

Product Overview

Thank you for purchasing this **NEEWER**® product.

FR1-N is a i-TTL speedlite flash designed for Nikon cameras. With i-TTL auto flash, you will automatically get the accurate amount of flash exposure for variable lighting conditions, thereby improving your overall shooting experience. The following features set it apart from the competition:

- Maximum flash output power of 76Ws, with 22 levels of dimming (1/1~1/128).
- Supports i-TTL automatic flash, manual and stroboscopic flash modes, second curtain sync, flash exposure compensation, and other i-TTL functions.
- Dot-matrix LCD screen for intuitive display and simplified operation.
- Stable output, high-speed continuous flash, consistent brightness and color temperature with even light distribution.
- Maintains all original camera manufacturer functionalities, allowing for unrestricted software upgrades.

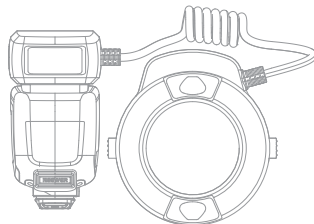
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Safety Information

1. Please keep this product in a dry place.
2. This product is an electrical device. Children should not be left unsupervised.
3. Do not disassemble or modify the product.
4. Do not subject to a strong physical impact, crush the flash or expose it to fire. Do not place it in an environment exceeding 50 degrees Celsius.
5. Do not stare directly at the flash when in use, as it may cause eye damage.
6. Do not use this product near chemicals, flammable gases, or other hazardous substances, as it may result in a fire or cause electromagnetic interference. Pay attention to relevant warning signs in these situations.
7. Do not use in humid or wet environments.
8. If any abnormality is found during operation, the power should be turned off immediately to identify the cause.
9. Failure to follow all steps and warnings in the manual will void the warranty.

Product Contents

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Ring Flash × 1



Color Filters
(4 colors) × 8



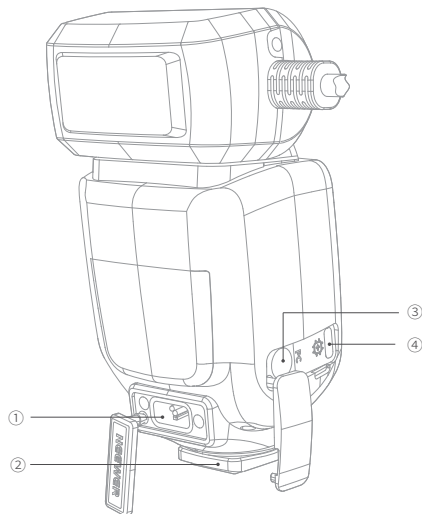
Adapter Rings
(different diameters) × 8



User Manual × 1

Product Illustration

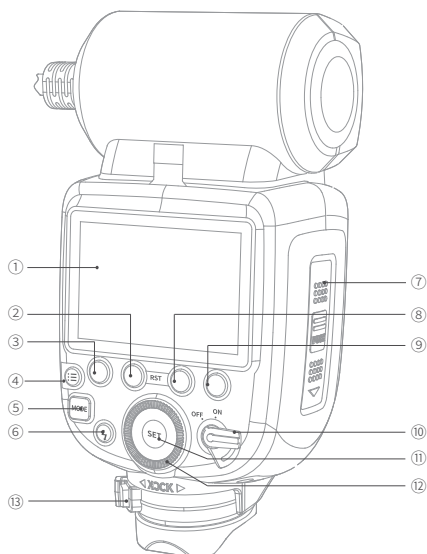
1. Flash Unit



- ① External power interface (CP-E4) ③ PC socket (sync socket)
② Hot shoe ④ USB Type-C upgrade interface

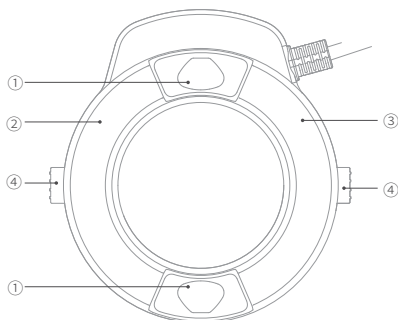
Product Illustration

2. Control Panel



- ① Display screen
- ② Function button 2
- ③ Function button 1
- ④ <I/E> Menu button
- ⑤ <MODE> Flash mode selection
- ⑥ <⚡> Test flash button
- ⑦ Battery cover
- ⑧ Function button 3
- ⑨ Function button 4
- ⑩ Power switch: Power On/Off
- ⑪ SET button: short press to select parameters
- ⑫ Dial: adjust parameter values
- ⑬ Hot shoe locking mechanism

3. Ring Flash

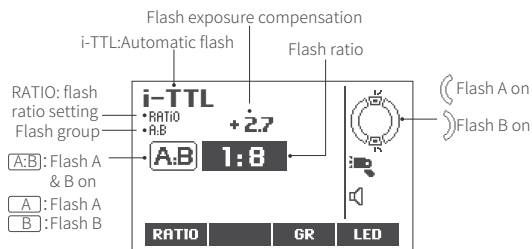


- ① Modeling Lamp
- ② Flash A
- ③ Flash B
- ④ Adapter ring unlock button

Product Illustration

4. LCD Display Screen

(1) i-TTL Automatic Flash

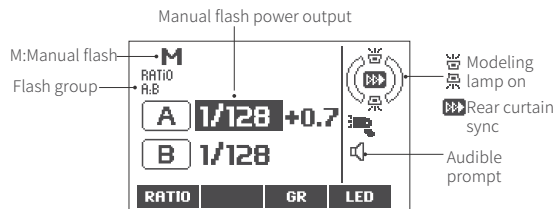


※The screen display is an example. The interface only displays the settings currently applied.

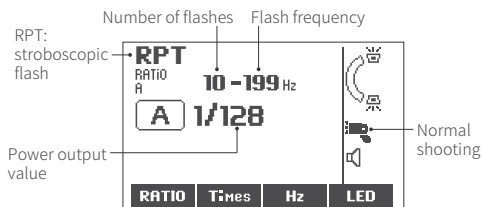
※The functions displayed above function buttons 1~4 are not fixed and will change according to the settings.

※The display screen lights up when operating buttons or the dial.

(2) M Manual Flash



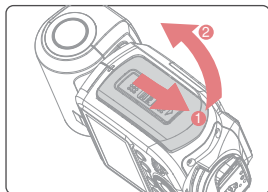
(3) RPT stroboscopic flash



Installation Instructions

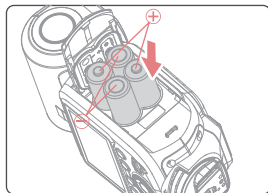
1. Installing Batteries

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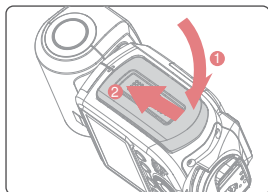
① Open the battery compartment cover

Slide the battery compartment cover open in the direction shown in the illustration.



② Install the batteries

Insert the batteries into the compartment respecting the positive (+) and negative (-) polarity markings located within the battery compartment.




③ Close the battery compartment cover

Slide the battery compartment cover closed in the direction shown in the illustration.

⚠ Battery Usage Precautions

- ① The batteries may get hot after multiple continuous flashes. Care should be taken to avoid burns.
- ② The flash unit still requires batteries even when using an external power source.
- ③ Please note that in extremely rare cases, the AA/R6 type lithium batteries may become very hot during use. In the interest of safety, it is not recommended to use these types of batteries.
- ④ When using alkaline batteries other than (AA/R6) batteries, irregularities in the shape of battery ends may cause poor contact.
- ⑤ When replacing the battery, please use 4 new AA batteries or fully charged rechargeable batteries of the same brand. You can also use 5 AA/HR6 nickel-metal hydride (Ni-MH) batteries. Do not mix new and old batteries, or mix different types or brands of batteries.

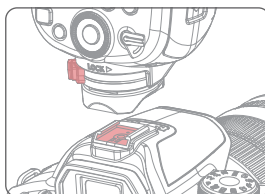
When the battery level is low, the battery symbol  will flash, prompting you to replace the battery as soon as possible.



Installation Instructions

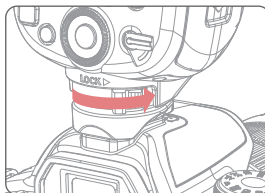
2. Installing the Flash Unit on the Camera

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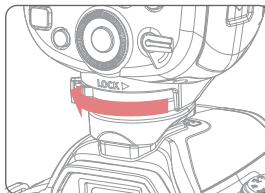
1. Install the flash

Move the hot shoe locking mechanism to the left, and then slide the base of the flash into the camera hot shoe.



2. Secure the flash

Move the hot shoe locking latch to the right to lock the flash in place.

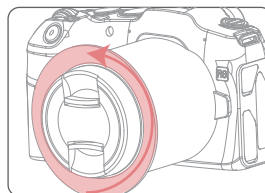


3. Removing the flash

Press the button on the latch and move the latch to the left to unlock the flash.

※ Make sure the flash unit is turned off before removing it.

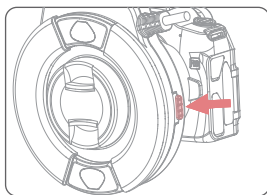
3. Installing the Ring Flash onto the Front of the Lens



1. Install the Adapter Ring

Use an adapter ring of the same diameter as the lens filter, and tightly screw it onto the lens filter thread.

Installation Instructions



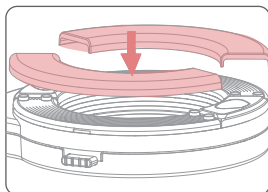
2. Attach to the Front of the Camera Lens

Press the adapter ring unlock button on the ring flash, and attach it to the adapter ring on the front of the camera lens.

※ The product comes with adapter rings in sizes of: 49mm, 52mm, 55mm, 58mm, 62mm, 67mm, 72mm, and 77mm.

※ This macro ring flash is designed specifically for macro lenses. When using non-macro lenses, the lens may rotate during focusing. It is recommended to use manual focus (MF) when using non-macro lenses. Autofocus (AF) may damage your lens.

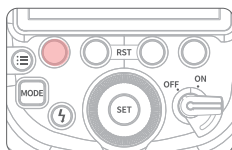
4. Installing the Color Gels onto the Flash



Attach a pair of color gels to the corresponding positions on the flash unit.

Setting Flash Group / Ratio

You can set the flash ratio to adjust the flash output ratio between flash tubes A and B, or to enable only one of them to flash. This creates shadows on the subject, giving it a more sculpted appearance.



1. Setting the flash group

Short press function button 1 <RATIO>, the screen displays RATIO flash group.

Flash Group

Single Light Mode

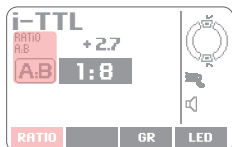
RATIO A (A flash tube on)

RATIO B (B flash tube on)

Dual Light Mode

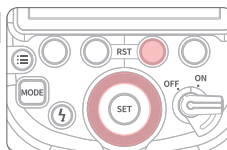
RATIO A:B (Both A and B tubes on)

RATIO OFF (Both A and B tubes on)



Setting Flash Group / Ratio

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2. Set flash ratios

In Dual Light A:B mode, adjust the flash output ratio between tubes A and B;
Press the function button 3<Gr>, and the screen will display the flash ratio values. Use the dial to set the desired flash ratio.

Flash ratio values are as follows:
8:1/4:1/2:1/1:1/1:2/1:4/1:8

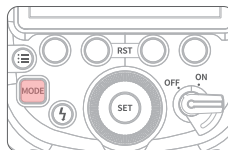
When selecting RATIO OFF, both A and B tubes illuminate at equal power.



Flash Mode: i-TTL Automatic Flash Mode

The flash had three flash modes: auto flash(i-TTL), manual flash(M), andstroboscopic flash (RPT). When used in i-TTL mode, the flashwill use your camera's metering system to read the light exposure from the subject and automatically adjust flash output to get even exposure of the subject and background. It features flash exposure compensation, second-curtain shutter sync, etc.

1. i-TTL Mode



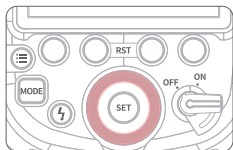
By pressing the <MODE> button and setting the flash to <i-TTL>, you can activate the i-TTL mode.

A pre-flash can be emitted just before the shutter is released, allowing the flash to receive information from the camera to perform the main flash.

Flash Mode: i-TTL Automatic Flash Mode

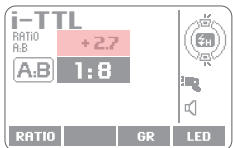
2. Flash Exposure Compensation

The flash can adjust flash exposure compensation in increments of 1/3 stop within a range of ± 3 stops. This feature is particularly useful for fine-tuning the i-TTL system to accommodate the shooting environment.



Setting flash exposure compensation:

- ① Rotate the adjustment dial to set the exposure compensation value.
- ② "0.3" indicates a 1/3 stop, "0.7" indicates a 2/3 stop.
- ③ To cancel flash exposure compensation, set the flash exposure compensation value to "0.0".



3. Second Curtain Sync

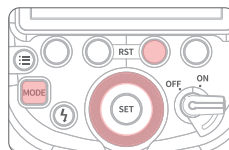
The use of a slow shutter speed creates the effect of a light trail behind the subject. To achieve this, the flash fires just before the shutter closes.

* Select REAR flash mode on your Nikon camera to enable rear-curtain flash sync.

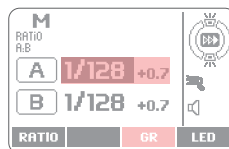
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Flash Mode: M Manual Flash

You can adjust the flash output between 1/128 power and full power in 1/3-stop increments. To achieve the correct flash exposure, use a handheld flash meter to determine the desired flash output.



- ① Press the <MODE> mode selection button, and the screen will display <M>.
- ② Press function button 3 <Gr> to select the flash output power, then rotate the adjustment dial to set the flash output power.

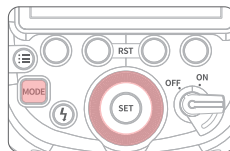


Flash Output Power: 1/1~1/128, in ± 0.3 EV increments.

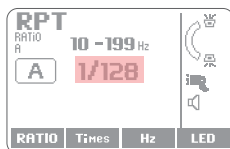
Flash Mode: RPT Stroboscopic Flash

Using the strobe flash to emit a series of rapid flashes, you can capture multiple images of moving objects in a single frame.

You can set the flash frequency (flashes per second, expressed in Hz), flash count, and flash output.

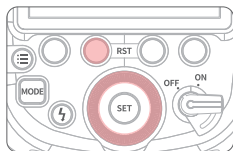


- ① Press the <MODE> selection button, and the screen will display <RPT>.
- ② Rotate the adjustment dial to set the flash output power.

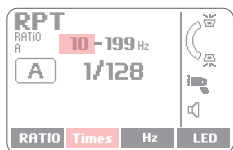


Flash Mode: RPT Stroboscopic Flash

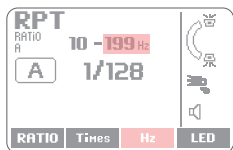
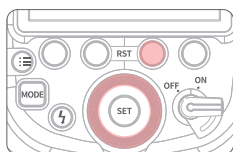
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③ Press function button 2 <Times> to select the times of flashes, then rotate the adjustment dial to set the desired number.



④ Press function button 3 <Hz> to select the flash frequency, then rotate the adjustment dial to set the desired frequency.



Calculating Shutter Speed:

When using the stroboscopic flash setting, the shutter should remain open until the flash stops. Use the formula below to calculate the shutter speed, and then set it on the camera.

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

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

*To prevent overheating and damage to the flash head, do not perform continuous stroboscopic flash shooting for more than 10 times in a row. After 10 flashes, allow the flash to cool for at least 15 minutes. If you attempt to perform continuous stroboscopic flash shooting more than 10 times, the flash may automatically stop to prevent overheating. If that happens, please allow the flash to cool for at least 15 minutes.

*Subjects with strong reflections are more effectively captured against a dark background using stroboscopic flash.

*It is recommended to use a tripod and remote switch.

*Stroboscopic flash cannot be set when the flash output is at 1/1 or 1/2.

*The 'bulb' mode can also be used during stroboscopic flash.

Flash Mode: RPT Stroboscopic Flash

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Maximum Strobe Flash Count

Flash Output \ Hz	1	2	3	4	5	6-7	8-9
1/4	8	6	4	3	3	2	2
1/8	14	14	12	10	8	6	5
1/16	30	30	30	20	20	20	10
1/32	60	60	60	50	50	40	30
1/64	90	90	90	80	80	70	60
1/128	100	100	100	100	100	90	80

Flash Output \ Hz	10	11	12-14	15-19	20-50	60-199
1/4	2	2	2	2	2	2
1/8	4	4	4	4	4	4
1/16	8	8	8	8	8	8
1/32	20	20	20	18	16	12
1/64	50	40	40	35	30	20
1/128	70	70	60	50	40	40

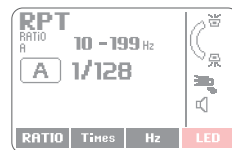
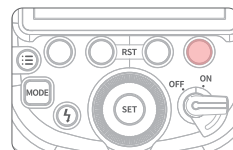
Other Applications

1. External Power Interface

This flash unit comes with an external power port which is compatible with the flash battery pack CP-E4 for an external power supply. This alternative power source increases the number of flashes and shortens the recycle time. When using an external power source, the RF1-N flash also needs to have batteries installed.

* CP-E4 battery pack needs to be purchased separately.

2. Modeling Lamp



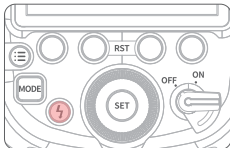
Press the function button 4 <LED> to turn the modeling lamp on or off.

Other Applications

3. Sync Cable Triggering

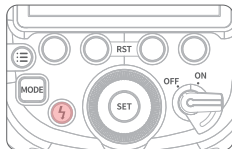
Using a sync cable to connect the camera or trigger to the flash will allow you to achieve flash synchronization with the shutter.

4. Test Flash



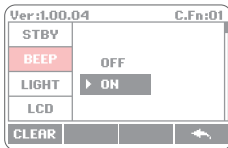
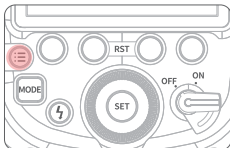
Press the "TEST" button to perform a flash test.

5. Sleep Mode



The flash unit enters sleep mode after a period with no operation. Press the "TEST" button or any button on the control panel to wake up the device.

6. Beep



Press the "<MENU>" button to enter the custom function menu settings, and enable or disable the beep.

Beep Sound Definitions:

Beep - Beep Beep Beep	Recycling not complete/overheating alert
Beep (long)	Fully charged
Beep - Beep Beep Beep	Low power and imminent shutdown

Firmware Upgrade

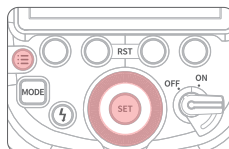
This device supports firmware upgrades via the USB port, with the latest software announcements and instructions available on the official website.

※ The product is not supplied with the required USB-C cable for updating the device. Please purchase separately.

※ Product firmware upgrades require support from the Neewer Firmware program software. Before upgrading firmware, please download and install the "Neewer Firmware Update" and then select the appropriate firmware file.

※ Please refer to the latest electronic version of the user manual for any firmware upgrades.

Setting Customizable Functions



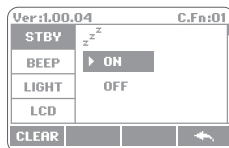
① Press the "<MENU>" button to access the custom function menu.

② Rotate the dial to select an option.

③ Press the "<SET>" button to choose a setting.

④ Rotate the dial to adjust the setting.

⑤ Press "<MENU>" or function button 4 "<EXIT>" to exit.



Please refer to the following table to customize the function settings.

Function Symbol	Custom Function	Setting Symbol	Setting and Explanation
STBY	Auto Sleep	ON	Turn on
		OFF	Turn off
BEEP	Buzzer	ON	Turn on
		OFF	Turn off
LIGHT	Backlight Illumination Time	12sec	Automatically off after 12s
		OFF	Always off
		ON	Always on
LCD	LCD Contrast	-3~+3	7 levels

Protection Function

1. Overheat Protection

- ① To prevent the flash head from overheating resulting in damage, do not perform rapid continuous flashes exceeding 30 times at 1/1 power. After 30 continuous flashes, allow the flash to cool for at least 10 minutes.
- ② If you continue to trigger the flash further after exceeding 30 continuous flashes, the internal overheat protection function may be activated, resulting in a recycling time of over 7 seconds. If this occurs, let the flash cool for approximately 10 minutes, and it will return to normal.

Number of continuous flashes to activate overheat protection:

Power	Times
1/1	30
1/2	60
1/4	100
1/8	200
1/16	300
1/32	500
1/64	1000
1/128	

Other Protections

* To ensure the safety of the device, the system will continuously monitor the device and activate certain safety mechanisms to protect it. The following indicator symbols are provided for your reference:

LCD Display	Warning Message
E1	Flash recycling system malfunction; unable to recycle flash. Please restart device. If the issue persists, please contact our technical support team, or an accredited professional.
HOT	Device temperature is too high; flash use restricted. Please stop using device for 10 minutes.

Troubleshooting

If you encounter any issues, please refer to this troubleshooting guide.

1. Flash does not fire

- ① Flash is not securely mounted on the camera.
→ Securely mount the flash on the camera's hot shoe.
- ② Dirty electronic contacts between flash and camera.
→ Clean the contacts.

2. Power automatically shuts off

When there is no operation for 90 seconds, the automatic power-off function activates.

→ Press any button or the test flash button to wake up.

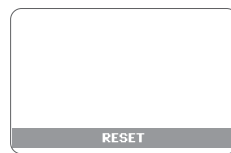
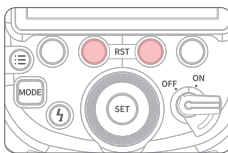
3. Dark corners or shadows/white shadows in photos

→ RF1-N is a macro ring flash designed for use with macro lenses. If not using a macro lens, adjust the camera lens focal length to >50mm.

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Factory Reset

Simultaneously press and hold both <RST> buttons until the screen displays "RESET" to complete.



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Specifications

Model	RF1-N
Guide Number	GN15 (ISO 100, m)
Power	76W
Color Temperature	5600
Compatibility	Nikon Digital Single Lens Reflex Camera (i-TTL auto flash)
Power Supply	4 AA batteries (rechargeable NiMH batteries recommended)
Trigger Method	Hot shoe trigger, Test manual trigger, PC sync cable
Flash Mode	i-TTL/RPT/M
Flash Duration	1/400s- 1/19300s
Sync Mode	Front curtain sync, rear curtain sync
PC Sync Interface	Sync speed: ≤1/200
Number of Flashes	100-1500 flashes (depending on battery brand and output power)
LED (Assist Focus Light)	
Power	Approximately 0.59W X2
Illuminance	Approximately 101lux@0.5m
External Power Supply	
External Voltage Interface	Nikon Universal CP-E4
Recycling Time	Approximately 0.1s~2.7s
Sync Trigger Method	Hot shoe, PC sync cable
Dimensions	
Volume	71*55*202 mm
Net Weight (excluding batteries)	368g