

SigmasTek SP12-7.5HR

SigmasTek SP12-7.5HR (12V 7.5Ah) Rechargeable Sealed Lead-Acid Battery User Manual

For PowerWare PW5105-450VA UPS Replacement

1. PRODUCT OVERVIEW

This manual provides instructions for the SigmasTek SP12-7.5HR (12V 7.5Ah) Rechargeable Sealed Lead-Acid (SLA) battery, designed as a compatible replacement for the PowerWare PW5105-450VA Uninterruptible Power Supply (UPS) system. This battery utilizes Absorbent Glass Mat (AGM) technology, offering a maintenance-free and spill-proof design. It is U.L. Recognized and CE Certified, ensuring quality and safety standards.

Key features include:

- Absorbent Glass Mat (AGM) Technology
- Maintenance-Free Design with Spill Proof Construction
- U.L. Recognized and CE Certified
- Rechargeable Lead-Acid Battery

2. SAFETY INFORMATION

Please read and understand all safety instructions before handling or installing the battery. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Risk of Electric Shock:** Batteries can deliver high current. Do not short-circuit the terminals.
- **Chemical Hazard:** This battery contains lead (Pb). Avoid contact with skin and eyes. In case of contact, flush with water immediately and seek medical attention.
- **Ventilation:** Although sealed, ensure adequate ventilation during charging to prevent gas accumulation.
- **Heat:** Do not expose the battery to excessive heat or open flames.
- **Disposal:** Dispose of batteries properly according to local regulations. Do not dispose of in household waste. This product contains lead and should be recycled.
- **Handling:** Use appropriate tools and wear protective eyewear and gloves when handling batteries.



Image: Sigmastek SP12-7.5HR (12V 7.5Ah) Sealed Lead-Acid Battery. The label displays the brand name, model number, battery type, charging instructions (Floating use: 13.5-13.8V, Cycle use: 14.4-15.0V, Initial current: less than 2.1A), and recycling symbols including a 'Pb' for lead, and a crossed-out waste bin indicating separate disposal. UL recognition mark MH47929 is also visible.

3. WHAT'S IN THE BOX

The package contains the following item:

- One (1) Sigmastek SP12-7.5HR (12V 7.5Ah) Rechargeable Sealed Lead-Acid Battery

4. SETUP AND INSTALLATION

This battery is intended as a replacement for the PowerWare PW5105-450VA UPS. Follow these general steps for installation. Always refer to your UPS manufacturer's manual for specific battery replacement procedures.

1. **Preparation:** Ensure the UPS is completely powered off and disconnected from the AC power source. Disconnect any connected devices.
2. **Access Battery Compartment:** Locate and open the battery compartment of your PowerWare PW5105-450VA UPS. This usually involves removing a cover or panel.
3. **Remove Old Battery:** Carefully disconnect the existing battery from the UPS. Note the polarity (+ and -) of the connections before removal. You must use the existing cables and hardware from your original UPS battery.
4. **Install New Battery:** Insert the new Sigmastek SP12-7.5HR battery into the compartment. Connect the existing cables and hardware to the corresponding terminals on the new battery, ensuring correct polarity.
5. **Secure Compartment:** Close and secure the battery compartment.
6. **Initial Charge:** Reconnect the UPS to the AC power source and allow it to charge the new battery for at least 8-12 hours before connecting any devices or relying on battery backup.

Important: Do not discard the old battery in regular trash. Recycle it responsibly at an authorized battery recycling facility.

5. OPERATING INSTRUCTIONS

The Sigmastek SP12-7.5HR is a rechargeable sealed lead-acid battery. Once installed in a compatible UPS, the UPS system will manage the charging and discharging cycles.

Charging Guidelines:

For optimal performance and longevity, adhere to the following charging parameters:

- **Floating Use (Standby):** 13.5V to 13.8V
- **Cycle Use (Deep Discharge/Recharge):** 14.4V to 15.0V
- **Initial Current:** Less than 2.1A

Ensure your UPS or external charger provides charging within these specifications.

6. MAINTENANCE

The SigmasTek SP12-7.5HR battery features a maintenance-free design. This means there is no need to check electrolyte levels or add water.

To ensure maximum lifespan:

- **Keep Clean:** Periodically inspect the battery and terminals for dirt, dust, or corrosion. Clean with a dry cloth if necessary.
- **Temperature:** Operate and store the battery within recommended temperature ranges (typically 20°C to 25°C or 68°F to 77°F) to prevent degradation.
- **Avoid Deep Discharge:** While designed for cycle use, frequent deep discharges can reduce overall battery life. Allow the UPS to recharge the battery fully after power outages.
- **Storage:** If storing the battery for an extended period, ensure it is fully charged and recharge it every 3-6 months to prevent irreversible capacity loss.

7. TROUBLESHOOTING

If you experience issues with your replacement battery, consider the following:

- **Battery Not Charging:**
 - *Check Connections:* Ensure all cables are securely connected to the battery terminals and the UPS. Verify correct polarity.
 - *UPS Functionality:* Confirm the UPS itself is functioning correctly and receiving AC power.
 - *Charging Parameters:* If using an external charger, verify it meets the specified charging voltages and current.
- **Short Runtime:**
 - *Initial Charge:* Ensure the battery has completed its initial full charge cycle (8-12 hours).
 - *Age:* Batteries have a finite lifespan. If the battery is several years old, its capacity may have diminished.
 - *Load:* Verify the total load connected to the UPS does not exceed its capacity.
- **Physical Damage:** Inspect the battery for any signs of swelling, leaks, or physical damage. If found, discontinue use immediately and replace the battery.

For persistent issues, consult the PowerWare PW5105-450VA UPS manual or contact SigmasTek customer support.

8. SPECIFICATIONS

Feature	Detail
Model	SP12-7.5HR (12V 7.5Ah/T2)

Brand	SigmatTek
Battery Type	Rechargeable Sealed Lead-Acid (SLA) with AGM Technology
Nominal Voltage	12V
Nominal Capacity	7.5Ah
Product Dimensions (L x W x H)	5.95 x 2.56 x 3.7 inches
Item Weight	5.25 pounds
Reusability	Rechargeable
Certifications	U.L. Recognized, CE Certified

9. WARRANTY AND SUPPORT

This SigmasTek battery comes with a minimum one-year warranty from the date of purchase, covering defects in materials and workmanship.

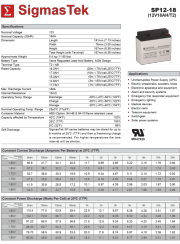
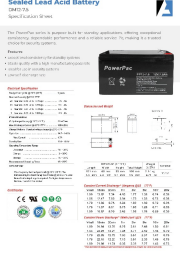

For warranty claims, technical support, or further inquiries, please contact SigmasTek customer service or visit their official website:

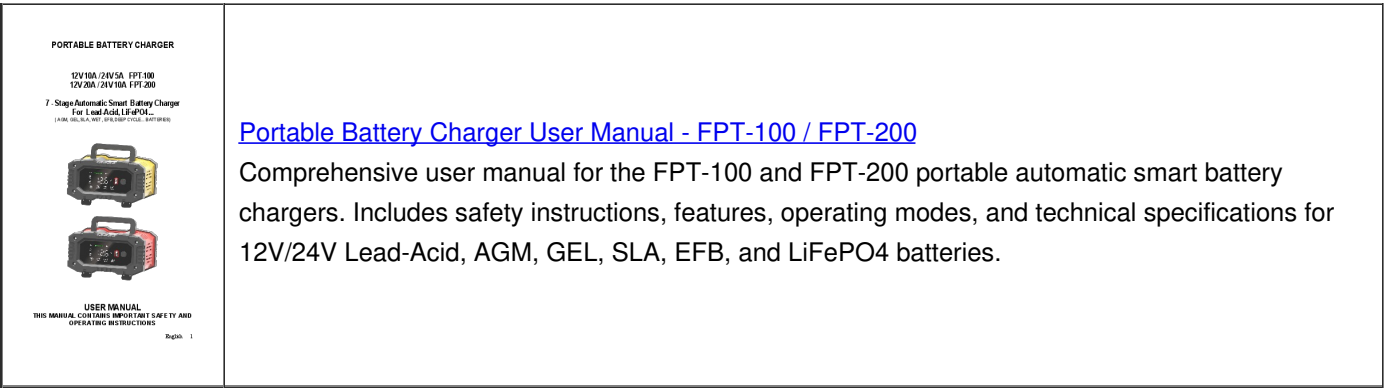
Manufacturer: SigmasTek

Website: www.sigmastek.com

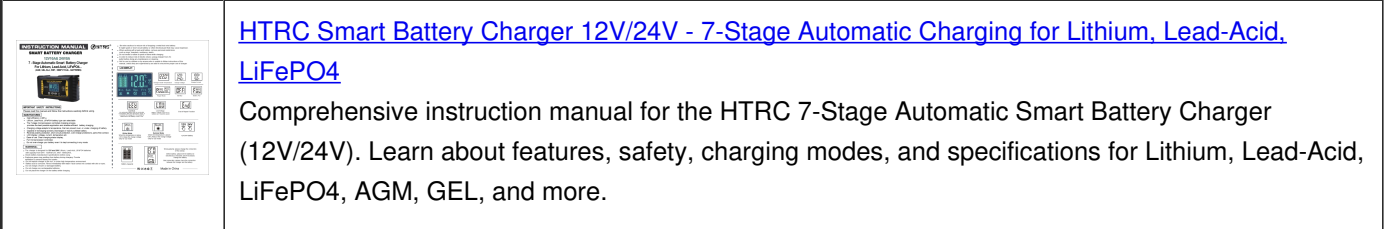
Please have your purchase information and battery model number (SP12-7.5HR) available when contacting support.

Related Documents - SP12-7.5HR

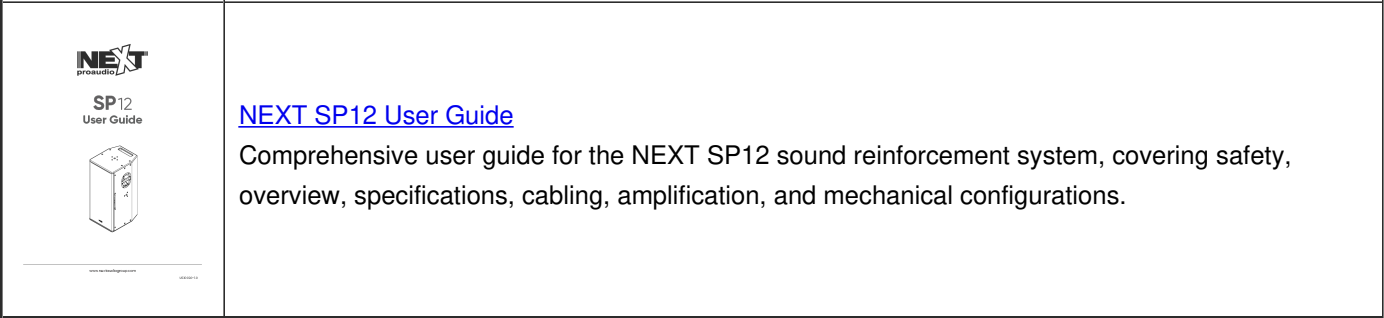
	<p>SigmasTek SP12-18 (12V18AH/T2) Rechargeable Sealed Lead-Acid Battery Datasheet</p> <p>Detailed specifications, performance charts, and application information for the SigmasTek SP12-18 (12V18AH/T2) rechargeable sealed lead-acid battery. Includes dimensions, capacity, discharge rates, temperature effects, and self-discharge characteristics.</p>
	<p>PowerPac DM12-7.5 Sealed Lead Acid Battery Specification Sheet</p> <p>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.</p>
	<p>Tripp Lite Replacement Battery Cartridge (RBC) Owner's Manual</p> <p>Owner's manual for Tripp Lite Replacement Battery Cartridges (RBC), providing installation, safety, and recycling information. Covers features, warnings, and selection criteria for UPS batteries.</p>



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.



Comprehensive instruction manual for the HTRC 7-Stage Automatic Smart Battery Charger (12V/24V). Learn about features, safety, charging modes, and specifications for Lithium, Lead-Acid, LiFePO4, AGM, GEL, and more.



Comprehensive user guide for the NEXT SP12 sound reinforcement system, covering safety, overview, specifications, cabling, amplification, and mechanical configurations.