User Manual

Note: This diagram is also used for battery cartridge replacement.

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LCD INDICATORS and CONTROLS SUMMARY

The red, backlit liquid crystal display (LCD) on the front panel of the Back-UPS displays real-time system status messages, system faults and warnings, Load Capacity, and Battery Charge level. Two pushbuttons are provided on the front panel, the Power On/Off pushbutton on the left, and the Display/Hold to Mute pushbutton on the right.

- Power On/Off button - is used to turn input power on and off. It is also used to initiate self-test, to go into Sensitivity mode, and it is used with the Display/Hold to Mute pushbutton to reset the Event Counter.

- Display/Hold to Mute button - is used to display status messages, system faults and warnings, Load Capacity, and Battery Charge level. Two pushbuttons are provided on the front panel, the Power On/Off pushbutton on the left, and the Display/Hold to Mute pushbutton on the right.

- ONLINE - is lit whenever utility power is supplied to power the equipment connected to the Back-UPS.

- Load Capacity - this indicator consists of a bar containing five blocks. When only one or two of the blocks are filled (lit), the unit load is at less than half capacity.

- Battery Charge - this indicator is a bar containing five blocks. When all five blocks are filled, the load is at full capacity. If the load exceeds the unit's rated capacity, the Overload symbol on the bottom of the display will flash off and on.

- Sensitivity mode - this alarm sounds whenever the battery backup output power is overloaded. Overload mode is covered in greater detail on Page 2.

- Replacement battery - this indicator consists of a bar with five blocks. When all five blocks are filled, the battery is fully charged. When only one block is filled (lit) the battery charge is low.

- Event Counter - is displayed in both full time display mode and in “AVR Mode”. The Event Counter is covered in greater detail on Page 2.

- Capacity of the Back-UPS, is displayed in both ONLINE mode, and on BATT mode.

- Minimum - this alarm sounds whenever a low battery condition occurs, and battery run-time is very low. Promptly save any work in progress, shut down the operating system, computer, and Back-UPS.

- System Faults - when a fault occurs, this symbol and the fault number (F01 - F09) will flash off and on. The nine fault messages are described further on Page 2.

- Battery Charge - this indicator is a bar containing five blocks. When all five blocks are filled, the load is at full capacity. If the load exceeds the unit's rated capacity, the Overload symbol on the bottom of the display will flash off and on.

- Sensitivity mode - this alarm sounds whenever the battery backup power is overloaded. Overload mode is covered in greater detail on Page 2.

- Replacement battery - this indicator is a bar containing five blocks. When all five blocks are filled, the load is at full capacity. If the load exceeds the unit's rated capacity, the Overload symbol on the bottom of the display will flash off and on.

- Sensitivity mode - this alarm sounds whenever the battery backup power is overloaded. Overload mode is covered in greater detail on Page 2.
OTHER STATUS INDICATORS

Mute
This feature allows you to mute the audible alarm (the "speaker" symbol). When you press the Display/Hold to Mute button, a line drawn through the "speaker" symbol (speaker with a line drawn through it) is displayed. To enable the audible alarm that has been muted, perform the same steps that were used for muting the alarm. The alarm (beeper) can also be muted all the time. With the speaker or speaker-NOT icon displayed, press and hold the Display/Hold to Mute button for FIVE seconds until the speaker-NOT icon flashes off and on. The unit will mute the alarm all the time except for faults.

AVR
When AVR is illuminated on the LCD, it indicates that the automatic voltage regulation (AVR) circuitry is in AVR Mode. AVR compensates for excessively low or high voltage conditions without going off battery. In this example, 50 V is displayed.

Sensitivity
A typical condition where sensitivity adjustments would be appropriate is with an AC line input, and with the units AVR Mode or high voltage conditions without going on battery. In this example, 115 V is displayed.

LCD Full Time Display Mode
The LCD can be set to full time display mode by performing the following steps:
1. Press the power ON/OFF button, and hold it in for 10 seconds. All five blocks in the Battery Capacity bar will flash off and on, which indicates the unit is in pushbutton programming mode.

Note: A rotating selection method is used that allows you to step through the display modes using the Display/Hold to Mute button until you select the display mode you want. For example, in Power Save mode none of the blocks are lit. If all five of the blocks are lit, it indicates the LCD is in full time mode, and will remain on full time.

3. When you rotate through the selections and reach the display mode you want, press and release the Display/Hold to Mute button to select the display mode.

Note: If no buttons are pushed, and no operations occur for five seconds, the unit automatically exits pushbutton programming mode.

4. Once you have selected the desired display mode, continue with normal self-test mode.

To initiate self-test mode, press the power ON/OFF button, and hold it in for ONE second. The AC plug symbol (ONLINE) flashes off and on during self-test mode.

SYSTEM FAULTS
Up to nine system faults can be displayed (F01 - F09). A System Faults icon is provided just below the system fault number. The system faults include:

- F01 - On-Battery Overload
- F02 - On-Battery Output Short
- F03 - On-Battery XCap Overload
- F04 - Clamp Short
- F05 - Charger Fault
- F06 - On-Battery Clamp
- F07 - Temperature
- F08 - Fan Fault
- F09 - Internal Fault

Note: If no buttons are pushed, and no operations occur for five seconds, the unit automatically exits pushbutton programming mode.

Self-Test

WARNINGs

Warning 1 - Online Overload
This warning indicates that there is an ONLINE overload condition at 1.25 kW, indicated by the illuminated ONLINE icon, and the flashing overload icon.

Warning 2 - Battery Backup Overload
This warning indicates that there is a battery overload condition. This is indicated by the flashing overload icon.

Warning 3 - Online Bad Battery
This warning indicates that you are in ONLINE mode, and you have a bad battery, indicated by the flashing bad battery icon.

Warning 4 - Battery Backup Low Battery
This warning indicates that the battery is low, and the Battery Charge indicator bar is flashing.

BATTERY MODE Display Selection

When you are in ONLINE mode, and you press the Display/Hold to Mute button, you will rotate through the following six groups of displays and messages:

1. When you press the Display/Hold to Mute button the first time, the LCD is backlit and the input voltage (V) is displayed. In this example 110 V is displayed as "110 v".
2. The second example shows a fourth time in ONLINE mode, the load in Watts (W) is displayed. In this example 760 W is displayed.
3. The third example shows a fifth time in ONLINE mode, the battery backup (ON BATT) output voltage (V) is displayed, in this example it is 115 V.

When you press the Display/Hold to Mute button a third time the battery backup (ON BATT) output voltage (V) is displayed, in this example it is 115 V.

When you press the Display/Hold to Mute button a fourth time the ON BATT input voltage is displayed.

When you press the Display/Hold to Mute button a fifth time displays the ONLINE output voltage (V), in this example 110 V is displayed.

When you press the Display/Hold to Mute button a sixth time the ONLINE output frequency (Hz) is displayed.

ONLINE MODE Display Selection

When you are in ONLINE mode, and you press the Display/Hold to Mute button, you will rotate through the following six groups of displays and messages:

1. When you press the Display/Hold to Mute button the first time, the LCD is backlit and the input voltage (V) is displayed. In this example 110 V is displayed as "110 v".
2. The second example shows a second time in ONLINE mode, the Power Event Counter is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power ON/OFF button.
3. The third example shows a third time in ONLINE mode, the Power On/Off button is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power On/Off button.

When you press the Display/Hold to Mute button the third time, the estimated runtime in minutes is displayed. In this example 18 minutes is displayed as "18 minutes." When you press the Display/Hold to Mute button a fourth time, the Power On/Off button is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power On/Off button.

When you press the Display/Hold to Mute button a second time, the Power On/Off button is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power On/Off button.

When you press the Display/Hold to Mute button a second time, the Power Event Counter is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power On/Off button.

When you press the Display/Hold to Mute button a first time, the Power Event Counter is displayed, as shown below. To reset the counter, press and hold the Display/Hold to Mute button, and press the Power On/Off button.
**ORDER REPLACEMENT BATTERY**

The battery cartridge typically lasts 3 to 6 years, a shorter period of subjected to frequent outages or elevated temperatures. For the BX1300/1500LCD-CN order part APCRBC109. Please recycle spent battery cartridges.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Item</th>
<th>1300/1500 VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Input Voltage Range (default settings)</td>
<td>88 to 159 Vac</td>
</tr>
<tr>
<td>Automatic Voltage Regulation (AVR)</td>
<td>±12% (Boost mode only)</td>
</tr>
<tr>
<td>Online Frequency Range</td>
<td>57 to 63 Hz (Autosensing)</td>
</tr>
<tr>
<td>On-Battery Waveshape</td>
<td>Step Wave</td>
</tr>
<tr>
<td>Maximum Load</td>
<td>1300 VA: 780 W/1500 VA: 865 W</td>
</tr>
<tr>
<td>Typical Operating Time</td>
<td>16 Hours</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>32° to 104°F</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-25° to 113°F</td>
</tr>
<tr>
<td>Operating / Storage Relative Humidity</td>
<td>0% to 95% non-condensing</td>
</tr>
</tbody>
</table>

**TRANSFER VOLTAGE and SENSITIVITY ADJUSTMENT**

In situations where the Back-UPS or connected equipment appears too sensitive to the input voltage, it may be necessary to adjust the transfer voltage. This is a simple task using the front panel Power On/Off button. To adjust the transfer voltage, proceed as follows:

1. Plug the Back-UPS into the utility power source, but do not turn the unit on. The Back-UPS will be in standby mode (there are no indicators lit).
2. Press and hold the front panel Power On/Off switch for 10 seconds, until all the indicators on the Back-UPS flash to acknowledge it has entered sensitivity programming mode. Release the Power On/Off button, the blocks in the Back-UPS's LCD have shown on the LCD indicate it's current sensitivity setting, as described in the table below.

**NOTICE:** This device complies with Parts 68 and 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

There is a label on the bottom of this equipment that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

**ORDER REPLACEMENT BATTERY**

The standard warranty is three (3) years from the date of purchase. APC's standard procedure is to replace the original unit with a factory reconditioned unit. Customers who must have the original unit back due to the assignment of asset tags and set depreciation schedules must declare such a need at first contact with their Support representative. If this is not successful, APC will issue a Return Merchandise Authorization (RMA) number and a shipping address.

**CONTACT INFORMATION**

**Technical Support**

USA / Canada 1.800.800.4272

Worldwide +1.401.789.5735

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