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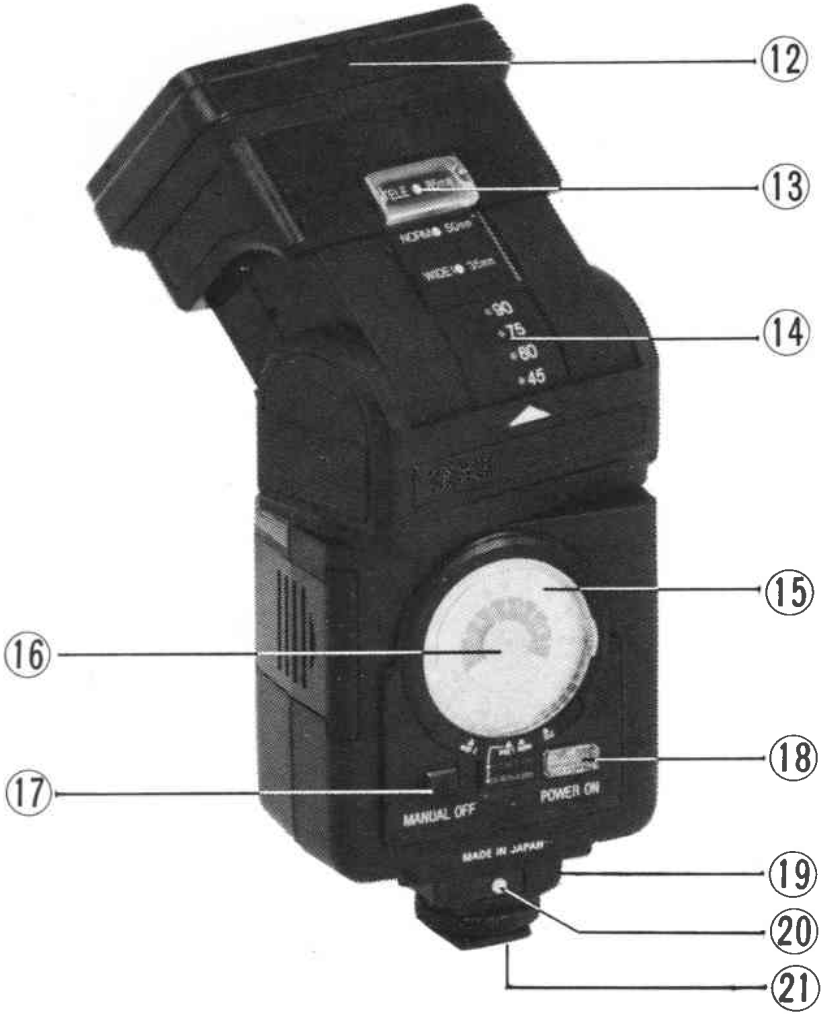
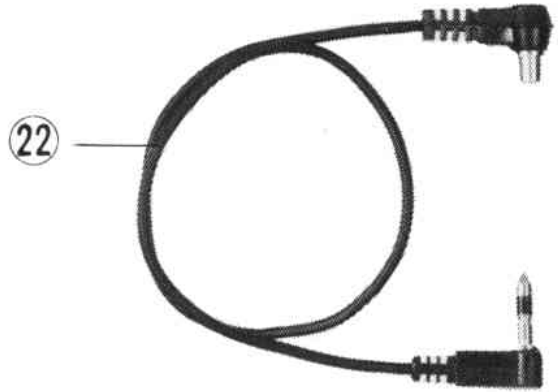
Starblitz®

3600-BTZ

TWIN

INSTRUCTIONS





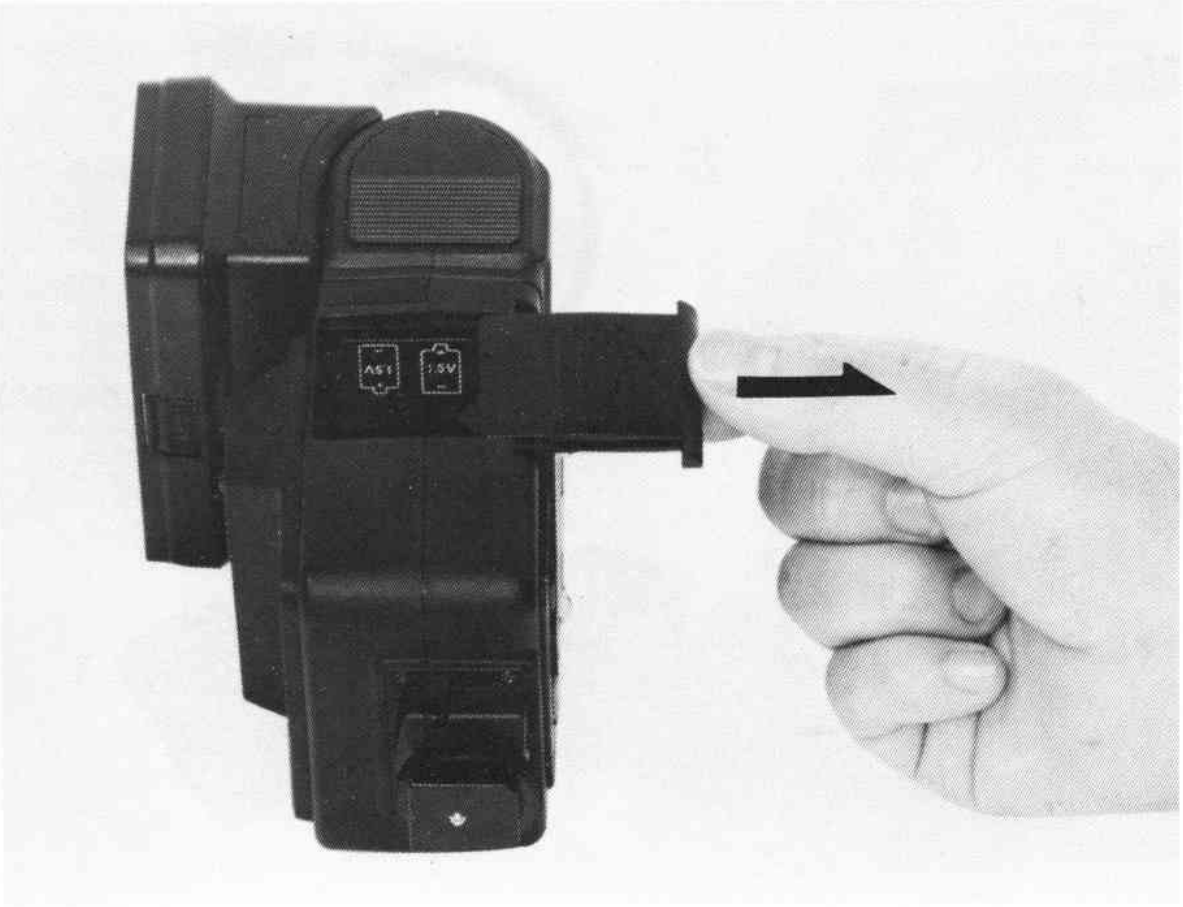


Fig. 1

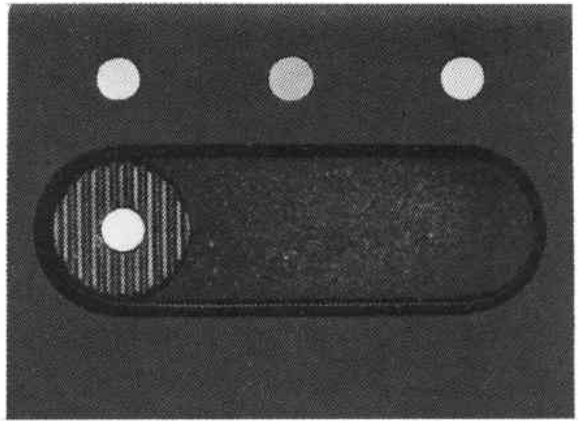


Fig. 2

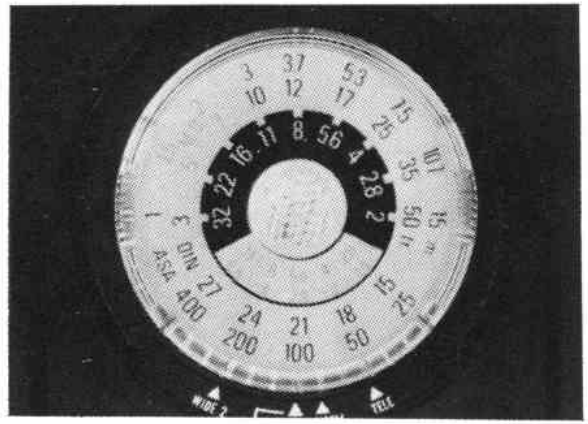


Fig. 3

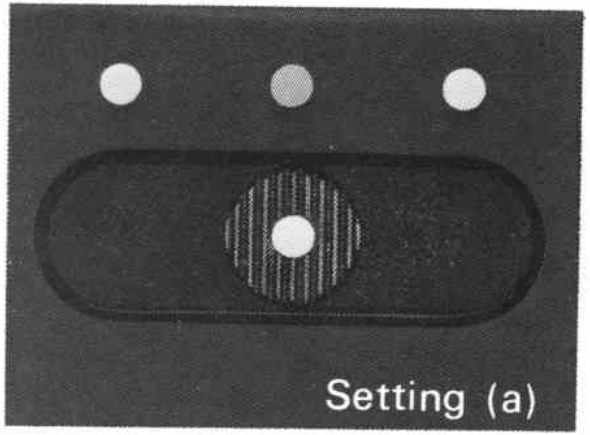


Fig. 4

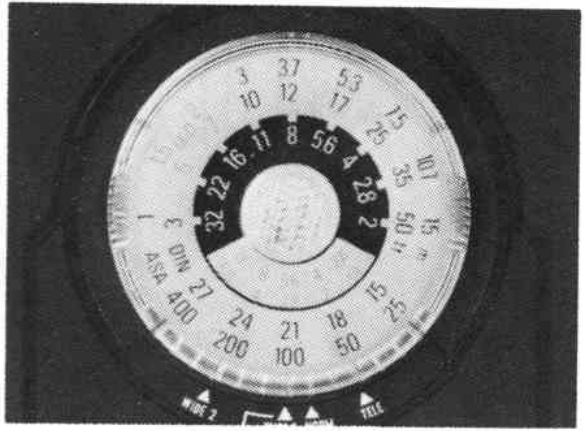


Fig. 6

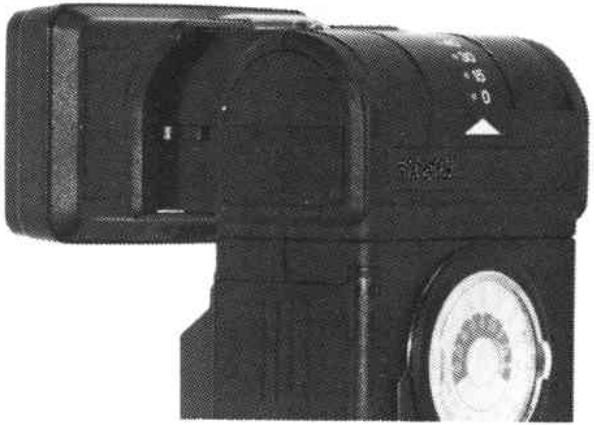


Fig. 8

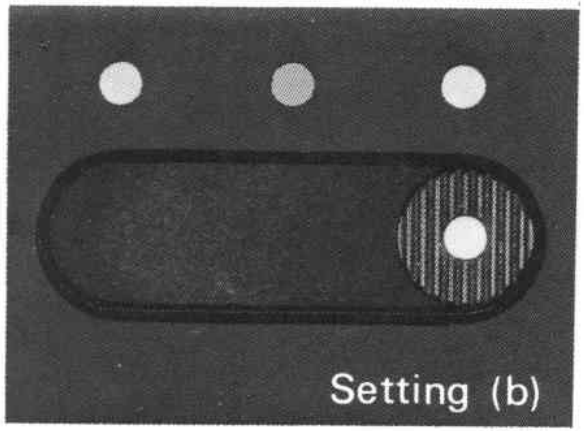


Fig. 5

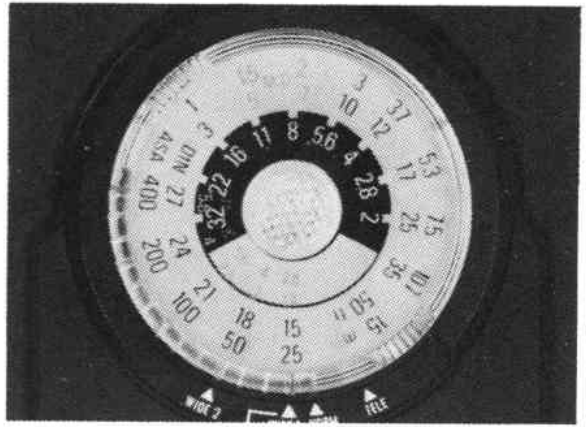
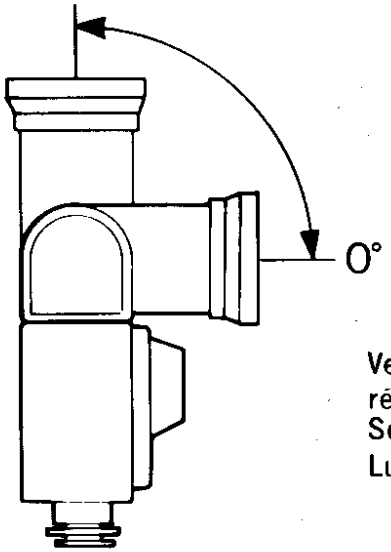
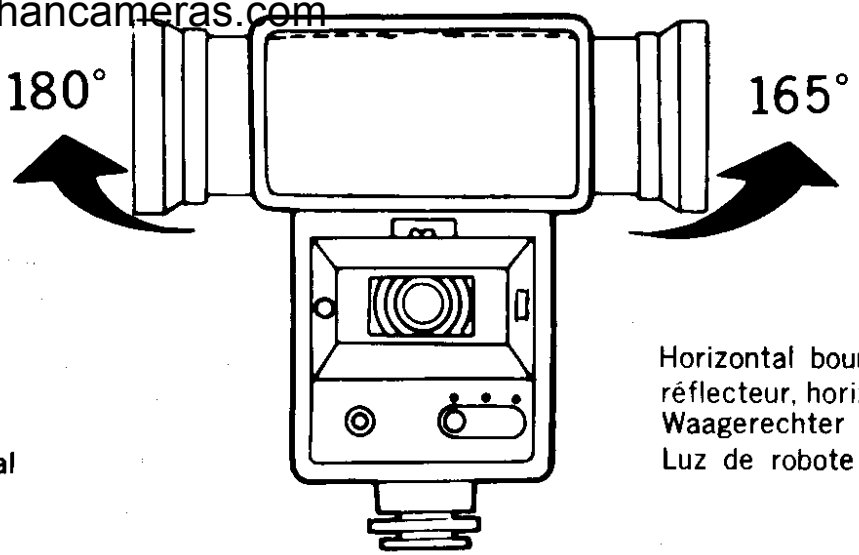


Fig. 7

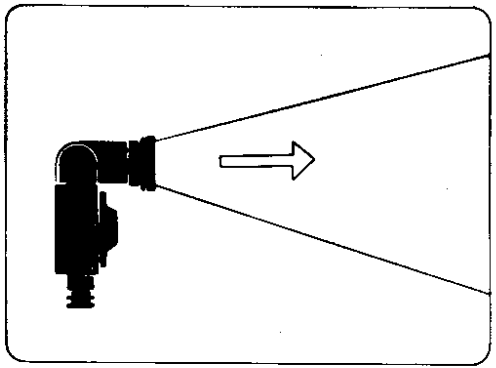
Fig. 9



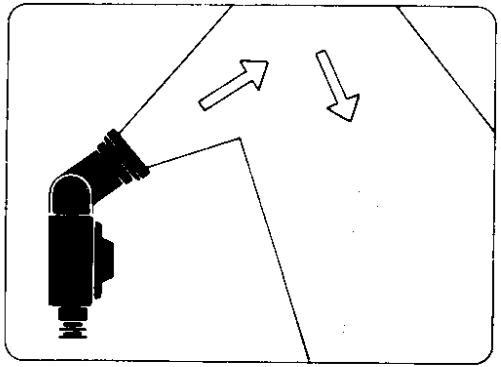
Vertical bounce
réflecteur vertical
Senkrechter Blitz
Luz de rebote vertical



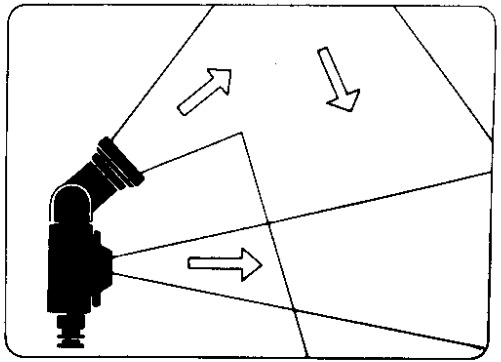
Horizontal bounce
réflecteur, horizontal
Waagerechter Blitz
Luz de robote horizontal



a) Direct flash
a) flash direct
a) Direkter Blitz
a) Flash directo



b) Bounce flash
b) flash réfléchissant
b) Vario Blitz
b) Flash indirecto



c) Twin flash (direct & indirect)
c) double flash (direct et indirect)
c) Korrektur Blitz (Direkt und Indirekt)
c) Doble flash (directo e indirecto)

PARTS DESCRIPTION

1 Flash window
2 Adjustable bounce head
3 Auxiliary flash ON/OFF switch
4 Slave sensor
5 Auxiliary flash window
6 Auto sensor eye
7 .3 position switch
8 Battery lid
9 Slave ON/OFF switch
10 P.C. cord socket
11 Shoe lock screw
12 Zoom head
13 Zoom indicator window
14 Flash bounce angle indicator
15 Flash guide dial scale
16 Ready lamp
17 Manual off switch
18 Power on switch
19 Flash shoe base
20 Test button
21 Hot shoe contact
22 P.C. connecting cord
23 Filter kit

SPECIFICATIONS

Guide Number:

1) **Main Flash only (at Wide I position)**
   30 in meter ASA 100 50 in feet ASA 25
   36 in meter ASA 100 (1/2 stop increase) at normal position
   42 in meter ASA 100 (1 stop increase) at telephoto position
2) Dual Flashes (Main + Aux.)
   a) Main Flash
      26 in meter ASA 100 43 in feet ASA 25 at wide I position
   b) Aux. Flash
      7 in meter ASA 100 12 in feet ASA 25

Coverage Distance (Main Flash only) Two auto positions:

1) At Wide Position
   F = 2.8 setting 1.3 – 10.7 meters, 4 – 35 feet (ASA100)
   F = 5.6 setting 1 – 5.3 meters, 3 – 17 feet (ASA100)
2) At Normal Position
   F = 2.8 setting 1.5 – 12.5 meters, 5 – 41 feet (ASA100)
   F = 5.6 setting 1.3 – 6.2 meters, 4 – 20 feet (ASA100)
3) At Telephoto Position
   F = 2.8 setting 1.8 – 15 meters, 6 – 49 feet (ASA100)
   F = 5.6 setting 1.5 – 7.5 meters, 5 – 25 feet (ASA100)

Colour Temperature: Daylight (5700° Kelvin)

Angle of Coverage: Main Flash Wide I position Horizontal 60° Vertical 45°
(35mm lens and up)
Normal position Horizontal 46° Vertical 34°
(50mm lens and up)

	Telephoto position Horizontal 31° Vertical 23° (85mm lens and up)
	Wide adopter (Wide II) Horizontal 70° Vertical 53° (28mm lens and up)
	Aux. flash Horizontal 55° Vertical 40°
Flash Duration:	1/1000 sec. at manual setting
	1/1000 — 1/30000 sec. at auto setting
Recycling time:	10 sec. at manual setting by Alkaline Battery
	0.5 — 10 sec. at auto setting by Alkaline Battery
Power Source:	4 x 1.5V AA size Alkaline batteries
Number of flashes:	120 flashes at manual by Alkaline battery
	120 — 2000 flashes at auto by Alkaline Battery
Special features:	1) Rapid recycling for motor drive camera
	2) Built in Slave
Weight:	360g without batteries
Dimension:	140mm x 80mm x 89mm

BATTERY INSTALLATION

Ensure that the "ON-OFF" switch is in "OFF" position. Slide the battery compartment lid in the direction of the arrow until the lid becomes detached (fig. 1). Insert four penlight (AA size) batteries taking care that the positive and negative terminals are correctly aligned as indicated in the compartment (fig. 1)

Alkaline batteries are recommended because of their longer life and endurance to a wider temperature range. Moreover, their strength is far superior to that of conventional zinc-carbon batteries and this powerful flashunit understandably requires considerable energy.

The thyristor circuitry is power-saving and does allow quite a number of flashes to be made from a single charge with microscopic intervals between flashes.

N.B. Clean the battery and compartment contacts at regular intervals. Remove the batteries if the unit is likely to be out of use for a long period.

ATTACHMENT TO CAMERA / SHUTTER SPEED SETTING

The flashunit has a "Hot Shoe" Base provided. Insert the mounting foot into the accessory shoe on the camera and tighten Lock Nut. A P.C. cord is supplied and this should be used for other cameras to electrically connect the flashunit to the 'X' contact socket of the camera.

The 'X' contact socket should always be used. Any shutter speed can be set on cameras having interlens shutters although the speed of 1/125th second is recommended.

Focal-plane shutter cameras will have an 'X' shutter speed setting (usually 1/60th or 1/125th second) and this should be set for photographing in poor light conditions.

OPERATING INSTRUCTIONS

1. Push "power on" button. Green indicator lamp will light up indicating "power on". When fully charged, ready lamp in center of unit will light indicating the unit is ready for operation.
2. After operation, unit will automatically recycle and when fully charged, orange ready lamp will again light — indicating unit is now ready for further operation.
3. Auto off feature: If unit is not manually turned off within 60 seconds of last operation or power on, the green light will go out indicating that the unit has turned off automatically. However, ready light will usually stay on for period of not less than 20 minutes.

   Note: If times between flash operation are from 20 minutes to 1 hour, it is suggested that the unit be turned back on before taking another flash picture to insure full charge.
4. "Manual off" override: In the case, for example, that only one picture is taken, there is a manual override of the auto off system which allows you to manually turn the unit off by pushing button on left hand side of back surface labeled "manual off" When pushed, green light will immediately go out but orange ready light will stay on for approximately 20 minutes.
5. Test button: Button is located on the rear of the unit on the hot shoe foundation and is mounted flush with body of the flash unit to prevent accidental firing of flash. After use, when flash unit has been turned off, please remember that the ready light will remain on for approximately 20 minutes. Do not depress the test button unnecessarily during this time as this will not discharge the flash

unit. If the test button is activated, the unit will automatically turn on and recharge again and will turn off again after approximately 40 seconds.

FLASH OPERATION – Manual Use

Set the knob on front of unit to central position. The two white dots set adjacent one another (Fig. 2) serve as an indicator that flash is on manual setting.

Set the rotating diaphragm disc on the back of the unit in such a position that the speed of the film being used appear adjacent the yellow diamond mark - normal (E.G. ASA 100 in Fig. 3)

Estimate (or measure for greater accuracy) the camera to subject distance and then locate the nearest greater reading in feet or meters on the top semicircle of the diaphragm disc.

Read the adjacent white figure on the inner disc to determine the camera lens aperture setting (E.G. F5.6 for a distance of say 15ft). Please note the readings on the outer disc are the maximum distances at which photographs taken at the adjacent F stop reading will be correctly exposed. Ensure that photographs are not taken out of the effective range as they will be underexposed.

FLASH OPERATION – Computer Use

The built-in photosensitive cell measures the light emanating from the subject and the computor automatically determines the correct quantity of light required. There are two settings for computor use – (a) for relatively close range where green framed circular window is adjacent the white dot (Fig. 4) and (b) for greater distance where

the red framed photocell is visible adjacent the white mark (Fig. 5).

With the diaphragm disc set at the appropriate film speed e.g. 100 ASA in Fig. 5, one can choose either F2.8 setting as indicated by the green figure or F5.6 as indicated by the red figure.

12ft is the maximum distance specified in the green. Therefore for distances of 12ft or less the green setting (a) should be selected and the camera lens should be set at F2.8 stop.

For distances in excess of 12ft but less than 25ft the red setting (b) should be selected and the camera lens should be set at F5.6 stop.

As can be seen in Fig. 7 when 25 ASA Film is being used the green setting (a) for distances up to 12ft corresponds to F5.6 setting, while red setting (b) for distances up to 25ft corresponds to F2 setting. Should the film speed (e.g. ASA 64) be such the green arrow falls between two F stop readings choose the nearest yellow figure to the right of the arrow (e.g. F5.6).

PHOTOGRAPHIC EFFECTS BY DIRECT AND BOUNCE FLASH

a) Using direct flash, pictures have hard shadows and brightly lit subjects even through correctly exposed.
b) Using bounce flash, you can minimize hard shadows.
c) Using twin flash strobes, you will get brighter shadows and still get the brilliance of direct flash.
d) When using the twin flash (Main & Slave), slide the flash 1-2 switch for the slave flash to "flash 2" position on the

front body after switching on the main "Power on" switch on the black.

HOW TO USE THE ZOOM FLASH HEAD

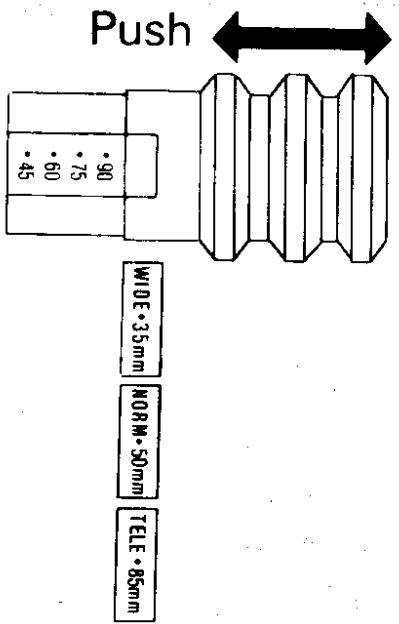
The lighting angle mechanism built into this flash unit allows selection of 3 preset lighting angles by just pulling out the flash head. The guide number changes in relation to the angle. Determine the best angle for flashing in relation to the focal length of the lens.

MAIN FLASH ONLY

Zoom indicator index	Lighting angle (with 35mm lens camera)	Guide number	
		ASA 100/M	ASA 25/FT
WIDE I 35	35mm lens and up Horizontal 60° Vertical 45°	30	50
Normal 50	50mm lens and up Horizontal 46° Vertical 34°	36	60
Tele 85	85mm lens and up Horizontal 31° Vertical 23°	42	70
Wide adapter (Wide II)	28mm lens and up Horizontal 70° Vertical 53°	25	40

* Aux. Flash angle is fixed to Horizontal 55° and Vertical 40° and its guide number is 7 in meters at ASA 100 (12 in feet ASA 25).

When using the Wide adopter (Wide II), set the Zoom Head to the Wide I position and then attach the Wide adopter over the flash window.



35mm lens and up

50mm lens and up

85mm lens and up

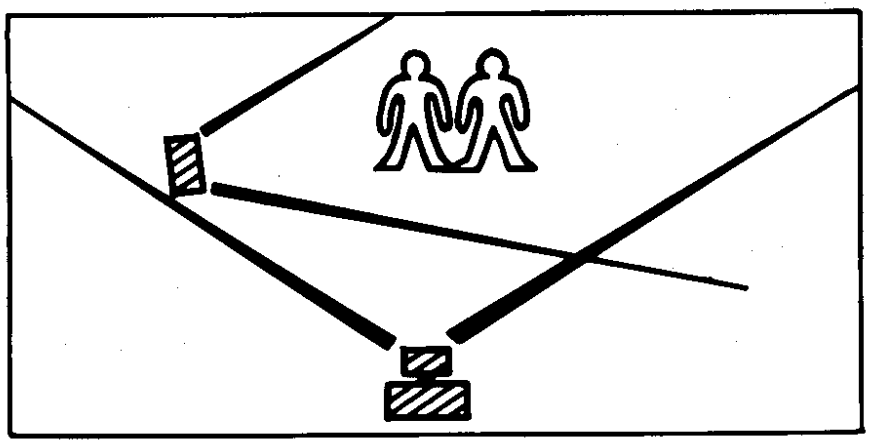
Automatic Operation Range

Auto/ Manual switch position	Film speed	Zoom indicator index			
	ASA 100/M	W I	N	T	W II
Green dot	F/5.6	1-5.3m (3-17ft)	1.3-6.2m (4-20ft)	1.5-7.5m (5-25ft)	1-3.7m (3-12ft)
Red dot	F/2.8	1.3-10.7m (4-35ft)	1.5-12.5m (5-41ft)	1.8-15m (6-49ft)	1-3.7m (3-12ft)

SLAVE OPERATION

When selector switch is in "ON" position and turned on by pressing the "ON" button on the back the unit will flash automatically when the light from your regular flash trips the sensor. Unit can be activated from up to 40 feet or more depending on the output of your regular flash. This allows the unit to be used for fill-in light, back

lighting, extra light for group photos, side lighting for portraits, ETC. More than one unit may be used at the same time for large group photos, special effects or dramatically lighted portraits. You will be limited only by your imagination when using the Starblizt 360BTZ-TWIN auto sensor electronic flash slave unit.



DETACHED OPERATION

It is possible to use the flashunit detached from the camera for flashlight reflection from vertical objects such as a wall. The flashunit should be attached to the camera by connecting the P.C. cord to the camera 'X' socket. The same apertures as those specified for vertical bounce apply.

If possible for wall reflection the flash unit should be attached to the camera and the combination held so that the camera base is vertical to the ground.

Warning: If the flashunit is being used detached from the camera, it should always be held in such a way that it is at right angles (90°) to the camera. If it is employed whilst in the same horizontal or vertical plane as the x camera or at an obscure angle it may be that the direct or reflected light does not provide sufficient coverage to

expose the whole subject appearing in the viewfinder. Under-exposed portions may then appear in the photograph.

The use of the colour filters:

When using the filters, the light volume becomes darkened, so the camera lens F. stop must be opened against the actually required reading of the guide number table, but there will be F. stop setting differences between use of aid and obtaining appropriate exposure light, however, you can use the following table as standard guide, but please note that auto use will not give you appropriate exposure light, thus, use manual setting only:

	In case using as aid	In case obtaining appropriate exposure
Yellow	Open none to one F. stop	Open one to two F. stops.
Red Green blue	Open one to two F. stops.	Open two to three F. stops.