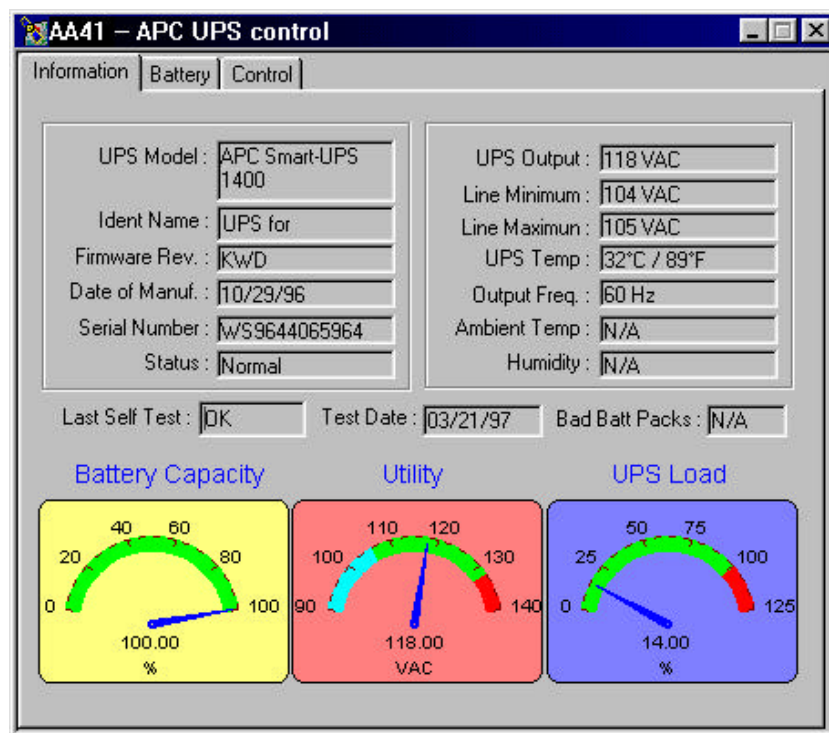


# APC UPS System Utility

For system with APC UPS system. If the system has APC UPS system installed and has the APC UPS system subagent running (for Windows NT and NetWare available right now) then you can monitor and control the APC UPS system remotely through ASM Station.

There are three parts of APC UPS System: Information, Battery and Control.

## APC UPS - Information



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- **UPS Model:** The UPS model name.
  - **Ident Name:** An 8 byte ID string identifying the UPS. This object can be set by the administrator.
  - **Firmware Rev:** The firmware revision of the UPS system's microprocessor.
  - **Date of Manuf:** The date when the UPS was manufactured in mm/dd/yy format.
  - **Serial Number:** An 8 byte string identifying the serial number of the UPS internal microprocessor. This number is set at the factory. NOTE: This number does NOT correspond to the serial number on the rear of the UPS.
  - **Battery Status:** The status of the UPS batteries. A Low value indicates the UPS will be unable to sustain the current load, and its services will be lost if power is not restored.
  - **UPS Output:** The output voltage of the UPS system in VAC.
  - **Line Minimum:** The minimum utility line voltage in VAC over the previous 1 minute period.
  - **Line Maximum:** The maximum utility line voltage in VAC over the previous 1 minute period.
  - **UPS Temp:** The current internal UPS temperature.
  - **Output Freq:** The current output frequency to the UPS system in Hz.
  - **Ambient Temp:** The ambient temperature.
  - **Humidity:** The relative humidity as a percentage.
  - **Last Self Test:** The results of the last UPS diagnostics test performed.

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- **Test Date:** The date the last UPS diagnostics test was performed in mm/dd/yy format.
  - **Bad Batt Packs:** The number of external battery packs connected to the UPS that are defective. If the UPS does not use smart cells then the value is N/A.
  - **Battery Capacity:** The remaining battery capacity expressed in percent of full capacity.
  - **Utility:** The current utility line voltage in VAC.
  - **UPS Load:** The current UPS load expressed in percent of rated capacity.

## APC UPS - Battery

The screenshot shows the 'AA41 - APC UPS control' window with the 'Battery' tab selected. The window displays various battery and voltage status metrics.

Battery	
Basic Time :	00:00:00
Time Remaining :	01:29:00
Last Replace Date :	10/29/99
Status	Need Replace
OK	NO
Battery Packs	
Total :	N/A
Bad :	N/A

Voltage	
Input	Output
Phase :	1
Voltage :	105 VAC
Frequency :	60 Hz
Input Line Fail Case : Brown out	
Output Status : On Smart boost	
Input Max Line Voltage :	105 VAC
Output Load :	14 %
Input Min Line Voltage :	104 VAC
Output Current :	N/A

- **Basic Time:** The elapsed time since the UPS has switched to battery power.
- **Time Remaining:** The UPS battery run time remaining before battery exhaustion.
- **Last Replace Date:** The date when the UPS system's batteries were last replaced in mm/dd/yy format. For Smart-UPS models, this value is originally set in the factory. When the UPS batteries are replaced, this value should be reset by the administrator.
- **Status:** Unknown, OK, or Low for status of UPS batteries.

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- **Need Replace:** Indicates whether the UPS batteries need replacing.
  - **Battery Packs/Total:** The number of external battery packs connected to the UPS. If the UPS does not use smart cells then the value is N/A.
  - **Battery Packs/Bad:** The number of external battery packs connected to the UPS that are defective. If the UPS does not use smart cells then the value is N/A.
  - **Phase:** The current input/output phase.
  - **Voltage:** The input/output voltage of the UPS system in VAC.
  - **Frequency:** The current input/output frequency to the UPS system in Hz.
  - **Input Line Fail Case:** The reason for the occurrence of the last transfer to UPS battery power. The variable is set to:

noTransfer(1)	if there is no transfer yet.
highLineVoltage(2)	if the transfer to battery is caused by an over voltage greater than the high transfer voltage.
brownout(3)	if the duration of the outage is greater than five seconds and the line voltage is between 40% of the rated output voltage and the low transfer voltage.
blackout(4)	if the duration of the outage is greater than five seconds and the line voltage is between 40% of the rated output voltage and ground.
SmallMomentarySag(5)	if the duration of the outage is less than five seconds and the line voltage is between 40% of the rated output voltage and the low transfer voltage.
DeepMomentarySag(6)	if the duration of the outage is less

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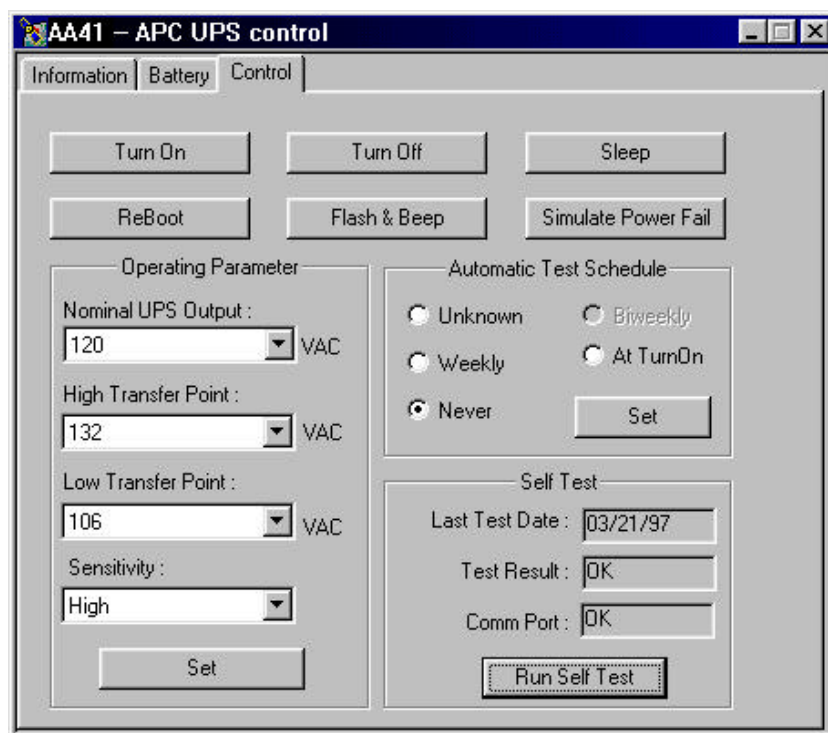
	than five seconds and the line voltage is between 40% of the rated output voltage and ground.
SmallMomentarySpike(7)	if the line failure is caused by a rate of change of input voltage less than ten volts per cycle.
largeMomentarySpike(8)	if the line failure is caused by a rate of change of input voltage greater than ten volts per cycle.

- **Output Status:** The current state of the UPS. If the UPS is unable to determine the state of the UPS this variable is set to unknown(1). There are 12 defined values:

unknown(1)	off(7)
onLine(2)	rebooting(8)
onBattery(3)	switchedByPass(9)
onSmartBoost(4)	hardwareFailureBypass(10)
timedSleeping(5)	sleepingUntilPowerReturn(11)
softwareBypass(6)	onSmartTrim(12)

- **Input Max Line Voltage:** The maximum utility line voltage in VAC over the previous 1 minute period.
- **Input Min Line Voltage:** The minimum utility line voltage in VAC over the previous 1 minute period.
- **Output Load:** The current UPS load expressed in percent of rated capacity.
- **Output Current:** The current in amperes drawn by the load on the UPS.

## APC UPS - Control



- **Turn On:** Pressing this button to cause the UPS to be turned on immediately. This action is only available with the APC Mini-SNMP Adapter.
- **Turn Off:** Pressing this button to cause the UPS to shut off. When in this state, the UPS will not provide output power regardless of the input line state. The ON/OFF switch on the UPS must be toggled for the UPS to return to operation.

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- **Sleep:** Pressing this button to cause the UPS to go to sleep. When in sleep mode, the UPS will not provide output power regardless of the input line state. Once the specified time has elapsed, output power will be restored.
  - **Reboot:** Pressing this button to cause the UPS to shut off and turn back on.
  - **Flash & Beep:** Pressing this button to cause the UPS to beep and simultaneously turn on the UPS front panel lights (Smart-UPS only).
  - **Simulate Power Fail:** Pressing this button to cause the UPS switch to battery power.
  - **Operating Parameter/Nominal UPS Output:** The nominal output voltage from the UPS in VAC. Possible values are 100, 120, 208, 220, 225, 230 and 240.



*Only units that are 220, 225, 230 and 240 can be changed. Allowable set values are 220, 225, 230, and 240.*

For these adjustable units, if a value other than a supported value is provided in a set request, the UPS interprets it as the next lower acceptable value. If the provided value is lower than the lowest acceptable value, the lowest acceptable value is used.

- **Operating Parameter/High Transfer Point:** The maximum line voltage in VAC allowed before the UPS system transfers to battery backup.

Allowed values depend on the UPS used:

100 volt units allow settings of 108, 110, 112, and 114.

120 volt units allow settings of 129, 132, 135, and 138.

208 volt units allow settings of 224, 229, 234, and 239.

230 volt units allow settings of 253, 264, 271, and 280.





*Matrix units configured for 208V input allow settings of 240, 244, 248, and 252. Matrix units configured for 240V input allow settings of 276, 264, 253, and 282. If a value other than a supported value is provided in a set request, the UPS interprets it as the next lower acceptable value. If the provided value is lower than the lowest acceptable value, the lowest acceptable value is used.*

- **Operating Parameter/Low Transfer Point:** The minimum line voltage in VAC allowed before the UPS system transfers to battery backup.

Allowable values depend on the UPS used:

100 volt units allow settings of 81, 83, 85, 87.

120 volt units allow settings of 97, 100, 103, 106.

208 volt units allow settings of 168, 172, 177, 182.

230 volt units allow settings of 188, 196, 204, 208.



*Matrix units configured for 208V input have a fixed low transfer voltage of 156 volts. Matrix units configured for 240V input have a fixed low transfer voltage of 180 volts. If a value other than a supported value is provided in a set request, the UPS interprets it as the next higher acceptable value. If the provided value is higher than the highest acceptable value, the highest acceptable value is used.*

- **Operating Parameter/Sensitivity:** The sensitivity of the UPS to utility line abnormalities or noises.
- **Automatic Test Schedule:** The UPS system's automatic battery test schedule.

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- **Self Test/Last Test Date:** The date the last UPS diagnostics test was performed in mm/dd/yy format.
  - **Self Test/Test Result:** The results of the last UPS diagnostics test performed.
  - **Self Test/Comm Port:** The status of agent's communication with UPS.