

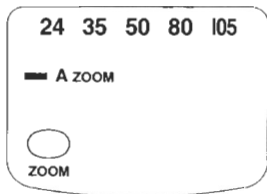
FLASH COVERAGE ANGLE

Coverage angles are available for focal lengths ranging from 24 mm to 105 mm.

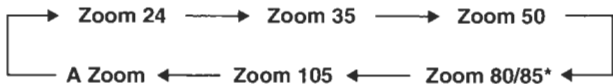
● AUTO ZOOM OPERATION (A ZOOM)

If this facility is not supported by your camera, use the manual zoom operation.

The flash unit automatically adjusts the zoom-head position to provide an angle of coverage that matches the focal length of the lens in use. The setting is displayed in the LED panel. The angle of coverage automatically changes when the lens zoom position is changed.



- Press the Zoom button until the Auto Zoom Indicator LED is on.
- The guide number changes when the flash coverage angle is changed.
- If the focal length of the lens in use is less than 24 mm, only "A Zoom 24 mm" will be indicated. If the focal length of the lens in use is larger than 105 mm, only "A Zoom 105 mm" will be indicated.



*85 on Nikon and Pentax unit

● MANUAL ZOOM OPERATION

Press the Zoom button once to change from auto zoom to manual zoom mode. Each press of the Zoom button changes the coverage angle in the above cycle. Press zoom button until your desired zoom-head position appears in the LED panel.

WIDE-ANGLE DIFFUSER

A wide-angle **Diffuser** accessory that can be positioned in front of the zoom flash head is included in this flash unit's package. With this Diffuser and zoom position set at 24mm, the flash can cover 17mm wide-angle lens on a 35mm format SLR camera or 11mm wide-angle lens on a digital format SLR camera.

	<u>Flash Coverage</u>	<u>Guide Number (at ISO 100)</u>
(24mm + Diffuser)	75° Vertical 92° Horizontal	44 feet

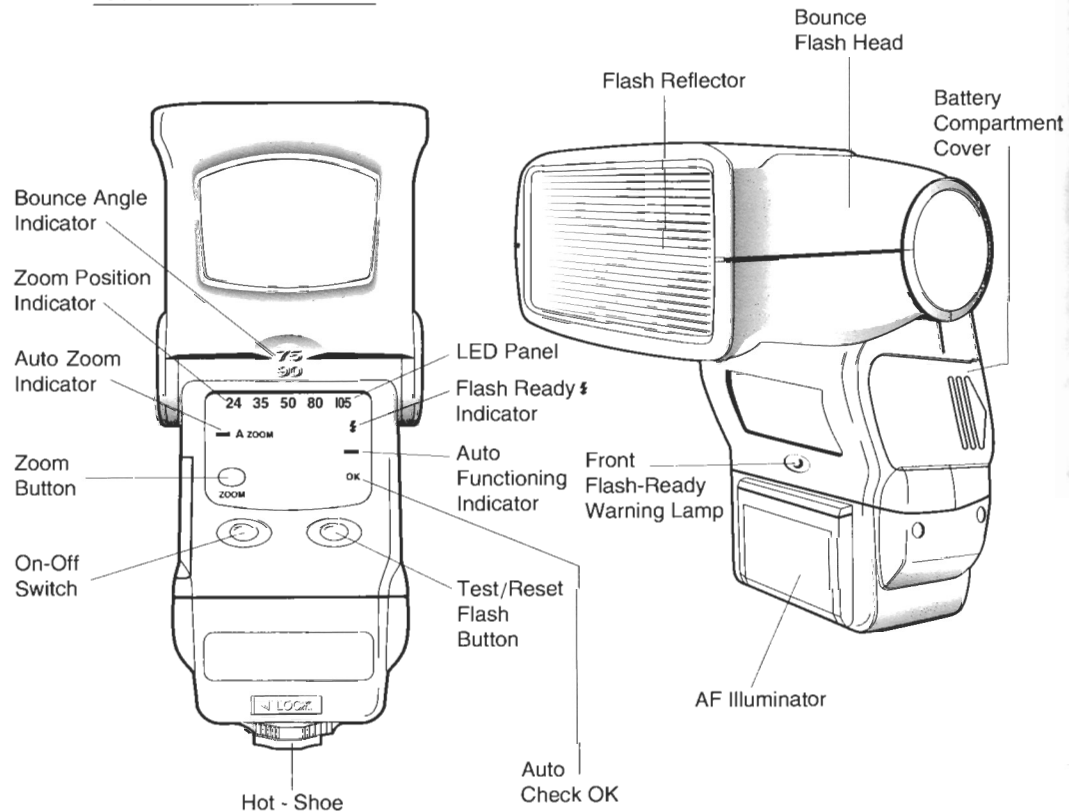
Note: The digital camera lenses require shorter focal lengths to obtain the same angle of coverage as their 35mm counterparts. Please check the field of view (FOV) crop factor i.e. focal length multiplier of your digital camera for 35mm equivalent FOV. e.g. 1.6 x for Canon XTi, 1.5 x for Nikon D70s.

PROMASTER® 7400EDF Digital

OPERATING INSTRUCTIONS

ELECTRONIC FLASH

PARTS IDENTIFICATION



FLASH DEDICATION

The Promaster 7400EDF Digital Flash unit is dedicated to work with compatible cameras only.

- 7400EDF-CN fits **CANON** digital cameras with E-TTL / E-TTL II autofocus metering system.
(e.g. Compatible with Rebel XT, XTi, 5D, 30D)
- 7400EDF-NK fits **NIKON** digital cameras with i-TTL autofocus metering system.
(e.g. Compatible with D200, D80, D70, D70s, D50, D40, D40X)
- 7400EDF-PX fits **PENTAX** digital cameras with P-TTL / TTL autofocus metering system.
(e.g. Compatible with ist DS, DL K100D, K10D)
- 7400EDF-SN fits **SONY** digital cameras with ADI / P-TTL autofocus metering system.
(e.g. Compatible with α 100)

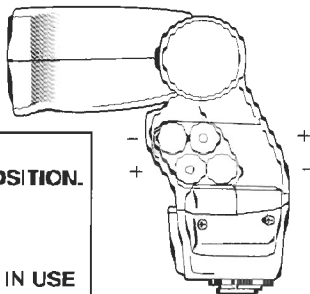
- Use with incompatible cameras may cause damage to the camera, the flash unit or both.
- When mounting the flash unit to the camera, always ensure that the flash unit is switched off.
- As different models of cameras operate differently for flash photography, you should read the Instruction Manual of your camera for details of flash operation.

INSERTING BATTERIES

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

IMPORTANT:

- ENSURE THAT THE BATTERIES ARE INSERTED IN CORRECT POSITION.
- FOR BEST RESULTS, USE FRESH ALKALINE BATTERIES OR PROMASTER RECHARGEABLE NiMH BATTERIES.
- DO NOT MIX FRESH AND WEAK BATTERIES.
- TO PREVENT BATTERY LEAKAGE, REMOVE BATTERIES IF NOT IN USE FOR LONG PERIODS OF TIME.



AF ILLUMINATOR FOR AUTOFOCUSING

When subject contrast is low or in low light, the AF illuminator is automatically activated when the camera's shutter release button is pressed halfway. This illumination enables the camera's autofocus system to focus correctly. The AF illuminator enables autofocus with subjects up to about 16 feet away. This working range of the AF illuminator is based on standard testing method with a 50 mm lens.

- The AF illuminator may not be effective if your subject has very low reflectance.
- On certain camera models, this AF assist light is overridden by the AF assist light on the camera.

AUTO CHECK LAMP

If exposure was sufficient, the auto check lamp "OK" on the flash unit will briefly glow after the camera's shutter button is depressed.

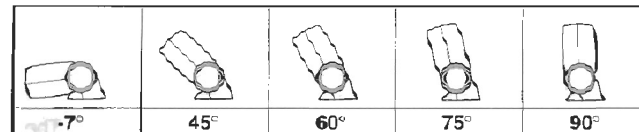
AUTO POWER-OFF

This flash unit incorporates a battery saving automatic power-off circuitry. The flash unit automatically turns itself off approximately 5 minutes after the last operation and the ready indicator LED lamp extinguishes itself. The flash can be re-activated for firing by touching the shutter release button on the camera or by pressing the Reset Flash Button once on the flash unit or by switching the flash unit OFF and then ON again.

- When used on certain digital cameras, the auto power-off function is controlled by the camera. The flash unit can be automatically turned off only if the digital camera in use is switched off.

BOUNCE FLASH PHOTOGRAPHY

This involves 'bouncing' the flash off a ceiling or other reflective surfaces to obtain a soft illumination. After determining the position of your subject, adjust the bounce angle. (The flash head is variable from -7°, 0°, 45°, 60°, 70° and 90° as desired).



TTL AUTO FLASH RANGE : (Approx. in feet)

ISO FILM SPEED							FLASH COVERAGE SETTING					
25	50	100	200	400	800	1600	17mm (24mm+Diffuser)	24mm	35mm	50mm	80/85mm	105mm
		1.4	2	2.8	4	5.6	5 - 31.5	7 - 48	10 - 63	12 - 72	12 - 80	12 - 86
	1.4	2	2.8	4	5.6	8	4 - 22	6 - 33	6 - 44	8 - 50	10 - 56	10 - 60
1.4	2	2.8	4	5.6	8	11	3 - 15.7	5 - 24	5 - 32	7 - 36	9 - 40	9 - 43
2	2.8	4	5.6	8	11	16	2 - 11	4 - 17	4 - 22	5 - 25	6 - 28	6 - 30
2.8	4	5.6	8	11	16	22	2 - 7.9	3 - 12	3 - 16	3 - 18	5 - 20	5 - 22
4	5.6	8	11	16	22	32	2 - 5.5	2 - 8.4	3 - 11	3 - 12.5	5 - 14	5 - 15
5.6	8	11	16	22	32		2 - 4	2 - 6.1	3 - 8	3 - 9.1	4 - 10	4 - 11
8	11	16	22	32			2 - 2.8	2 - 4.2	3 - 5.5	3 - 6.3	4 - 7	4 - 7.5
11	16	22	32				2 - 2	2 - 3	3 - 4	3 - 4.5	4 - 5.1	4 - 5.5

TTL AUTO FLASH OPERATION

The Promaster 7400EDF digital flash unit is provided with an automatic metering system. The camera's auto exposure function will automatically operate with this external flash to make the results of your flash photography even clearer and more natural, increasing the illumination area and allowing sophisticated flash techniques such as bounce-flash photography. Available light is metered through the camera's lens (TTL) and illumination is set automatically.

- All flash exposure settings are in the camera's control menu.

CANON (CN) unit :

- **E -TTL Auto** - The flash is controlled entirely by the camera, based on the information sent from it. The flash fires a pre-flash before the main flash fires so that the camera can obtain the necessary evaluative information on the subject. The data obtained is incorporated to set the more accurate output of the main flash automatically.

NIKON (NK) unit :

- **i-TTL Auto** - The flash is controlled entirely by the camera, based on the information sent from it. The flash fires a series of imperceptible Monitor Pre-flashes just before the flash fires so that the camera can obtain necessary information on the subject. The subject is then correctly exposed by the light from the flash and the exposure is hence less affected by the ambient light than in the conventional TTL mode. This is the feature of the new NIKON Creative Lighting System (CLS).

PENTAX (PX) unit :

- **P-TTL Auto** - The flash is controlled entirely by the camera, based on the information sent from it. The flash fires a pre-flash before the main flash fires so that the camera can obtain the necessary information on the subject to set the output of the main flash automatically.

SONY (SN) unit :

- **ADI/P-TTL Auto** - The flash is controlled by the camera, based on the information sent from it. The flash fires a pre-flash before the main flash fires so that the camera can obtain the necessary information on the subject to set the output of the main flash automatically.

ADI * (Advanced Distance Integration flash metering) - Combines distance information from the autofocus system with information from a pre-flash exposure.

* High Accuracy ADI in combination with D Lens (Lens with built-in distance encoder)

SPECIFICATIONS

Power Source : 4 (1.5V) AA Alkaline Batteries or Promaster Rechargeable NiMH Batteries

Zoom Range : Motorized 24 mm to 105 mm
(Zoom Position : 24, 35, 50, 80/85, 105)

Recycling Time : 0.3 - 10 sec

Flash Duration : 1/30,000 to 1/1,000 sec

Bounce Angle : -7° to 90°
(Click stops : -7°, 0°, 45°, 60°, 75°, 90°)

Guide Number :
(at ISO 100 in feet)

FLASH COVERAGE SETTING					
17mm (24mm+Diffuser)	24mm	35mm	50mm	80/85mm	105mm
44	67	88	100	112	120

TTL Auto Range at ISO 100 : Approx. 2 - 86 feet

Angle of Coverage : (based on a 35mm format SLR camera)

	17mm (24mm+Diffuser)	24mm	35mm	50mm	80/85mm	105mm
Verticle	75°	60°	45°	34°	23°	20°
Horizontal	92°	78°	60°	46°	31°	27°

(A wide-angle Diffuser accessory is provided)

Note: The digital camera lenses require shorter focal lengths to obtain the same angle of coverage as their 35mm counterparts. Please check the field of view (FOV) crop factor i.e. focal length multiplier of your digital camera for 35mm equivalent FOV.

* The specifications are based on the latest information available at the time of printing and are subject to change without notice.