

## Next-generation strobe of high-end 「Z series」 Flash power 30% up comparing to Z-220 series

## Nikonos 5 pin synch connector equipped All-round underwater strobe

# Ultra Multimode Z-240

Next-generation 「Z-240」 with maximum power of Guide Number 『24』 satisfies professional use with its features including 「compact」 / 「powerful」 / 「high-speed」

**US. PAT.** U.S. patent / patent pending in Japan  
**PAT. P** Patent pending in U.S./ Japan

**Powerful Guide number 24, wide circular beam 100°**

Guide number 『24』 (\*1). Comparing to previous model (Z-220) in same Z series, Z-240 increases its power at 30% with same beam angle of circular 100° (\*2).

Though 「Z-240」 operates with only four conventional AA batteries, its unique "T shape Twin Flash" **US. PAT.** (\*3) and optimal designed reflector/prism effectively creates high and wide flash output.

### Advantage of powerful flash output when using high-speed X synch camera

Z-240 emits strong flash in very short period of time which solves conventional high power strobe's weak point and no power loss will happen even in fast shutter speed. In fast shutter speed, its effective power output increases at 『approx. 60%』 (when shutter speed is 1/250 sec.) and 『approx. 90%』 (1/500 sec.) comparing to Z-220 strobe. Z-240 supplies enough power for digital/film SLR shooters in particular shooting situation using fast shutter speed (daylight synch) under bright surface or on white sand area.

### Minimum recycle time of 1.6 seconds, compact body

Compact body size of Z-240 is 99mm(outer diameter)/100mm(depth)/122mm(height)(\*4) but its recycle time is minimum 『approx. 1.6 sec.』 at full flash (\*5). Z-240 unique circuit components carries two sets of fundamental electrical parts (transformer: 1pc → 2pcs, transistor: 2pcs → 4pcs) to achieve fastest recycle time in the class. **US. PAT.**

### Optical/electrical connection compatible, all 『D-2000』 series next generation features equipped

Compatible with a camera system equipping Nikonos 5 pin synch connector as latest model of INON high-end strobe 「Z series」. All advantageous features of 『D-2000』 series such as 「S-TTL」 auto **PAT. P** (\*6) or "Clear Photo System" **US. PAT.** (\*7)(\*8). Full automatic "S-TTL" auto shooting is 『easily』 / 『surely』 obtained when using Z-240 with INON 『X-2』 series housing (for Canon EOS20D/10D). Z-240 is also compatible with point and shoot compact digital camera (in transparent housing) for instant full automatic "S-TTL" shooting when connecting via optical cable. Z-240 fully supports wide variety of camera system and equipment upgrade.

### 13 steps Manual / 24 steps External Auto, free shadow control with multiple strobes

Z-240 supports professional needs for sophisticated lighting by its 13 steps 「Manual mode」 with 1/2 EV increments and 24 steps 「External Auto」 mode with 1/4EV increments which is available for digital SLR camera under electrical cable connection. Z-240 gives you free and creative lighting.

When using multiple Z-240 strobes under "Optical Cable" connection, INON unique "Advanced Cancel Circuit" **PAT. P** supports combination of S-TTL operating Z-240 and Manual/External Auto operating Z-240 to freely control subject shadow at preset total exposure level of S-TTL operating strobe by changing flash output of Manual/External Auto operating Z-240. Complicated shadow control with multiple strobes is now available by 『easy』 / 『reliable』 operation (\*9).

### Multifunctional, shutter-linked auto OFF Focus Light

Built-in Focus Light helps manual/auto focusing and strobe aiming. The Focus Light tells you strobe charge status since it turns on automatically upon strobe charges completely (in continuous mode) **US. PAT.** The Focus Light of Z-240 has manual ON/OFF function when using "electrical cable connection", so you can manually turn ON/OFF the Focus Light by Focus Light switch depending on subject/shooting condition which was not possible for Z-220.

The Focus Light has shutter linked auto-OFF function(\*10). When using with preflash type camera, it turns OFF automatically when a camera emits "preflash" and is not exposed on your image.



■ INON Z-240



Z-240 back

\*1 Measurement in Air, at ISO100 x 1 meter \*nominal value  
\*2 110° when using supplied -0.5/-1.5 Diffuser  
\*3 For detail of "T-shape Twin Flash", see "100° circular light distribution / T-shape Twin Flash".  
\*4 Excluding protruding part  
\*5 When using recommended batteries (Nickel metal-hydrate battery: SANYO Twicell 2700 Series, HR-3UG, 1.2 V, 2,700 mAh(\*18)  
\*6 Refer to leaflet of 「S-TTL」 auto for detail.  
\*7 Refer to leaflet of 「Clear Photo System」 for detail.  
\*8 Useable function may vary depending on camera system and connection method etc.  
\*9 Refer to leaflet of 「Advanced Cancel Circuit」 and 「」 for detail.  
\*10 Focus Light may be recorded in an image depending on camera system, connection method or shooting condition.  
\*11 Refer to back side of this leaflet for detail.  
\*12 Useable when connecting with compatible camera system by 『Optical D Cable Connection』  
\*13 Useable for TTL auto compatible camera / camera system  
\*14 Useable for TTL auto compatible camera / camera system under 『Electrical Cable Connection』  
\*15 Compatible cord : Synch Cord N (Sea&Sea)  
\*16 At ISO100 equivalent film sensitivity  
\*17 Measured with FULL strobe output at 30-second interval with both Focus Light and Advanced Cancel Circuit OFF, at 25°C. with using following batteries. [Nickel metal-hydrate battery: SANYO Twicell 2700 Series, HR-3UG, 1.2 V, 2,700 mAh. NiCad battery: GP 100AAKC, KR6, 1.2 V, 1,000 mAh. Alkaline battery: Maxell ALKALINE ACE, LR6(K), 1.5 V. Lithium battery (1.5V): FUJIFILM/Energizer LITHIUM, FR6, 1.5 V. Oxryde battery: Panasonic Oxryde, ZR6Y, 1.5 V].  
\*18 Recycle Time / Flash Capacity based on INON test data. Actual values may vary based on battery manufacturer, battery type and age.  
\*19 Oxryde battery voltage is in excess of 1.7V and is fine for firing strobe. However when batteries are still fresh, and the Focus Light is turned on, the sudden high voltage will shorten the Focus Light bulb life. Refer to written cautions on battery packaging warning of shortened bulb life when using these batteries. To prevent shortened bulb life, do not use Focus Light until strobe has been fired at least 20 times at full power. This will reduce the voltage down to conventional battery levels.

### ■ Z-240 specifications

Model	INON Z-240	
Strobe Control Mode	S-TTL Auto (*12) / External Auto / TTL Auto (*13) / Manual / Manual + TTL Auto (*14)	Batteries (*19) AA Alkaline x 4, AA NiCad x 4, AA Nickel Metal Hydrate x 4, AA Lithium 1.5V x 4 or AA Oxryde x 4 *Manganese batteries not compatible
Connection	Optical D Cable / Optical Cable / Optical D Slave Cable / Electrical Cable (*15)	Focus Light (*10) Half shutter press automatic ON, Shutter linked auto OFF with 「INON X1 series housing」 or 「Optical Converter TTL」 under Optical Cable connections. Manual ON, Shutter linked Auto OFF, when shutter opened for other configurations.
Guide Number (*1)	24(FULL) 21(-0.5) 17(-1) 14(-1.5) 12(-2) 10(-2.5) 8.5(-3) 7.1(-3.5) 6.0(-4) 5.0(-4.5) 4.2(-5) 3.6(-5.5) 3.0(-6) (13 steps in 1/2EV increments)	Dimensions (*4) Diameter: 99mm Height: 122mm Depth: 100mm (*Not including Slave Sensor and Arm Base)
Settable Aperture Value (*16)	F1.4 <sup>+1/2EV</sup> ~ F11 (1/2EV increments) F1.4 <sup>+1/2EV</sup> ~ F11 <sup>+1/4EV</sup> . (1/4EV increments)	Weight air: 567g (without batteries) / underwater approx. 75g (with four Ni-MH batteries)
Beam Angle	100° x 100° circular beam	Operating Temperature 0°C ~ +40°C (as in water)
Color Temp.	5500K	Depth Rating 100 m
Recycle Time (*17) (*18)	1.6 seconds minimum: [Nickel Metal Hydrate batteries] 1.5 seconds minimum: [NiCad batteries] 2.3 seconds minimum: [Alkaline batteries] 2.5 seconds minimum: [Lithium 1.5V batteries] 2.1 seconds minimum: [Oxryde batteries]	Material / color Body : Polycarbonate resin / grey
Flash Capacity (*17) (*18)	Approx. 320 flashes: [Nickel Metal Hydrate batteries] Approx. 120 flashes: [NiCad batteries] Approx. 220 flashes: [Alkaline batteries] Approx. 380 flashes: [Lithium 1.5V batteries] Approx. 250 flashes: [Oxryde batteries]	Included Set Contents Synch Connector Cap, Slave Sensor Cap, -0.5 White Diffuser (TTL/Manual), -1.5 White Diffuser (TTL/Manual), Light Filter • Blue, Light Filter • Red, Light Filter Sticker • Red, AC Circuit Switch sticker (for film camera / for digital camera), Electrical Connection TTL Sticker, Spare O-ring (Battery Box, Synch Connector), INON Grease, TTL Insulation Plate x 2

Refer to INON web site to check latest compatibility / operational limitation information with camera/camera system

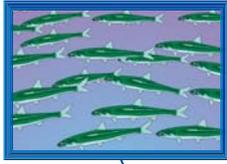
## New light control system 'Manual + TTL Auto'

The new light control system, 'Manual + TTL Auto' mode, is installed which enables you to manually set the maximum light output of TTL automatic to supplement drawback of TTL Auto. Under shooting conditions not preferred by the TTL automatic mode, such as when shooting a middle range subject, by manually setting the approximately required output for exposure of your subject, D-2000W/Wn will not output light at FULL as light output will stop at the set amount even if TTL errors occur. The system helps to reduce the amount of overexposure, and will markedly increase the percentage of "usable" shots. For those who regularly use manual emission, the precise TTL flash control function equipped on the camera system can be utilized without worrying about overexposure due to TTL errors. This not only greatly reduces overexposure due to inappropriate setting of the amount of light, but it will also reduce workload of exposure calculation each time you take a photo.

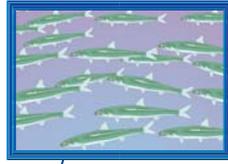
### Operation details for "Manual + TTL Auto"

Manual + TTL Auto" avoids "Overexposure caused by inappropriate manual setting.

The TTL auto mode gives proper exposure.



Reproduction of the image if the TTL auto mode did not work.



Stops light output using faster signal

Where the Manual setting is overexposed and TTL automatic setting is at the proper exposure, TTL automatic works and Manual will not.

Amount of strobe output

Light output in TTL automatic mode

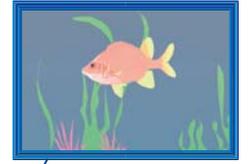
Light output in Manual setting

When the subject is small and there is little reflection from the background, "Manual + TTL Auto" is better suited than TTL automatic

Manual mode operation gives proper exposure.



Reproduction of the image if Manual mode did not operate.



Overexposure is avoided by reducing light output using the manual adjustment of the strobe.

Stops light output using faster signal

Where Manual setting is the proper exposure, and TTL automatic setting is overexposed, Manual works and TTL automatic will not.

Amount of strobe output

Light output in Manual setting

Light output in TTL automatic mode

※ To acquire proper exposure using the manual setting, you will need to obtain reference data.  
This illustration is to explain the operation in a simplified manner, and is different from the actual images.

# INON Z-240 SYSTEM CHART for Digital SLR camera & Film camera

— Optical signal flow  
— Electrical signal flow  
— Installation flow

