

Galaxy 3500

**10-40 kVA 380/400/415 V and
10-30 kVA 208/220 V**

Operation

09/2014



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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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Important Safety Information

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety message indicates that an electrical hazard exists which 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 with 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.**

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

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

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION

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

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

Failure to follow these instructions can result in equipment damage.

Please Note

Electrical equipment should only be installed, operated, serviced, and maintained 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 Precautions

! DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

All safety instructions in this document must be read, understood and followed.

Failure to follow these instructions will result in death or serious injury.

! DANGER

HAZARD OF ELECTRICAL SHOCK, EXPLOSION OR ARC FLASH

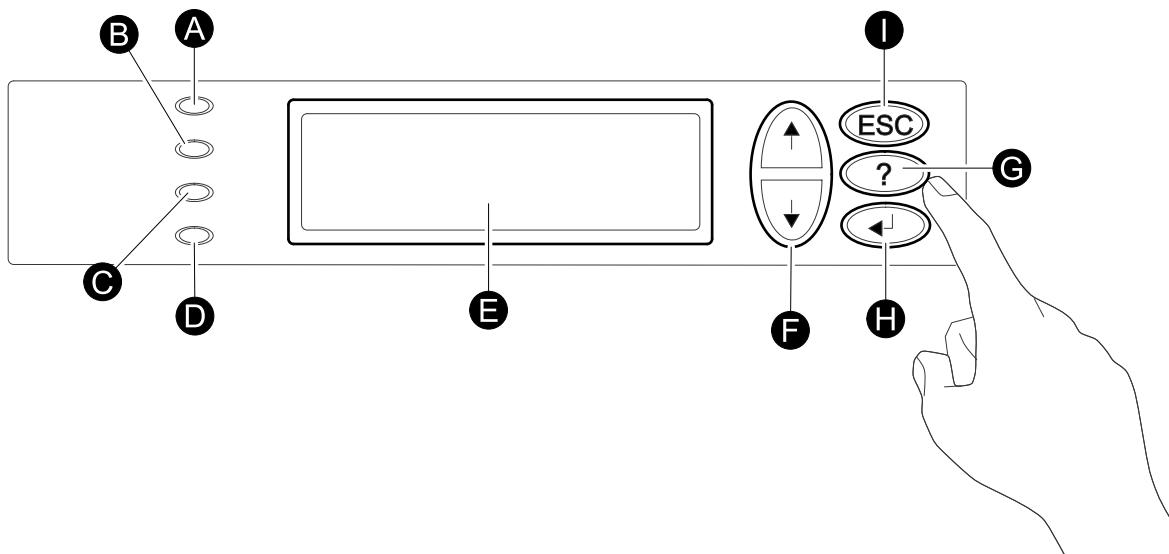
After the UPS system has been electrically wired, do not start up the system. Startup must only be performed by Schneider Electric.

Failure to follow these instructions will result in death or serious injury.

Overview

Display Interface

The four LEDs to the left of the display indicate the operational status of the UPS. The five navigation keys to the right are used to select and open menu items, to access information, change system parameters, and to get context-sensitive help.



| | | |
|---|----------------|--|
| A | LOAD ON | When the green LED is lit, the UPS provides power to the load equipment. |
| B | ON BATT | When the yellow LED is lit, power flows from the batteries to the load. |
| C | BYPASS | When the yellow LED is lit, power to the load is supplied through bypass. |
| D | FAULT | When the red LED is lit, a fault condition exists. |
| E | LCD screen | Displays alarms, status data, instructional help, and configuration items. |
| F | Arrow keys | Scrolls through and select menu items. |
| G | Help key | Opens context-sensitive help. |
| H | Enter key | Opens menu items and confirms changes to the system parameters. |
| I | ESC key | Returns to the previous screen displayed. |

Operate the Display Interface

The Overview Screen is the main entrance to the user functions of the display interface. The arrow keys take you from one screen to another.

The Enter key takes you from the Overview Screen to the Main Screen.

From the Main Screen it is possible to command, configure, and monitor the system through the sub menu screens: **Control**, **Status**, **Setup**, **LCM**, **Logging**, **Display**, **Diags**, and **Help** (see *Menu Tree, page 8*). The selector arrow (→) is controlled by the arrow keys. The selector arrow (→) marks the item you can open by pressing Enter key.

Overview Screen

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

Main Screen

```
→ Control Logging
    Status   Display
    Setup    Diags
    LCM      Help
```

Menu Tree

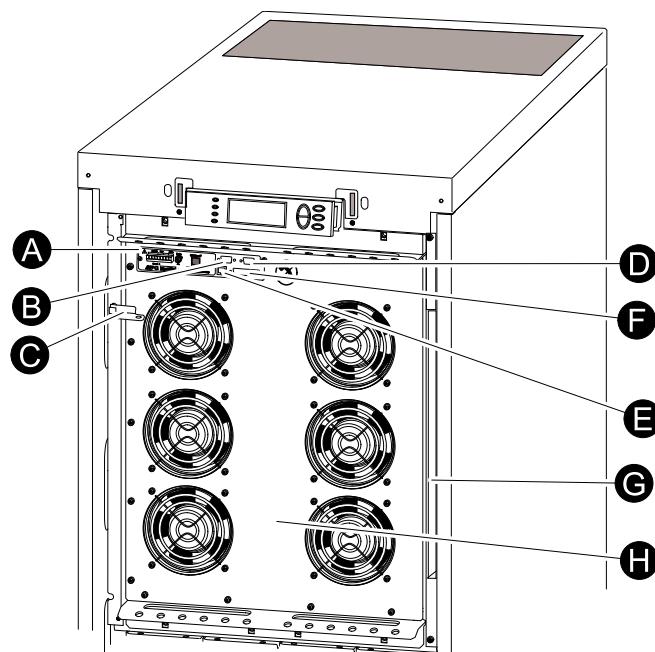
NOTE: The display provides access to more functions than described in this manual. Those functions should not be accessed without the assistance of Schneider Electric Customer Support in order to avoid unwanted load impacts. If you by accident go beyond the functions described, press the **ESC** key to return to previous screens.

The menu tree provides a quick overview of the functions and views you may access.

| | | |
|----------------|-------------------------------------|--|
| Control | Turn Load Off/On | |
| | UPS into/out of Bypass | |
| Status | Vin Vbyp Vout | Dust filter |
| | Iin Ibyp Iout | Reset dust filter |
| | kW&kVA | |
| | Frequencies | |
| | Load & Bat & Runtime | Shutdown |
| | Bat AmpHr/ UPS Temp | Default |
| | Alarm Thresholds | System |
| | Parallel status | Alarms |
| | | Clock |
| | | Other |
| Setup | Settings | |
| | | LCM Alarms Pending |
| | | LCM Contact Info |
| | | LCM Alarm Settings |
| LCM | Life Cycle Monitoring | |
| | | View Log |
| | | View Statistics |
| Logging | Logging Menu | Language |
| | | Contrast |
| | | Beep.Setup |
| | | Display FW |
| | | Font Pack |
| Display | Display Setup | |
| Diags | Faults and Diagnostics | Int.mech Byp. SW |
| | System Information | Q3 External Byp SW |
| | Switch Status | Status from MBP |
| | Raw Status Data | |
| Help | | On any screen and any line, press? for context sensitive help |

User Interface

Front view



- A. Network Management Card with temperature sensor: used for remote system control and monitoring, e-mail notifications etc. For configuration and use, refer to the separate user manual: Network Management Card with Environmental Monitor – shipped with the UPS.
- B. Computer-interface port for the connection of computers with Schneider Electric Powerchute® software.
- C. Internal mechanical bypass lever: used to bypass the upstream utility/mains power around the UPS to support the load directly = internal bypass operation. Not applicable in parallel systems.
- D. Service port (for Schneider Electric maintenance personnel only).
- E. Display port for the connection of display communication cable.
- F. Parallel operation port.
- G. Documentation storage.
- H. Power module.

Operation

NOTE: Only graphics of Galaxy 3500 products with built-in batteries are shown in this manual, but the manual is intended for all users of the Galaxy 3500 series. Most illustrations show 523 mm cabinets but apply to both cabinet sizes. Any differences between the cabinet sizes will be addressed in the manual.

Modes

The UPS has different operation modes. If the installation includes a Maintenance Bypass Panel (MBP), an external maintenance bypass operation mode will also be available.

Normal Operation

The UPS converts utility/mains power to conditioned power for the connected load.

Battery Operation

The UPS provides power to the connected load from its internal and (if available) external batteries for a finite period. The UPS transfers to battery operation if the supply of utility/mains power fails, or is outside the pre-defined limits.

Internal Bypass Operation

Internal bypass keeps the load supplied with utility/mains power during maintenance of the UPS power sections. In internal bypass operation, utility/mains power is sent directly to the connected load bypassing all internal UPS functions and filters. Battery back-up is not available in internal bypass operation even though the batteries are in place.

External Maintenance Bypass Operation

The UPS can be connected to an optional external MBP. When activated, this panel bypasses the entire UPS cabinet, feeding utility/mains power directly to the load. An activated external MBP **completely** isolates the UPS and allows maintenance to be performed. An external MBP is mandatory if the UPS is running in parallel.

Optional Parallel Operation

The connected load is powered by multiple UPS units to increase system redundancy or to increase power. The internal mechanical bypass lever is not available.

Single System without External Bypass Panel

Turn into Internal Bypass

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

In bypass operation the batteries are still powered on. If a total power off is required, the load must be off, and the batteries must be pulled out to the red disconnect line.

Failure to follow these instructions will result in death or serious injury.

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

The load is not protected by the UPS and the power is not conditioned when the internal mechanical bypass lever is activated.

Failure to follow these instructions will result in death or serious injury.

1. If the UPS is running and controllable through the display, carry out steps 2-5. If not, go directly to step 6.
2. From the Overview screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

3. Go to **Control** by using the arrow keys and press the Enter key.

```
→ Control Logging
    Status Display
    Setup Diags
    LCM Help
```

4. Go to **UPS into Bypass** by using the arrow keys and press the Enter key.

```
→ UPS into Bypass
    Do Self test
    Simulate Power Fail
    Start Runtime Cal
```

5. Go to **YES, UPS into Bypass** by using the arrow keys and press the Enter key.

```
Confirm:
UPS into Bypass
NO, ABORT
→ YES, UPS into Bypass
```

6. Check that the UPS is in bypass. The green (**LOAD ON**) and the yellow (**BYPASS**) LEDs are illuminated.

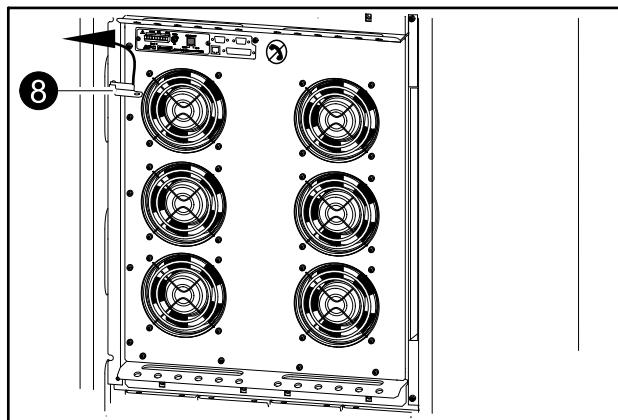
! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

For safety reasons, only qualified personnel is allowed to perform the following steps.

Failure to follow these instructions will result in death or serious injury.

7. Remove the front panel from the UPS.
8. Turn the internal mechanical bypass lever upwards to activate it. The load will now be supported directly by utility/mains power.



Turn into Normal Operation from Internal Bypass

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

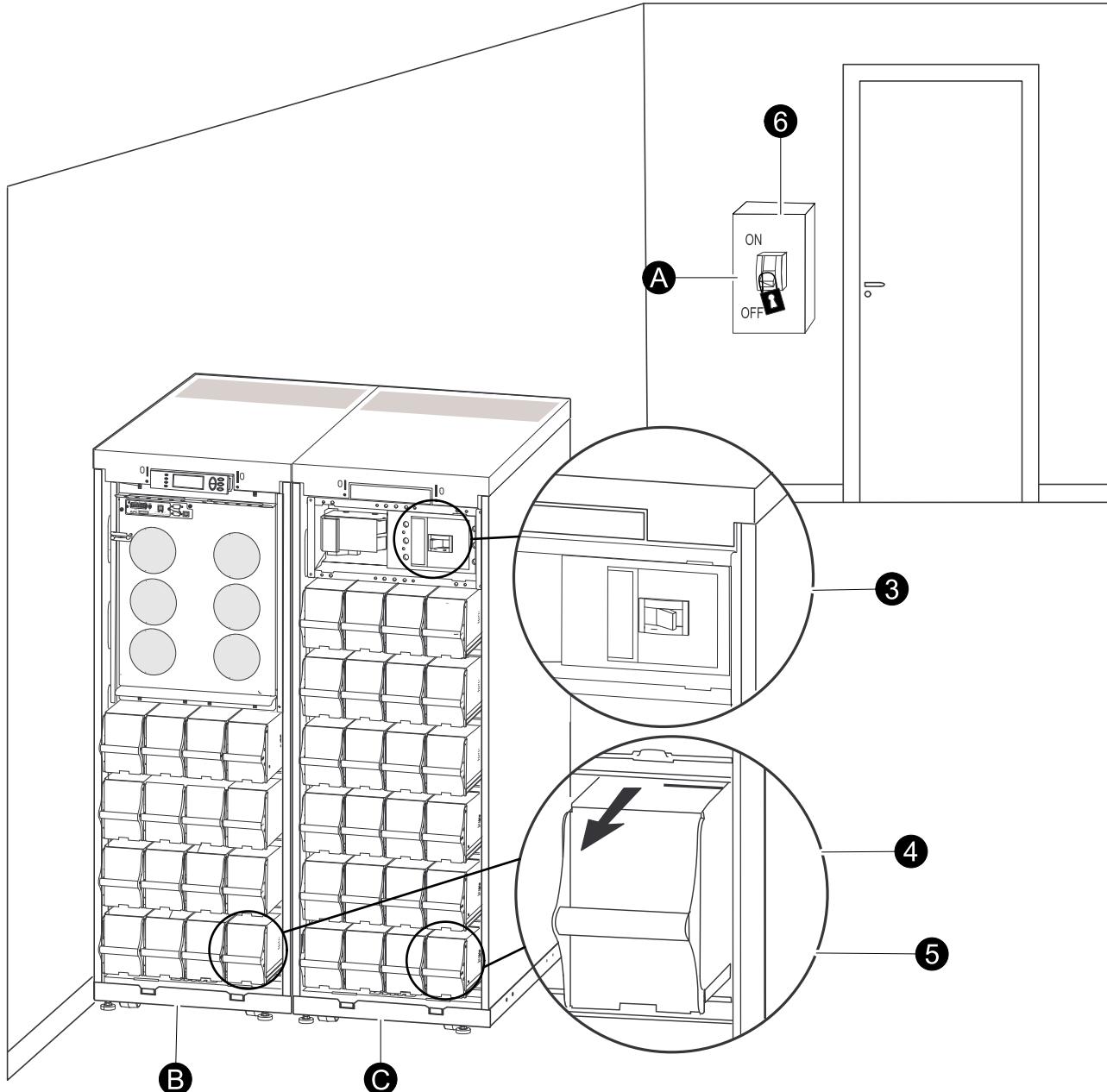
Never attempt to turn the UPS into normal operation till you have verified that there are no internal UPS faults.

Failure to follow these instructions will result in death or serious injury.

1. Check that the UPS is in bypass. The green (**LOAD ON**) and the yellow (**BYPASS**) LEDs are illuminated.
2. Turn the mechanical bypass lever downwards into a horizontal position to deactivate the internal bypass operation.
3. If the UPS has not returned to normal operation: Press the **ESC** key to return to the previous menus and turn out of bypass from the display via **Control > UPS out of bypass > Yes, UPS out of bypass**.
4. Check that the UPS is in normal operation. The yellow (**BYPASS**) LED turns off and the green (**LOAD ON**) LED remains illuminated.

Perform a Total Power Off

NOTE: In order to carry out this procedure the load supported by the UPS must be turned off.



A. Utility/mains breaker

B. UPS

C. Modular battery cabinet

1. Check that the load which is supported by the UPS is turned OFF.
2. From the UPS: Turn load OFF from the display via **Control > Turn Load Off > Yes, Turn Load Off**.
3. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position OFF.
4. From the UPS: Disconnect the batteries (if available) by pulling them out to the red disconnect line shown on each battery unit.
5. From the modular battery cabinet(s) (if available): Disconnect the batteries by pulling them out to the red disconnect line shown on each battery unit.
6. Set the utility/mains breaker to position OFF or LOCKED-OUT. If the UPS has dual utility/mains supply, set both supplies to position OFF or LOCKED-OUT.

Post-requisite:

NOTE: The lockout procedures at the utility/mains breaker must be followed. If necessary, install a padlock.

NOTE: For details on how to remove Battery Locks (if available) (see the section *Replace a Battery Module, page 36* and hereunder *Remove and Install Battery Locks, page 37*).

Perform a Restart

1. Set the utility/mains breaker to position ON.
2. If your installation includes a modular battery cabinet with a DC disconnect switch, set the DC disconnect switch to position ON.

NOTE: Wait approximately 30 seconds for the system to boot up and carry out a self-test.

After system boot-up, the display will automatically ask you to confirm/select voltage and frequency as shown in the following.

3. When the **Confirm Voltage** prompt appears on the screen, go to the desired voltage using the arrow keys and press the Enter key.

```
Confirm Voltage
Use 400V
→ Yes, use 400V
No, select another
```

4. When the prompt **Apply load** appears, go to **Yes** using the UP/DOWN navigation keys and press the Enter key if you want the UPS to provide a load output now. (If you do not want a UPS load output at this point, go to **No**).

```
Apply load
→ Yes
No
```

5. The green (LOAD ON) LED is now lit. Press the **ESC** key two times and the display will return to the Overview Screen.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

Post-requisite:

NOTE: The UPS is now ready to support the load.

NOTE: If the UPS system during a start-up detects an input frequency different from what is already set, then the user will be asked to choose the detected frequency. The system will not change frequency by itself. For safety reasons, the input frequency can only be changed by the user. The auto-detection on frequency-feature is only applicable in a single system start-up. If a problem occurs call Schneider Electric.

Single System with External Bypass Panel

Turn into External Maintenance Bypass

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

In bypass operation the batteries are still powered. If a total power off is required, the load must be off, and the batteries must be pulled out to the red disconnect line (see *Perform a Total Power Off*, page 17 in this chapter).

Failure to follow these instructions will result in death or serious injury.

- From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

- Go to **Control** by using the arrow keys and press the Enter key.

```
→ Control Logging
Status Display
Setup Diags
LCM Help
```

- Go to **UPS into Bypass** by using the arrow keys and press the Enter key.

```
→ UPS into Bypass
Do Self test
Simulate Power Fail
Start Runtime Cal
```

- Go to **Yes, UPS into Bypass** by using the arrow keys and press the Enter key.

```
Confirm:
UPS into Bypass
NO, ABORT
→ YES, UPS into Bypass
```

- From the UPS: Check that the UPS is in bypass on the display. The yellow bypass LED is illuminated.
- From the External Maintenance Bypass Panel: Check that the bypass lamp indicator (H3) (if present) is illuminated at Q3.
- From the External Maintenance Bypass Panel: Turn the bypass switch (Q3) to position | (ON).
- From the External Maintenance Bypass Panel: Check that the lamp indicator of the output switch (H2) (if present) at Q2 is illuminated.
- From the External Maintenance Bypass Panel: Turn the output switch (Q2) to position O (OFF). Now the load is supported via the Maintenance Bypass Panel.

NOTE: If you need to turn the UPS completely OFF, proceed with steps 7–10.

- If you need to turn the UPS completely OFF: From the external Maintenance Bypass Panel: Turn the input switch (Q1) to position O (OFF).
- From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position OFF.

12. From the UPS: Disconnect the batteries (if available) by pulling them out to the red disconnect line shown on each battery unit.
13. From the modular battery cabinet(s) (if available): Disconnect the batteries by pulling them out to the red disconnect line shown on each battery unit.

Turn into Normal Operation from External Maintenance Bypass

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Never attempt to turn the UPS into normal operation till you have verified that there are no internal UPS faults.

Failure to follow these instructions will result in death or serious injury.

1. If the UPS has been completely turned OFF, proceed with steps 2–10. If the UPS has not been completely turned OFF, proceed with steps 6–10.
2. From the modular battery cabinet(s) (if available): Connect the batteries by pushing them in.
3. From the UPS: Connect the batteries (if available) by pushing them in.
4. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position ON.
5. From the external MBP: Turn input switch (Q1) to position | (ON).
6. From the external MBP: Turn the output switch (Q2) to position | (ON). Now the load is supported by the UPS.
7. From the UPS: Check that the yellow (BYPASS) LED is illuminated and the green (LOAD ON) LED is illuminated.
8. From the external MBP: Turn the bypass switch (Q3) to position O (OFF).
9. If the UPS has not returned to normal: From the UPS: Turn out of bypass from the display via **Control > UPS out of bypass > Yes, UPS out of bypass**.
10. From the UPS: Check that the UPS is in normal operation. The yellow (BYPASS) LED turns off and the green (LOAD ON) LED remains illuminated.

Perform a Total Power Off

NOTE: In order to carry out this procedure the load supported by the UPS must be turned off.

1. Check that the load which is supported by the UPS is turned OFF.
2. From the UPS: Turn load OFF from the display via **Control > Turn Load Off > Yes, Turn Load Off**.
3. From the external MBP: Turn the output switch (Q2) to position O (OFF).
4. From the external MBP: Turn the input switch (Q1) to position O (OFF).
5. From the modular battery cabinet(s) (if available): Set the DC disconnect switch to position OFF.
6. From the UPS: Disconnect the batteries (if available) by pulling them out to the red disconnect line shown on each battery unit.
7. From the modular battery cabinet(s) (if available): Disconnect the batteries by pulling them out to the red disconnect line shown on each battery unit.

Perform a Restart

1. From the modular battery cabinet(s) (if available): Connect the batteries by pushing them in.
2. From the UPS: Connect the batteries (if available) by pushing them in.
3. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position ON.
4. From the external MBP: Turn the input switch (Q1) to position | (ON).
5. From the external MBP: Turn the output switch (Q2) to position | (ON).
6. From the UPS: Turn load ON from the display via **Control > Turn Load On > Yes, Turn Load On**.
7. Check that the load is ON via the display interface.

Post-requisite:

NOTE: The UPS is now ready to support the load.

NOTE: The auto-detection on frequency has been improved in firmware version 5.1 and higher for single units (with parallel capability). Auto-detection on frequency is an option in the Setup menu (in alignment with the values 50Hz and 60Hz) but also a feature whereby a single UPS system detects the input frequency in a system start-up.

If the UPS system during a start-up detects an input frequency different from what is already set, then the user will be asked to choose the detected frequency. The system will not change frequency by itself. For safety reasons, the input frequency can only be changed by the user. The auto-detection on frequency-feature is only applicable in a single system start-up. If a problem occurs call Schneider Electric.

Parallel System

Turn into External Maintenance Bypass

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

2. Go to **Control** by using the arrow keys and press the Enter key.

```
→ Control Logging
      Status Display
      Setup Diags
      LCM   Help
```

3. Go to **UPS into Bypass** by using the arrow keys and press the Enter key.

```
→ UPS into Bypass
      Do Self test
      Simulate Power Fail
      Start Runtime Cal
```

4. Go to **YES, UPS into Bypass** by using the arrow keys and press the Enter key.

Confirm:
UPS into Bypass
NO, ABORT
→ YES, UPS into Bypass

5. From the UPS: Check that all UPS units are in bypass on each of the displays. The yellow bypass LED is illuminated on each UPS unit.
 6. From the External Maintenance Bypass Panel: Check that the bypass lamp indicator (H3) is illuminated at Q3.
 7. From the External Maintenance Bypass Panel: Turn the bypass switch (Q3) to position | (ON).
 8. From the External Maintenance Bypass Panel: Check that the lamp indicator of the output isolation breaker (H4) at Q4 is illuminated.
 9. From the External Maintenance Bypass Panel: Turn the output isolation breaker (Q4) to position O (OFF). The UPS system is now in external maintenance bypass with the batteries still powered.
- NOTE:** If you need to turn the UPS units completely OFF, proceed with steps 11–18.
10. From the UPS: Turn OFF each UPS unit from the display via **Control > Turn Load Off > Yes, Turn Load Off**.
 11. From the External Maintenance Bypass Panel: Check that all the output lamps (H2a, H2b, H2c) for Q2 are illuminated.
 12. From the External Maintenance Bypass Panel: Turn all output switches (Q2) to position O (OFF).
 13. From the External Maintenance Bypass Panel: Turn all input switches (Q5) (if available) to position O (OFF).
 14. From the External Maintenance Bypass Panel: Turn all input switches (Q1) to position O (OFF).
 15. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position OFF.
 16. From the UPS: Disconnect the batteries (if available) by pulling them out to the red disconnect line shown on each battery unit.
 17. From the modular battery cabinet(s) (if available): Disconnect the batteries by pulling them out to the red disconnect line shown on each battery unit.
 18. De-energize all UPS inputs.

Turn into Normal Operation from External Maintenance Bypass

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Never attempt to turn the UPS into normal operation till you have verified that there are no internal UPS faults.

Failure to follow these instructions will result in death or serious injury.

1. If the UPS units have been completely turned OFF, proceed with steps 2–16. If the UPS units have not been completely turned OFF, proceed with step 13–16.
2. From the UPS: Connect the batteries (if available) in each UPS by pushing them in.

3. From the modular battery cabinet(s) (if available): Connect the batteries in each UPS by pushing them in.
4. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position ON.
5. From the external MBP: Turn all input switches (Q1) to position | (ON).
6. From the external MBP: Check that all the bypass input lamps (H5) at Q5 (if available) are illuminated.
7. From the external MBP: Turn all bypass input switches (Q5) (if available) to position | (ON).
8. From the external MBP: Check that all the output lamps (H2) for Q2 are illuminated.
9. From the external MBP: Turn all output switches (Q2) to position | (ON). The lamp indicator of the output isolation breaker (Q4) is still illuminated.
10. From the UPS: Turn load ON all UPS units from each display via **Control > Turn Load On > Yes, Turn Load On**. The green online LEDs are illuminated on each UPS unit.
11. From the external MBP: Check that all the output lamps (H2) for Q2 are not illuminated and that all the bypass input lamps (H5) at Q5 (if available) are not illuminated.
12. From the UPS: Turn the UPS units into bypass from one UPS display via **Control > UPS into bypass > Yes, UPS into bypass**. Check that the UPS units are in bypass. The green (LOAD ON) and the yellow (BYPASS) LEDs are illuminated.
13. From the external MBP: Check that the lamp indicator of the output isolation breaker (Q4) is illuminated.
14. From the external MBP: Turn the output isolation breaker (Q4) to position | (ON). Now the lamps H3 + H4 are illuminated.
15. From the external MBP: Turn the bypass switch (Q3) to position O (OFF). The lamp indicator of the output isolation breaker (H4) for Q4 is not illuminated, but the bypass lamp (H3) for Q3 is illuminated, until the UPS is running in normal operation.
16. From the UPS: Turn the UPS units out of bypass from the display via **Control > UPS out of bypass > Yes, UPS out of bypass**.

Perform a Total Power Off

NOTE: In order to carry out this procedure the load supported by the UPS must be turned off.

1. Check that the load which is supported by the UPS is turned OFF.
2. From the UPS: Turn load OFF from each of the UPS displays via **Control > Turn Load Off > Yes, Turn Load Off**.
3. From the external MBP: Turn the output isolation breaker (Q4) to position O (OFF).
4. From the external MBP: Turn all output switches (Q2) to position O (OFF).
5. From the external MBP: Turn all input switches (Q1) to position O (OFF)
6. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position OFF.
7. From the external MBP: Turn all bypass input switches (Q5) (if available) to position O (OFF).
8. From the UPS: Disconnect the batteries in the UPS units by pulling them out to the red disconnect line shown on beach battery unit.
9. From the modular battery cabinet(s) (if available): Disconnect the batteries on the UPS units by pulling them out to the red disconnect line shown on each battery unit.

10. De-energize all UPS inputs.

Perform a Restart

1. From the modular battery cabinet(s) (if available): Connect the batteries by pushing them in.
2. From the UPS: Connect the batteries (if available) by pushing them in.
3. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position ON.
4. From the external MBP: Turn all input switches (Q1) to position | (ON).
5. From the external MBP: Turn all bypass input switches (Q5) (if available) to position | (ON).
6. From the external MBP: Turn all output switches (Q2) to position | (ON).
7. From the external MBP: Turn the output isolation breaker (Q4) to position | (ON).
8. From the UPS: Turn load ON from the display of each UPS via **Control > Turn Load On > Yes, Turn Load On**.
9. Check that the load is ON.

Post-requisite:

NOTE: The UPS system is now ready to support the load.

Isolate One UPS in a Parallel System

1. From the UPS: From the Main screen select **Status** and scroll down to **Status of actual redundancy: n+** in order to check that the remaining UPS(s) will be able to support the load when one UPS is isolated.
2. From the UPS: Turn load OFF (from the display on the UPS to be isolated) via **Control > Turn Load Off > Yes, Turn Load Off**.
3. From the external MBP: Check that the output lamp (H2) for Q2 (of the UPS to be isolated) is illuminated.
4. From the external MBP: Turn the output switch (Q2) (of the UPS to be isolated) to position **O** (OFF).
5. From the external MBP: Check that the bypass input lamp (H5) at Q5 (if available) is illuminated.
6. From the external MBP: Turn the bypass input switch (Q5) (if available) to position **O** (OFF).
7. From the external MBP: Turn the input switch (Q1) (of the UPS to be isolated) to position **O** (OFF).
8. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position OFF.
9. From the UPS: Disconnect the batteries (if available) in the UPS to be isolated by pulling them out to the red disconnect line shown on each battery unit.
10. From the modular battery cabinet(s) (if available): Disconnect the batteries by pulling them out to the red disconnect line shown on each battery unit.

Turn the Isolated UPS into Normal Operation

1. From the modular battery cabinet(s) (if available): Connect the batteries by pushing them in.
2. From the UPS: Connect the batteries (if available) by pushing them in.
3. From the modular battery cabinet(s) (if available): Set the DC disconnect switch (es) to position ON.

4. From the external MBP: Turn the input switch (Q1) (of the UPS to be turned into normal operation) to position | (ON).
5. From the external MBP: Check that the bypass input lamp (H5) at Q5 (if available) is illuminated.
6. From the external MBP: Turn the bypass input switch (Q5) (if available) to position | (ON).
7. From the external MBP: Check that the output lamp (H2) for Q2 (of the UPS to be turned into normal operation) is illuminated.
8. From the external MBP: Turn the output switch (Q2) (of the UPS to be turned into normal operation) to position | (ON).
9. From the UPS: Turn load ON (from the display on the UPS to be turned into normal operation) via **Control > Turn Load on > Yes, turn Load on**.
10. From the UPS: Press the **ESC** key two times to get back to the Overview Screen.
11. From the UPS: On each Overview Screen, check that the load percentage of the UPS units is approximately the same.

Single and Parallel Systems

Turn Load Off/On via the Display Interface

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Disconnecting the UPS output to the load does NOT de-energize the UPS! Always follow the total power off procedure in the respective chapters if you need to de-energize the UPS in emergency situations.

Failure to follow these instructions will result in death or serious injury.

Turn Load Off – Disconnect the UPS Output to the Load Equipment

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

2. Go to **Control** by using the arrow keys and press the Enter key.

```
→ Control Logging
      Status Display
      Setup Diags
      LCM   Help
```

3. Go to **Turn Load OFF** by using the arrow keys and press the Enter key.

```
→ Turn Load Off
```

4. Go to **YES, Turn Load OFF** by using the arrow keys and press the Enter key.

```
Confirm:  
Turn Load OFF  
NO, ABORT  
→ YES, Turn Load OFF
```

5. If the UPS is running in parallel operation this procedure must be carried out on each UPS.

Turn Load On – Connect the UPS Output to the Load Equipment

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%  
Load xxx%  
xxxVin xxxVout xxHz  
Runtime: xxhr xxmin
```

2. Go to **Control** by using the arrow keys and press the Enter key.

```
→ Control Logging  
Status Display  
Setup Diags  
LCM Help
```

3. Go to **Turn Load ON** by using the arrow keys and press the Enter key.

```
→ Turn Load On
```

4. Go to **Yes, Turn Load ON** by using the arrow keys and press the Enter key.

```
Confirm:  
Turn Load OFF  
NO, ABORT  
→ YES, Turn Load ON
```

View the Status Screens

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%  
Load xxx%  
xxxVin xxxVout xxHz  
Runtime: xxhr xxmin
```

2. Go to **Status** by using the arrow keys and press the Enter key.

```
→ Control Logging  
Status Display  
Setup Diags  
LCM Help
```

3. Use the arrow keys to go through the below parameters and press the **ESC** key to return to the previous menus.

| View | Parameters |
|-------------------------|---|
| Voltage on all phases | Utility/mains voltage (V), bypass voltage (V), and output voltage (V) for each phase. |
| Current on all phases | Utility/mains current (A), bypass current (A), and output current (A) for each phase. |
| kVA and kW | Apparent power (kVA) and real power (kW) generated by the UPS and the connected load. |
| Frequencies | Utility/mains frequency, bypass frequency, and output frequency in Hertz (Hz). |
| Load and batteries | Load: Percentage of the load in relation to the total UPS capacity. |
| Bat Voltage | Shows either the positive or negative half of the battery voltage (the lower value of the two will appear). |
| Bat Cap | Percentage charge on the batteries in relation to the total battery capacity. Runtime: The predicted runtime at the present load. |
| Batteries | Bat AmpHr: Battery capacity, including both external and internal batteries. UPS Temp: The highest external battery temperature. |
| Alarm thresholds | Load: An alarm will be set when the load is above the threshold level. Runtime: An alarm will be set when the runtime is below the threshold level. |
| Parallel Status | Local UPS is slave/master: # of UPSs OK: Indicates the number of parallel UPS units that are OK # of UPSs fail: Indicates the number of parallel UPS that are inoperable. |
| Par load Status | KVA and KW: Total apparent power (kVA) and real power (kW) generated by the parallel UPS units and the connected load. Par redundancy: n+1, an alarm will be set if the redundancy level is below the threshold level. |
| Parallel Operation Mode | The parallel operation mode can be off, load on, requested bypass, in bypass due to fault or maintenance. |

View Log

View the 100 most recent UPS log events, and view the logged details of the events, such as date, time of occurrence, and event number.

- From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

2. Go to **Logging** by using the arrow keys and press the Enter key.

```
Control → Logging
Status   Display
Setup    Diags
LCM      Help
```

3. Go to **View Log** by using the arrow keys and press the Enter key.

```
→ View log
Clear log
View statistics
```

4. Go to **On Line** by using the arrow keys and press the Enter key.

```
24-Sep 15:06:48 #15
Mains out of Range
→ On Line
```

The top line states date, time, and event number. Lines 2, 3, and 4 are part of the event list. To view the entire list: Use the arrow keys to go through the log events and press the Enter key to get a detailed description of a particular event.

View Statistics

View the statistics on the operation mode changes, the inverter time, and the duration of battery operation.

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

2. Go to **Logging** by using the arrow keys and press the Enter key.

```
Control → Logging
Status   Display
Setup    Diags
LCM      Help
```

3. Go to **View Statistics** by using the arrow keys and press the Enter key.

```
View log
Clear log
→ View statistics
```

Use the Diags Screen

View troubleshooting information

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
```

2. Go to **Diags** by using the arrow keys and press the Enter key.

| | |
|---------|---------|
| Control | Logging |
| Status | Display |
| Setup | → Diags |
| LCM | Help |

3. Go to **Fault & Diagnostics** by using the arrow keys and press the Enter key.

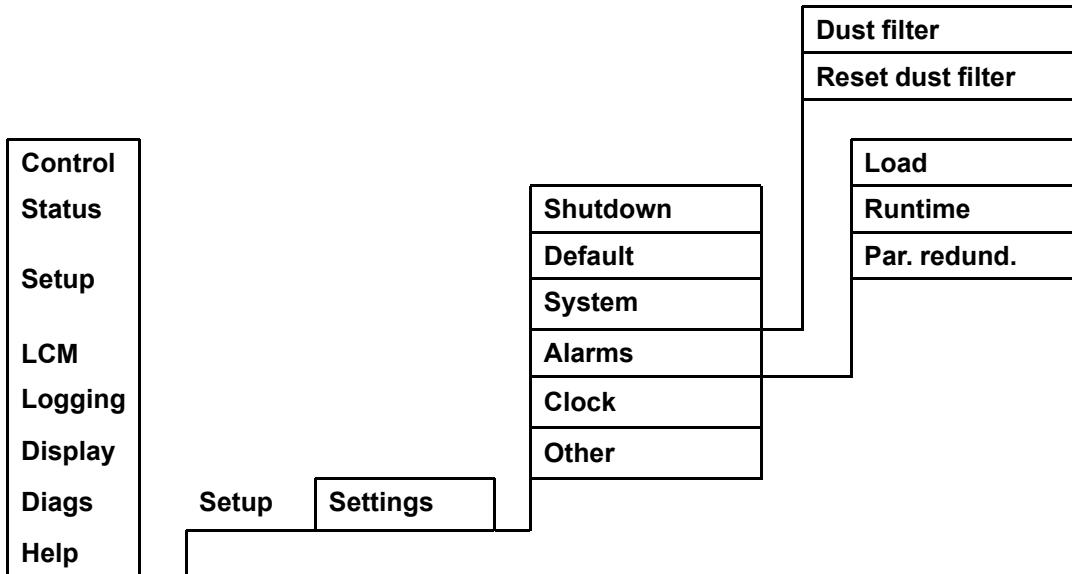
| |
|-----------------------|
| → Fault & Diagnostics |
| System Information |
| Switch status |
| Raw Status Data |

Post-requisite:

NOTE: For more details on the **Fault and Diagnostics** screens, see the section *Troubleshooting, page 40.*

Configuration

Change the Clock, the Alarm Thresholds, and the Dust Filter Status



Set the Clock

The **Clock** menu changes the date and the clock settings and it time-stamps events in the event log. To avoid inaccuracies, change the clock-setting at daylight-saving time.

- From the Overview Screen, press the Enter key.

```

Chrg xxx%
Load xxx%
xxxVin xxxVout xxHz
Runtime: xxhr xxmin
  
```

- Go to **Setup** by using the arrow keys and press the Enter key.

```

Control   Logging
Status    Display
→ Setup    Diags
LCM       Help
  
```

- Go to **Clock** by using the arrow keys and press the Enter key.

```

Settings:
Shutdown   Alarms
Default    → Clock
System     Other
  
```

4. Press the Enter key.

```
→ Date: 24-Sep-2010  
Time: 13:45:51
```

5. The day is now active. Use the arrow keys to set the date and press the Enter key.

```
→ Date: 24-Sep-2010  
Time: 13:28:00
```

6. The month is now active. Use the arrow keys to set the month, press the Enter key and do the same to set the year, and press the Enter key.

```
→ Date: 24-Sep-2010  
Time: 13:28:00
```

7. Press the DOWN arrow key to activate the **Time** line.

```
Date: 24-Sep-2010  
→ Time: 13:28:00
```

The procedure to change the **Time** features is the same as described for date, month, and year.

8. Press the **ESC** key when you want to exit this menu.

Set the Dust Filter Settings

NOTE: Dust filter surveillance should be enabled during startup. The parameters are **High**, **Medium**, or **Low**. A **High** parameter selection is for heavy dust environments and will prompt the user to replace the dust filter after 90 days. A **Medium** parameter selection will prompt the user to replace the dust filter after 120 days and a **Low** parameter selection will prompt the user to replace the dust filter after 150 days. A pre-warning will appear five days before the filter must be replaced. If a filter needs replacement, (when the existing filter is filled with dust and an alarm has been initiated) then you must replace the filter and make sure that the **Reset dust filter** setting is set to **Yes**.

1. From the Overview Screen, press the Enter key.

```
Chrg xxx%  
Load xxx%  
xxxVin xxxVout xxHz  
Runtime: xxhr xxmin
```

2. Go to **Setup** by using the arrow keys and press the Enter key.

```
Control      Logging  
Status       Display  
→ Setup       Diags  
LCM          Help
```

3. Go to **System** by using the arrow keys and press the Enter key.

```
Settings:  
Shutdown    Alarms  
Default     Clock  
→ System     Other
```

4. Go to **Dust filter** by using the arrow keys and press the Enter key.

NOTE: The default setting of the dust filter alarm is “off”. By choosing one of the three parameters (“High”, “Medium”, or “Low”) the dust filter surveillance is automatically turned on.

| | |
|---------------|-------|
| UPS #: | xx ↑ |
| # of UPSs: | x0x |
| MBP board: | xx |
| → Dust filter | Off ↓ |

5. Go to **Dust filter: High, Medium, Low or Off** by using the arrow keys and press the Enter key.

| | |
|---------------|--------|
| UPS #: | xx ↑ |
| # of UPSs: | xx |
| MBP board: | xx |
| → Dust filter | High ↓ |

NOTE: The dust filter surveillance must be reset after every dust filter replacement in order for the UPS system to know when the filter needs to be replaced again. See *Reset Dust Filter Surveillance, page 29*.

Reset Dust Filter Surveillance

1. From the Overview Screen, press the Enter key.

| |
|---------------------|
| Chrg xxx% |
| Load xxx% |
| xxxVin xxxVout xxHz |
| Runtime: xxhr xxmin |

2. Go to **Setup** by using the arrow keys and press the Enter key.

| | |
|---------|---------|
| Control | Logging |
| Status | Display |
| → Setup | Diags |
| LCM | Help |

3. Go to **System** by using the arrow keys and press the Enter key.

| | |
|-----------|--------|
| Settings: | |
| Shutdown | Alarms |
| Default | Clock |
| → System | Other |

4. Go to **Dust filter** by using the arrow keys and press the Enter key.

| | |
|-------------|-------|
| UPS #: | xx ↑ |
| # of UPSs: | x0x |
| MBP board: | xx |
| Dust filter | Off ↓ |

5. Go to **Reset dust fil** by using the arrow keys and press the Enter key.

| |
|------------------------|
| → Reset dust fil: No ↑ |
|------------------------|

6. Go to **Reset dust fil: Yes** by using the arrow keys, and press the Enter key.

↓ Reset dust fil: Yes ↑

NOTE: After resetting the filter surveillance, the menu will fall back to **No** after a few seconds. The filter surveillance will now be reset.

Set the Alarm Thresholds

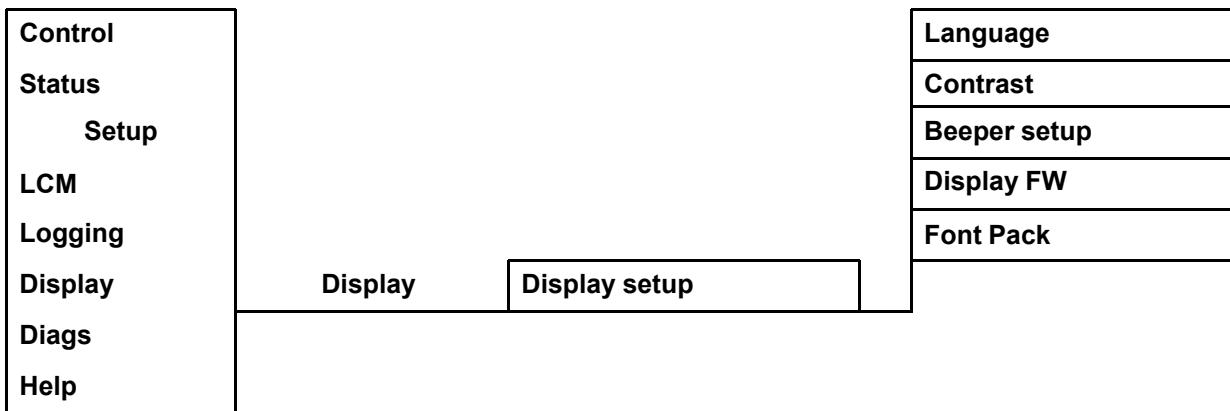
The procedure for changing the **Alarm** thresholds is the same as described under the **Clock** changes. Be aware of the below notes.

NOTE: If the load level exceeds the pre-programmed threshold, the UPS will display a warning.

NOTE: Redundancy: The state of redundancy that will trigger an alarm. Choices are:

- N+0 – The power requirement exceeds the redundancy limit: Redundancy is not available.
- N+1 – The power requirement does not utilize the last unit: Redundancy is available.
- N+2 – The power requirement does not utilize the last two units: Redundancy is available.
- N+3 – The power requirement does not utilize the last three units: Redundancy is available.

Change the Beeper Setup, the Contrast, and the Language



Work your way through the menu screens and make your changes with the arrow keys and the Enter key as described for the **Clock** (see *Set the Clock, page 27*) and the **Alarms** in the **Settings** menu.

Beeper Setup

In the **Beeper setup** you can choose between the following options:

- **Never:** If you select this setting, the beeper will be active at internal UPS errors only.

- **PwrFail+30:** If you select this setting, the beeper will be active at internal UPS errors and at utility/mains or bypass errors. The beeper will only sound if the fault has been present for more than 30 seconds.
- **PwrFail:** If you select this setting, the beeper will be active at internal UPS errors and at utility/mains or bypass errors. The beeper will sound immediately when the error is occurring.
- **LOW BATT:** If you select this setting, the beeper will be active at internal UPS errors at utility/mains or bypass errors, at power failures, and at a low battery level (if the UPS runs in battery operation).

Maintenance

Parts Replacement

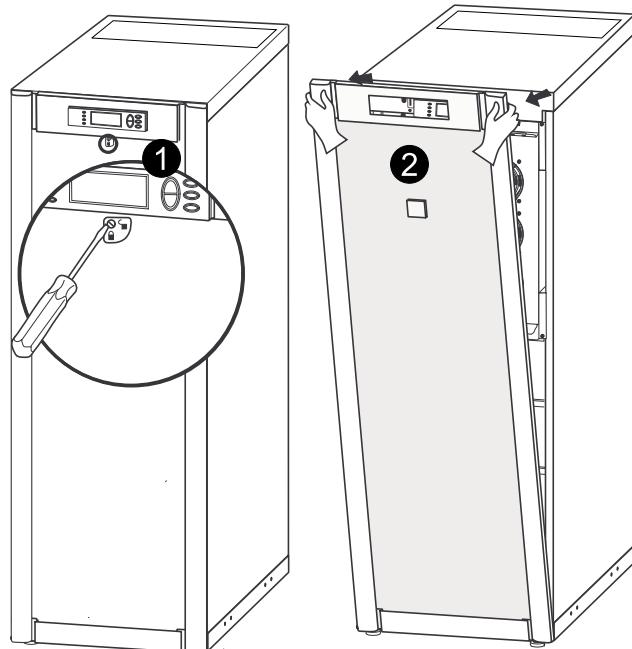
Return Parts to Schneider Electric

Call Schneider Electric to obtain an RMA number.

To return an inoperable part to Schneider Electric, pack the module in the original shipping materials, and return it by insured, prepaid carrier. The customer support representative will provide the destination address. If you no longer have the original shipping materials, ask the representative about obtaining a new set. Pack the module properly to avoid damage in transit. Never use styrofoam beads or other loose packaging materials when shipping a module. The module may settle in transit and become damaged. Enclose a letter in the package with your name, RMA number, address, a copy of the sales receipt, description of the problem, a phone number, and a confirmation for payment (if necessary).

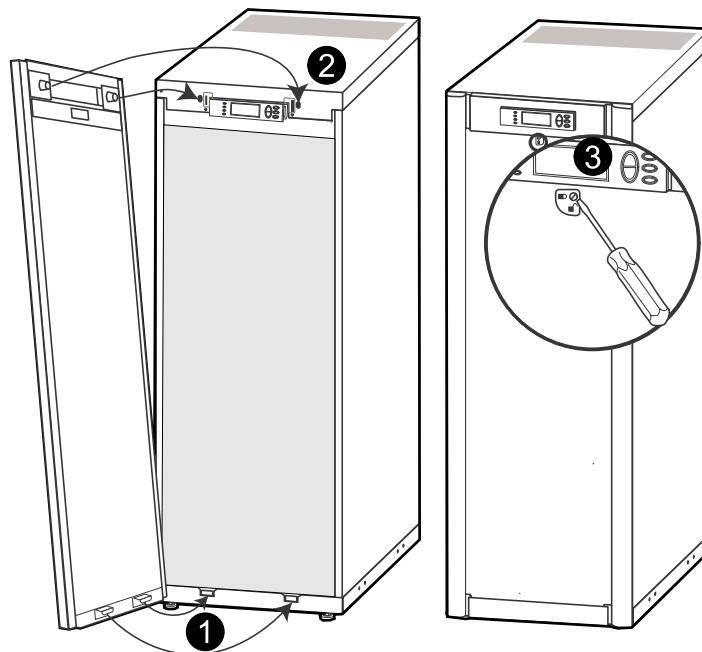
NOTE: Damages sustained in transit are not covered under warranty.

Remove the Front Panel



1. Turn the screw to the right to the unlocked position.
2. Pull the top of the front panel away from the UPS.
3. Lift the front panel free of the two slots at the bottom of the cabinet.
4. Lift the battery compartment cover free of the two slots at the bottom of the cabinet (only applicable in Japanese configurations).

Install the Front Panel



1. Reinstall the front panel by inserting the two tabs at the bottom of the front panel. (For Japanese configurations, you must first reinstall the battery compartment cover into the two slots at the bottom of the cabinet).
2. Push the front panel forward until it engages the locking devices at the top of the cabinet.
3. Use a screwdriver to set the lock mechanism to the locked position.

User-Replaceable Parts (Only by Qualified Personnel)

| Parts | Part Number |
|---|-------------|
| Battery Module | SYBT4 |
| High Performance Battery Module | SYBTH4 |
| Network Management Card with temperature sensor | AP9631 |
| Dust filter for 352 mm cabinets | G35TOPT1 |
| Dust filter for 523 mm cabinets | G35TOPT2 |

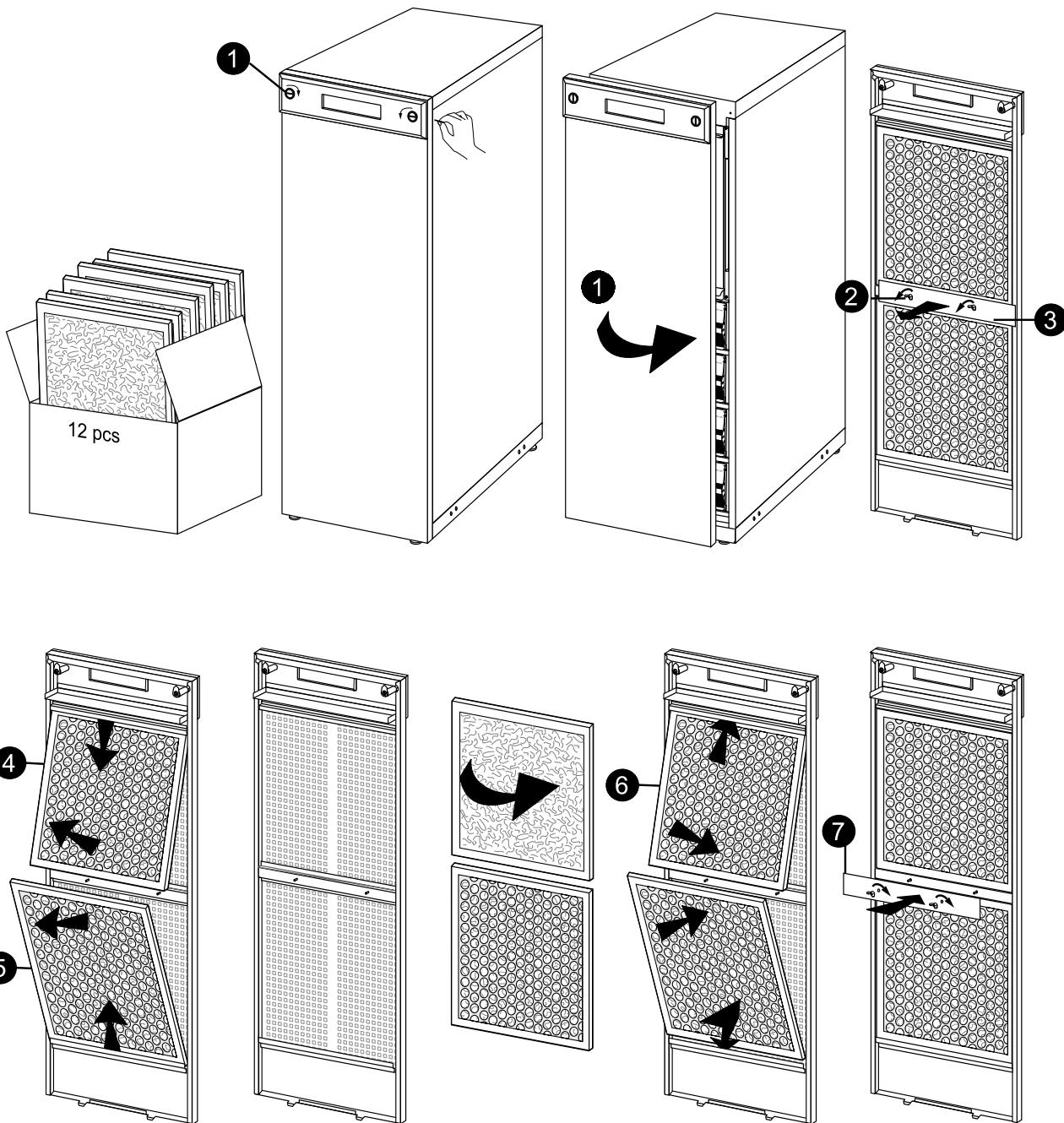
Store the Dust Filter

| | |
|---|---|
|  |  |
| Ambient temperature: 4°C to 32°C/ 40°F to 90°F | Relative Humidity: 40%–90% Non-condensing |

Inspect the Dust Filter

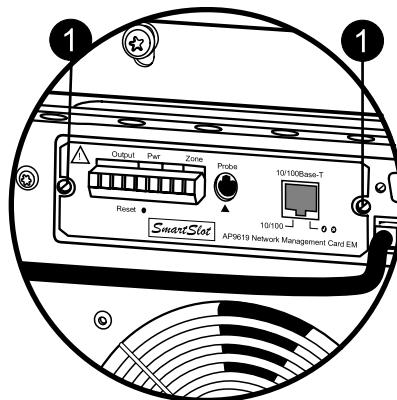
The UPS and modular battery cabinet front panels are fitted with dust filters on the inside of the front panels for extra protection of systems installed in environments

with conductive dust. Check the dust filters once a month. If the dust filters show visible dust or other impurities, the dust filters must be replaced.



1. Remove the front panel from the cabinet. See *Remove the Front Panel*, page 32.
2. Remove the wing nuts from the plate between the upper and lower dust filter.
3. Remove the plate.
4. Push the top dust filter downwards, and pull outwards to remove.
5. Pull the lower dust filter outwards, and push upwards to remove.
6. Position the new dust filters and make sure that the metal side of the dust filters face outwards.
7. Remount the plate between the upper and lower dust filters and reattach the two wing nuts.
8. Reinstall the front panel.
9. Reset the dust filter alarm via the display. See *Reset Dust Filter Surveillance*, page 29.

Replace a Network Management Card



1. Loosen the two Torx screws (one on each side of the card).
2. Carefully pull out the card.
3. Install the new card.
4. Reattach the two Torx screws.

Store the Batteries and the UPS System

NOTE: The battery modules must be stored indoors and with their protective packaging still in place.

NOTE: Stored batteries should be recharged at regular intervals, depending on the storage temperature.

| | | |
|--|--|--|
| | | |
| Ambient temperature: -15 °C to 40 °C/ 5 °F to 104 °F | Relative Humidity: 0-95% Non-condensing | Storage place free from vibration, conductive dust, direct sunlight, and moisture. |

| Storage Temperature | Recharge Interval |
|------------------------------|-------------------|
| -15° to 20 °C/5 °F to 68 °F | 9 months |
| 20° to 30 °C/68 °F to 86 °F | 6 months |
| 30° to 40 °C/86 °F to 104 °F | 3 months |

⚠ CAUTION

RISK OF EQUIPMENT DAMAGE

- Wait until the system is ready to be powered up before installing batteries in the system. The time duration from battery installation until the UPS system is powered up must not exceed 72 hours or 3 days.
- Batteries must not be stored more than six months due to the requirement of recharging. If the UPS system remains de-energized for a long period, we recommend that you energize the UPS system for a period of 24 hours at least once every month. This charges the batteries, thus avoiding irreversible damage.

Failure to follow these instructions can result in injury or equipment damage.

Replace a Battery Module

NOTE: Use two people to lift components weighing between 18–32 kg/40–70 lb.

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Servicing of batteries must only be performed or supervised by qualified personnel knowledgeable of batteries and the required precautions. Keep unqualified personnel away from batteries.
- Disconnect charging source prior to connecting or disconnecting battery terminals.
- Do not dispose of batteries in a fire as they can explode.
- Do not open, alter, or mutilate batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

Failure to follow these instructions will result in death or serious injury.

! DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Batteries can present a risk of electric shock and high short-circuit current. The following precautions must be observed when working on batteries

- Remove watches, rings, or other metal objects.
- Use tools with insulated handles.
- Wear protective glasses, gloves and boots.
- Do not lay tools or metal parts on top of batteries.
- Disconnect the charging source prior to connecting or disconnecting battery terminals.
- Determine if the battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electric shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance (applicable to equipment and remote battery supplies not having a grounded supply circuit).

Failure to follow these instructions will result in death or serious injury.

! DANGER

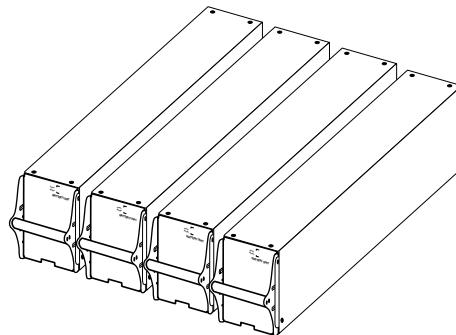
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

When replacing batteries, always replace with the same type and number of batteries or battery packs.

Failure to follow these instructions will result in death or serious injury.

Battery Module

One battery module consists of four battery units.

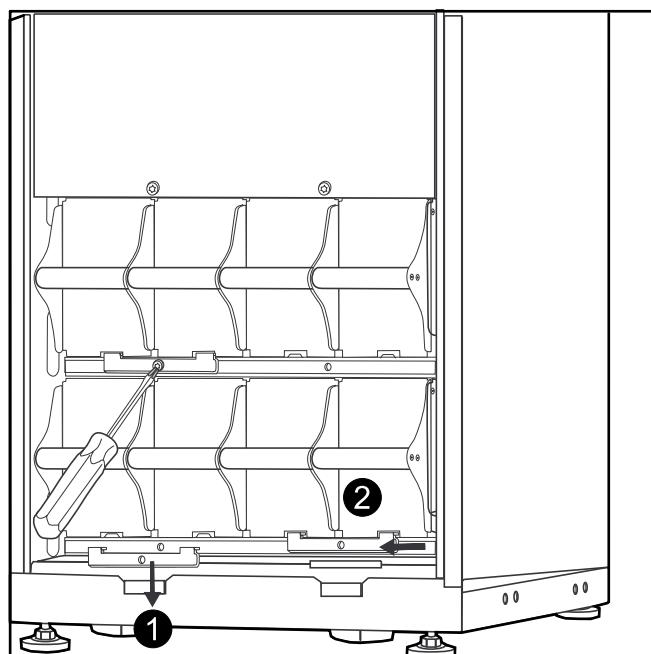


4 x 24 kg (4 x 53 lbs)

Remove and Install Battery Locks

If your system is equipped with battery locks, follow the below procedure to remove the battery locks.

1. Remove the M6 screw attaching the battery lock to the shelf.



2. Push the battery lock to the left, push it upwards and remove.
3. Use the reverse procedure for the installation of battery locks.

Battery Replacement

NOTE: Batteries must be replaced by qualified personnel only. See *Replace a Battery Module*, page 36.

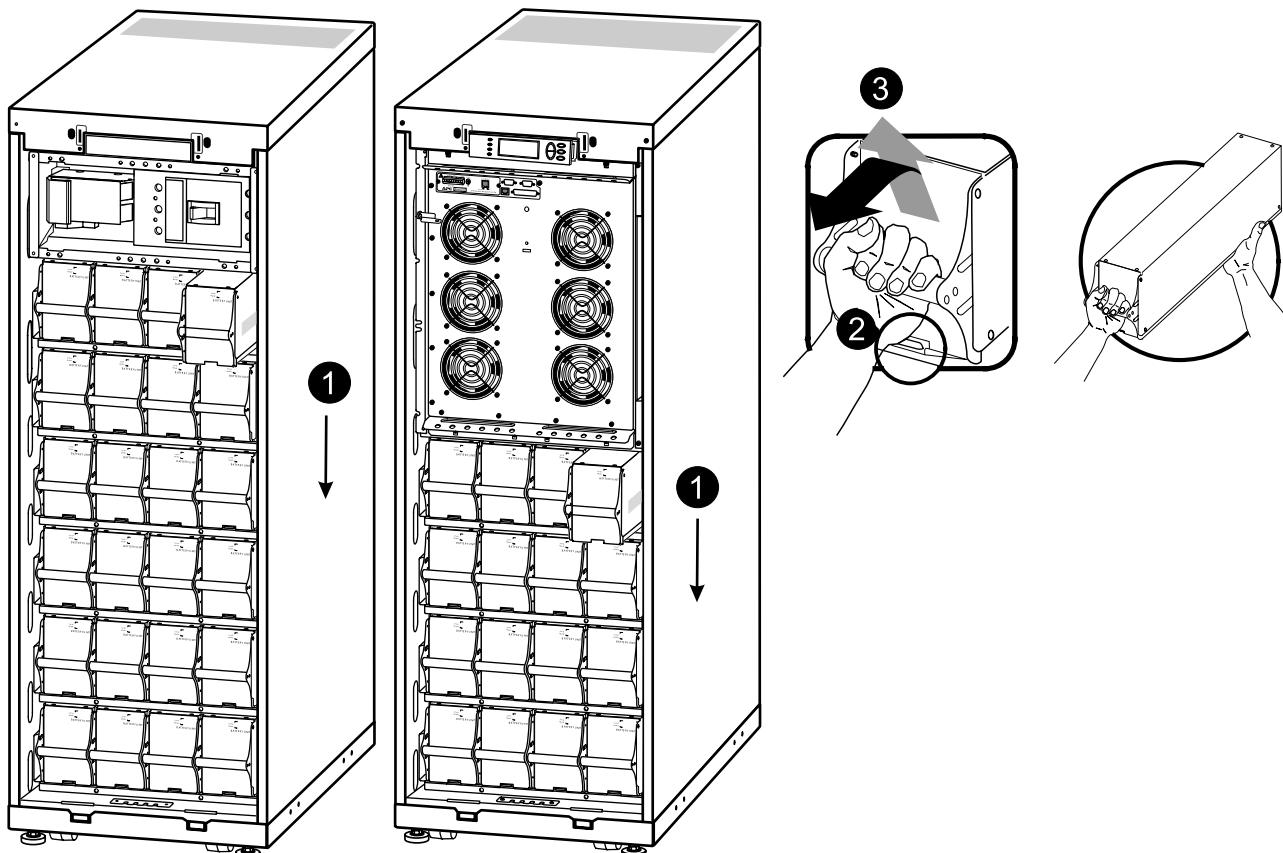
Directions for Replacement

Schneider Electric recommends that a whole battery module (four batteries) is replaced at the same time to ensure optimal runtime (see Example 1). However, it is only necessary to replace two batteries at the same time according to Example 2 and 3 in the below tables.

| 523 mm/(20 in) cabinet | Column A | Column B | Column C | Column D |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Example 1 | New | New | New | New |
| Example 2 | New | New | Old | Old |
| Example 3 | Old | Old | New | New |

| 352 mm/(14 in) cabinet | Column A | Column B |
|-------------------------------|-----------------|-----------------|
| Example 1 | New | New |
| | New | New |
| Example 2 | New | New |
| | Old | Old |
| Example 3 | Old | Old |
| | New | New |

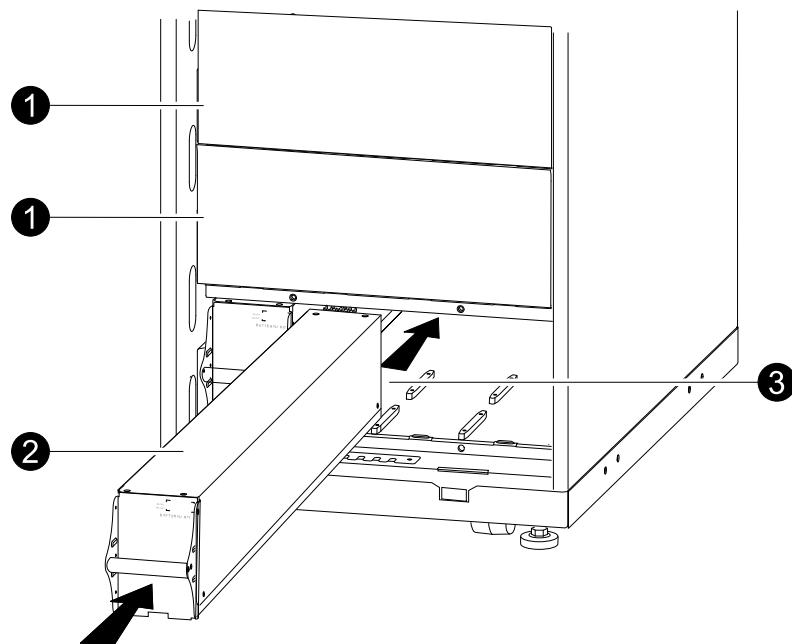
Follow the below procedures if you need to change or add a battery module, e.g. if you receive a display message reporting a bad battery, or if you need to add batteries for increased runtime.



1. When removing battery modules, start from the highest level and work down.
2. Holding the battery handle, gently push the battery upwards and pull it halfway out of the cabinet. A lock mechanism prevents it from being pulled all the way out.
3. To release the battery from the lock mechanism, gently push the battery upwards again and pull it out, while another person supports the battery.

Install Additional Batteries

UPS/Modular battery cabinet



1. Remove blind plate (if present) in front of empty battery shelves (if present) and save the screws for later use.
2. Install the battery module in the lowest available bay (four across in 523 mm (20 in) UPS versions, two across in 352 mm (14 in) UPS versions).
3. Position the battery unit to slide in between the grooves and push it completely into the UPS to ensure connection.

Post-requisite:

NOTE: If a problem is reported, ensure that the battery modules are correctly installed. If the problem persists, see *Troubleshooting, page 40*.

NOTE: Allow for a 24-hour recharging period of the batteries after system start-up.

Troubleshooting

Status and Alarm Messages

This section lists the status and alarm messages that the UPS might display. The messages are listed in alphabetical order, and a suggested corrective action is listed with each alarm message to help you troubleshoot problems.

Display Messages

| Display Message | Description | Corrective Action |
|--|--|---|
| Automatic Self Test Started. | The UPS has started pre-programmed battery test. | No corrective action is necessary. |
| ABus Communication Fault. | Communication fault detected on the ABus. | Check ABus wiring. If this does not help contact Schneider Electric. |
| ABus Termination Fault. | ABus termination is missing. | Check if termination is present. If this does not help contact Schneider Electric. |
| Batt Temperature Exceeded Upper Limit. | The temperature of one or more battery units has exceeded the system specifications. | Contact Schneider Electric Customer Support |
| Battery over-voltage warning. | The battery voltage is too high and the charger has been deactivated. | Contact Schneider Electric Customer Support |
| Bypass Not Available Input Freq/Volt Out Of Range. | The frequency or voltage is out of acceptable range for bypass. This message occurs when the UPS is online, and indicates that the bypass mode may not be available if required. | Correct the input voltage to provide an acceptable voltage or frequency. |
| Battery Discharged. | The UPS is in battery operation and the battery charge is low. Note: Runtime is limited in duration. | No corrective action is necessary. Shut down the system and the load equipment or restore incoming voltage. |
| Emergency PSU Fault. | The redundant Emergency Power Supply Unit (PSU) is not working. The UPS will continue to work normally, but the PSU should be replaced. | Contact Schneider Electric Customer Support |
| EPO Activated. | The Emergency Power Off switch has been activated. | Deactivate the Emergency Power Off switch. |
| Fan fault. | A fan has failed. | Contact Schneider Electric Customer Support |
| Int. Mech. Bypass Switch Closed. | The internal mechanical switchgear is closed. | No corrective action necessary. The UPS is in internal mechanical bypass operation. |
| Int. Mech. Bypass Switch Open. | The internal mechanical switchgear is OFF. | No corrective action is necessary. |
| Low-Battery. | The UPS is in battery operation and the battery charge is low. Note: Runtime is limited in duration. | Shut down the system and the load equipment or restore incoming voltage. |
| Load Is No Longer Above Alarm Threshold. | The load previously exceeded the alarm threshold and the situation has been corrected either because | No corrective action is necessary. |

| Display Message | Description | Corrective Action |
|--|--|---|
| | the load decreased or the threshold was increased. | |
| Load Power Is Above Alarm Threshold. | The load has exceeded the user-specified load alarm threshold. | Option 1: Use the display interface to raise the alarm threshold. Option 2: Reduce the load. |
| Mains Not Available. Input Freq/Volt Out of Range. | The frequency or voltage is out of acceptable range for normal operation. | Correct the input voltage to provide acceptable voltage or frequency. |
| Minimum Runtime Restored. | The system runtime dropped below the configured minimum and has been restored. Additional Battery Modules were installed, the existing Battery Modules were recharged, the load was reduced, or the threshold was decreased. | No corrective action is necessary. |
| No Batteries Are Connected. | No battery power is available. | Check that the batteries are inserted properly. |
| No Master is Present in the Parallel System. | No parallel master is present. The parallel system will not be able to function properly. | Contact Schneider Electric Customer Support |
| Number of Battery Modules Decreased. | One or more battery modules were removed. | No corrective action is necessary. |
| Number of Battery Modules Increased. | One or more battery modules were added. | No corrective action is necessary. |
| Overload on a Parallel Unit. | One or more systems has overload. Note that the entire parallel system will not be able to return from bypass. | No corrective action is necessary. |
| Order Startup Check. | The UPS system has been on for five days. | Contact Schneider Electric Customer Support to verify the installation. |
| Order Tech Check. | The UPS system has been on for four years. A technical check is recommended. | Contact Schneider Electric Customer Support. |
| PBus Communication Fault on Cable 1. | Communication fault detected on PBus 1. | Check PBus 1 wiring. If this does not help contact Schneider Electric. |
| PBus Communication Fault on Cable 2. | Communication fault detected on PBus 2. | Check PBus 2 wiring. If this does not help contact Schneider Electric. |
| PBus Termination Fault on Cable 1. | PBus 1 termination is missing. | Check if termination is present. If this does not help contact Schneider Electric. |
| PBus Termination Fault on Cable 2. | PBus 2 termination is missing. | Check if termination is present. If this does not help contact Schneider Electric. |
| Parallel Configuration Fault. | The parallel system has not been configured correct. | Contact Schneider Electric Customer Support. |
| Parallel Redundancy Restored. | The parallel redundancy has been restored. | No corrective action is necessary. |
| Parallel Redundancy is below Alarm Threshold | The load has exceeded the user specified load alarm threshold. | Option 1: Use the display interface to raise the alarm threshold Option 2: Reduce the load. Parallel redundancy is now restored. |

| Display Message | Description | Corrective Action |
|--|---|---|
| Replace Batt(s). | One or more Battery Modules need replacement (only applicable with internal batteries). | See the section <i>Parts Replacement</i> , page 32 for procedures. |
| Runtime Is Below Alarm Threshold. | The predicted runtime is lower than the user-specified minimum runtime alarm threshold. Either the battery capacity has decreased, or the load has increased. | Option 1: Allow the battery modules to recharge. Option 2: If possible, increase the number of battery modules. Option 3: Reduce the load. Option 4: Decrease the alarm threshold. Contact Schneider Electric Customer Support. |
| Shutdown Due To Low Battery. | The UPS was in Battery Operation and shut down the load when no more battery power was available. | No corrective action is necessary. Note: If the problem reoccurs, consider increasing the battery capacity. |
| Site Wiring Fault. | Wrong phase rotation on the input side. The UPS will continue to supply conditioned power from batt. | An electrician should check that the UPS has been wired properly. |
| Static Bypass Switch Fault. | The Static Bypass Switch has failed. | Contact Schneider Electric Customer Support. |
| System Failure Detected by Surveillance. | The system has detected an internal error. | Check for other alarms and contact Schneider Electric customer support if the problem persists. |
| System Start Up Configuration Failed. | System configuration error. Unable to determine system voltage and/or cabinet size. | Check for other alarms and contact Schneider Electric customer support if the problem persists. |
| System Not Synchronized to Bypass. | The system cannot synchronize to bypass. The mode may not be available. | Option 1: Decrease the input frequency sensitivity. Contact Schneider Electric Customer Support. Option 2: Correct the bypass input voltage to provide acceptable voltage or frequency. |
| The dust filter must be changed immediately. | - | Replace the dust filter. |
| The dust filter must be changed soon. | - | Be prepared to change the dust filter soon. |
| UPS In Bypass Due To Fault. | The UPS has transferred to Bypass Mode because a fault has occurred. | Contact Schneider Electric Customer Support. |
| UPS In Bypass Due To Overload. | The load exceeded the power capacity. The UPS has switched to Bypass Mode. | Decrease the load. |
| UPS Is Overloaded. | The load exceeded the system power capacity. | Option 1: Decrease the load. Option 2: Check the load distribution on the 3 phases via the display. If the load is unevenly distributed, adjust the load distribution. |
| Warranty Expiring. | The warranty expires in three months. | Contact Schneider Electric Customer Support. |

| Display Message | Description | Corrective Action |
|---|--|--|
| Weak Batt(s) Detected. Reduced Runtime. | One or more weak batteries detected. | Replace the weak batteries. |
| XR Battery Fuse Blown. | Modular battery fuse blown. Runtime is lower than expected. | Replace the blown fuse in the modular battery cabinet (only applicable if your installation includes a modular battery cabinet). |

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