# Symmetra<sup>™</sup> PX

# 250/500 kW 400/480 V

# **Single and Parallel Operation**

7/2023





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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

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** 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.

## **A**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** 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.

Per IEC 62040-1: "Uninterruptible power systems (UPS) -- Part 1: Safety Requirements," this equipment, including battery access, must be inspected, installed and maintained by a skilled person.

The skilled person is a person with relevant education and experience to enable him or her to perceive risks and to avoid hazards which the equipment can create (reference IEC 62040, section 3.102).

# **Electromagnetic Compatibility**

## NOTICE

#### **RISK OF ELECTROMAGNETIC DISTURBANCE**

This is a product category C2 UPS product. In a residential environment, this product may cause radio inference, in which case the user may be required to take additional measures.

Failure to follow these instructions can result in equipment damage.

## FCC Statement

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Safety Precautions**

#### 

#### 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.

#### 

#### 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.

Schneider Electric has carefully reviewed wording in product hazard messages to alert users to potential hazards, how to avoid those hazards, and the consequences of not following hazard messages. Workplace safety standards such as NFPA 70E and CSA Z462 are clear that the proper method to work on or near electrical equipment is in a de-energized state.

However, it is recognized that the standards identify exceptions where powering down the equipment is infeasible due to equipment design or actually introduces additional hazards. While elimination of all risks is not possible, in those situations where it can be demonstrated that energized work is necessary, certain tasks, including the installation or removal of modules into the Symmetra PX UPS, may be performed on an energized Symmetra PX UPS only after the user has demonstrated that the application meets the required exceptions in local regulations, NFPA 70E, CSA Z462 or other standards as appropriate and employs the work practices and personal protective equipment prescribed in the standard.

## NOTICE

#### **RISK OF INTERFERENCE**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Failure to follow these instructions can result in equipment damage.

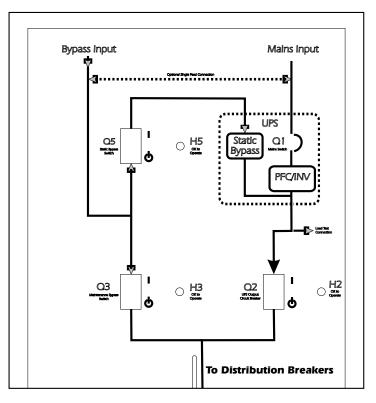
# **System Overview**

#### **Overview of Breakers in the Maintenance Bypass (Option)**

NOTE: The maintenance bypass is only applicable for single systems.

**NOTE:** A breaker must only be operated when the associated breaker lamp is ON.

The maintenance bypass contains the breakers Q2, Q3, and Q5.

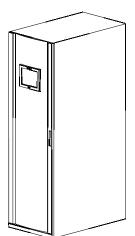


#### **Display Overview**

NOTE: The screens shown in this manuals are examples only.

The UPS display is located in the I/O cabinet and is used to configure and monitor the system, and provides visible and audible alarms.

#### Front View of the I/O cabinet



#### Navigation

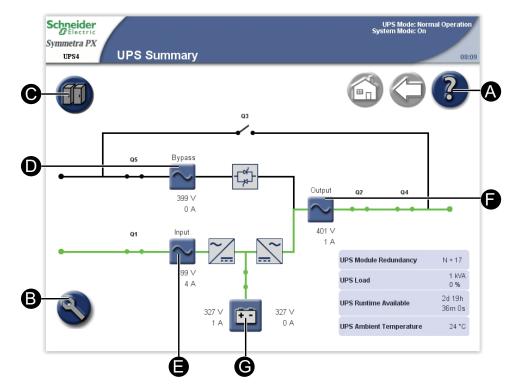
#### UPS System

System Information	
	System Status
	Logs
	Firmware Overview
	Predictive Maintenance
	Software Licences
Configuration	
	User Configuration
	Service Configuration
	Factory Configuration
Operation	
	Start-Up
	Shutdown
	Static Bypass -> Normal Op.
	Normal Op> Static Bypass
	Isolate this UPS
	Enable ECO Mode
Language Settings	
	Regional Settings

## **UPS Summary Screen**

#### **Single System**

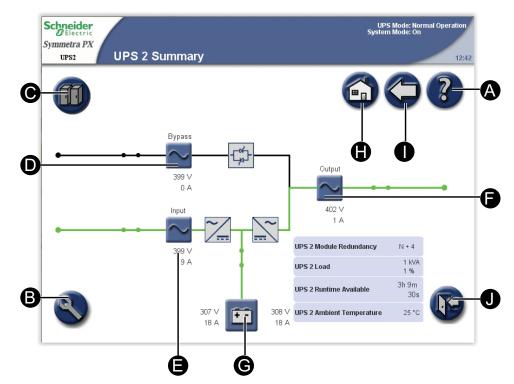
In single systems, the **UPS Summary** screen is the home screen. It provides you with an overview of the UPS system and circuit breakers. It shows the system status and the power flow through the system and gives access to the system's summary screens and the **UPS System** screen.



- A. Access help on the current screen.
- B. Go to the UPS System screen.
- C. Go to the System Status screen for the UPS.
- D. Go to the Bypass Summary screens.
- E. Go to the Input Summary screens.
- F. Go to the Output Summary screens.
- G. Go to the Battery Summary screens.

#### **Parallel System**

In parallel systems, the **UPS Summary** screen provides you with an overview of the actual UPS and circuit breakers. It shows the system status and the power flow through the UPS and gives access to the system's summary screens and the **UPS System** screen.

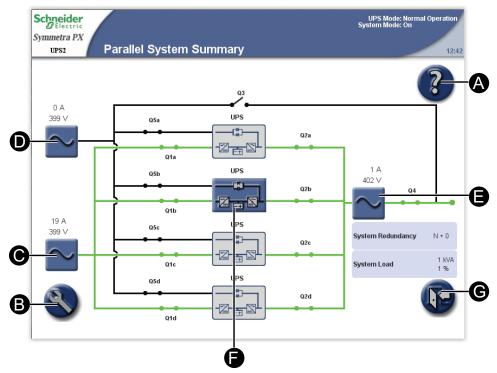


- A. Access help on the current screen.
- B. Go to the UPS System screen.
- C. Go to the System Status screen for the operated UPS.
- D. Go to the Bypass Summary screens.
- E. Go to the Input Summary screens.
- F. Go to the Output Summary screens.
- G. Go to the Battery Summary screens.
- H. Go to the Parallel System Summary screen.
- I. Go to the previous screen.
- J. Log out of password protected screens.

## **Parallel System Summary**

The **Parallel System Summary** screen is the home screen in parallel systems. It provides you with an overview of the parallel system and circuit breakers. It shows the system status and the power flow through the system and gives access to the system's summary screens.

**NOTE:** The operated UPS is highlighted on the screen and the other UPS units are faded.

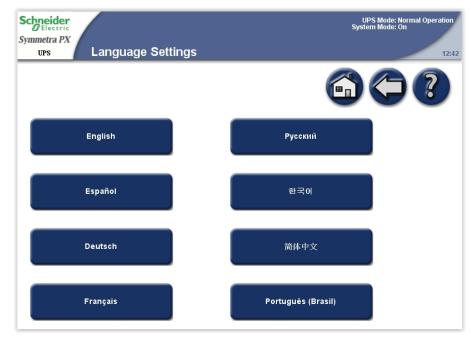


- A. Access help on the current screen.
- B. Go to the UPS System screen.
- C. Go to the **Parallel Input Summary** screens.
- D. Go to the Parallel Bypass Summary screens.
- E. Go to the Parallel Output Summary screens.
- F. Go to the UPS Summary screens.
- G. Log out of password protected screens.

# Configuration

# Set the Language and Regional Settings

1. From the home screen on the display select **UPS system > Language** button to access the **Language Settings** screen.



- 2. Select the preferred language.
- 3. Select your preferred date format and temperature unit and complete with **Finish**.

Schneider Electric Symmetra PX UPS	Regional Settings	UPS Mode: Normal Operation System Mode: On 12:42
Date format	MM-dd-yyyy 💌	
Temperature unit	°C ▼	
	Finish	

## Set the User Password Settings

**NOTE:** If you forget your password, contact Schneider Electric for information.

 From the home screen on the display select UPS System > Configuration > User Configuration > Password Settings to access the Password Settings screen.

Schneider Delectric Symmetra PX UPS Password	Settings	UPS Mode: Normal Operation System Mode: On 12:42
Enter current password		
Enter new password		
Confirm new password		
	Apply	

- 2. Change the user password:
  - a. Tap **Enter current password** and type the current password by using the keyboard on the screen. Complete with **Enter**.
  - b. Tap **Enter new password** and type the new password by using the keyboard on the screen. Complete with **Enter**.
  - c. Tap **Confirm new password** and re-type the new password. Confirm with **Enter**.
- 3. Tap **Apply** to complete the password change procedure.

## **Perform a Battery Runtime Calibration**

Calibrating the batteries keeps measurements like runtime and battery charge accurate.

Schneider Electric recommends performing battery runtime calibration at startup, when batteries are replaced, or when changes are made to the battery cabinets.

### NOTICE

#### HAZARD OF EQUIPMENT DAMAGE

- During a runtime calibration the batteries will be at a very low level and therefore not capable of supporting your system load in case of a power failure.
- Batteries will be discharged to 10% capacity and this will result in a low battery runtime after the calibration. Allow a minimum of 8 hours for battery to reach 90% of the capacity after the calibration.
- · Repeated battery testing or calibration can affect the lifetime of the battery.

Failure to follow these instructions can result in equipment damage.

To perform a test, the following conditions must be present:

- The batteries must be 100% charged.
- The load percentage must be at least 10% and must not change more than 20% during the test. Example: if the load is 40%, it must not vary more than +/- 8%.
- The bypass supply must be available.
- · The UPS Mode must be Normal Operation.
- The System Mode must be On.
- From the home screen on the display select UPS System > Configuration > User Configuration > Battery Test Settings to access the Battery Test Settings screen.



2. Tap **Start** to begin the battery runtime calibration. You can tap **Cancel** to stop the calibration. The status of the runtime calibration is shown under **Runtime calibration status**.

## Set the Battery Self-Test Settings

To start a self-test:

- The battery must be more than 50% charged.
- The load percentage must be at least 10%.
- The runtime available must be more than 2 minutes.
- · The bypass supply must be available.
- The UPS mode must be in normal operation or ECO mode.
- The System mode must be On or ECO mode.

The battery self-test simulates battery operation. If the utility/mains power fails during the test, the test stops and the UPS supplies battery power.

The test detects any weak or inoperable battery cells.

The following criteria should be met to ensure that the test detects any weak battery cells:

- The total discharge current to the load from both the positive and negative sides of the batteries needs to be at least half of the rated battery Ah. For example, if you have 18 Ah of batteries, more than 9 A must be drawn by the load from each battery side.
- Both the positive and negative battery voltage must be lower than 280 V for longer than 16 seconds.

The test lasts for approximately 10% of the available runtime.

NOTE: The test will discharge all batteries by 10%.

 From the home screen on the display select UPS System > Configuration > User Configuration > Battery Test Settings to access the Battery Test Settings screen.

Schneider Symmetra PX UPS4 Battery Test Sett	ings	UPS Mode: Normal Operation System Mode: On 08:09
Battery runtime calibration	Start	
Runtime calibration status		
Battery self-test	Start	
Self-test status		
Auto battery self-test every n weeks	Never (disabled)	
Auto battery self-test start time (HH:mm:ss)	13:45:00	
Auto battery self-test day of week	Wednesday 🗸	
Reset battery test alarms	Reset	
	Apply	

- 2. Set the battery test settings
  - a. **Battery self-test**: Tap **Start** to begin the battery self-test immediately. You can tap **Cancel** to stop the self-test and continue in normal operation. The status of the self-test is shown under **Self-test status**.
  - b. Auto battery self-test every n weeks: Select the time in weeks between automatic battery self-tests. Schneider Electric recommends a battery self test every 12 weeks.
  - c. Auto battery self-test start time (HH:mm:ss): Select the time of the day for the battery self-test.
  - d. Auto battery self-test day of week: Select the day of the week for the battery self-test.
  - e. **Reset battery test alarms**: Tap the **Reset** button to reset the battery alarms.
- 3. Tap **Apply** to confirm the settings.

# Set the Display Settings

**NOTE:** If the **Back light time out** is set to **Always on**, it will reduce the lifetime of the display.

 From the home screen on the display select UPS System > Configuration > User Configuration > Display Settings to access the Display Settings screen.

Schneider Electric Symmetra PX UPS Disp	play Settings		UPS Mode: Normal Operation System Mode: On 12:
			6 0 ?
	Brigh	tness	
			I I
Temperature unit	°C 🔻	Enable audible buttons	
Back light time out	5 minutes 💌	Enable audible alarms	
Date format	MM-dd-yyyy 💌	Enable Q breaker prefix	
Waveform voltage label	Phase-to-Neutral	Enable SB breaker prefix	
		Recalibrate touch screen	Start

- 2. Set the display settings:
  - a. **Brightness**: Place the finger on the indicator and slide it left or right to the desired setting.
  - b. Temperature unit: Select °C for Celsius or °F for Fahrenheit.
  - c. **Back light time out**: Select the time limit for turning off the screen back light.
  - d. Date format: Select the preferred setting.
  - e. Waveform voltage label: Select phase-to-phase or phase-to-neutral.
  - f. **Recalibrate touch screen**: Tap the **Start** button to initiate the calibration of the screen. Tap the points that are shown on the screen to calibrate the touch area of the display.
  - g. Enable audible buttons: Enable or disable audible buttons.
  - h. Enable audible alarms: Enable or disable audible alarms.
  - i. Enable Q breaker prefix: By default, breakers are labelled Q1Qx, Q2Qx, etc. as displayed on the UPS Summary screen. Using this field, you can clear the prefix of the label (for example, Q1, Q2).
  - j. Enable SB breaker prefix: By default, subfeed breakers are labelled SB1, SB2, etc. as displayed on the Output Subfeed Summary screen. Using this field, you can clear the prefix of the label (for example, SB1, SB2). See Set the Subfeed Breaker Names, page 28 for information on how to name the subfeed breakers.

# Set the Network Management Card (NMC) Settings

**NOTE:** You can only configure the cards that have been installed. The **Configure NMC Settings** button is greyed out for uninstalled cards. The NMC will reboot to activate the changes.

 From the home screen on the display select UPS System > Configuration > User Configuration > NMC Settings to access the NMC Settings screen.

UPS Mode: Normal Operation System Mode: On Schneider Symmetra PX NMC Settings UPS4 08:09 NMC: Level 4, Position B NMC: Level 4, Position G UPS configuration access Read/Write UPS configuration access No access Network settings mode Network settings mode Manual 123.123.123.123 IP address IP address Modbus RTU Enabled Modbus RTU **Configure NMC Settings Configure NMC Settings** NMC: Level 5, Position B NMC: Level 5, Position G UPS configuration access Read/Write UPS configuration access Read/Write Network settings mode Network settings mode IP address IP address Modbus RTU Modbus RTU **Configure NMC Settings Configure NMC Settings** 

NOTE: In some systems, there are only two NMC slots.

 The NMC Settings screen displays the configuration for each NMC in the system. Tap Configure NMC Settings to access the Configure NMC Settings screen and to change the settings. 3. Change the NMC settings. The **IP address**, **Subnet mask**, and **Gateway** can only be edited if the NMC is set to manual. See NMC documentation for more information.

Chneider Electric mmetra PX UPS4 Configu	re NMC Settings	UPS Mode: Normal Operation System Mode: On 08:0
NMC: Level 4, Positi	on B	6) (7) (7)
UPS configuration access	No Access	
The 'Network settings mode' must address settings can be configure the changes.		
Network settings mode	Manual	
IP address		J
	123.123.123.123	
Subnet mask	255.255.255.128	
Gateway	10.126.85.46	
	Apply	Page 1 o

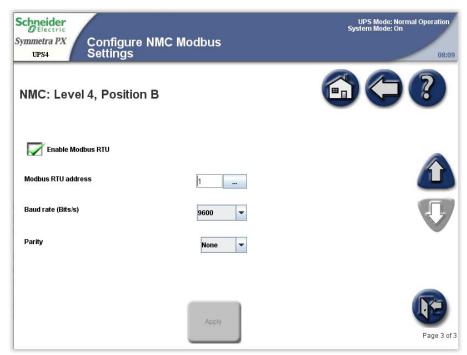
- a. UPS configuration access: Set the UPS access level for the specific NMC. It can be set to No access, Read, or Read/Write.
- b. Network settings mode: Select to use DHCP, BOOTP, or Manual IP.
- c. **IP address**: Enter a valid IP address for the card. Only visible if manual mode has been selected.
- d. **Subnet mask**: Enter a valid subnet mask. Only visible if manual mode has been selected.
- e. **Gateway**: Enter a valid gateway. Only visible if manual mode has been selected.
- 4. Tap **Apply** to confirm the settings.

5. Tap the arrow down button and change the settings.

Symmetra PX UPS4	Configure NMC Settings	UPS Mode: Normal Operation System Mode: On 08:09
_	I 4, Position B	
Type	IP address	Prefix length
Auto config	juration	
IP address		•
Gateway	0:0:0:0:0:0:0	
DHCPv6 mode		
	Apply	Page 2 of 3

- Enable IPv6: Check mark the Enable IPv6 box to enable or disable IPv6 communications for the NMC. The table shows the type of configuration, the IPv6 address, and the prefix length.
- Auto Configuration: Select the Auto Configuration box to enable the system to obtain addressing prefixes from the router (if available). It will use those prefixes to automatically configure IPv6 addresses.
- **Manual**: Check mark the **Manual** check box and then enter the system IPv6 address and gateway if you are not using automated addressing.
- DHCPv6 Mode:
  - Never: With this option selected, DHCPv6 is NOT used for any configuration settings.
  - Router Controlled: When this option is selected, DHCPv6 is controlled by the M (Managed Address Configuration Flag) and O (Other Stateful Configuration Flag) flags received in IPv6 Router Advertisements.
  - Non-Address Information Only: With this option selected, DHCPv6 is used to configure "other" settings (such as location of DNS servers), but NOT to provide addresses. This is known as DHCPv6 stateless.
  - Address and Other Information: With this option selected, DHCPv6 is used to obtain addresses AND other configuration settings. This is known as DHCPv6 stateful.
- 6. Tap Apply to confirm the settings.

7. Tap the arrow down button and change the settings.



- a. Check mark the **Enable Modbus RTU** to enable the use of Modbus RTU.
- b. Specify the **Modbus RTU address** of the NMC device. Only a BMS manager should modify this address.
- c. Specify the Baud rate of the modbus communication port.
- d. Specify the **Parity** of the modbus communication port.
- 8. Tap **Apply** to confirm the settings.

#### Set the Alarm Settings

1. From the home screen on the display select UPS System > Configuration > User Configuration > Alarm Settings to access the Alarm Settings screen.

Schneider OElectric UPS Mode: Normal Op System Mode: On Schneider UPS Mode: Normal Op ymmetra PX metra PX UPS Alarm Settings UPS4 Alarm Settings ? UPS module redundancy UPS module redundanc N+0 💌 N+0 🔻 Parallel system redundancy \*N+0 🔻 Load alarm threshold (%) 90 ... Low battery alarm threshold (s) 3,600 ... Load alarm threshold (%) 90 ... Low battery alarm threshold (s) 3,500 ... Warning alarm delay (s) 5 ... ational alarm delav (s) β0 ... Warning alarm delay (s) 5 ... Informational alarm delay (s 30 ... K Settings with a blue asterisk ( \* ) will be applied to all parallel UPSs.

Single System

#### Parallel System

- 2. Set the threshold values that will trigger the alarms:
  - **NOTE:** For parallel systems, shared settings are marked with \* on the display.
  - a. **UPS module redundancy**: Set the system threshold for generating alarms in the redundant power modules. **N+0** indicates that the redundancy alarm is disabled. **N+1** indicates that there must be one redundant power module.
  - b. Parallel system redundancy: Set the number of redundant UPS units in a parallel system. If you have a parallel system with UPS redundancy, you can use this field to configure an alarm to appear when the load in your parallel system starts using some of the UPS redundant power. N+0 indicates that there is no redundant power and N+1 indicates that there is one UPS of redundant power.
  - c. Load alarm threshold (%): Set the threshold for load percentage of the total UPS capacity for generating an alarm.
  - d. Low battery alarm threshold (seconds): Set the remaining battery runtime threshold for generating an alarm.
  - e. **Warning alarm delay(s)**: Set the delay in seconds before a warning alarm is reported on the display.
  - f. **Information alarm delay(s)**: Set the delay in seconds before a informational alarm is reported on the display.

**NOTE:** If you use PowerChute Network Shutdown software, **Low battery alarm threshold (seconds)** must not be set to 0. Set the threshold to a value that will allow computers to shut down when the batteries are low.

**NOTE:** If these threshold values are exceeded, an alarm with the severity warning is generated.

- 3. Tap **Apply** to confirm the settings and tap arrow down to go to the next **Alarm Settings** screen.
- 4. This screen is only visible if subfeed breakers are present. Set the load percentage for each subfeed breaker that should generate a critical alarm.

Schneider Electric Symmetra PX UPS4 Alarm	n Settings		UPS Mode: Nor System Mode: On	mal Operation
Subfeed Critical L	_evels			?
SB 1 SB1 load critical (%)	100	SB 2 SB2 load critical (%)	100	
SB 3 SB3 load critical (%)	100	SB 4 SB4 load critical (%)	100	
SB 5 SB5 load critical (%)	100	SB 6 SB6 load critical (%)	100	
SB 7 SB7 load critical (%)	100			
				V
		Apply		Page 2 of 3

5. Tap **Apply** to confirm the settings and tap arrow down to go to the next **Alarm Settings** screen.

6. This screen is only visible if subfeed breakers are present. Set the load percentage for each subfeed breaker that should generate a warning alarm.

Schneider Electric Symmetra PX			UPS Mode: Nor System Mode: On	mal Operation
UPS4 Alarm	Settings			08:09
Subfeed Warning	Levels			?
SB 1 SB1 load warning (%)	100	SB 2 SB2 load warning (%)	100	
SB 3 SB3 load warning (%)	100	SB 4 SB4 load warning (%)	100	
SB 5 SB5 load warning (%)	100	SB 6 SB6 load warning (%)	100	
SB 7 SB7 load warning (%)	100			
				V
		Apply		Page 3 of 3

7. Tap **Apply** to confirm the settings.

# Set the System Settings

**NOTE:** The date and time will be synchronized between all UPS units in a parallel system.

From the home screen on the display select UPS System > Configuration > User Configuration > System Settings to access the System Settings screen. The System Settings screen can also be accessed by tapping the time displayed in the top right corner of the screen.

Schneider Gelectric Symmetra PX UPS System S	ettings	UPS Mode: Normal Operation System Mode: On 12:42
System date (MM-dd-yyyy)	01-01-2000	
System time (HH:mm:ss)	12:42:12	
Local UPS name	UPS	
Parallel system name	System	
	Apply	

- 2. Set the system settings.
  - **NOTE:** For parallel systems, shared settings are marked with \* on the display.
  - System date (MM-dd-yyyy): Set the date. The setting is synchronized between all UPSs and the NMC.
  - **System time (HH:mm:ss)**: Set the time. The setting is synchronized between all UPSs and the NMC.
  - Local UPS name: Type in a name for the UPS unit. A maximum of eight characters is allowed.
  - **Parallel system name**: Type in a name for the group of UPS units in the same parallel system. A maximum of eight characters is allowed.
- 3. Tap **Apply** to confirm the settings.

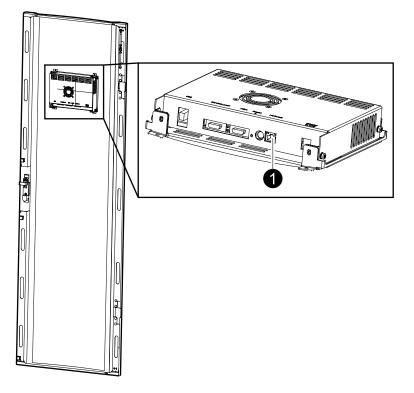
# **Enable Virtual Display Application**

NOTE: The Virtual Display Application (VDA) is disabled by default.

The VDA enables remote access to the display via a web browser. From the web browser it is possible to view the UPS status and settings. It also allows secure remote configuration of a small number of non-critical settings on the **User Configuration** screen. UPS event logs can also be saved from the VDA to the local computer to aid with troubleshooting.

1. Open the front door of the I/O cabinet and connect the display to the network.

#### Rear View of the I/O Cabinet Front Door



 From the home screen on the display select UPS System > Configuration > User Configuration > Virtual Display Application Settings to access the Virtual Display Application Settings screen.

Schneider Gelectric Symmetra PX UPS Virtual Display Settings	/ Applicati	on	UPS Mode: Normal Operation System Mode: On 12:4
			6) (~) (?)
Enable virtual display application		Web server status Host name	STOPPED UPS
MAC address IPv4	Enabled	IPv6	Disabled
IP address Subnet mask Gateway			
IPv4 Settings		IPv6 Settings	
Certificate Management		StruxureWare Central	Settings
Web Access Settings			F

3. Check mark Enable virtual display application to activate the VDA.

An IPv4 address will automatically be obtained via DHCP for the VDA once it is enabled and there is network connection between the physical display unit and the Local Area Network.

**NOTE:** The hostname for accessing the VDA from a web browser (which is a combination of the UPS name and the configured domain on the **Web Access Settings** screen) can be seen under **Host name**.

The following can be configured from the submenus:

- · IPv4 Settings: Network settings for the VDA
- IPv6 Settings: Network settings for the VDA
- **Certificate Management**: A self-signed certificate is generated for HTTPS communication when the VDA is enabled. This can be replaced by a valid user certificate
- StruxureWare Central Settings: Schneider Electric StruxureWare Central (StruxureWare Data Center Expert) settings for the network device management
- Web Access Settings: Access protocols (both HTTP and HTTPS are supported) and inactivity time-out periods for the VDA

**NOTE:** For more information on these screens, visit the context sensitive help on the display.

## Set the Door Filter Settings

 From the home screen on the display select UPS System > Configuration > User Configuration > Door Filter Settings to access the Door Filter Settings screen.

Schneider Electric Symmetra PX UPS	Door Filter Settings	UPS Mode: Normal Operation System Mode: On 12:42
Power Enclosure 1		
Door filter lifetime	60 Days (Light Filtration)	
Lifetime status	ок	
Estimated remaining	g lifetime 0 Day(s) 0%	
Reset filter statistic	Reset	
	Apply	

- 2. Set the door filter lifetime depending on the installation environment:
  - 15 Days (Heavy Filtration) for industrial environments
  - 30 Days (Normal Filtration) for IT environments
  - 60 Days (Light Filtration) for controlled environments

#### NOTICE

#### HAZARD OF EQUIPMENT DAMAGE

- Schneider Electric recommends to check the filters at regular intervals.
- If construction has been done in the UPS room, consider temporarily reducing the filter lifetime.

Failure to follow these instructions can result in equipment damage.

## Set the Subfeed Breaker Names

**NOTE:** The subfeed breaker names can only be configured on systems including a maintenance bypass and subfeeds.

 From the home screen on the display select UPS System > Configuration > User Configuration > Subfeed Breaker Names to access the Alarm Settings screen(s).

Schneider DElectric Symmetra PX UPS4 St	ubfeed Breaker Names	UPS Mode: Normal Operation System Mode: On 08:09
SB1 name	SB1 SB2 nat	ne SB2
SB3 name	SB3 SB4 nar	ne SB4
SB5 name	SB5 SB6 nar	ne SB6
SB7 name	SB7	
	Apply	
		-

- 2. Tap the text box and type a name for the specific subfeed breaker using the keyboard on the screen. A maximum of six characters are allowed. Complete with **Enter**.
- 3. Tap Apply when all subfeed breaker names have been set.

# **Operation Modes**

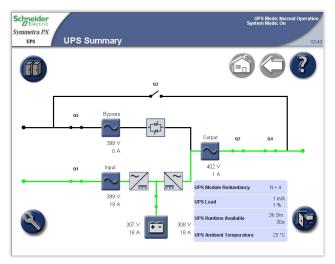
# **UPS Modes**

The UPS operation mode is indicated in the top right corner of the screen under the heading **UPS Mode**. The **UPS mode** indicates the current status of the operated UPS.

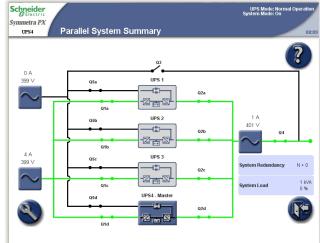
#### **Normal Operation**

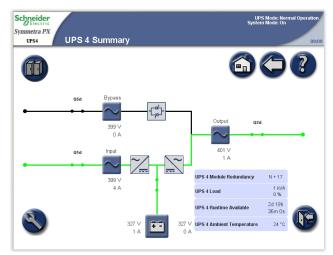
During normal operation, the UPS supports the critical load with conditioned power. While the UPS is operating in normal operation, a single-line diagram will appear on the screen. A green line indicates the power flow from the utility/mains, through the UPS system, and to the load. The green line to the batteries indicates that the batteries are connected.

#### Single System



#### Parallel System

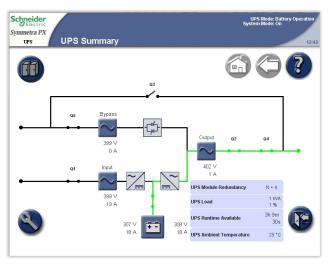




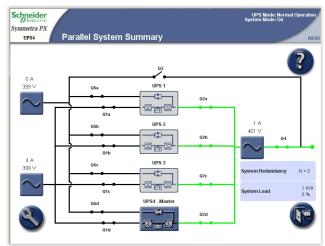
**Single System** 

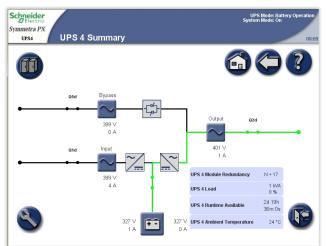
#### **Battery Operation**

If the utility/mains supply fails, the UPS transfers to battery operation. During battery operation, battery power ensures uninterrupted support to the critical load. While the UPS system is in battery operation, a single-line diagram will appear on the screen. The green line indicates the power flow from the batteries, through the inverters, and then to the load.



#### Parallel System





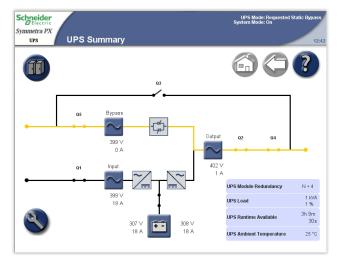
# Requested Static Bypass Operation/Forced Static Bypass Operation

The UPS is in requested static bypass following a command from the display, and the UPS is in forced bypass when the UPS has detected a fault on the system and requests static bypass operation. During static bypass operation, the critical load is supplied directly by utility/mains power. While the UPS is operating in this mode, a single-line diagram will appear on the screen. The orange line indicates the power flow from the utility/mains through the bypass static switch, and then to the critical load.

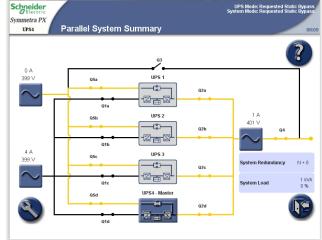
**NOTE:** The batteries are not available as an alternate power source while the system is in forced static bypass operation.

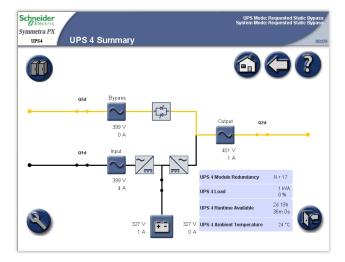
**NOTE:** The batteries are available in requested bypass, and it is possible to manually transfer to normal operation. If there is an interruption to the utility/ mains power supply during requested static bypass operation, the system will transfer to battery operation. This can cause an interruption to the power supplying the load and can result in a load drop.

#### Single System



#### **Parallel System**





Single System

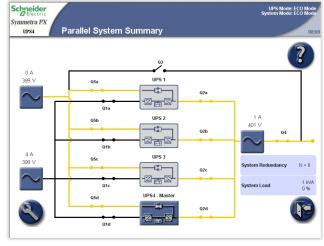
# ECO Mode (Option)

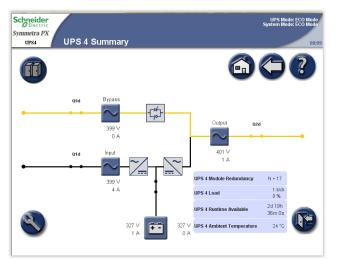
When ECO mode is enabled (see Enable ECO Mode (Option), page 41) the system will transfer to static bypass operation after 30 seconds with bypass supply within specified limits.

**NOTE:** If there is an interruption to the bypass supply when the system is in ECO mode, the system will transfer to battery operation. This can cause an interruption to the power supplying the load and can result in a load drop.

#### Schneider UPS Mode: ECO Mode System Mode: ECO Mode umetra PX UPS4 UPS Summary ? **F** Q5 ¢ Q4 399 V 0 A 401 V 1 4 01 N + 17 1 KVA 0 % UPS Load 4 A 2d 19h 36m Os UPS Runt 327 24 °C

#### Parallel System

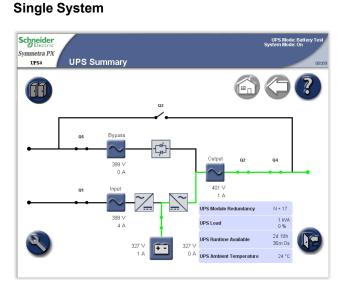




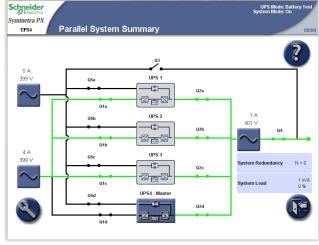
#### **Battery Test**

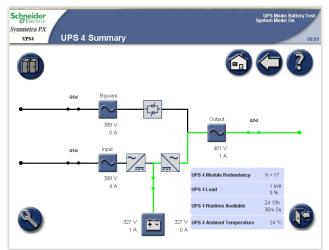
The UPS is in battery test mode when the UPS is performing a battery self-test or a battery runtime calibration.

**NOTE:** The battery test will stop if the utility/mains supply fails during the test.



#### Parallel System





### **System Modes**

The system mode is indicated in the top right corner of the screen under the heading **System Mode**. The system mode indicates the output status of the complete system, and not the individual UPS unit.

#### On

When the system mode is **On**, the UPS system supports the critical load with conditioned power. The load is supported by the UPS in both normal and battery operation.

#### Off

When the system mode is **Off**, the UPS system does not support the load with power.

# Requested Static Bypass Operation/Forced Static Bypass Operation

The UPS is in requested static bypass following a command from the display, and the UPS is in forced bypass when a fault on the system has caused static bypass operation. During static bypass operation, the critical load is supplied directly by utility/mains power. While the UPS is operating in this mode, a single-line diagram will appear on the screen. The orange line indicates the power flow from the utility/ mains through the bypass static switch, and then to the critical load.

#### **ECO Mode**

When ECO mode is enabled (see Enable ECO Mode (Option), page 41) the system will transfer to static bypass operation after 30 seconds with bypass supply within specified limits.

**NOTE:** If there is an interruption to the bypass supply when the system is in ECO mode, the system will transfer to battery operation. This can cause an interruption to the power supplying the load and can result in a load drop.

UPS Mode: Off System Mode: Mainte

2

N + (

1 KVA 0 %

I.K

#### **Maintenance Bypass Operation**

During maintenance bypass operation, the critical load is supplied directly by utility/mains power. While the UPS system is in maintenance bypass operation, a single-line diagram will appear on the screen. The orange line indicates the power flow from the utility/mains to the critical load via Q3.

**NOTE:** Do not open the Q3 when the system is in maintenance bypass operation, as it can result in a load drop.

**Parallel System** 

Schneider

UPS4

etra PX

**NOTE:** The batteries are not available as an alternate power source while the UPS system is in maintenance bypass operation.

Parallel System Summary

Q1a

01b

Q10

05

Q3

UPS 1

UPS 2

-(\*)-

2 - 2

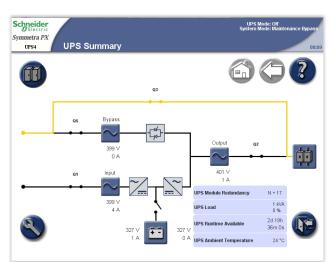
UPS 3

258

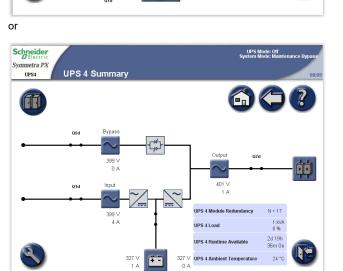
UPS4 - Ma

Q2b

Q20



#### Single System



# Autostart Countdown

The system can be set up for an automatic start when utility/mains supply is restored following a low battery voltage shutdown. The autostart countdown window is shown over all screens until the countdown period expires or the autostart is manually stopped by tapping the **STOP** button.

This feature is disabled by default and is not supported in parallel systems. Contact Schneider Electric if this feature should be enabled on your system.

# **Operation Procedures**

# Access Screens Protected by User Password

1. When prompted for the user-password, tap the password field to access the keyboard.

Schneider Electric Symmetra PX UPS4 Use	r password	UPS Mode: Normal Operation System Mode: On 08:09
	Enter password; Enter	

2. Type in the user password and tap Enter.

Enter password:
Copy Paste Clear
Tab       1       2       3       4       5       6       7       8       9       0       Backspace         !       @       #       \$       ^       4       \$       -       +       [       1       <
Shift Caps Space Enter Cancel <>

**NOTE:** The default user name and password are apc at first login. In v6.8.0 and higher, you will be prompted to enter a new password after you log in.

# Start Up the System

**NOTE:** Start-up condition: The load is supplied via the Q3 switch from the utility/mains, and the other breakers are open.

**NOTE:** A breaker must only be operated when the associated breaker LED is lit.

- 1. Close the UPS input breaker (Q1). This will power up the UPS display.
- From the home screen on the display select UPS System > Operation > System Start-up.
- 3. Follow the steps which appear on the screen. Steps will appear in the order in which they need to be completed. A step will initially appear in red and then when it is completed, the step will change to green. The next step to be completed will be highlighted in red text and yellow background.

#### Single System

mmetra PX UPS4	System Start-up	System Mode: Maintenance Bypa
tart System fro	m Maintenance Bypass	
Number	Step	Action / Description
1	Close breaker Q1	Apply AC utility power
2	Close breaker Q5	SBS input
3	Close battery breakers	Close battery breakers
4	Switch on UPS	UPS On
5	Initiate transfer to static bypass	Initiate Transfer
6	Close breaker Q2	UPS output
7	Open breaker Q3	Static bypass
8	Transfer load to normal operation	Output On

#### **Parallel System**

ups4	System Start-up	
art System fro	m Maintenance Bypass	
Number	Step	Action / Description
1	Close breaker Q1d	Apply AC utility power
2	Close breaker Q5d	SBS input
3	Close battery breakers	Close battery breakers
4	Switch on UPS	UPS On
Please rep	eat sequence 1 to 4 for the other parallel UPSs you w	ant to start-up before continuing to the next step.
5	initiate transfer to static bypass	Initiate Transfer
6	Close breaker Q2d	UPS output
Pleas	e repeat step 6 for the other parallel UPSs you want to	start-up before continuing to the next step.
7	Close breaker Q4	System output
8	Open breaker Q3	Static bypass
9	Transfer load to normal operation	Output On
	Note: A different procedure will be shown when	the parallel evetern is online

4. Check that the UPS Mode is Normal Operation in the upper right corner.

## Shut Down System from Normal to Maintenance Bypass Operation

**NOTE:** A breaker must only be operated when the associated breaker lamp is ON.

- 1. From the home screen on the display select UPS System > Operation > System Shutdown.
- 2. Follow the steps which appear on the screen. Steps will appear in the order in which they need to be completed. A step will initially appear in red and then when it is completed, the step will change to green. The next step to be completed will be highlighted in red text and yellow background.

**NOTE:** Grey buttons are touch-screen functions.

#### Single System

Chreider Electric mmetra PX UPS4	System Shutdown	UPS Mode: Normal Operatio System Mode: On
Shutdown Syste	m to Maintenance Bypass	60
Number	Step	Action / Description
1	Initiate transfer to static bypass	Initiate Transfer
2	Close breaker Q3	Load will be on manual bypass
3	Switch off UPS	UPS Off
4	Open breaker Q2	UPS output
5	Open breaker Q5	SBS input
6	Open battery breakers	Open battery breakers
7	Open breaker Q1	UPS input
Note: The displa	y will switch off after all steps have been complete	d.

#### **Parallel System**

utdown Syste	m to Maintenance Bypass	
Number	Step	Action / Description
1	Initiate transfer to static bypass	Initiate Transfer
2	Close breaker Q3	Load will be on manual bypass
3	Open breaker Q4	System output
4	Switch off UPS	UPS Off
5	Open breaker Q2d	UPS output
6	Open breaker Q5d	SBS input
7	Open battery breakers	Open battery breakers
8	Open breaker Q1d	UPS input

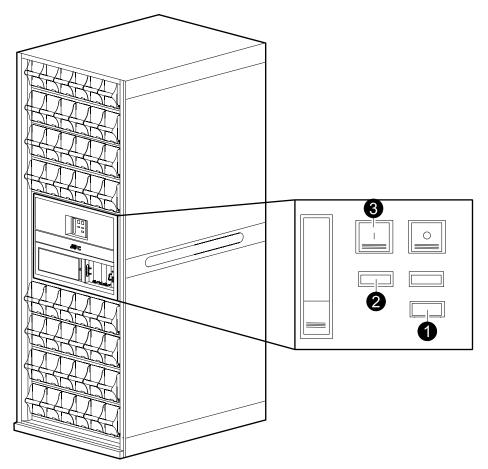
NOTE: The display will turn off when the UPS input breaker (Q1) is opened.

**NOTE:** Do not open the Q3 breaker when the system is in maintenance bypass operation, as it can result in a load drop.

# **Operate the Battery Breaker Manually**

**NOTE:** The battery breaker is motorized with a shunt trip facility, and typically it is operated from the display interface. If manual operation of the breaker is required, follow the procedure below.

#### Front View of the Battery Cabinet



- 1. Turn the selector to Manual position.
- 2. Check the spring status:
  - a. If CHARGED SPRING, go to step 3.
  - b. If DISCHARGED, charge the spring by pressing the bottom part of the handle to release it and pumping the handle a few times until the spring status says CHARGED SPRING.
- 3. Push the green ON button to turn the breaker on. A red ON indication will show the breaker status.

## Transfer from Normal to Requested Static Bypass Operation

**NOTE:** Following this procedure will transfer the entire system to requested static bypass.

- 1. From the home screen on the display select UPS system > Operation > Normal Op.  $\rightarrow$  Static Bypass.
- 2. Tap **Initiate Transfer** to go to static bypass operation. The **Initiate Transfer** button is greyed out when the transfer is not available, when the bypass source is out of tolerance and there is more than 10° phase difference between the UPS output and the bypass source.

Schneider Electric Symmetra PX UPS4 Transfer to Statio	: Bypass	UPS Mode: Normal Operation System Mode: On 08:09
Initiate transfer to static bypass	Initiate Transfer	

3. Check that the status has changed to **Requested Static Bypass** in the upper right corner.

## **Transfer from Requested Static Bypass to Normal Operation**

**NOTE:** Following this procedure will transfer the entire system from requested static bypass to normal operation.

- 1. From the home screen on the display select UPS System > Operation > Static Bypass -> Normal Op..
- 2. Tap **Initiate Transfer** to go to normal operation. The **Initiate Transfer** button is greyed out when transfer is not available.
- 3. Check that the status has changed to **Normal Operation** in the upper right corner.

## **Enable ECO Mode (Option)**

**NOTE:** ECO mode is deactivated by default on installation. Contact Schneider Electric if this feature should be activated on your system.

- 1. From the home screen on the display select UPS System > Operation > Enable ECO Mode.
- 2. Select Yes to confirm.

Schneider Delectric Symmetra PX UPS Operation	UPS Mode: Inquiring System Mode: On 12:42
Output synchronized to bypass source	
System Start-u; Are you sure you want to	enable ECO mode?
Static Bypass -> Norn Yes	No
Enable ECO Mode	

## **Disable ECO Mode (Option)**

- From the home screen on the display select UPS System > Operation > Disable ECO Mode.
- 2. Select Yes to confirm.

Schneider GElectric Symmetra PX UPS Operation	UPS Mode: Inquiring System Mode: On 12:42
Output synchronized to bypass source	
System Start-u; Are you sure you want to disable ECO me	ode?
Static Bypass -> Norn Yes No	
Disable ECO Mode	

## **Isolate One UPS from the Parallel System**

**NOTE:** Before you start this procedure, ensure that the remaining UPS units can supply the load.

**NOTE:** This procedure is only applicable to parallel systems.

- 1. From the home screen on the display select UPS System > Operation > Isolate this UPS.
- 2. Follow the steps which appear on the screen. Steps will appear in the order in which they need to be completed. A step will initially appear in red and then when it is completed, the step will change to green. The next step to be completed will be highlighted in red text and yellow background.

Schneider Symmetra PX UPS4	Isolate this UPS	UPS Mode: Normal Operation System Mode: On 08:0			
Please verify the isolation	that the remaining system can support the load before procedure.	completing			
Number	Step	Action / Description			
1	Switch off UPS	UPS Off			
2	Open breaker Q2d	UPS output			
3	This step is OPTIONAL - Put UPS in isolated test mode	Activate Isolated Test Mode			
4	Open breaker Q5d	SBS input			
5	Open battery breakers	Open battery breakers			
6	Open breaker Q1d	UPS input			
Note: The di	Note: The display will switch off after all steps have been completed.				

**NOTE:** The display will turn off when the UPS input breaker (Q1) is opened.

## Start Up UPS and add to a Running Parallel System

- 1. Close the UPS input breaker (Q1). This will power up the UPS display.
- 2. When the display becomes active, verify that all UPSs are set up as a parallel system and that all UPSs are shown on the screen.
- From the home screen on the display select UPS System > Operation > System Start-up.
- 4. Follow the steps which appear on the screen. Steps will appear in the order in which they need to be completed. A step will initially appear in red and then when it is completed, the step will change to green. The next step to be completed will be highlighted in red text and yellow background.

Schneide Electri Symmetra P. UPS4		UPS Mode: Off System Mode: On 08:09
Add a singl	le UPS to an online system	
Number	Step	Action / Description
1	Close breaker Q1d	Apply AC utility power
2	Close breaker Q5d	SBS input
3	Close battery breakers	Close battery breakers
4	Close breaker Q2d	UPS output
5	Switch on UPS	UPS On
	Please repeat sequence 1 to 5 for the other	parallel UPSs you want to start-up.

5. Check that the **UPS Mode** has changed to **Normal Operation** in the upper right corner.

## **Start a Virtual Display Application Session**

- Supported browsers include Microsoft Internet Explorer® (IE) 7.x or higher, Google Chrome 18.x or higher and Mozilla Firefox® 3.6 or higher.
- · Java version 1.6 or higher must be installed on the computer.
- Multiple Virtual Display Application (VDA) sessions with the same UPS display unit are permitted.
- 1. Open an internet browser window and enter the IP address or host name for the VDA.
- 2. When the password request screen opens, type in the user password and complete with **Enter**.

**NOTE:** The password for the VDA is identical to the user passwords for the display.

## Access a Configured Network Management Card

**NOTE:** The below procedure shows how to access the Network Management Card (NMC) from a web interface. It is also possible to use the following interfaces: Telnet and SSH, SNMP, FTP, and SCP. See the NMC Installation Manual for more information.

**NOTE:** Ensure that only one NMC in the entire system is set to synchronize time.

Use Microsoft Internet Explorer<sup>®</sup> (IE) 7.x or higher (on Windows operating systems only) or Mozilla<sup>®</sup> Firefox<sup>®</sup> 3.0.6 or higher (on all operating systems) to access the Web interface of the NMC. Other commonly available browsers may work but have not been fully tested by Schneider Electric.

You can use either of the following protocols when you use the Web interface:

- The HTTP protocol, which provides authentication by user name and password but no encryption.
- The HTTPS protocol, which provides extra security through Secure Socket Layer (SSL): encrypts user names, passwords, and data being transmitted, and authenticates NMCs by means of digital certificates.

**NOTE:** In v6.8.0 and higher, HTTP is disabled and HTTPS is enabled by default.

To access the web interface and configure the security of your device on the network:

- 1. Address the NMC by its IP address (or its DNS name, if a DNS name is configured).
- 2. Enter the user name and password.

**NOTE:** The default user name and password are apc at first login. In v6.8.0 and higher, you will be prompted to enter a new password after you log in.

3. To enable or disable the HTTP or HTTPS protocol, use the **Network** menu on the **Administration** tab, and select the **Access** option under the **Web** heading on the left navigation menu.

## **Maintenance**

## **Access Predictive Maintenance Screens**

**NOTE:** Tap the home button to go to the **UPS Summary** or **Parallel System Summary** screen.

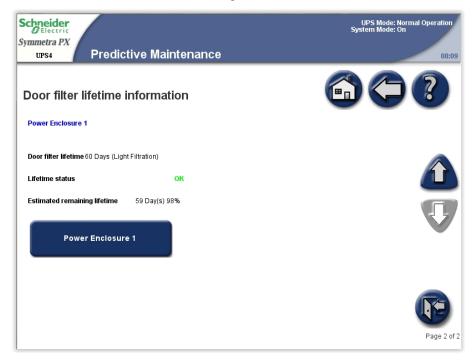
1. From the home screen on the display select **UPS System > System** Information.

Schneider Delectric Symmetra PX UPS4 System Information		UPS Mode: Nor System Mode: On	mal Operation 08:09
		6) ()	?
System Status	Active in control	Main intelligence module	
	UPS serial number	4	
Logs	UPS firmware version	4.28.11	
	UPS firmware version store	d at memory card 0.0.0	
Firmware Overview	Display firmware version	2.5.0.110	
	APC support phone	PAR 2.2 test	
Predictive Maintenance			
Software Licences			P

- 2. Tap **Predictive Maintenance** to access the **Predictive Maintenance** screens.
- 3. The first **Predictive Maintenance** screen shows the status and the estimated remaining lifetime of the power modules and their fans. The status can be **OK**, **Near end**, or **Exceeded**. Remember to order new spare parts or schedule a maintenance visit when the status is **Near end**.

Schneider Electric Symmetra PX UPS4	System Mode: On System Mode: On					rmal Operation 08:09	
Power mod	dule lifetime	informatio	'n			5	?
Module	Location	Module Lifetime Status	Estimated Remaining Lifetime Months (%)	Fan Lifetime Status	Fan Estimated Remaining Lifetime Months (%)		
Power Module	Power Enclosure 1, Level 1	ок	116 (96%)	ок	115 (95%)		
Power Module	Power Enclosure 1, Level 2	ок	116 (96%)	ок	115 (95%)		
Power Module	Power Enclosure 1, Level 3	ок	116 (96%)	ок	115 (95%)		
Power Module	Power Enclosure 1, Level 5	ок	93 (77%)	ок	94 (78%)		
Power Module	Power Enclosure 1, Level 6	ок	98 (81%)	ок	99 (82%)		
Power Module	Power Enclosure 1, Level 7	ок	116 (96%)	ок	116 (96%)		
Power Module	Power Enclosure 1, Level 8	ок	98 (81%)	ок	101 (84%)		
Power Module	Power Enclosure 1, Level 10	ок	116 (96%)	ок	116 (96%)		
							Page 1 of 2

4. Tap arrow down and go to the next **Predictive Maintenance** screen. This screen shows the estimated remaining lifetime of the door filters.



## **Determine if you need a Replacement Part**

To determine if you need a replacement part, contact Schneider Electric and follow the procedure below so that the representative can assist you promptly:

- 1. In the event of an alarm condition, scroll through the alarm lists, record the information, and provide it to the representative.
- 2. Write down the serial number of the unit so that you will have it easily accessible when you contact Schneider Electric.
- 3. If possible, call Schneider Electric from a telephone that is within reach of the display so that you can gather and report additional information to the representative.
- 4. Be prepared to provide a detailed description of the problem. A representative will help you solve the problem over the telephone, if possible, or will assign a return material authorization (RMA) number to you. If a module is returned to Schneider Electric, this RMA number must be clearly printed on the outside of the package.
- 5. If the unit is within the warranty period and has been started up by Schneider Electric, repairs or replacements will be performed free of charge. If it is not within the warranty period, there will be a charge.
- 6. If the unit is covered by a Schneider Electric service contract, have the contract available to provide information to the representative.

### **Return Parts to Schneider Electric**

To return an inoperable part to Schneider Electric, contact Schneider Electric customer support to obtain an RMA number.

Pack the part 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 part properly to avoid damage in transit. Never use styrofoam beads or other loose packaging materials when shipping a part. The part 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.

# Parts Replaceable by Skilled Personnel

### 

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

ALL safety instructions in the Safety Manual shall be read, understood and followed.

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

## 

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Apply appropriate personal protective equipment (PPE) and follow safe work practices for all part replacement procedures.

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

Part	Part number
Battery module	WSYBTU2
Power module	WSYPM25KD
Intelligence module	WSYMIM6
System power supply	WSYPSU2
External connection board	WSYEXCB
ID and relay controller board	WSYIDRC
External switchgear board	WSYEXSG2
Battery breaker motor PSU	WSYBBMOPSU2
Battery monitoring board	WSYBMB2
A-Bus communication board	WSYBATTCOM
Filter option (pads, frame and mounting hardware)	SYOPT005
Filter pad	0J-875–00093

# Troubleshooting

# Alarms

The color of the top of the screen switches from blue to red and an alarm button is shown when an alarm situation occurs.

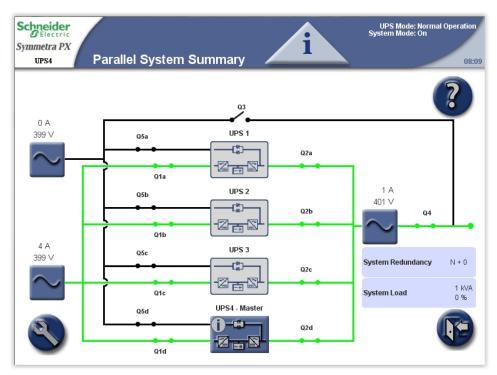
### **Alarm Button**

Tap the alarm button to go to the **Active Alarms** screen that displays all active alarms, along with a corrective action for addressing each alarm. When you tap the alarm button, the alarm will automatically be silenced.

### **Alarm Levels**

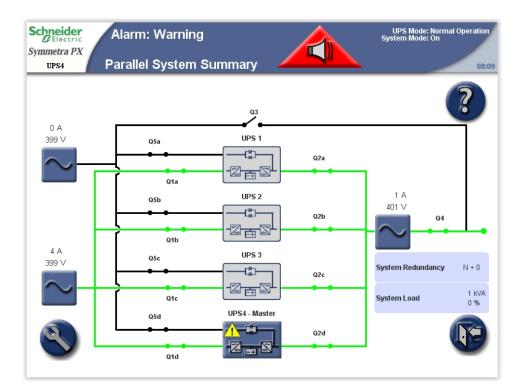
#### Info

Informational alarm. No immediate action required. Check the cause of the alarm as soon as possible.



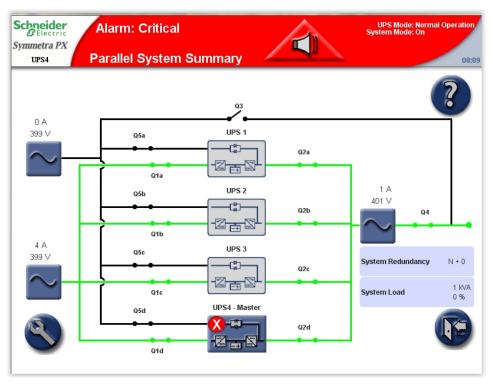
#### Warning

The load remains supported, but action must be taken. Call Schneider Electric for instructions.



### Critical

Take immediate action. Call Schneider Electric for instructions.



## **View the Active Alarms**

1. Tap the **Alarm** button on the top bar when an alarm situation occurs.



- 2. A list of the active alarms is shown on the screen.
  - Tap Location to see the location of the particular module.
  - Tap Graph to see voltages and currents at the time the alarm was generated.
  - The three alarm severity icons display at the top of the screen with numbers indicating how many times each severity type has occurred. Tap that icon or number to display the next alarm of that severity type on the screen. When you reach the final alarm, tapping the icon displays the first one of the same severity.

**NOTE:** The **RIM Alarms** button gives access to active alarms for the redundant intelligence module, which is the intelligence module that is not in control at the time being.

Refre	sh Event Log	RIM Alarms (1) 4 Critical (1) 0 Warning (1) 1 Informat			?
\$ Severity	Alarm	Corrective Action	Location	Date/Time MM-dd-yyyy HH:mm:ss SSS	Capture
0	Input 6 activated: I/O frame output fuse error detected	Please contact APC Support	IO enclosure	08-22-2014 08:04:55 744	
8	Input 5 activated: I/O frame input fuse error detected	Please contact APC Support	IO enclosure	08-22-2014 08:04:55 744	
١	Input 7 activated: Door in UPS I/O enclosure opened	Close door on UPS	IO enclosure	08-22-2014 08:05:32 225	
8	Parallel communication error on PBUS cable 1	Replace parallel cable 1	IO enclosure level 3	01-01-2000 00:37:02 014	Graph
8	Unit disabled from parallel system			01-01-2000	Graph

## **View the Logs**

**NOTE:** Tap the home button to go to the **UPS Summary** or **Parallel System Summary** screen.

The **Event Log** screen can be accessed either by tapping **Event Log** on the **Active Alarms** screen see View the Active Alarms, page 51 or by following this procedure:

- 1. From the home screen on the display select **UPS system > System** Information > Logs.
- Active in control indicates which intelligence module is in control of the system. Tap Active Event Log to view the records from the intelligence module in control, or tap the RIM Event Log to view the records from the intelligence module that is passive.

Schneider Gelectric Symmetra PX UPS4 Logs	UPS Mode: Normal Operation System Mode: On 08:09
Active in control Main intelligence module	
Active Event Log	Generate Waveform Event
RIM Event Log	

3. The **Recent Events** log contains a detailed record of the 32 latest events. Tap **Full Log** to see the 10000 latest events and access the **Save Log** button.

Schneider Electric Symmetra P2 UPS4			UPS Mo System Mo	de: Normal Operation de: On 08:0
Refresh Active Control	Full Log 0 Critical A 0 Warning (1) 32 Informational			2?
\$ Severity	Event	Location	Date/Time MM-dd-yyyy HH:mm:ss SSS	Capture
١	Display communication to MIM and RIM is OK	IO enclosure level 2	08-22-2014 08:08:04 102	
١	Display communication to MIM and RIM is lost	IO enclosure level 2	08-22-2014 08:08:04 082	
١	Display communication to MIM and RIM is OK	IO enclosure level 2	08-22-2014 08:07:35 315	
١	NMC board communication is OK	IO enclosure level 4 pos B	08-22-2014 08:07:13 706	
١	NMC board communication is lost	IO enclosure level 4 pos B	08-22-2014 08:07:13 706	
١	NMC board communication is OK	IO enclosure level 4 pos B	08-22-2014 08:07:13 679	-

4. Tap **Filter** to filter the event log or go directly to step 9 to save the event log.

DElectri nmetra P. UPS4			UPS Moo System Moo	de: Normal Operati de: On 0
Refresh		0 Critical 2 Warning 17 Informational No filters active		?
\$ Severity	Event	Location	Date/Time MM-dd-yyyy HH:mm:ss SSS	Capture
١	Battery is above minimum acceptable runtime	Battery enclosures	01-01-2000 12:31:03 734	
١	Batteries are charging or resting	Battery enclosures	01-01-2000 12:09:32 637	
١	Battery condition is OK	Battery enclosures	01-01-2000 12:09:30 538	
١	UPS operation mode - Normal		01-01-2000 12:09:30 537	
١	Battery runtime calibration test inactive		01-01-2000 12:09:30 537	
١	Battery runtime calibration test completed		01-01-2000 12:09:30 537	

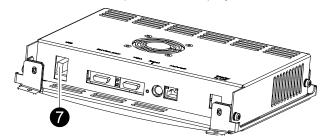
5. Select to filter the events by source, location and/or timestamp and tap OK.

	5°8 04'	
	Filter Options	peration
Symmetra		
UPS4	Limit filter by event source	08:09
Refi Active Co	Press on the event source checkbox to enable event source filter options.	?
\$	Limit filter by event location	
Severi		
١	Press on the location checkbox to enable location filter options.	
0	Limit filter by event timestamp	
١		Reset
0	Press on the timestamp checkbox to enable timestamp filter options.	ок
١		Cancel
١		•

6. Set your filter parameters and tap **OK** to initiate the filtering.

Schnei			Filter Options		peration
Symmetra	Limit filter by event	source			
UPS4	🗌 Parallel S	System			08:09
	🗌 Intelliger	nce Module	External Switchgear		
Refi	Power M	lodule	D & Relay Card		2
Active Co	Bypass S	Static Switch	Battery Monitoring Board		
	🗌 Aux. Mor	nitoring Board - B	Aux. Monitoring Board - M		
\$	Limit filter by event	location			
Severi	Enclosure	All Enclosures		÷	
١	Level	All Levels		÷	
	Position	All Positions			-
	Limit filter by event	timostama			
0		ts with timestamp	s hatwaan		
	Start date ( MM		01.01.0000		Reset
•	Start time (				
	and		10:44:00		ок _
١	End date ( MM-o	dd-www.):	01.05.0010		Cancel
(i)	End time ( h		01-25-2012		
			10:44:00		
Ľ					

7. To save the log, open the front door of the I/O cabinet and insert a USB flash drive into the USB port on the display.



**NOTE:** Do not remove the USB flash drive before a dialog box on the display indicates that it is safe to remove the USB flash drive.

**NOTE:** USB flash drives from the following manufacturers have passed our tests: Cn Memory, SanDisk, Integral, A-Data, Pqi, PNY, OCZ, Verbatim, Lexar, TwinMOS, Freecom, Toshibia, Sony, LG, and Yifang Digital. If you experience problems using your USB flash drive, please try a different USB flash drive, preferably one from the above list. 8. Tap **Save Log**. The full event log is saved as a text and an HTML file. Associated event capture files are also saved. All files are saved in a single compressed zip-file to the USB flash drive.

DElectri mmetra P. UPS4			UPS Mo System Mo	de: Normal Operation de: On 08:
<b>Refresh</b> ctive Contro	Save Log Filter A 2 1	Critical Narning nformational ilters active		?
\$ Severity	Event	Location	Date/Time MM-dd-yyyy HH:mm:ss SSS	Capture
١	Battery is above minimum acceptable runtime	Battery enclosures	01-01-2000 12:31:03 734	
١	Batteries are charging or resting	Battery enclosures	01-01-2000 12:09:32 637	
١	Battery condition is OK	Battery enclosures	01-01-2000 12:09:30 538	
١	UPS operation mode - Normal		01-01-2000 12:09:30 537	
١	Battery runtime calibration test inactive		01-01-2000 12:09:30 537	
١	Battery runtime calibration test completed		01-01-2000 12:09:30 537	-

## **Bookmark an Entry in the Event Log**

A maximum of five entries can be bookmarked in the system.

umetra P. UPS4	Event Log			
Refrest tive Contro	17 Int	arning formational		
\$ Severity	Event	Location	Date/Time MM-dd-yyyy HH:mm:ss SSS	Capture
١	Battery runtime calibration test inactive		01-01-2000 12:09:30 537	
١	Battery runtime calibration test completed		01-01-2000 12:09:30 537	
	Battery is below minimum acceptable runtime	Battery enclosures	01-01-2000 11:17:07 745	=
Δ	Batteries are discharging	Battery enclosures	01-01-2000 10:45:13 650	
١	Battery runtime calibration test running		01-01-2000 10:45:13 549	
١	UPS operation mode - Battery Test		01-01-2000 10:45:13 500	

- 1. Double tap on an event in the event log to bookmark a log entry.
- 2. Bookmarked entries are highlighted in a darker background colour.
- 3. Tap the bookmark symbol to cycle through the bookmarks.

If you try to bookmark a sixth entry in the event log, the following screen will be shown:

	Event Log				
Refrest	h Save Log Filter	8 0 Critical A 2 Warning		3(	?
tive Contro		17 Informational Y No filters active			
\$ Severity	The maximum number o reached. Press 'Remov bookmarks. Press 'Cano	e All' to delete all curr	ent dd-yyyy	Capture	
1	Battery runtime cali		-2000 :30 537		
١	Battery runtime call	Cancel	-2000 :30 537		L
Δ	Battery is below mi	Cancer	-2000 :07 745		-
Δ	Batteries are discharging	Battery enclosures	01-01-2000 10:45:13 650		
(1)	Battery runtime calibration test running		01-01-2000 10:45:13 549		
0	UPS operation mode - Battery Test		01-01-2000		

You can choose to remove all existing bookmarks by tapping **Remove All** or tapping **Cancel** to remove them one by one. Tap twice on the log entry to clear a bookmark.

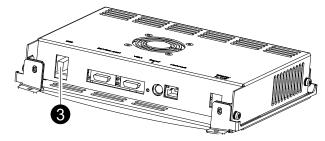
## View and Save Information about Firmware Version

**NOTE:** Tap the home button to go to the **UPS Summary** or **Parallel System Summary** screen.

1. From the home screen on the display select **UPS system > System** Information.

Schneider GElectric Symmetra PX UPS4 System Information		UPS Mode: Normal Opera System Mode: On	tion 08:09
System Status	Active in control	Main intelligence module	
	UPS serial number	4	
Logs	UPS firmware version	4.28.11	
	UPS firmware version store	at memory card 0.0.0	
Firmware Overview	Display firmware version	2.5.0.110	
	APC support phone	PAR 2.2 test	
Predictive Maintenance			
Software Licences			

- 2. Verify that the UPS firmware version and UPS firmware version stored at memory card are identical. Tap Firmware Overview.
- 3. To save the firmware version list, open the front door of the I/O cabinet and insert a USB flash drive into the USB port on the display.



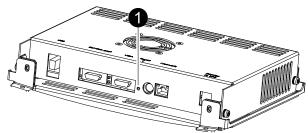
**NOTE:** Do not remove the USB flash drive before a dialog box on the display indicates that it is safe to remove the USB flash drive.

**NOTE:** USB flash drives from the following manufacturers have passed our tests: Cn Memory, SanDisk, Integral, A-Data, Pqi, PNY, OCZ, Verbatim, Lexar, TwinMOS, Freecom, Toshibia, Sony, LG, and Yifang Digital. If you experience problems using your USB flash drive, please try a different USB flash drive, preferably one from the above list. 4. Tap **Save FW\* Versions List** to save the firmware version list as an HTML file. Tap the button in the location column to open the **Module Status Details** screen for the particular module.

metra PX UPS4	Firmware Overview				
Save FW <sup>+</sup> Versio	ns List			6	
Module	Location	Stored Firmware Version	Installed Firmware Version	Firmware Install Status	
Main Intelligence Module (MIM)	Input/Output/Bypass Enclosure, Level 3, Position E		4.28.11.466	No update active	
Redundant Intelligence Module (RIM)	Input/Output/Bypass Enclosure, Level 3, Position D		4.28.11.466	No update active	
ID and Relay Card	Input/Output/Bypass Enclosure, Level 3, Position H		4.28.0.33	No update active	
Touch Screen Display	Input/Output/Bypass Enclosure, Level 2	2.5.0.110	2.5.0.110	No update active	
Bypass Static Switch	Input/Output/Bypass Enclosure, Level 6		4.27.0.25	No update active	
ИМС	Input/Output/Bypass Enclosure, Level 4, Position B		v6.1.6.e/v6.0.8.c	No update active	- 🕅

# **Reboot the Display**

1. Open the front door of the I/O cabinet and press the reboot button at the bottom of the display to reboot the display.



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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.

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