

PROMASTER[®]

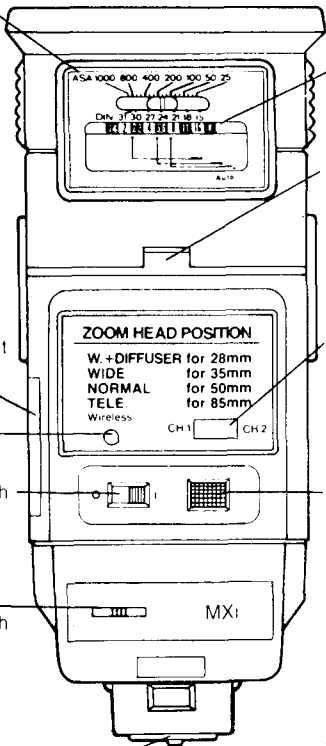
FTD 6000 Xi

OPERATING INSTRUCTIONS

DEDICATED FLASH

PARTS IDENTIFICATION

ISO / DIN Selector



Exposure Calculator

Bounce Angle Indicator

Battery Compartment Cover

Wireless-Operation Indicator

On-Off Switch

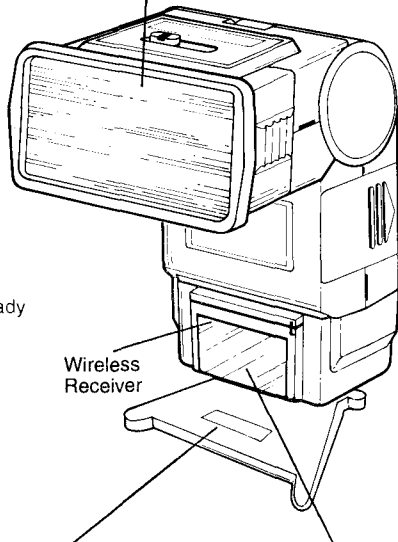
Flash Mode Selector Switch

Hot-Shoe

Channel-Selector Switch

Flash-Ready Indicator

Zoom / Bounce Flash Head



Wireless Receiver

Xi Stand for Wireless / Remote Off-Camera Flash Operation

AF Illuminator

FLASH DEDICATION

This flash unit is dedicated for MINOLTA Maxxum 7Xi, 3Xi, 5Xi cameras.

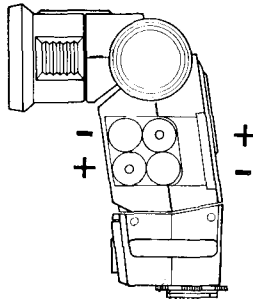
- Please refer to the camera's instruction manual for more information.

INSERTING BATTERIES

- Open the battery compartment cover.
- Insert four 1.5V AA batteries following the (+) (-) signs as indicated inside the battery compartment and replace the cover.

IMPORTANT:

- **THE BATTERIES SHOULD BE INSERTED IN THE CORRECT POSITION.**
- **FOR BEST RESULTS, USE ALKALINE BATTERIES**
- **USE FRESH BATTERIES REGULARLY**
- **DO NOT MIX FRESH AND WEAK BATTERIES**
- **TO PREVENT BATTERY LEAKAGE, REMOVE BATTERIES IF STORING FOR LONG PERIODS.**



AF ILLUMINATOR FOR AUTOFOCUSING

When the camera's shutter button is pressed halfway, the AF illuminator is automatically activated when required, with low-contrast subjects in low light. This illuminator enables the camera's autofocus system to determine the distance of the subject and focus accordingly.

The AF Illuminator enables autofocusing with subjects up to about 16 feet away. This distance is for autofocusing only. When focusing manually, flash photography is possible up to about 65 feet, when using ISO 100 and a F1.4 aperture (please refer to the TTL Auto Flash range table).

NOTE: The working range for the AF Illuminator is based on a standard test method with a 50MM lens. If longer focal lengths are used, the camera may not focus the lens accurately. In this case or whenever the focus signals blink, set the camera's focus mode to M and focus the lens manually.

- The AF Illuminator may not operate with long focal length lenses or if the subject's reflectivity is too low.

FLASH-STANDBY POSITION

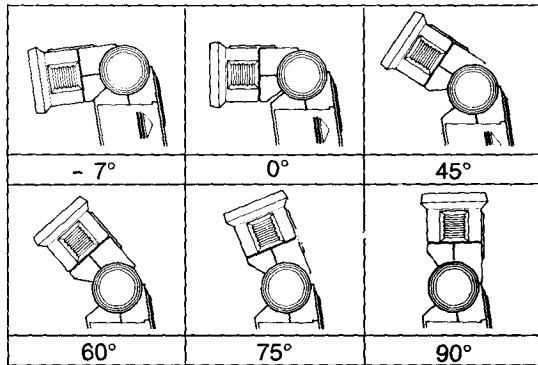
Once the flash unit attached to the camera body is switched on and charged, if more than a few seconds elapse without further operation, the flash-ready indicator lamp is automatically extinguished; the flash remains in a standby state. The flash can be re-activated by touching the shutter-release button of the camera.

BOUNCE FLASH PHOTOGRAPHY

This involves "Bouncing" the flash off a ceiling or other reflective surfaces to obtain a soft illumination.

- i The auto mode should be used for bounce lighting.
- ii After determining the position of your subject, adjust the bounce angle. The flash head is variable from -7° to 90° and there are click stops at 0° , 45° , 60° , 75° plus -7° position for straight-on flash parallax correction.

When using bounce lighting, it is recommended to use a high speed film (ISO 400)



TTL AUTO FLASH OPERATION

The flash unit provides automatic Through-The-Lens (TTL) flash exposure when used with dedicated camera which have a TTL Auto Flash Metering feature.

This auto mode permits you to use any lens aperture within the flash unit's operating range to enable you to have greater control over the depth of field. The larger the aperture (the smaller the f-number) you select, the greater the maximum shooting distance (less depth of field but shorter recycling time). Alternatively, the smaller the aperture (the greater the f-number) you select, the less the maximum shooting distance (greater depth of field but longer recycling time).

Therefore, in selecting an aperture, all three factors - maximum shooting distance depth of field and flash recycling time should be taken into consideration.

The TTL Automatic mode balances the exposure between the main subject illuminated by the flash and the background in ambient light, whenever possible. Therefore, the TTL mode can be used under conditions ranging from total darkness to fill-in flash.

TTL AUTO FLASH RANGE: (APPROX.)

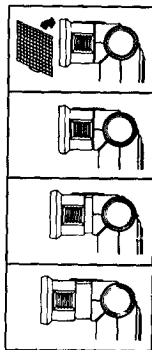
ISO FILM IN USE				ZOOM FLASH HEAD POSITION			
100	200	400	1000	W + DIFFUSER	WIDE	NORMAL	TELE
1.4	2	2.8	4	7 - 30 Ft	7 - 51 Ft	10 - 59 Ft	12 - 66 Ft
2	2.8	4	5.6	6 - 21 Ft	6 - 36 Ft	8 - 41 Ft	10 - 46 Ft
2.8	4	5.6	8	5 - 15 Ft	5 - 26 Ft	7 - 29 Ft	9 - 33 Ft
4	5.6	8	11	4 - 11 Ft	4 - 18 Ft	5 - 21 Ft	6 - 23 Ft
5.6	8	11	16	3 - 8 Ft	3 - 13 Ft	3 - 15 Ft	5 - 16 Ft
8	11	16	22	3 - 5 Ft	3 - 9 Ft	3 - 10 Ft	5 - 11 Ft
11	16	22		3 - 4 Ft	3 - 7 Ft	3 - 7 Ft	4 - 8 Ft
16	22			3 - 3 Ft	3 - 5 Ft	3 - 5 Ft	4 - 6 Ft
22				3 - 3 Ft	3 - 3 Ft	3 - 4 Ft	3 - 4 Ft

(** Please note that when demonstrating the TTL Auto Flash function there must be film inside the camera.)

ZOOM OPERATION

The lighting angle mechanism built into the flash unit allows a selection of 3 lighting angles pulling or pushing the zoom flash head. The guide number changes in relation to the angle. Use the chart below to determine the best angle for the flash in relation to the focal length of the lens used.

Zoom Position indicator	Lighting angle (with 35mm lens camera)	Guide number	
		ISO 100/F/1/M	ISO 400/F/1/M
W - Diffuser (28)	28mm lens cover (vertical 53°) (horizontal 70°)	42 / 13	84 / 26
W (35)	35mm lens cover (vertical 45°) (horizontal 60°)	72 / 22	144 / 44
N (50)	50mm lens cover (vertical 23°) (horizontal 46°)	82 / 25	164 / 50
T (85)	85mm lens cover (vertical 32°) (horizontal 31°)	92 / 28	184 / 56



USING THE EXPOSURE CALCULATOR

- (a) TTL Auto Flash Operation (A-Mode / M-Mode on camera)
 - (1) Set the ISO/DIN film Selector Switch to the ISO/DIN film speed in use.
 - (2) Focus on your subject and note the flash to subject distance.
 - (3) Locate the lens aperture you wish to use for TTL Auto Operation and read the distance opposite this selected aperture to check whether the flash to subject distance is within auto range. If it is, set this aperture on your camera.
- (b) Manual Flash Operation
 - (1) Set the ISO/DIN Selector Switch to the ISO/DIN film speed in use.
 - (2) Focus on your subject and note the flash to subject distance. Locate this distance on the distance scale.
 - (3) Read the aperture opposite this distance and set the f-number on your camera.

SPECIFICATIONS

Power Source : Four (1.5V AA size ALKALINE Batteries).

Recycling Time : Auto 0.3 - 10 sec
Manual 6 - 10 sec

Battery Life : Approx. 100 - 700 Flashes
(Depending on the type of batteries)

Flash Duration : Auto 1/30,000 to 1/1000 sec
Manual 1/1000 sec

Angles of illumination:

Zoom Flash Head Position	Focal Length		
	Coverage	Horizontal	Vertical
Wide + Diffuser	28mm	70°	53°
Wide	35mm	60°	45°
Normal	50mm	46°	34°
Tele	85mm	31°	23°

Colour Temperature : 5600°K

Guide Number Table : (in Feet / Meter)

Zoom Head position	ISO 25	ISO 50 / 64	ISO 100	ISO 200	ISO 400	ISO 1000
Wide + Diffuser	21 / 6.5	29 / 9	42 / 13	58 / 18	84 / 26	133 / 40
Wide	36 / 11	50 / 15	72 / 22	100 / 30	144 / 44	228 / 69
Normal	41 / 12.5	58 / 17	85 / 25	116 / 34	164 / 50	260 / 79
Tele	46 / 14	65 / 20	92 / 28	130 / 40	184 / 56	292 / 89

The Guide Number at 1/16 power is 1/4 of the above.

AF ILLUMINATOR:

The Illuminator is automatically activated for autofocusing with low-contrast subjects in low light. The range is up to about 16 feet based on a standard test method with a 50mm lens.

Output	: 1200 BCPS
Sensor	: 20°
Bounce Angle	: - 7° to 90° (Click Stop: -7°, 45°, 75° and 90°)
Weight	: Approx. 256 gm
Dimensions:	: 73 (W) x 48 (D) x 173 (H) mm

* Specifications are subject to change without notice.



Note : For Test Flash Operation

The Flash-Ready Indicator Button on your PROMASTER flash does not operate for Test-Flash.

Your PROMASTER dedicated flash is fully linked to all operations of your Minolta Camera.

Use the Test Flash Control in your Minolta Camera to activate the PROMASTER FTD 6000Xi flash.

PROGRAM-MODE AUTOFLASH

1. Set the camera to P-mode and set the flash unit's mode to "TTL" position.
2. Focus on your main subject
 - If the camera's metering system determines that your subject requires flash for correct exposure, the flash-on signal  will appear in the camera's viewfinder data panel to indicate that the flash will fire when you release the shutter.
3. When the flash-ready indicator  in the camera's viewfinder and the flash-ready lamp on the back of the flash unit glow, press the shutter-release button down to take the picture.
 - In P-mode, the flash may or may not fire when the shutter is released, based on the camera metering system's evaluation of the ambient lighting, (i.e. the flash fires when needed).
 - The camera's viewfinder's flash-ready indicator blinks if sufficient exposure was received at the film plane, after the shutter is released.
 - In P-mode, you can force to fire this flash unit by keeping the camera's flash pop-up button pressed in while releasing the shutter.

SHUTTER- PRIORITY MODE AUTOFLASH

When the flash unit is used in S-mode, both shutter speed and aperture settings will be set automatically by the camera.

APERTURE-PRIORITY MODE AUTOFLASH

1. Set the camera's mode to A-mode and the flash unit's mode to "TTL" position.
2. Set the lens aperture you wish to use. This enables you to have greater control over depth of field.
3. Focus on your main subject and refer to the Exposure Calculator to check that the subject is within the autoflash range of the aperture selected. If not, move closer or use a larger aperture.
 - In A-mode, the flash unit will fire each time a picture is taken. The shutter speed is set automatically to X-sync. speed.

MANUAL MODE AUTOFLASH

For back-lit subjects or in low light, slower X-sync. speeds can be set to increase background exposure while maintaining normal exposure of the main subject i.e. to fill-in shadows and balance lighting.

1. Set the camera's mode to "M" manual mode and set the flash unit's mode to "TTL" position.
2. Set the camera shutter speed manually slower than the camera's top X-sync. speed and set the lens aperture you wish to use.
3. Press the shutter-release button down to take the picture after checking that the subject is within the flash range and that the flash has fully charged. In M-mode, the flash unit will always fire.

MANUAL FLASH OPERATION

1. Set the camera's mode to "M" manual mode and set the flash unit's mode to "Full" manual flash position.
2. Manually set the camera shutter speed to a flash X-sync speed and set the lens aperture you wish to use after checking that the subject is within the flash range by using the exposure calculator.

Calculator of F-number without use of the exposure calculator :

$$F - \text{number} = \frac{\text{Guide Number}}{\text{Distance}}$$

LOW POWER MANUAL FLASH

In the Manual Flash Mode, you can set the Mode Selector Switch to the '1/16' power position, which gives a faster recycling time and more flashes. This is useful for close-up work and shooting with a motor-drive (up to 2 frames per second). The guide number at this setting is 1/4 of the full power guide number (See Guide Number Table)