

Godox 神牛

TTL Li-ion Camera Flash  
**VING** 逸客

**V860**<sup>N</sup>  
For Nikon



INSTRUCTION MANUAL  
说明书

中英文双语 / Chinese English Bilingual

**Before using this product**

Please read this user manual carefully in order to ensure your safety and the proper operation of this product. Keep for future reference.

## Foreword

Thank you for purchasing this product.




**VING** series is a Godox original product and the world's first Li-ion powered camera flash, pioneering innovation in the industry. The LiPo battery obviously enhances recycle, runtime, mobility, and portability performance. This model applies to Nikon DSLR cameras and is compatible with Nikon i-TTL autofocus. With this i-TTL compatible flash, your shooting will become simpler. You can easily achieve a correct flash exposure even in complex light-changing environments. This camera flash features:

- GN58 (m ISO 100, @105mm). Adjust from 1/1 to 1/128 in 1/3rd stops
- Support Nikon i-TTL autofocus, Manual and Multi flash modes
- Workable as optic wireless Master and Slave unit in a group
- Pro 2000 mAh Li-ion Battery—max. 1.5s recycle—650 full power pops
- Super value and no messing with AA's, external power pack, or chargers
- Use optional FT-16S to adjust flash parameters & trigger the flash
- Stable consistency and color temperature with good even lighting
- User-friendly LCD display & control panel with firmware upgrade

## For Your Safety



- ▲ Always keep this product dry. Do not use in rain or in damp conditions.
- ▲ This product contains high-voltage electronic parts. Touching the high-voltage circuit inside it may result in electric shock. Do not disassemble. Should repairs become necessary, this product must be sent to an authorized maintenance center.
- ▲ Stop using this product if it breaks open due to extrusion, falling or strong hit. Otherwise, electric shock may occur if you touch the electronic parts inside it.
- ▲ Do not fire the flash directly into the eyes (especially those of babies) within short distances. Otherwise visual impairment may occur. When taking pictures for babies, keep the flash unit at least 1 meter (3.3 feet) away from them. Using bounce flash to reduce light intensity is also recommended.
- ▲ Do not use the flash unit in the presence of flammable gases, chemicals and other similar materials. In certain circumstances, these materials may be sensitive to the strong light emitting from this flash unit and fire or electromagnetic interference may result.
- ▲ Do not leave or store the flash unit in places where the ambient temperature reads over 50°C (e.g. in automobile). Otherwise the electronic parts may be damaged.

# Contents

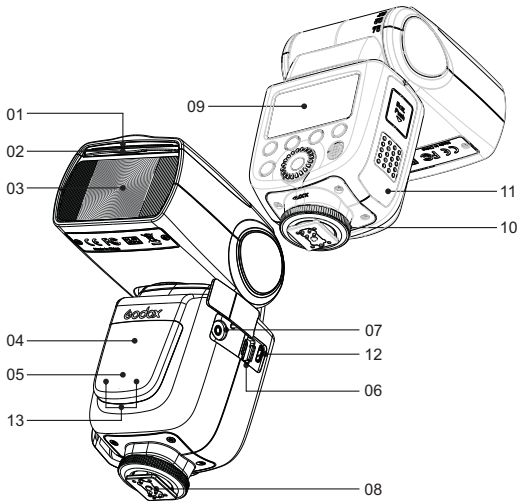
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## Conventions used in this Manual

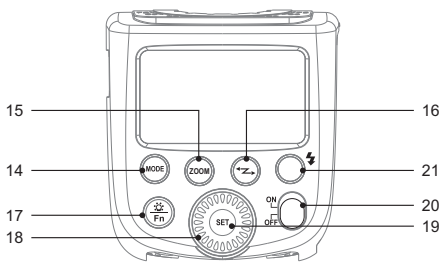
- This manual is based on the assumption that both the camera and camera flash's power switches are powered on.
- Reference page numbers are indicated by "p.\*\*".
- The following alert symbols are used in this manual:
  -  The Caution symbol indicates a warning to prevent shooting problem.
  -  The Note symbol gives supplemental information.

## Name of Parts



### • Body

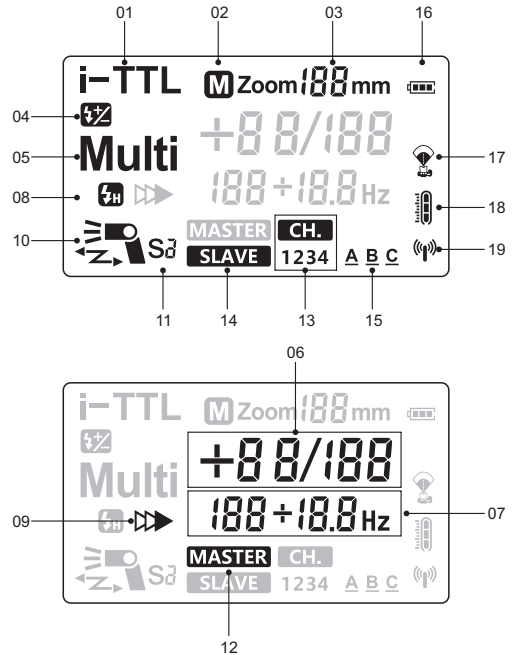
- |                           |                                 |
|---------------------------|---------------------------------|
| 01. Catchlight Panel      | 08. Hotshoe                     |
| 02. Built-in Wide Panel   | 09. LCD Panel                   |
| 03. Flash Head            | 10. Lock Ring                   |
| 04. Optic Control Sensor  | 11. Li-ion Battery Compartment  |
| 05. Focus Assist Beam     | 12. USB Port                    |
| 06. Wireless Control Port | 13. Slave Flash Ready Indicator |
| 07. Sync Cord Jack        |                                 |



### • Control Panel

- |   |   |
|---|---|
| 14. Mode Selection Button                           | 18. Select Dial                         |
| 15. Zoom Button                                     | 19. Set Button                          |
| 16. Wireless Selection Button                       | 20. Power Switch                        |
| 17. LCD Panel Illumination / Custom Function Button | 21. Test Button / Flash Ready Indicator |

### • LCD Panel



- |  |   |
|--|---|
| 01. < i-TTL > i-TTL Autoflash                                    | 11. < S1/S2 > S1/S2 Optic Slave Flash                 |
| 02. < M > Manual Zoom  | 12. < MASTER > Master                                 |
| 03. Zoom Focal Length  | 13. < CH. 1234 > Channel                              |
| 04. < 1/2 > Flash Exposure Compensation                          | 14. < SLAVE > Slave                                   |
| 05. < M/Multi > Manual Flash / Multi Flash                       | 15. < A B C > Slave ID                                |
| 06. Manual Flash Output Level/Flash Exposure Compensation Amount | 16. < [Battery Icon] > Battery Level Indication       |
| 07. Multi Flash Times / Frequency                                | 17. < [Light Bulb Icon] > Max. Output Indication      |
| 08. < [FP Icon] > High-Speed Sync (FP flash)                     | 18. < [Temperature Icon] > Overtemperature Indication |
| 09. < [Second-Curtain Icon] > Second-Curtain Sync                | 19. < [Signal Icon] > Wireless Signal Transmission    |
| 10. Wireless Flash Modes   |   |
| Master Flash ON: [Master ON Icon]                                |   |
| Master Flash OFF: [Master OFF Icon]                              |   |
| Exit Master-Slave: [Exit Icon]                                   |   |
| Slave Flash: [Slave Icon]  |   |



## • What's in the Box of V860N Kit?

1. Flash unit
2. Li-ion Battery Pack
3. Battery Charger
4. Battery Charger Cable
5. Mini Stand
6. Protection Case
7. Instruction manual

## • What's in the Box of V860N (only flash unit)?

1. Flash unit
5. Mini Stand
6. Protection Case
7. Instruction manual



## • Separately Sold Accessories

The product can be used in combination with the following accessories sold separately, so as to achieve best photography effects:

FT-16S power & trigger control, Car charger, Mini softbox, White & Silver reflector, Honeycomb, Color gels, Snoot, etc.



## Battery

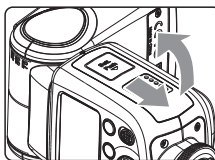
### • Features

1. This flash unit uses Li-ion polymer battery which has long runtime. The available charge-and-discharge times are 500.
2. It is reliably safe. The inner circuit is against overcharge, overdischarge, overcurrent, and short circuit.
3. Take only 2.5 hours to fully charge the battery by using the standard battery charger.

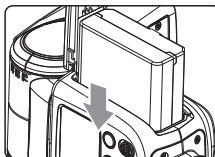
### • Cautions

1. Do not short circuit.
2. Do not expose to rain or immerse into water. This battery is not water proof.
3. Keep out of reach of children.
4. No over 24 hours' continuous charging.
5. Store in dry, cool, ventilated places.
6. Do not put aside or into fire.
7. Dead batteries should be disposed according to local regulations.
8. If the battery had ceased using for over 3 months, please make a full recharge.

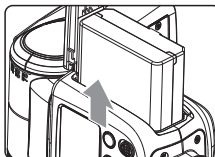
### • Loading and Unloading the Battery



- 1 To load the battery, push the battery compartment cover downward and open it.



- 2 According to the triangle sign on the battery pack, insert it into the compartment until a white knob locks the battery with a click sound.



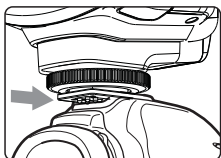
- 3 To unload the battery, tap the white knob and the battery pack will pop out. Then close the compartment.

### • Battery Level Indication

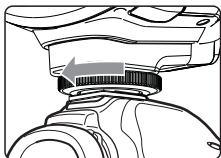
Make sure the battery pack is securely loaded in the flash. Check the battery level indication on the LCD panel to see the remaining battery level.

Battery Level Indication	Meaning
	Full
	Middle
	Low
	Battery power will be empty and need to be charged immediately.

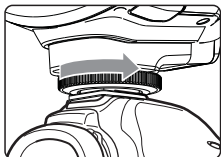
## Attaching to a Camera



- 1 Attach the Camera Flash.
  - Slip the camera flash's mounting foot into the camera's hotshoe all the way.



- 2 Secure the Camera Flash.
  - Rotate the lock ring on the mounting foot until it locks up.



- 3 Detach the Camera Flash.
  - Rotate the lock ring on the mounting foot until it is loosened.

## Power Management

Use ON/OFF Power Switch to power the flash unit on or off. Turn off if it will not be used for an extended period of time. Setting as a master flash, it will turn the power off automatically after a certain period (approx. 90 seconds) of idle use. Pressing the camera shutter halfway or pressing < > test button will wake up the flash unit. Setting as a slave flash, it will enter sleep mode after a certain period (adjustable, 60 minutes by default) of idle use. Pressing < > test button will wake it up.

**C.Fn** Disabling Auto Power Off function is recommended when the flash is used off camera. (C.Fn-00, see P22)

**C.Fn** Slave Auto Power Off Timer is set to 60 minutes by default. Another option "30 minutes" is available. (C.Fn-02, see P22)

## Flash Mode—i-TTL Autoflash

This flash has three flash modes: i-TTL, Manual (M), and Multi (Stroboscopic). In i-TTL mode, the camera and the flash will work together to calculate the correct exposure for the subject and the background. In this mode, multiple TTL functions are available: FEC, HSS, second curtain sync, FV lock, modeling flash, etc.

\* Press < > Mode Selection Button and three flash modes will display on the LCD panel one by one with each pressing.

### i-TTL Mode

Press < > Mode Selection Button and set the flash as < i-TTL > to enter i-TTL mode.

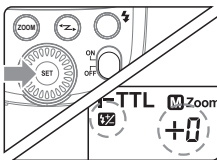
- Press the camera release button halfway to focus. The shutter speed and aperture will be displayed in the viewfinder.
- When the shutter button is fully pressed, the flash will fire a pre-flash that the camera will use to calculate exposure and flash output the instant before the photo is taken.

When this icon appears on the LCD panel, it means the flash unit is at the max power output in the i-TTL mode. If still underexposure, please make settings on your camera in terms of shutter speed, aperture, ISO, etc.

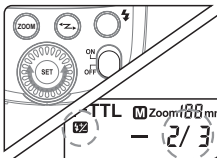
## FEC: Flash Exposure Compensation

With FEC function, this flash can adjust from -3 to +3 in 1/3rd stops. It is useful in situations where minor adjusting of the TTL system is needed based on the environment.

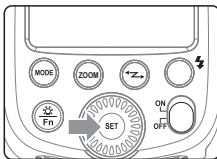
### Setting FEC:



- 1 Press < > button. The icon < > and flash exposure compensation amount will blink on the LCD panel.



- 2 Set the flash exposure compensation amount.
  - Turn the Select Dial to set the amount.
  - To cancel the flash exposure compensation, set the amount to "+0".

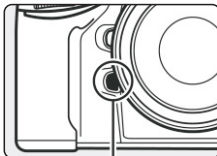


- 3 Press < > button again to confirm the setting.

## FV Lock: Flash Value Lock

FV lock can lock the correct flash exposure setting for any part of the scene.

With < i-TTL > displayed on the LCD panel, press the camera's < FV > button.

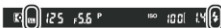


- 1 Focus the subject.

- 2 Press the < FV > button.

Aim the subject at the center of the viewfinder and press < FV > button.

The camera flash will fire a preflash and the required flash output for the subject is retained in memory.



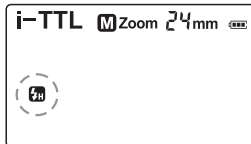
Each time the < FV > button is pressed, a preflash will be fired and a new flash exposure setting will be locked. The FV lock icon < > will be shown on the camera viewfinder.

- If the subject is too far away and underexposure, the  $\lt \text{⚡} \gt$  icon will blink in the viewfinder. Move closer to the subject and try the FV lock again.
- If  $\lt \text{-i-TTL} \gt$  is not displayed on the LCD panel, FV lock cannot be set.
- If the subject is too small, FV lock might not be very effective.
- $\lt \text{FV} \gt$  button is on the camera. The  $\lt \text{FV} \gt$  button position may vary based on different Nikon camera models. Please refer to the instruction manuals of your Nikon camera model.

## High-Speed Sync

High Speed Sync (FP flash) enables the flash to synchronize with all camera shutter speeds. This is convenient when you want to use aperture priority for fill-flash portraits.

Select High-Speed Sync  $\lt \text{HS} \gt$ .



- Set the flash sync speed to 1/320s (Auto FP) or 1/250s (Auto FP) in the Nikon camera menu. Press the shutter button halfway. The icon  $\lt \text{HS} \gt$  displayed on the flash screen means the high

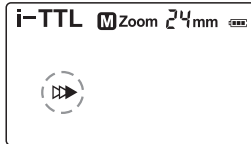
speed sync function is enabled on the flash.

- Turning the camera command dial can set the shutter speed to 1/250s or faster.
- To check if the FP flash function works properly, look through the shutter speed in the viewfinder. If it shows a speed of 1/250s or faster, the FP flash function is on work.

- If you set a shutter speed as 1/320s (Auto FP) or 1/250s (Auto FP) in the Nikon camera setting,  $\lt \text{HS} \gt$  will be displayed in the flash screen regardless of practical shutter speed.
- With high-speed sync, the faster the shutter speed, the shorter the effective flash range.
- To return to normal flash, set the flash sync speed to other options other than Auto FP. Then the icon  $\lt \text{HS} \gt$  will disappear when pressing the shutter halfway.
- Multi flash mode cannot be set in high-speed sync mode.
- Over-temperature protection may be activated after 15 consecutive high-speed sync flashes.

## Second-Curtain Sync

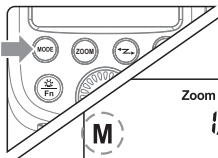
With a slow shutter speed, you can create a light train following the subject. The flash fires right before the shutter closes.



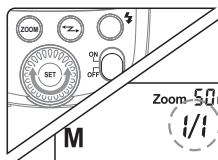
- Set the camera to Rear mode and press the shutter button halfway, then the flash display panel will show the second curtain sync icon  $\lt \text{SC} \gt$ .
- When the camera is not set to Rear mode, pressing the shutter button halfway will not light up the icon  $\lt \text{SC} \gt$  on the flash display panel.

## Flash Mode—M: Manual Flash

The flash output is adjustable from 1/1 full power to 1/128th power in 1/3rd stop increments. To obtain a correct flash exposure, use a hand-held flash meter to determine the required flash output.



- 1 Press  $\lt \text{MODE} \gt$  button so that  $\lt \text{M} \gt$  is displayed.



- 2 Turn the Select Dial to choose a desired flash output amount.

### Flash Output Range

The following table makes it easier to see how the stop changes in terms of f/stop when you increase or decrease the flash output. For example, when you decrease the flash output to 1/2, 1/2-0.3, or 1/2-0.7, and then increase the flash output to more than 1/2, 1/2+0.3, 1/2+0.7, and 1/1 will be displayed.

Figures displayed when reducing flash output level→

1/1	1/1-0.3	1/1-0.7	1/2	1/2-0.3	1/2-0.7	1/4	.....
	1/2+0.7	1/2+0.3		1/4+0.7	1/4+0.3		.....

← Figures displayed when increasing flash output level

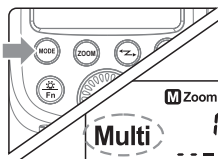
When the flash output gets to 1/1, increasing the output level will sharply change it to 1/128.

When the flash output gets to 1/128, decreasing the output level will sharply change it to 1/1.

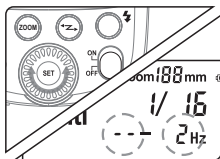
## Flash Mode—Multi: Stroboscopic Flash

With stroboscopic flash, a rapid series of flashes is fired. It can be used to capture a multiple images of a moving subject in a single photograph.

You can set the firing frequency (number of flashes per sec. expressed as Hz), the number of flashes, and the flash output.



- 1 Press  $\lt \text{MODE} \gt$  button so that  $\lt \text{MULTI} \gt$  is displayed.
- 2 Turn the Select Dial to choose a desired flash output.



- 3** Set the flash frequency and flash times.
- Press  $\langle \text{SET} \rangle$  button to select the item (blinks).
  - Turn the Select Dial to set the number and press  $\langle \text{SET} \rangle$  button again to confirm. The next item to be set will blink.
  - After you finish the setting, press  $\langle \text{SET} \rangle$  button and all the settings will be displayed.

### Calculating the Shutter Speed

During stroboscopic flash, the shutter remains open until the firing stops. Use the formula below to calculate the shutter speed and set it with the camera.

$$\text{Number of Flashes / Flash Frequency} = \text{Shutter Speed}$$

For example, if the number of flashes is 10 and the firing frequency is 5 Hz, the shutter speed should be at least 2 seconds.

**⚠** To avoid overheating and deteriorating the flash head, do not use stroboscopic flash more than 10 times in succession. After 10 times, allow the camera flash to rest for at least 15 minutes. If you try to use the stroboscopic flash more than 10 times in succession, the firing might stop automatically to protect the flash head. If this happens, allow at least 15 minutes' rest for the camera flash.

- Stroboscopic flash is most effective with a highly reflective subject against a dark background.
- Using a tripod and a remote control is recommended.
- A flash output of 1/1 and 1/2 cannot be set for stroboscopic flash.
- Stroboscopic flash can be used with "buLb".
- If the number of flashes is displayed as "--", the firing will continue until the shutter closes or the battery is exhausted. The number of flashes will be limited as shown by the following table.

### Maximum Stroboscopic Flashes:

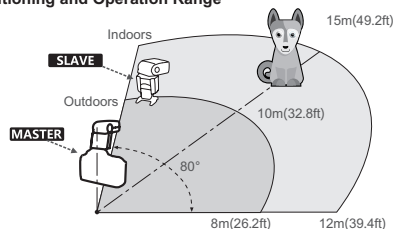
Frequency	Flash Output					
	1/4	1/8	1/16	1/32	1/64	1/128
1 Hz	6	14	30	60	90	90
2 Hz						
3 Hz	5	12	30	60	90	90
4 Hz	4	10	20	50	80	80
5 Hz	4	8	20	40	70	70
6 Hz	3	6	20	32	56	56
7 Hz	3	6	20	28	44	44
8 Hz	3	5	10	24	36	36
9 Hz	3	5	10	22	32	32
10 Hz	2	4	8	20	28	28
20 Hz						
30 Hz						
40 Hz						
50 Hz						
60 Hz	2	4	8	12	24	24
70 Hz						
80 Hz						
90 Hz						
100 Hz						

## Wireless Flash

This product is compatible with Nikon Creative Lighting System (CLS). It can function as either an optic wireless master or slave flash. As a master unit, it can control Nikon speedlights e.g. SB-900 and SB-910 via wireless. As a slave unit, it can be controlled by wireless signals of Nikon speedlights e.g. SB-900 and pop-up flash commanders of Nikon cameras e.g. D7100/D7000/D800.

- You can set up three slave groups for i-TTL autoflash shooting. With i-TTL autoflash, you can easily create various lighting effects.
- Any flash settings for the slave units on the master flash in i-TTL/Manual/Multi mode will be automatically sent to the slave units. So the only thing you need to do is to set the master unit for each slave group without any operation for the slave units at all during the shooting.
- This flash can work in i-TTL /M /Multi / OFF flash modes when set as a master unit.

### Positioning and Operation Range

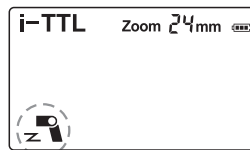


- Even with multiple slave units, the master unit can control all of them via wireless.
- In this user manual, "master unit" refers to the camera flash on a camera and "slave unit" will be controlled by the master unit.

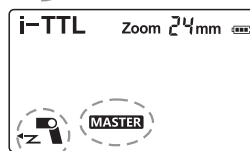
## 1. Wireless Settings

You can switch between normal flash and wireless flash. For normal flash shooting, be sure to set the wireless setting to OFF.

### Setting as Master Unit

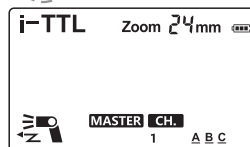


- 1** Press  $\langle \text{Z} \rangle$  button for 2 seconds or longer until the icon in dotted lines blinks.

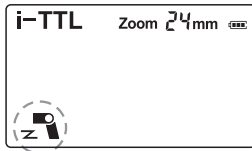


- 2** Set it as the master unit.
- Turn the Select Dial until  $\langle \text{MASTER} \rangle$  blinks. Press the  $\langle \text{SET} \rangle$  button to confirm the settings.

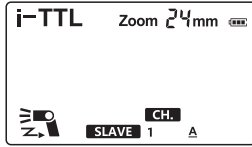
- $\langle \text{MASTER} \rangle$ ,  $\langle \text{CH} \rangle$  and  $\langle \text{ABC} \rangle$  will be displayed, meaning the flash is set as the master unit.



### Setting as Slave Unit



1 Press <Z> button for 2 seconds or longer until the icon in dotted lines blinks.

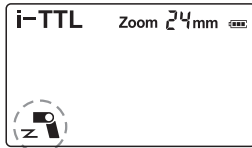


2 Set it as a slave unit.

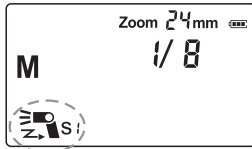
- Turn the Select Dial until <SLAVE> blinks. Press the <SET> button to confirm the settings.
- <SLAVE>, <CH.>, and slave ID A, B or C will be displayed, meaning the flash is set as the slave unit.

### Setting as Optic S1 Secondary Unit

In M manual flash mode, this flash can function as an optic S1 secondary flash with optic sensor. With this function, the flash will fire synchronously when the main flash fires, the same effect as that by the use of radio triggers. This helps create multiple lighting effects.



1 Press <Z> button for 2 seconds or longer until the icon in dotted lines blinks.

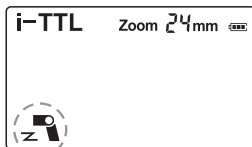


2 Set it as an optic S1 secondary unit.

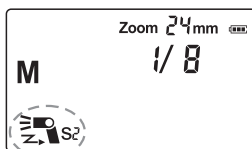
- Turn the Select Dial until <S1> blinks. Press the <SET> button to confirm the settings.

### Setting as Optic S2 Secondary Unit

The flash can also function as an optic S2 secondary flash with optic sensor in M manual flash mode. This is useful when cameras have pre-flash function. With this function, the flash will ignore a single "pre-flash" from the main flash and will only fire in response to the second, actual flash from the main unit.



1 Press <Z> button for 2 seconds or longer until the icon in dotted lines blinks.



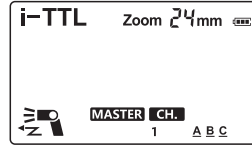
2 Set it as an optic S2 secondary unit.

- Turn the Select Dial until <S2> blinks. Press the <SET> button to confirm the settings.

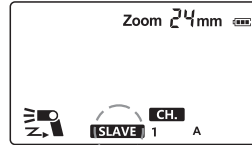
• S1 and S2 optic triggering is only available in M manual flash mode.

## 2. Settings on Master Unit

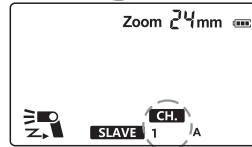
On the master unit, you can not only set the flash mode and flash output for the master unit, but also make settings for each slave unit. During a flash fire, settings for the slave units will be automatically sent from the master unit to each slave unit.



1 Attach a camera flash onto the camera and set it as the master unit.



2 Set the other camera flash(es) as the wireless slave unit(s).

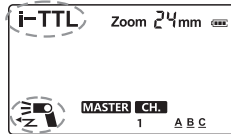


3 Check the communication channel. If the master unit and slave unit(s) are set to a different channel, set them to the same channel.

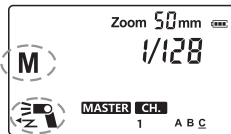
4 Position the camera and flashes.

### 5 Set the master unit's flash mode

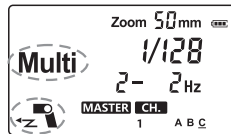
Press <MODE> button to switch among OFF/i-TTL/M/Multi flash modes. Select a flash mode.



- Select i-TTL mode for master unit. The display panel shows i-TTL and a camera flash icon. In this mode, the flash exposure compensation amount is adjustable.



- Select M mode for master unit. The display panel shows M and a camera flash icon. In this mode, the flash output value is adjustable.

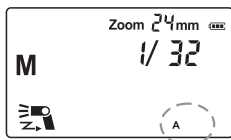


- Select Multi mode for master unit. The display panel shows Multi and a camera flash icon. In this mode, the flash output, frequency, and times are all adjustable.

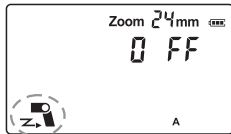
• OFF mode indicates that the master unit flash firing is disabled and it only fires a preflash to transmit wireless signals. In this mode, the display panel shows a camera flash icon and OFF.

6 Set the camera in the same way as with normal flash shooting.

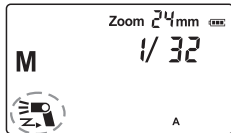
7 Make settings for slave units (flash mode and output) with master unit in OFF/i-TTL/M mode.



- Press < > button to select a slave group ID A, B or C.

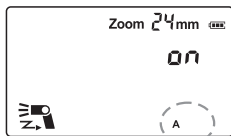


- Press < MODE > button to switch among OFF/i-TTL/M flash modes. Select a flash mode. In OFF mode, the display panel shows < > and this slave group is disabled to fire. In i-TTL and M modes, the display panel shows < > and this slave group is enabled to fire.

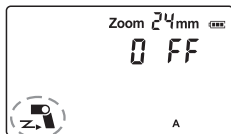


- Turn the Select Dial to set the desired flash output.

8 Make settings for slave units (flash mode and output) with master unit in Multi mode.



- Press < > button to select a slave group ID A, B or C.



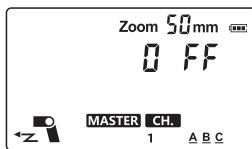
- Pressing < MODE > button can only switch between OFF and ON. When ON is selected, the display panel shows < > and the slave group is enabled to fire. When OFF is selected, the display panel shows < > and the slave group is disabled to fire.

- Turn the Select Dial to set the desired flash output.

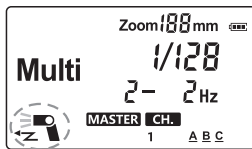
- After setting for one slave group, press < > button to set for the next slave group. When finishing settings for all slave groups, press < > button to go back to the panel that shows the master unit setting.
- S1 and S2 optic triggering are only supported in the M flash modes.
- No matter where the slave unit's flash head is towards, be sure to make its wireless sensor faces the master unit. Also ensure that the slave unit is placed within the effective transmission range of the master unit. Do not place any obstacles between the master unit and the slave unit(s). Obstacles may block the transmission of wireless signals.
- Slave group ID A, B, or C will be underlined if the slave group is set to i-TTL/M/Multi mode. If all three groups are set to any of i-TTL, M, or Multi mode, the display panel will show A B C. This can be checked from the panel that shows the master unit setting. groups are not OFF, A B C will be displayed.

### 3. Master Unit's Flash OFF

When the master unit's flash firing is disabled, only the slave units will fire a flash.



1 With the master unit in i-TTL/M mode, press the < > button to switch to OFF mode. The panel will display < > and the master unit is disabled to fire.

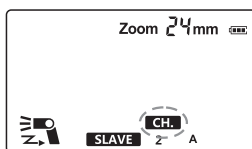


2 With the master unit in Multi mode, press < > button. Then < > and < MASTER > will blink. Turn the select dial until the icon < > is displayed. Press < > button to confirm. The master unit then is disabled to fire.

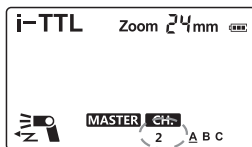
- Even if the master unit flash firing is disabled, it still fires a preflash to transmit wireless signals.
- Slave group ID A, B, or C will be underlined if the slave group is set to i-TTL/M/Multi mode.

### 4. Setting the Communication Channel

If there are other wireless flash systems nearby, you can change the channel IDs to prevent signal interference. The channel IDs of the master unit and the slave unit(s) must be set to the same.



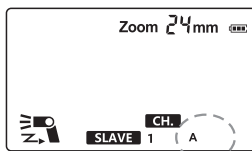
1 Press < > button so that < CH. > blinks.



2 Set a channel ID.  
• Turn the Select Dial to choose a channel ID and press the < > button to confirm.


### 5. Setting the Slave ID

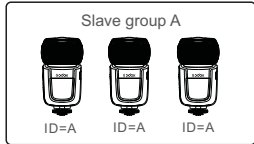
Before make settings for each slave group on the master unit, each slave group must be set with a slave ID.



1 Press < > button to have A, B or C blinked.

2 Make settings.  
Turn the Select Dial to choose a slave ID and press < > button to confirm.

- Press <  > button after setting you channels, and the group ID blinks. Then the channels and group ID can be set at the same time.



**About Slave Group Control**  
If three slave units are all set to < A > in terms of slave ID, these slave units will be controlled as if they were one camera flash in slave group A.

## Auto Focus Assist Beam

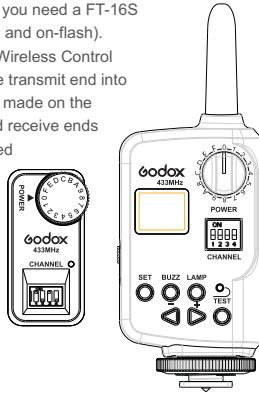
In poorly-lit or low-contrast shooting environments, the built-in auto focus assist beam will automatically light on to make it easier for autofocus. The beam will light up only when autofocus is difficult and get out as soon as the autofocus becomes correct.


- To normally use the auto focus assist function, the AF Focus Assist (C.Fn-01) must be enabled and the camera must be set. Turn off the built-in AF assist illuminator of the camera and set the lens focus mode as A (auto focus mode).
- It is normal that the focus assist beam does not light up when the camera is under accurate focus.

## Other Applications

### Wireless Control Function

The flash unit is built in with a Wireless Control Port so that you can wirelessly adjust the power level of the flash and the flash triggering. To control the flash wirelessly, you need a FT-16S remote control set (on-camera and on-flash). Insert its receive end into the Wireless Control Port on the flash and insert the transmit end into the camera hot shoe. Settings made on the hotshoe-mounted transmit and receive ends will be wirelessly communicated to the flash. Then you can press the camera shutter release button to trigger the flash. You can also hold the transmit end at hand to control your off-camera flash.



- When the flash unit receives wireless signals,  is shown on the LCD display.
- For full instructions on the use of FT series remote control, see its user manual.

### Sync Triggering

The Sync Cord Jack is a  $\Phi 2.5\text{mm}$  plug. Insert a trigger plug here and the flash will be fired synchronously with the camera shutter.

### Modeling Flash

If the camera has a depth-of-field preview button, pressing it will fire the flash continuously for 1 second. This is called modeling flash. It enables you to see the shadow effects on the subject and the lighting balance. You can fire the modeling flash during wireless or normal flash shooting.

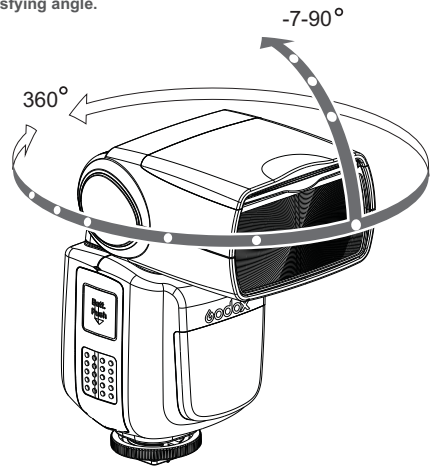
- To avoid overheating and deteriorating the flash head, do not fire the modeling flash for more than 10 consecutive times. If you fire the modeling flash 10 consecutive times, allow at least 10 minutes' break for the camera flash.

Position	Effective Range
Center	0.6~10m / 2.0~32.8 feet
Periphery	0.6~5m / 2.0~16.4 feet

### Bounce Flash

By pointing the flash head toward a wall or ceiling, the flash will bounce off the surface before illuminating the subject. This can soften shadows behind the subject for a more natural-looking shot. This is called bounce flash.

To set the bounce direction, hold the flash head and turn it to a satisfying angle.

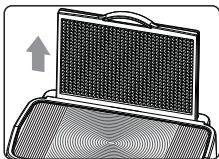


- If the wall or ceiling is too far away, the bounced flash might be too weak and result in underexposure.
- The wall or ceiling should be a plain, white color for high reflectance. If the bounce surface is not white, a color cast may appear in the picture.

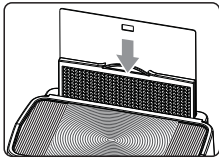


## Creating a Catchlight

With the catchlight panel, you can create a catchlight in the subject's eyes to add life to the facial expression.



- 1 Point the flash head upward by 90°.
- 2 Pull out the wide panel. The catchlight panel will come out at the same time.

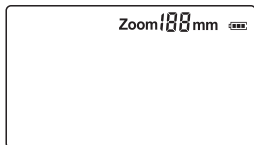


- 3 Push the wide panel back in.
  - Push in only the wide panel.
  - Follow the same procedures as for bounce flash.

- ▲ Point the flash head straight ahead and then upward by 90°. The catchlight will not appear if you swing the flash head left or right.
- For best catchlight effect, stay 1.5m/4.9ft away from the subject.

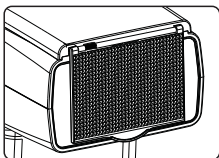
## ZOOM: Setting the Flash Coverage and Using the Wide Panel

The flash coverage can be set automatically or manually. It can be set to match the lens focal length from 24 mm to 105mm. Also, with the built-in wide panel, the flash coverage can be expanded for 14mm wide-angle lenses.



- In Manual Zoom mode, press the < ZOOM > button.**
- Turn the Select Dial to change the flash coverage.
  - If < M > is not displayed, the flash coverage will be set automatically.

- ⓘ If you set the flash coverage manually, make sure it covers the lens focal length so that the picture will not have a dark periphery.



### Using the Wide Panel

Pull out the wide panel and place it over the flash head as shown. The flash coverage will then be extended to 14 mm.

- The catchlight panel will come out at the same time. Push the catchlight panel back in.
- The < ZOOM > button will not work.

## C.Fn: Setting Custom Functions

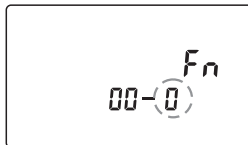
The following table lists the available and unavailable custom functions of this flash. The icon "√" indicates the flash custom function is supported but "0" indicates the custom function is not supported.

C.Fn Custom Functions				
Custom Functions No.	Function	Setting No.	Settings & Description	Support or Not
C.Fn-00	Auto power off	0	Enabled	√
		1	Disabled	
C.Fn-01	AF assist	0	Enabled	√
		1	Disabled	
C.Fn-02	Slave auto power off timer	0	60 minutes	√
		1	30 minutes	
C.Fn-03	Slave auto power off cancel	0	Within 8 hours	0
		1	Within 1 hour	
C.Fn-04	Test firing with autoflash	0	1/32	0
		1	Full output	



- 1 Press < Fn > button for 2 seconds or longer until < Fn > is displayed.

- 2 Select the Custom Function No.
  - Turn the Select Dial to set the Custom Function No.




- 3 Change the setting.
  - Press < SET > button and the setting No. blinks.
  - Turn the Select Dial to set the desired number. Pressing < SET > button will confirm the settings.
  - After you set the Custom Function and press < MODE > button, the camera will be ready to shoot.



## Protection Function

### 1. Over-Temperature Protection

- To avoid overheating and deteriorating the flash head, do not fire more than 30 continuous flashes in fast succession at 1/1 full power. After 30 continuous flashes, allow a rest time of at least 10 minutes.
- If you fire more than 30 continuous flashes and then fire more flashes in short intervals, the inner over-temperature protection function may be activated and make the recycling time about 10 to 15 seconds. If this occurs, allow a rest time of about 10 minutes, and the flash unit will then return to normal.
- When the over-temperature protection is started,  is shown on the LCD display.

**Number of flashes that will activate over-temperature protection:**

Power Output Level	Number of Flashes
1/1	30
1/2 +0.7	40
1/2 +0.3	50
1/2	60
1/4(+0.3,+0.7)	100
1/8(+0.3,+0.7)	200
1/16(+0.3,+0.7)	300
1/32(+0.3,+0.7)	500
1/64(+0.3,+0.7)	1000
1/128(+0.3,+0.7)	

**Number of flashes that will activate over-temperature protection in high-speed sync triggering mode:**

Power Output	Times
1/1	15
1/2(+0.3,+0.7);	20
1/4(+0.3,+0.7)	30
1/8(+0.3,+0.7);	
1/16(+0.3,+0.7)	40
1/32(+0.3,+0.7);	
1/64(+0.3,+0.7);	50
1/128(+0.3,+0.7);	

### 2. Other Protections

The system provides real-time protection to secure the device and your safety. The following lists prompts for your reference:

Prompts on LCD Panel	Meaning
E1	A failure occurs on the recycling system so that the flash cannot fire. Please restart the flash unit. If the problem still exists, please send this product to a maintenance center.
E2	The system gets excessive heat. Please allow a rest time of 10 minutes.
E3	The voltage on two outlets of the flash tube is too high. Please send this product to a maintenance center.

## Technical Data

Kit Model	V860N Kit
Flash-Only Model	V860N
<b>• Type</b>	
Compatible Cameras	Nikon DSLR cameras (i-TTL autoflash)
Guide No.	58 (m ISO 100)
(1/1 output @ 105mm)	190 (feet ISO 100)
Flash Coverage	24 to 105mm (14mm with wide panel)
	• Auto zoom (Flash coverage set automatically to match the lens focal length and image size)
	• Manual zoom
	• Swinging/lifting flash head (bounce flash): 0 to 360° horizontally and -7° to 90° vertically
Flash Duration	1/300 to 1/20000 seconds
<b>• Exposure Control</b>	
Exposure control system	i-TTL autoflash and manual flash
Flash exposure compensation (FEC)	Manual. FEB: ±3 stops in 1/3 stop increments
FV lock	FV Lock button
Sync mode	High-speed sync (up to 1/8000 seconds), first-curtain sync, and second-curtain sync
Multi flash	Provided (up to 100 times, 100Hz)
<b>• Wireless Flash</b>	
Wireless flash function	Master, Slave, Off, S1/S2 optic triggering
Controllable slave groups	3 (A, B, and C)
Transmission range (approx.)	Indoors: 12 to 15 m / 39.4 to 49.2 ft. Outdoors: 8 to 10 m / 26.2 to 32.8 ft. Master unit reception angle: ±40° horizontally, ±30° vertically
Channels	4 (1, 2, 3, and 4)
Slave-ready indicator	Two red indicators light up
Modeling flash	Fired with camera's depth-of-field preview button
<b>• Auto Focus Assist Beam</b>	
Effective range (approx.)	Center: 0.6~10m / 2.0~32.8 feet Periphery: 0.6~5m / 2.0~16.4 feet
<b>• Power Supply</b>	
Power source	11.1V/2000mAh Li-ion polymer battery
Recycle time	< 1.5 seconds. Red LED indicator will light up when the flash is ready.
Full power flashes	Approx. 650
Power saving	Power off automatically after approx. 90 seconds of idle operation. (60 minutes if set as slave)
<b>• Sync Triggering Mode</b>	Hotshoe, 2.5mm sync line, Wireless control port
<b>• Color Temperature</b>	5600±200k
<b>• Dimensions</b>	
W x H x D	64*76*190 mm
Weight without battery	420g
Weight with battery	540g

## Troubleshooting

If there is a problem, refer to this Troubleshooting Guide.

### The Camera Flash cannot be charged.

- The battery is installed in the wrong direction.  
→Install the battery in the correct direction.
- The camera flash's internal battery is exhausted.  
→If <□> appears and blinks on the LCD panel, replace the battery immediately.

### The Camera Flash does not fire.

- The camera flash is not attached securely to the camera.  
→Attach the camera's mounting foot securely to the camera.
- The electrical contacts of the Camera Flash and camera are dirty.  
→Clean the contacts.
- < ⚡ > is not displayed in the view finder of camera.  
→Wait until the flash is fully recycled and the flash ready indicator lights up.  
→If the flash ready indicator lights up, but < ⚡ > is not displayed in the view finder, check whether this flash unit is securely attached to the camera hotshoe.  
→If the flash ready indicator lights up, but < ⚡ > blinks in the view finder, check whether this flash unit is securely attached to the camera hotshoe. Please power the flash off and reopen it if necessary.  
→If the flash ready indicator does not light up after a long wait, check whether the battery power is enough. If the battery power is low, <□> will appear and blink on the LCD panel. Please replace the battery immediately.

### The power turns off by itself.

- After 90 seconds of idle operation, auto power off took effect if the flash is set as master.  
→Press the shutter button halfway or press the < ⚡ > test flash button to wake up.
- After 60 minutes (or 30 minutes) of idle operation, the flash unit will enter sleep mode if it is set as slave.  
→Press the < ⚡ > test flash button to wake up.

### Auto zoom does not work.

- The camera flash is not attached securely to the camera.  
→Attach the camera flash's mounting foot to the camera.

### The flash exposure is underexposed or overexposed.

- There was a highly reflective object (e.g. glass window) in the picture.  
→Use **FV** lock.
- You used high-speed sync.  
→With high-speed sync, the effective flash range will be shorter. Make sure the subject is within the effective flash range displayed.
- You used Manual Flash mode.  
→Set the flash mode to **i-TTL** or modify the flash output.

### Photos have dark corners or only parts of the target subject are illuminated.

- The focal length of lens exceeds the flash coverage.  
→Check the flash coverage you set. This flash unit has the flash coverage between 24 and 105mm, which fits medium-format cameras. Pull the wide panel out to extend the flash coverage.

## Firmware Upgrade

This flash supports firmware upgrade through the USB port. Update information will be released on our official website.

- USB connection line is not included in this product. The USB port is a standard Micro USB socket. Common USB connection line is applicable.

## Compatible Camera Models

This flash unit can be used on the following

### Nikon DSLR camera models:

D800	D700	D7100	D7000	D5200	D5100	D5000
D300	D300S	D3200	D3100	D3000	D200	D70S

- This table only lists the tested camera models, not all Nikon DSLR cameras. For the compatibility of other camera models, a self-test is recommended. Rights to modify this table are retained.

## Maintenance

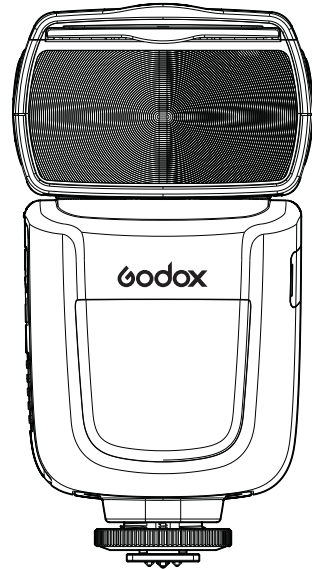
- Shut down the device immediately should abnormal operation be detected.
- Avoid sudden impacts and the product should be dedusted regularly.
- It is normal for the flash tube to be warm when in use. Avoid continuous flashes if unnecessary.
- Maintenance of the flash must be performed by our authorized maintenance department which can provide original accessories.
- This product, except consumables e.g. flash tube, is supported with a one-year warranty.
- Unauthorized service will void the warranty.
- If the product had failures or was wetted, do not use it until it is repaired by professionals.
- Changes made to the specifications or designs may not be reflected in this manual.

Godox 神牛

锂电TTL机顶闪光灯  
**VING** 逸客  
Pioneering Li-ion Camera Flash

**V860**<sup>N</sup>  
For Nikon

接文件1



INSTRUCTION MANUAL  
说明书

中英文双语 / Chinese English Bilingual

在使用本产品之前：

请先仔细阅读本手册，以确保您能安全使用。请保存好本手册以备将来查询参考。

## 感谢您购买神牛产品。

**VING** 系列是神牛全球首创“锂电”机顶闪光灯，技术领先于行业水平。**VING** 系列以专业锂电池取代传统的AA电池和外置电源供电，明显提升三大体验：回电速度，续航时间，移动便携性。前所未有的“一灯一电一充超强合体”，超高性价比，方便无忧。该型号“锂电”机顶闪光灯适用于尼康数码相机，兼容尼康 i-TTL 自动闪光。使用 i-TTL 闪光灯，您将获得更简单的拍摄体验，在光线变化复杂的情况下，可以自动获得准确的闪光曝光，拍摄轻松自如。产品特点突出表现在以下几方面：

- **GN58 (m ISO 100, @105mm), 22级调光(1/1~1/128)**

- **兼容尼康 i-TTL**

支持 i-TTL 自动闪光，可作为无线多灯闪光系统的主控或从属单元，拍摄更简单快捷

- **专业锂电，优质体验**

2000mAh 锂聚合物电池，全功率 650 次闪光，1.5 秒快速回电，便携性能无与伦比

- **无线功率遥控触发**

选购 FT-16S 遥控器，可对离机闪光灯进行无线功率调节等参数设置，同时触发引闪

- **功能齐全，无限享用**

支持手动和频闪闪光模式，高速同步/第二帘快门同步/闪光曝光补偿等 i-TTL 功能

- **光学研究，输出稳定**

高速连闪，每次输出亮度和色温连续一致(5600±200K)，光线均匀分布

- **固件升级，兼容无忧**

跟随原厂相机步伐，可对软件进行再升级

- ▲ 请勿让本产品淋雨或受潮，以免发生火灾或触电。
- ▲ 本产品内部有高压元件，切勿自行拆解或维修。如果接触产品内部的高压电路，可能会发生触电。需要修理时，请送往指定地点进行专业维修。
- ▲ 在使用过程中，如果本产品由于跌落、受到挤压或遭受强烈冲击而造成外壳破裂的，请勿继续使用，以免因接触到内部电子元件而受到电击伤害。
- ▲ 请勿在近距离将闪光灯头正对人眼闪光（特别是婴儿的眼睛），否则可能会在短时间内造成视力障碍。在使用闪光灯拍摄婴儿时，建议闪光灯距离婴儿至少1米以上，也可以使用反射闪光来减少闪光可能对视力造成的伤害。
- ▲ 请勿在化学品、可燃性气体或其他特殊物质附近使用闪光灯，这些物质在特殊情况下可能对闪光灯发出的瞬间强光敏感，有可能导致火灾或电磁干扰。在这些场合下，请注意相关警告标识。
- ▲ 请勿将本产品放置在超过50摄氏度的环境下，否则可能对元器件造成损坏。
- ▲ 本产品不能防水，在雨天及潮湿环境下请注意防水。

本说明书中使用的约定

- 此使用说明书中的操作步骤假定相机和闪光灯的电源开关已开启。
- 参考页码由(第\*\*页)表示。
- 此使用说明书中使用以下警告符号：

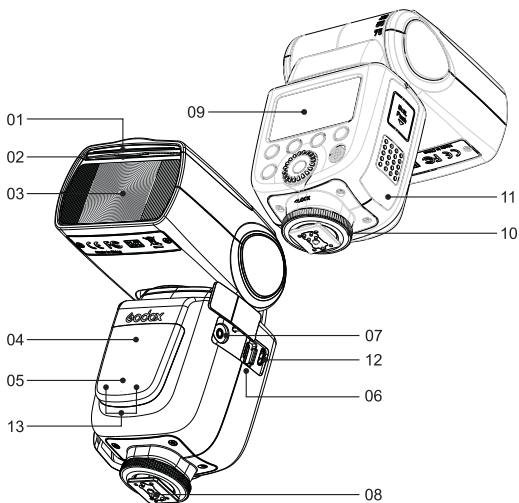
 该“小心”符号表示避免出现拍摄问题的警告。

 该“注意”符号提供补充信息。

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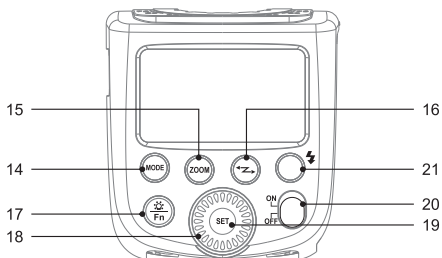
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## 部件名称



### ● 机身

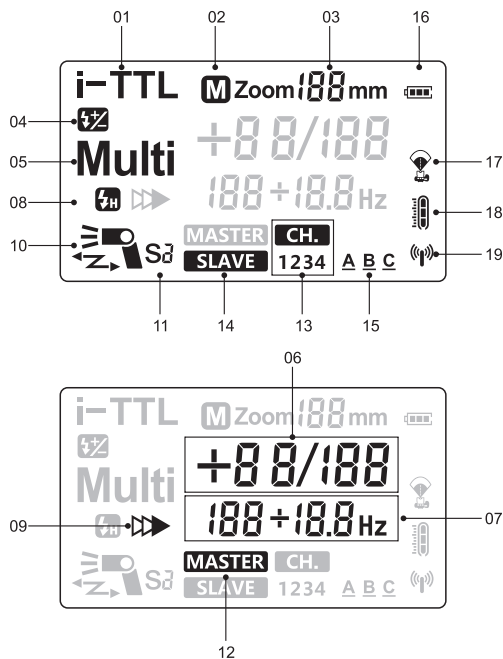
- |             |               |
|-------------|---------------|
| 01. 眼镜头板    | 08. 热靴        |
| 02. 内置广角散光板 | 09. 液晶显示屏     |
| 03. 闪光灯头    | 10. 固定旋钮      |
| 04. 无线传感器   | 11. 锂电池仓      |
| 05. 辅助对焦灯   | 12. USB端口     |
| 06. 无线控制插座  | 13. 从属单元状态指示灯 |
| 07. 同步插孔    |               |



### ● 控制面板

- |              |                |
|--------------|----------------|
| 14. 闪光模式选择按钮 | 18. 调节旋钮       |
| 15. 变焦设置按钮   | 19. 设置按钮       |
| 16. 无线设置按钮   | 20. ON/OFF电源开关 |
| 17. 背光/自定义按钮 | 21. 试闪按钮/回电指示灯 |

### ● LCD液晶显示屏



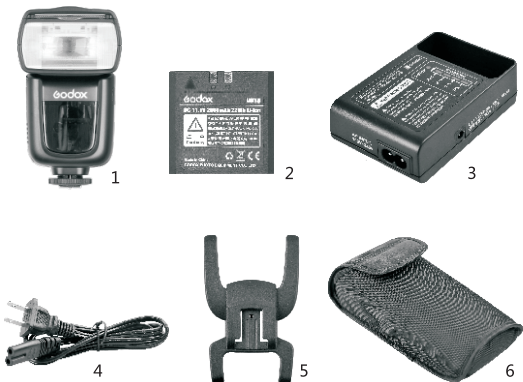
- |                               |                  |
|-------------------------------|------------------|
| 01. <i-TTL> 自动闪光              | 主控闪光关闭:          |
| 02. <M> 手动变焦                  | 退出主控闪光:          |
| 03. 变焦焦距                      | 从属闪光:            |
| 04. <1/2> 闪光曝光补偿              | 11. <            |
| 05. <M/Multi> 手动闪光/多次 (频闪) 闪光 | 12. <MASTER> 主控  |
| 06. 手动闪光输出级别/闪光曝光补偿量          | 13. <CH 1234> 频道 |
| 07. 频闪闪光次数/频闪闪光频率             | 14. <SLAVE> 从属   |
| 08. <Fn> 高速同步 (FP) 闪光         | 15. <A B C> 从属账号 |
| 09. <Fn> 第二帘快门同步              | 16. <            |
| 10. 无线闪光模式                    | 17. <            |
| 主控闪光开启:                       | 18. <            |
|                               | 19. <            |

## ● 套装标物品

- 1、灯体 2、锂电池 3、电池充电器 4、充电器电源线  
5、微型底座 6、保护包 7、说明书

## ● 单灯标配附件

- 1、灯体 5、微型底座 6、保护包 7、说明书



## ● 可选购附件

可搭配本公司以下摄影附件使用，以获得最佳的拍摄效果和使用体验：车充、FT-16S功率遥控器、迷你柔光箱、反光板、蜂巢、色片、束光布等。



## 电池

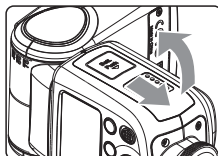
### ● 特性

1. 本品采用锂聚合物电池，支持反复充放电500次，使用寿命长；
2. 安全可靠，内置电路有过充保护、过放保护、过流保护、短路保护；
3. 使用标配电池充电器只需2.5个小时左右。

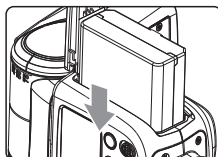
### ● 注意事项

1. 避免正负极短路；
2. 电池没有防水功能，不要把电池浸泡在雾、水中；
3. 放置于儿童不易接触的地方；
4. 电池充电不要放置超过24小时；
5. 电池应放置于凉爽、干燥及通风的地方存储；
6. 电池不要靠近和放置于火中；
7. 电池使用报废后请按当地的规定处理；
8. 如果电池超过3个月不使用，请对电池进行满电充电。

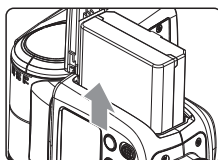
### ● 装卸电池



- 1** 打开电池仓盖。  
● 用您的拇指按电池仓盖，然后滑动电池仓盖将电池仓盖打开。



- 2** 安装电池。  
● 按电池指示方向将锂电池插入电池仓，直至扣件卡住，关闭电池仓盖即可。



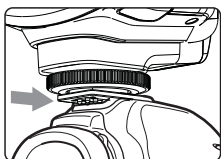
- 3** 拆卸电池。  
● 打开电池仓，往右轻推扣件直至锂电池弹出。

### ● 电池电量指示

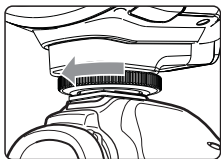
把锂电池正确安装在闪光灯上，即可给闪光灯供电。使用时请查看闪光灯屏幕上电池图标，即可随时掌握电量状态。

电池电量显示	意义
	满电
	中电
	低电
	电量即将用尽，请及时充电。

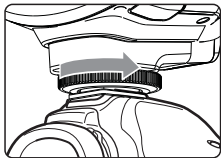
## 装卸闪光灯



- 1 安装闪光灯。
  - 滑动闪光灯固定座使其完全插入相机的热靴插座。



- 2 拧紧闪光灯。
  - 旋转固定座上的锁定旋钮，直到锁定闪光灯。



- 3 取下闪光灯。
  - 旋转固定座上的锁定旋钮，直到闪光灯解除锁定。

## 电源管理

\* ON/OFF电源开关控制该产品的打开和关闭，长时间不使用时请关闭电源。本产品设计有电源自动关闭功能。作为主控单元在长时间(约90秒)无人操作时，闪光灯会自动关闭，半按快门按钮或<Fn>试闪按钮唤醒；作为从属单元在60分钟(或者选择30分钟)无任何操作时，闪光灯会进入休眠状态，此时可按<Fn>试闪按钮唤醒。

**C.Fn** 离机使用时，建议通过自定义功能使“自动关闭电源”无效。(C.Fn-00 第50页)

**C.Fn** “从属单元自动关闭电源计时器”出厂默认设置为60分钟，也可自定义选择30分钟。(C.Fn-02 第50页)

## 闪光模式：i-TTL自动闪光模式

该闪光灯有i-TTL自动闪光，M手动闪光，Multi频闪光三种模式。在i-TTL模式下，相机的测光系统会侦查从主体反射回来的闪光照明，从而自动调节闪光输出量，使主体和背景得到均衡曝光。支持曝光补偿、高速同步、第二帘快门同步、曝光锁定、光圈预览造影闪光等功能。

\* 按下<MODE>模式选择按钮，三种闪光模式将会依次出现在液晶屏上。

### i-TTL模式

通过按<MODE>模式选择按钮，将闪光灯设置为<i-TTL>，可以使闪光灯进入i-TTL模式。

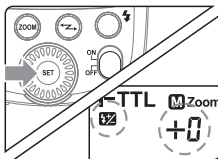
- 半按相机快门按钮进行对焦，光圈值将会显示在显示屏上。
- 在快门释放前的瞬间进行一次预闪，闪光灯接收相机信息进行主闪光。

**!** 该图标出现，表示闪光灯已在i-TTL模式下达到最大闪光输出，此情况下如曝光不足请调节相机参数(快门、光圈、ISO等)。

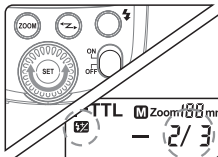
## 闪光曝光补偿

该闪光灯可以在±3档间以1/3档为增量调节闪光曝光补偿。由于环境的需求而需要微调TTL系统时，这个功能非常有用。

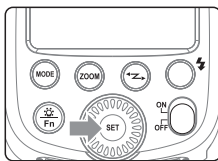
设置闪光曝光补偿：



- 1 按下<SET>设置按钮，屏幕显示<Fn>图标，<Fn>图标和闪光曝光补偿量会闪烁。



- 2 设置闪光曝光补偿量。
  - 转动调节旋钮设置曝光补偿量。
  - 要取消闪光曝光补偿，将闪光曝光补偿量设置为“+0”。

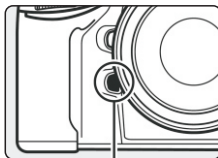


- 3 按下<SET>设置按钮，确定闪光曝光补偿。

## FV锁定：闪光值锁定

使用FV锁定(闪光值锁定)，您可以为场景的任何部分锁定正确的闪光曝光设置。

液晶显示屏上显示<i-TTL>时，按下相机的<FV>按钮。



- 1 对被摄体对焦。

- 2 按下<FV>按钮。
  - 将取景器中央对准被摄体，然后按下<FV>按钮。
  - 闪光灯将会进行预闪，并将被摄体所需的闪光输出保留在内存中。
  - 每次按下<FV>按钮时，闪光灯将进行预闪并锁定新的闪光曝光设置，相机取景器中将出现FV锁定图标<FV>。

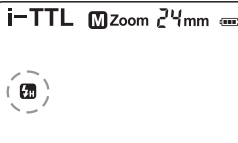




- 如果被摄体太远，将导致曝光不足，< ❷ > 图标将在取景器中闪烁。请靠近被摄体然后再次尝试闪光曝光锁定。
- 如果液晶显示屏上不显示 < i-TTL >，将不能设置闪光曝光锁定。
- 如果被摄体太小，闪光曝光锁定效果可能不太好。
- < FV > 按钮位于相机上。Nikon 不同型号的相机上 FV 按键位置可能并不相同。请参考对应机型的说明书。

## 高速同步

使用高速同步 (FP) 闪光，您可以在所有的快门速度下同步使用闪光灯。高速同步模式下，使用光圈优先对人像进行填充闪光时特别方便。



选择高速同步 < ❷ >。

- 在尼康相机机身设置中，将闪光同步速度设置为 1/320 秒 (自动 FP) 或 1/250 秒 (自动 FP)，半按快门键，闪光灯屏幕显示高速同步 < ❷ > 图标。此时闪光灯高速同步功能启动。

- 转动相机拨盘，快门速度能设置为 1/250s 或更高的快门速度。
- 要确认目前是否正在使用 FP 高速同步功能，通过相机取景器检查快门速度即可判断。如果快门速度为 1/250s 或更高，表示高速同步功能启动。

- 如果在尼康相机机身设置中，将闪光同步速度设置为 1/320 秒 (自动 FP) 或 1/250 秒 (自动 FP)，无论实际的快门速度是多少，闪光灯屏幕上的 < ❷ > 图标都会显示。
- 使用高速同步时，快门速度越高，有效的闪光范围就越小。
- 要恢复普通闪光，请在尼康相机机身设置中，将闪光同步速度设置为非 (自动 FP) 选项，半按快门时，闪光灯屏幕上的 < ❷ > 图标会消失。
- 在高速同步模式下，无法设置频闪闪光。
- 连续高速同步闪光 15 次后，闪光灯热保护功能可能会被激活。

## 第二帘快门同步

使用慢速快门，您可以在被摄体后创建一条光线轨迹。在快门关闭前的瞬间闪光灯闪光。

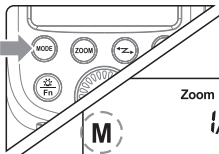


选择高速同步 < ❸ >。

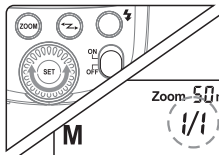
- 在尼康相机机身设置中，选择 Rear 闪光方式，半按快门键，闪光灯屏幕显示后帘同步 < ❸ > 图标。
- 在尼康相机机身设置中，选择非 Rear 闪光方式，半按快门键，闪光灯屏幕上的后帘同步 < ❸ > 图标不再显示。

## 闪光模式：M 手动闪光

您可以在 1/128 功率至 1/1 全功率间以 1/3 档为增量设置闪光输出。为获得正确的闪光曝光，请使用手持的闪光测光表确定所需的闪光输出。



1 按 < MODE > 模式选择按钮，显示 < M >。



2 转动调节旋钮设置闪光输出功率。

### 显示闪光输出

拍摄过程中更改闪光输出时，下表将清楚地显示光圈值是如何更改的，如 1/2-0.3 → 1/2+0.3。您可以在增加或减少闪光输出时查看光圈值的更改规律。

例如，将闪光输出量减少至 1/2、1/2-0.3 或 1/2-0.7，然后再将其增加至大于 1/2、1/2+0.3、1/2+0.7 时，将显示 1/1。

减少闪光输出指数 →

1/1	1/1-0.3	1/1-0.7	1/2	1/2-0.3	1/2-0.7	1/4	.....
	1/2+0.7	1/2+0.3		1/4+0.7	1/4+0.3		.....

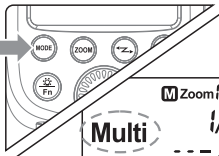
← 增加闪光输出指数

在闪光输出设置为 1/1 时，继续增大输出，输出值会跳到 1/128；在闪光输出设置为 1/128 时，继续减小输出，输出值会跳到 1/1。

## 闪光模式：Multi 频闪闪光

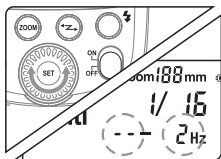
使用频闪闪光，可以发出一系列快速的闪光。它可以在一张照片上拍摄移动物体的多个图像。

您可以设置闪光频率 (每秒的闪光次数，以 Hz 表示)、闪光次数和闪光输出。



1 按 < MODE > 模式选择按钮，显示 < Multi >。

2 转动调节旋钮设置闪光输出功率。



- 3** 设置闪光频率和闪光次数。
- 按下 < **SET** > 设置按钮，选择项目，选中的项目将闪烁。
  - 旋转调节旋钮设定数字。按 < **SET** > 设置按钮确认，下一个要设置的项目将闪烁。
  - 旋转调节旋钮设定数字。按下 < **SET** > 设置按钮，所有设置都将显示出来。

### 计算快门速度

在频闪闪光过程中，到闪光停止为止快门应保持开启状态。使用下面的公式计算快门速度，然后用相机进行设置。

$$\text{闪光次数} / \text{闪光频率} = \text{快门速度}$$

例如，如果闪光次数是10，闪光频率是5 Hz，快门速度则至少为2秒。

- ▲** 为防止闪光灯头过热并损坏，请勿执行连续10次以上的频闪闪光连拍。闪光10次后，请让闪光灯至少冷却15分钟。如果您试图执行连续10次以上的频闪闪光连拍，为防止闪光灯头过热，闪光可能自动停止。如果发生了这种情况，请让闪光灯至少冷却15分钟。
- 📌**
- 反光很强的被摄体在暗背景前使用频闪闪光更加有效。
  - 推荐使用三脚架和遥控开关。
  - 闪光输出为1/1和1/2时不能设置频闪闪光。
  - 频闪闪光时也可以使用“bulb”。
  - 如果闪光次数显示为--，则闪光灯会连续闪光，直到快门或电池耗尽。如下表所示，闪光次数将受到限制。

### 最大频闪闪光次数

频率	闪光输出量					
	1/4	1/8	1/16	1/32	1/64	1/128
1 Hz	6	14	30	60	90	90
2 Hz						
3 Hz	5	12	30	60	90	90
4 Hz	4	10	20	50	80	80
5 Hz	4	8	20	40	70	70
6 Hz	3	6	20	32	56	56
7 Hz	3	6	20	28	44	44
8 Hz	3	5	10	24	36	36
9 Hz	3	5	10	22	32	32
10 Hz	2	4	8	20	28	28
20 Hz						
30 Hz						
40 Hz						
50 Hz	2	4	8	12	24	24
60 Hz						
70 Hz						
80 Hz						

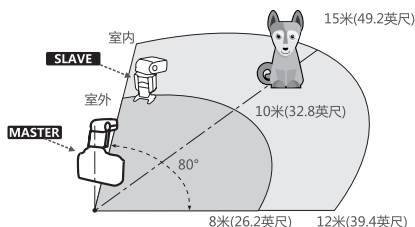
频率	闪光输出量					
	1/4	1/8	1/16	1/32	1/64	1/128
90 Hz	2	4	8	12	24	24
100 Hz						

## 无线闪光

该产品支持无线闪光功能，具有主控闪光和从属闪光功能。作为主控单元，可以控制并引闪SB-900、SB-910等尼康闪光灯。作为从属单元，受控SB-900、SB-910闪光灯无线信号和D7100/D7000/D800等相机内闪指令，从而实现无线闪光。

- 通过此款产品，支持创建三个从属单元组，并实现i-TTL自动闪光。您可以通过i-TTL自动闪光轻松获取多种照明效果。
- 使用主控单元按钮分别设置的任何i-TTL自动闪光，手动闪光和频闪闪光设置都会被自动传输到从属单元。因此，在拍摄时无需操作从属单元。只需在主控单元上对每个从属组进行单独设置就可完成。
- 将此产品设置为主控单元时，可以在i-TTL/M/Multi/OFF四种闪光模式下工作。

### 主控单元/从属单元设置位置和范围

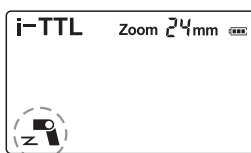


- 📌**
- 即使有多个从属单元，主控单元也可通过无线控制所有的闪光灯。
  - 本说明手册中，“主控单元”指安装在相机上的闪光灯，“从属单元”指通过无线控制的闪光灯。

## 1、无线设置

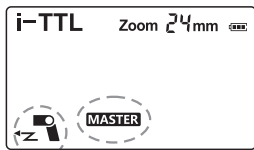
您可以在普通闪光和无线闪光之间切换。对于普通闪光，请务必将无线设置设为“关”。

### 主控单元设置

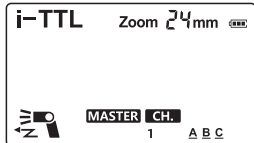


- 1** 按 < **Z** > 无线设置按钮2秒或更长，直到图示圆圈闪烁。

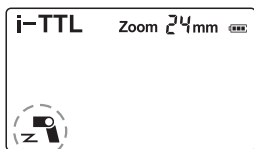




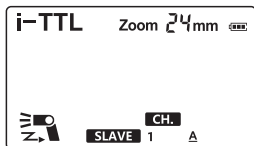
- 2 将显示设为主控单元。
- 旋转调节旋钮直至 < MASTER > 闪烁，按 SET 设置按钮确定。



### 从属单元设置



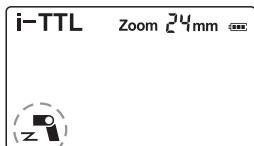
- 1 按 < Z > 无线设置按钮 2 秒或更长，直到图示所圈闪烁。



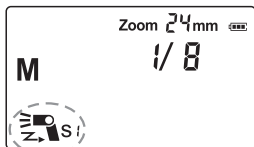
- 2 将显示设为从属单元。
- 旋转调节旋钮直至 < SLAVE > 闪烁，按 SET 设置按钮确定。
  - 如图显示 < SLAVE > 和 < CH. >，分组值 A 或 B 或 C，闪光灯被设为从属单元。

### S1 光控单元设置

在 M 手动闪光模式下，可以使用 S1 功能，闪光灯可作为副灯使用，创造多种照明效果，适用于手动闪光环境。它会与主闪光灯的第一次闪光同步触发闪光，效果与使用无线引闪器一致。



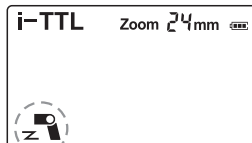
- 1 按 < Z > 无线设置按钮 2 秒或更长，直到图示所圈闪烁。



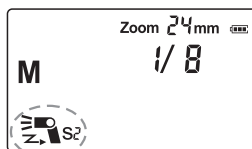
- 2 将显示设为 S1。
- 旋转调节旋钮直至 < S1 > 闪烁，按 < SET > 设置按钮确定。

### S2 光控单元设置

在 M 手动闪光模式下，可以使用 S2 功能，闪光灯可作为副灯使用，适用于 TTL 闪光环境。具有防预闪功能，使用带一次预闪功能的相机能用光控实现同步拍摄。它会与主闪光灯的第二次闪光同步触发闪光，即 2 次光控引闪。



- 1 按 < Z > 无线设置按钮 2 秒或更长，直到图示所圈闪烁。

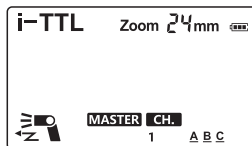


- 2 将显示设为 S2。
- 旋转调节旋钮直至 < S2 > 闪烁，按 < SET > 设置按钮确定。

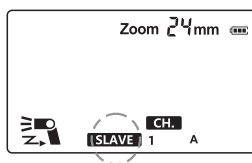
• 只有在 M 模式下才支持 S1/S2 光控引闪模式。

## 2、主控单元设置

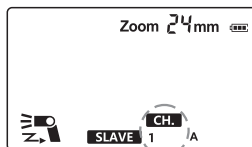
可以在主控单元上设置自身的闪光模式和闪光输出，还可以分别针对各个从属单元进行设置。在进行闪光时，在 主控单元上对从属单元的设置参数会发送到对应的从属单元，完成闪光。



- 1 将一只闪光灯安装到相机上，设置为 主控单元。



- 2 将其他闪光灯设置为无线从属单元。

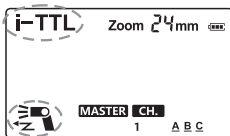


- 3 检查闪光灯主控单元和从属单元是否已经设置为相同的频道。如不同，请将他们设置为相同频道。

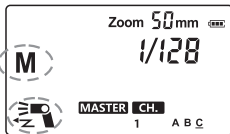
- 4 将闪光灯各自放置在相应的位置。

## 5 设置主控闪光灯的闪光模式

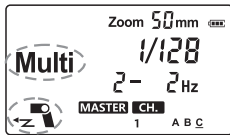
按 < MODE > 按钮，主控单元的闪光模式可以在 OFF/i-TTL/M/Multi 之间进行切换，选择其中一种作为主控单元的闪光模式。



- 主控单元设置为 i-TTL 模式，屏幕会出现 i-TTL 和 。此时可以设置曝光补偿值，方法见前面描述。



- 主控单元设置为 M 模式，屏幕会出现 M 和 。此时可以设置手动闪光输出值，方法见前面描述。

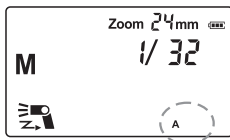


- 主控单元设置为 Multi 模式，屏幕会出现 Multi 和 。此时可以设置频闪闪光值，包括输出光量，闪光频率以及闪光次数。方法见前面描述。

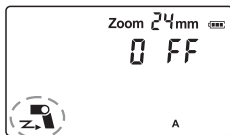
• OFF 模式表明主控单元不会闪光，只会发送控制信号。此时屏幕出现 和 OFF。

## 6 以与普通闪光拍摄相同的方式设置相机。

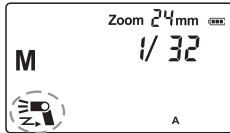
## 7 当主控单元设置为 OFF / i-TTL / M 模式时，设置从属单元的闪光模式及闪光量。



- 按 < > 无线设置按钮，直到选中需要设置的分组 < A > 或 < B > 或 < C >。

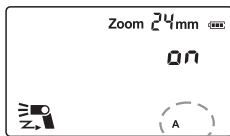


- 按 < MODE > 按钮，该分组下的闪光模式可以在 OFF/i-TTL/M 之间进行切换，选择其中一种作为从属单元的闪光模式。OFF 模式表明该组从属单元不会闪光，对应图标变为 。i-TTL 和 M 模式表明该组从属单元将闪光，对应图标变为 或 。

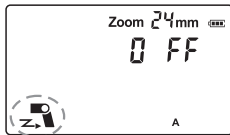


- 拨动调节旋钮来设置所需的闪光输出大小。

## 8 当主控单元设置为 Multi 模式时，设置从属单元分组的闪光模式及闪光量。



- 按 < > 无线设置按钮，直到选中需要设置的分组 < A > 或 < B > 或 < C >。

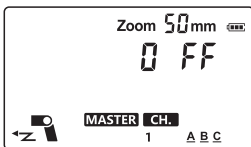


- 按 < MODE > 按钮，该分组下只能选择关闭或打开 OFF/ON 之间进行切换。如果选择 ON，该组从属单元将会闪光，对应图标变为 。如果选择 OFF，该组从属单元将不会闪光，对应图标变为 。

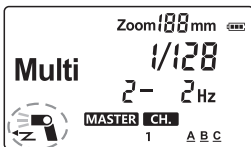
- 设置完当前组后，按 < > 无线设置按钮，设置后一个组的值。直到所有分组设置完成后，返回主控单元界面。
- 只有在 M 模式下才支持 S1/S2 光控引闪模式。
- 不管从属单元的灯头角度对准哪里，务必使其无线传感器朝向主控单元，并保证从属单元处于主控单元的有效发射范围内。请勿在主控单元和从属单元之间放置任何障碍物，障碍物可能会遮挡无线信号的传输。
- 各个组的从属单元设置完成后，返回主控单元界面，如果对应的组设置值不是 OFF，该组图标下会显示下划线以提示用户。如果三个分组的值都不是 OFF，将会显示 **A B C**。

### 3、主控单元禁用

在禁用主控单元闪光模式下，只有从属单元的闪光灯闪光。



- 1 主控单元在 i-TTL/M 模式下，连续按 < > 按钮，可切换到 OFF 模式，图标变为 ，主控单元不闪光。

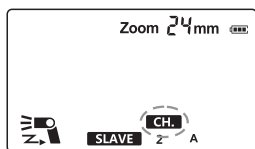


- 2 主控单元在 Multi 模式下，按 < > 无线设置按钮，按 < MASTER > 和 < > 闪烁。旋转调节旋钮令图标变为 ，按 < >，按 < > 设置按钮确定。主控单元不闪光。

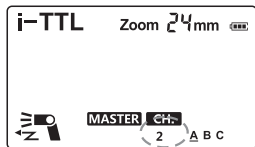
- 即使使用禁用主控单元的闪光灯闪光，它仍然会进行预闪以传输无线信号。
- 各个组的从属单元设置完成后，返回主控单元界面，如果对应的组设置值不是 OFF，该组图标下会显示下划线以提示用户。

## 4、设置通讯频道

如果在拍摄现场不止一个无线闪光系统，您可以通过更改通讯频道来防止信号干扰。保证主控单元和从属单元设置为相同的频道编号即可。



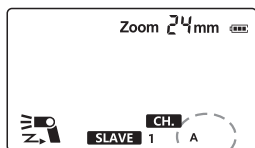
1 按 <Z> 无线设置按钮，令 <CH> 闪烁。



2 设置频道编号。  
● 旋转调节旋钮选择频道编号，按 <SET> 设置按钮确定。

## 5、设置从属单元组别

由于主控单元是按分组设置从属单元值的，从属单元必须预先设定所属组别才能正常使用。从属ID设置方法如下：



1 按 <Z> 无线设置按钮，直到令当前分组值 <A> 或 <B> 或 <C> 闪烁。

2 设置分组  
旋转调节旋钮选择分组，按 <SET> 设置按钮确定。

● 如果需要同时设置频道和分组值，可以在选中频道之后按 <Z> 无线设置按钮，当前频道值被设定，然后当前分组值开始闪烁，用户可以设置分组值。

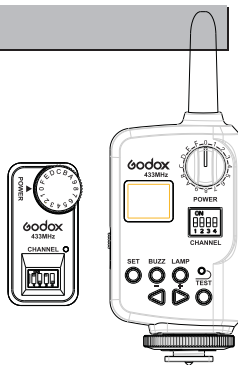


**关于从属单元组控制**  
如果将三个从属单元的从属账号都设置为 <A>，这三个从属单元将被作为从属单元组A的一个闪光灯来控制。

## 其他应用

### 外置无线控制功能

闪光灯内置无线控制插座，配合特定遥控器使用，您可以实现对闪光灯的无线控制。将FT系列遥控器的接收端插入无线控制插座，手持遥控器发射端，即可远程控制闪光灯的功率开关和大小、闪光灯触发等。您也可以将发射端置于相机热靴上，通过相机快门来进行同步引闪。



- 当闪光灯接收到无线信号时，显示屏会显示 符号。
- 更多遥控器的使用方法，请查阅FT系列遥控器的说明书。

## 同步插孔触发

同步插孔规格为Φ2.5mm，此处可插入同步线或者触发器触发插头到闪光灯进行同步引闪。

## 造型闪光

如果相机有景深预览按钮，按下该按钮将会进行1秒钟的连续闪光，这种现象称之为造型闪光。您可以通过造型闪光查看被摄体上的光影效果及照明平衡，不管是无线拍摄还是普通闪光拍摄，都可以进行造型闪光。

- ▲ 请勿连续触发10次以上造型闪光。如果连续进行10次造型闪光，请让闪光灯至少冷却10分钟，以防止闪光灯头过热或损坏。

## 自动辅助对焦

如果开启了AF对焦辅助(C.Fn-01)，在低亮度或低对比度的拍摄情况下，闪光灯内置的自动对焦辅助灯将开启，使自动对焦更容易。当对焦困难时，红色辅助对焦灯亮起；当对焦准确，辅助对焦灯自动熄灭。

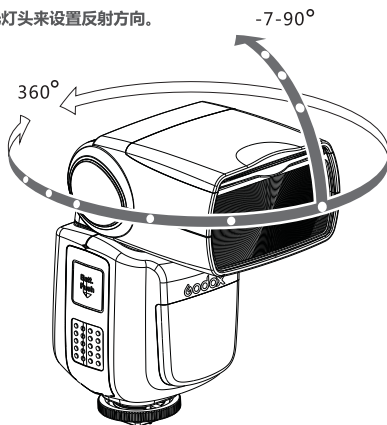
- 要使用自动辅助对焦功能，除了要开启闪光灯的AF对焦辅助(C.Fn-01)以外，还需要对相机进行设置。关闭相机内置的AF辅助照明器，同时将镜头对焦方式设置为A自动对焦方式。
- 用户在使用时，如发现辅助对焦灯未亮起，是因为相机已经处于准确对焦状态。

位置	有效范围
中央	0.6~10米 / 2.0~32.8英尺
边缘	0.6~5米 / 2.0~16.4英尺

## 反射闪光

通过将闪光灯头指向墙壁或天花板，闪光在照亮被摄体前被墙面反射。这可以减轻被摄物体背后的阴影，获得更自然的摄影效果。称之为反射闪光。

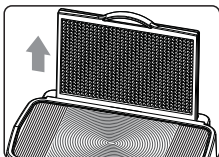
旋转闪光灯头来设置反射方向。



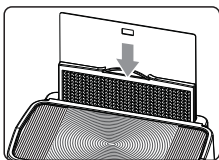
- 如果墙壁或天花板太远，反射闪光可能太弱并导致曝光不足。
- 墙壁或天花板应该是平坦的、白色的以利于高效的反射。如果反射表面不是白色的，照片将出现偏色。

## 创建眼神光

使用眼神光板，您可以在被摄体的眼睛中创建眼神光以使面部表情更加生动。



1 将闪光灯头向上旋转90°。



2 拉出广角散光板，同时弹出眼神光板。

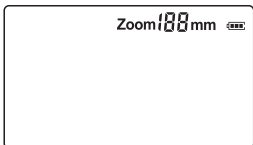
3 推入广角散光板。

- 仅推入广角散光板。
- 按照反射闪光中相同的步骤进行。

- ▲ 请将闪光灯头向前指然后向上旋转90度。如果左右旋转闪光灯头就不会产生眼神光。
- 要获得最好的眼神光效果，被摄体不能处于相机1.5米/4.9英尺以内。

## ZOOM：设置闪光覆盖范围并使用广角散光板

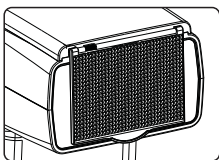
该闪光灯有两种变焦方式：自动变焦和手动变焦。可以设置闪光覆盖范围以匹配24-105毫米的镜头焦距。自动变焦时，焦距会随相机变焦镜头的改变而变化，以提供最佳闪光效果。同样，使用内置的广角散光板，闪光覆盖范围可以扩展为14毫米广角镜头。



手动变焦时，按下 < ZOOM > 变焦设置按钮。

- 转动调节旋钮更改闪光覆盖范围。
- 在不显示 < M > 状态下，将自动设置闪光覆盖范围。

- 如果手动设置闪光覆盖范围，确保其覆盖镜头焦距，这样照片就不会出现阴影边缘。



### 使用广角散光板

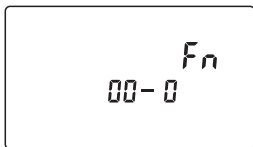
拉出广角散光板并将其置于闪光灯头上。闪光覆盖范围将扩展至14毫米。

- 同时弹出眼神光板。请推回眼神光板。
- < ZOOM > 按钮不起作用。

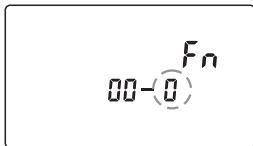
## C.Fn：设置自定义功能

请对照以下图表本机应用栏，使用自定义功能来完成设置。“√”表示该闪光灯支持自定义设置，“0”表示不支持自定义设置。

自定义功能编号	功能	设置编号	设置和说明	本机应用
C.Fn-00	自动关闭电源	0	启动	√
		1	关闭	
C.Fn-01	AF对焦辅助	0	启动	√
		1	关闭	
C.Fn-02	从属单元自动 关闭电源计时器	0	60分钟	√
		1	30分钟	
C.Fn-03	从属单元自动 关闭电源取消	0	8小时	0
		1	1小时	
C.Fn-04	用自动闪光测试闪光	0	1/32	0
		1	全输出	



1 长按 < Fn > 背光/自定义按钮2秒或更长，直到显示 < Fn >。




2 选择自定义功能编号。旋转调节旋钮设置自定义功能编号。

3 更改设置。

- 按 < SET > 设置按钮，自定义功能编号闪烁。
- 旋转调节旋钮设置想要的编号，按 < SET > 按钮确定。
- 设置自定义功能后按下 < MODE > 模式选择按钮，相机可以进行拍摄。

## 保护功能

### 1. 热保护

- 为防止闪光灯头过热并损坏，请勿在1/1功率时进行超过30次的快速连续闪光。30次连续闪光后，要让闪光灯至少冷却10分钟。
- 如您在进行超过30次连续闪光后马上继续进行更多次闪光，内部的防过热功能可能会被激活，使充电时间变为10至15秒。如果发生这种现象，请让闪光灯冷却约10分钟，闪光灯便会恢复正常。
- 热保护启动后，显示屏上  的符号会显示。如果遇到问题，请参阅此故障排除指南。

#### 激活热保护功能的连续闪光次数：

功率	次数
1/1	30
1/2 +0.7	40
1/2 +0.3	50
1/2	60
1/4(+0.3,+0.7)	100
1/8(+0.3,+0.7)	200
1/16(+0.3,+0.7)	300
1/32(+0.3,+0.7)	500
1/64(+0.3,+0.7)	1000
1/128(+0.3,+0.7)	

#### 高速同步模式下，激活热保护功能的连续闪光次数：

功率	次数
1/1	15
1/2(+0.3,+0.7);	20
1/4(+0.3,+0.7)	30
1/8(+0.3,+0.7);	
1/16(+0.3,+0.7)	40
1/32(+0.3,+0.7);	
1/64(+0.3,+0.7);	50
1/128(+0.3,+0.7);	

### 2. 其他保护

- 为了保证设备安全的工作，系统时刻进行预防保护，以下提示符号供您参考：

LCD显示	警示内容
E1	闪光灯回电系统出现问题，无法回电引闪，请重新开机，如无法解决请维修
E2	设备内温度过高，请停止引闪10分钟
E3	闪光灯管两端电压过高，请维修

## 规格参数

套裝型号	V860N Kit
单灯型号	V860N
• 类型	
兼容相机	Nikon尼康数码单反反光照相机(i-TTL 自动闪光)
闪光指数	58(m ISO 100)
(1/1档位; 105mm焦距)	190(feet ISO 100)
闪光覆盖范围	24 - 105毫米 (使用广角散光板为14毫米)
	•自动变焦(自动设置适合镜头焦距和图像尺寸的闪光覆盖范围)
	•手动变焦
	•闪光灯头旋转/倾斜, 水平0~360°, 垂直-7°~90°(反射闪光)
闪光持续时间	1/300秒 - 1/20000秒
• 曝光控制	
曝光控制系统	i-TTL 自动闪光、手动闪光
闪光曝光补偿(FEC)	手动, 闪光包围曝光: 在±3档间以1/3档为增量调节
闪光曝光锁定	FV锁定按钮
同步方式	高速同步(最高1/8000秒), 前帘同步, 后帘同步
频闪闪光	具备(次数: 100次; 100Hz)
• 无线闪光	
无线功能	主控单元, 从属单元, 关闭, S1和S2光控模式
可控制从属单元组	3组: A, B, C
传输范围(约)	室内: 12~15米/39.4~49.2英尺 室外: 8~10米/26.2~32.8英尺 接收角度: 水平±40°, 垂直±30°
频道	4组: 1, 2, 3, 4
从属单元准备就绪指示灯	两红灯同时亮起表示准备就绪
造型闪光	使用相机的景深预视按钮进行闪光
• 自动对焦辅助光	
有效范围(约)	中央: 0.6 -10米 / 边缘: 0.6-5米
• 电源	
内置锂电	11.1V/2000mAh 锂聚合物电池
回电时间	< 1.5秒, 闪光灯准备就绪, LED红色指示灯亮起
全功率闪光次数	约650次
节能	闪光灯在无人操作90秒左右将会自动关闭电源。 设置为从属单元时60分钟进入休眠状态。
• 同步触发方式	热靴, 2.5mm同步线, 无线控制插座
• 色温	5600±200k
• 尺寸	
体积	64 *76*190 mm
净重(不含电池)	420g
重量(含电池)	540g

## 故障排除指南

如果遇到问题，请参阅此故障排除指南。

### 闪光灯不充电。

- 电池安装方向错误。
  - 以正确的方向安装电池。
- 闪光灯的内置电池耗尽。
  - 如果闪光灯LCD屏幕上<□>显示并闪烁，表明需要更换电池。

### 闪光灯不闪光。

- 闪光灯没有牢固地安装在相机上。
  - 将闪光灯的固定座牢固地安装在相机上。
- 闪光灯和相机的电子触点变脏。
  - 请清洁触点。
- <⚡>图标未出现在相机取景器中。
  - 请等待闪光灯充电完成，闪光灯准备就绪指示灯亮起。
  - 如果闪光灯准备就绪指示灯已经亮起，相机取景器中的<⚡>图标仍未亮起，请检查热靴连接，确保闪光灯可可靠地装配在相机热靴上。
  - 如果闪光灯准备就绪指示灯已经亮起，相机取景器中的<⚡>图标闪烁，请检查热靴连接，必要时关闭闪光灯电源然后重新打开闪光灯。
  - 若等待较长时间，闪光灯准备就绪指示灯一直没有亮起，请检查电池是否有电。如果电量低（闪光灯屏幕上电池电压不足图标闪烁），请更换电池。

### 电源自动关闭。

- 当灯作为主控单元时，90秒无操作后，自动电源关闭功能生效。
  - 半按快门按钮或按<⚡>试闪按钮唤醒。
- 作为从属单元在60分钟(或者选择30分钟)无任何操作时，闪光灯会进入休眠状态。
  - 按<⚡>试闪按钮唤醒。

### 自动变焦不工作。

- 闪光灯没有牢固地安装在相机上。
  - 将闪光灯的固定座牢固地安装在相机上。

### 闪光曝光不足或过度。

- 照片中存在反光强烈的物体(玻璃窗等)。
  - 使用FV闪光曝光锁定。
- 使用高速同步。
  - 使用高速同步，有效的闪光范围会更小。确保被摄体位于显示的有效闪光范围内。
- 闪光灯使用手动曝光模式。
  - 改为i-TTL模式或修改闪光输出功率设置。

### 相片出现暗角或者被摄物体只有局部能照亮。

- 相机镜头焦距超出闪光灯的覆盖范围。
  - 请检查闪光灯当前的覆盖焦距。本产品的灯头变焦范围是中画幅系统的24-105mm，您可以尝试拉出广角闪光灯，以扩大闪光范围。

## 固件升级

本机通过USB插座可进行固件升级。软件最新公告及说明将会发布在官方网站上。

- 注：本品出厂不配USB升级线，请另行购买。普通的USB线可使用，本产品USB口为Micro USB接口。

## 兼容相机列表

本机可兼容以下Nikon数码单反相机型号：

D800	D700	D7100	D7000	D5200	D5100	D5000
D300	D300S	D3200	D3100	D3000	D200	D70S

- 注：
  1. 此表格仅列举目前已测试的相机型号，未涵盖所有Nikon数码单反相机。其他相机型号，用户可自行测试。
  2. 本公司保留未来修改此表格内容的权利。

## 维护保养

- 闪光灯在工作时，如发现异常，应立即关掉电源，查明原因。
- 灯体应避免震动，平时注意表面除尘。
- 灯体稍有发热为正常现象，无特别需要时，勿连续引闪。
- 闪光灯的所有维修概由本厂指定可供原厂配件之维修部负责。
- 1年保修，消耗品如灯管等，不在1年保修范围。
- 经发现，擅自检修此闪光灯的，将取消闪光灯之一年保修期，维修需要收取相关费用。
- 如果本品出现故障或者被水淋湿，在专业人员维修后方可继续使用。
- 如有技术更改，恕不另行通知。