MIPRO®

MB-80

12V Lithium Iron Phosphate Battery Case

User Guide

MIPRO®
MICROPHONE PROFESSIONALS

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I. Profile

1. Lithium Iron Phosphate Battery (LiFePO4 or LFP) is considered a market-leader rechargeable battery for extended battery lifespan. A properly maintained high-quality LFP battery is designed for 2,000 or more charge and discharge battery life cycles. Four series-connected battery voltage coincides and are compatible with the voltage of 12V sealed lead-acid batteries. Therefore, it can be a direct replacement rechargeable battery for existing MIPRO MB-70 rechargeable lead-acid battery used inside MIPRO MA-707, MA-708 or MA-808 wireless PA system for overall system weights reduction and extended battery lifespan and battery life cycles.
2. Each MB-80 battery case holds four 65mm ~ 70mm (length) lithium iron phosphate batteries from other suppliers or MIPRO. MB-80 has built-in BMS smart battery management circuits and provides safe charging protection technology for extended battery lifespan.
3. Note: Each MIPRO MA-707, MA-708 or MA-808 required two (2) MB-80 battery cases to charger and work properly. Each MB-80 holds four (4) optional 32650/*26650/32700 LFP rechargeable batteries. Thus, a total of eight rechargeable batteries are required.

4. The benefits of LFP are:
   (A) Environmentally friendly.
   (B) Super battery life cycle over standard lithium ion & lead-acid types.
   (C) Reduced weight over lead-acid type.
   (D) Reduced failures.
   (E) Superior thermal and chemical stability, which provides better safety characteristics.

II. Part Names, Fig. 1

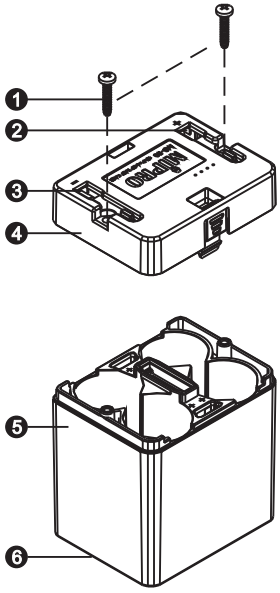

Fig. 1

1. Screws
2. Positive [+] Terminal Plate
3. Negative [-] Terminal Plate
4. Battery Cover
5. Battery Case: Holds four optional 32650, 26650 or 32700 type rechargeable batteries.
6. Lower Battery Case

III. Changing Battery, Fig. 2

1. Remove screws from battery cover.
2. *Insert four (4) batteries with “+” polarity facing up (facing you). *see Notes & Precautions
3. Cover up and tighten the screws.

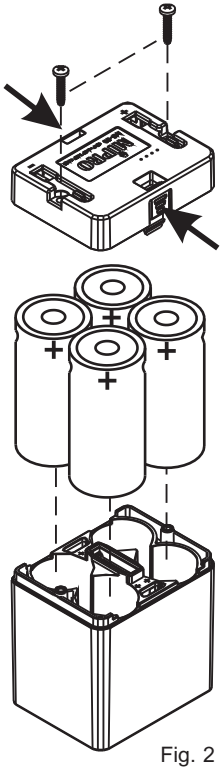

Fig. 2

IV. Note and Precautions

1. *Ascertain all four (4) batteries are inserted correctly with positive [+] polarity facing up (facing you) to prevent damage to the battery case when inserted with wrong polarity.
2. Do not mix a combination of 32650/26650/ 32700 batteries or other different specifications and types batteries during charging. It will shorten the battery lifespan and life cycles.
3. Do not mix new and old batteries.
4. Always use same exact type and specifications batteries during charging.
5. Always charge four batteries simultaneously.
6. The battery can be revived (wake-up), if the battery is shorted accidentally. Simply plug the power cord into the PA system + an AC plug and positive [+] to positive [+] and negative [-] to negative [-] cables are connected enable the voltage to return back to normal.
7. *Diameter of a 26650 LFP battery is too thin (too loose) when inserted into the MB-80. Therefore, an external sleeve (not included) must be worn to cushion it properly and snugly against the MB-80 to prevent shaking during charging.
8. Refer to actual product in the event of product description discrepancy.

9. Please Note:

   MIPRO assumes no liability for problems that occur when the Notes and Precautions for use listed above are not followed.

V. Safety Warnings When Using the Battery WARNING

1. Misusing the battery may cause the battery to get hot, rupture, or ignite and cause serious injury. Be sure to follow the safety rules listed below:
   (A) Do not place the battery in fire or heat the battery.
   (B) Do not install the battery backwards so that the polarity is reversed.
   (C) Do not connect the positive terminal and the negative terminal of the battery to each other with any metal object (such as wire).
   (D) Do not carry or store the batteries together with necklaces, hairpins, or other metal objects.
   (E) Do not pierce the battery with nails, strike the battery with a hammer, step on the battery, or otherwise subject it to strong impacts or shocks.
   (F) Do not solder directly onto the battery.
   (G) Do not expose the battery to water or salt water, or allow the battery to get wet.

2. Do not disassemble or modify the battery. The battery contains safety and protection devices which, if damaged, may cause the battery to generate heat, rupture or ignite.
3. Do not place the battery on or near fires, stoves, or other high-temperature locations. Do not place the battery in direct sunshine, or use or store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, rupture, or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.

VI. CAUTION

1. If the device is to be used by small children, the caregiver should explain the contents of the user's manual to the children. The caregiver should provide adequate supervision to ensure that the device is being used as explained in the user's manual.
2. When the battery is worn out, insulate the terminals with adhesive tape or similar materials before disposal.
3. Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way.
4. Do not place the batteries in microwave ovens, high-pressure containers, or on induction cookware.
5. In the event that the battery leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated the battery fluid could cause damage to the eye.