

# Operation

**MGE™ Galaxy™ 300 and  
MGE™ Galaxy™ 300i**

**10-40 kVA 380/400/415 V**



**APC™**

by Schneider Electric

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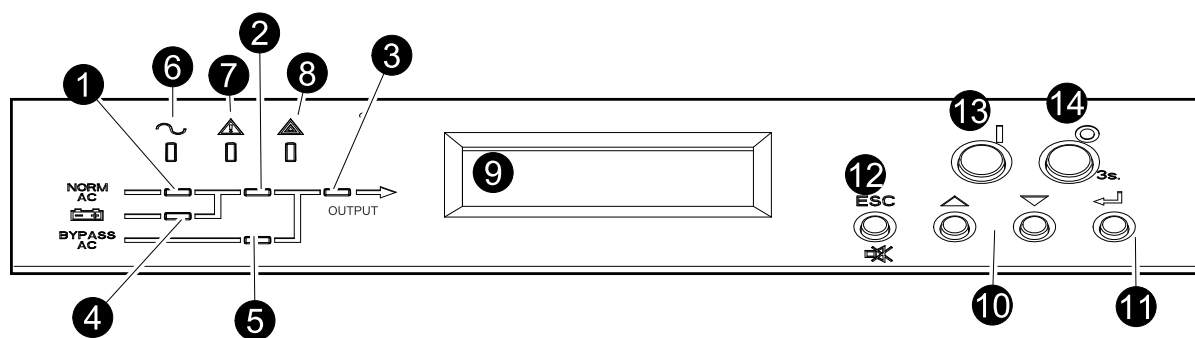
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# Overview

## Display Interface

The eight LEDs to the left of the display screen (1-8) indicate the operational status of the UPS. The four navigation keys at the bottom right of the interface (10-12) are used to select and open menu items, access information, and change UPS parameters. The two buttons at the upper right of the interface (13-14) are used to turn in and out of normal operation.



## LEDs



**Note:** The flow diagram (1-5) shows the electrical power flow and gives the status of main functions. The LEDs are:

- **green** – when the function is active
- **red** – when a fault has occurred in the function
- **OFF** – when the function is inactive

\* indicates double-conversion mode.

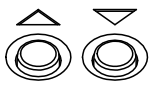




1	PFC	Green: Power Factor Correction (PFC) works on normal AC input. Red: An AC normal fault, DC BUS fault, or major PFC fault has occurred. OFF: The PFC is not working.
2	INVERTER	Green: The inverter is operating.* Red: A major fault in the inverter or a fault in the static switch has occurred. OFF: The inverter is OFF.*
3	LOAD	Green: The inverter supports the load* or the load is supported by the AC bypass source. Red: The inverter is not connected to the load* and the load is not supported by the AC bypass source or QOP is open. OFF: The maintenance bypass breaker Q3BP is ON (closed).
4	BATTERY	Green: The UPS is in battery operation. Red: A major fault in the battery or the charger has occurred, or the battery circuit breaker is OFF. OFF: The batteries are charging or ready to supply the load if the AC power fails or battery present configuration is absent.

5	BYPASS	<p>Green: The load is supported by the AC bypass source.</p> <p>Red: A major fault in the bypass has occurred, QM2 is OFF in normal mode, QM2 is ON in frequency converter mode, or a transfer to bypass is unavailable.</p> <p>OFF: The load is not supported by the AC bypass source.</p>
6	LOAD PROTECTED	<p>Green: The UPS is running in normal operation mode and the load is protected.</p> <p>OFF: The load is not protected by UPS or a major fault has occurred.</p>
7	ENVIRONMENT AND MINOR FAULT	<p>Orange: A minor fault has occurred or redundancy is lost in parallel system.</p> <p>OFF: No minor fault is present.</p>
8	LOAD UNPROTECTED	<p>Red: The load is unprotected (and may be supplied by the AC bypass source or another parallel UPS). A service call is required.</p> <p>OFF: No major faults are present.</p>

## Display Screen, Navigation Keys, and the ON/OFF Buttons

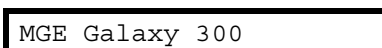


**Note:** Each navigation key corresponds to a function that is presented on the display. The function of each navigation key changes depending on the menu displayed on the screen. The below table describes the most common functions of the display, each navigation key, and the **INVERTER ON/OFF** buttons.

9	DISPLAY SCREEN		Displays alarms, status data, instructional help, and configuration items.
10	UP/DOWN KEYS		Scroll through and select menu items.
11	ENTER KEY		Opens menu items and confirms changes to UPS parameters. A push on the <b>ENTER</b> key is interpreted by the UPS as a YES or a launch of command.
12	ESC KEY		Returns to the previous screen displayed or is interpreted as a NO.
13	INVERTER ON		Transfers to normal operation.
14	INVERTER OFF		Transfers to bypass operation when pressed for three seconds.

## Default Screen

The Default screen appears after UPS initialization and UPS settings. The Default screen is the main entrance to the user functions of the display interface.



The **ENTER** key and the **UP/DOWN** navigation keys take you from the Default screen to the menu and sub menu screens where it is possible to command, configure, and monitor the UPS. See the “Menu tree” under “*UPS Breakers*“.

## Screen Saver

When the display has been inactive for 30 minutes, the screen saver turns **ON** and the display flashes every five seconds between the two screens below. The backlight turns **OFF** three minutes after the last activation of the display by means of the four navigation keys.

MGE Galaxy 300

< 5 seconds >

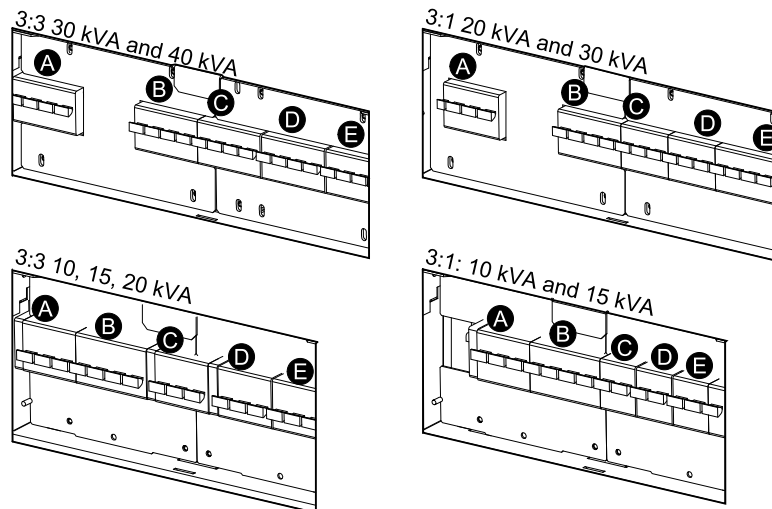
Press the ESC key to continue.....

## UPS Breakers



**Note:** The breakers are located behind the front door and accessed by giving the front door a little push on its right side. See the UPS installation manual for further information.

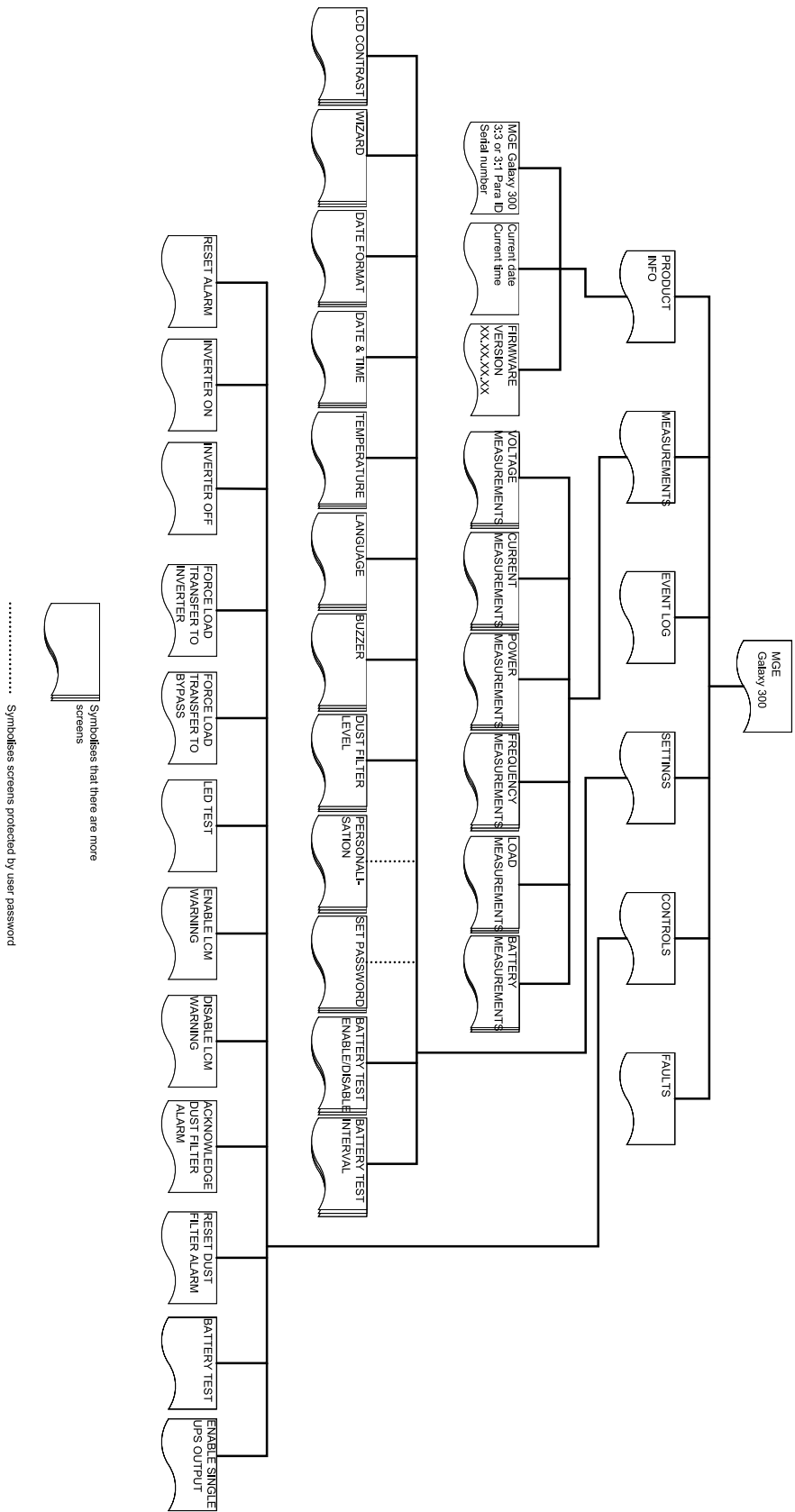
Breakers		
A	QB	UPS battery breaker
B	QM1	Mains input breaker
C	QM2	Static bypass breaker
D	Q3BP	Maintenance bypass breaker
E	QOP	Output breaker
	QFB	Battery cabinet breaker (not illustrated below)



## Menu Tree



**Note:** The menu tree provides a quick overview of the functions and views you may access. The UPS display screen will only display two lines at a time although three lines occur below.





# Operation

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**WARNING: Only qualified personnel following the required training course must undertake modifications to UPS parameters.**



**WARNING: Connection of power and control cables must be carried out and checked by qualified personnel before carrying out any operation procedures.**



**WARNING: Before carrying out any operation procedures make sure that the mains input breaker (QM1) and the static bypass breaker (QM2) are in the ON (closed) position.**



**WARNING: To operate the UPS, the front door of the UPS must be opened by pressing a hand against the white label on the right side of the door to trigger the door mechanism. See the UPS installation manual shipped with the UPS.**

## Operation Modes

### Normal Operation

The UPS provides power to the connected load from mains power. The UPS converts mains power to conditioned power for the connected load while recharging the batteries.

This mode is accessed via the display.

### Battery Operation

The UPS transfers to battery operation if the supply of mains power fails or is outside the pre-defined limits. The UPS provides power to the connected load from its internal or (if available) additional external batteries for a finite period. In standby mode, the UPS can make a cold start via the **INVERTER ON** button or via the display.

### Static Bypass Operation

Static bypass operation keeps the load supplied with power from the AC bypass source. If the UPS experiences an incident which might affect the load, the load will be transferred from normal operation to the bypass source with no interruption in power to the critical load.

### Maintenance Bypass Operation

Maintenance bypass operation keeps the load supplied with mains power during maintenance, tests, or repair of the UPS power sections. In maintenance bypass operation, mains power is sent directly to the connected load bypassing **all** internal UPS functions and filters. Battery back-up is not available in maintenance bypass operation as the UPS configuration is completely isolated.

## Frequency Converter Operation

In frequency converter operation the output frequency will be fixed to 50 Hz or 60 Hz depending on the output voltage setting which is fixed to 220 VAC, 230 VAC, or 240 VAC for 50 Hz and 220 VAC or 230 VAC for 60 Hz. In frequency converter mode, the UPS cannot transfer to bypass operation and maintenance operation. The static bypass breaker (**QM2**) and the maintenance bypass breaker (**Q3BP**) are in the **OFF (opened)** position and should both be locked by a padlock (see the installation manual for more information).

This mode is accessed via the display.

## Parallel Operation

Parallel operation supports redundancy (1+1). The maximum load rate that can be supported by a parallel configuration is the same as for a single configuration. However, if one UPS unit experiences a major fault, the other UPS unit supplies the load without any load drop. This mode must only be configured by APC by Schneider Electric certified Service Partners to ensure proper operation of the UPS unit.



**Note:** When communication between the two UPS units is lost, the two UPS units will stay in current status and cannot transfer between normal operation and static bypass operation by either manual operation or external conditions such as impacting heavy load. Do not try to turn OFF the inverters, for they cannot be turned ON again for safety reasons. In this case, an APC by Schneider Electric certified Service Partner is needed for further operation.

This mode is accessed via the display.

## Single UPS Output Operation

Entering this operation requires that the parallel cable is disconnected or that the other UPS is powered OFF, and the UPS will leave this operation automatically when the parallel cable is connected and the other UPS is powered ON without a parallel init error. This operation is only a temporary method to support the load, and it is not allowed to enable single UPS output operation on two UPS units simultaneously. Contact an APC by Schneider Electric certified Service Partner to re-build the parallel system. Only one parallel-configured UPS is connected to the load. It works like a single system except for the fact that several alarms are displayed and the maximum load rate that can be supported is the same as for a single configuration.

# Single System

## Start-up of the UPS System with the Wizard Enabled



**Note:** The default value of the wizard is **ENABLE** which is a prerequisite for carrying out this procedure. See “*Setting the Wizard*“.



**Note:** Upon initial start-up, the UPS will automatically guide you via the wizard to select different settings: language, current voltage, current frequency, and mode. If a wizard prompt is ignored the default setting of the prompt will be enabled. You must complete the wizard one time before you can disable it for subsequent start-up sessions of the UPS system.



**Note:** You must have your password ready as you will be asked to enter it during this procedure. If you are in doubt about how to enter or set your password, see “*Entering the Password*“and “*Setting the Password*“.



**Note:** When a settings value has been entered and confirmed by the prompt **Done!**, the wizard automatically moves to the next display prompt after three seconds.

1. Power on the UPS system by turning the mains input breaker (**QM1**) to the **ON (closed)** position.

System initialization..



**Note:** If the prompt **System init error! Error code: 1-x** appears on the display screen, see “Error codes for UPS system initialization” under “*Status and Alarm Messages*“.

2. When the **Change language? (Y=Enter, N=Esc)** prompt appears on the display screen, do **one** of the following:

Change language?  
(Y=Enter, N=Esc)

- A. Press **ENTER** to view the list of languages, select one of the 18 languages by using the **UP/ DOWN** navigation keys and press **ENTER** again to confirm.

ENGLISH

Done!

- B. Press **ESC** to move on to **Change voltage of 2XXV? (Y=Enter, N=Esc)**.



**Note:** If the output breaker (**QOP**) is **ON (closed)** at this point, you must **Close QM1 to continue setting!** followed by **ENTER** , and **Open QOP to continue setting!** followed by **ENTER**.

Close QM1  
to continue setting!

Open QOP  
to continue setting!



**Note:** If the output breaker (**QOP**) is **ON (closed)** the menu freezes and is unable to continue.

3. When the **Change voltage of 2XXV?** (Y=Enter, N=Esc) prompt appears on the display screen, do **one** of the following:

Change voltage of 2XXV? (Y=Enter, N=Esc)

- A. Press **ENTER** to view the list of voltages, select 220 V, 230 V, or 240 V by using the **UP/DOWN** navigation keys and press **ENTER** again to confirm.

2xxV

Done!

- B. Press **ESC** to move on to **Change freq. of xxHz?** (Y=Enter, N=Esc).

4. When the **Change freq. of XXHz?** (Y=Enter, N=Esc) prompt appears on the display screen, do **one** of the following:

Change freq. of XXHz? (Y=Enter, N=Esc)

- A. Press **ENTER** to view the list of frequencies, select 50 Hz or 60 Hz by using the **UP/DOWN** navigation keys and press **ENTER** again to confirm.

50Hz

Done!

- B. Press **ESC** to move on to **Change normal/freq. converter/parallel mode?** (Y=Enter, N=Esc).



**Note:** The UPS system does not support a combination of 240 V and 60 Hz. If such a combination has been chosen, you will be asked again to **Change voltage of 2XXV** (Y=Enter, N=Esc) and a new voltage must be entered.

240V/60Hz output is not supported!

5. When the **Change xxxx mode?** (Y=Enter, N=Esc) prompt appears on the display screen, do **one** of the following:

Change xxxx mode? (Y=Enter, N=Esc)

- A. Press **ENTER** to view the list of operation modes, select normal mode, frequency converter mode, or parallel mode by using the **UP/ DOWN** navigation keys and press **ENTER** again.

NORMAL MODE

Done!

- B. Press **ESC** to move on to **Save new settings?**

6. When the **Save new settings?** prompt appears on the display screen, press **ENTER** for **Saving Settings.....** Wait for the UPS to confirm the new settings by the prompt **Setting success!**

Save new settings?

Setting success!



**Note:** If the **Setting failed!** is displayed, the UPS will ask you to **Start with previous setting values?** Press **ESC** to select new settings or **ENTER** to move to the next step without saving the new settings.

7. When the **Disable wizard?** (**Y=Enter**, **N=Esc**) prompt appears on the display screen, do **one** of the following:

Disable wizard?  
(Y=Enter, N=Esc)

- A. Press **ENTER** to disable the wizard where after the screen will return to the Default screen three seconds after having confirmed with the prompt **Done!**.

Done!

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**Note:** We strongly recommend this (A) choice to allow for the use of the automatic start function for subsequent startups.

- B. Press **ESC** and the display screen returns to the Default screen without disabling the wizard.
8. Turn the static bypass breaker (**QM2**) to the **ON (closed)** position.
9. Turn the output breaker (**QOP**) to the **ON (closed)** position.
10. Do **one** of the following depending on your configuration:
- A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.
- B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.
11. The UPS starts up in static bypass operation. Check the LEDs to see if the UPS is in static bypass operation:
- PFC LED: During DC bus charging the LED flashes where after it stays green
  - LOAD LED: green (if the output breaker (**QOP**) is turned **ON** - otherwise the LED is red)
  - BYPASS LED: green
  - LOAD UNPROTECTED LED: red
  - Other LEDs: **OFF**

## Initial Start-up of the UPS System with the Wizard Disabled

1. Power on the UPS system by turning the mains input breaker (**QM1**) to the **ON (closed)** position.
2. Turn the static bypass breaker (**QM2**) to the **ON (closed)** position.
3. Turn the output breaker (**QOP**) to the **ON (closed)** position.
4. Do **one** of the following depending on your configuration:

- A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.
5. The UPS starts up in static bypass operation. Check the LEDs to see if the UPS is in static bypass operation:
- PFC LED: during DC bus charging the LED flashes where after it stays green
  - LOAD LED: green (if the output breaker (**QOP**) is turned **ON** - otherwise the LED is red)
  - BYPASS LED: green
  - LOAD UNPROTECTED LED: red
  - Other LEDs: **OFF**

## Turn into Normal Operation from Static Bypass Operation



**Caution:** Never attempt to switch back the UPS into normal operation till you have verified that there are no internal UPS faults.



**Caution:** Check the LEDs to see if the UPS is running in static bypass operation:

- PFC LED: during DC bus charging the LED flashes where after it stays green
- LOAD LED: green (if the output breaker (**QOP**) is turned **ON** - otherwise the LED is red)
- BYPASS LED: green
- LOAD UNPROTECTED LED: red
- Other LEDs: **OFF**

Before turning into normal operation you must make sure that the DC bus charging has been completed; when the DC bus has finished charging, the PFC LED stops flashing and stays green.



**Note:** Turning out of bypass can be done either via the **INVERTER ON** button or via the display.

### Via the Display

1. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.
2. Confirm that the mains input breaker (**QM1**) is at the **ON (closed)** position.
3. Confirm that the output breaker (**QOP**) is at the **ON (closed)** position.
4. Confirm that the maintenance bypass breaker (**Q3BP**) is at the **OFF (opened)** position.
5. From the Default screen, press **ENTER**.
6. Go to **CONTROLS** by using the **UP/DOWN** navigation keys and press **ENTER**.

## CONTROLS

7. Do **one** of the following depending on the preferred level of security regarding the present bypass condition:

- A. The UPS system will only turn into normal operation if the static bypass condition is ready: Go to **INVERTER ON** by using the **UP/DOWN** navigation keys and press **ENTER**.

INVERTER ON

- B. The UPS will be forced into normal operation regardless of the bypass condition: Go to **FORCED LOAD TRANSFER TO INVERTER** by using the **UP/DOWN** navigation keys and press **ENTER**.

FORCED LOAD  
TRANSFER TO INVERTER



**Note:** If the bypass voltage is within the range of the inverter output voltage the **Processing.....** prompt appears followed by **Command is accepted!**.

PROCESSING.....

Command is accepted!



**Note:** If the prompts **Command is not allowed!** or **Command time has run out!** appear on the display screen:

- A. Check the breaker status.
- B. Make sure that the DC bus is available (the PFC LED is green when the DC bus is available).
- C. Check for inverter faults (the INVERTER LED is red if a fault has occurred).

8. Check the LEDs to see if the UPS is in normal operation.

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Other LEDs: **OFF**

### Via the INVERTER ON Button

1. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.
2. Confirm that the mains input breaker (**QM1**) is at the **ON (closed)** position.
3. Confirm that the output breaker (**QOP**) is at the **ON (closed)** position.
4. Confirm that the maintenance bypass breaker (**Q3BP**) is at the **OFF (opened)** position.
5. Push the **INVERTER ON** button.



**Note:** If the bypass voltage is within the range of the inverter output voltage the **Processing.....** prompt appears followed by **Command is accepted!**.

Processing.....

Command is accepted!



**Caution:** If the bypass voltage is outside the range of the inverter output voltage, the **Confirm transfer with break?** prompt appears. If you press **ENTER** to confirm, a load drop between 20-30 ms will occur. If the load is too sensitive for this occurrence, press **ESC** to return to previous screens and wait for the bypass voltage and inverter output voltage to synchronize. Then try again.

Confirm  
transfer with break?



**Note:** If the prompts **Command is not allowed!** or **Command time has run out!** appear on the display screen:

- A. Check the breaker status.
- B. Make sure that the DC bus is available (the PFC LED is green when the DC bus is available).
- C. Check for inverter faults (the INVERTER LED is red if a fault has occurred).

6. Check the LEDs to see if the UPS is in normal operation.

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Other LEDs: **OFF**

## Turn into Static Bypass Operation from Normal Operation



**Caution:** Never attempt to switch the UPS into static bypass operation till you have verified that there are no bypass faults.



**Caution:** Check the LEDs to see if the UPS is in normal operation.

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Other LEDs: **OFF**



**Caution:** In static bypass operation, the load is not protected by the UPS and the output power is not conditioned.





**Note:** Turning into static bypass can be done either via the **INVERTER OFF** button or via the display.

## Via the Display

1. From the Default screen, press **ENTER**.
2. Go to **CONTROLS** by using the **UP/DOWN** navigation keys and press **ENTER**.

CONTROLS

3. Do **one** of the following depending on the preferred level of security regarding the present bypass condition:
  - A. The UPS system will only turn into static bypass operation if the normal operation condition is ready: Go to **INVERTER OFF** by using the **UP/DOWN** navigation keys and press **ENTER**.

INVERTER OFF



**Note:** We strongly recommend this (A) choice to prevent a load drop.

- B. The UPS will be forced into static bypass operation regardless of the normal operation condition: Go to **FORCED LOAD TRANSFER TO BYPASS** by using the **UP/DOWN** navigation keys and press **ENTER**.

FORCED LOAD  
TRANSFER TO BYPASS

4. When the **Risk of load drop, continue or not?** prompt appears, press **ENTER** to continue (or **ESC** to return to previous screens).

Risk of load drop,  
continue or not?

Processing.....

Command is accepted!

5. Check the LEDs to see if the UPS is in static bypass operation:
  - **LOAD LED:** green (if the output breaker (**QOP**) is turned **ON (closed)** - otherwise the LED is red)
  - **BYPASS LED:** green
  - **LOAD UNPROTECTED:** red

## Via the INVERTER OFF Button

1. Push the **INVERTER OFF** button



**Note:** If the bypass voltage is within range of the inverter output voltage the **Processing.....** prompt appears followed by **Command is accepted!**

Processing.....

Command is accepted!



**Caution:** If the bypass voltage is outside the range of the inverter output voltage the **Confirm transfer with break?** prompt appears. If you press **ENTER** to confirm, a load drop between 20-30 ms will occur. If the load is too sensitive for this occurrence, press **ESC** to return to previous screens and wait for the bypass voltage and inverter output voltage to synchronize. Then try again.

Confirm  
transfer with break?

2. Check the LEDs to see if the UPS is in static bypass operation:
  - LOAD LED: green (if the output breaker (**QOP**) is turned **ON (closed)** - otherwise the LED is red)
  - BYPASS LED: green
  - LOAD UNPROTECTED LED: red

## Turn into Frequency Converter Operation from Normal Operation



**WARNING:** In frequency converter mode the UPS cannot run in static bypass or maintenance bypass operation. Before turning the UPS into this mode, you must contact an APC by Schneider Electric certified Service partner to make sure that the static bypass breaker (**QM2**) and the maintenance bypass breaker (**Q3BP**) are in the **OFF (opened)** position (we strongly recommend to lock these with a padlock available from Schneider Electric), and that the cables are disconnected according to the instructions in the installation manual.



**WARNING:** For frequency converter mode we strongly recommend to lock the static bypass breaker (**QM2**) and the maintenance bypass breaker (**Q3BP**) in the **OFF (opened)** position with a padlock available from Schneider Electric.



**Note:** You must have your password ready as you will be asked to enter it during this procedure. If you are in doubt about how to enter or set your password, see *“Entering the Password”* and *“Setting the Password”*.

1. Check the LEDs to see if the UPS is in normal operation:
  - PFC LED: green
  - INVERTER LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: green
  - Other LEDs: **OFF**
2. Turn the static bypass breaker (**QM2**) to the **OFF (opened)** position.
3. Turn the output breaker (**QOP**) to the **OFF (opened)** position.

4. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.

SETTINGS

5. Go to **PERSONALIZATION** by using the **UP/DOWN** navigation keys and press **ENTER**.

PERSONALIZATION

6. Go to **UPS OPERATION MODE** by using the **UP/DOWN** navigation keys and press **ENTER**.

UPS  
OPERATION MODE

7. Go to **Frequency converter mode** by using the **UP/DOWN** navigation keys and press **ENTER**.

Frequency  
converter mode

8. Press **ESC** to return to **UPS OPERATION MODE**.

UPS  
OPERATION MODE

9. Press **ESC** again to **Stop all converters and save new settings?**

Stop all converters  
and save new settings?

10. Press **ENTER** to confirm.

11. The UPS is now **Saving settings**.

Saving settings.....



**Note:** The display will now show **Setting success!** or **Setting failed!**

12. Wait for the converters to restart and the PFC to finish charging.



**Caution:** Make sure that the static bypass breaker (**QM2**) and the maintenance bypass breaker (**Q3BP**) is in the **OFF (opened)** position. Otherwise, the transfer is forbidden.

13. When the PFC LED changes to green, push the **INVERTER ON** button.

14. Turn the output breaker (**QOP**) to the **ON (closed)** position.

15. Check the LEDs to see if the UPS is in frequency converter mode:

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- BYPASS LED: OFF
- LOAD PROTECTED LED: green

## Turn into Normal Operation from Frequency Converter Operation



**Note:** You must have your password ready as you will be asked to enter it during this procedure. If you are in doubt about how to enter or change your password, see “*Setting the Password*”.

1. Check the LEDs to see if the UPS is in frequency converter mode:

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- BYPASS LED: OFF
- LOAD PROTECTED LED: green



**Note:** Make sure that the static bypass breaker (**QM2**) and the output breaker (**QOP**) is in the **OFF (opened)** position. Otherwise, the transfer will fail.

2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.

```
SETTINGS
```

3. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.

```
PERSONALIZATION
```

4. Go to **NORMAL MODE** by using the **UP/DOWN** navigation keys and press **ENTER**.

```
NORMAL MODE
```

5. Press **ESC** to return to **UPS OPERATION MODE**.

```
UPS  
OPERATION MODE
```

6. Press **ESC** again to **Stop all converters and save new settings?**

```
Stop all converters  
and save new settings?
```

7. Press **ENTER** to confirm.

8. The UPS is now **Saving settings.....**

```
Saving settings.....
```



**Note:** The display will now show **Setting success!** or **Setting failed!**.

9. Wait for the converters to restart and the PFC to finish charging.
10. Turn the output breaker (**QOP**) to the **ON (closed)** position.
11. Turn the static bypass breaker (**QM2**) to the **ON (closed)** position.
12. Push the **INVERTER ON** button.
13. Check the LEDs to see if the UPS is in normal operation:

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- BYPASS LED: green
- LOAD PROTECTED LED: green

## Turn into Maintenance Bypass Operation from Normal Operation

1. Confirm that the static bypass breaker (**QM2**) is at the **ON (closed)** position.
2. Turn into static bypass operation via the display or the **INVERTER OFF** button. See “*Turn into Static Bypass Operation from Normal Operation*”.



**Note:** Now, the load is not protected by the UPS.



**Note:** Make sure that the load is supplied by AC bypass source.

3. Turn the maintenance bypass breaker (**Q3BP**) to the **ON (closed)** position.
4. Turn the mains input breaker (**QM1**) to the **OFF (opened)** position and then turn the static bypass breaker (**QM2**) to the **OFF (opened)** position.
5. Turn the output breaker (**QOP**) to the **OFF (opened)** position. Now the load is not supported by the UPS.
6. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **OFF (opened)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **OFF (opened)** position.

## Turn into Normal Operation from Maintenance Bypass Operation



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

1. Turn the output breaker (**QOP**) and the static bypass breaker (**QM2**) to the **ON (closed)** position. Now the load is supported by the UPS.
2. Turn the maintenance bypass breaker (**Q3BP**) to the **OFF (opened)** position.
3. Check the LEDs to see if the UPS is in bypass operation:
  - BYPASS LED: green
  - LOAD LED: green
4. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.

- B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.

5. Turn the mains input breaker (**QM1**) to the **ON (closed)** position.



**Note:** Now, the inverter is **OFF** and the DC bus will start charging. Wait for the DC bus to finish charging before you continue. If the **UPS AUTOMATIC START** function has been enabled under **PERSONALIZATION**, the inverter will start up automatically. If not, the inverter is **OFF** and must be turned **ON** via the **INVERTER ON** button or the display. See *“Turn into Normal Operation from Static Bypass Operation”*.

6. Make sure that the **INVERTER** is **ON**. Check the LEDs to see if the UPS is in normal operation:

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Other LEDs: **OFF**



**Note:** The load is now protected by the UPS.

## Perform a Total Power Off



**Note:** To carry out this procedure the load supported by the UPS units must be turned **OFF**.

1. Check that the load which is supported by the UPS units is turned **OFF**.
2. Turn into static bypass operation via the display or via the **INVERTER OFF** button. See *“Turn into Static Bypass Operation from Normal Operation”*.
3. Turn the output breaker (**QOP**) and the static bypass breaker (**QM2**) into **OFF (opened)** position on both UPS units.
4. Turn the mains input breaker (**QM1**) into **OFF (opened)** position.
5. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) into **OFF (opened)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) into **OFF (opened)** position.

## Turn into Normal Operation from Total Power Off

1. Power on the UPS system by turning the mains input breaker (**QM1**) to the **ON (closed)** position.
2. Turn the static bypass breaker (**QM2**) to the **ON (closed)** position.
3. Turn the output breaker (**QOP**) to the **ON (closed)** position.
4. Do **one** of the following depending on your configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) to the **ON (closed)** position.

- B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) to the **ON (closed)** position.
5. The UPS starts up in static bypass operation. Check the LEDs to see if the UPS is in static bypass operation:
- PFC LED: during DC bus charging the LED flashes where after it stays green
  - LOAD LED: green (if the output breaker (**QOP**) is turned **ON** - otherwise the LED is red)
  - BYPASS LED: green
  - LOAD UNPROTECTED LED: red
  - Other LEDs: **OFF**

# Parallel System



**Note:** To facilitate the parallel operation description, one UPS is named UPS 1 and the other UPS is named UPS 2, but there is no difference between these two units.

## Start-up of Parallel System



**Note:** Before starting up the parallel system, please ensure that the parallel cable is well connected between two UPS units.



**Note:** After system initialization and wizard (if enabled), if the prompt **“Parallel UPS lost, enable single UPS output?”** appears on the display screen, please check the parallel cable connection. If the prompt does not disappear after that, press **ENTER** to confirm, and **“Success!”** or **“Failed”** will inform you whether single UPS output for temporary power supply is enabled successfully or not, or disable single UPS output by pressing **ESC**. Contact an APC by Schneider Electric certified Service Partner to re-build the parallel system.



**WARNING: Single UPS output operation is only a temporary method to support your load, and no redundancy is provided in this case.**

1. Power ON the system by turning the mains input breaker (QM1) into ON (closed) position on both UPS units.



**Note:** If the wizard is enabled, please refer to step 2-7 of *“Start-up of the UPS System with the Wizard Enabled”* to complete the wizard on both UPS units. It is strongly recommended to disable the wizard.



**Note:** If the prompt **“System init error! Error code: 1-X”** appears on the display screen, see the error codes for UPS system initialization under *“Status and Alarm Messages”*.



**WARNING: Do not enable single UPS output on both UPS units simultaneously as this will damage the product.**

2. Turn the static bypass breaker (QM2) into **ON (closed)** position on both UPS units.
3. Turn the output breaker (QOP) into **ON (closed)** position on both UPS units.
4. Do **one** of the following depending on your configuration on both UPS units:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (QB) into ON (closed) position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (QB) is turned OFF (opened) and then turn the battery cabinet breaker (QFB) into ON (closed) position.
5. The two UPS units start up in static bypass operation. Check the LEDs to see if the UPS units are in static bypass operation:
  - PFC LED: during DC bus charging the LED flashes green and then stays green
  - LOAD LED: green (if the output breaker (QOP) is turned ON - otherwise it is red)
  - BYPASS LED: green



- LOAD UNPROTECTED LED: red
- Other LEDs: **OFF**

## Turn into Normal Operation from Static Bypass Operation



**Note:** If UPS 1 has been turned into normal operation, but UPS 2 stays in static bypass operation, there will be no output from UPS 2 static bypass, and therefore the bypass LED of UPS 2 will be turned OFF and the load LED of UPS 2 will be red.



**Note:** Please refer to “*Turn into Normal Operation from Static Bypass Operation*” for details on how to turn one UPS from static bypass operation into normal operation.

1. Turn UPS 1 into normal operation from static bypass operation. Verify that the LEDs of UPS 1 now running in normal operation are:
  - PFC LED: green
  - INVERTER LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: green
  - Environment and minor fault LED: orange
  - Other LEDs: **OFF**

Simultaneously, UPS 2 is locked to load **OFF** from static bypass operation. Verify that the LEDs of UPS 2 are:

- PFC LED: green
- LOAD LED: red
- BYPASS LED: OFF
- LOAD PROTECTED LED: red
- Environment and minor fault LED: orange
- Other LEDs: **OFF**

2. Turn UPS 2 into normal operation from static bypass operation.
3. Check the LEDs to see if the two UPS units are in normal operation, where the LEDs are:
  - PFC LED: green
  - INVERTER LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: green
  - Other LEDs: **OFF**

## Turn into Static Bypass Operation from Normal Operation



**Note:** If one UPS is still in normal operation mode, the other UPS will not be allowed to output in static bypass even if it has been turned into static bypass operation.



**Note:** Please refer to “*Turn into Static Bypass Operation from Normal Operation*” for details on how to turn one UPS from normal operation into static bypass operation.

1. Turn UPS 1 into static bypass operation from normal operation. UPS 1 is now locked to load **OFF** from normal operation. Verify that the LEDs of UPS 1 are:
  - PFC LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: red
  - Other LEDs: **OFF**

Simultaneously, UPS 2 is still running in normal operation. Verify that the LEDs of UPS 2 are:

- PFC LED: green
- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Environment and minor fault LED: orange
- Other LEDs: **OFF**



**Note:** In this case, the UPS 1 static switch cannot be closed in static bypass operation, and there is no voltage output on static bypass of UPS 1.

2. Turn UPS 2 into static bypass operation from normal operation.
3. Check the LEDs to see if the two UPS units are in static bypass operation:
  - LOAD LED: green (if the output breaker (**QOP**) is turned **ON (closed)** - otherwise the LED is red)
  - BYPASS LED: green
  - LOAD UNPROTECTED LED: red

## Turn into Maintenance Bypass Operation from Normal Operation



**WARNING:** Do not turn the maintenance bypass breaker (**Q3BP**) into **ON (closed)** position when the load is supported by the inverter of the other UPS.

1. Confirm that the static bypass breaker (**QM2**) is in **ON (closed)** position on both UPS units.
2. Turn UPS 1 into static bypass operation from normal operation. UPS 1 is now locked to load **OFF**. The load is supported by UPS 2 which is still running in normal operation.



**Note:** Please refer to “*Turn into Static Bypass Operation from Normal Operation*” for details on the operation.



**Note:** Q3BP must not be closed.

3. Turn the UPS 1 output breaker (**QOP**) into **OFF (opened)** position.
4. Turn UPS 2 into static bypass operation from normal operation.



**Note:** The load is supported by the static bypass of UPS 2.

5. Turn the UPS 2 maintenance bypass breaker (**Q3BP**) into **ON (closed)** position.



**Note:** The load is supported by the static bypass and maintenance bypass of UPS 2.

6. Turn the UPS 2 output breaker (**QOP**) into **OFF (opened)** position.



**Note:** UPS 2 is completely isolated from the load, and the load is supported by the maintenance bypass of UPS 2.

7. Turn the UPS 1 maintenance bypass breaker (**Q3BP**) into **ON (closed)** position.



**Note:** Now UPS 1 is also completely isolated from the load, and the load is supported by the maintenance bypass of the two UPS units.

8. Turn the mains input breaker (**QM1**) and the static bypass breaker (**QM2**) into **OFF (opened)** position on both UPS units.
9. Do **one** of the following depending on your configuration on both UPS units:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) into **OFF (opened)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) into **OFF (opened)** position.

## Turn into Normal Operation from Maintenance Bypass Operation

1. Ensure that the parallel cable is connected between the two parallel UPS units.
2. Turn the output breaker (**QOP**) into **ON (closed)** position on UPS 1.
3. Turn the maintenance bypass breaker (**Q3BP**) of UPS 2 into **OFF (opened)** position.
4. Turn the UPS 1 mains input breaker (**QMI**) and the static bypass breaker (**QM2**) into **ON (closed)** position.
5. When the prompt “**Parallel UPS lost, enable single UPS output?**” is displayed on UPS 1 about 20 seconds later, press **ENTER** to enable single UPS output.



**Note:** Now the load is supported by the static bypass and maintenance bypass of UPS 1.

6. Turn the UPS 1 maintenance bypass breaker (**Q3BP**) into **OFF (opened)** position.
7. Turn UPS 1 from static bypass operation into normal operation.



**Note:** Please refer to “*Turn into Static Bypass Operation from Normal Operation*” for details on the operation

8. Turn the UPS 2 mains input breaker (**QMI**) and the static bypass breaker (**QM2**) into **ON (closed)** position.



**Note:** UPS 1 will exit single UPS output operation automatically and keep the current status when UPS 2 is powered ON.



**Note:** If the alarm “**Parallel unit error**” is displayed on both UPS units, please perform a total power OFF of UPS 2 and contact an APC by Schneider Electric certified Service Partner.

9. Turn the UPS 2 output breaker (**QOP**) into **ON (closed)** position.



**Note:** There is no voltage output in UPS 2 static bypass even if **QM 2** and **QOP** is turned into **ON (closed)** position as UPS 1 has already been turned into normal operation.

10. Turn UPS 2 from static bypass operation into normal operation.
11. Do **one** of the following depending on your configuration on both UPS units:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery (**QB**) into **ON (closed)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) into **ON (closed)** position.
12. Make sure that the **INVERTER** is **ON**. Check the LEDs to see if the UPS units are in normal operation:
  - PFC LED: green
  - INVERTER LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: green
  - Other LEDs: **OFF**

## Perform a Total Power Off



**Note:** To carry out this procedure the load supported by the UPS units must be turned **OFF**.

1. Check that the load which is supported by the UPS units is turned **OFF**.
2. Turn into static bypass operation via the display or via the **INVERTER OFF** button on both UPS units. See “*Turn into Static Bypass Operation from Normal Operation*“.
3. Turn the output breaker (**QOP**) and the static bypass breaker (**QM2**) into **OFF (opened)** position on both UPS units.
4. Turn the mains input breaker (**QM1**) into **OFF (opened)** position on both UPS units.
5. Do **one** of the following depending on your configuration on both UPS units:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) into **OFF (opened)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) into **OFF (opened)** position.

## Isolate one UPS in a Parallel System



**Note:** The UPS which needs to be isolated is named UPS 1, and the other UPS is named UPS 2 in the following procedure.

1. Check the current system load ratio under **MEASUREMENT->LOAD MEASUREMENT** using the display and confirm that UPS 2 can support the load.
2. Turn UPS 1 into static bypass operation from normal operation. Press the **INVERTER OFF** button on UPS 1. Now UPS 1 is locked to load OFF. Only UPS 2 is still running in normal operation, and load is supported by UPS 2.



**Note:** If UPS 2 is in normal operation mode, static bypass of UPS 1 will not be allowed to output even if it has been turned into static bypass operation.

3. Turn the UPS 1 output breaker (**QOP**) into **OFF (opened)** position.



**Note:** Ensure that step 3 is performed before step 4, or UPS 2 cannot enter single UPS output operation automatically with the risk of load loss.



**Note:** Now UPS 2 has entered single UPS output operation automatically and supports the load independently.

4. Turn the UPS 1 static bypass breaker (**QM2**) into **OFF (opened)** position.
5. Turn the UPS 1 mains input breaker (**QM1**) into **OFF (opened)** position.
6. Do **one** of the following depending on your UPS 1 configuration:
  - A. Configuration without an additional battery cabinet: Turn the UPS battery breaker (**QB**) into **OFF (opened)** position.
  - B. Configuration with an additional battery cabinet: Make sure that the UPS battery breaker (**QB**) is turned **OFF (opened)** and then turn the battery cabinet breaker (**QFB**) into **OFF (opened)** position.
7. Unplug the parallel cable between the two UPS units.



**Note:** UPS 2 will display the alarms

Parallel UPS lost

Single output enabled

and it will keep the current status and work as a single UPS since single UPS output is enabled automatically.

## Turn the Isolated UPS into Normal Operation



**Note:** Before turning on power to the isolated UPS, please ensure that the parallel cable is well connected between two UPS units.



**Note:** The isolated UPS is named UPS 1, and the other UPS is named UPS 2 in the following procedure.

1. Turn the UPS 1 mains input breaker (**QM1**) and the static bypass breaker (**QM2**) into **ON (closed)** position.

- If the wizard is enabled, please refer to step 2-7 of “*Start-up of the UPS System with the Wizard Enabled*” to complete the wizard on UPS 1. It is strongly recommended to disable the wizard as single system.
- If the prompt

```
System init error!  
Error code: 1-X
```

appears on the display screen, please refer to the error codes for UPS system initialization found under “*Status and Alarm Messages*”.

- After system initialization and wizard (if enabled), if the prompt

```
Parallel UPS lost,  
enable single UPS  
output?
```

appears on the display screen, please check the parallel cable connection. If the prompt does not disappear after that, perform a total power OFF on UPS 1 and contact an APC by Schneider Electric certified Service Partner.

- If the alarm

```
Parallel init error
```

is shown on both UPS units, perform a total power OFF on UPS 1 and contact an APC by Schneider Electric certified Service Partner.

2. Turn the UPS 1 output breaker (**QOP**) into **ON (closed)** position.
3. Check the LEDs of UPS 1 to see if it is in static bypass operation.

If the load is supported by the inverter of the other UPS, the LEDs are:

- BYPASS LED: OFF
- LOAD LED: red

If the load is supported by the static bypass of UPS 2, the LEDs are:

- BYPASS LED: green
- LOAD LED: green

4. Turn UPS 1 from static bypass operation into normal operation via the display or the **INVERTER ON** button. See “*Turn into Normal Operation from Static Bypass Operation*”. Also if UPS 2 is in static bypass operation, turn it into normal operation.
5. Make sure that the **INVERTERS** are **ON**. Check the LEDs to see if the two UPS units are both in normal operation:
  - PFC LED: green

- INVERTER LED: green
- LOAD LED: green
- LOAD PROTECTED LED: green
- Other LEDs: **OFF**

# Common Procedures

## View Product Info

1. From the Default screen, press **ENTER**.
2. Go to **PRODUCT INFO** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Scroll through the three screens to view UPS serial number, date and time, and firmware version by using the **UP/DOWN** navigation keys.
4. Press **ESC** to return to another screen or the Default screen.

PRODUCT INFO

MGE Galaxy 300  
3:3 or 3:1 ser. no.

Current date  
Current time

FIRMWARE VERSION  
xx.xx.xx.xx

## View Measurements (UPS and Battery)

1. From the Default screen, press **ENTER**.
2. Go to **MEASUREMENTS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **one** of the measurements in the below table by using the **UP/DOWN** navigation keys.
4. Press **ESC** to return to another measurement or the Default screen.

Measurement	Description
VOLTAGE	Shows the output, input, and bypass voltage (V) on each phase
CURRENT	Shows the output, input, and bypass ampere (A) on each phase
OUTPUT POWER	Shows the apparent output power (kVA) and actual output power (kW) on each phase
FREQUENCY	Shows the input, bypass, and output frequency in Hertz (Hz)
LOAD	Shows the percentage (%) of the unitary load (and system load if parallel mode is configured) in relation to total UPS capacity, its crest and power factor
BATTERY	Shows the battery voltage, current, charge level, and temperature, back-up time and remaining battery lifetime

## View Event Log



**Note:** The UPS supports the 100 most recent log events with date, time of occurrence, and event description. The next or previous event is found by using the **UP/DOWN** navigation keys.





**Note:**

The screen displays the following characters:

- A indicates a fault appearance (or other data types)

```
2009/12/31 23:59:59 A
PFC fuse blown
```

- D indicates a fault disappearance

```
2009/12/31 23:59:59 D
PFC fuse blown
```

1. From the Default screen, press **ENTER**.
2. Go to **EVENT LOG** by using the **UP/DOWN** navigation keys and press **ENTER**.

```
EVENT LOG
```

3. The screen displays the latest log event or the prompt **No event**.
4. Use the **UP/DOWN** navigation keys to go through the latest events.
5. Press **ESC** until you return to the Default screen.

## Activate Controls



**Note:** When the command values **INVERTER OFF** or **FORCE LOAD TRANSFER TO BYPASS** are activated, the **Risk of load drop, continue or not?** prompt appears. Press **ENTER** to continue (or **ESC** to return to previous screens).

1. From the Default screen, press **ENTER**.
2. Go to **CONTROLS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to one of the commands in the below table by using the **UP/DOWN** navigation keys.
4. Press **ENTER** to activate a command.



**Note:** When one of the command values from the below table has been activated, the prompt **Processing.....** will be displayed for three seconds followed by the prompt **Command is accepted!** if the command runs successfully, or **Command is not allowed!** if the command is refused, or **Command time has run out!** if no response has been given.

5. Press **ESC** to return to another command or the Default screen.

Command	Description
RESET ALARM	Resets all faults.
INVERTER ON	Makes a secure transfer from static bypass operation to normal operation. The command will be refused if the bypass and inverter conditions are not synchronized.
INVERTER OFF	Makes a secure transfer from normal operation to static bypass operation. The command will be refused if the bypass and inverter conditions are not synchronized.
FORCE LOAD TRANSFER TO INVERTER	Forces the UPS to transfer from static bypass operation to normal operation whereby the bypass condition is ignored. A short load drop may occur.
FORCE LOAD TRANSFER TO BYPASS	Forces the UPS to transfer from normal operation to static bypass operation whereby the bypass condition is ignored. A short load drop may occur.

LED TEST	Tests the LEDs and the buzzer.
ENABLE LCM WARNING	Enables all Life Cycle Monitoring (LCM) warnings, such as start-up, warranty expiring soon, and technical check needed warnings.
DISABLE LCM WARNING	Disables all LCM warnings, such as start-up, warranty expiring soon, and technical check needed warnings.
ACKNOWLEDGE LCM ALARMS	Temporarily acknowledge LCM warning when present. The repetitions quantity and interval between alarms can both be adjusted by APC by Schneider Electric certified Service Partner.
BATTERY TEST	Launches a battery test if the load is supported by the inverter and if the batteries are available and fully charged without faults.
ACKNOWLEDGE DUST FILTER ALARM	Acknowledge Dust Filter Pre-alarm when present. Acknowledge Dust Filter Alarm and reset dust filter timer when present. The number of alarm repetitions and interval between alarms can both be adjusted by APC by Schneider Electric certified Service Partner.
RESET DUST FILTER TIMER	Reset the dust filter elapsed time.
ENABLE SINGLE UPS OUTPUT	Enable single UPS output when the other parallel-installed UPS is powered down.

## View Faults



**Note:** The UPS supports all active faults. A fault description is limited to one line. If a fault is resolved, the UPS automatically removes the fault from the list.

1. From the Default screen, press **ENTER**.
2. Go to **FAULTS** by using the **UP/DOWN** navigation keys and press **ENTER**.

FAULTS

3. Scroll through the faults by using the **UP/DOWN** navigation keys.



**Note:**

The screen displays the fault in the following format and characters:

**FAULT (x/y)**

**Alarm description**

- x - represents the number of the alarm
- y - represents the total sum of alarms

Example

FAULT (2/6)  
Load short circuit

4. Press **ESC** to return to the Default screen.

## View the External Alarms via the Dry Contact (Optional)



**Note:** The optional dry connector on the upper rear side of the UPS makes it possible to monitor the UPS system from external relays regarding general alarms, the battery operation alarm, and the low battery alarm. See the installation manual for a precise location of the port and for voltage, current, and cable requirements.



**Note:** See “*Status and Alarm Messages*“ for fault descriptions and corrective actions.

Output	Operating status condition	Description	
1,1	<b>General alarm</b>	PFC fault	
		Inverter fault	
		Bypass static switch fault	
		Charger fault	
		EPO activated	
		Battery backup time ended, shift to wait mode	
		Battery temperature fault >40° C or battery temperature sensor destroyed, charger shutdown	
		Abnormal presence of voltage on the output before closing the bypass static switch (frequency converter)	
		UPS in downgraded mode	
		CAN communication fault	
		UPS personalization fault	
		<b>Battery operation alarm</b>	The inverter is connected to the load and operating on battery power
		<b>Low battery alarm</b>	The battery has reached the low-battery warning level (voltage or time)

# Configuration

---

## Default Settings



**Note:** The configuration procedures in this chapter describe how to change UPS settings after initial start-up.



**Note:** Every new setting has to be confirmed by pressing **ENTER** as described in the procedures. If this step is omitted, the display will return to its previous setting.

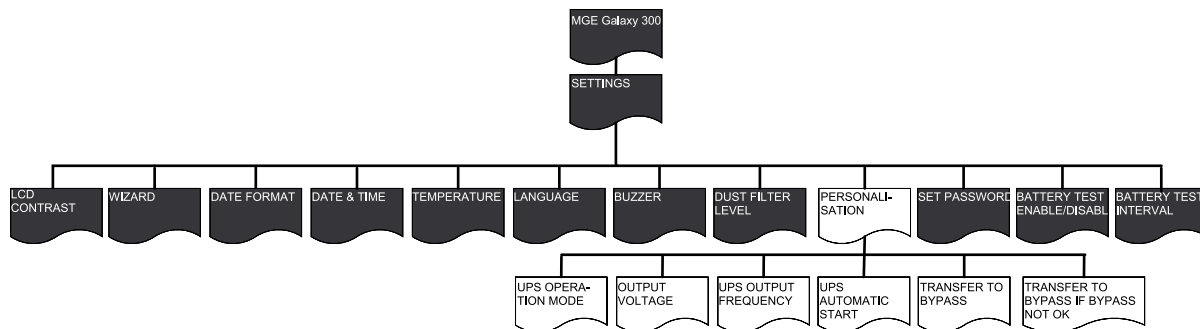
\* These settings require a restart. See “*Settings Requiring a Restart*”.

Setting	Default	Other choice(s)
LCD CONTRAST	0	-4 to 4
WIZARD	ENABLE	DISABLE
DATE FORMAT	DD/MM/YYYY	YYYY/MM/DD, MM/DD/YYYY
DATE&TIME	2010/01/01 00:00:00	The range of year is from 2010 to 2035
TEMPERATURE	CELSIUS	FAHRENHEIT
LANGUAGE	ENGLISH	See “ <i>Setting the Language</i> ”
BUZZER	ENABLE	DISABLE
UPS OPERATION MODE*	NORMAL MODE	PARALLEL MODE, FREQUENCY CONVERTER MODE
OUTPUT VOLTAGE*	230 V	220 V, 240 V
UPS OUTPUT FREQUENCY*	50 Hz	60 Hz
UPS AUTOMATIC START*	DISABLE	ENABLE
TRANSFER TO BYPASS*	ENABLE	DISABLE
TRANSFER TO BYPASS IF BYPASS NOT OK*	ENABLE	DISABLE
SET PASSWORD	000	
BATTERY TEST	ENABLE	DISABLE
BATTERY TEST INTERVAL	1 MONTH	X MONTHS (1–6)
DUST FILTER LEVEL	OFF	3 months, 4 months, 5 months or 12 months

# Settings Not Requiring a Restart



**Note:** In the below menu tree you will find eleven settings which may be changed without entering a password or making a UPS restart. The procedures for changing these settings are very similar. Therefore, only a few procedures are described in full detail. Please read “*General Information*” before you start. For personalization settings, see “*Settings Requiring a Restart*”.



## General Information



**Note:** It is possible to change several settings under the **SETTINGS** menu without having to escape and reenter the menu. Before you escape the **SETTINGS** menu, the UPS will save all new settings by the prompt **Done!**.

Done!



**Note:** When your new settings have been confirmed by the prompt **Done!**, press **ESC** until you return to the Default screen.

## Setting the LCD Contrast



**Note:** The smaller the digit the darker the screen.

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **LCD CONTRAST** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. The contrast digit is now active. Select a contrast value between -4 and 4.
5. Press **ENTER** to confirm the new display contrast value. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

LCD CONTRAST

- 2

Done!

## Setting the Wizard

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **WIZARD** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Select **ENABLE** or **DISABLE** by using the **UP/DOWN** navigation keys.
5. Press **ENTER** to confirm the new wizard setting. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

WIZARD

ENABLE

Done!

## Setting the Date Format

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **DATE FORMAT** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Select between values **YYYY/MM/DD**, **DD/MM/YYYY**, or **MM/DD/YYYY**.
5. Press **ENTER** to confirm the new date format. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

DATE FORMAT

YYYY/MM/DD

Done!

## Setting the Date and Time



**Note:** The correct date and time must be set for event time-stamping purposes.



**Note:** The range of year runs from 2010 to 2035.

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **DATE&TIME** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. The digit of year, month, or date is now active depending on the settings format.

SETTINGS

DATE&TIME

2010-01-01  
00:00:00

- Use the **UP/DOWN** navigation keys to select a value of the active digit and press **ENTER**.
- Use the **UP/DOWN** navigation keys to select a value of the next active digit followed by **ENTER** and repeat this procedure until a value of the last digit has been chosen.
- Press **ENTER** to confirm the last value. After three seconds the UPS confirms the new setting by the prompt **Done!**
- Press **ESC** until you return to the Default screen.

2010-01-01  
00:00:00

Done!

## Setting the Temperature

- From the Default screen, press **ENTER**.
- Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
- Go to **TEMPERATURE** by using the **UP/DOWN** navigation keys and press **ENTER**.
- Select **CELSIUS** or **FAHRENHEIT**.
- Press **ENTER** to confirm the new temperature value. After three seconds the UPS confirms the new setting by the prompt **Done!**
- Press **ESC** until you return to the Default screen.

SETTINGS

TEMPERATURE

CELSIUS

Done!

## Setting the Language

- From the Default screen, press **ENTER**.
- Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.

SETTINGS

- Go to **LANGUAGE** by using the **UP/DOWN** navigation keys and press **ENTER**.

LANGUAGE

- Select between the following 18 languages:

French	Italian	Dutch
Russian	Turkish	Thai
English	Spanish	Swedish
Polish	Indonesian	Korean
German	Portuguese	Finnish
Greek	Chinese Simplified	Norwegian

- Press **ENTER** to confirm the new display language. After three seconds the UPS confirms the new setting by the prompt **Done!**

Done !

6. Press **ESC** until you return to the Default screen.

## Setting the Buzzer



**Note:** The buzzer informs you of an alarm status change (appearance or disappearance) and can be switched **OFF** via the display. It is possible to stop the buzzer from the Default screen at any time by pressing the **ESC** key. New alarms activate the buzzer again. The buzzer has a single tone and a beep every 500 ms.



**Note:** The initial factory setting is **ENABLE**.

### Definition.

**Slow beep: ON (0.5 seconds)/ OFF (10 seconds).** The UPS is in battery operation, maintenance mode or with a minor environmental fault (the Environment&Minor Fault LED is lit).

**Quick beep: ON (0.5 seconds)/OFF (3 seconds).** The UPS is in battery operation and is reaching its pre-alarm threshold.

**Continuous beep: ON.** The load is unprotected.

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **BUZZER** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Select between **ENABLE** and **DISABLE**.
5. Press **ENTER** to confirm the new buzzer setting. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

BUZZER

ENABLE

Done !

## Setting the Password



**Note:** In order to change the password you need to fill in the previous or initial factory default password (000).



**Note:** If you press **ESC** any time during this procedure you will return to the **SET PASSWORD** prompt.



1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **SET PASSWORD** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. The first digit is now active. Use the **UP/DOWN** navigation keys to select the first digit from 0 to 4 and press **ENTER**.
5. The second digit is now active. Use the **UP/DOWN** navigation keys to select the second digit from 0 to 4 and press **ENTER**.
6. The third digit is now active. Use the **UP/DOWN** navigation keys to select the third digit from 0 to 4 and press **ENTER** to confirm the password.

SETTINGS

SET PASSWORD

000

000

000

Done!

When the password has been set, the prompt **Done!** is displayed for three seconds before the new password is displayed. Press **ESC** to return to the previous menu at any time.

## Entering the Password



**Note:** Default password is 000.



**Note:** If you choose a wrong digit, press **ESC** at any time during this procedure to return to the previous menu and reenter your password.

1. When the first digit is active, use the **UP/DOWN** navigation keys to select the first digit from 0 to 4 and press **ENTER**.
2. The second digit is now active. Use the **UP/DOWN** navigation keys to select the second digit from 0 to 4. and press **ENTER**.
3. The third digit is now active. Use the **UP/DOWN** navigation keys to select the third digit from 0 to 4 and press **ENTER** to confirm the password.

Please enter password:  
000

Please enter password:  
000

Please enter password:  
000



**Note:** If the password is correct, you are allowed to continue your desired procedure. If the password is incorrect, the prompt **Wrong password!** is displayed for three seconds before the display returns to the previous menu and so you can try again.

## Setting the Battery Test Enable/Disable

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **BATTERY TEST ENABLE/DISABLE** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Select between values **ENABLE** or **DISABLE**.
5. Press **ENTER** to confirm the new battery test settings. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

BATTERY TEST  
ENABLE/DISABLE

ENABLE

Done!

## Setting the Battery Test Interval

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **BATTERY TEST INTERVAL** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. The contrast digit is now active. Select an interval value between 1 and 6.
5. Press **ENTER** to confirm the new test interval value. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

BATTERY TEST INTERVAL

2

Done!

## Setting the Dust Filter Level

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **DUST FILTER LEVEL** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Select between values **3 MONTHS**, **4 MONTHS**, **5 MONTHS**, or **12 MONTHS**.
5. Press **ENTER** to confirm the new date format. After three seconds the UPS confirms the new setting by the prompt **Done!**.
6. Press **ESC** until you return to the Default screen.

SETTINGS

DUST FILTER LEVEL

3 MONTHS

Done!

# Settings Requiring a Restart



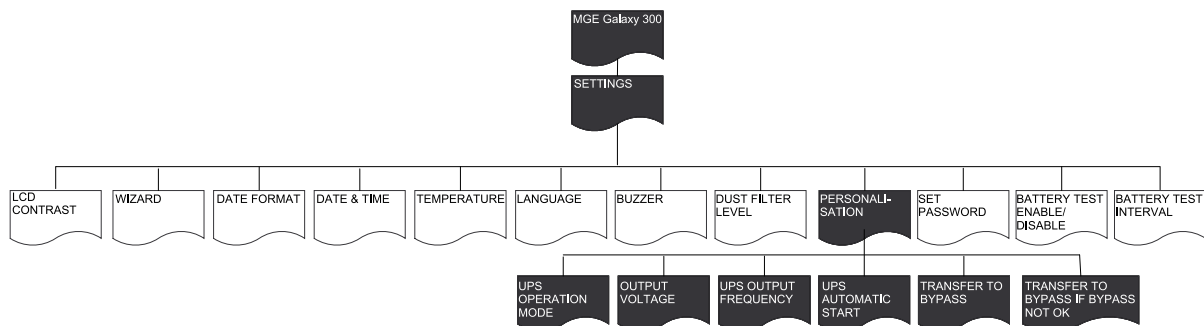
**Note:** In the below menu tree you will find six personalization settings which can be changed by making a UPS restart and entering a password. The procedures for changing these settings are very similar. Therefore, only one procedure is described in full detail. Please read *“General Information”* before you start.



**WARNING:** In parallel system, the following six setting values should be exactly the same, otherwise the alarm

Parallel init error

will appear on both UPS units, and the inverters of both UPS units cannot be started.



## General Information



**WARNING:** Only trained personnel following the required training course may undertake modifications to UPS system parameters.



**WARNING:** All Personalization settings described below require a UPS restart and must not be performed if the UPS is up running and supports the load. Before starting the personalization sequence, the output breaker (QOP) must therefore be turned to the OFF (opened) position.



**WARNING:** After the personalization sequence, the UPS will automatically turn into normal operation (after DC bus charging) if “UPS Automatic start” has been enabled under SETTINGS >PERSONALIZATION. Otherwise, see the manual procedure under *“Turn into Normal Operation from Static Bypass Operation”*.



**Note:** You must have your password ready as you will be asked to enter it during the below procedures. If you are in doubt about how to enter or change your password, see *“Entering the Password”* and *“Setting the Password”*.



**Note:** When a setting value has been selected, the prompt **Selected!** will be displayed for three seconds where after the display will return to the option selected. Press **ESC** to return to the item menu and press **UP/DOWN** to scroll to new setting items to make new settings.

Selected!



**Note:** As mentioned above, it is possible to change several settings under the **PERSONALIZATION** menu without having to escape and reenter the menu. Before you escape to the **PERSONALIZATION** menu, the UPS will save all new settings by the prompts:

- **Save new settings?** (press **ENTER** to confirm or **ESC** to return to the previous screen(s)).
- **Saving settings.....**
- **Setting success!**

Save new settings?

Saving settings.....

Setting success!



**Note:** If the **Setting failed!** prompt appears, wait three seconds before the display returns to the **PERSONALIZATION** menu, and then try again.

## Setting the UPS Operation Mode



**WARNING:** Please be aware that this procedure does not describe how to turn from one operation mode into another when the UPS is up running. See “*Operation Modes*” instead.

1. From the Default screen, press **ENTER**.
2. Go to **SETTINGS** by using the **UP/DOWN** navigation keys and press **ENTER**.
3. Go to **PERSONALIZATION** by using the **UP/DOWN** navigation keys and press **ENTER**.
4. Go to **UPS OPERATION MODE** by using the **UP/DOWN** navigation keys and press **ENTER**.
5. Select **Normal mode**, **Parallel mode**, or **Frequency converter mode** by using the **UP/DOWN** navigation keys and press **ENTER**.

SETTINGS

PERSONALIZATION

UPS  
OPERATION MODE

NORMAL MODE

## Setting the Output Voltage



**Note:** The procedure for setting the **OUTPUT VOLTAGE** is the same as described under “*Setting the UPS Operation Mode*” except for steps 4 and 5 where you must select **OUTPUT VOLTAGE** and values **220 V**, **230 V** or **240 V**.

## Setting the UPS Output Frequency



**Note:** The procedure for setting the **UPS OUTPUT FREQUENCY** is the same as described under “*Setting the UPS Operation Mode*“ except for steps 4 and 5 where you must select **UPS OUTPUT FREQUENCY** and values **50 Hz** or **60 Hz**.

## Setting the UPS Automatic Start



**Note:** The procedure for setting the **UPS AUTOMATIC START** is the same as described under “*Setting the UPS Operation Mode*“ except for steps 4 and 5 where you must select **UPS AUTOMATIC START** and values **ENABLE** or **DISABLE**.

## Setting the Transfer to Bypass



**Note:** The procedure for setting the **TRANSFER TO BYPASS** is the same as described under “*Setting the UPS Operation Mode*“ except for steps 4 and 5 where you must select **TRANSFER TO BYPASS** and values **ENABLE** or **DISABLE**.

## Setting the Allow Transfer with Break



**Note:** The procedure for setting the **ALLOW TRANSFER WITH BREAK** is the same as described under “*Setting the UPS Operation Mode*“ except for steps 4 and 5 where you must select **ALLOW TRANSFER WITH BREAK** and values **ENABLE** or **DISABLE**.

# Maintenance

## Parts Replacement

### Determine If You Need a Replacement Part

To determine if you need a replacement part, contact APC by Schneider Electric certified Service Partners and follow the procedure below so that APC by Schneider Electric certified Service Partners can assist you promptly:

1. In the event of a module failure, the display interface may show additional “fault list” screens. Press the navigation keys to scroll through these fault lists, record the information, and provide it to the representative.
2. Write down the serial number of the UPS so that you will have it easily accessible when you contact APC by Schneider Electric certified Service Partners.
3. If possible, call APC by Schneider Electric certified Service Partners from a telephone that is within reach of the UPS display interface 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 APC, this RMA number must be clearly printed on the outside of the package.
5. If the UPS is within the warranty period and if the start-up has been performed by APC by Schneider Electric certified Service Partners, repairs or replacements will be performed free of charge. If start-up has not been performed by APC by Schneider Electric certified Service Partners, only parts are free of charge. If the UPS is not within the warranty period, there will be a charge.
6. If the UPS is covered by an APC service contract, have the contract available to provide information to the representative.

### Network Management Card



**Note:** A Network Management Card may only be replaced by qualified personnel.



**Note:** The UPS is equipped with communication card AP9630. This communication card can be replaced by the below communication card AP9635 which gives access to more features. A network management card can be replaced with the UPS configuration up running.

Part	Part Number	Description
UPS Network Management Card 2 w/ Out of Band Access and Modbus	AP9635	Gives access to PowerChute, ISX Central, RMS over Ethernet, TLS over Modem, Modbus monitoring, and 18 language variations.

**AP9635 Network Management Card 2**



**Note:** Please refer to the replacement procedures in the manual shipped with the card. Please also refer to the UPS installation manual shipped with the UPS on how to connect the communication cables.

## Dust Filter



**Note:** The UPS is equipped with a dust filter, which must be changed at intervals depending on the dust level present.



**Note:** Do not reuse the filter by cleaning the dust filter.

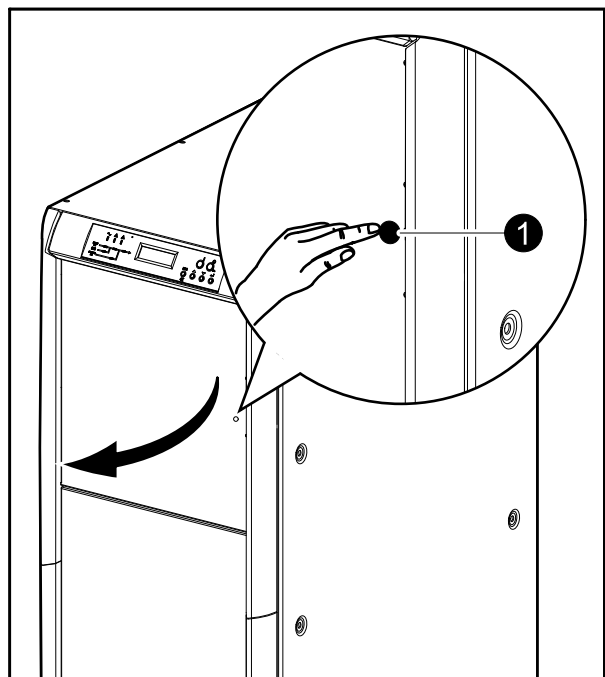
Part	Part Number	Description
MGE Galaxy 300 / 300i Dust Filter - Narrow Tower (400mm)	G3HTOPT005	Protects the UPS from dust
MGE Galaxy 300 / 300i Dust Filter - Wide Tower (500mm)	G3HTOPT006	Protects the UPS from dust

## Store the Dust Filter

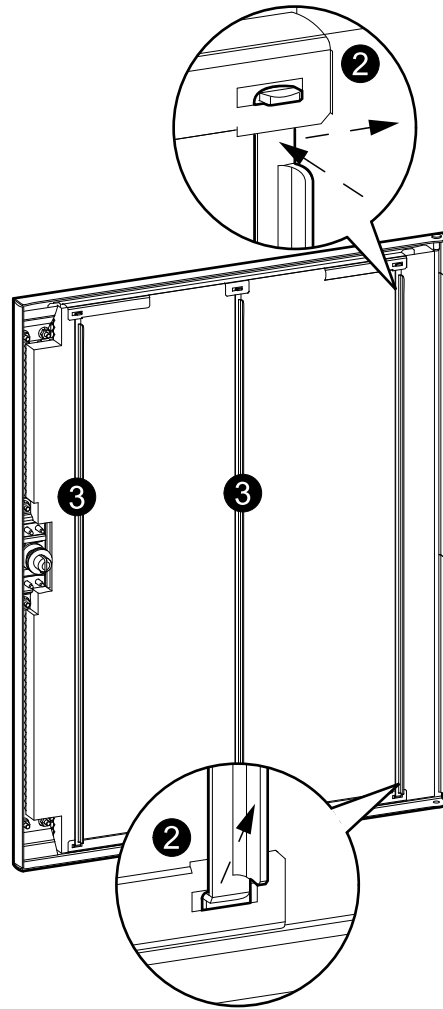
Ambient temperature	Relative Humidity
-10°C to 60°C (14°F to 140°F)	0%–90% Non-condensing

## Replace Dust Filter

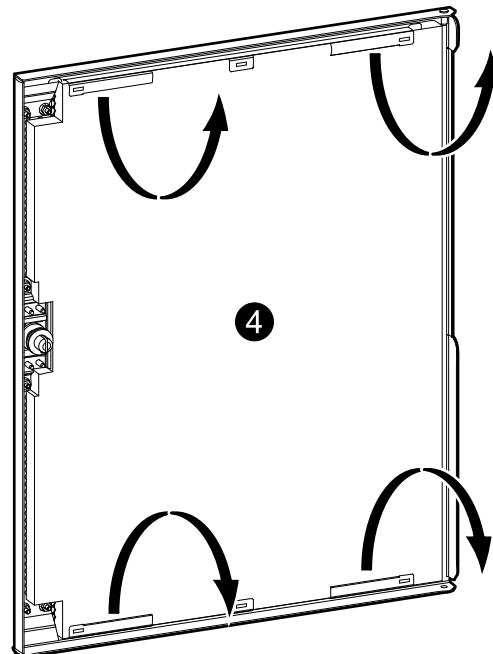
1. Open the upper door at an 90° angle by pushing the white dot on the right side of the door.



2. Press down on the top end of the sheet metal bar and push it to the right or left to release it from the rectangle hole in the clip bracket. Then remove the bottom end of the sheet metal bar by lifting it out of the rectangle hole.
3. Remove the two remaining metal sheet bars in the same way.

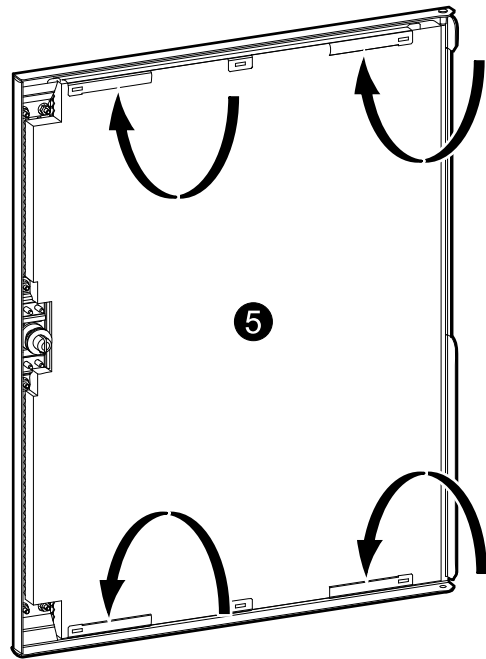


4. Release the old dust filter from the clip brackets and remove it from the door.

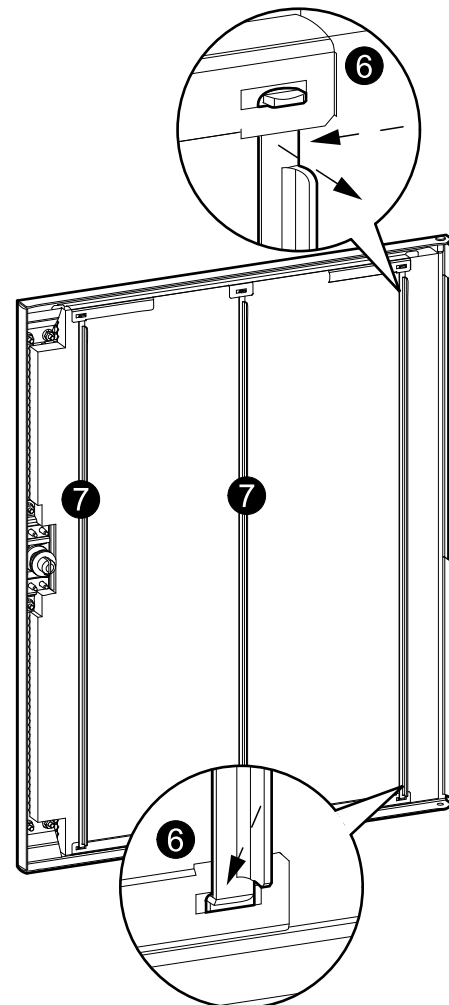




5. Insert the new dust filter into the rear of the door and fix it to the top and bottom clips



6. Re-install one of the sheet metal bars to protect the filter by inserting the bottom bent end of the bar into the corresponding rectangle hole in the bottom clip brackets. Then insert the top bent end of the sheet metal bar into the top clip bracket.
7. Re-install the other two sheet metal bars (three in all) in the same way.



8. Reset the dust filter timer. See how in *“Status and Alarm Messages”* and *“Setting the Dust Filter Level”*.
9. Dispose of the used dust filter correctly.

## Replace the Batteries



**WARNING:** Before battery replacement, **ALL** safety instructions in the Safety Sheet (990-3620) must be read, understood, and followed. Failure to do so could result in equipment damage, serious injury, or death.



**Caution:** Batteries must be replaced by qualified personnel only.



**Note:** After a battery replacement an APC by Schneider Field Service Engineer has to re-configure the UPS.



**Note:** For the replacement of batteries, please refer to the relevant diagram for your configuration inside the battery cabinet.



**Note:** Before replacing batteries, make sure that the UPS is running in normal operation with no internal UPS faults displayed. In normal operation four breakers (QM1, QFB, QM2, QOP) must be in the ON (closed) position and two breakers (Q3BP, QB) must be in the OFF (opened) position.

1. Turn the UPS into maintenance bypass operation:
  - A. Press the **INVERTER OFF** button for three seconds and then turn the mains input breaker (**QM1**) to the **OFF (opened)** position.
  - B. Turn the maintenance bypass breaker (**Q3BP**) to the **ON (closed)** position.
  - C. Turn the static bypass breaker (**QM2**) to the **OFF (opened)** position.
  - D. Turn the output breaker (**QOP**) to the **OFF (opened)** position.
2. Isolate the batteries by turning the UPS battery cabinet breaker (**QFB**) to the **OFF (opened)** position.



**WARNING:** Check the DC voltages with a DC voltage multimeter versus the battery voltage before continuing.

3. Remove the cables from the batteries to the circuit breaker.



**Note:** The terminals of the cables must be wrapped with insulation tape once disconnected.

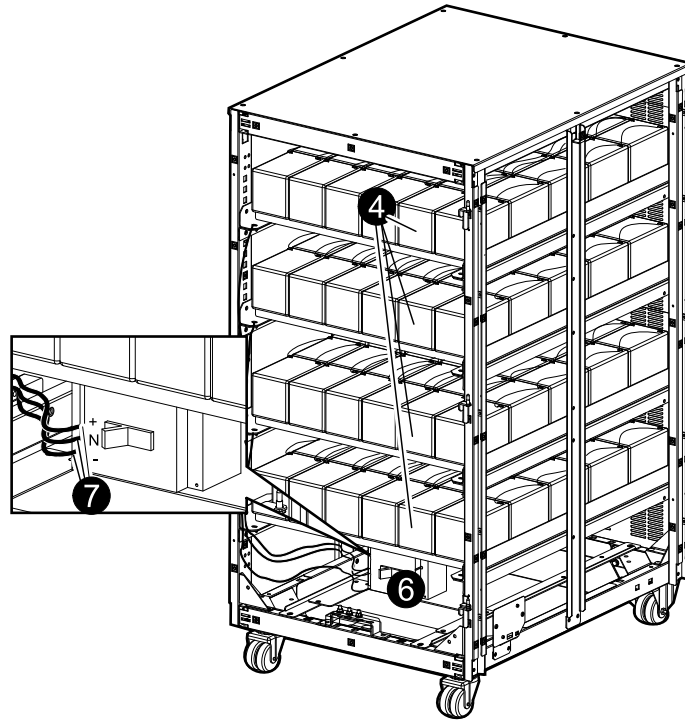
- A. Remove the cables between the shelves.
  - B. Remove the cables inside each shelf.
  - C. Remove the old batteries.
4. Insert the batteries on the shelves starting from the bottom according to the relevant diagram inside the battery cabinet.
  5. Connect the batteries according to the chosen configuration diagram.

6. Connect the batteries to the battery breaker by running the cables from the battery breaker to each shelf.



**Note:** If the cables have more than one terminal, then the unconnected terminals must be isolated with insulation tape before connecting the other terminal.

### Front View



7. Turn the UPS back into normal operation:
  - A. Turn the output breaker (**QOP**) to the **ON (closed)** position.
  - B. Turn the static bypass breaker (**QM2**) to the **ON (closed)** position.
  - C. Wait a minute for the static bypass breaker LED and the output breaker LED to turn green.
  - D. Turn the maintenance bypass breaker (**Q3BP**) to the **OFF (opened)** position.
  - E. Turn the external battery cabinet breaker (**QFB**) to the **ON (closed)** position.
  - F. Turn the input breaker (**QM1**) to the **ON (closed)** position.
  - G. When the soft start has finished, press the **INVERTER ON** button.
8. Check the LEDs to see if the UPS is running in normal operation:
  - PFC LED: green
  - INVERTER LED: green
  - LOAD LED: green
  - LOAD PROTECTED LED: green
  - Other LEDs: **OFF**
9. An APC by Schneider Field Service Engineer must re-configure the UPS after the battery replacement.

# Troubleshooting

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## Status and Alarm Messages

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

### Buzzer



**Note:** The buzzer turns on as soon as a fault is detected. It can be turned off by the **ESC** key from the Default screen. If a new fault is detected, the buzzer turns on again. The buzzer turns **OFF** automatically when the last fault has been cleared. The buzzer can be enabled or disabled under the Settings menu. See “*Setting the Buzzer*”.

### Alarm Pop-ups



**Note:** An alarm automatically pops up on the display screen when an unexpected event or fault appears, unless the screen displays:

- a fault in the fault list
- a prompt as part of a command, password or settings process
- a viewing or settings prompt under the Personalization menu

An alarm is also prohibited to pop up 30 seconds after one of the four navigation keys has been pressed in order to avoid disturbance when a menu is being viewed.



**Note:**

The screen displays the fault in the following format:

**FAULT**

**Alarm description**

Example:

```
FAULT
Load short circuit
```



**Note:** The display screen will show one fault at a time. When several alarms occur at the same time, the latest alarm appears at the top of the list and can be deleted by pressing **ESC**. If all alarms are deleted, the display returns to the screen displayed before the alarm(s) occurred. Deleted alarms can still be viewed. See “*View Faults*”.

## Error Codes for UPS System Initialization

Display Message	Description	Corrective Action
1-1	HMIM board init error	Contact APC by Schneider Electric-certified Service Partner
1-2	CAN communication loss	Contact APC by Schneider Electric-certified Service Partner
1-3	Failure of technical level check	Contact APC by Schneider Electric-certified Service Partner
1-4	UPS init error	Contact APC by Schneider Electric-certified Service Partner

## Displayed Messages

Display Message	Description	Corrective Action
AC bypass overload	The AC bypass is overloaded and a transfer back to the inverter is prohibited	Remove part of the load
AC nor is in derating	The AC normal voltage is low but within the derating range. The load support capability is derated based on the derating curve	Check the AC normal voltage
AC normal fault	The AC normal voltage is abnormal (Voltage, frequency, phase order, mains neutral loss)	If the mains input breaker ( <b>QM1</b> ) is <b>ON</b> (closed): Check the AC normal source. If ( <b>QM1</b> ) is <b>OFF</b> (opened): Turn <b>QM1</b> to the <b>ON</b> (closed) position
AC normal voltage low	The AC normal voltage is low but can supply the load	Check the AC normal source. If the AC normal source is working normal and the fault still exists, contact an APC by Schneider Electric-certified Service Partner
Ambient temp high	Ambient temperature is too high and exceeds the limitation	Try to reduce the ambient temperature with cooling
Battery breaker is open	The battery breaker(s) ( <b>QB or QFB</b> ) is/are open	Check the status of the battery breakers
Batt chg incompatible	Occurs in configurations with an internal charger installed and an external battery breaker ( <b>QFB</b> ) in the <b>ON</b> (closed) position <b>OR</b> in configurations with a CLA (long back-up time charger) installed and the UPS battery breaker ( <b>QB</b> ) in the <b>ON</b> (closed) position	Check the charger type and battery breaker status
Battery deep discharge	A battery deep discharge is in progress, and the inverter will shut down soon. The battery deep discharge is a settings parameter configured by the APC by Schneider Electric-certified Service partner and the customer	Reestablish the AC normal source
Battery fuse blown fault	The battery fuse has blown	Contact an APC by Schneider Electric-certified Service Partner

Battery not connected	A negative or positive battery is not connected	Contact an APC by Schneider Electric-certified Service Partner
Batt SCR short circuit	The battery source (SCR) is shortcircuited	Contact an APC by Schneider Electric-certified Service Partner
Battery over voltage	A positive or negative battery is above its voltage range	Contact an APC by Schneider Electric-certified Service Partner
Battery test fault	The battery test has failed due to an issue with the batteries	Contact an APC by Schneider Electric-certified Service Partner
Battery temperature fault	A battery (internal or external) is outside its temperature threshold or the sensor is destroyed	Contact an APC by Schneider Electric-certified Service Partner
Breaker <b>QM2</b> is open	The static bypass breaker <b>QM2</b> is <b>OFF</b> (opened) (except in frequency converter mode)	Turn <b>QM2</b> to the <b>ON</b> (closed) position
Breaker <b>QOP</b> is open	The output breaker <b>QOP</b> is <b>OFF</b> (opened)	Turn <b>QMP</b> to the <b>ON</b> (closed) position
Byp freq out of tolerance	The AC bypass frequency is out of tolerance	Check the AC bypass frequency
Byp/Inv sync fault	The inverter cannot synchronize with the AC bypass, and a break transfer will be performed	Check the AC bypass source. If the AC bypass is normal and the fault still exists, contact an APC by Schneider Electric-certified Service Partner
Byp phase order fault	The AC bypass phase order is wrong	Check the AC bypass cable connection to verify the phase order
Bypass SCR fault	The bypass SCR or its driver is broken or the bypass temperature is outside its threshold	Contact an APC by Schneider Electric-certified Service Partner
Byp volt out of tolerance	The AC bypass voltage is out of tolerance	Check the AC bypass voltage
Call APC for startup	The life cycle monitoring (LCM) module and Dust Filter Management (DFM) are not configured yet.	Contact an APC by Schneider Electric-certified Service Partner to perform the configuration
Chg type setting conflict	This message might appear for units with a CLA installed and where the charger type setting value is set to internal charger <b>OR</b> for units with an internal charger installed and where the charger type setting value is set to CLA	Contact an APC by Schneider Electric-certified Service Partner
Charger fault	The charger is outside the voltage range The charger is outside the current range The charger is outside the temperature threshold A charger softstart fault has occurred. If an internal charger is installed and the external battery breaker ( <b>QFB</b> ) is closed <b>OR</b> if a CLA (long back-up time charger) is installed and the UPS battery breaker ( <b>QB</b> ) is closed this fault might appear. An abnormal charger fault has occurred (a regulation or charger hardware fault)	Check the battery breaker status or contact an APC by Schneider Electric-certified Service Partner if the fault is still present.
Communication fault	A CAN or McBSP internal communication fault has occurred.	Contact an APC by Schneider Electric-certified Service Partner

DC bus fault	The DC bus is too high or the DC bus is too low	Contact an APC by Schneider Electric-certified Service Partner
Dust filter expiring soon	Dust Filter will be expired in 5 days	Replace the dust filter and launch <b>RESET DUST FILTER TIMER</b> command via the display under <b>CONTROLS &gt; RESET DUST FILTER TIMER</b>
Dust filter expired	Dust Filter has already been expired.	Replace the dust filter and launch <b>ACKNOWLEDGE DUST FILTER ALARM</b> command via the display under <b>CONTROLS &gt; ACKNOWLEDGE DUST FILTER ALARM</b>
End of backup time	The battery back-up time has run out	Reestablish the AC normal source and start the UPS again
End of battery life	The battery has reached the end of its life time which is checked by a battery meter	Contact an APC by Schneider Electric-certified Service Partner to replace the battery
Entry service test mode	The entering of the service test mode (designed for the certified Service partner) has been completed successfully	
EPO active	The EPO button is pressed down	Check the status of the EPO button
Fan fault	A PFC fan or inverter fan fault has occurred	Contact an APC by Schneider Electric-certified Service Partner
Inverter SCR fault	The inverter SCR or its driver is broken	Contact an APC by Schneider Electric-certified Service Partner
Inv thermal overload	The inverter overload threshold has been exceeded	Remove part of the load and launch the <b>RESET ALARM</b> command under <b>CONTROLS &gt; RESET ALARM</b>
Inv current limitation	The UPS transfers between the inverter and the bypass four times due to a momentary current limitation	Check the load status and launch the <b>RESET ALARM</b> command via the display under <b>CONTROLS &gt; RESET ALARM</b>
Inverter fault	The inverter fuse is blown The inverter SCR is defect The inverter voltage is out of tolerance The inverter IGBT (insulated gate bipolar transistor) is outside the temperature threshold The inverter choke is outside the temperature threshold A short circuit in the inverter capacitor has occurred The inverter output voltage wave is not sinusoidal or the voltage value is out of tolerance.	Contact an APC by Schneider Electric-certified Service Partner
Inverter overload	The inverter is overloaded according to the overload curve	Remove part of the load

Load short circuit	The output is short-circuited	Check the output and load connection, then launch the <b>RESET ALARM</b> command via the display under <b>CONTROLS &gt; RESET ALARM</b>
Neutral loss fault	The AC normal neutral cable is lost	Power <b>OFF</b> the system and check the cable connection
Nor freq out of tolerance	The AC normal frequency is out of tolerance	Check the AC normal frequency
Nor phase order fault	The AC normal phase order is wrong	Check the AC normal cable connection to verify the phase order
Nor volt out of tolerance	The AC normal voltage is out of tolerance	Check the AC normal voltage
Overload in batt mode	The UPS is overloaded in a state where the batteries supply the load and the UPS will transfer to bypass operation mode	Remove part of the load and reestablish the AC normal source
Parallel init error	Equipment number, firmware revision, or core settings conflict between two parallel UPSs	Contact an APC by Schneider Electric-certified Service Partner
Parallel system fault	A major fault has occurred on the other UPS	Contact an APC by Schneider Electric-certified Service Partner
Parallel UPS detected	Parallel UPS has been detected in a single system	Unplug parallel cable if a single system is desired, otherwise contact an APC by Schneider Electric-certified Service Partner to install a parallel system
Parallel UPS lost	Parallel cable is disconnected, or communication between two UPSs failed	1: Reconnect parallel cable 2: Contact an APC by Schneider Electric-certified Service Partner if the alarm still exists
Personalization fault	A personalization error has occurred	Contact an APC by Schneider Electric-certified Service Partner
PFC fault	A PFC fuse has blown A PFC soft-start failure has occurred The input SCR is outside its temperature threshold The PFC current between the main board and the auxiliary board is unbalanced (only for 30, 40 kVA UPS units) The PFC IGBT (insulated gate bipolar transistor) is outside its temperature threshold A PFC auxiliary board fuse has blown (only for 30, 40 kVA)	Contact an APC by Schneider Electric-certified Service Partner
PFC overload	The PFC is overloaded according to the overload curve	Remove part of the load
PFC thermal overload	The PFC overload curve is outside its threshold	Remove part of the load and launch the <b>RESET ALARM</b> command via the display under <b>CONTROLS &gt; RESET ALARM</b>



Power supply 2 fault	An auxiliary power supply fault has occurred	Contact an APC by Schneider Electric-certified Service Partner
Pre end of backup time	The battery back-up time runs out soon	Reestablish the AC normal source to protect the load
Redundancy lost	Redundancy is lost in a parallel system	1: Start inverters on both UPSs if they have not started 2: Check if there are major faults and contact an APC by Schneider Electric-certified Service Partner if necessary 3: Check if the system load is under 105%
Setting fault	Setting session failure	Perform the setting session again and launch the reset alarm command under <b>CONTROLS &gt; RESET ALARM</b> . If the fault is still present, contact an APC by Schneider Electric-certified Service partner
Single output enabled	One UPS has been isolated, and the other UPS is enabled to output as a single system	Contact an APC by Schneider Electric-certified Service Partner
Sync source fault	The synchronization source (AC bypass) is out of tolerance and the inverter is unable to synchronize with it	Check if <b>QOP</b> is closed Check the AC bypass source. If the AC bypass source is normal and the fault still exists, contact an APC by Schneider Electric-certified Service Partner
Technical check needed	Technical check is recommended	Contact an APC by Schneider Electric-certified Service Partner
Transfer to byp denied	A transfer to AC bypass is forbidden	Transferring to bypass is a personalization setting which can be modified via the display under <b>PERSONALIZATION &gt; TRANSFER TO BYPASS</b>
UPS not calibrated	Some UPS acquisition channels are not calibrated	Contact an APC by Schneider Electric-certified Service Partner
Volt detected on bypass	Voltage is detected on AC bypass (maybe due to turning QM2 or Q3BP into closed position) in frequency converter mode	1: Turn <b>QM2</b> or <b>Q3BP</b> into open position if they have been turned into closed position before 2: Contact an APC by Schneider Electric-certified Service Partner if the fault is still present
Warranty expiring soon	Legal warranty will expire soon	Contact an APC by Schneider Electric-certified Service Partner
Wrong batt +/- connect	The battery connection is inversed	Check the battery cable connection





## **Worldwide Customer Support**

Customer support is available at no charge via e-mail or telephone. Contact information is available at [www.apc.com/support/contact](http://www.apc.com/support/contact)

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