

## Empire FRS-001-LI

# Empire FRS-001-LI Replacement Battery User Manual

For Cobra BK-70128 and MN-0160001 Two-Way Radios

## 1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of your Empire FRS-001-LI Lithium-Ion replacement battery. This battery is designed for compatibility with Cobra BK-70128 and MN-0160001 two-way radio models. Please read this manual thoroughly before installation and operation to ensure optimal performance and longevity of your battery.

## 2. SAFETY INFORMATION AND CAUTIONS

**WARNING: Failure to follow these safety instructions may result in fire, electric shock, injury, or damage to the battery or device.**

- **Do not connect improperly:** Ensure correct polarity when installing the battery. Incorrect connection can damage the battery and the device.
- **Do not dispose of in fire or expose to excess heat:** High temperatures can cause the battery to explode or leak. Keep away from direct sunlight, heaters, and other heat sources.
- **Do not crush, puncture, incinerate, or short circuit external contacts:** Physical damage or short-circuiting can lead to overheating, fire, or explosion.
- Keep the battery out of reach of children.
- If the battery leaks, avoid contact with skin and eyes. If contact occurs, rinse immediately with water and seek medical attention.
- Use only chargers specifically designed for Lithium-Ion batteries and compatible with your two-way radio model.

## 3. PRODUCT OVERVIEW

The Empire FRS-001-LI is a high-quality Lithium-Ion replacement battery designed to power your Cobra two-way radio. It provides reliable performance and extended talk time for your communication needs.



**Image 1:** Empire FRS-001-LI Li-Ion Battery Pack. This image displays the front of the battery pack, showing its model number FRS-001-LI, voltage (7.4V), capacity (850mAh), and Li-ion chemistry. Important safety warnings regarding improper connection, disposal, heat exposure, crushing, puncturing, incineration, and short-circuiting are also visible, along with CE certification and "MADE IN CHINA" labeling.

#### Key Features:

- **Battery Type:** Lithium-Ion (Li-Ion)
- **Voltage:** 7.4V
- **Capacity:** 850mAh
- **Model:** FRS-001-LI
- **Compatibility:** Designed as a replacement for Cobra BK-70128 and MN-0160001 batteries.

## 4. SETUP AND INSTALLATION

Follow these steps to properly install the Empire FRS-001-LI battery into your compatible Cobra two-way radio:

1. **Power Off Device:** Ensure your two-way radio is completely powered off before attempting battery installation or removal.
2. **Locate Battery Compartment:** Identify the battery compartment on the back of your Cobra two-way radio. Refer to your radio's original user manual if you are unsure.
3. **Remove Old Battery (if applicable):** If replacing an existing battery, open the compartment cover and carefully remove the old battery.
4. **Insert New Battery:** Orient the Empire FRS-001-LI battery pack according to the markings on the battery and the radio's compartment. The battery itself has "Install this side out" printed on it, indicating the correct orientation for insertion. Ensure the contacts align correctly.
5. **Secure Battery:** Gently push the battery into place until it sits firmly in the compartment.
6. **Close Compartment:** Replace the battery compartment cover and secure it according to your radio's design (e.g., slide, latch, screw).

*Always refer to your specific Cobra two-way radio's instruction manual for detailed battery compartment access and securing procedures.*

## 5. OPERATING INSTRUCTIONS

## 5.1 Initial Charging

Before first use, fully charge the Empire FRS-001-LI battery. This helps to condition the battery for optimal performance and longevity.

1. After installing the battery, place your Cobra two-way radio into its compatible charging cradle or connect it to its designated charger.
2. Ensure the charger is connected to a power source.
3. Observe the charging indicator on your radio or charger. Charging times may vary, but a full charge typically takes several hours. Refer to your radio's manual for specific charging duration.
4. Once fully charged, the indicator light will typically change color or turn off.

## 5.2 Regular Charging and Usage

- **Charge Regularly:** For best results, charge the battery regularly, ideally before it is completely depleted.
- **Avoid Overcharging:** While modern Li-Ion batteries have protection circuits, it is generally good practice to remove the radio from the charger once fully charged if not in use.
- **Temperature:** Charge the battery at room temperature (10°C to 30°C / 50°F to 86°F) for optimal efficiency and battery health.

## 6. MAINTENANCE

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Proper maintenance extends the life of your Empire FRS-001-LI battery:

- **Cleaning:** Periodically clean the battery contacts and the radio's contacts with a clean, dry cloth to ensure good electrical connection. Do not use abrasive cleaners or solvents.
- **Storage:** If storing the battery for an extended period, charge it to approximately 50% capacity and store it in a cool, dry place (e.g., 20°C / 68°F). Avoid extreme temperatures.
- **Avoid Deep Discharge:** While Li-Ion batteries tolerate deep discharge better than older chemistries, consistently running the battery to 0% can reduce its overall lifespan.
- **Disposal:** Do not dispose of Li-Ion batteries with household waste. Follow local regulations for proper recycling of electronic waste and batteries.

## 7. TROUBLESHOOTING

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If you encounter issues with your Empire FRS-001-LI battery, consider the following:

- **Battery Not Charging:**
  - Ensure the battery is correctly installed and making proper contact with the radio terminals.
  - Verify the charger is functioning and properly connected to a power source.
  - Check for any visible damage to the battery or charger.
  - Try cleaning the battery and radio contacts.
- **Short Battery Life:**
  - Ensure the battery is fully charged before use.
  - Operating the radio in extreme temperatures (very hot or very cold) can reduce battery performance.
  - High power transmission or continuous use will deplete the battery faster.

- If the battery is old, its capacity may naturally degrade over time.

- **Radio Not Powering On:**

- Confirm the battery is charged and correctly installed.
- Test the radio with another known-good battery if available.

*If problems persist, consult your Cobra two-way radio's manual or contact the battery manufacturer's support.*

## 8. SPECIFICATIONS



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|---------------|---|
| Battery Model | FRS-001-LI                                |
| Battery Type  | Lithium-Ion (Li-Ion)                      |
| Voltage       | 7.4V                                      |
| Capacity      | 850mAh                                    |
| Compatibility | Cobra BK-70128, MN-0160001 Two-Way Radios |
| Manufacturer  | Empire                                    |
| Origin        | Made in China                             |


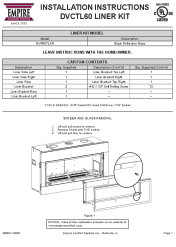

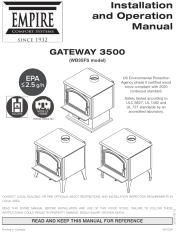
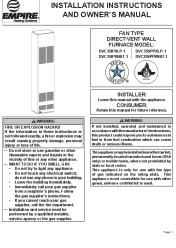
## 9. WARRANTY AND SUPPORT

For warranty information and customer support regarding your Empire FRS-001-LI replacement battery, please refer to the documentation provided at the time of purchase or contact the seller directly. Keep your proof of purchase for any warranty claims.

For support related to your Cobra two-way radio, please consult the radio's original manufacturer or its dedicated support channels.

### Related Documents - FRS-001-LI

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| <br> | <p><a href="#">EMPIRE SR-18T-4, SR-10T-4, SR-30T-4 Unvented Room Heater: Installation Instructions and Owner's Manual</a></p> <p>Comprehensive installation instructions and owner's manual for the EMPIRE SR-18T-4, SR-10T-4, and SR-30T-4 unvented room heaters. Covers safety warnings, specifications, gas supply, installation procedures, operation, maintenance, troubleshooting, and parts lists.</p> |
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|    | <p><a href="#">Empire FI28BMN-2 Mantis Power-Vent High-Efficiency Fireplace Owner's Manual</a></p> <p>Comprehensive owner's manual for the Empire FI28BMN-2 Mantis Power-Vent High-Efficiency Fireplace. This guide covers installation, operation, safety precautions, maintenance, and troubleshooting for both Bay Window and Fireplace Mantis models. Learn how to safely operate your gas fireplace and ensure its longevity.</p>  |
|    | <p><a href="#">Empire DVCTL60 Liner Kit Installation Instructions   Empire Comfort Systems</a></p> <p>Step-by-step guide to installing the Empire DVCTL60 gas-fired fireplace liner kit (model DVP60TLKR). Includes carton contents, tools needed, removal and installation procedures, and parts list.</p>   |
|    | <p><a href="#">EMPIRE DV-35-4SG Direct Vent Wall Furnace Owner's Manual &amp; Installation Guide</a></p> <p>Official owner's manual and installation guide for the EMPIRE DV-35-4SG and DV-25-5SG Direct Vent Wall Furnace by Empire Comfort Systems Inc. Covers safety, installation, operation, maintenance, and troubleshooting.</p>   |
|  | <p><a href="#">Empire Gateway 3500 Wood Stove (WB35FS) Installation &amp; Operation Manual</a></p> <p>Comprehensive installation and operation manual for the Empire Gateway 3500 wood stove (model WB35FS). This guide provides detailed instructions for safe installation, efficient burning, and maintenance of this EPA Phase II certified, UL/ULC listed appliance. Learn about specifications, clearances, and optimal use for your Empire Comfort Systems wood-burning stove.</p> |
|  | <p><a href="#">Empire DVC35 Series Direct-Vent Wall Furnace Installation and Owner's Manual</a></p> <p>Comprehensive installation instructions and owner's manual for the EMPIRE DVC35 series direct-vent wall furnaces. Covers safety, installation, operation, and maintenance for models like DVC35SPPXLP-1 and DVC35IPXNAT-1.</p>   |