SSCYHT 66373811-36V4.4AH

SSCYHT 36V Lithium Battery User Manual

Models: 4.4Ah, 5.2Ah, 6.6Ah

1. Introduction

This manual provides essential instructions for the safe and effective use, setup, operation, and maintenance of your SSCYHT 36V Lithium Battery. This battery is designed for various applications, including 50W to 250W motor kits, and is available in 4.4Ah, 5.2Ah, and 6.6Ah capacities. Please read this manual thoroughly before using the product to ensure optimal performance and safety.

Image 1.1: Overview of the SSCYHT 36V Lithium Battery with XT60 connector.

2. Safety Information

Your safety is paramount. Please observe the following precautions:

- **Charging Environment:** Only charge the battery within a temperature range of 0℃ to 50℃ (32°F to 122°F).
- **Discharging Environment:** Only discharge the battery within a temperature range of -10℃ to 50℃ (14°F to 122°F).
- **Charger Compatibility:** Use only a **42V 2A charger** specifically designed for 36V lithium-ion batteries. Using an incompatible charger can cause damage, overheating, or fire.
- **Physical Protection:** The battery's outer layer is made of low water permeability PVC material, which is insulating, corrosion-resistant, and wear-resistant. For extended service life and protection, it is recommended to place the battery in a protective bag or box during use.
- **Avoid Damage:** Do not puncture, drop, crush, or disassemble the battery. Avoid exposing it to direct sunlight, high temperatures, or fire.
- **Water Exposure:** While the battery has low water permeability, avoid submerging it in water or exposing it to excessive moisture.
- **Storage:** Store the battery in a cool, dry place away from flammable materials and direct heat sources.
- **Disposal:** Dispose of the battery according to local regulations for lithium-ion batteries. Do not dispose of it with household waste.

Image 2.1: Illustration of the battery's operating temperature range for charging and discharging.

3. Setup and Installation

Before installing your new SSCYHT 36V Lithium Battery, please confirm its compatibility with your equipment:

1. **Confirm Appearance:** Ensure the replacement battery has a similar appearance to your old battery, if applicable.
2. **Confirm Size:** Carefully check the dimensions of the battery to ensure it fits into your equipment's battery compartment. Refer to the specifications section for detailed measurements.
3. **Confirm Plugs:** Verify that the battery's XT60 discharge connector is compatible with your equipment. If the plugs differ, adapters may be purchased separately to ensure compatibility.

Image 3.1: Detailed dimensions of the SSCYHT 36V Lithium Battery.

Image 3.2: Close-up of the XT60 discharge connector.

Once compatibility is confirmed, connect the battery to your equipment's motor kit. This battery is suitable for motor kits ranging from 50W to 250W.

Image 3.3: Examples of equipment where the battery can be applied, such as electric scooters and hoverboards.

4. Operating Instructions

4.1. Charging the Battery

To charge your SSCYHT 36V Lithium Battery:

1. Ensure the battery is disconnected from any load.
2. Connect a **42V 2A charger** to the battery's charging port.
3. Plug the charger into a standard wall outlet.
4. Monitor the charger's indicator light (if available) to determine charging status.
5. Once fully charged, disconnect the charger from the battery and the wall outlet.

Important: Only use a 42V 2A charger for charging this battery. Using other chargers may damage the battery or pose a safety risk.

4.2. Battery Management System (BMS)

The battery is equipped with a modular Battery Management System (BMS) that provides essential protections for enhanced safety and performance:

- **Over-charge Protection:** Prevents the battery from being charged beyond its safe voltage limit.
- **Over-discharge Protection:** Prevents the battery from being discharged below its safe voltage limit, extending its lifespan.
- **Over-current Protection:** Protects against excessive current draw during operation. The maximum constant discharge current is 20A.
- **Over-heating Protection:** Monitors battery temperature and prevents operation outside safe thermal limits.

Image 4.1: Visual representation of the core BMS protection functions.

5. Maintenance and Storage

Proper maintenance and storage will prolong the life and performance of your battery:

- **Regular Charging:** For optimal lifespan, avoid completely draining the battery. Recharge it regularly, especially after use.
- **Long-Term Storage:** If storing the battery for an extended period, charge it to approximately 50-60% capacity. Store it in a cool, dry place, ideally between 10°C and 25°C (50°F and 77°F).
- **Periodic Recharging:** During long-term storage, check the battery every 3-6 months and recharge it to 50-60% if the voltage has dropped significantly.
- **Cleaning:** Keep the battery clean and dry. Use a soft, dry cloth to wipe off any dust or dirt. Do not use solvents or abrasive cleaners.
- **Expected Lifespan:** The battery is designed for 700-800 charge cycles, retaining approximately 70% of its original capacity after 500 cycles.

Image 5.1: The battery's PVC heat shrink tubing provides insulation and protection.

6. Troubleshooting

If you encounter issues with your SSCYHT 36V Lithium Battery, consider the following general troubleshooting steps:

- **Battery Not Charging:**
  - Ensure the charger is properly connected to both the battery and the power outlet.
  - Verify that the power outlet is functional.
  - Confirm you are using the correct 42V 2A charger.
  - Check for any visible damage to the charging port or charger cable.
- **Battery Not Providing Power:**
  - Ensure the battery is fully charged.
  - Verify that the XT60 connector is securely attached to your equipment.
  - Check your equipment for any internal faults or disconnections.
- **Reduced Performance/Run Time:**
  - Battery capacity naturally degrades over time and with charge cycles.
  - Ensure the battery is fully charged before use.
  - Operating in extreme temperatures (too cold or too hot) can temporarily reduce performance.

If these steps do not resolve the issue, please contact customer support for further assistance.

7. Specifications

Feature	Detail
Brand	SSCYHT
Type	Rechargeable Li-ion Battery
Rated Voltage	36V
Rated Capacity Options	4.4Ah, 5.2Ah, 6.6Ah
Applicable Motor Kit	50W - 250W
Dimensions (L x W x H)	95mm x 60mm x 135mm (3.74 x 2.36 x 5.31 inches)
Weight	Approximately 1 kg (2.2 pounds)
Recommended Charger	42V 2A
Maximum Constant Discharge Current (BMS)	20A
Service Life	700-800 cycles (70% capacity after 500 cycles)
Charging Operating Temperature	0°C - 50°C (32°F - 122°F)
Discharging Operating Temperature	-10°C - 50°C (14°F - 122°F)
Item Model Number	66373811-36V4.4AH (Specific to 4.4Ah variant)

8. Warranty and Support

SSCYHT is committed to ensuring customer satisfaction. While specific warranty details are not provided in this manual,

we encourage you to refer to your purchase documentation or contact the seller for warranty information.
For technical support, troubleshooting assistance, or any questions regarding your SSCYHT 36V Lithium Battery, please contact our customer service team. We are dedicated to providing enthusiastic support to ensure you are satisfied with our products and services.

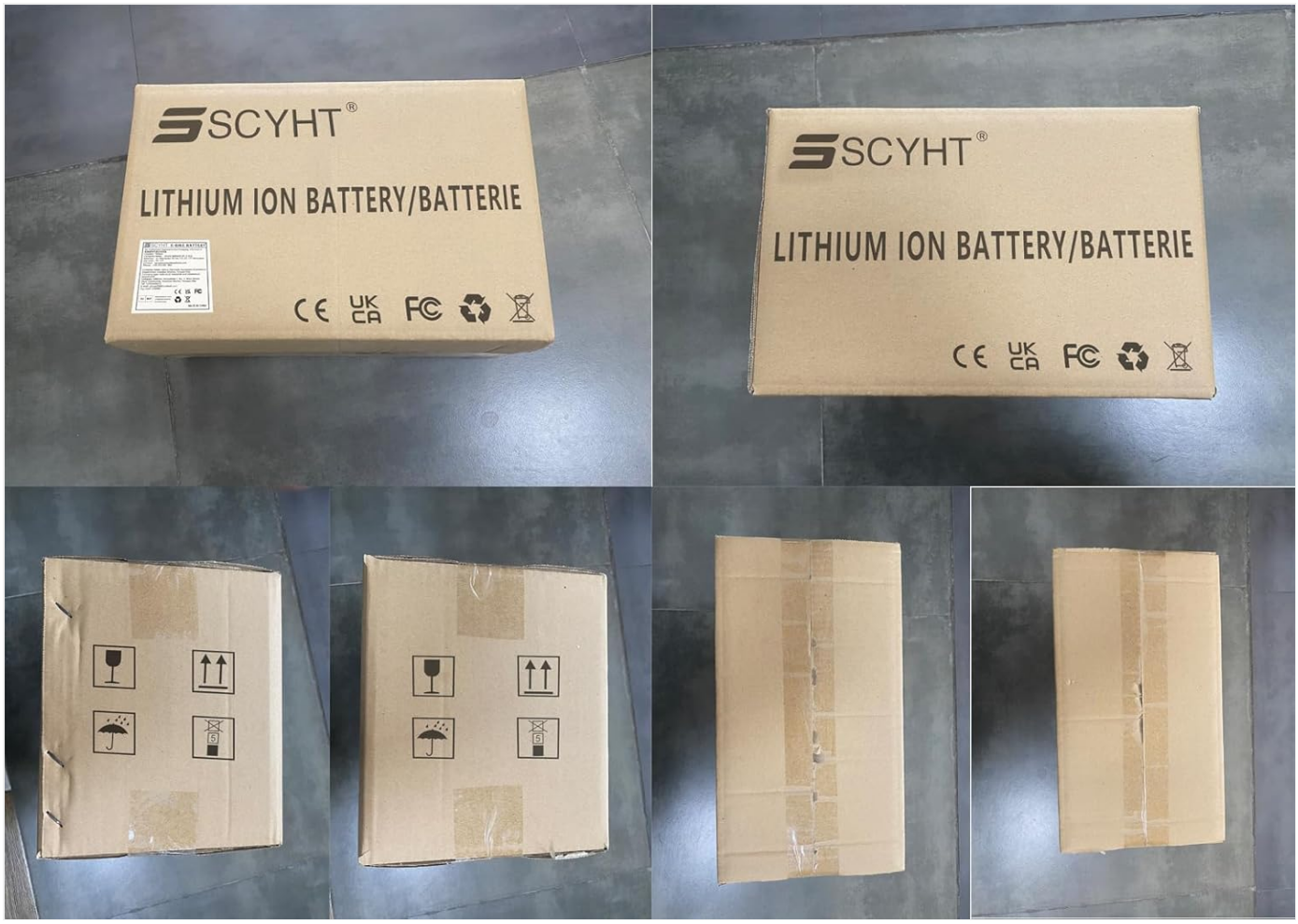

Image 8.1: Example of the thickened carton packaging used for the battery.