# Smart-UPS™

## Uninterruptible Power Supply

**SMT500J**
**SMT750J**
**SMT1000J**
**SMT1500J**
**SMT2200J**
**SMT3000J**

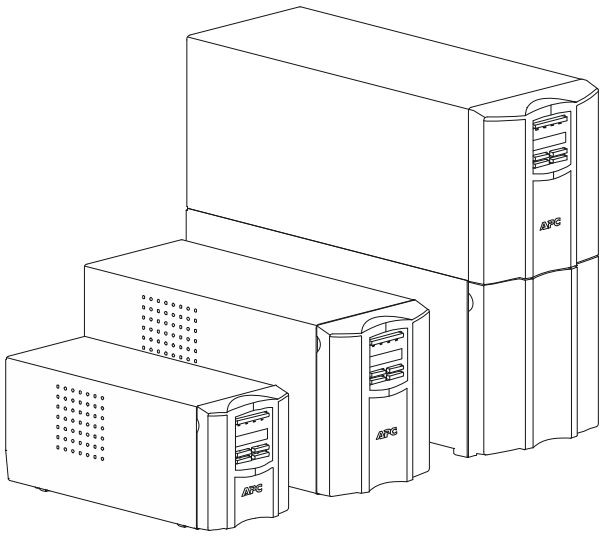
**100 Vac**

**Tower**

# User Manual

**EN TME71927**

**08/2025**



# Legal Information

# Important Safety Instructions

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation and maintenance of the UPS.

This is the “Read user manual” symbol. Read the user documentation carefully and look at the UPS to become familiar with it before trying to install or operate it.

Read the Safety Guide supplied with the UPS to become familiar with the safety requirements before trying to install or operate the UPS.

Read these instructions carefully to become familiar with the UPS.

The following special messages may appear throughout this document or on the UPS to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol either to a “Danger” or “Warning” product safety label indicates that an electrical hazard exists that will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

**⚠ DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

**⚠ WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

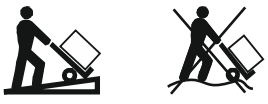
**⚠ CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

***NOTICE***

**NOTICE** is used to address practices not related to physical injury.

## Product Handling Guidelines

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| <18 kg<br><40 lb | 18-32 kg<br>40-70 lb | 32-55 kg<br>70-120 lb | >55 kg<br>>120 lb | |

Electrical equipment should be installed, operated and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

# Safety and General Information

**Inspect the package contents upon receipt. Notify the carrier and dealer if there is any damage**.

**Additional safety information can be found in the Safety Guide supplied with this unit.**

- Adhere to all national and local electrical codes.
- Do not work alone under hazardous conditions.
- All wiring must be performed by a qualified electrician.
- **Changes and modifications to this UPS not expressly approved by Schneider Electric can void the warranty.**
- Schneider Electric shall not be held liable for any loss arising from the operation of this UPS.
- This UPS is designed to work with a nominal input voltage of 100 Vac (50/60 Hz). Operating the UPS with a different nominal input voltage will result in damage to the UPS. Schneider Electric will not be responsible for any damages or losses arising from connecting the UPS to an incorrect voltage.
- This UPS is intended for indoor use only.
- The UPS is intended for IT environments. Do not operate this UPS in direct sunlight, in contact with fluids, or where there is excessive dust or humidity.
- Be sure the air vents on the UPS are not blocked. Allow adequate space for proper ventilation.
- For a UPS with a factory installed power cord, connect the UPS power cable directly to a wall outlet. Do not use surge protectors or extension cords.
- Always practice safe lifting techniques adequate for the weight of the UPS.
- Do not insert any metal object through any opening in the UPS or any connector.

## De-energizing safety

The UPS contains internal batteries and may present a shock hazard even when disconnected from the branch circuit (mains). Before installing or servicing the UPS be sure that the:

- Input circuit breaker is in the **OFF** position.
- Internal UPS batteries are removed.

## Electrical safety

- Do not handle any metallic connector before power has been disconnected.
- For models with a hardwired input, the connection to the branch circuit (mains) must be performed by a qualified electrician.
- To comply with the EMC regulations, wherever applicable, output cords and network cables attached to the UPS must not exceed 10 meters in length.
- The protective earth conductor for the UPS carries the leakage current from the load devices (computer equipment). An insulated ground conductor is to be installed as part of the branch circuit that supplies the UPS. The conductor must have the same size and insulation material as the grounded and ungrounded branch circuit supply conductors. The conductor will typically be green, with or

without a yellow stripe.

- Leakage current for a pluggable, Type A UPS may exceed 3.5 mA when a separate ground terminal is used.
- The UPS input ground conductor must be properly bonded to protective earth at the service panel.
- If the UPS input power is supplied by a separately derived system, the ground conductor must be properly bonded at the supply transformer or motor generator set.

## Battery safety

**⚠ WARNING**

**RISK OF HYDROGEN SULPHIDE GAS, EXCESSIVE SMOKE AND FIRE**

- Replace the battery at least every 5 years or at the end of its service life, whichever is earlier.
- Replace the battery immediately when the UPS indicates battery replacement is necessary.
- Replace batteries with the same number and type of batteries as originally installed in the UPS.
- Replace the battery immediately when:
  - the UPS indicates a battery over-temperature condition.
  - there is a evidence of electrolyte leakage.
  - the UPS indicates any battery related alarm on a battery near the end of its service life.

  For any of these conditions, power off the UPS, unplug it from the AC input, and disconnect the batteries.
- Do not operate the UPS until the batteries have been replaced.
- *Replace all battery modules that are older than one year, when replacing the battery module(s).

**Failure to follow these instructions could result in death, or serious injury and equipment damage.**

* Contact Schneider Electric Customer Support to determine the age of the installed battery modules.

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and required precautions.
- The battery may get discharged naturally due to storage before shipment. Be sure to charge at least 8 hours before use.
- Batteries typically last for two to five years. Environmental factors impact battery life. Elevated ambient temperature, poor quality utility power causing frequent short duration discharges will shorten battery life. Batteries should be replaced before end of life.
- Schneider Electric uses Maintenance-Free sealed Lead Acid batteries. Under normal use and handling, there is no contact with the internal components of the battery. Over charging, over heating or other misuse of batteries can result in a discharge of battery electrolyte. Released electrolyte is toxic and may be harmful to the skin and eyes.

- Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.
- CAUTION: Do not dispose batteries in a fire. The batteries may explode.
- CAUTION: Do not open or mutilate batteries. Released electrolyte is harmful to the skin and eyes and may be toxic.
- CAUTION: Failed batteries can reach temperatures that exceed the burn thresholds for touchable surfaces.
- CAUTION: A battery can present a risk of electrical shock and high short circuit current. The following precautions should be observed when working on batteries:
  - Disconnect the charging source prior to connecting or disconnecting battery terminals.
  - Do not wear any metal objects including watches and rings.
  - Do not lay tools or metal parts on top of batteries.
  - Use tools with insulated handles.
  - Wear rubber gloves and boots.

### General information

- The model and serial numbers are located on a small rear panel label.
- Always recycle used batteries.
- Recycle the package materials or save them for reuse.

## VCCI-A Caution

この装置は、クラスＡ機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

su1115a

# Important Information

<table>
<tr><th></th><th>Term</th><th>Description</th></tr>
<tr><td>1</td><td>Power Supply System</td><td>This UPS is a Line-Interactive UPS.<br>In a Line-Interactive UPS, the Surge Suppression and EMI/Noise Filtering Circuits reduce surges and noise present in the input voltage. During a power outage, the UPS transfers to on-battery operation via the inverter. The UPS will also transfer to on-battery when the input voltage waveform contains disturbances or voltage fluctuations that cannot be removed by the EMI filter. The typical transfer time is less than 10 milliseconds, and has no effect on computer equipment.</td></tr>
<tr><td>2</td><td>Input Power</td><td>Single phase. Connect to a grounded two-pole outlet.</td></tr>
<tr><td>3</td><td>Plug Type</td><td>NEMA 5-15P is provided in SMT500J, SMT750J, SMT1000J, and SMT1500J UPS models.<br>NEMA L5-30P is provided in SMT2200J and SMT3000J UPS models.<br>A converter adapter that changes the plug type to 2 pole with a ground wire is available and can be used. For safe use, be sure that the ground wire is connected to the ground terminal in the input power outlet after conversion to 2 pole. If the ground wire is not connected, there will be risks like electrical shock and leakage current, as well as effects due to improper functioning of surge protection circuit.</td></tr>
<tr><td>4</td><td>Battery Replacement Period</td><td>The Technical Guidelines for Maintenance and Handling of Small-Sized Control-Valve Type Lead-Acid batteries - SBA G0202:2013 - indicate the criteria for replacement period as follows:
<table>
<tr><th>Operating temperature condition</th><th>Guideline for battery Replacement</th></tr>
<tr><td>5~25 °C</td><td>4.0 - 5.0 years</td></tr>
<tr><td>30 °C</td><td>2.8 - 3.5 years</td></tr>
<tr><td>35 °C</td><td>2.0 - 2.5 years</td></tr>
<tr><td>40 °C</td><td>1.4 - 1.7 years</td></tr>
</table>
The replacement period depends on the number of discharges and ambient temperature.<br>Replace the battery as per the guideline given in the table, even if the Replace Battery LED is not illuminated.</td></tr>
</table>

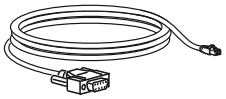
<table>
<tr><th></th><th>Term</th><th>Description</th></tr>
<tr><td>5</td><td>Storage Conditions</td><td>The UPS uses a battery. Due to its characteristics, the battery will self-discharge even when not use. If left in a high discharge state for a long period of time, the battery may get completely discharged and cannot be used.<br>Therefore, recharge the battery periodically during storage.<br>The Battery Industry Association's Technical Guidelines for Maintenance and Handling of Small-Sized Control Valve-Type Lead Storage Batteries (SBA G0202:2013) indicate the frequency for recharging as follows.
<table>
<tr><th>Operating temperature condition</th><th>Recharging frequency</th></tr>
<tr><td>25 °C or less</td><td>Within 6 months</td></tr>
<tr><td>30 °C or less</td><td>Within 4 months</td></tr>
<tr><td>35 °C or less</td><td>Within 3 months</td></tr>
<tr><td>40 °C or less</td><td>Within 2 months</td></tr>
</table>
The warranty will be void if the batteries, including the internal batteries, are stored for long periods without recharging.</td></tr>
<tr><td>6</td><td>Battery Replacement Procedure</td><td>To purchase a replacement battery kit contact the reseller where you purchased this UPS.<br>• APCRBC137J for SMT500J and SMT750J<br>• RBC6L for SMT1000J<br>• APCRBC139J for SMT1500J<br>• RBC55J for SMT2200J and SMT3000J<br>The battery can be easily replaced by the user (see the user's manual, supplied with the replacement battery, for replacement instructions).</td></tr>
<tr><td>7</td><td>Battery Charging</td><td>The battery is always charged during online operation.When the battery is used for the first time, or if the battery charge capacity is low immediately after replacing the battery, it is recommended to disconnect all equipment connected to the UPS and turn on the power with the UPS turned off. The time required for the battery to get fully charged is about 8 hours.</td></tr>
<tr><td>8</td><td>Power Supply Switching</td><td>This is a normal operation. To help protect the connected equipment by providing stable power supply, the UPS switches to on-battery operation not only during utility power outages, but also when noise, surges and sags, or power supply waveform disturbances are detected. Alternatively, changing the UPS sensitivity setting or the AVR voltage setting may prevent frequent switching operations (changing the sensitivity setting may increase the switching time. Also, if the AVR voltage setting value is changed, the output voltage range becomes wider, so check in advance that the connected load device can operate.)</td></tr>
</table>

| | Term | Description |
|---|---|---|
| 9 | Load Capacity | Each model has a fixed capacity to provide battery back-up to connected equipment. Be sure that the maximum power consumption does not exceed the maximum output capacity of the UPS. |
| 10 | Overload Management | Check the total maximum power consumption of the load devices connected to this UPS. If the maximum output capacity of this UPS is exceeded, reduce the number of load devices before use. Reset the circuit breaker on the back panel if it trips. If the problem persists even after reducing the load equipment, contact the call center. |
| 11 | Fan Operation | UPS with rating of 1500VA or higher and Rack-mount models have built-in fans. The fan monitors the internal temperature of the device, the state of charge and the amount of load, and operates for cooling as needed. |
| 12 | LED Status Indicators scrolling | This condition indicates that the output is temporarily disconnected due to sleep mode. The reason for the shift to sleep mode is due to the scheduling function of the power management software, and the output may be disconnected until the power is restored by the power management software, in the event of a power failure. The UPS will resume output when it returns from sleep mode. |
| 13 | AVR Boost / Trim Function | AVR Boost and AVR Trim are Automatic Voltage Regulation (AVR) functions. This function works when the input voltage is raised or lowered by a certain amount from the rated voltage, and the output voltage is adjusted without using the battery. The AVR Boost increases the input voltage and the AVR Trim decreases the input voltage to adjust the output. This feature reduces the need to supply power from the battery and is expected to prevent premature battery deterioration due to power supply environment. |
| 14 | UPS Shutdown | Schedule with optional power management software. You can shut down the server at a specified time and automatically reboot it at a specified time. Contact the Call Center for supported OS and hardware requirements. |
| 15 | Multi-server management | It is possible by using accessories. The Smart-UPS has two standard interface ports (serial and USB), but if you want to manage multiple servers, there are the following methods.<br>• UPS Interface Expander 2 Card (model number: AP9624) and PowerChute Serial Shutdown.<br>• Network Management Card (NMC, model number: AP9640J / AP9641J) and PowerChute Network Shutdown<br>However, you cannot use both NMC and USB/serial ports simultaneously. |
| 16 | Leakage Current | The leakage current of this UPS is within 3.5 mA. |

| | Term | Description |
|---|---|---|
| 17 | Battery Replacement | The UPS automatically diagnoses the battery once every two weeks, and if it detects battery deterioration, the battery replacement LED illuminates and an alarm beeps. The LCD will inform you of the need to replace the battery.<br>In addition to the above, the UPS also measures the battery ambient temperature to predict the battery replacement time and display the replacement time.<br>See **Main Menu > About > Replace Battery [Date]**. |
| 18 | UPS Output | The initial setup may not be complete. Press the ESCAPE button to set the initial setting if the "Language:English" or "Setup Wizard Press any Key" screen appears. Press the UPS Output ON/OFF button to start the output of the UPS. |
| 19 | Battery Connector | The battery connector may not be connected properly, be sure that the battery connector is securely connected. |
| 20 | Battery Life Degradation | Battery life is greatly affected by ambient temperature and battery discharge frequency. If the UPS intake and exhaust outlets are blocked, and exhaust air from the load equipment can get into the UPS, it can shorten the battery life of the UPS. Check if the UPS ambient temperature is high.<br>**NOTE:** If the UPS is on-battery mode very frequently, the battery will get discharged and the service life will be shortened. |
| 21 | Display Settings | If the display setting is Auto Dim or Auto Off, it will be dimmed or turned off in about 2 minutes from the normal screen. If the setting menu is displayed, it will return to the normal screen in about 2 minutes, and after about 2 minutes it will be dark or not illuminated. |
| 22 | Serial Communication | It is possible that the server's management function has unintended signals flowing from the server on the serial port. Check the server's BIOS and other settings to disable the management function so that no signal is generated on the serial port. |
| 23 | Port Settings | NMC, USB, and serial ports cannot be used together. Select only one of them. |
| 24 | LCC Port setup | When connecting an LCC, (AP9620 Legacy Communications SmartSlot Card) use either the USB port or the serial port of the LCC. USB and serial ports on the UPS console are not available. |
| 25 | Electrical Isolation | It is prohibited to perform insulation withstand voltage testing and insulation resistance testing.<br>**NOTE:** This can cause smoke, fire, or failure. |
| 26 | “No AC” indication on Display | Check the following:<br>• Input plug is connected.<br>• Electricity is supplied from the commercial power supply. |

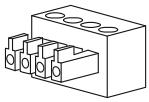
# Inventory

**All models**



Serial cable (1)

**SMT2200J and SMT3000J**



EPO connector

# Product Description

The APC™ Smart-UPS™ is a high performance Uninterruptible Power Supply (UPS). The UPS helps provide protection for electronic equipment from utility power blackouts, brownouts, sags, and surges, small utility power fluctuations and large disturbances. The UPS also provides battery backup power for connected equipment until utility power returns to specified levels or the batteries are fully discharged.

This user manual is available on our web site, www.se.com.

# Specifications

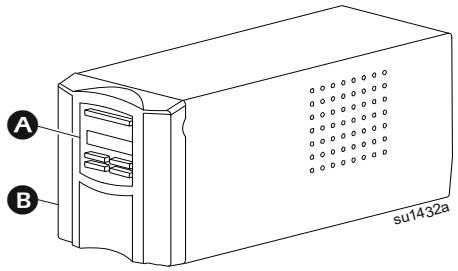
For additional specifications, refer to our web site www.se.com.

## Environmental

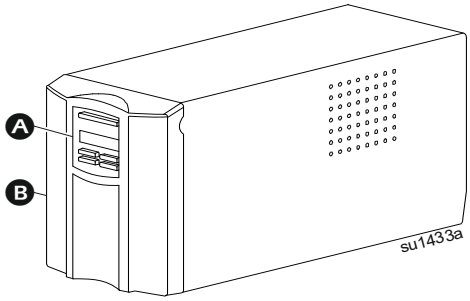
| | | |
|---|---|---|
| **Temperature** | **Operating** | 0 to 40 °C (32 to 104 °F) |
| | **Storage** | -15 to 45 °C (5 to 113 °F)<br>charge UPS battery every six months |
| **Maximum Elevation** | **Operating** | 3,000 m (10,000 ft) |
| | **Storage** | 15,000 m (50,000 ft) |
| **Humidity** | | 0 to 95% relative humidity, non-condensing |
| **International Protection Code** | | IP20 |

# Front panel features

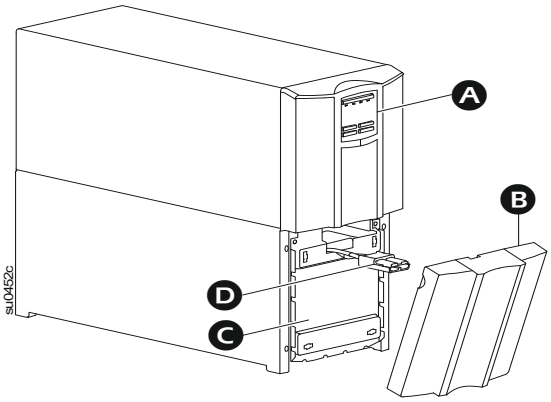
**SMT500J/SMT750J**




**SMT1000J/SMT1500J**



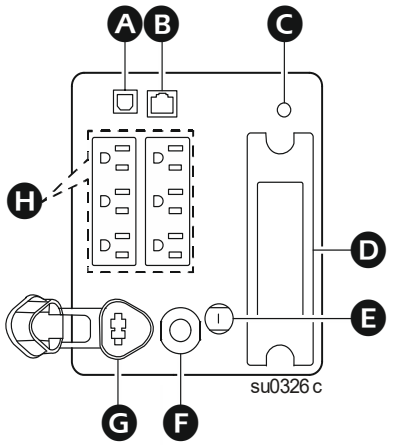

**SMT2200J/SMT3000J**



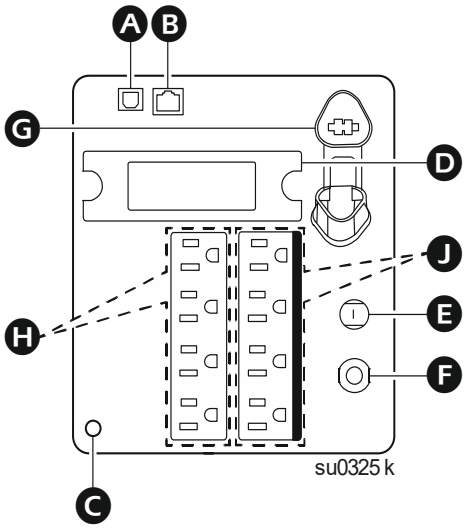

| | |
|---|---|
| A | **Display interface** |
| B | **Bezel** |
| C | **Battery** |
| D | **Internal battery connector** |

# Rear panel features

**SMT500J / SMT750J**

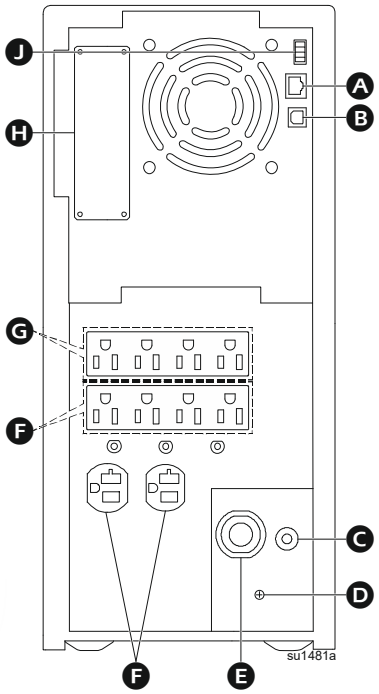



**SMT1000J / SMT1500J**

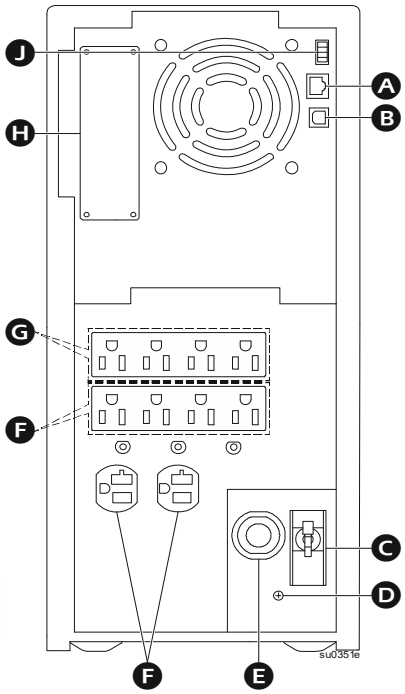



| | |
|---|---|
| Ⓐ | **USB port.** Use this port to connect to a computer for monitoring or gracefully shutting down the UPS using PowerChute software. Refer to “Connect and Install Management Software” on page 22 for details.<br>**NOTE:** Serial and USB communication cannot be used simultaneously. |
| Ⓑ | **RJ45 connector.** Use this serial port for monitoring the UPS. Connect to a computer to use PowerChute software. Refer to the “Connect and Install Management Software” on page 22 for details. |
| Ⓒ | **Chassis ground screw.** The UPS features a ground screw for connecting the ground leads on transient voltage devices. Prior to connecting a ground lead, turn off the UPS output and disconnect the UPS from utility power. |
| Ⓓ | **SmartSlot for optional Network Management Card (NMC).** |
| Ⓔ | **Circuit breaker / Overload protection.** |
| Ⓕ | **UPS input.** |
| Ⓖ | **Internal battery connector** |
| Ⓗ | **Main Outlet Group** |
| Ⓙ | **Switched Outlet Group 1** |

**SMT2200J**




**SMT3000J**




| | |
|---|---|
| Ⓐ | **USB port -** Use this port to connect to a computer for monitoring or gracefully shutting down the UPS using PowerChute software. Refer to “Connect and Install Management Software” on page 22 for details.<br>**NOTE:** Serial and USB communication cannot be used simultaneously. |
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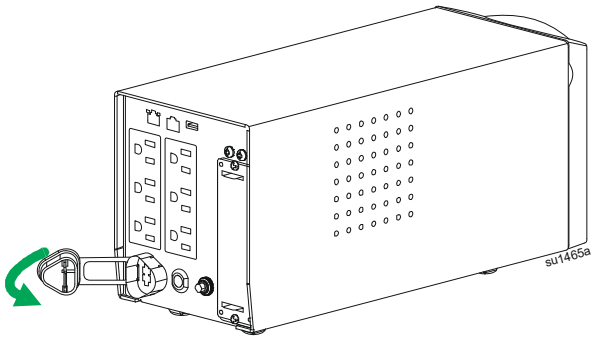
| Ⓒ | **Circuit breaker / Overload protection** |
| Ⓓ | **Chassis ground screw -** The UPS features a ground screw for connecting the ground leads on transient voltage devices. Prior to connecting a ground lead, turn off the UPS output and disconnect the UPS from utility power. |
| Ⓔ | **UPS input** |
| Ⓕ | **Main Outlet Group** |
| Ⓖ | **Switched Outlet Group 1** |
| Ⓗ | **SmartSlot for optional NMC** |
| Ⓙ | **EPO connector** |

# Installation

## Connect battery

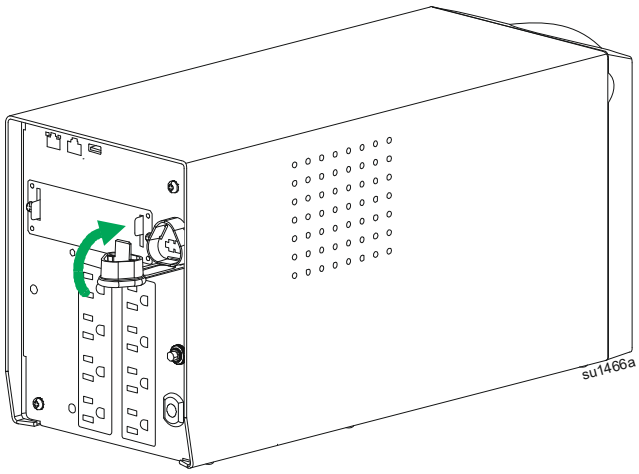
### SMT500J / SMT750J

Insert the battery connector into the battery jack and push firmly. A snap will be felt as the connector partially engages the jack. A second snap will be felt as the connector securely seats in the battery jack.

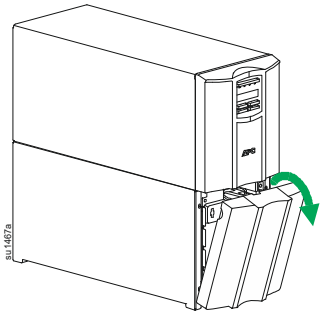
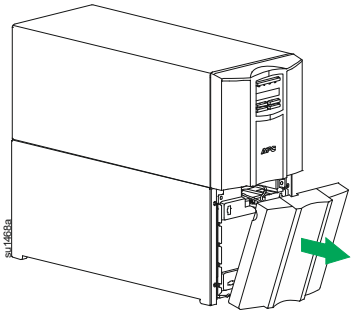
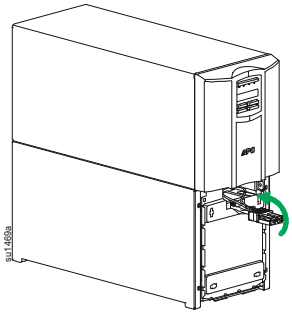
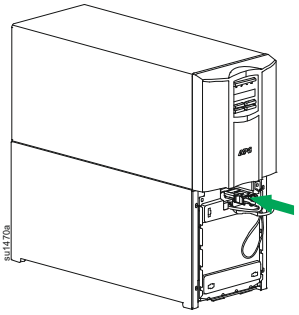
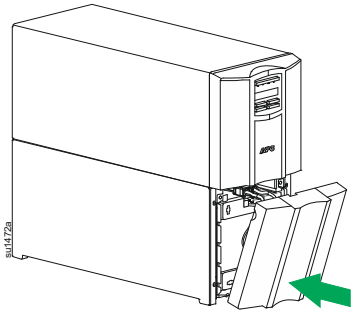
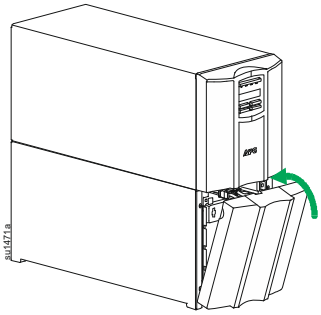



### SMT1000J / SMT1500J

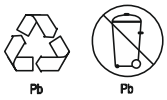
Insert the battery connector into the battery jack and push firmly. A snap will be felt as the connector partially engages the jack. A second snap will be felt as the connector securely seats in the battery jack.



## SMT2200J / SMT3000J

| | |
|---|---|
| ❶ Uninstall the battery compartment door from its holding clasps  | ❷ Move the battery compartment door away from the UPS  |
| ❸ Align the internal battery connector with the receptacle in the UPS.  | ❹ Push the internal battery connector until it locks securely  |
| ❺ Align the battery compartment door to touch the UPS  | ❻ Re-install the battery compartment door  |

# Battery Replacement




Always recycle used batteries.

For information on recycling a used battery, refer to the Battery Disposal Information sheet included with the replacement battery.

Replace used batteries with Schneider Electric approved batteries. To order a replacement battery visit www.se.com.

Battery life is highly dependent on temperature and use. To identify when to replace batteries, Smart-UPS have a predictive battery replacement date indicator in the "About" menu and automatic (and configurable) self-tests.

Proactively replace batteries to maintain the highest availability. To ensure protection and high performance, use only genuine APC Replacement Battery Cartridges (RBC™). The APC RBC contains instructions for battery replacement and disposal. To order a replacement battery visit www.se.com.

| UPS Model | Replacement Battery | Battery Module |
|---|---|---|
| SMT500J | APCRBC137J | Lead Acid, 1 module, 24 V |
| SMT750J | APCRBC137J | Lead Acid, 1 module, 24 V |
| SMT1000J | RBC6L | Lead Acid, 1 module, 24 V |
| SMT1500J | APCRBC139J | Lead Acid, 1 module, 24 V |
| SMT2200J | RBC55J | Lead Acid, 2 modules, 24 V each, 48 V total |
| SMT3000J | RBC55J | Lead Acid, 2 modules, 24 V each, 48 V total |

# Operation

## Connect Equipment

**⚠ CAUTION**

**RISK OF ELECTRIC SHOCK**

- Adhere to all local and national electrical codes.
- Wiring must be performed by qualified electrician.
- Always connect the UPS to a grounded outlet.

**Failure to follow these instructions could result in minor or moderate injury.**

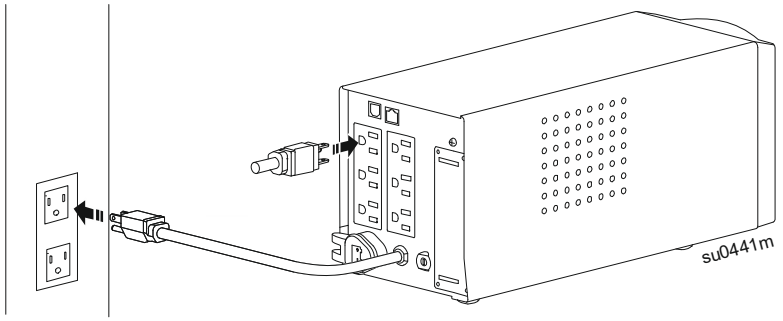
**NOTE:** The SMT2200J and SMT3000J model UPS will charge to 90% capacity in the first four and a half hours of normal operation.

All other models will charge to 90% capacity in the first three hours of normal operation **Do not expect full battery runtime capability during this initial charge period.**

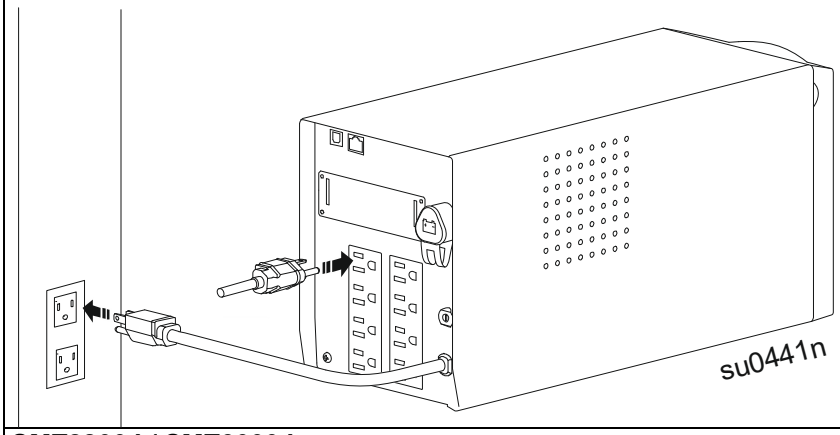
**NOTE:** Rear panel details, plugs and sockets will vary depending on the UPS model, however the instructions remain the same for all UPS models.

1. Connect equipment to the outlets on the rear panel of the UPS.
2. Connect the UPS to the building utility power.
   **Always connect the UPS to a two pole, three wire, grounded source.**
3. To use the UPS as a master ON/OFF switch, turn on all the equipment that is connected to the UPS.
4. Press the UPS ON/OFF button on the display panel of the UPS to turn on the UPS and all connected equipment. Refer to “Main Outlet Group and Switched Outlet Group” on page 26 for information on how to configure the outlet groups

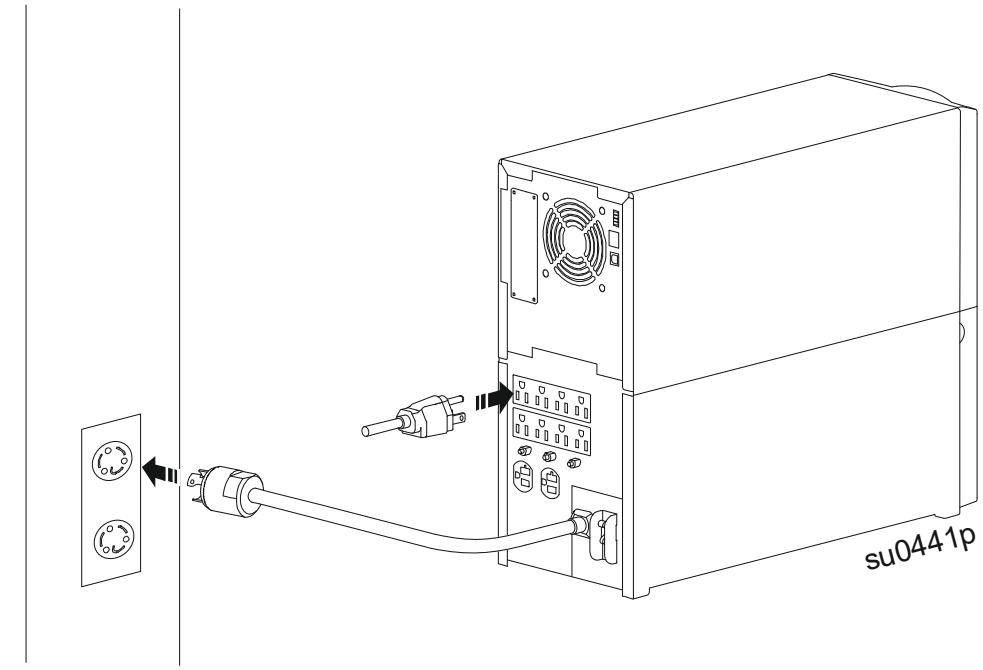
**SMT500J / SMT750J**



**SMT1000J / SMT1500J**

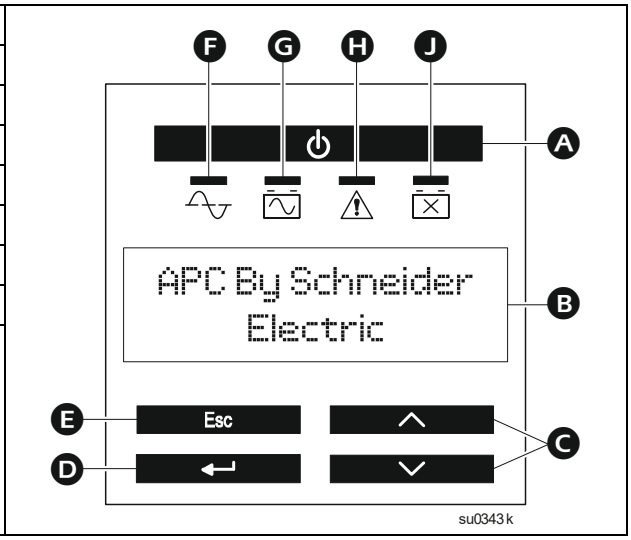



**SMT2200J / SMT3000J**



## LCD Display Interface

| | |
|---|---|
| A | UPS ON/OFF **button** |
| B | **Display interface** |
| C | UP/DOWN **arrow buttons** |
| D | ENTER **button** |
| E | ESCAPE **button** |
| F | **Online LED** |
| G | **On Battery LED** |
| H | **Fault Detected LED** |
| J | **Replace Battery LED** |




### LCD display interface operation

- Use the UP/DOWN arrow buttons to
  - Scroll through the main menu
  - Scroll through the sub-menu
  - Scroll through the options in the sub-menu
- Use the ENTER button to
  - View the main menu
  - View the sub-menu in the selected main menu
  - Select the options in the selected sub-menu
- Use the ESCAPE button to
  - Return to sub-menu screen from the options screen
  - Return to main menu screen from the sub-menu screen
  - Exit main menu screen and return to home screen

### Standard menu

The Standard menu is the most commonly used menu.

| Menu | General Functions | |
|---|---|---|
| **Status** | View UPS information: | |
| | • Operating Mode | • Battery Temperature |
| | • Efficiency | • Input Voltage & Frequency |
| | • Load Power | • Output Voltage & Frequency |
| | • Load VA | • Last Transfer |
| | • Battery Charge state | • Last UPS Self Test |
| | • Estimated Runtime | |
| **Configuration** | Configure UPS settings: | |
| | • Language | • Audible Alarm |
| | • Local Power Quality: Good, Fair, Poor | • Display (Auto Dim, Auto Off, Always On) |
| | • Menu Type: Standard or Advanced | • Battery Install Date |
| | | • Reset to Factory Default |

| Menu | General Functions |
|---|---|
| **Test & Diags** | Perform UPS tests and diagnostic functions:<br>• UPS Self Test<br>• UPS Alarms Test<br>• Calibration Test |
| **About** | View UPS information:<br>• UPS Model<br>• UPS Part No.<br>• UPS Serial No.<br>• UPS Manufacture Date<br>• Battery Part No.<br>• Battery Install Date<br>• Replace Battery by<br>• UPS Firmware |

## Advanced menu

The Advanced menu provides additional options for the UPS and are available only if the display interface is configured to use the Advanced menu.

| Menu | General Functions |
|---|---|
| **Status** | View detailed UPS information:<br>• Operating Mode<br>• Efficiency<br>• Load Power<br>• Load VA<br>• Load Current<br>• Load Energy<br>• Battery Charge state<br>• Estimated Runtime<br>• Battery Voltage<br>• Battery Temperature<br>• Input Voltage<br>• Output Voltage<br>• Last Transfer<br>• Last UPS Self Test<br>• Outlet Group 1 (if Switched Outlet is available)<br>• NMC IP Address (if NMC is installed) |
| **Configuration** | Configure advanced UPS settings:<br>• Language<br>• Local Power Quality<br>• Menu Type<br>• Audible Alarm<br>• Display<br>• Sensitivity<br>• Low Transfer<br>• High Transfer<br>• Low Battery Alert<br>• Auto Self Test<br>• Battery Install Date<br>• Reset Energy Meter<br>• Enter Setup Wizard<br>• Firmware Update (standby mode)<br>• Reset to Factory Default<br>• Config Main Group Outlets<br>• Config Group 1 Outlets (if Switched Outlet is available)<br>• Config NMC (if NMC is installed) |
| **Control** | Control the Main and Switched Outlet Group to turn on, turn off, shutdown, or reboot. |
| **Test & Diags** | Perform UPS tests and diagnostic functions:<br>• UPS Self Test<br>• UPS Alarms Test<br>• Calibration Test |
| **Log** | View the event and logs for information about UPS events that have occurred. |

| Menu | General Functions | |
|---|---|---|
| **About** | View UPS information: | |
| | • UPS Model | • NMC Model No.* |
| | • UPS Part No. | • NMC Serial No.* |
| | • UPS Serial No. | • NMC Hardware Version* |
| | • UPS Manufacture Date | • NMC Manufacture Date* |
| | • Battery Part No. | • NMC MAC Address* |
| | • Battery Install Date | • SmartSlot FW 1* |
| | • Replace Battery by | • SmartSlot FW 2* |
| | • UPS Firmware | • SmartSlot FW 3* |

* If NMC is installed

### Switched outlet groups

Some UPS models have one bank of outlets that can function as a switched group. Use the display interface to configure the switched outlet features, navigate to: **Main Menu > Control > Outlet1 Control.**

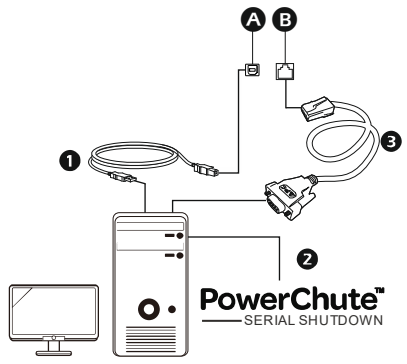
Refer to “Rear panel features” on page 13 for model specific outlet groups.

## Connect and Install Management Software

**NOTE:** Contact your UPS dealer/distributor to purchase the PowerChute Serial Shutdown software from Schneider Electric.

Install PowerChute™ Serial Shutdown software on all servers connected to your Smart-UPS for graceful operating system shutdown, control and monitoring the Smart-UPS. Visit https://www.se.com/pcss. The following diagram is a representation of a typical server installation.

| | |
|---|---|
| Ⓐ | **USB Port** |
| Ⓑ | **RJ45 connector** |
| **NOTE:** For location of the ports, refer to “Rear panel features” on page 13. | |




| | |
|---|---|
| ❶ | Connect the USB cable from the rear of the UPS to the protected device such as a server. |
| ❷ | For a server or other device with an operating system, download and install latest version of the PowerChute Serial Shutdown from https://www.se.com/pcss. PowerChute Serial Shutdown supports graceful shutdown in the event of an extended power outage.<br>**NOTE:** PowerChute is a 64-bit only application and cannot be installed on a 32-bit operating system. |
| ❸ | A built-in Serial Com port (RJ45) is also available for additional communication options with serial cable.<br>**NOTE:** Serial and USB cannot be used at the same time. |

# Configuration

## UPS Settings

### Start-up Settings

**NOTE:** During start up, use the display interface to configure these settings. If nothing is selected, the UPS will use the default settings.

Configure these settings at initial start up, using the display interface. As an alternative, configuration can be performed using PowerChute software.

| Function | Factory Default | Options | Description |
|---|---|---|---|
| **Language** | English | • English<br>• French*<br>• German*<br>• Spanish*<br>• Italian*<br>• Portuguese*<br>• Japanese* | The language for the display interface. |
| **Local Power Quality** | Good | • Good<br>• Fair<br>• Poor | Select the quality of input utility power.<br>• If Good is selected, the UPS will go on battery power more often to provide clean power supply to the connected equipment.<br>• If Poor is selected, the UPS will tolerate more fluctuations in power and will go on battery power less often.<br>If unsure of the local power quality, select Good. |
| **Menu Type** | Standard | Standard or Advanced | The Standard menu displays a limited set of menus and options. The advanced menu includes all parameters. |

* Language options will vary by model.

## General Settings

Configure these settings at any time. Use the display interface or PowerChute software.

| Function | Factory Default | Options | Description |
|---|---|---|---|
| **High Transfer Point** | 108 Vac | 108 - 114 Vac | To avoid unnecessary battery usage, set the transfer point higher if the utility voltage is chronically high and the connected equipment is known to work under this condition. The **Power Quality** setting will automatically change this setting.<br>**NOTE:** Use the Advanced Menu to configure this setting. |
| **Low Transfer Point** | 92 Vac | 86 - 92 Vac | Set the transfer point lower if the utility voltage is chronically low and the connected equipment can tolerate this condition.This setting may also be adjusted using the power quality setting.<br>**NOTE:** Use the Advanced Menu to configure this setting. |
| **Nominal Output Voltage** | 100 Vac | N/A | |
| **Transfer Sensitivity** | Normal | • Normal<br>• Reduced<br>• Low | Select the level of sensitivity to power events that the UPS will tolerate.<br>• **Normal:** The UPS will go on battery power more often to provide clean power supply to the connected equipment.<br>• **Low:** The UPS will tolerate more fluctuations in power and will go on battery power less often.<br>If the connected load is sensitive to power disturbances, set the sensitivity to Normal. |
| **Low Battery Alert** | 120 sec | Set the value in seconds | The UPS will emit an audible alarm when the remaining runtime has reached this level. |

| Function | Factory Default | Options | Description |
|---|---|---|---|
| **Date of Last Battery Replacement** | Date set at factory | Reset this date when the battery module is replaced. | |
| **Audible Alarm** | On | • On<br>• Off | The UPS will mute all audible alarms if this is set to **Off** or when the display buttons are pressed. |
| **Display Mode** | Auto Dim | • Always On<br>• Auto Dim / Auto Off | • The display interface remains continuously illuminated.<br>• The display interface dims for a few seconds after being inactive for two minutes before turning off. |
| **Green Mode** | Enable | • Enable<br>• Disable | This will enable or disable Green mode function. Green Mode conserves energy while the UPS is operating on-line. |
| **Battery Self-Test Interval Setting** | On start up and every 14 days since the last test | • Never<br>• Start up only<br>• Frequency of test (every 7 to 14 days) | The interval at which the UPS will execute a self-test. |
| **Reset to Factory Default** | No | • Yes<br>• No | Restore the UPS factory default settings. |
| **Reset Energy Meter** | No | • Yes<br>• No | Reset the energy recorded in the UPS to zero. |
| **Enter Set-up Wizard** | No | • Yes<br>• No | Begins a routine to set start-up settings. Refer to “Start-up Settings” on page 23 for details. |
| **Modbus Setting** | Disable | • Enable<br>• Disable | Allows the user to enable or disable the UPS Modbus functionality. |
| **Modbus Address** | 1 | 1 - 223 | Allows the user to select the Modbus Address. |
| **Firmware Update Interface** | Serial/USB: Enable<br>SmartSlot: Disable | • Enable<br>• Disable | Set the communication port (Serial, USB, SmartSlot) which will used for updating the UPS firmware |

# Main Outlet Group and Switched Outlet Group

## Overview

The Main Outlet Group and the Switched Outlet Group can be configured to independently turn off, turn on, shut down, and reboot connected equipment.

**NOTE**: These features are not available in SMT500J and SMT750J models.

The Main and Switched Outlet Groups can be configured to do the following:

- Turn off: Disconnect power to connected equipment immediately and restore power to connected equipment only with a manual command.
- Turn on: Connect power to connected equipment immediately.
- Shutdown: Disconnect power to connected equipment in configured sequence, and automatically restore power when utility power is restored.
- Reboot: Shut down and restart.

In addition, the Main Outlet Group and the Switched Outlet Group can be configured to do the following:

- Turn on or off in a specified sequence.
- Automatically turn off or shut down when various conditions occur.

**NOTE:** If the Main and Switched Outlet Groups are not configured, all of the outlets on the UPS will still provide battery backup power.

## Using the Main and Switched Outlet Groups

The Main Outlet Group functions as a master switch. It will turn on first when power is applied, and shut down last when there is a power outage and battery runtime has been exhausted.

The Main Outlet Group must be turned on for the Switched Outlet Group to turn on.

1. Connect essential equipment to the Main Outlet Group.
2. Connect peripheral equipment to the Switched Outlet Group
    - Nonessential equipment that should shut down quickly in the event of a power outage can be added to a short power off delay, to conserve battery runtime
    - Equipment that has dependent peripherals that must restart or shut down in a specific order should be connected to a separate outlet group
    - Equipment that needs to reboot independently from other equipment should be added to a separate outlet group
3. Use the Configuration menu to configure how the Switched Outlet Group will react in the event of a power outage.

## Customize the Main and Switched Outlet Groups

Use the **Configuration** menu to change the Main Outlet Group and the Switched Outlet Group settings.

| Function | Factory Default | Options | Description |
|---|---|---|---|
| **Name String Outlet Group** | Outlet Group 1 | Edit these names using an external interface, such as the Network Management Card web interface. | |
| **UPS Name String** | UPS Outlets | | |
| **Turn On Delay** | 0 sec | Set the value in seconds | The amount of time the Switched Outlet Group will wait between receiving the command to turn on and the actual startup. |
| **Turn Off Delay** | 0 sec UPS Outlets<br>90 sec Switched Outlet Groups | Set the value in seconds | The amount of time that the Switched Outlet Group will wait between receiving the command to turn off and the actual shut down. |
| **Reboot Duration** | 8 sec | Set the value in seconds | The amount of time the UPS or a Switched Outlet Group must remain off before it restarts. |
| **Minimum Return Time** | 0 sec | Set the value in seconds | The amount of battery runtime that must be available before the UPS or Switched Outlet Group will turn on. |
| **Load Shed On Battery** | Disabled | • Enable<br>• Disable | When the UPS switches to battery power, the UPS will disconnect power to the Switched Outlet Group to save battery runtime.<br>Configure this delay time, use the LOAD SHED TIME WHEN ON BATTERY setting. |
| **Load Shed Time when On Battery** | 32767 sec | Set the value in seconds | The amount of time the outlets will function on battery power before they will turn off. |
| **Load Shed On Runtime** | Disabled | • Enable<br>• Disable | When the battery runtime falls below the specified value, the Switched Outlet Group will turn off.<br>Configure this time using the LOAD SHED ON RUNTIME REMAINING setting. |
| **Load Shed On Runtime Remaining** | 0 sec | Set the value in seconds | When the remaining runtime reaches this level, the Switched Outlet Group will turn off. |

| Function | Factory Default | Options | Description |
|---|---|---|---|
| **Load Shed on Overload** | Disabled | • Disabled<br>• Enabled | In the event of an overload (greater than 107% output), the Switched Outlet Group will immediately turn off to conserve power for essential loads. The Switched Outlet Group will only turn on again with a manual command. |

# Emergency Power Off

**NOTE:** Emergency Power Off (EPO) feature is available only in SMT2200J and SMT3000J UPS models.

## Overview

EPO is a feature that will immediately disconnect all connected equipment from utility power. The UPS will immediately shut down and will not switch to battery power.

Connect each UPS to the EPO switch. In configurations where multiple UPS are connected in parallel, each UPS must be connected to the EPO switch.

The UPS should be restarted for power to return to connected equipment. Press the UPS ON/OFF button on the front panel of the UPS.

**⚠ CAUTION**

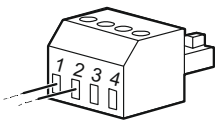
**RISK OF ELECTRIC SHOCK**

- Adhere to all local and national electrical codes.
- Wiring must be performed by qualified electrician.
- Always connect the UPS to a grounded outlet.

**Failure to follow these instructions could result in minor or moderate injury.**

## Normally open contacts

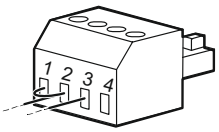
1. If the EPO switch or relay contacts are normally open, insert the wires from the switch or contacts at pins 1 and 2 of the EPO terminal block. Use 16-28 AWG wire.
2. Secure the wires by tightening the screws.




If the contacts are closed, the UPS will turn OFF and the connected equipment will not receive power from the UPS.

## Normally closed contacts

1. If the EPO switch or relay contacts are normally closed, insert the wires from the switch or contacts at pins 2 and 3 of the EPO terminal block. Use 16-28 AWG wire.
2. Insert a wire jumper between pins 1 and 2. Secure the wires by tightening the three screws at positions 1, 2, and 3.




If the contacts are opened, the UPS will turn OFF and the connected equipment will not receive power from the UPS.

**NOTE:** Pin 1 is the power source for the EPO circuit, it provides a few milliamperes of 24 V power.

If the Normally Closed (NC) EPO configuration is used, the EPO switch or relay should be rated for “dry” circuit applications, the rating should be for low voltage and low current applications. This normally implies the contacts are gold-plated.

The EPO interface is a Safety Extra Low Voltage (SELV) circuit. Connect the EPO interface only to other SELV circuits. The EPO interface monitors circuits that have no determined voltage potential. SELV circuits are controlled by a switch or relay properly isolated from utility power. To avoid damage to the UPS, do not connect the EPO interface to any circuit other than a SELV circuit.

Use one of the following cable types to connect the UPS to the EPO switch.

- CL2: Class 2 cable for general use.
- CL2P: Plenum cable for use in ducts, plenums, and other spaces used for environmental air.
- CL2R: Riser cable for use in a vertical run in a floor-to-floor shaft.
- CLEX: Limited use cable for use in dwellings and for use in raceways.
- Installation in Canada: Use only CSA certified, type ELC, (extra-low voltage control cable).
- Installation in countries other than Canada and the USA: Use standard low voltage cable in accordance with national and local regulations.

# Troubleshooting

| Problem and Possible Cause | Solution |
|---|---|
| **The UPS will not turn on or there is no output** | |
| The UPS has not been turned on. | Press the UPS ON/OFF button once to turn on the UPS. |
| The UPS is not connected to utility power. | Be sure the power cable is securely connected to the UPS and to the utility power supply. |
| The input circuit breaker has tripped. | Reduce the load on the UPS. Disconnect non-essential equipment and reset the circuit breaker. |
| The UPS shows very low or no input utility voltage. | Check the utility power supply to the UPS by plugging in a table lamp. If the light is very dim, check the utility voltage. |
| The battery connector plug is not securely connected. | Be sure that the battery connector plug is connected securely. |
| The UPS has detected an internal fault. | Do not attempt to use the UPS. Unplug the UPS and have it serviced immediately. |
| **The UPS is operating on battery, while connected to utility power** | |
| The input circuit breaker has tripped. | Reduce the load on the UPS. Disconnect nonessential equipment and reset the circuit breaker. |
| There is very high, very low, or distorted input line voltage. | Move the UPS to a different outlet on a different circuit. Test the input voltage with the utility voltage display. If acceptable to the connected equipment, reduce the UPS sensitivity. |
| **UPS emits intermittent beeps** | |
| The UPS is operating normally. | None. The UPS is helping protect the connected equipment. |
| **UPS does not provide expected backup time** | |
| The UPS battery is weak due to a recent power outage or is near the end of its service life. | Charge the battery. Batteries require recharging after extended outages and wear out faster when put into service often or when operated at elevated temperatures. If the battery is near the end of its service life, consider replacing the battery even if the replace battery indicator has not illuminated. |
| The UPS is experiencing an overload condition. | Check the UPS load display. Unplug unnecessary equipment, such as printers. |
| **Display interface LEDs flash sequentially** | |
| The UPS has been shut down remotely through software or an optional accessory card. | None. The UPS will restart automatically when utility power is restored. |
| **The Alert LED is illuminated**<br><br>**The UPS displays an alert message and emits a constant beeping sound** | |
| The UPS has detected an internal fault. | Do not attempt to use the UPS. Turn off the UPS and have it serviced immediately. |
| **The Replace Battery LED is illuminated and the UPS beeps for one minute every five hours** | |
| The battery has a weak charge. | Allow the battery to recharge for at least four hours. Then, perform a self-test. If the problem persists after recharging, replace the battery. |
| **The Replace Battery LED is flashing and the UPS beeps once every 2 seconds** | |
| The replacement battery is not properly connected. | Be sure that the battery connector is securely connected. |

# Service

**If the UPS requires service, do not return it to the dealer. Follow these steps:**

Review the *Troubleshooting* section of the manual to eliminate common problems.

1. If the problem persists, contact Schneider Electric Customer Support through our web site, www.se.com/support.
   a. Note the model number and serial number and the date of purchase. The model and serial numbers are located on the rear panel of the UPS and are available through the LCD display on select models.
   b. Call Schneider Electric Customer Support and a technician will attempt to solve the problem over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
   c. If the UPS is under warranty, the repairs are free.
   d. Service procedures and returns may vary internationally. Refer to Schneider Electric web site for country specific instructions.
2. Pack the UPS in the original packaging whenever possible to avoid damage in transit. Never use foam beads for packaging. Damage sustained in transit is not covered under warranty.
   a. **Always DISCONNECT THE UPS BATTERIES before shipping. The United States Department of Transportation (DOT), and the International Air Transport Association (IATA) regulations require that UPS batteries be disconnected before shipping**. The internal batteries may remain in the UPS but must be disconnected.
   b. External Battery Pack products are de-energized when disconnected from the associated UPS product. It is not necessary to disconnect the internal batteries for shipping. Not all UPS utilize an external battery pack.
3. Write the RMA# provided by Customer Support on the outside of the package.
4. Return the UPS by insured, prepaid carrier to the address provided by Customer Support.

# Transport the UPS

1. Shut down and disconnect all connected equipment.
2. Disconnect the UPS from utility power.
3. Disconnect all internal and external batteries (if applicable).
4. Follow the shipping instructions outlined in the Service section of this manual.

# Limited Factory Warranty

Schneider Electric IT Corporation (SEIT), warrants its products to be free from defects in materials and workmanship for a period of two (2) years including batteries. The SEIT obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. Repair or replacement of a defective product or parts thereof does not extend the original warranty period.

This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase. Products may be registered online at warranty.apc.com.

SEIT shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user's or any third person's misuse, negligence, improper installation, testing, operation or use of the product contrary to SEIT's recommendations or specifications. Further, SEIT shall not be liable for defects resulting from: 1) unauthorized attempts to repair or modify the product, 2) incorrect or inadequate electrical voltage or connection, 3) inappropriate on site operation conditions, 4) Acts of God, 5) exposure to the elements, or 6) theft. In no event shall SEIT have any liability under this warranty for any product where the serial number has been altered, defaced, or removed.

**EXCEPT AS SET FORTH ABOVE, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, APPLICABLE TO PRODUCTS SOLD, SERVICED OR FURNISHED UNDER THIS AGREEMENT OR IN CONNECTION HEREWITH.**

**SEIT DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, SATISFACTION AND FITNESS FOR A PARTICULAR PURPOSE.**

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To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Customers with warranty claims issues may access the SEIT worldwide customer support network through the SEIT Web site: www.se.com. Select your country from the country selection drop down menu. Open the Support tab at the top of the web page to obtain information for customer support in your region. Products must be returned with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase.

# Other Warranty Information

## Warranty registration

Product warranty does not ship with this unit. Within 10 days from the date of purchase, you will be able to access our User Warranty Registration page (https://club-jp.apc.com). If you cannot register from the User Warranty Registration page, contact us.

## Service beyond warranty period

If any problem persists even after taking appropriate action by referring to the troubleshooting section in this manual, contact customer support. Various fee based service/maintenance support services will be provided by Schneider Electric. **NOTE:** Schneider Electric does not undertake only investigation or provide a report after repair.

## Period of paid maintenance service provision

The support period for our products is calculated from the date of purchase. If the user has not registered the product, then the support period would be calculated from the date of manufacture.

# Schneider Electric Worldwide Customer Support

Customer support for this or any other Schneider Electric product is available at no charge in any of the following ways:

- Visit the Schneider Electric web site to access documents in the Schneider Electric Knowledge Base and to submit customer support requests.
  - www.se.com (Corporate Headquarters)
    Connect to localized Schneider Electric web sites for specific countries, each of which provides customer support information.
  - www.se.com/support/
    Global support searching Schneider Electric Knowledge Base and using e-support.
- Contact the Schneider Electric Customer Support Center by telephone or e-mail.
  - Local, country specific centers: go to www.se.com/contact for contact information.
  - For information on how to obtain local customer support, contact the Schneider Electric representative or the distributor from whom you purchased your Schneider Electric product.

Schneider Electric
35 rue Joseph Monier
92500 Ruel Malmaison - France
Phone: +33 (0) 1 41 29 70 00
www.se.com

As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.



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