FLASHPOINT

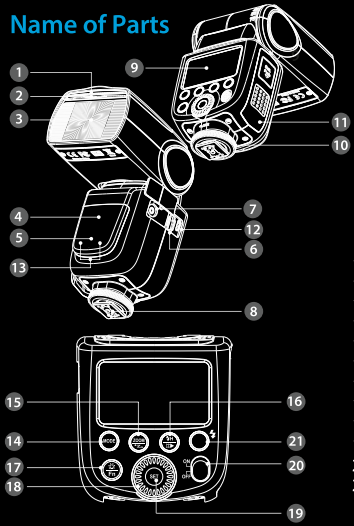
Zoom Li-on
TTL Flash for Nikon

FPLFSMZLNK

For Your Safety

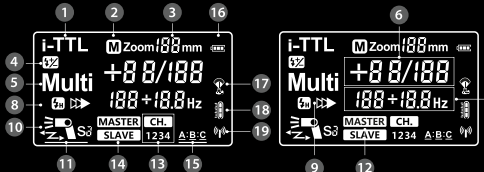
- Do not use any power supply other than the included one to charge the battery.
- Do not charge the battery for more than 12 hours.
- Do not expose your lighting equipment to moisture, dust, dirt, rain, water, or extended sunshine.
- Any exposure to chemical solutions, gasoline, grease, oil, paint, or detergents can result in permanent damage to your equipment.
- Do not insert metal parts into any lighting equipment.
- Do not touch the electrical contacts on the flash or battery or contact them with any conductive materials
- Dry your hands before handling the equipment, as touching your equipment with wet hands is dangerous to both the equipment and to you.
- Do not attempt repairs to your lighting equipment personally. If a problem arises, contact the store from which you purchased the light.
- This flash has an over-frequency protection circuit, rapid continuous firing will cause the flash to slow operation and trigger a "cool down" period. After this period, the flash will resume normal operation.
- You may also reboot the flash by cycling the power off and then on.
- Do not use selective coloring.
- Do not use the flash to support other equipment. For example, do not lift your camera by the flash.
- The flash has a locking pin to ensure secure operation. To avoid damage, completely unscrew the locking ring before removing the flash.
- The battery should slide smoothly into the flash. If it does not, remove it, check alignment, and check for obstructions. Do not force the battery.
- Do not store illegal substances in the flash's battery compartment
- Do not fire the strobe at very close distance to items or people/pets as the strobe releases intense heat and can cause damage and serious injury. And they will probably be upset at you.
- Do not leave or store the flash unit in places where the ambient temperature reaches over 50°C (e.g. in automobile). Otherwise the electronic parts may be damaged.
- In case of abnormal function, sparks, excessive heat, flames or smoke, immediately power off the unit and remove the battery if safely possible. Have it checked by an authorized technician.
- When using a sync cord to trigger the flash, disable auto sleep/power off mode. (custom menu 00, see Custom Menu)

Name of Parts



Product Layout

1. Retractable Bounce Card
2. Retractable Wide Angle Panel
3. Flash Head
4. Optical Slave Sensor
5. Focus Assist Light
6. Wave Commander Remote Receiver Port
7. 2.5mm Sync Port
8. TTL Hot Shoe
9. LCD Panel
10. Hot Shoe Locking Ring
11. Li-Ion Battery Compartment
12. USB Port
13. Optical Slave Indicator
14. Mode Button
15. Zoom / Wireless Setting Button
16. HSS / Shutter Curtain Sync Button
17. LCD Backlight / Custom Menu Button
18. Selection Dial
19. Set Button
20. ON/OFF Power Switch
21. Test Button / Flash Ready Indicator



LCD Panel Layout

1. iTTL Autoflash Mode
2. Manual Flash Control Mode
3. Zoom Focal Length
4. Flash Exposure Compensation
5. Manual Flash / Multi Flash
6. Manual Flash Output Level
7. Multi Flash Times / Frequency
8. High-Speed Sync
9. Second-Curtain Sync
10. Wireless Flash Modes
    Master Flash ON:
    Master Flash OFF:
    Exit wireless mode:
    Slave Flash:
11. S1/S2 Optical Slave Flash
12. Master
13. Channel
14. Slave
15. Slave Group ID
16. Battery Level Indicator
17. Max. Output Indicator
18. Overheat Indicator
19. Wireless Signal Receiving Indicator

Included Items

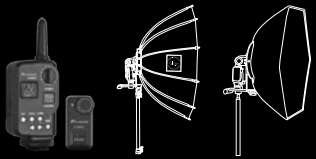
Flash unit, Li-ion Battery Pack, Battery Charger with cable,
Mini Stand, Protective Case, Instruction manual

Available accessories

Radio system

Glow Hexapop and Parapop (portable instant open and close softboxes)

Flashpoint lightstands



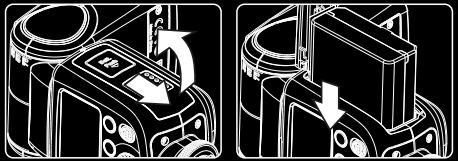
Battery Features

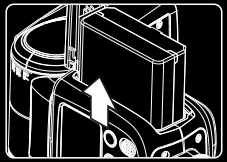
1. This flash unit uses an advanced Li-ion polymer battery which has amazing power and life expectancy
2. It has several safety features, such as circuitry to protect against overcharge, over discharge, outputting too much power, and short circuit.
3. It takes only 2.5 hours to fully charge the battery by using the standard battery charger (included).

Battery Warnings

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. Do not leave the battery in the charger for more than 12 hours.
5. Store in dry, cool, ventilated places.
6. Do not put near or into fire.
7. Batteries should be disposed according to local regulations.
8. If the battery was not used for over 3 months, please charge fully before use.

Loading and unloading the battery



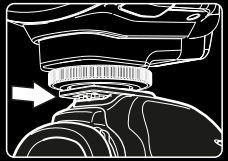


To load the battery, line up the shape of the battery with the battery compartment (it can only fit one way) and slide it into the flash until the white retaining snap clicks into place
To remove the battery, slide aside the white retaining snap. The battery should pop out of the unit on its own

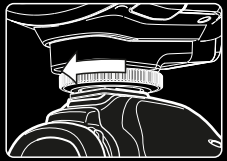
Battery Level Indication	Meaning
	Full
	Middle
	Low
Blinking	Battery power will be empty and need to be charged immediately

Note: There is a battery level indicator on the LCD screen to inform you of the current battery level. Please keep an eye on it.

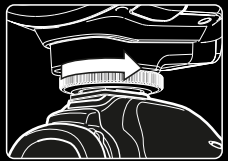
Attaching to a Camera



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 screw on the mounting foot until it is loosened.

Note: The flash features a Locking Pin. Do not attempt to remove the flash from the camera without completely loosening the locking ring

Using the Flash

1. Power Management
   Use the ON/OFF Power Switch to power the flash unit on or off. Turn it off if it will not be used for an extended period of time. This flash unit has Sleep Function and will enter into sleep status when there is no operation for a long time. The timeout can be adjusted from the Custom Menu (see the Custom Menu section).

> C.Fn Disabling Auto Power Off function is recommended when the flash is used off camera.
>
> C.Fn Slave Auto Power Off Timer is set to 60 minutes by default. Another option "30 minutes" is available.

2. Flash Modes
   This flash has three flash modes: i-TTL, Manual (M), and Multi (Stroboscopic).
   Press the Mode Selection Button to cycle through and the three flash modes will display on the LCD panel.

i-TTL Autoflash

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, FVL, HSS, second curtain sync, modeling flash, and control with the camera's menu screen.

i-TTL Mode

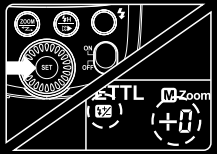
Press < (MODE) > Mode Selection Button to enter i-TTL mode. The LCD panel will display < iTTL >.

- 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 preflash that the camera will use to calculate exposure and flash output the instant before the photo is taken.

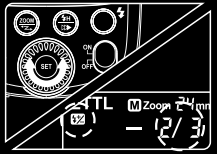
> When this icon appears on the LCD panel, it means the flash unit is at the max. power output. If your image is still underexposed please make changes on your camera in terms of shutter speed, aperture, ISO, etc.

FEC: Flash Exposure Compensation

With FEC function, this flash can adjust the camera-suggested flash output 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 <(SET)> button. The icon < ±/2 > and flash exposure compensation amount will blink on the LCD panel.

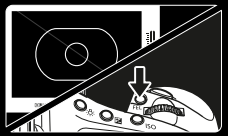


2. Set the flash exposure compensation amount.
• Turn the Select Dial to set the amount. • To cancel the flash exposure compensation, set the amount to “+0”.

3. Press <(SET)> button again to confirm the setting.

FV LOCK: Flash Value Lock

FVL can lock the correct flash exposure setting for any part of the scene.
With <iTTL> displayed on the LCD panel, press the camera's <FVL> button. If the camera does not have the <FVL> button, press the < * > button.



1. Focus the subject.
2. Press the <FVL> button. • Aim the center of the viewfinder at the subject and press <FVL> button.

• The flash will fire a preflash and the required flash output for the subject is retained in memory.
• Each time the <FVL> button is pressed, a preflash will be fired and a new flash exposure setting will be locked.

- If the subject is too far away and underexposed, the < ϟ > icon will blink in the viewfinder. Move closer to the subject and try the FE lock again.
- If <iTTL> is not displayed on the LCD panel, FV lock cannot be set.
- If the subject is too small in the viewfinder FV lock might not be very effective. Zooming in to fill as much of the frame as possible when pressing FVL may help.

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.

To activate High Speed Sync Triggering

- Press < SHUTTER > button so that < H > is displayed.
- Check that < H > is displayed on the screen.

- If you set a shutter speed that is the same as or slower than the camera's maximum flash sync speed, < H > will not be displayed in the viewfinder.
- With high-speed sync, the faster the shutter speed, the shorter the effective flash range.
- To return to normal flash, press < SHUTTER > button again. Then < H > will disappear.
- Stroboscopic Flash cannot be set in high-speed sync mode.
- Overheat protection may be activated after 15 consecutive high-speed sync flashes.

- High Speed Sync results in several nearly simultaneous flashes. please monitor the heat of your unit, and allow the unit to cool if possible in between shots.
- If the unit begins to overheat, the overheat protection will trigger, delaying recycle times to 10 seconds and possibly putting the unit into overheat lock-down until it cools.

Second-Curtain Sync

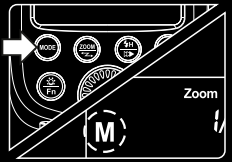
With a slow shutter speed, you can create a light train following the subject. The flash fires right before the shutter closes.

Press < > button so that < > is displayed on the LCD panel.

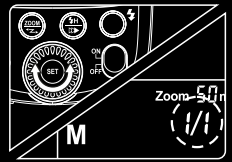
Use second curtain sync whenever flashing something in motion, so the sharpest part of image is the last moment of capture. Otherwise, the action will appear to be moving backward.

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 < > button so that < M > is displayed.



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

Flash Output Range

Flash output is displayed based on the most recent full stop passed, so 1/1-.3 is the same as 1/2+.7. The following table makes it easier to see the power changes in terms of f/stop when you increase or decrease the flash output.

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

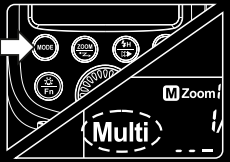
Lowering the flash power setting to OF indicates that the flash is off and will not fire.

3. ZOOM: Setting the Flash Coverage

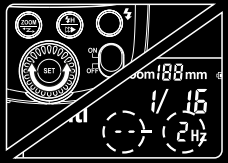
The flash coverage can be set to match the lens focal length from 24 mm to 105 mm.
Press the Zoom / Function button (12) and rotate Selection Dial (14) to change the flash coverage.
Note that using the flash zoomed in while photographing at a wide angle will result in darkness on the sides of the photo.

Mulit: Stroboscopic Flash

With stroboscopic flash, a rapid series of flashes is fired. It can be used to capture a multiple images of moving suject 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 power.



1. Press <MODE> button so that <MULTI> is displayed.
2. Turn the Select Dial to choose a desired flash output.



3. Set the flash frequency and flash times.
   - Press <(SET)> button to select the item (blinks).
   - Turn the Select Dial to set the number and press <(SET)> button again to confirm. The next item to be set will blink.
   - After you finish all settings, press <(SET)> button and all the settings will be displayed.

Notes about Stroboscopic Flash

- Make sure that you set your camera's shutter speed to last as long as the flashes you have programmed. To calculate the shutter speed, use this formula
  Number of flashes/Hz = Shutter speed
- For best results use a dark background and a tripod
- You cannot use full or 1/2 power in stroboscopic mode
- Do not use stroboscopic mode more than 5 times in a row without breaks as this can result in overheating
- Due to power constraints and overheat, there are limits on how many higher powered flashes you can fire in a short amount of time. You can refer to this chart for the maximum amount of flashes/hz/power

Maximum Stroboscopic Flashes

Flash output \ Hz	1	2	3	4	5	6-7	8-9	10	11	12-14	15-19	20-50	60-199
1/4	7	6	5	4	4	3	3	2	2	2	2	2	2
1/8	14	14	12	10	8	6	5	4	4	4	4	4	4
1/16	30	30	30	20	20	20	10	8	8	8	8	8	8
1/32	60	60	60	50	50	40	30	20	20	20	18	16	12
1/64	90	90	90	80	80	70	60	50	40	40	35	30	20
1/128	100	100	100	100	100	90	80	70	70	60	50	40	40

If the number of flashes is displayed as "--", the maximum number of flashes will be as shown in the following table regardless of the flash frequency

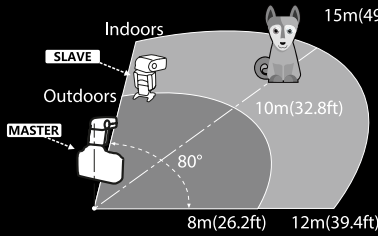
Flash Output	1/4	1/8	1/16	1/32	1/64	1/128
Number of Flashes	2	4	8	12	20	40

Wireless Flash

This unit supports wireless flash application and functions as either a master or slave unit, as part of the Nikon Creative Light System(CLS). As a master unit, it can control Nikon speedlites e.g. SB-900 and SB-910 via wireless. As a slave unit, it can receive wireless signals of Canon speedlites e.g. SB-900 and SB-910 and commanders of Nikon cameras e.g. D7100-D7000-D800 ect.

- You can set up two of three slave groups for i-TTL II autoflash shooting. With i-TTL II autoflash, you can easily create various lighting effects.
- Any flash settings (like flash exposure compensation, high-speed sync, FV lock, manual flash, Multi flash) on the master unit will be automatically sent to the slave units. So the only thing you need to do is to set the master unit to iTTL mode without any operation for the slave units at all during the shooting.
- The flash can work in iTTL autoflash, M manual flash, and Multi stroboscopic 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 flash on a camera and “slave unit” will be controlled by the master unit.

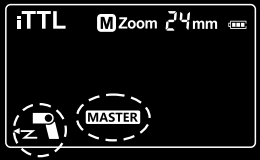
Shooting modes

• Wireless Settings

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

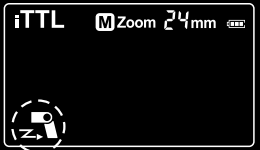
Master Unit Setting

1. Press < ZOOM > button for 2 seconds or longer until the wireless flash symbol blinks.

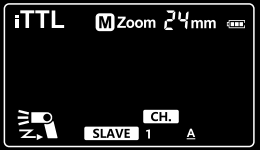


2. Set it as the master unit.
   - Turn the Select Dial until < MASTER > blinks. Press the <SET> button to confirm the settings
   - < MASTER > and < CH. > will be displayed, meaning the flash is set as the master unit.

Slave Unit Setting



1. Press < ZOOM > button for 2 seconds or longer until wireless flash symbol blinks.



2. Set it as the slave unit.
   - Turn the Select Dial until < SLAVE > blinks. Press the <SET> button to confirm the settings.
   - < SLAVE > and < CH. > will be displayed, meaning the flash is set as the slave unit.

• S1 Optical Slave mode

In this mode the flash power is manually controlled, either from the unit or the radio controller. The flash can be triggered by the hot shoe, the radio controller, or the sync port, and the flash will also fire immediately if the Optical Slave Sensor sees another flash firing. Use this mode when you want the flash to fire in synchronization with other flash units without them being connected via radio or cord. Do not use this mode if you are using any other unit with a pre-flash such as TTL

1. Press < ZOOM > button for 2 seconds or longer until the wireless flash symbol blinks.

2. Set it to S1 Optical Slave mode
Turn the Select Dial until < S1> blinks.
Press the < SET > button to confirm the settings.

• S2 Intelligent Optical Slave mode

In this mode the flash power is manually controlled, either from the unit or the radio controller. The flash can be triggered by the hot shoe, the radio controller, or the sync port, and the flash will also fire immediately if the Optical slave sensor sees another flash firing TWICE consecutively. Use this mode when you want the flash to fire in synchronization with other flash units using TTL without them being connected via radio or cord. In S2mode, the flash unit will ignore a single "preflash" from the master flash and will only fire in response to the second, actual flash from the master unit.

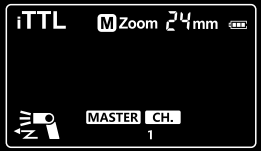
1. Press < ZOOM > button for 2 seconds or longer until the wireless flash symbol blinks.

2. Set to S2 Intelligent Optical Slave mode
Turn the Select Dial until < S2> blinks.
Press the < SET > button to confirm the settings.

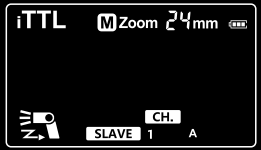
S1 and S2 optical triggering is only available in M manual flash mode.

Fully Automatic Wireless Flash

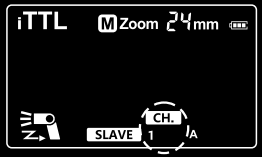
This mode uses i-TTL autoflash to control the total flash output and make all groups of flashes fire at an average of the total flash output.



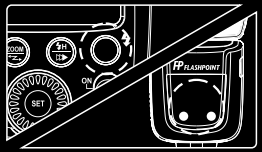
1. Attach a camera flash onto the camera and set it as the master unit.



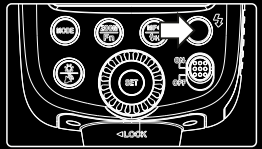
2. Set the other flash(es) as the wireless slave unit(s).



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 to <iTTL>. For shooting, <iTTL> will automatically be set for the slave unit(s).



6. Check that the flash is ready.

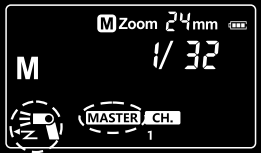


7. Check the flash operation. Press the master unit's Test Button and the slave unit will fire. If not, adjust the slave unit's optical slave sensor angle toward the master unit and distance from the master unit.
8. Set the camera in the same way as with normal flash shooting.

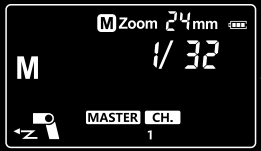
- No matter where the slave unit's flash head is pointed, be sure to make its wireless sensor face the master unit. Also ensure that the slave unit is placed within the effective transmission range of the master unit. Do not place any obstacles between the master unit and the slave unit(s). Obstacles may block the transmission of wireless signals.
- After positioning the slave unit(s), be sure to test the wireless flash operation before shooting.
- When using a softbox or umbrella, it is often more practical to rotate the head into the modifier so the sensor is directed toward the Master unit.

Master UNIT'S FLASH OFF

When the master unit is set to OFF, only the slave units will fire a flash. The master unit will not contribute to the exposure.



1. Set the master unit.
   Press <ZOOM/SET> button a few times until< > and<MASTER> blink.

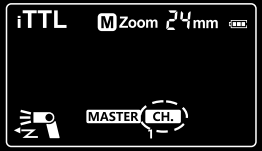


2. Disable the master unit's flash firing
   Turn the Select Dial until < > is displayed. Press the <SET>button to confirm.

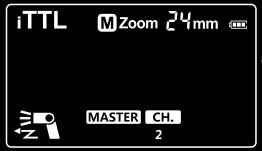
Even if the master unit flash firing is disabled, it still fires a preflash to transmit wireless signals.
This will not affect exposure.

• 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 channel.



1. Press < (ZOOM) > button two times so that < CH. > blinks.



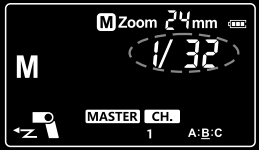
2. Set a channel ID.
   Turn the Selection Dial to choose a channel ID and press the < (SET) > button to confirm.

• Setting the Flash Output for Slave Units

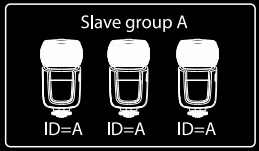
In M manual and Multi stroboscopic flash modes, you can set a different flash output for each slave unit. All settings are done with the master unit.

1. Press < (MODE) > button to have < M > or < Multi > displayed.

2. Press < (ZOOM) > button so that < A:B:C > blinks on the LCD panel.



3. Set the flash output.
   - The flash unit selects < A > slave ID by default. The selected ID will be underlined. After you finish all the settings for < A >, pressing the <SET> button will start the settings for < B >.
   - Turn the Selection Dial to choose a desired flash output.



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

Other Applications

Wireless Control Function
The flash unit features a Wireless Control Port so that you can wirelessly adjust the power level of the flash and trigger the flash. To control the flash wirelessly, you need a Flashpoint Wave Commander remote control set (transmitter and receiver). Plug the receiver into the Wireless Control Port on the flash and insert the transmitter into the camera hot shoe. Settings made on the hotshoe-mounted transmitter will be wirelessly communicated to the flash. Then you can press the camera shutter button to trigger the flash. You can also hold the transmitter in your 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 Flashpoint Wave Commander, see its user manual.

Sync Triggering

The Sync Cord Jack is a Φ2.5mm plug. Insert a trigger plug here and the flash can be fired by a camera or other radio system.

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. This function is also useful to annoy people.

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

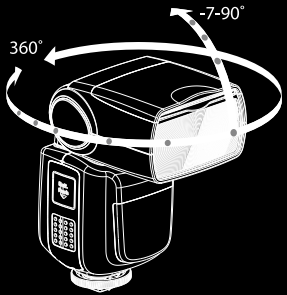
Auto Focus Assist Beam

In poorly-lit or low-contrast shooting environments, the built-in auto focus assist beam will automatically light up to facilitate autofocus. The beam will light up only when needed and will turn off as soon as the autofocus has successfully completed.

> If you find the auto focus assist beam does not light up, this is because the camera has achieved autofocus.

Bounce Flash

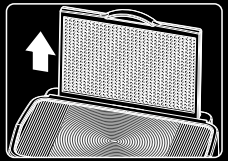
By pointing the flash head toward a wall or ceiling, the flash will bounce off the surface before illuminating the subject. This can soften shadows behind the subject for a more natural-looking shot. This is called bounce flash. To set the bounce direction, hold the flash head and turn it to a suitable angle.



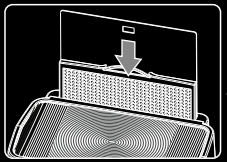
- If the wall or ceiling is too far away, the bounced flash might be too weak and result in underexposure.
- The wall or ceiling should be a plain, white color for high reflectance. If the bounce surface is not white, a color cast may appear in the picture.
- When bouncing, keep in mind that the zoom setting of the flash can affect the effective light size of the bounce surface.

Creating a Catchlight when bouncing

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 90°.
2. Pull out the Wide Angle Panel. The catchlight panel will come out at the same time.



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

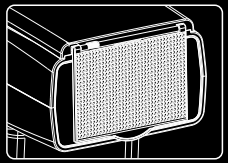
- Point the flash head straight ahead and then upward by 90°. The catchlight will not appear if you swing the flash head left or right.
- For best catchlight effect, stay 1.5m/4.9ft away from the subject.
- When bouncing, keep in mind that the zoom setting of the flash can affect the effective light size of the bounce surface.

ZOOM: Setting the Flash Coverage and Using the Wide Angle 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 Angle Panel, the flash coverage can be expanded for 14mm wide-angle lenses.

In Manual Zoom mode, press the <ZOOM> button.
Turn the Selection 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 vignette.



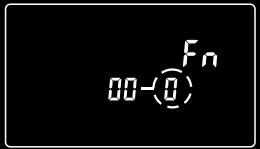
4. Using the Wide Angle Panel
   Pull out the Wide Angle panel and place it over the flash head as shown. The flash coverage will then automatically be set to 14 mm.
   - The catchlight panel will come out at the same time. Push the catchlight panel back in.
   - The <ZOOM> button will not work.

C.Fn: Setting Custom Functions

The following table lists options on the custom function menu. Some of the functions are not available for this model unit. The icon " √ " indicates the flash custom function is supported but "x" indicates the custom function is not supported.

C.Fn Custom Functions				
Custom Functions No.	Functions	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 time	0	60 minutes	√
		1	30 minutes	
C.Fn-03	Slave auto power off cancel	0	Within 8 hours	x
		1	Within 1 hour	
C.Fn-04	Test firing with autoflash	0	1/32	x
		1	Full output	

1. Press < (SET Fn) > button for 2 seconds or longer until <Fn> is displayed.
2. Select the Custom Function No.
   • Turn the Selection Dial to set the Custom Function No.



3. Change the setting.
   • Press < (SET) > button and the setting No. blinks.
   • Turn the Selection 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.

Overheat Protection Function

1. Overheat 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 flash's overheat protection function may be activated and slow 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 flash's overheat protection is activated,  is shown on the LCD display.

Number of flashes that will activate the flash's overheat:

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 the flash's overheat protection in high-speed sync triggering mode:

Power Output	Number
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 Warnings

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 occurred in the recycling system so that the flash cannot fire. Please restart the flash unit. If the problem still exists, please send the flash to a maintenance center.
E2	The system senses excessive heat. Please allow a rest time of 10 minutes.
E3	The voltage on two poles of the flash tube is too high. Please send this product to a maintenance center.

Technical Data

• Type	
Compatible Cameras	Nikon DSLR cameras (i-TTL II autoflash)
Guide No. (1/1 output @ 105mm)	34 (m ISO 100) 110 (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/tilting flash head (bounce flash): 0 to 360° horizontally and -7° to 90° vertically
Flash Duration	1/300 to 1/20000 second
• Exposure Control	
Exposure control system	i-TTL II and manual flash
Flash exposure compensation (FEC)	FEC: ±3 stops in 1/3 stop increments
FV lock	With < FVL > button

Sync mode	High-speed sync (up to 1/8000 second), first-curtain sync, and second-curtain sync
Multi flash	up to 100 times, 199Hz
• Wireless Flash	
Wireless flash function	Master, Slave, Off
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
Modeling flash	Fired with camera's depth-of-field preview button

• Auto Focus Assist Beam	
Effective range (approx.)	Center: 0.6~10m / 2.0~32.8 feet
	Periphery: 0.6~5m / 2.0~16.4 feet
• Power Supply	
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)
• Sync Triggering Mode	Hotshoe, 2.5mm sync line, Wireless control port, optical slave
• Color Temperature	5600±100k
• Dimensions	
W x H x D	64 x 76 x 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.
- < ϟ > or <ϟH> 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 < ϟ > or <ϟH > is not displayed in the view finder, check whether this flash unit is securely attached to the camera hotshoe.
  → If the flash ready indicator does not light up after a long wait, check whether the battery power is exhausted. 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 engages if the flash is set as master.
  → Press the shutter button halfway or press any 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 any 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 (FVL).
- 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 iTTL or modify the flash output.
• Your exposure settings are too high
→ Change your aperture or ISO

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 applies to Full Frame cameras. Pull the wide angle panel 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 cable is not included in this product.
The USB port is a standard Micro USB socket. USB cables are available at your local electronics retailer.

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.

Maintenance

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