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SUNPAK

GX24 AUTO24
GX24B AUTO24B

Instructions for use
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<td>Guide number</td>
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<td>in feet</td>
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<td>56</td>
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<td>56</td>
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<td>Flash duration</td>
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<td></td>
<td>1/1500 sec.</td>
<td>1/1500 - 1/50000 sec.</td>
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<td>Recycling time (Flash capacity)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc carbon batteries</td>
<td>4 - 7 sec. (60)</td>
<td>4 - 7 sec. (60)</td>
<td></td>
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<tr>
<td>Manganese alkaline batteries</td>
<td>6 - 8 sec. (240 - 260)</td>
<td>6 - 8 sec. (240 - 260)</td>
<td></td>
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</tr>
<tr>
<td>Nicad rechargeable batteries</td>
<td>3 - 5 sec. (130 - 150)</td>
<td>3 - 5 sec. (130 - 150)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A C</td>
<td>5 - 7 sec.</td>
<td>-</td>
<td>5 - 7 sec.</td>
<td>-</td>
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<tr>
<td>Colour temperature</td>
<td></td>
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<td>Specifications</td>
<td>GX24</td>
<td>GX24B</td>
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<tr>
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<td>Four penlite batteries or A.C. (100-120V or 200-240V Dual Voltage)</td>
<td>Four penlite batteries</td>
<td>Four penlite batteries or A.C. (100-120V or 200-240V Dual Voltage)</td>
<td>Four penlite batteries</td>
</tr>
<tr>
<td>Working aperture for computer operation and distance range with computer operation</td>
<td></td>
<td></td>
<td>Blue: f4 for ASA 50 (DIN18) 0.5-4.3m (1.6-14 feet) Red: f8 for ASA 50 (DIN18) 0.5-2.2m (1.6-7.2 feet)</td>
<td></td>
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<tr>
<td>Light covering angle</td>
<td>Vertical position: Covers the format of 35mm wide lens. Horizontal position: Covers the format of 28mm wide lens.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1 Battery Operation

Open

Insert Batteries.

www.orphaniccameras.com
Move the power switch to the right so that the red panel is exposed. After a few seconds the neon lamp will start to glow.
For AC operation follow the instructions as illustrated by fig. 1.2.3.

AC Operation

www.orphan.cameras.com
When you use the unit with 100–120V AC, remove the philipps screw from the AC adaptor and shift the voltage selector switch to the 100–120V position.

**NB** Be sure to set the AC voltage selector to match the AC voltage to be used. If this is not done, the unit will be damaged.
Sliding into hot-shoe

If your camera has a centre contact, slide the hot shoe of the unit into the camera top as illustrated. Make sure that the tip of the P.C. cord is inserted into the P.C. synchro cord receptacle of the unit.
Connection of flash synchro cord

If your camera does not have a centre contact, insert the tip of your P.C. synchro cord into "X" setting of your camera.
When the neon lamp glows, touch the tip of the P.C. synchro cord on the metal pole located behind the swivel shoe, as illustrated. The unit will then flash.
The unit is provided with a 180° swivel shoe which can rotate the unit 180°. You can set the unit in any of three positions as illustrated.

Vertical position: Covers the format of 35mm wide lens
Horizontal position: Covers the format of 28mm wide lens

5 180° Swivel Shoe and Light Covering Angle
DETERMINING THE CORRECT F STOP

How to use Guide Number Dial

If you are using a film of ASA 50 (DIN 18) speed, match the triangle on the disc to the ASA 50 (DIN 18) film speed index on the inner dial (Fig. shows adjustment for ASA 50/DIN 18 film speed). On the outer disc, the distance is indicated, and on the opposite side, the F stop is indicated. The correct F stop for the desired distance between the unit and subject can now be read. The F stop value should be set for your camera aperture.
If you are using a film of ASA 50 (DIN 18) speed, and the distance between the unit and the subject is 6m (approx. 20 feet), then the correct F stop is f2.8. Set f2.8 for your camera aperture.
The revolutionary Sunpak Auto computerised electronic flash unit is so versatile that its performance is equivalent to that of any other three flash units combined. The Sunpak Auto is equipped with two optional Light Sensor Apertures. Instructions for operation of the sensors follow.

If you are using a camera with a Flashmatic System, set the system for manual operation next page.

Computer operation - Part 1.
(Blue square)
Refer to page 15-16

Light sensor switch

Computer operation - Part 2.
(Red square)
Refer to page 17-18

Manual operation (White dot)
Refer to page 19-20
The light sensor used in the Sunpak Auto flash unit stops the flash tube firing when the intensity of light emitted from the flash unit and the light reflected from the subject being photographed match the conditions for correct exposure.

The light sensor measures the intensity of light reflected from the subject after the flash fires and automatically controls the flash light intensity. The light sensor serves, accordingly, as a control center for the intensity. In addition to the light sensor, the flash unit is provided with a control section which signals the flash tube to stop firing and a current bypass tube controlling the surplus.
How to Set the Auto Aperture (AUTO24 AUTO24 B)
Deciding the aperture with computer

Computerised photography — Part 1 (Blue square)
* When you want a distracting background to be out of focus.
* When you want the subject only to be sharp.

1. Move the light sensor switch to the blue square located on the front cover and automatic distance correction is set.

2. Match the silver triangle on the guide number dial to the film speed you use. The distances covered by the blue semi-circle are the effective distances — 0.5 to 4.3 meters (1.6-14 feet) — and the correct f-stop for automatic operation is shown on the reference block of inner dial opposite the upper end of the blue semi-circle of outer dial. (Refer to the table given below for the correct f-stop to use for various film speeds.)

3. Pictures can now be taken at any distance between 0.5 and 4.3 meters (1.6-14 feet) without any re-adjustment of the camera aperture, thanks to the programming system of the new Sunpak Auto.

**EXAMPLE**

When you are using ASA 50 (DIN 18) film, the correct f-stop of your camera is 4. Shooting range is 0.5-4.3 meters (1.6-14 feet) for Blue square. Refer to page 15, illustrated its procedures.

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<table>
<thead>
<tr>
<th>Film speed</th>
<th>ASA</th>
<th>400</th>
<th>320</th>
<th>250</th>
<th>200</th>
<th>160</th>
<th>125</th>
<th>100</th>
<th>80</th>
<th>64</th>
<th>50</th>
<th>32</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN</td>
<td>27</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td>20</td>
<td>19</td>
<td>18</td>
<td>16</td>
<td>15</td>
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<tr>
<td>F-stop</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>5.6</td>
<td>5.6</td>
<td>5.6</td>
<td>4</td>
<td>4</td>
<td>2.8</td>
<td>2.8</td>
<td></td>
</tr>
</tbody>
</table>

**EXAMPLE**
10 How to Set the Auto Aperture (AUTO24 AUTO24B)

www.orphancameras.com
Computerised Photography — Part 2 (Red square)

* When you want sharply defined pictures of both subject and background.

1. Move the light sensor switch to the red square and automatic distance correction is set.

2. Match the silver triangle on the guide number dial to the film speed you use. The distances covered by the red semi-circle are the effective distance — 0.5 to 2.2 meters (1.6-7.2 feet) — and the correct f-stop for automatic operation is shown on the reference block of inner dial opposite the upper end of the red semi-circle of outer dial. (Refer to the table given below for the correct f-stop to use for various film speeds.)

<table>
<thead>
<tr>
<th>Film speed</th>
<th>ASA</th>
<th>400</th>
<th>320</th>
<th>250</th>
<th>200</th>
<th>160</th>
<th>125</th>
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<th>64</th>
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<tbody>
<tr>
<td></td>
<td>DIN</td>
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<td>26</td>
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<td>24</td>
<td>23</td>
<td>22</td>
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<td>20</td>
<td>19</td>
<td>18</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>F-stop</td>
<td></td>
<td>22</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>5.6</td>
<td>5.6</td>
</tr>
</tbody>
</table>

**EXAMPLE**

3. Pictures can now be taken at any distance between 0.5 and 2.2 meters (1.6-7.2 feet) without any re-adjustment of the camera aperture.

**EXAMPLE:** When you are using ASA 50 (DIN 18) film, the correct f-stop of your camera is 8. Shooting range is 0.5-2.2 meters (1.6-7.2 feet) Refer to page 17, illustrated its procedures.
White Dot: Manual Operation (AUTO24 AUTO24B)

www.orphan cameras.com
MANUAL OPERATION

When you wish to use the Sunpak Auto 24 manually, dispensing with the programming function and adjusting your camera aperture according to the distance between the subject and the flash unit, please follow the instructions given below:

* Move the computer aperture switch to the white dot, thus eliminating the programming function and preparing the Sunpak Auto 24 for manual operation.

* Match the silver triangle on the guide number dial of the flash unit with the exposure index of the film used. For example, if you are using ASA 50 (DIN18) film, match the triangle on the outer GN dial with the ASA 50 (DIN18) exposure index mark on the inner GN dial.

* Measure the distance between the subject and the flash unit. The correct aperture value is read off the inner dial at the opposite side of the GN dial from the measured distance.

* Set your camera aperture in accordance with the GN dial reading. For example, if the distance between the subject and the flash unit is 6 meters (20 feet), your camera aperture should be set at f2.8 since this is the value shown on the inner dial opposite the 6 meters (20 feet) distance setting.

For manual operation, follow the illustrations

1→2→3→4
The flash unit can only be synchronized with "X" or mark setting. Therefore, set the shutter dial of your camera at the "X" or mark. If your camera does not have an "X" mark, follow the instruction manual carefully or consult the manufacturer.

If the shutter is of leaf type, any shutter speed can be synchronized.
NB

For long storage, remove the batteries from the battery container of the flash unit since leakage of the battery fluid could occur with consequent corrosion of the flash unit.
How to use charger unit

1. Insert 4 “AA” NiCad batteries into battery compartment of Sunpak Flash.
2. Connect charger cord to the end of synchro cord of flash as illustrated.
3. Plug charger into AC power source and charge for 14 hours. Now charging is completed.

* Do not charge with the ordinary batteries. Use only with NiCad batteries.