

SWIT®

PB-H290S

Rechargeable Li-ion Battery

Ver:B

USER MANUAL

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Thank you for choosing SWIT products, please read this user manual before using and keep it properly for future reference.

⚠ SAFETY INSTRUCTIONS

Keep the following precautions in mind to avoid fire and other safety hazards!

- Do not use the battery near fire or heat sources to prevent risks such as overheating and rupture.
- Do not pierce the battery case or attempt to open the case, disassemble the battery, etc.
- Do not use the battery outside the specified ambient temperature range for charging, discharging, or storage.
- Do not charge the battery in a vehicle or under direct sunlight.
- Do not use damaged battery.
- Do not squeeze the shell to cause physical damage.
- Make sure the power-consuming equipment meets the battery specifications.
- Please use the SWIT charger or the charger recommended by SWIT for charging to prevent dangers such as overheating and cracking.
- Please keep out of reach of children.

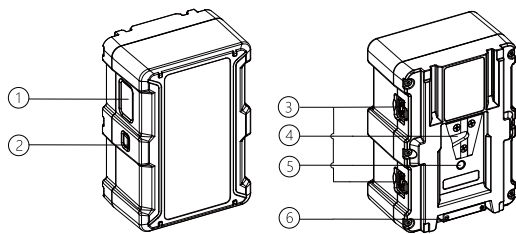
Precautions

- The battery will get hot during charging and use, which is a normal phenomenon.
- When the battery has just finished being used, it may not turn off the screen for a while, which is a normal phenomenon.
- Do not use the battery in a high-temperature environment above 60°C.
- Keep the electrodes clean to ensure a better user experience.
- When storing for a long time, please place it in a cool and dry place. It is recommended to keep the battery charge level between 25% and 50%.

Features

- The unique dual-voltage design enables the battery to intelligently switch to a low voltage of 14.4V or a high voltage of 28.8V output when a device is mounted on the main output interface.
- The dual D-TAP ports provide a constant 16V output when the main output is at high voltage. When the main output is at low voltage, the D-TAP ports deliver 10.8V to 16.8V. They support simultaneous power supply to two low-voltage devices while the main output powers the primary equipment.
- Ultra-low power consumption design: The battery automatically enters the low-power sleep mode when left idle without any operation, and can be automatically awakened during use. After being left idle for a long time, it automatically enters the ultra-low power consumption power-off mode. Pressing the button can restore the normal mode, effectively preventing the battery from being unused for a long time, resulting in a too low battery voltage due to self-discharge, which may affect the battery life or even cause it to become unusable.
- It has an OLED display that shows battery capacity, voltage, and remaining life.
- Built-in multiple protection circuits provide all - round protection against high temperature, low temperature, over - voltage, under - voltage, over - current, short - circuit, etc., effectively preventing potential safety hazards caused by improper use and the impact of improper use on the battery's service life.
- Triple overcurrent protection design meets the high starting power requirements of the equipment while improving the safety performance of the battery.
- The backlight can be turned on or off by double-clicking the button when the OLED display is on.
- The internal brackets tightly secure the battery cell group in all directions, completely isolating the battery cells from the circuit board, making it safer and more reliable.
- The shell is made of high-impact resistant and flame-retardant material. Coupled with a sturdy structural design, it fully meets all safety regulations.
- The interior features a simple modular design with no wire soldering, reducing internal resistance and ensuring stability and reliability.
- High-performance rechargeable lithium-ion battery with no memory effect.

Appearance



PB-H290S appearance

- ① OLED display screen
- ② Button
- ③ D-TAP interface (comes with rubber protective cover)
- ④ V Mount
- ⑤ Backlight
- ⑥ BP input/output

Recharge

- Support the charging of the main electrode.
- After connecting the charger, a lightning icon appears on the OLED screen to indicate that charging has started. Once charging is complete, the icon disappears.
- Charging is possible within the temperature range of 0 to 40 °C, but we recommend charging within the temperature range of 10 to 30 °C to ensure the optimal performance of the battery.

Discharge

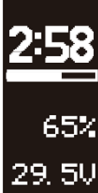
- During the discharging process, the OLED display screen defaults to showing the battery voltage, battery percentage, and battery life.
- When in low-voltage state, the D-TAP output remains constantly on. In high-voltage state, the D-TAP output is enabled when the OLED display is turned on.
- The battery can be discharged within the temperature range of -20°C to 50°C; it can achieve the best performance when used within the temperature range of -10°C to 40°C.
- Under low temperature conditions, the battery's internal resistance increases, resulting in shorter discharge time. When the load is heavy, automatic cutoff may occur.

Display & Alarms

1. During battery standby and charging

Display			
Instruction	Displays battery percentage and voltage in standby state	Show the lightning icon and the current voltage during the charging process	Display the lightning icon and the current voltage during the charging process.charging process

2. Battery discharging

Display		
Instruction	When remaining runtime exceeds 10 hours, displays remaining hours, battery percentage, and battery voltage.	When remaining runtime is under 10 hours, the time is displayed as 0:00 to 9:59, along with battery percentage and battery voltage.

3.OLED alarm display instructions

Display					
Explanation	Battery overheating	Battery Low Temperature	a. Charging overcurrent b. Overload c. Battery short circuit	Other protections	SERVICE 01~33, The battery has an unrecoverable error
Processing method	Please remove the battery and let it rest at room temperature to recover automatically.	Leave it at room temperature and wait for it to recover automatically.	1)In case of overcurrent during charging or excessive load, please remove the battery and let it rest for 30 seconds to recover automatically. 2)In case of battery short circuit, please check for foreign objects between the contacts or remove the battery and let it rest for 20 seconds to recover automatically.	Wait until the battery screen turns off, then press the button again. When the battery percentage and voltage are displayed normally again, it can be used normally.	Please contact the manufacturer for repair. Do not disassemble it by yourself.

Specification

Models				PB-H290S	
Primary Interface Type				V-Mount	
Rated voltage				28.8V/14.4V	
Capacity	High voltage 28.8V			9.9Ah	
	low voltage 14.4V			19.8Ah	
Interface parameters	V-Mount	Discharge	High voltage 21.6-33.6V	250W, 10A	
			low voltage 10.8-16.8V	250W, 20A	
		Charging	High voltage	33.6V--- 5A Max	
			low voltage	16.8V--- 10A Max	
	D-TAP*2	Discharge	High voltage 16V	100W,6A	
			low voltage 10.8-16.8V	250W, 20A	
		Charging	High voltage	Not supported	
			low voltage	16.8V--- 10A Max	
Total Discharge Power				250W	
Others	EMC			EN55032,EN55035	
	Safety standard			UN38.8, IEC 62133-2	
	Drop			1.2m Drop test	
Size				144mm×100mm×67mm	
Net weight				1.52kg	
Charging temperature				0~40℃(suggestion10~30℃)	
Storage temperature				-20℃~50℃ (suggestion-10~40℃)	