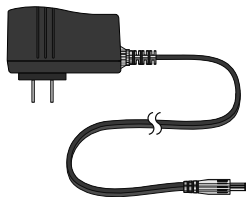


Futaba

Instruction Manual

LiFePO4 battery charger

LBC-38DP



Notes: Before using your new LBC-38DP, please read this manual thoroughly and use it properly and safely. After reading this manual, store it in a safe place.

Thank you for purchasing a LBC-38DP. This product is a battery charger designed for use only with the LiFePO4 polymer battery. In order to get high performance of the product and use it safely, please read this instruction manual thoroughly before use.

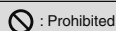
■ Safety Precautions

This instruction manual uses a variety of common symbols and icons for proper handling and usage of this product, and for avoiding potential hazards to yourself, the people around you, and your property. The meanings of these symbols and their significance are described below. Please understand them clearly before going on to main items.

Meaning of Markings

For safety, please pay special attention to the items indicated by the following marks.

⚠ DANGER	Procedures which may have a high risk of death/serious injury to the user if not carried out properly.
⚠ WARNING	Procedures which may lead to dangerous conditions or cause death or serious injury to the user if not carried out properly, or procedures in which the probability of superficial injury or physical damage is high.
⚠ CAUTION	Procedures in which the possibility of serious injury to the user is small, but there is a danger of injury, or physical damage, if not carried out properly.



: Prohibited



: Mandatory

⚠ DANGER

If you ignore the following safety precautions, it may cause a fire, ignition, overheating, explosion, the leakage of electrolyte fluid or getting an electric shock.

- ⊘ This battery charger is designed for use only with the LiFePO4 polymer battery. Do not attempt to charge any other types of dry cells or rechargeable batteries.
- ⊘ Do not attempt to charge a battery that is damaged, leaking the electrolyte fluid or wet.
- ⊘ Do not use the battery charger for improper purposes.
- ⊘ Never expose the battery charger to water or moisture. Do not use them when they are wet or your hands are wet. Do not use them in damp or humid conditions such as in a bathroom.
- ⊘ Never solder the battery charger or attempt to repair, deform, modify or disassemble them.
- ⊘ Do not use, charge or store the battery charger in places where it may be exposed to high temperatures. For example, do not leave it on the dashboard of a car under direct sunlight or place it near heating equipment.
- ⊘ Do not use the battery charger in places where heat may build up, such as under a cushion.
- ⊘ Never use the battery charger near flammable gas or combustible materials.
- ⚠ Always insert the power plug completely and firmly into the outlet.
- ⚠ Always use the battery charger with the voltage specified in this instruction manual.

⚠ WARNING

- ⊘ Do not touch the battery charger and the battery for long hours while charging. Extended contact with them could result in minor burns.
- ⊘ If the battery charger or the battery is damaged when it falls to the ground or the floor, do not use it. To avoid electric shock or injury, never touch any internal parts of it which may be exposed.
- ⊘ If you notice any abnormalities such as overheating, smoking, a bad odor, the leakage of electrolyte fluid, discoloration or deformation of the equipment, unplug it immediately and stop using it. Continuing to use it under these conditions could result in a fire, ignition, overheating or explosion.
- ⚠ Keep the battery out of reach of children. If children use the equipment, their parents or guardians should teach them the proper use of it to avoid electric shock or injury.

⚠ CAUTION

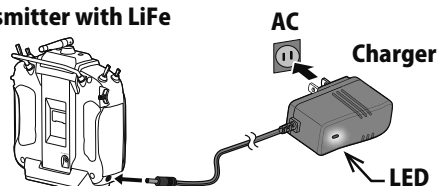
- ⊘ Do not place a heavy object on the battery charger. Also, do not use or store them in places from which they might easily fall, such as on the TV set, to avoid damage or injury.
- ⊘ Do not store or use the equipment in places where it may be exposed to moisture or excessive dust. Be sure to remove dust from the power plug before plugging it in the outlet.
- ⊘ Do not charge the battery in an extremely cold or hot environment. The optimum environmental temperature range for charging the battery is between 10°C~ 30°C. Outside this range, a decrease in battery performance may result.
- ⚠ Keep the battery charger unplugged from the outlet when the battery charger is not used.

■ Procedures for Battery Charging

1 Connect the charger and firmly insert the battery charger into an AC outlet.

* Connect to the AC side before connecting the battery.

Transmitter with LiFe



2 Connect the transmitter (in the LiFe battery) to the charger.

* The charging LED (red) lights and charging begins.

3 When the charging complete LED (green) lights, the battery is fully charged and charging is complete.

* The charging time when charging a battery is approximately 3 hours for the FT2F2100 (2,100mAh) LiFe battery for receiver. However, the charging time may be different depending on the charging conditions such as the ambient temperature and voltage variations among cells. In addition, when a battery that has not been used fully was charged, the charging time will be shorter than the above. Moreover, due to the characteristics of the charger, the remaining charge and the charging time are not proportional and the charging time may be somewhat longer.

4 After use, disconnect the battery charger from the AC outlet.

* Do not reconnect a fully charged battery to the battery charger. The battery will be over-charged and deteriorate.

■ Usage Precautions

[LiFe Battery]

LiFe battery will be damaged if it over-discharges.:

It is important to charge a battery periodically. (about every 3 months)

[Precautions in Handling the Battery]

The battery at the time of purchase:

Since the battery is not charged at the factory, please charge it before use. Also, whenever the battery has not been used for a long period of time, recharge it before use.

Operating temperatures:

The further the temperature goes down, the more the operating time shortens. When you use the battery at low temperatures, it is recommended to have another charged battery as a backup.

Carry and storage:

When the battery will not be used for a long time, to prevent it from deteriorating we recommend that it be kept in about the half capacity state instead of fully charged. Also be careful that the battery does not enter the over-discharged state due to self-discharge. Periodically (about every 3 months) charge the battery. In addition, always remove the battery from the model and store it in a dry, cool place (15°C~25°C).

When you carry or store the battery, prevent the short-circuiting of the +/- terminals. Do not put any metallic objects including personal ornaments in a bag or drawer with the battery. This could cause a fire, overheating, explosion or the leakage of electrolyte fluid.

Service life:

Battery performance degrades gradually after repeated charging and discharging. If the operating time of the battery decreases significantly, it may be the time to replace it with a new one.

[Precautions in Handling the Battery Charger]

Before use:

Please read the safety precautions thoroughly before use, and follow the instructions for operation.

Precautions for use:

The optimum ambient temperature for charging is between 10°C and 30°C. When the battery is hot, as is the case shortly after use, recharging may not be performed properly. Wait until the battery temperature goes down. The battery charger and the battery get warm during the charging. However, it is not a malfunction.

TV or radio reception may be interfered with during charging. However, this is not a malfunction, either. To avoid interference, move the battery charger away from the TV or radio.

How to care the battery charger:

Remove stains from the battery charger by wiping it with a dry and soft cloth. Do not use a wet cloth, alcohol, thinner, benzene or detergent.

■ Specifications

Rechargeable battery:	LiFePO4 polymer battery/2Cell
Operating temperature:	0°C ~ +40°C (0°C ~ +30°C is recommended)
Input:	AC100V~ AC240V, 50/60Hz, 0.2A MAX
Output:	7.2VDC 800mA

- This product cannot be repaired because it is designed not to be disassembled for safety reasons.
- If you have questions about this product, please contact your Futaba dealer.