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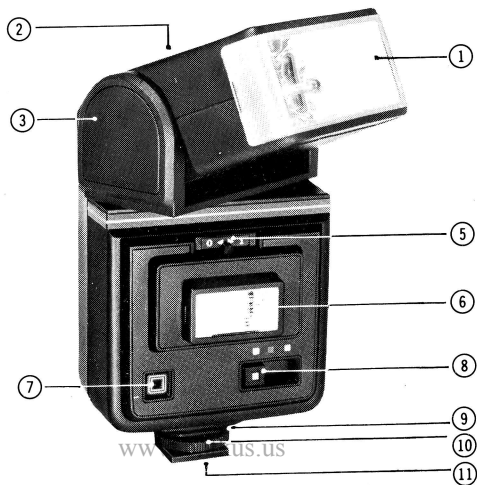
# PROMATIC<sup>®</sup>

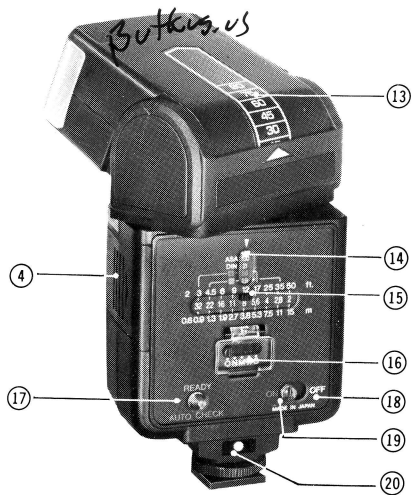
## STD5000

**AUTO OFF SWITCH**  
**Bounce Swivel Dual**  
**Electronic Thyristor**  
**Computer Dedicated**  
**Flash Unit**

*Bu 10/5/05*

**INSTRUCTIONS**





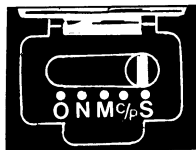


Fig. 1

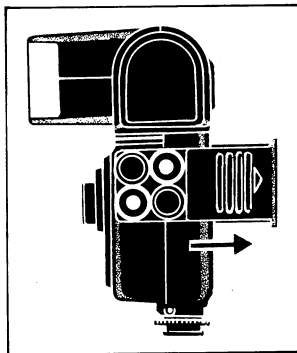


Fig. 2

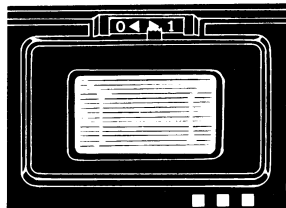


Fig. 7

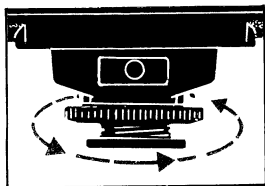


Fig. 3

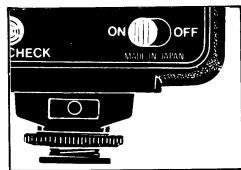


Fig. 8

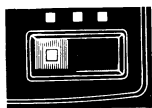


Fig. 4

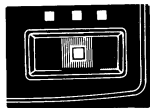


Fig. 5

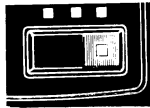


Fig. 6

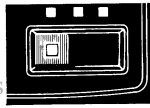


Fig. 9

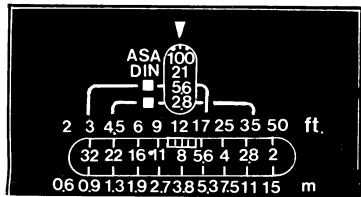


Fig. 10

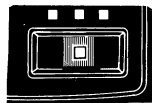


Fig. 11

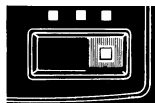


Fig. 12

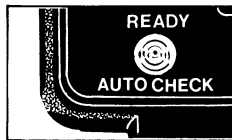


Fig. 13

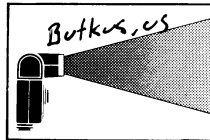


Fig. 15

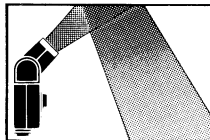


Fig. 16

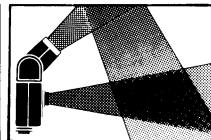


Fig. 17

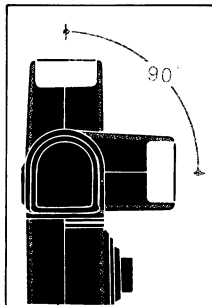
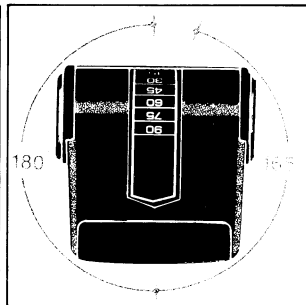


Fig. 14



## PARTS DESCRIPTION

1. Main flash window
2. Adjustable bounce (up-down) head
3. Adjustable swivel (right-left) base
4. Battery door
5. ON-OFF (1-0) switch for MINI-Flash
6. MINI-Flash window
7. Auto sensor eye
8. AUTO-MANUAL 3 position switch
9. Synchro-cable socket
10. Shoe-lock
11. Hot-shoe contacts
12. Synchro-cable
13. Bounce angle indicator plate
14. Guide scale for ASA/DIN film speeds  
and for aperture of auto use
15. Guide scale for manual use
16. Sliding switch for camera set  
O ..... Olympus OM-10, OM-2N  
N ..... Nikon FE, FM  
M ..... Minolta XD, XD5, XD7, XD11  
XGM, XG1, XG9, XGS  
C/P ... Canon A-1, AE-1 PROGRAM  
AE-1, AV-1, AT-1  
Pentax MV-1, ME-Super  
S ..... Standard use for regular cameras
17. READY (RED)/  
AUTO CHECK (GREEN) Lamps
18. Main ON-OFF sliding switch
19. Oscillation indicator GREEN lamp
20. Test button
21. Filters kit (WIDE-angle, Green, Red &  
Orange)

# SPECIFICATIONS

GUIDE NUMBER:  
(ASA 100)

AUTO COVERAGE DISTANCE:  
(by main flash ASA 100)

COLOUR TEMPERATURE:

ANGLE OF COVERAGE:

FLASH DURATION:

1) BY MAIN-FLASH only

30 in metre, 100 in feet

2) BY DUAL FLASHES

26 in metre, 86 in feet

(a) by main flash

25 in metre, 82 in feet

(b) by mini-flash

6 in metre, 20 in feet

f/2.8 setting: 1.3-11 m (4.5-35 ft)

f/5.6 setting: 0.9-5.3 m (3-17 ft)

Balanced for daylight type film

Main Flash-horizontal 60° Vertical 45°

Mini Flash-horizontal 55° Vertical 40°

1/1000 sec. in Manual mode

1/30000-1/10000 sec. in Auto mode

## SPECIFICATIONS

|                     |                                                                                                        |
|---------------------|--------------------------------------------------------------------------------------------------------|
| RECYCLING TIME:     | Approx. 10 sec. in Manual mode<br>Approx. 0.5-10 sec. in Auto mode<br>when using Alkaline batteries    |
| POWER SOURCE:       | 4 × 1.5 V AA size Alkaline batteries<br>recommended UCAR E91                                           |
| BATTERY LIFE:       | Approx. 120 flashes in Manual mode<br>Approx. 120-2000 flashes in Auto mode<br>depending on distances. |
| MEASUREMENT/WEIGHT: | H175 × W80 × D55 mm/330g                                                                               |

  
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## TO USE AS DEDICATED FLASH UNIT

This flash unit is designed as both a standard flash unit for regular cameras and as a DEDICATED flash unit for certain ASAHI PENTAX, CANON, MINOLTA, NIKON and OLYMPUS cameras. The following models will accept this dedicated flash unit.

|              |   |                                               |
|--------------|---|-----------------------------------------------|
| ASAHI PENTAX | : | models MV-1, ME-SUPER                         |
| CANON        | : | models A-1, AE-1 PROGRAM, AE-1, AV-1, AT-1    |
| MINOLTA      | : | models XD, XD5, XD7, XD11, XGM, XG1, XG9, XGS |
| NIKON        | : | models FE, FM                                 |
| OLYMPUS      | : | models OM-10, OM-2N                           |

To use as a DEDICATED unit, leave the camera shutter dial set at "AUTO" or any shutter speed. Before mounting flash unit into camera accessory shoe, ensure to adjust the SLIDING SWITCH FOR CAMERA-SET of the flash unit to the specific camera you are using. Slide the unit into the camera accessory shoe. When the flash unit is charged and ready to fire, it will activate the FLASH-READY SIGNAL in the camera view-finder and automatically sets the camera's shutter for X synchronisation. Follow the instructions described in the chapter on flash operation-computer use.

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## **MULTI-DEDICATED OPERATION**

Your unit is dedicated to certain models of PENTAX, CANON, MINOLTA, NIKON and OLYMPUS cameras providing AUTOMATIC SHUTTER SPEED SETUP for flash.

The exact shutter speed depends on which camera you are using your unit.

The proper speed will be designated in your camera's instruction manual. This speed will be set automatically when this flash unit is attached to your camera and the flash unit is switched ON.

To adjust flash to your camera, set the switch to the specific camera you are using. (Fig. 1)

The standard setting allows you to use this flash unit on any camera having a standard hot shoe contact.

## **BATTERY INSTALLATION**

Ensure that the ON-OFF switch is "OFF" position.

Slide and open the battery compartment lid, and insert four AA alkaline 1.5V batteries taking care that the positive and negative terminals are correctly aligned as indicated in the compartment. (Fig.2)

Alkaline batteries are recommended because of their longer life and endurance to a wider temperature range. Moreover, their power is superior to that of conventional zinc-carbon batteries and this high output flash unit requires the maximum energy available.

**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 prolonged period.

When the unit is new and after it has not been used for a time, the capacitor will take slightly longer to charge.

## **ATTACHMENT TO CAMERA AND SHUTTER SPEED SETTING**

This flash unit has a "HOT-SHOE" contact.

Insert the mounting foot into the camera accessory shoe and rotate the screw to lock the flash unit securely to the camera. **(Fig.3)**

A synchro-cord is supplied and this should be used in the 'X' contact socket if the camera has no "hot-shoe". Any shutter speed can be set on cameras with between-lens-shutters although the speed of 1/125th second is recommended.

Focal-plane shutter cameras will have an 'X' shutter speed setting at 1/60th usually (sometimes 1/125th second).

Check your camera instruction manual for the correct electronic flash synchro speed.

## **MODE SELECTOR**

The mode selector on the flash unit can be set to three positions allowing you to select MANUAL operation or one of two AUTO operations:

**MANUAL**—Set the sliding knob on front of the flash unit to **left** position (under the **WHITE DOT**). In this switch position, your flash will operate in the manual mode. **(Fig.4)**

**AUTO**—When used for automatic flash photography, the unit's light output varies according to the **FLASH-TO-SUBJECT** distance and reflectivity of subject.

Two different automatic settings are provided to give you control over the depth of field in your photographs.

**GREEN**—Utilizes relative small lens opening for the greatest depth of field  
Automatic operating range 0.9-5.3 m (3-17 ft) at f/5.6 ASA100 **(Fig. 5)**

**RED** —Utilizes larger lens opening for relatively shallow depth of field  
Automatic operating range 1.3-11 m (4.5-35 ft) at f/2.8 ASA100 **(Fig. 6)**

## **OPERATING INSTRUCTIONS**

### **A) BY MAIN FLASH ONLY**

Slide the ON-OFF switch for MINI-FLASH to the 'O' position and slide the main ON-OFF switch to 'ON' position. GREEN LAMP appearing in the ON-OFF switch knob will light up indicating "POWER ON". When fully charged, READY LAMP will light up indicating that the unit is ready for operation. After operation, unit will automatically recycle for further operation.

### **B) BY DUAL FLASHES (MAIN + MINI FLASHES)**

Slide the ON-OFF switch for MINI-FLASH to the 'I' position and slide the main ON-OFF switch to 'ON' position. (Fig.7)

### **AUTO-SHUT-OFF FEATURE**

If the unit is not manually turned OFF within 60 seconds approx. from last operation, the GREEN light will go out indicating that the unit has turned off automatically. However, RED READY LAMP will stay on for approximately 25 minutes.

If times between flash operations are from 10 minutes or over, it is suggested that the MAIN ON-OFF switch be turned back 'ON' before taking another flash picture to insure full charge.

### **TEST BUTTON**

Button is located in the rear of the flash unit on the hot shoe. When the TEST BUTTON is activated, the unit will automatically turn on and recharge again, and will turn off automatically after approximately 60 seconds again.

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(Fig.8)

## FLASH OPERATION— MANUAL USE

Set the AUTO-MANUAL 3 POSITION SWITCH on front body to the left position (under WHITE DOT). In this position your flash unit will operate in the MANUAL MODE. **(Fig.9)**

Set the sliding scale on the back of the unit in such a position that the speed of the film being used appears adjacent the triangle mark (e.g. ASA100/DIN21).

Estimate (or measure for greater accuracy) the camera to subject distance and then locate the nearest greater reading in feet or metres in the scale.

Read the adjacent figure on the inner disc to determine the camera lens aperture setting (e.g. f4 for a distance of say 25 feet/7.5 metre). **(Fig.10)**

Ensure that photographs are not taken out of the effective ranges as they will be under-exposed.

## **FLASH OPERATION— COMPUTER USE**

The built-in photosensitive cell measures the light emanating from the subject and the computer automatically determines the correct quantity of light required.

There are two settings for computer use:

- a) for relatively close range when the AUTO/MANUAL 3 POSITION switch is being set under the GREEN DOT. (Fig.11)
- b) for greater distances when the AUTO/MANUAL 3 POSITION switch is being set under the RED DOT. (Fig.12)

With the GUIDE SCALE at the back set the appropriate film speed (e.g. ASA100/DIN21), one can choose either f5.6 setting as indicated by the GREEN or f2.8 as indicated by the RED.

The figures within the COLOUR LINES specifies the AUTO RANGES at which photographs at that particular aperture can be taken.

17 feet/5.3 metres is the maximum distance specified by the GREEN setting, therefore for distances of 17 feet/5.3 metres or less the GREEN setting should be selected and the camera lens should be set at f5.6.

For the distances in excess of 17 feet/5.3 metres but less than 35 feet/11 metres, the RED setting should be selected and the camera lens should be set at f2.8.

### **GREEN AUTO CHECK LAMP**

Before taking the picture, TEST the flash and confirm correct exposure with the AUTO-CHECK LAMP. (Fig.13)

If the GREEN AUTO-CHECK LAMP lights at the same moment when the flash TEST button is pushed, this indicates the auto circuit is working at the correct auto distances.

If the AUTO-CHECK LAMP does not light GREEN, the distance may be exceeded the auto distances. Refer to FLASH OPERATION-COMPUTOR USE.

When shooting out of doors in daytime, intense illumination may cause malfunction of the auto circuit and auto check lamp.

When taking a picture immediately after the READY LIGHT is on, sufficient light may not reach to the subject in auto mode and GREEN AUTO-CHECK LAMP may not light.

Always allow the flash unit a few seconds after READY LIGHT ON for full capacitor charging.

---

### **FLASH OPERATION—Computer Use with Motor Drive Camera.**

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The thyristor circuitry controls the output from the capacitor. In the Automatic Mode, only the amount of current required is used and the reminder is retained.

This conserves battery power and also reduce recycling time.

Also this flash unit is specially so designed on the circuitry to be synchronized with Motor Drive Camera which has the winder speed by 2 flames per a second.

1. Set the knob on front of unit to right position under RED DOT.
2. Set the lens apperture of your camera at  $f=2.8$  for ASA 100 film or at  $f=5.6$  for ASA 400 film.
3. This flash synchronizes with motor drive unit having the winder speed by 2 flames per a second.
4. Keep the distance 5-7 feet (1.5-2.1m) between camera and subject for rapid recycling flashes and also for maximum number of flashes like 20 times although the average is 10 times.
5. Use 4 FRESH batteries and before taking picture with flash unit, wait a little bit longer after neon lamp ON for getting better result.

## ADJUSTABLE BOUNCE SWIVEL TILTING HEAD

The angle of flash can be elevated universally shown is Fig.14 for conventional and for reflected flash by turning the head of flash unit.

The light is reflected satisfactorily provided that the ceiling or side-wall is flat-surfaces, or average height and not a dark, non-reflective colour.

The benefit of reflected light is that it results in soft, shadowless photographs.

The computer functions normally in bounce flash photography, however, the total flash to subject distance should be calculated and appropriate lens aperture selected.

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## PHOTOGRAPHIC EFFECTS BY DUAL FLASH LIGHTING

- a) With direct flash lighting, pictures suffer from strong, distracting shadows behind subjects and light subjects may appear too strongly illuminated even when an automatic mode has been employed. (Fig.15)
- b) To solve these effects, BOUNCE flash is promoted to reduce shadows behind the subjects and soften highlights. However, this photographing sometimes produces dark areas in the subjects-eyes, neck, for example, in a portrait photos. (Fig.16)
- c) This flash unit with DUAL FLASH TUBES improves photographs on the bounce flash techniques by providing low power fill-in flash without creating harsh background shadows. (Fig.17)

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## **USING WIDE-ANGLE AND COLOUR FILTERS**

### **1. WIDE ANGLE ADAPTOR**

With this attachment, lenses with an angle of view up to  $70^\circ$  can be used and the adaptor gives soft lighting effect. To compensate for the greater spread of light, the working lens aperture has to be increased by one f stop when operating the unit at manual mode.

For example, the working aperture becomes f/5.6 for over 3.7 m (12 ft) at 100 ASA/DIN 21.

On AUTO, a change of recommended working apertures is not necessary provided the working distances are revised as follows.

Green setting: 0.9-3.75 m (3-12 ft)

Red setting: 1.3-7.5 m (4-24 ft)

These values relate to f/5.6 (green) and f/2.8 (red) at 100 ASA.

### **2. COLOUR FILTERS**

The light absorbed by the filters necessitates an increase in exposure. For "effect" pictures in colour, where over-correction is undesirable, open the lens aperture by one or two stops.

In black-and-white photography, exposure must be increased appropriately and this should be in the order of two to three stops. A practical test is recommended to determine a realistic working value.

## OFF-CAMERA FLASH PHOTOGRAPHY

It is possible to use the flash away from the camera by means of the Synchro cord supplied. When employed in this way, always ensure that the total flash-to-subject distance is taken into account, or under-exposure will result. Also ensure that the flash unit is held "SQUARE" to the camera, ie.-do not allow the flash to face away from a reflecting surface.

**WARNING:** It is important, when using bounce flash or the unit detached from the camera, to ensure that the total flash to subject distance is taken into account, otherwise photographs will be under-exposed.

When using this electronic flash unit, please make sure that the rectangular flash-reflector corresponds to the rectangular picture format, otherwise you will not obtain an evenly illuminated picture.

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## **PRECAUTIONS**

1. Should the unit fail to operate for any reason other than depleted batteries please refer to qualified service personnel. A high voltage capacitor is incorporated in the unit.
2. Remove the batteries if the unit is not in use for any period exceeding say 2 or 3 weeks.
3. Keep the unit dry and store in a moisture-free environment.
4. When photographing outdoors or in a large room or hall where are no effective reflecting surfaces nearby, it is necessary to set the camera lens at a wider aperture than that indicated in the exposure table (1 or 2 f stops).
5. Ready-light. If the ready-light remains on after the unit has been switched off, no harm results from leaving the charge to gradually disperse or to discharge by pressing the open flash button. However, to preserve battery life, it is preferable not to discharge the unit.
6. Close-up photography. With extension tubes or bellows, the extra exposure for close working is best determined by reference to the factors provided with the extension tubes or the approximate scale of reproduction with bellows.  
The exposure factor =  $(1 \div \text{scale})^2$ . Thus, at a scale of 1:1, for example, the exposure factor is 4× and the lens aperture should be opened two stops.

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