

# Battery safety measures

## Avoiding the Hazards of Lithium Battery Handling

**Warning** Improper battery handling may cause battery leakage, heat, rupture, or fire, which may result in fire or injury.

Both coin-type and cylindrical lithium batteries contain flammable substances such as lithium, organic solvents, and other chemical components. Improper handling of lithium batteries may cause heat, fire, or explosion, posing a risk of personal injury or property damage. To prevent these accidents during battery handling, be sure to follow the precautions below.

**1. Do not short-circuit**

Directly connecting the positive (+) and negative (-) terminals may cause leakage, heat, explosion, or fire. Do not store or carry batteries together with metal products such as necklaces.

(Refer to Figure 1.)

**2. Do not stack or mix batteries**

Stacked and/or jumbled batteries may cause short-circuiting and/or forced discharge due to contact with other batteries. This may cause leakage, heat, explosion, or fire.

Especially when connected with 006P(9V) type batteries, there may be a high risk of leakage, heat, explosion, or fire.

(Refer to Figure 2. & Figure 3.)

**3. Do not force discharge batteries**

Forced discharge through external power supply turns the battery voltage negative, causing gas to be generated inside the battery. This may cause leakage, heat, explosion, or fire.

(Refer to Figure 3.)

\* When handling or storing batteries, separate the positive and negative terminals with tape. Connection with other metals or batteries may cause leakage, heat, explosion, or fire.

\* When using stored batteries, completely remove the tape to avoid high contact resistance problems.

(Refer to Figure 4.)

**4. Do not throw the battery into fire**

Throwing the battery into fire is extremely dangerous, with the risk of explosion and violent combustion.

**5. Do not heat the battery**

Heating the battery above 100°C (212°F) may damage the resin in the crimp, diaphragm, and other parts, resulting in electrolyte leakage, internal short circuit, fire, and explosion.

**6. Do not solder directly on the battery**

Soldering directly on the battery may damage the crimp resin, diaphragm, and other parts, resulting in electrolyte leakage, internal short circuit, fire, and explosion.

**7. Do not charge the battery (only for original batteries)**

Charging original batteries may cause internal gas to be generated, resulting in electrolyte leakage, battery swelling, fire, and explosion.

**8. Do not disassemble the battery**

Disassembling the battery may produce gas that irritates the throat. Lithium may also react with moisture to generate heat and fire.

**9. Do not deform the battery**

Exerting excessive pressure on the battery may cause crimp deformation and internal short circuit, resulting in electrolyte leakage, battery swelling, fire, and explosion.

**10. Do not mix different types of batteries**

In some applications, mixing different types of batteries or old and new batteries may cause over-discharge due to differences in voltage and discharge capacity. This may lead to the risk of swelling or explosion.

**11. Do not insert batteries with reverse polarity**

In some applications, inserting batteries with reverse polarity (positive and negative poles reversed) may cause leakage, heating, explosion or fire.

Please ensure that the above precautions are strictly followed by relevant departments such as production department, sales department and external subcontractors. For more detailed information, please contact our sales representative.

