



DIGITUS[®] Professional OnLine 1000-3000 VA UPS System

Quick installation Guide

DN-170089 • DN-170090 • DN-170091 • DN-170092

Safety Warnings



DANGER

The UPS contains **LETHAL VOLTAGES**. All repairs and service should be performed by **AUTHORIZED SERVICE PERSONNEL ONLY**. There are **NO USER SERVICEABLE PARTS** inside the UPS.



WARNING

- The UPS contains its own energy source (batteries). The UPS output may carry live voltage even when the UPS is not connected to an AC supply.
- To reduce the risk of fire or electric shock, install the UPS in a temperature and humidity controlled, indoor environment, free of conductive contaminants. Ambient temperature must not exceed 40°C (104°F). Do not operate near water or excessive humidity (90% maximum).
- To reduce the risk of fire, connect only to a circuit provided with branch circuit overcurrent protection in accordance with the National Electrical Code (NEC), ANSI/NFPA 70.
- Output overcurrent protection and disconnect switch must be provided by others.
- To comply with international standards and wiring regulations, the sum of the leakage current of the UPS and the total equipment connected to the output of the UPS must not have an earth leakage current greater than 3.5 millamperes.
- If the UPS requires any type of transportation, verify that the UPS is unplugged and turned off and then disconnect the UPS internal battery connector.



CAUTION

- Batteries can present a risk of electrical shock or burn from high short-circuit current. Observe proper precautions. Servicing should be performed by qualified service personnel knowledgeable of batteries and required precautions. Keep unauthorized personnel away from batteries.
 - Proper disposal of batteries is required. Refer to your local codes for disposal requirements.
 - Never dispose of batteries in a fire. Batteries may explode when exposed to flame.
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Installation

Inspecting the Equipment

If any equipment received has been damaged during shipment, repack the unit and file a claim for shipping damage. If you discover damage after acceptance, file a claim for concealed damage.

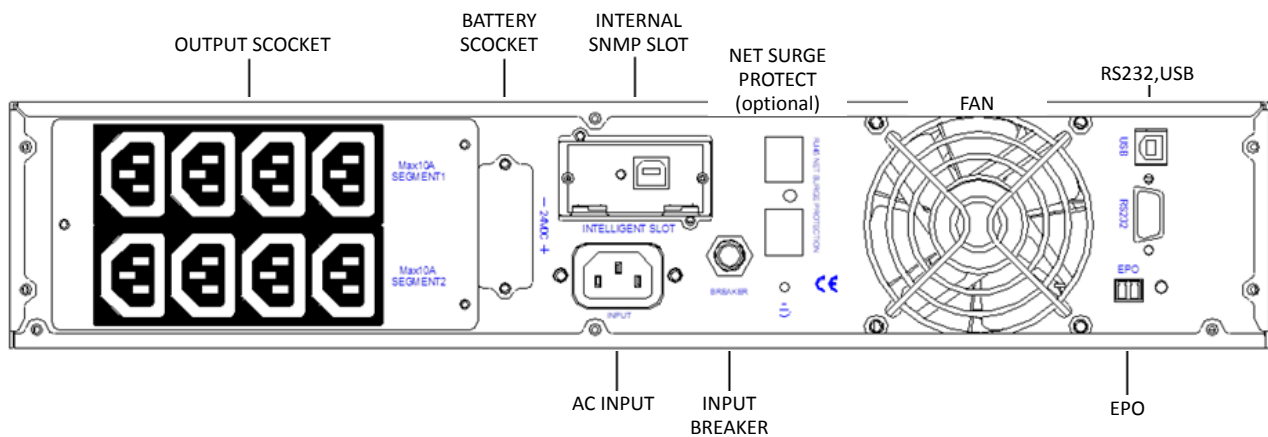
Installing the UPS

NOTE Do not make unauthorized changes to the UPS; otherwise, damage may occur to your equipment and void your warranty.

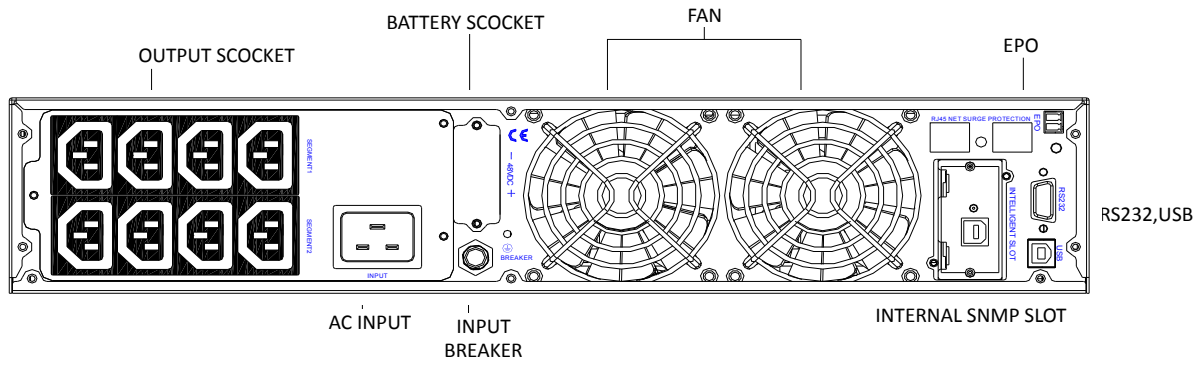
NOTE Do not connect the UPS power cord to utility until after installation is completed.

1. The UPS is with batteries installed. For replacing batteries or adding the internal batteries, please refer to user's manual.
2. If you are installing power management software, connect your computer to one of the communication ports or optional connectivity card. For the communication ports, use an appropriate cable.
3. If your rack has conductors for grounding or bonding of ungrounded metal parts, connect the ground cable (not supplied) to the ground bonding screw. See Rear Covers for the location of the ground bonding screw.

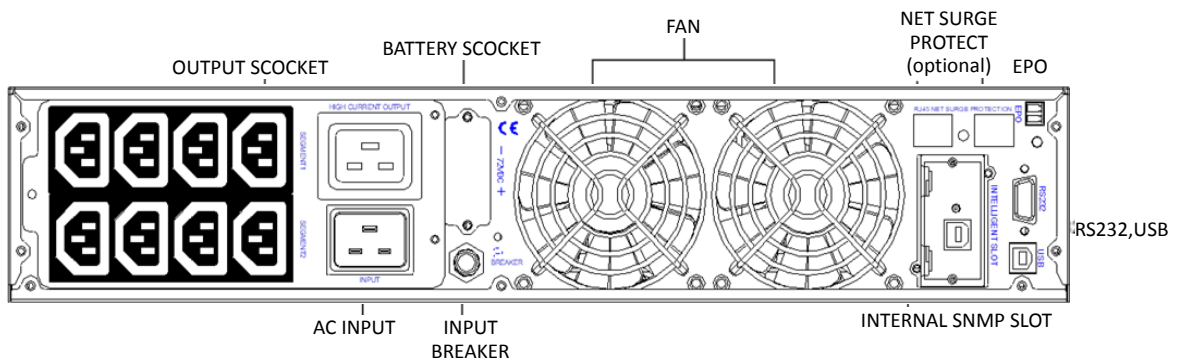
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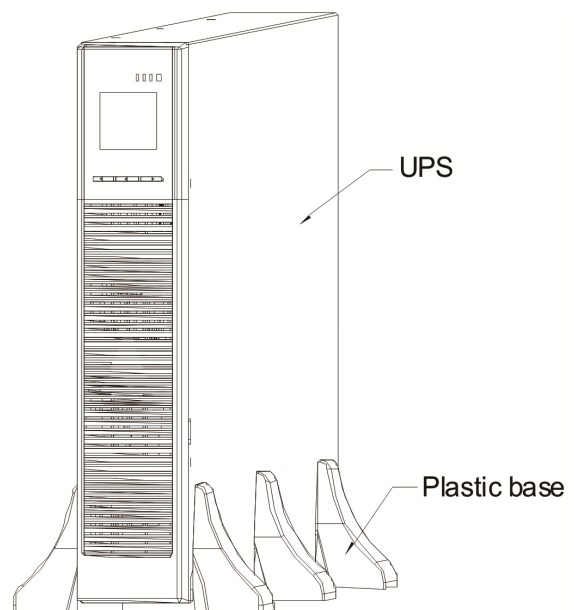
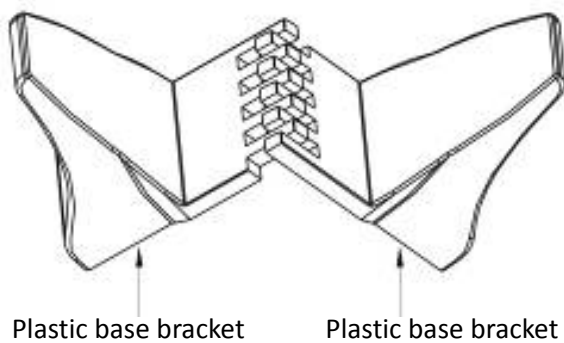
DN-170091



4. If an emergency power-off (disconnect) switch is required by local codes, see “Emergency Power-off” in the user’s manual (EPO) to install the EPO switch before powering on the UPS.

Rackmount converted to Tower Installation

1. Rackmount converted to Tower plastic base installation
 - Two plastic base brackets intercross as following FIG.
 - Flatten it after intercrossing
2. Install the base, and then place the Online UPS on the base.



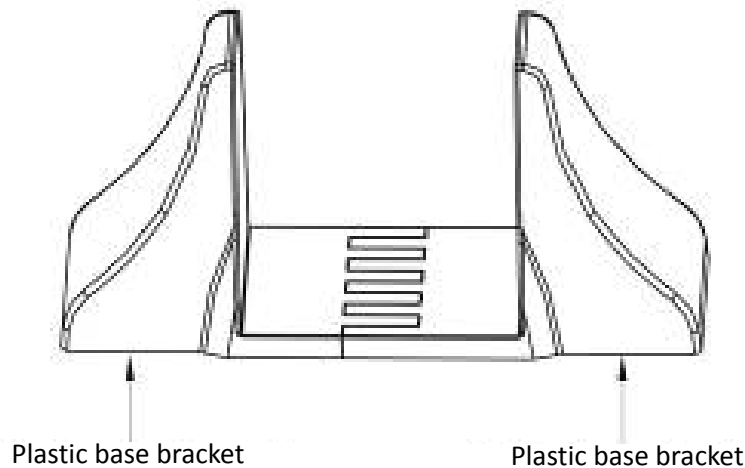




FIG.1 The installation for UPS

Note: please refer to user's manual for rackmount installation.

UPS Initial Startup



NOTE Verify that the total equipment ratings do not exceed the UPS capacity to prevent an overload alarm.

1. Plug the equipment to be protected into the UPS, but do not turn on the protected equipment.
2. Make any necessary provisions for cord retention and strain relief.
3. Plug the detachable UPS power cord into the input connector on the UPS rear cover.
4. Plug the UPS power cord into a power outlet. The UPS front cover display illuminates.
5. The UPS will do self-test when power on. After that, the charger will charge the battery. If the output displayed on LCD is "0", there is no output.
6. Press the combination start up buttons on the UPS front cover for at least half a second. The UPS will start up and the LED will turn on and off sequentially.
7. Check the UPS front cover display for active alarms or notices. Resolve any active alarms before continuing. If the  indicator is on, do not proceed until all alarms are clear. Check the UPS status from the front cover to view the active alarms. Correct the alarms and restart if necessary. Please refer to "Troubleshooting" in the user manual.
8. Verify that the  indicator illuminates solid, indicating that the UPS is operating normally and any loads are powered.



NOTE: At initial startup, the UPS sets system frequency according to input line frequency (input frequency auto-sensing is enabled by default).

NOTE: At initial startup ,please set the output voltage needed before start up the UPS ,After the subsequent startup , the UPS will output the setting voltage.

9. If you installed an optional EPO, test the EPO function: Activate the external EPO switch. Verify the status change on the UPS display. Deactivate the external EPO switch and restart the UPS.



NOTE:The internal batteries charge to 80% capacity in less than 5 hours. However, we recommend that the batteries should be charged for 48 hours after installation or long-term storage.

Control Cover Functions

The UPS has a three-button segmental LCD with backlight. It provides useful information about the UPS itself, load status, and measurements.

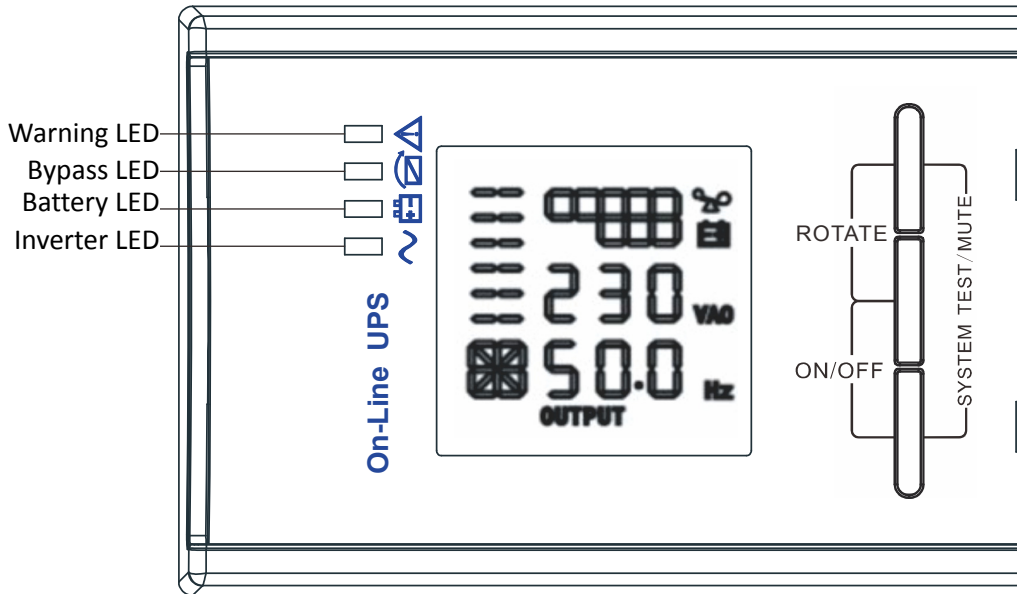


FIG.2 Control Cover

Table 1. Indicator Descriptions









Indicator	Description
 Red	On The UPS has an active alarm or fault.
 Yellow	On The UPS is in Bypass mode. The UPS is operating normally on bypass during High Efficiency operation.
 Yellow	On The UPS is in Battery mode.
 Green	On The UPS is operating normally.

Table 2. Button function

Button	Function description
Startup combination ( + )	Press and hold this key for more than half a second to turn on the UPS or to turn off the UPS.
Shutdown/Rotating combination n ( + )	Press and hold this key for more than 2 seconds to circumrotate the LCD.







Battery test/Mute combination ( + )	Press and hold the key for more than 1 second in Line mode or economic (ECO) mode: UPS runs self-test function. Press and hold the key for more than 1 second in battery mode: UPS runs mute function.
Scroll  or 	<p>Non-function setting mode: Press and hold the key for more than half a second (less than 2 seconds): Indicate the items of the LCD item section orderly. Press and hold this key for more than 2 seconds: Circularly and orderly display the items every 2 seconds, when press and hold the key for some time again, it will turn to output status.</p> <p>Function setting mode: Press and hold the key for more than half a second (less than 2 seconds): Select the set option.</p>
Setting entry 	<p>Non-function setting mode: Press and hold the key for more than 2 seconds: Function setting interface.</p> <p>Function setting mode: Press and hold the key for more than half a second (less than 2 seconds): Affirm the set option. Press and hold the key for more than 2 seconds, exit from this function setting interface.</p>

Table 3. Working status of indications

NO	Working status	Indication				Warning	Remarks
		Nor	Bat	Bps	Fau		
1	Line mode						
	Normal voltage	•				None	
	High/low voltage protection, turn to battery mode	•	•		★	Once every four seconds	
2	Battery mode						
	Normal voltage	•	•		★	Once every four seconds	
	Battery Voltage abnormal warning	•	★		★	Once per second	
3	Bypass mode						
	Main AC Normal voltage in bypass mode			•	★	Once every two minutes	Eliminate after starting the UPS
	Main AC high voltage warning in bypass mode				★	Once every four seconds	
	Main AC low voltage warning in bypass mode				★	Once every four seconds	
4	Battery disconnect warning						
	Bypass mode			•	★	Once every four seconds	Affirm if the battery switch is closed

	Inverting mode inverting mode	●			★	Once every four seconds	Affirm if the battery switch is closed
	Power up or start					Six times	Affirm if the battery is connected well
5	Output overload protection						
	Overload warning in line mode,	●			★	Twice per second	Remove the uncritical loads
	Overload in line mode, protection			●	●	Long beeps	Remove the uncritical loads
	Overload warning in battery mode	●	●		★	Twice per second	Remove the uncritical loads
	Overload in battery mode, protection	●	●		●	Long beeps	Remove the uncritical loads
6	Overload warning in bypass mode			●	★	Once every 2 seconds	Remove the uncritical loads
7	Fan fault (fan icon flashing)	▲	▲	▲	★	Once every 2 seconds	Check if the fan is blocked by object.
8	Fault mode				●	Long beeps	If display fault code and icon  lights, contact for maintenance when you can't deal with it by yourself.

● _indicator lights for a long time

★ _indicator flashes

▲ _the status of indicator depends on other conditions

For further usage of front cover operation: UPS startup and shutdown, transferring the UPS between modes, and configuring bypass settings, load segments, and battery settings, please refer to user's manual.

UPS Turn on and Turn off

Start up operation

Turn on the UPS in line mode

1. Once mains power is plugged in, the UPS will charge the battery, at the moment, the LCD shows that the output voltage is 0, which means the UPS has no output. If it is expected to have the output of bypass, you can set the bps "ON" by LCD setting menu.
2. Press and hold the ON key for more than half a second to start the UPS; then it will start the inverter.
3. Once started, the UPS will perform a self-test function; LED will light and go out circularly and orderly. When the self-test finishes, it will come to line mode, the corresponding LED lights, the UPS is working in line mode.

Turn on the UPS by DC without mains power

1. When mains power is disconnected, press and hold the ON key for more than half a second to start UPS.
2. The operation of the UPS in the process of start is almost the same as that when mains power is in. After finishing the self-test, the corresponding LED lights and the UPS are working in battery mode.

Turn off operation

Turn off the UPS in line mode

1. Press and hold the OFF key for more than half a second to turn off the UPS and inverter.
2. After the UPS shutdown, the LEDs go out and there is no output. If output is needed, you can set bps "ON" on the LCD setting menu.

Turn off the UPS by DC without mains power

1. Press and hold the OFF key for more than half a second to turn off the UPS.
2. When turning off the UPS, it will do self-testing firstly. The LEDs light and go out circularly and orderly until there is no display on the cover.

UPS self-test/mute test operation

1. When the UPS is in line mode, press and hold the self-test/mute key for more than 1 second, the LEDs light and go out circularly and orderly. The UPS comes to self-test mode and tests its status. It will exit automatically after finishing testing, and the LED indication will go back to previous status.
2. When the UPS is in battery mode, press and hold the self-test/mute key for more than 1 second, the buzzer stops beeping. If you press and hold the self-test/mute key for one more second, it will restart to beep again.



CAUTION

- The following process must be performed if the UPS is connected with generator.
 - First, turn on the generator, after it runs stably connect output power of the generator to UPS input terminal, then turn on the UPS. After the UPS is turned on, please connect load one by one.
 - It is recommended that the generator capacity is as twice as the UPS rated capacity.
 - You had better not use the ECO mode when the quality of the input AC mains is not good.
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UPSilon2000 Power Management Software

Each UPS ships with UPSilon2000 Power Management Software. To begin installing UPSilon2000 software, see the instructions accompanying the Software Suite CD.



NOTE Install UPSilon2000 Power management software with the serial number attached on the cover of the CD. When running the monitor software, choose appropriate communication port. If using RS232, choose COM1/2. If using USB, choose USB.

This is a Class A product. In home environment, this product may cause radio interference. In this case, the user may be required to take appropriate measures.

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