OWNER'S MANUAL

SUNPAK®
Electronic Flash Accessory

POWERPAK for 510-Volt Battery

with
Automatic Voltage Regulation

For use with
SUNPAK models 411, 420, 421, 511, 522, and 611.

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IMPORTANT SAFEGUARDS

When using your photographic equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions.
2. Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.
3. Do not operate appliance if the appliance has been dropped or damaged — until it has been examined by a qualified serviceman.
4. To protect against electrical shock hazard, do not immerse this appliance in water or other liquids.
5. To avoid electric shock hazards, do not disassemble this appliance, but take it to a qualified serviceman when some service or repair work is required. Incorrect reassembly can cause electric shock hazard when the appliance is used subsequently.
6. Do not operate appliance with a damaged cord.
7. Do not let cord hang over edge of table or counter or touch hot surfaces.
8. If an extension cord is necessary, care should be taken to arrange the cord so that it will not be tripped over or pulled.

SAVE THESE INSTRUCTIONS
GENERAL INFORMATION

Battery life and performance with regard to recycling time and number of flashes per battery will vary according to distance, brightness and Power Ratio (in manual use) on Sunpak models 411, 420, 421, 511, 522, and 611. With fresh batteries, optimum recycling time will be achieved. In most instances, using the automatic modes will produce faster recycling time. For fastest possible recycling (for example when using motorized equipment) you may prefer to use manual operation and the variable Power Ratio Control on your Sunpak flash. (applicable only to Sunpak models 411, 420, 421, 511, 522, and 611).

1. Prepare Battery

Use standard 510V Photographic Battery (also designated 497, PF-497, or types U320 and VS-979 or Sunpak Rechargeable NC 510V Battery, depending on brand). CAUTION: Do not touch the high voltage contacts or tamper with any metal objects as severe shock may result.

2. Install Battery

Place battery in Powerpak with Negative (−) terminal downward, facing right side of Powerpak. Press battery down firmly, and set it to the position.

3. Attach Power Cord
TECHNICAL SPECIFICATIONS

Product Type ............... Professional Powerpak for 510V Battery
Designed For .............. Sunpak 411, 420, 421, 511, 522, and 611. Electronic Flash Units

<table>
<thead>
<tr>
<th>Weight</th>
<th>Dimensions</th>
<th>Detachable Coiled Power Cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Battery 18.2 oz</td>
<td>2.0” x 5.1” x 6.9”</td>
<td>10’ (Accessory)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>411</th>
<th>420</th>
<th>421</th>
<th>511</th>
<th>522</th>
<th>611</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Rechargeable 510V Battery (NC510)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling Time</td>
<td>0.3-1</td>
<td>0.3-1</td>
<td>1.5</td>
<td>0.3-1</td>
<td>0.25-2</td>
</tr>
<tr>
<td>No. of Flashes</td>
<td>130-500</td>
<td>115-500</td>
<td>100</td>
<td>110-450</td>
<td>70-400</td>
</tr>
<tr>
<td>With Accumulated 510V Battery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling Time</td>
<td>0.3-1</td>
<td>0.25-0.5</td>
<td>1</td>
<td>0.3-1</td>
<td>0.25-2</td>
</tr>
<tr>
<td>No. of Flashes</td>
<td>1000-5000</td>
<td>840-4800</td>
<td>460</td>
<td>800-5000</td>
<td>430-2900</td>
</tr>
</tbody>
</table>

3. Attach Power Cord
Insert the plug of the power cord into receptacle of Powerpak and turn the plastic lock cover attached to the plug clockwise until it stops. Plug the cord of the Powerpak into the AC cord receptacle of the Sunpak flash unit. Leave Battery AC/HV switch on the flash in the AC position.

4. Turn Powerpak On
Move switch on top of Powerpak to "ON" position ... and within a second or two, the Ready Light of your flash will glow. Now simply operate the flash and camera in normal fashion. The automatic voltage regulation built into this Powerpak electronically regulates the battery voltage to produce 100% light output when the Ready Light on the Powerpak glows. The monitor circuit that may be in your electronic flash unit will not operate as it's not needed with your automatic voltage regulated Powerpak.