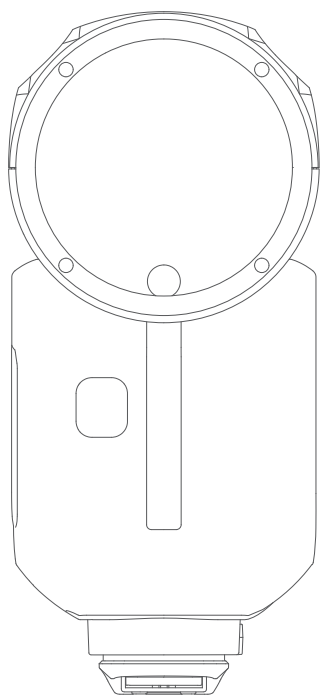




Z2C

TTL Li-ion Camera Flash

Instruction Manual

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Version Control

Date	Version number	Description	Issued by
06/29/2023	1.0	TTL Li-ion Camera Flash Manual	NEEWER®

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Foreword

Thank you for your purchase of a **NEEWER®** product.

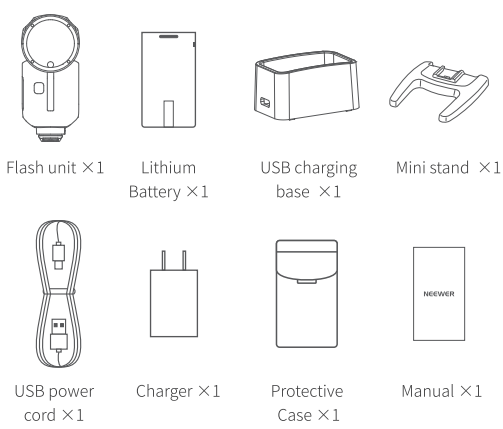
This Z2-C camera flash has been designed with the Canon EOS series cameras in mind and is compatible with E-TTL II autofocus feature. Simply your shoots with this E-TTL compatible flash which allows the user to obtain the correct flash exposure even in more complex environments with variable lighting levels. This camera flash features:

- Maximum flash power of 76Ws, 81 levels of dimming (1/1-1/256)
- 2600mAh Li-polymer battery with an autonomy of 480 flashes at full power, 1.5 seconds fast recharge.
- Supports E-TTL auto flash, which can be used as the master or slave unit of a wireless multi-lamp flash system - making shooting easier and faster.
- LCD screen for an intuitive display and easy operation.
- Built-in 2.4GHz wireless transmission, integrated transmitter and receiver with a large radius.
- Supports manual frequency flash mode, HSS/second curtain sync /FEC and other E-TTL II functions.
- Stable output, High speed continuous flash and color temperature with good even lighting.
- Firmware will be upgraded as the camera is updated.

Precautions

1. Always keep this product dry.
2. Keep this product out of reach of children.
3. Do not disassemble or modify the product.
4. Do not subject to any form of physical shock. The product shouldn't be exposed to fire or an environment where the temperature exceeds 50 degrees.
5. Do not fire the flash directly into the eyes which could result in visual impairment.
6. Do not use the product near chemicals, flammable gases or other volatile substances which may cause fire or electromagnetic interference.
7. Do not use in the rain or in damp conditions.
8. Turn off the product immediately, if it appears to be operating abnormally, and try to troubleshoot the likely cause.
9. Failure to comply with the recommendations and warnings listed in the manual will invalidate the warranty.

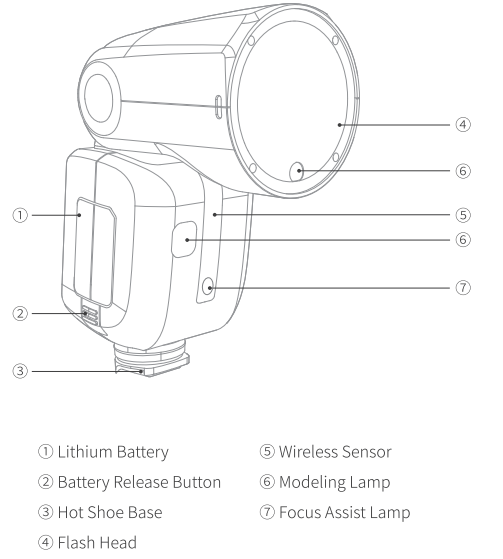
Package Contents



※ Note: The batteries should only be charged using the original 5V 2A charger to prevent damage to the product.

Name of components

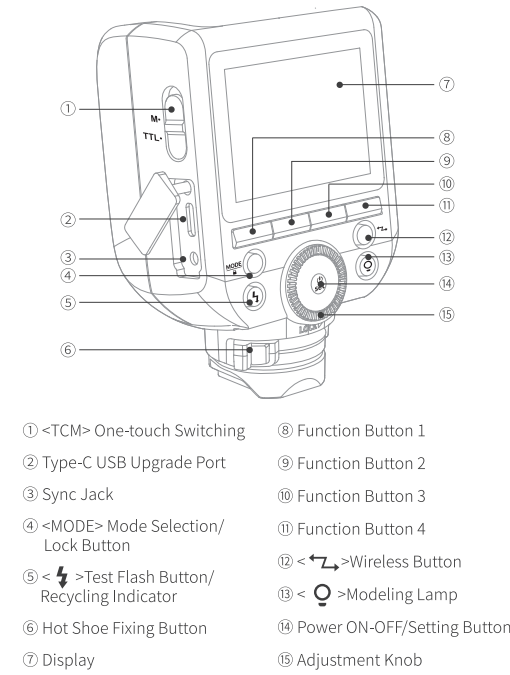
1. Flash Body



- ① Lithium Battery
- ② Battery Release Button
- ③ Hot Shoe Base
- ④ Flash Head
- ⑤ Wireless Sensor
- ⑥ Modeling Lamp
- ⑦ Focus Assist Lamp

Name of components

2. Control Panel

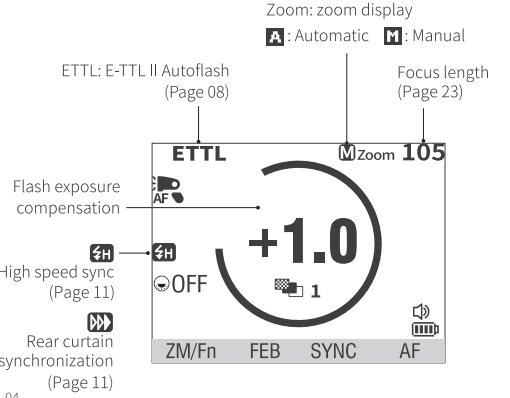


- ① <TCM> One-touch Switching
- ② Type-C USB Upgrade Port
- ③ Sync Jack
- ④ <MODE> Mode Selection/Lock Button
- ⑤ <F> Test Flash Button/Recycling Indicator
- ⑥ Hot Shoe Fixing Button
- ⑦ Display
- ⑧ Function Button 1
- ⑨ Function Button 2
- ⑩ Function Button 3
- ⑪ Function Button 4
- ⑫ <L> Wireless Button
- ⑬ <Q> Modeling Lamp
- ⑭ Power ON-OFF/Setting Button
- ⑮ Adjustment Knob

※ The USB Type-C port is exclusively intended for flash firmware upgrades and is not designed for charging purposes.

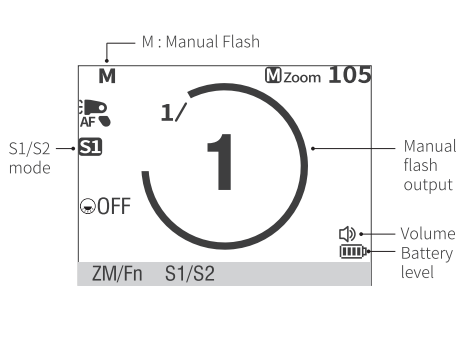
3. LCD Panel

(1) E-TTL Autoflash

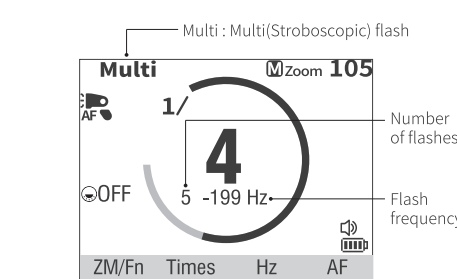


Name of components

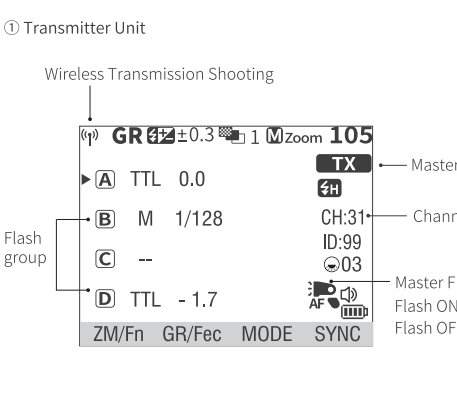
(2) M Manual Flash(Page 12)



(3) Multi Flash(Page 13)

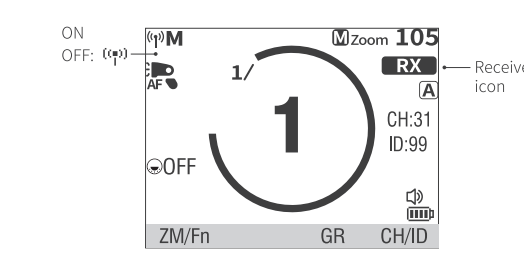


(4) Wireless Transmission Shooting(Page 14)



Name of components

② RX unit



Battery

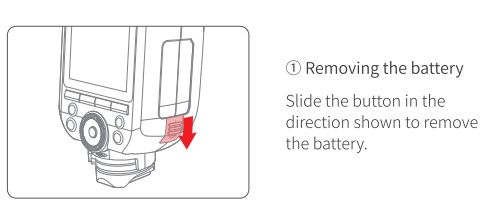
1. Features

- ① This flash unit uses Li-ion polymer battery which boasts a long service life and can be charged / discharged up to 500 times.
- ② Safe and reliable, the built-in circuit protects against overcharge, overdischarge, overcurrent, and short circuit.
- ③ The standard charge time to fully charge the battery is 3.5 hours using the charger.

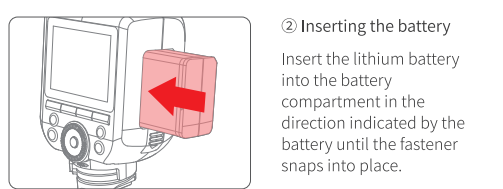
2. Caution

- ① Do not short circuit.
- ② Do not immerse the battery in water.
- ③ Keep the battery out of reach of children.
- ④ Do not exceed 24 hours of continuous charging.
- ⑤ Store the battery in a dry, cool and ventilated environment.
- ⑥ Do not place the battery near or in a fire.
- ⑦ Dead batteries should be disposed according to local regulations.
- ⑧ If the battery isn't to be used for some time, please ensure it is charged at least every 3 months.

3. Inserting and Removing the Battery



Battery



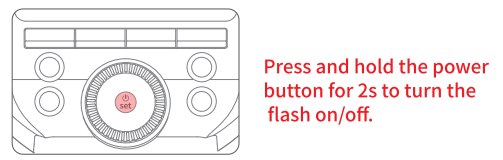
4. Battery Level Indicator

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

Battery Level Indicator	Indicates
4 bars	Full
3 bars	Medium
2 bars	Low
1 bars	Very low
Empty bar	Low battery. Please charge as soon as possible
Flashing	Battery is about to run out. The flash will no longer work. Please recharge the battery as soon as possible (within 10 days), the battery can then be used or stored for a long period.

Power Management

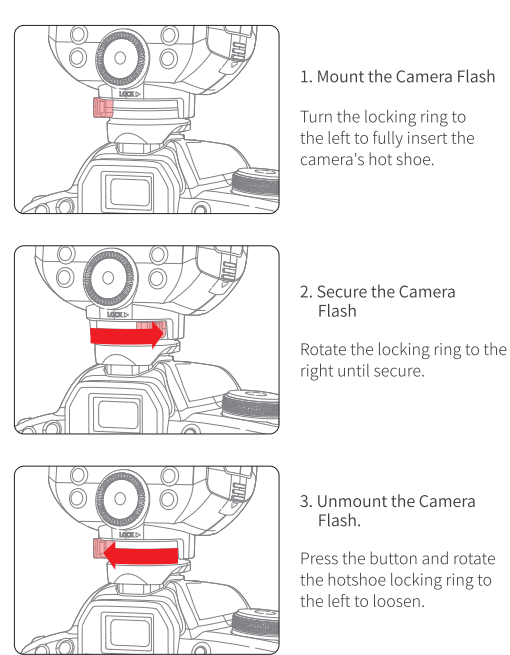
Use ON/OFF Power Switch to power the flash unit on or off. Please turn off the power if the flash won't be used for a long period. When setting as a transmitter (TX) flash, the flash will turn the power off automatically after a certain period (approx. 90 seconds) of inactivity. Pressing the camera shutter halfway or pressing any flash button will wake up the flash unit. When setting as a receiver (RX) flash, it will enter sleep mode after a certain period (adjustable, 60 minutes by default) of idle use. Pressing any flash button will reactivate device.



Power Management

Note: ① When used off the camera, it is recommended that you customize the function to disable "automatic power off".
② Receiver Auto Power Off Timer is set to 60 minutes by default. A 30 minute timer can also be applied.

Mount / Unmount flash



Flash Mode: E-TTL Autoflash

This flash has three flash modes: E-TTL, Manual (M), and Multi (Stroboscopic). In E-TTL mode, the camera's metering system detects flash illumination reflected from the subject and automatically adjusts the flash output to balance the exposure of the subject and background. Flash Exposure compensation (FEC), flash exposure bracketing (FEB), high-speed sync (HSS), second-curtain shutter sync, flash exposure lock (FEL), aperture preview shadow flash, and Canon camera menu access are supported.

※ Press <MODE> Mode Selection Button. The three flash modes will display on the LCD panel in a cycle.

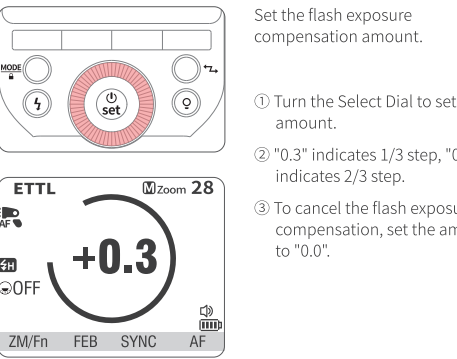
Flash Mode: E-TTL Autoflash

1. E-TTL Mode

Press <MODE> Mode Selection Button to enter E-TTL mode.
① Press the camera release button halfway to focus.
② A pre-flash is fired moments before the shutter is released, and the flash receives camera information for the main flash.

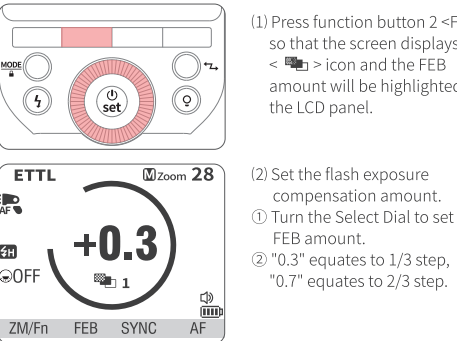
2. FEC(Flash Exposure Compensation)

In FEC mode, the flash can adjust flash exposure compensation in 1/3-stop increments between -3 to +3. This feature is useful when the TTL system needs to be fine-tuned to accommodate the shooting environment.

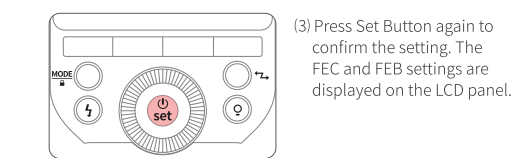


3. FEB(Flash Exposure Bracketing)

FEB(Flash surround Exposure) automatically changes the flash output in 1/3rd stops from -3 to +3. When using this function, the camera will record three photos with different flash outputs (correct exposure, underexposure, and overexposure). This function helps obtain correct exposure which is key when shooting moving objects or when environmental lighting is more complex.



Flash Mode: E-TTL Autoflash



* FEB will be canceled after three photos are taken.

* For FEB, set the camera drive mode to "single" and ensure the flash is ready before shooting.

* FEB can be used with FEC and FEL.

* The Flash bracketing function will stop after taking three shots. This can be kept enabled in the camera customization menu settings.

4. FEL: Flash Exposure Lock

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

With <ETTL> displayed on the LCD panel, press the camera's <FEL> button. If the camera does not have the <FEL> button, press the <+> button.

- ① Bring the subject into focus
- ② Press the <FEL> button
- ③ Press Set Button again to confirm the setting. The FEC and FEB settings are displayed on the LCD panel.

① Aim the center of the viewfinder at the subject, and then press the <FEL> button.

② The camera flash will fire a preflash and the required flash output for the subject is memorized.

③ "FEL" will show in the viewfinder for 0.5 seconds.

④ Each time the <FEL> 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 <FEL> icon will flash in the viewfinder. Please approach the subject and try Flash Exposure Lock (FEL) function again.

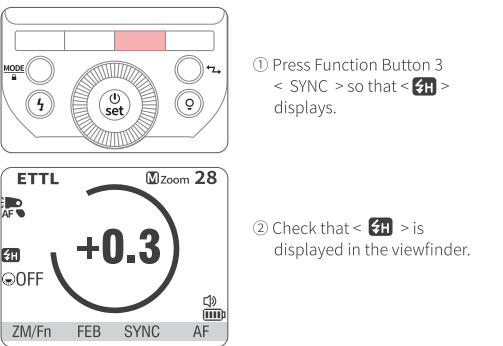
* Flash exposure lock cannot be set if <ETTL> is not displayed on the LCD.

* Flash exposure lock may not work effectively if the subject is too small.

Flash Mode: E-TTL Autoflash

5. HSS: High Speed Sync

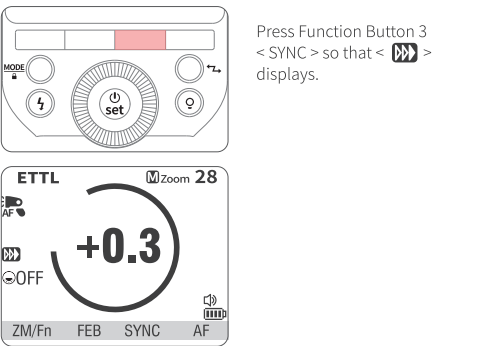
High Speed Sync (FP flash) enables the flash to synchronize with all camera shutter speeds, <FEL> will not appear in the viewfinder.



- * If the shutter speed is set to equal or slower than the camera's maximum flash sync speed, <FEL> will not appear in the viewfinder.
- * With high-speed sync, the faster the shutter speed, the shorter the effective flash range.
- * To return to normal flash, press < SYNC > button again. Then <FEL> will disappear.
- * Multi flash mode cannot be set in high-speed sync mode.
- * Over-temperature protection may be activated after 30 consecutive high-speed sync flashes.

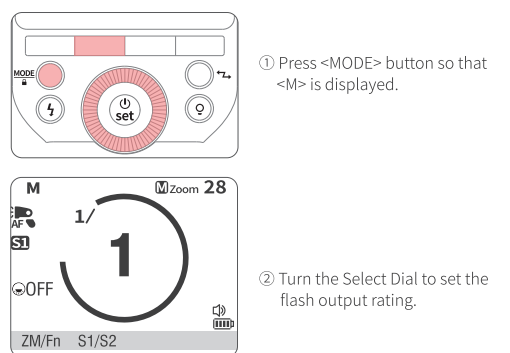
6. Second-Curtain Sync

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



M: Manual Flash

The flash output is adjustable from 1/1 full power to 1/256th power in 1/10th stop increments.
To obtain a correct flash exposure, use a hand-held flash meter to determine the required flash output.



Press function button 2 to adjust the S1/S2 mode

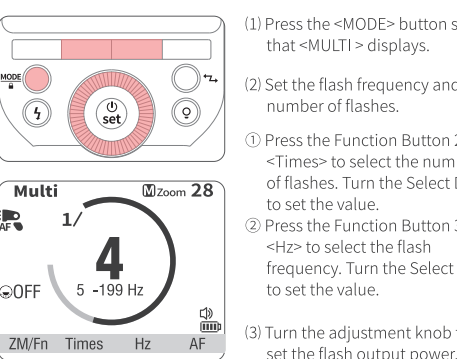
* S1 Optical control unit setting
In M manual flash mode, the S1 function can be used and the flash unit can function as an optical secondary flash. It will fire synchronously when the main flash fires, the same effect as that obtained by the use of radio triggers. This helps the photographer create multiple lighting effects.
* S2 Optical control unit setting
In M manual flash mode, the S2 function can be used and the flash unit can function as an optical S2 secondary flash. In this mode, it will ignore the pre-flash emitted by the TTL flash and will only fire in response to the second flash from the main unit.

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

Multi: Stroboscopic Flash

The term stroboscopic flash relates to a rapid series of flashes being fired. It can be used to capture 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.



Calculating the Shutter Speed:

During a 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.

Number of Flashes / Flash Frequency = 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 deterioration of the flash head, do not use the 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 flash may stop flashing automatically. This is to protect the flash head. Should this happen, please allow the camera to rest for 15 minutes.

* Stroboscopic flash is most effective with a highly reflective subject against a dark background.

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

* A flash output of 1/1 and 1/2 cannot be set for stroboscopic flash mode.

* Stroboscopic flashes can be used with the "bulb" function.

* If the flash count is displayed as --, the flash will fire continuously until the shutter release or the battery is exhausted. The number of flashes will be limited as shown in the table below.

Multi: Stroboscopic Flash

Maximum number of strobe flashes

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	
1/256	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	2
1/8	4	4	4	4	4	4	4
1/16	8	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	
1/256	70	70	60	50	40	40	

Wireless Flash Shooting: Wireless (2.4G) Transmission

* When the camera's shooting mode is set to a fully automatic mode or an Image Zone mode, the operations explored in this chapter are not available. Please set the camera's shooting mode to P/Tv/Av/M/B (Creative Zone Mode).

* The Z2-C attached to the camera is called the transmitter unit, and a Z2-C that is wirelessly controlled is called the receiver unit.

Using a flash (transmitter/receiver) with a radio transmission wireless shooting function make it easy to shoot with advanced wireless multiple flash lighting, in the same way as E-TTL II autofocus shooting. The basic relative position and operation range are as shown in the picture. You can then perform wireless E-TTL II autofocus shooting by setting the transmitter unit to <ETTL>.

Positioning and Operation Range (Example of wireless flash shooting):

Autoflash Shooting with One Receiver Unit

