

Read Before Use!

RIGOL Quick Guide to Safe Use of Battery Holder

For safe and stable operation of the battery holder, please strictly follow the operating instructions and refer to the User Guide for more details.



Installation and Usage Steps



Warning: Insufficient battery configuration, excessive voltage difference, unqualified batteries, incorrect polarity installation, hot swapping, and improper installation or removal may all lead to equipment failure or serious safety hazards.

1. Pre-installation Check: Battery status must meet all of the following requirements

Battery Selection

- ✓ Mandatory to use 18650 flat-top lithium-ion cells manufactured by qualified suppliers in compliance with applicable national or regional safety standards.
- ✗ Install any battery cells other than 18650 flat-top lithium-ion batteries.

Battery Health

- ✗ Use faulty batteries (e.g., leaking batteries, batteries with oxidized electrodes or exposed electrodes).

Voltage Difference

- ✓ Voltage difference between individual battery cells ≤ 150 mV; Exceeding the voltage difference requirement will trigger safety protection.

Voltage Requirement

- ✓ Initial voltage for individual battery cells ranges from 3.7 V to 4.2 V.

Full Configuration

- ✓ The battery holder must be installed with 24 battery cells; otherwise, it may easily trigger protection during high-power discharge, which can affect normal operation.
- ✗ Use the battery holder without fully installed battery cells.

2. Battery Polarity Confirmation:

Battery Polarity Confirmation

- ✓ When installing the battery cells, strictly align the positive and negative electrodes.
- ✗ Single pack with ≥ 4 cells having polarity errors → The entire pack cannot communicate.
- ✗ Single pack with ≤ 3 cells having polarity errors → The instrument interface displays as gray (communication abnormality).

3. Installation Operation Steps:

Insertion and Removal

- ✓ Ensure the instrument is powered off and all charging cables are disconnected before inserting or removing the battery holder; otherwise, it may cause damage to the instrument or the battery holder.
- ✗ Directly insert or remove the battery holder while the instrument is connected to mains power. The battery holder does not support hot swapping.

Installation and Removal

- ✓ Remove the battery holder from the instrument with both hands by referring to Section 6.2 of the User Guide or the label of the battery holder.
- ✗ Remove the battery holder with one hand. Improper force may easily damage the interface connector between the battery holder and the instrument.

Activation

- ✓ For first-time use of the battery holder or after replacing battery cells, the internal main power is cut off and cannot be used directly. It needs to be activated using the activation tool provided in the accessories. Refer to Section 6.4 of the User Guide.

Sleep and Wake-up

Automatic Sleep

After the instrument is powered off for approximately 2 minutes, the battery holder automatically enters a low-power sleep state.

Manual Wakeup

When powering on again, long-press the function button for 2 seconds, and release the button after the startup animation (marquee effect) is complete. The battery holder will then be awakened.

Protection Mechanism and Troubleshooting

Over-temperature Protection

- ⚠ When the temperature is $\geq 60^\circ\text{C}$, protection lockout is automatically triggered.
- ⚠ During prolonged operation, pay attention to heat dissipation and keep the ambient temperature within the rated range. Ensure good ventilation for the instrument and the battery holder, and install auxiliary cooling if necessary.

Over-discharge Protection

When the voltage of an individual battery cell is < 3.4 V, it is determined as deep discharge; after deep discharge, recharging may trigger lockout.

If the protection lockout is triggered, follow the above guidelines to power off the instrument, remove the battery holder, disassemble and reinstall the battery cells, then manually activate the battery holder again before use.