

Chapter 4

Configuration

This chapter contains information on the following topics:

- Placing the UPS in Configure mode
- Configuration parameters and their LED indicators
- Using the front panel LED display and controls to monitor and change configuration parameters
- Using the UPS configuration parameters to optimize battery life by matching utility voltage

Placing the UPS in Configure Mode

The Compaq 2000 Series UPS models can enter the Configure mode while in the Operate or Standby mode.

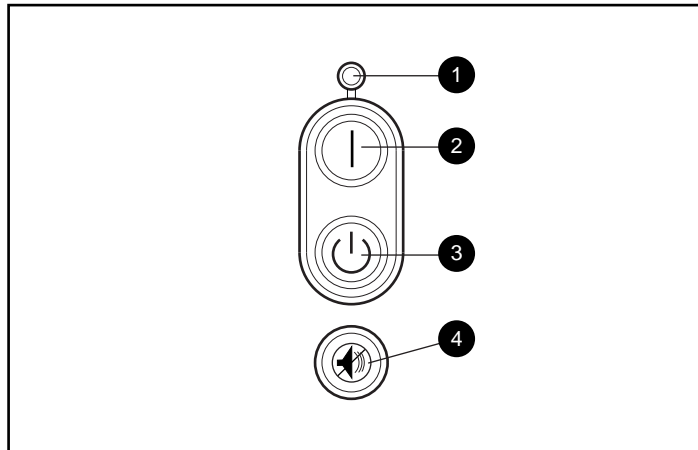


Figure 4-1. Configure mode controls

- ❶ ON LED (LED 16)
- ❷ ON button
- ❸ STANDBY button
- ❹ TEST/ALARM RESET button

To place the UPS in Configure mode, press the ON (❷) and TEST/ALARM RESET (❹) buttons simultaneously. Release the buttons when the acknowledgement beep sounds.

IMPORTANT: If the STANDBY button is pressed while in the Configure mode, the UPS will enter Standby mode, and power to the load segments will cease.

In the Configure mode, the front panel LED display changes function. The LED display and button controls allow the user to monitor, and to change, the UPS configuration parameters.

Configuration Parameters and their LED Indicators

In the Configure mode, the front panel LEDs 1 to 15 are assigned to eleven configuration parameters¹, detailed in the following table. (LED 16 indicates the ON or OFF status of each parameter.)

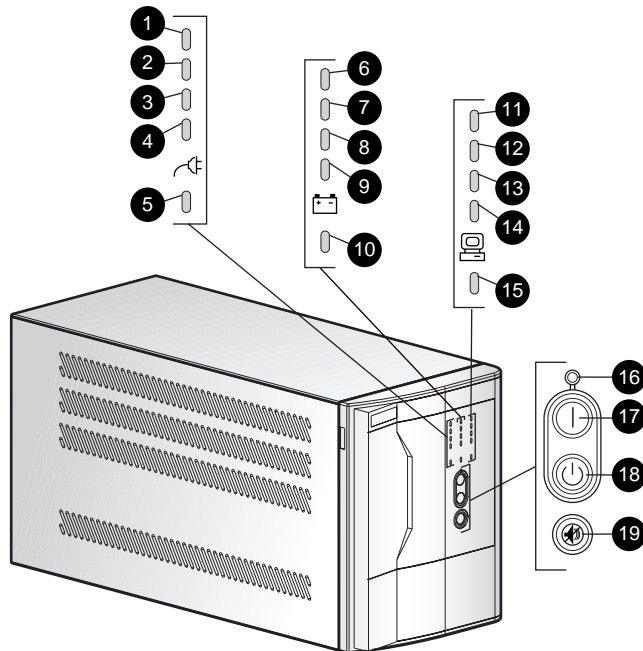


Figure 4-2. The front panel LED display and controls

¹ Configuration parameters 11 to 14 are reserved for future use.

Table 4-1
Configuration Parameters/LED Indicators

Parameter (LED)	Parameter Name	LED 16 Status	Explanation
1	120/230 Nom	On ¹	Nominal utility voltage level is 120/230 VAC.
2	110/220 Nom	On ¹	Nominal utility voltage level is 110/220 VAC.
3	127/240 Nom	On ¹	Nominal utility voltage level is 127/240 VAC.
10	100/208 Nom	On ¹	Nominal utility voltage level is 100/208 VAC.
4	Extended Voltage	On	UPS will supply utility power if the utility voltage is within +20% to -35% of the nominal voltage. If the utility voltage is outside this range, the UPS will supply battery power.
		Off (default)	UPS will supply utility power if the utility voltage is within $\pm 20\%$ of the nominal voltage. If the utility voltage is outside this range, the UPS will supply battery power.
5	Wiring Fault	On (default)	Enables an audio alarm if ground is missing, or if line and neutral connections have been reversed.
		Off	Disables the audio alarm for this event.
6	Low Battery	On (default)	Enables an audio alarm 3 minutes before battery shutdown.
		Off	Enables an audio alarm 5 minutes before battery shutdown.
7	Shutdown Delay	On (default)	Enables a 5-second delay before turning off power to the output receptacles after receiving a shutdown command from the host.
		Off	Enables a 3-minute delay.

continued

Table 4-1
Configuration Parameters/LED Indicators *continued*

Parameter (LED)	Parameter Name	LED 16 Status	Explanation
8	AC Input Failure	On (default)	Enables an audio alarm when the utility voltage is outside the UPS operating range.
		Off	Disables the audio alarm for this event.
9	Sleep Mode	On	Enables Sleep mode.
		Off (default)	Disables Sleep mode.
11-14	Reserved		Reserved for future use.
15	Reset Defaults	On	Defaults are restored ² .
		Off	Configuration selected by the user overrides defaults.

Notes: ¹ Only one nominal utility voltage can be configured.
² If model T2000j voltage defaults to 120, change the voltage to 100.
If model T2000h-NA voltage defaults to 230, change the voltage to 208.

Changing Configuration Parameters

The Configure mode can be entered from the Operate or Standby mode.

IMPORTANT: If the STANDBY button is pressed while in the Configure mode, the UPS will enter Standby mode, and power to the load segments will cease.

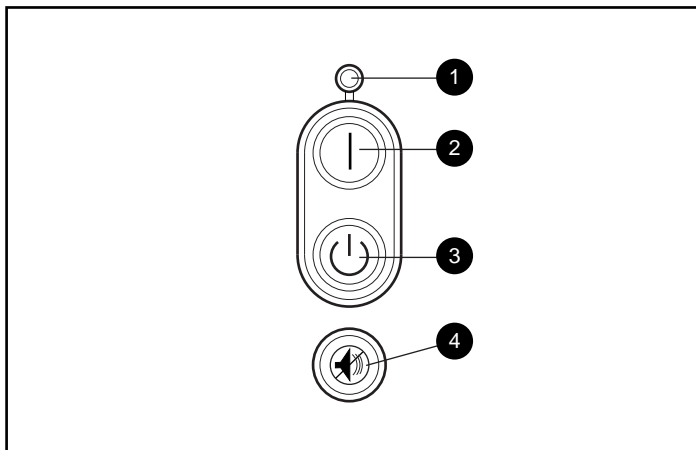


Figure 4-3. Configure mode controls

- ❶ ON LED (LED 16)
- ❷ ON button
- ❸ STANDBY button
- ❹ TEST/ALARM RESET button

To change configuration parameters:

1. Place the UPS in Configure mode by pressing the ON (❷) and TEST/ALARM RESET (❹) buttons simultaneously. Release the buttons when the acknowledgement beep sounds.
2. The top left LED on the front panel LED display should begin to blink, indicating that configuration parameter 1 is selected.
3. To determine if the selected configuration parameter value is ON or OFF, check LED 16 (❶)—if LED 16 is ON, the selected parameter is also ON.
4. To toggle the selected configuration parameter value, press the TEST/ALARM RESET button (❹). The UPS will acknowledge compliance with a short beep.

NOTE: For nominal voltage configuration parameters 1, 2, 3, and 10—selecting an ON value for any one parameter automatically sets the other three possibilities to OFF.

5. To scroll through the configuration parameters, press the ON button (Ⓜ). The UPS acknowledges compliance with a short beep. Monitor the LED display (see Figure 4-2; LED 1 blinks to indicate that parameter 1 is selected, LED 2 blinks when parameter 2 is selected, and so on).
6. Repeat Steps 2 through 5 as required. Continue until all changes have been made.
7. To exit the Configure mode at any time:
 - ❑ Press the ON (Ⓜ) and TEST/ALARM RESET buttons (Ⓜ) simultaneously, or
 - ❑ after parameter 15 is accessed, press the ON (Ⓜ) button.

The UPS will acknowledge compliance with a short beep.

Optimizing Battery Life by Matching the Utility Voltage

Optimize UPS battery life by using the configuration parameters to select the best nominal voltage range for the UPS installation.

When utility voltage is outside the selected operating range, the UPS supplies battery power to the output receptacles. Maximize the UPS battery life by configuring the UPS so that the utility voltage is normally within the selected operating range.

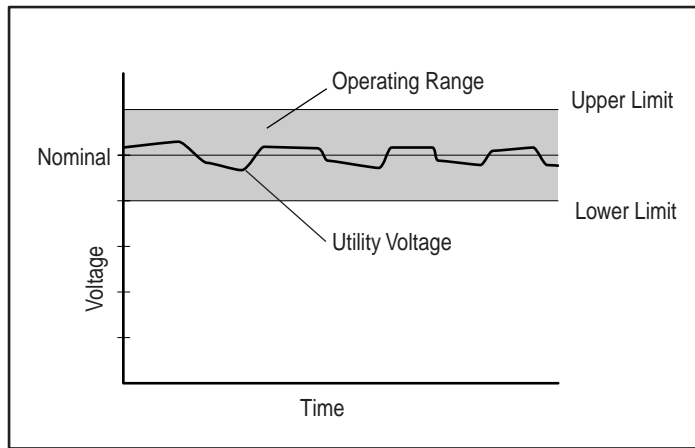


Figure 4-4. Optimal—Utility voltage fluctuating within the UPS operating range

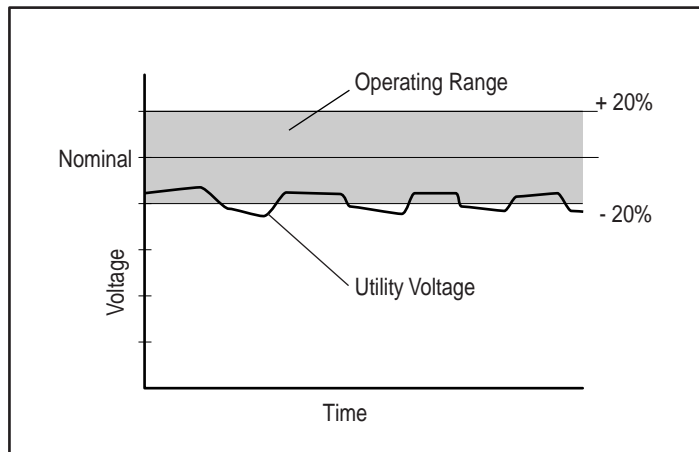


Figure 4-5. Utility voltage fluctuation indicating a shift in nominal voltage range may be necessary

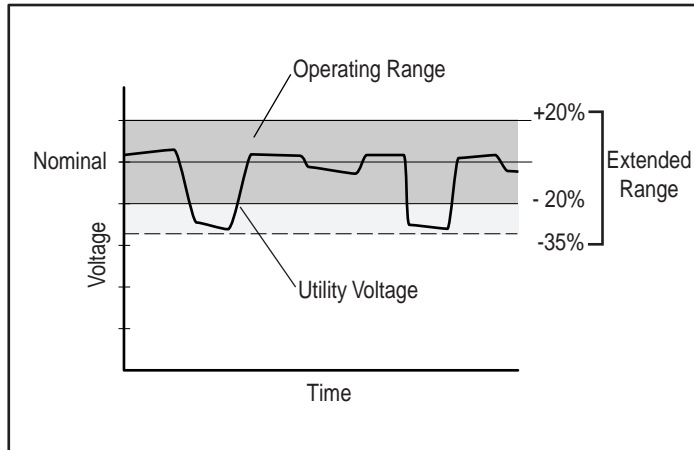


Figure 4-6. Utility voltage fluctuation indicating a possible need for extended range setting

To match the utility voltage, the UPS operating range can be modified in two ways:

- If the utility voltage differs from the currently configured nominal voltage, but stays within a $\pm 20\%$ band (see Fig 4-5), consider shifting the nominal voltage parameter selection to match the measured utility voltage range.
- If the utility voltage frequently varies outside the UPS operating range (see Fig 4-6), consider changing from normal to extended range (+20% to -35%). This provides more tolerance to brief utility voltage fluctuations.

To update the nominal voltage and operating range parameters:

1. Have a qualified electrician monitor utility voltage.
2. Use the following tables to identify the operating range that most closely matches requirements:

Table 4-2
Operating Ranges (VAC) - T2000 and T2000j Models

Nominal Level	Normal Range	Extended Range
100	80 to 120	Not applicable
110	88 to 132	72 to 132
120	96 to 144	78 to 144
127	102 to 152	83 to 155

Table 4-3
Operating Ranges (VAC) - T2000h and T2000h-NA Models

Nominal Level	Normal Range	Extended Range
208	166 to 250	Not applicable
220	176 to 264	143 to 264
230	184 to 276	150 to 276
240	192 to 288	156 to 288

3. For nominal voltage level setting, select configuration parameters 1, 2, 3, or 10 (see Table 4-1).
4. Access parameter 4 to switch from normal to extended range (see Table 4-1).