SigmasTek SP12-7.5

SigmasTek SP12-7.5 (T2) 12V 7.5Ah F2 UPS Battery Instruction Manual

Model: SP12-7.5 (T2) | Brand: SigmasTek

1. Introduction

This manual provides essential information for the safe and efficient use of your SigmasTek SP12-7.5 (T2) 12V 7.5Ah F2 Sealed Lead-Acid (SLA) battery. This high-quality replacement battery is designed for dependable performance and durability, meeting or exceeding OEM standards. It is compatible with various applications including Uninterruptible Power Supply (UPS) systems, emergency lighting, security alarms, scooters, wheelchairs, and medical devices.

Key Features:

- Compatible replacement for 1235 models and equivalents (UB1270-F2, UB1280-F2 (D5779), NP7-12-F2, BP7.5-12 F2, GP1270-F2, CP1270-F2, 6FM7.2 F2, YT-1270-F2, PS-1270-F2).
- Advanced Glass Mat (AGM) technology for safe, spill-proof, and maintenance-free operation.
- Designed for excellent cycle life, ensuring long-term use.
- 12 Volt 7.5 Amp Hour (T2/F2) configuration, U.L. Recognized and CE Certified.
- Factory-fresh units for consistent and reliable power delivery.
- Facilitates quick and easy installation using existing hardware.
- Backed by a full 1-year warranty for peace of mind.

2. Safety Information

WARNING: Failure to follow these safety instructions may result in fire, explosion, electrical shock, or other hazards.

- **Do not short circuit** the battery terminals.
- **Do not charge the battery in a sealed container** as this can lead to gas buildup and explosion.
- **Avoid fire, explosion, or burns:** Do not disassemble, heat the battery above 50°C (122°F), or incinerate.
- **Keep away from sparks or open flames** during handling and installation.
- **Do not discharge below 10.5V** to prevent damage to the battery.
- **Keep out of reach of children.**

- **Proper disposal:** Batteries must be recycled or disposed of properly according to local regulations.

SigmasTek

SP12-7.5
(12V7.5AH/T2)

Specifications

Nominal Voltage	12V	
Nominal Capacity (20HR)	7.5AH	
Dimension	Length	151mm (5.95 inches)
	Width	65mm (2.56 inches)
	Height	94mm (3.70 inches)
	Total Height (with Terminal)	100mm (3.94 inches)
Approximate Weight	2.30 kg (5.06 lbs)	
Battery Type	Valve Regulated Lead-Acid Battery, AGM Design	
Terminal Type	T2	
Rated Capacity	7.50AH	(20hr,1.75V/cell,25°C/77°F)
	7.19AH	(10hr,1.75V/cell,25°C/77°F)
	6.20AH	(5hr,1.75V/cell,25°C/77°F)
	5.94AH	(3hr,1.60V/cell,25°C/77°F)
	5.28AH	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	108A	
Internal Resistance	22mΩ	
Operating Temp. Range	Discharge:	-20°C (-4°F)~50°C (122°F)
	Charge:	-20°C (-4°F)~50°C (122°F)
	Storage:	-20°C (-4°F)~40°C (104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Container Material	ABS (Option: 94-HB & 94-V0 flame retardant case)	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	SigmasTek SP series batteries may be stored for up to 6 months at 25°C (77°F) and then a freshening charge is recommended. For higher temperatures the time interval will be shorter.	

Applications

- Uninterruptible Power Supply (UPS)
- Electric wheelchairs, scooters, bikes
- Electronic apparatus and equipment
- Alarm and security systems
- Emergency first responder equipment
- Emergency lighting
- Medical devices
- Electric carts
- Telecom equipment
- Switchgear
- Solar power systems

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Image: SigmasTek SP12-7.5 (T2) battery showing warning labels and detailed specifications.

3. Setup and Installation

This section outlines the general steps for installing your new SigmasTek SP12-7.5 (T2) battery. Always refer to your device's specific instruction manual for detailed installation procedures, especially for UPS systems or alarm panels.

General Installation Steps:

1. **Power Off Device:** Ensure the device requiring the battery replacement is completely powered off and unplugged from any power source.
2. **Locate Battery Compartment:** Identify and open the battery compartment of your device. This may involve unscrewing a cover or sliding a panel.
3. **Disconnect Old Battery:** Carefully disconnect the terminals of the old battery. Typically, you disconnect the negative (black) terminal first, followed by the positive (red) terminal.
4. **Remove Old Battery:** Extract the old battery from the compartment. Note its orientation and any securing mechanisms.
5. **Insert New Battery:** Place the new SigmasTek SP12-7.5 (T2) battery into the compartment, ensuring it is oriented correctly.
6. **Connect New Battery:** Connect the terminals of the new battery. Typically, connect the positive (red) terminal first, then the negative (black) terminal. Ensure connections are secure.

7. **Secure Compartment:** Close and secure the battery compartment.
8. **Power On Device:** Plug in and power on your device. Verify that the device recognizes the new battery and operates correctly.

Image: The SigmasTek SP12-7.5 (T2) 12V 7.5Ah F2 UPS Battery, ready for installation.

Your browser does not support the video tag.

Video: An overview of Mighty Max batteries, highlighting features like shock resistance, easy recharging, various terminal types (F1, F2, Nut & Bolt), AGM spill-proof design, and mounting versatility. This video provides general information about the battery type and its applications.

4. Operating Instructions

The SigmasTek SP12-7.5 (T2) battery is a sealed lead-acid (SLA) battery designed for reliable power delivery. Once installed, its operation is typically managed by the device it powers (e.g., UPS, alarm system).

Charging Instructions:

- **Floating Use:** For standby applications, maintain a constant voltage between 13.5V and 13.8V.
- **Cycle Use:** For applications involving regular discharge and recharge cycles, maintain a voltage between 14.4V and 15.0V.
- **Initial Current:** The initial charging current should be less than 2.1A.
- Ensure the battery is not charged in a sealed container to prevent gas buildup.

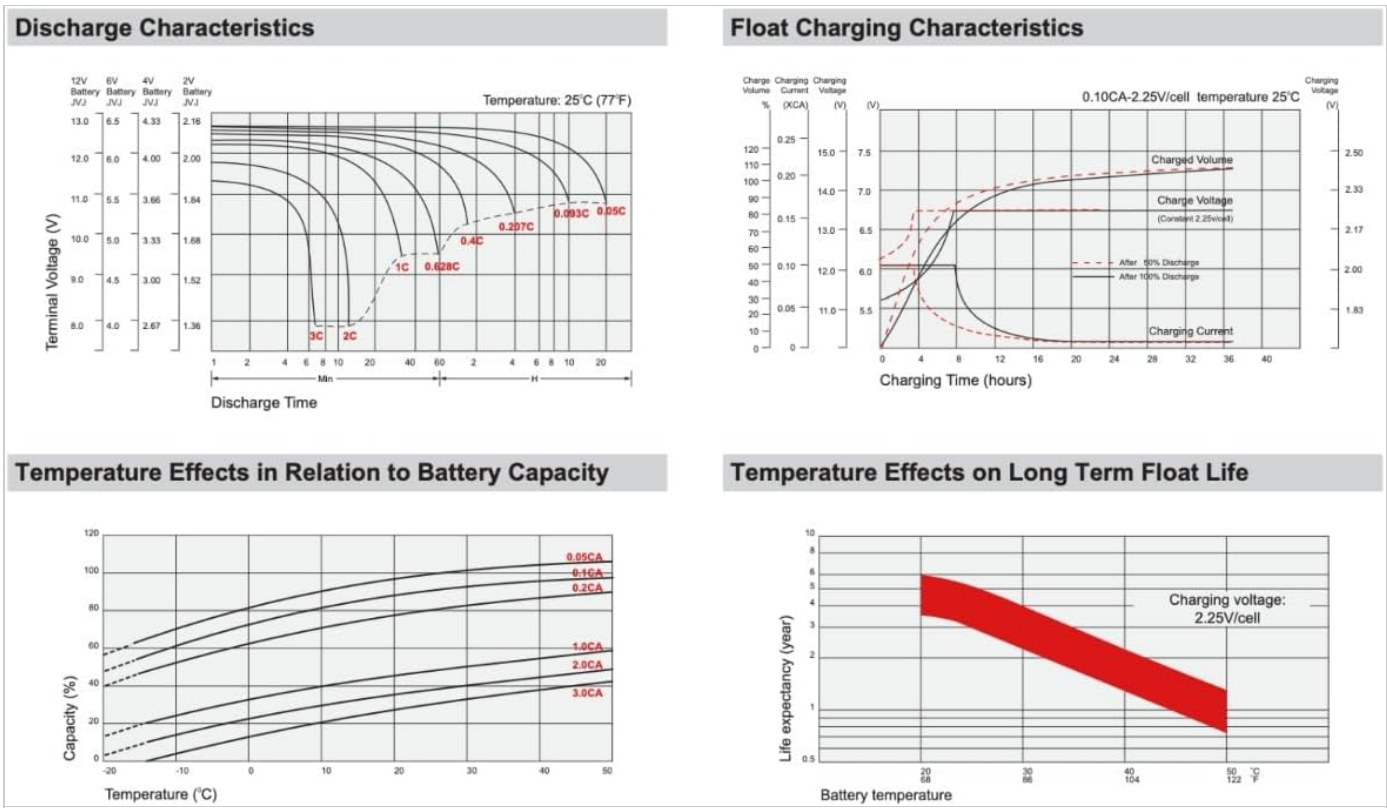


Image: Graphs illustrating the discharge characteristics and float charging characteristics of the battery, showing voltage, current, and time relationships.

5. Maintenance

The SigmasTek SP12-7.5 (T2) battery is designed to be maintenance-free due to its AGM technology. However, adhering to the following guidelines will help maximize its lifespan and performance:

- **Regular Inspection:** Periodically inspect the battery for any signs of physical damage, swelling, or corrosion on the terminals.
- **Clean Terminals:** Keep battery terminals clean and free from dirt or corrosion. Use a dry cloth to wipe them if necessary.
- **Temperature Control:** Avoid exposing the battery to extreme temperatures. Optimal operating temperature range for discharge and charge is -20°C to 50°C (-4°F to 122°F). For storage, the recommended temperature is 25°C (77°F). Higher temperatures can shorten battery life.
- **Avoid Deep Discharge:** Do not discharge the battery below 10.5V. Most devices with this battery type will have built-in low-voltage cutoffs.
- **Replacement:** It is recommended to replace the battery every 3-5 years, depending on usage and environmental conditions, to ensure optimal performance and reliability.

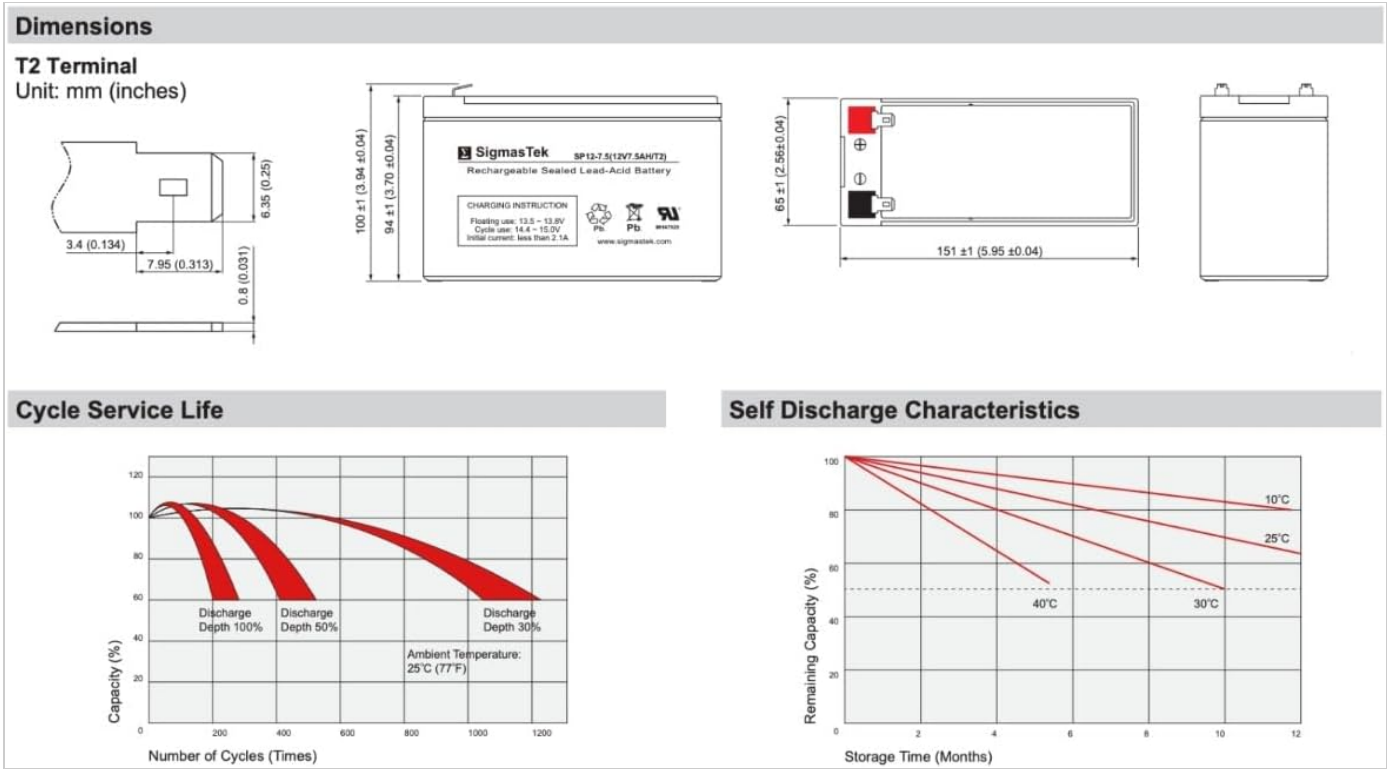


Image: A technical diagram showing the dimensions of the SigmasTek SP12-7.5 (T2) battery with T2 terminals, including length, width, and height in both inches and millimeters.

6. Troubleshooting

If you encounter issues with your SigmasTek SP12-7.5 (T2) battery or the device it powers, consider the following troubleshooting steps:

- **Device Not Powering On:**
  - Check if the battery terminals are securely connected.
  - Verify the battery is fully charged.
  - Ensure the device's power switch is in the ON position.
- **Short Runtime/Poor Performance:**
  - The battery may be old and require replacement (recommended every 3-5 years).
  - The device might be drawing more power than the battery's capacity.
  - Ensure the charging system of your device is functioning correctly.
- **Battery Not Charging:**
  - Check the charging voltage and current against the specifications (Floating Use: 13.5-13.8V, Cycle Use: 14.4-15.0V, Initial Current: < 2.1A).
  - Inspect the charger and charging cables for damage.
  - Ensure the battery is not in a sealed compartment that prevents proper ventilation during charging.
- **"BAT" or Low Battery Indicator:**
  - This typically indicates the battery needs charging or is nearing the end of its lifespan.
  - If charging does not resolve the issue, consider replacing the battery.

7. Specifications

Feature	Detail
Model Number	SP12-7.5 (T2)
Nominal Voltage	12V
Battery Capacity	7.5 Amp Hours (20HR)
Battery Cell Composition	Lead Acid (Sealed Lead-Acid, AGM Design)
Terminal Type	T2/F2
Product Dimensions (L x W x H)	5.95 x 2.56 x 3.7 inches (151 x 65 x 94 mm)
Item Weight	5.06 pounds (2.30 kg)
Operating Temp. Range (Discharge)	-20°C to 50°C (-4°F to 122°F)
Operating Temp. Range (Charge)	-20°C to 50°C (-4°F to 122°F)
Operating Temp. Range (Storage)	-20°C to 50°C (-4°F to 122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Recommended Uses	UPS, Alarm, Scooter, Emergency Lighting, Security Systems, Medical Devices
Certifications	U.L. Recognized, CE Certified
Manufacturer	SigmasTek

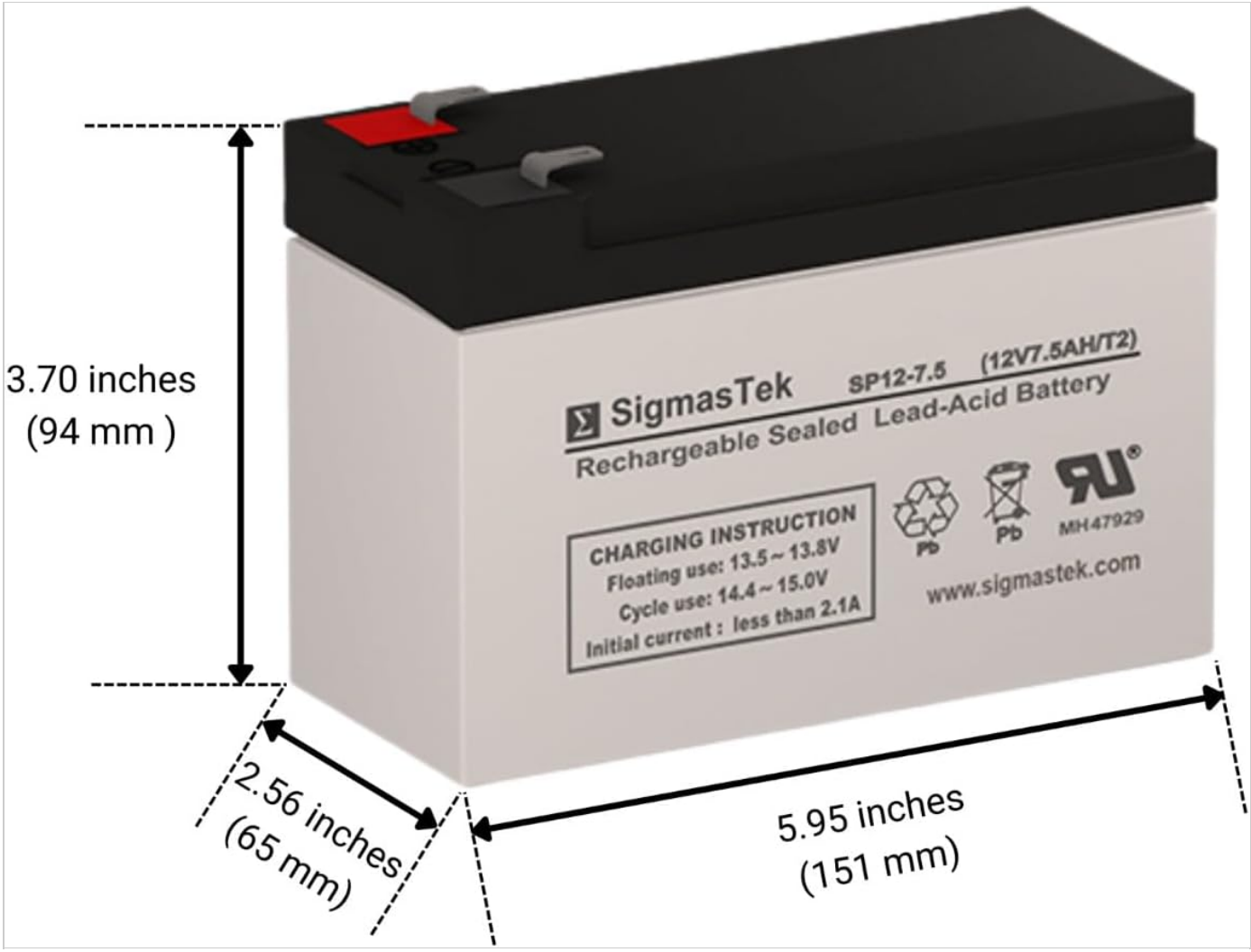


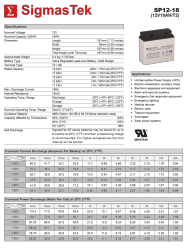
Image: The SigmasTek SP12-7.5 (T2) battery with its physical dimensions clearly marked in inches and millimeters.

8. Warranty and Support

The SigmasTek SP12-7.5 (T2) battery is backed by a full**1-year warranty**, ensuring dependable performance and durability. For warranty claims, technical support, or further inquiries, please contact SigmasTek customer service through their official channels.

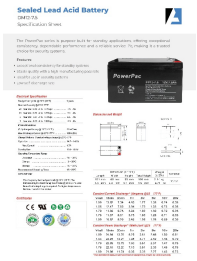
Note: The warranty applies under normal use and conditions. Misuse, improper installation, or unauthorized modifications may void the warranty. Always refer to the specific warranty terms provided with your purchase.

Related Documents - SP12-7.5

	SigmasTek SP12-18 (12V18AH/T2) Rechargeable Sealed Lead-Acid Battery Datasheet Detailed specifications, performance charts, and application information for the SigmasTek SP12-18 (12V18AH/T2) rechargeable sealed lead-acid battery. Includes dimensions, capacity, discharge rates, temperature effects, and self-discharge characteristics.

[MNB HRL 1221 W Sealed Lead Acid Battery Technical Specifications and Features]

Detailed technical specifications, features, and performance characteristics of the MNB HRL 1221 W sealed lead acid battery. Includes dimensions, electrical data, and operational guidelines for high-rate applications.

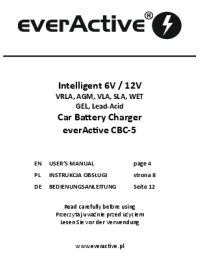


[PowerPac DM12-7.5 Sealed Lead Acid Battery Specification Sheet]

Detailed specification sheet for the PowerPac DM12-7.5 Sealed Lead Acid Battery, covering electrical specifications, dimensions, weight, discharge characteristics, and performance graphs. Designed for standby applications like security systems.

[Material Safety Data Sheet: FUJIAN MINHUA POWER SOURCE CO.,LTD. Maintenance-Free Sealed Lead Acid Battery MM200-12]

Comprehensive Material Safety Data Sheet (MSDS) for FUJIAN MINHUA POWER SOURCE CO.,LTD.'s Maintenance-Free Sealed Lead Acid Battery (Model MM200-12 and series). Provides detailed information on chemical composition, hazards, safe handling, emergency procedures, and regulatory compliance.



[everActive CBC-5 Intelligent 6V/12V Car Battery Charger User Manual]

Comprehensive user manual for the everActive CBC-5 intelligent 6V/12V car battery charger. Learn about its features, specifications for VRLA, AGM, SLA, GEL, WET, and Lead-Acid batteries, operating instructions, and safety guidelines. Keep your vehicle batteries optimally charged.

[Portable Battery Charger User Manual - FPT-100 / FPT-200]

Comprehensive user manual for the FPT-100 and FPT-200 portable automatic smart battery chargers. Includes safety instructions, features, operating modes, and technical specifications for 12V/24V Lead-Acid, AGM, GEL, SLA, EFB, and LiFePO4 batteries.