accessory supply battery only with no on-board charging system).
- Batteries that were not purchased by the end user (promotional giveaway, sponsorships, etc.).

 **WARNING:** This product can expose you to chemicals including lithium, cobalt and nickel, which are know to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



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