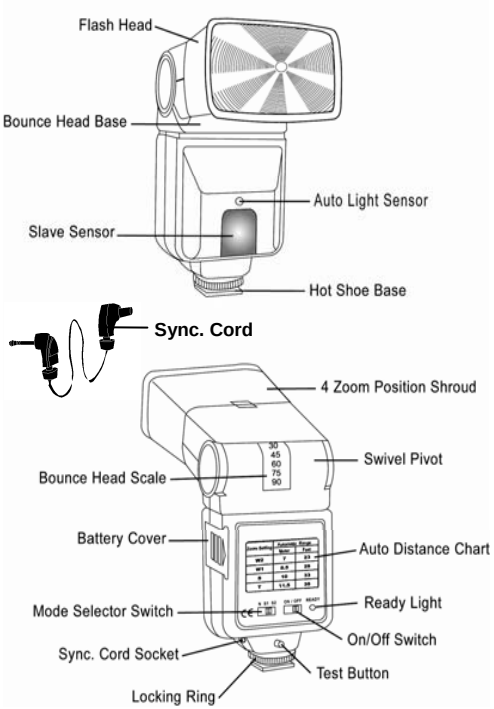
BOWER DIGITAL SFD328



SPECIFICATIONS

Guide No	: 28m/92ft (ISO100 @ S Position)
Mode Selector Switch	: 3 positions: N, S1,S2
LED Indicator	: Orange Ready light
Zoom coverage	: 4 positions (W2,W1,S,T)
Bounce angle	: 0° – 90°
Swivel angle	: 0° – 330°
Angle of coverage	: Horizontal 60°, Vertical 45°
Automatic F/stop	: F2.8 (ISO100 @ S Position)
Auto Distance Range	: Approx. 1m – 10m / 3.3-33ft (ISO 100 @ S position)
Synchronization	: Hotshoe contact pin or slave sensor
Recharging time	(New Batteries)
- Alkaline	: Approx 6 seconds
- NiCd/MiMH	: Approx 4 seconds
Colour Temperature	: 5600°K
Power source	: 4AA Alkaline, NiCd/NiMH Batt.
X-Synchronization voltage	: ≤ 6v
Dimension	: 70 (L) x 168 (H) x 48 (W) mm 2.75" (L) x 6.60"(H) x 1.9" (W)
Weight (without battery)	: 210 grams (7.4 oz)
Dedication	: All digital still cameras with built in flash or Hotshoe contact

CAUTION – Read this section before use

The flash unit is designed to be used with any digital camera with a built-in flash or digital camera that has an external hotshoe. The flash unit can also be used as a supplemental slave flash.

1. To avoid electrical shock or burn, do not attempt to dismantle any part of the flash unit. If the external shell of the flash unit is broken or cracked, do not touch the internal mechanisms or circuitry even when the batteries are removed.
2. When replacing the batteries, replace all of the battery cells. With weaker cells, the flash unit will take longer to recharge for the next shot.
3. The flash unit is neither weatherproof nor waterproof. When using the flash unit in the rain or near water, avoid any contact with water. The warranty does not cover water damage. It is often impractical to repair electrical components damaged by water.

BATTERY INSTALLATION

1. Slide the On/Off Switch (9) to the "Off" position, and then open the Battery Cover (2) by sliding it forward.
2. Insert four AA batteries into the battery compartment. Be sure the polarity (+,-) of the batteries are aligned according to the diagram inside the battery chamber.
3. Close the Battery Cover.
4. Slide the On/Off Switch (9) to the "On" position. You may hear the high-pitch whine of the capacitor as it charges. After a few seconds, the orange Ready Indicator (10) will light up indicating that the flash unit is ready for use.

ATTACHING AND REMOVING THE FLASH

The flash unit can be used off the camera (wireless flash) or on the hotshoe of the digital still camera. Please refer to the steps listed below for wireless flash operation and hotshoe synchronization flash operation.

Wireless Flash Operation

1. Slide the On/Off Switch (9) to the "Off" position.
2. Slide the Mounting Base (16) onto the hotshoe on the flash bracket and turn the Locking Ring (6) until it is secure.
3. When you attach or remove the flash unit, grasp the bottom of the flash unit to prevent damage to the Mounting Base or the bracket's shoe.
4. Mount your digital camera on the bracket, on the grip pad, using the ¼-20 thumbscrew and tighten securely.
5. Slide the On/Off Switch (9) to the "On" position.

Hotshoe Synchronization Flash Operation

1. Turn the On/Off switch (9) to the "Off" position.
2. Slide the Mounting Base onto the hotshoe of your digital still camera and turn the Locking Ring (6) until it is secure.
3. When you attach or remove the flash unit from your digital still camera, grasp the bottom of the flash unit to prevent damage to the Mounting Base.
4. Slide the On/Off Switch (9) to the "On" position.

AUTO DISTANCE CHART – USING THE ZOOM HEAD

The distance chart (3) on the back of the flash unit suggests the automatic flash range for the four zoom positions - W2, W1, S and T. The zoom positions correlate to the "35mm equivalence" focal length of your digital camera lens. (Digital cameras vary greatly. Use these numbers as a guide.). As a general rule, use W1 or W2 for wide angle (no zoom), S for 2x optical zoom and T for optical zoom 3x and above.

Select the zoom setting appropriate for your lens positioning. For example:

Automatic Flash Range	Zoom range of camera (35mm equivalence)	Correct Zoom Position on flash unit (in mm)
7.0m / 23ft	28-34mm	W2
8.5m / 28ft	35-49mm	W1
10m / 33ft	50-84mm	S
11.5m / 38ft	85mm and above	T

By selecting the appropriate zoom position on the flash unit that correlate with the zoom position of your digital cameras lens, the flash output will be automatic adjusted to ensure pictures taken are correctly exposed.

FLASH PHOTOGRAPHY - IMPORTANT

In order to ensure that the images taken with your digital camera are sufficiently illuminated, follow these instructions:

Step:

1. Before mounting your digital camera onto the bracket or the camera hotshoe, set the White Balance and Flash mode:
   i. Select the white Balance of your digital camera to "AUTO".
   ii. Set the flash mode of your digital camera to "On" to ensure that the flash is emitted for every shot. "On" is also known as "fill" for some cameras.
   iii. Set the ISO sensitivity to "100"
   iv. If your camera allows manual selection of aperture and speed, set the aperture to F2.8 and speed to 60.

   Once you have completed the above setting on your digital camera, you may mount your camera onto the flash bracket or the camera hotshoe.
2. Look at the Mode Selector Switch (4). If your camera does not have an external hotshoe, refer to 2_i for wireless synchronization. If your camera has an external hotshoe, refer to 2_ii for hotshoe synchronization.
   i. Wireless synchronization
      - Turn on your digital camera and take a few shots using the camera's built-in flash. If you can, observe the number of flash pulses emitted by your camera's built-in flash each time it flashes. (Many digital cameras emit more than one pulse.)
      - If your digital camera flash emits only one pulse - slide the Mode Selector Switch to the "**S1**" position. Proceed to Step 3.
      - If your digital camera flash emits two pulses - slide the Mode Selector Switch to the "**S2**" position. Proceed to Step 3.

   ii. Hotshoe synchronization
      - Slide the Mode Selector Switch to the "**N**" position.
      - Set the program mode of your digital still camera to aperture priority mode.
      - Set the aperture of your digital still camera to F2.8.
      - Proceed to Step 3.

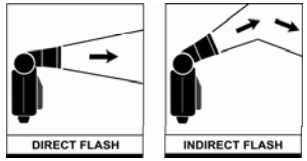
   ***Check the manual of your digital still cameras on the available and operations of aperture priority mode.**
3. Next, adjust the zoom position of the flash head to match the field of view of your digital camera. Refer to the Distance Chart (3) as a guide. If your digital camera does not have an optical zoom lens, try the W2 position.

Now, you are ready for automatic digital flash photography.

USING BOUNCE HEAD

By using a normal direct flash, you may produce pictures with excessive shadows behind the subject, or over illuminate your subject even when the light output is controlled by the AUTOMATIC operation.

In order to overcome this problem, the BOUNCE flash head was introduced to assist photographers in taking less harshly lit pictures without shadows.



To use, tilt the flash head upwards to direct the light so that it bounces off the ceiling and lands on the top of and or behind your subject. You can also swivel the flash head to bounce off a wall.

For best results, bounce off white walls and white ceilings. Note that the maximum flash distance is reduced considerably because the light travels indirectly to the subject over an increased distance. The total flash distance is calculated as follows: The distance from the flash to the reflecting surface, plus the distance from the reflecting surface to the subject.

IMPORTANT:

The degree scale on the top of the flash unit shows your bounce angle. Always make sure that the flash bounce head is set correctly for your specific shot to prevent any unnecessary light loss.

FLASH CARE AND SERVICE

Store your flash unit away from heat or direct sunlight. Never store in a car. Always use fresh batteries, and replace all 4 batteries during replacement.