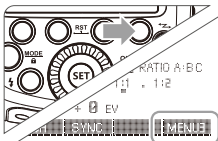
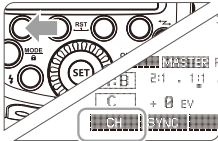


3. Setting the Communication Channel

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 Function **Button 4** so that < **MENUS** > is displayed on the LCD panel.

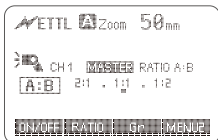


- 2 Press Function **Button 1** so that < **CH** > is displayed on the LCD panel. Turn the Select Dial to choose a channel ID from 1 to 4.

- 3 Press the < **SET** > button to confirm.

4. E TTL: Fully Automatic Wireless Flash Shooting

Using Automatic Wireless Flash with a Single Slave Unit



1 Master Unit Setting

- Attach a V860IIC camera flash on the camera and set it as the master unit.
- As a master unit, V860IIC can control Canon speedlites e.g. 580EXII, 600EX-RT via wireless.



2 Slave Unit Setting

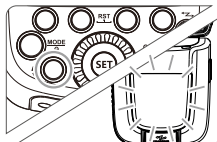
- Set the other camera flash as the wireless slave Unit.
- As a slave unit, V860IIC can receive wireless signals of Canon speedlites e.g. 580EXII, 600EX-RT and commanders of Canon cameras e.g. 7D/60D/600D.

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. (Page 47)

4 Position the camera and flashes.

- Position the camera and flashes as the picture shows. (Page 46)

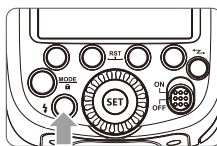


5 Set the master unit's flash mode to <E TTL>.

- Set the master unit's flash mode to <E TTL>.
- For shooting, <E TTL> will automatically be set for the slave unit.
- Set the master unit flash firing as **ON** to fire a flash.

6 Check that the flash is ready.

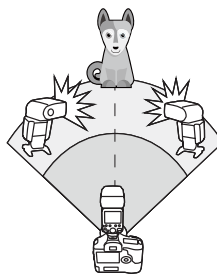
- Check that the master flash ready indicator is lightened.
- When the slave flash ready indicator is ready, the AF-assist beam lighting area will blink at 1 second intervals.



7 Check the flash operation.

- Press the master unit's Test Button < **TEST** >.
- Then, the slave unit will fire. If not, adjust the slave unit's angle toward the master unit and distance from the master unit.

Using Automatic Wireless Flash with Multiple Slave Units



When stronger flash output or more convenient lighting operation is needed, increase the number of slave units and set it as a single slave unit.

To add slave units, use the same steps as setting "automatic wireless flash with a single slave unit". Any flash group can be set (A/B/C).




When the number of slave units is increased and the master unit flash firing is ON, automatic control is implemented to make all groups of flashes fire the same flash output and ensure the total flash output up is to standard exposure.


⚠ The slave unit might be out of order or fire an unwanted flash due to the nearby fluorescent lamp or computer screen.





- Press the depth-of-field preview button on the camera to fire a modeling flash.
- If the slave unit's auto power off function is workable, press the master unit's test button to power it on. Please note that test firing is unavailable during the camera's regular metering time.
- The effective time of slave auto power off is changeable. (C.Fn-Sv APOT Page 57)
- By making some settings, the auto AF-assist transmitter will not blink after the slave unit's flash ready indicator is lightened. (C.Fn-AF Page 57)

Using Fully Automatic Wireless Flash

The FEC and other settings that set on the master unit will also be appeared on the slave unit automatically. The slave unit does not need any operation. Use the following settings to make wireless flashes according to the same methods with normal flash shooting.

- Flash Exposure Compensation ( Page 40)
- Flash Exposure Bracketing ( Page 41)
- Flash Exposure Lock (Page 41)
- High-Speed Sync ( Page 42)
- Manual Flash (Page 43)
- Stroboscopic Flash (Page 44)

 The firing frequency of stroboscopic flash during the optic transmission shooting can be set from 1Hz to 199Hz.

 Press Function Button 4 so that ,  and  are displayed.

About Master Unit

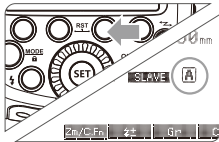
Use two or more master units. By preparing several cameras that with master units flash attached, cameras can be changed in shooting while keeping the same lighting source (slave unit).

5. E-TTL: Use the Wireless Shooting of Flash Ratio


Auto Flash Shooting with Two Slave Unit

Divide the slave units into A and B groups and balance their shooting illumination (flash ratio).

Auto control exposure to make the total output of A and B flash groups up to standard exposure.



1 Setting the flash groups of slave unit.


- Set the flash as slave unit.
- Press Function Button 3 <  > and choose <A> or .

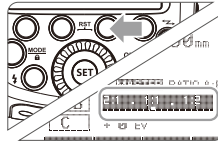
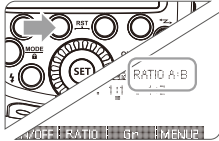
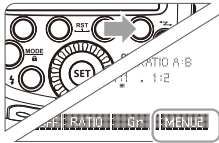
- Set one slave unit as <A>, the other as .

2 Setting <MENU 2>.


- Step 2 to Step 4 are set on the master unit.
- Press the Function Button 4 on the master unit so that <MENU 2> is displayed.

3 Setting <RATIO A:B>.

- Press Function Button 2 <  > so that <RATIO A:B> is displayed.



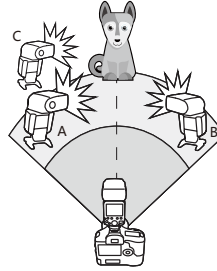
4 Setting flash ratio.

- Press Function Button 3 <  >.
- Turn the Select Dial to set the amount of flash ratio and press <SET> button to confirm.

5 Taking the picture.

- The slave units will flash according to the flash ratio.

Auto Flash Shooting with Three Slave Unit




1 Setting the slave group <C>.

- Use the same method of step 1 (Page 49) to set the slave unit of flash group <C>.

2 Setting <RATIO A:B C>.

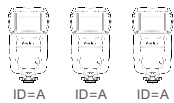
- Use the same method of step 1 and step 3 (Page 49) to set the master unit as <RATIO A:B C>.

3 Setting flash exposure compensation.


- Use the same method of step 1 (Page 49) to set the slave unit of flash group <C>.
- Press Function Button 2 <  >. Turn the Select Dial to set the amount of flash exposure compensation and press <SET> button to confirm.

About Slave Group Control

Slave Group A



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.

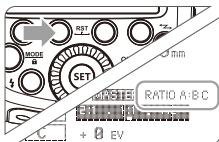
-  When setting <RATIO A:B C>, group A, B and C will fire a flash synchronously; when setting <RATIO A:B>, group C will not fire a flash.
- If shooting under the situation that group C is toward the main shooting subject, over exposure might occurred.
- In some EOS film cameras that support E-TTL autofocus, you cannot perform multiple flash wireless shooting with a flash ratio setting.

- The flash ratio of 8:1 to 1:1 to 1:8 is equivalent to 3:1 to 1:1 to 1:3 (1/2 step increment).
- The details of the flash ratio settings are as follows.

8:1 4:1 2:1 1:1 1:2 1:4 1:8
 5.6:1 2.8:1 1.4:1 1:1.4 1:2.8 1:5.6

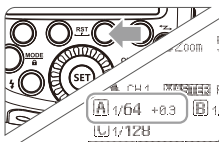
6. M: Wireless Flash Shooting with Manual Flash

This describes wireless (multiple shooting) using manual flash. You can shoot with a different flash output setting for each slave unit (firing group). Set all parameters on the master unit.



- 1 Setting the flash mode to <M>.
- 2 Setting the number of flash groups.

- When <MENU1> is displayed, press the Function Button 2 <RATIO> to set the groups to fire.
- The setting changes as follows each time you press the button:
 ALL(RATIO OFF)→
 A/B(RATIO A:B)→
 A/B/C(RATIO A:B:C)

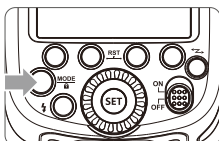


- 3 Setting flash output.
 - Press Function Button 3 <Gr>. Turn the Select Dial to set the flash output of the groups. Press <SET> button to confirm.
- 4 Taking the picture.
 - Each group fires at the set flash ratio.

- When ALL <RATIO OFF> is set, set A, B or C as the firing group for the slave units.
- To fire multiple slave units with the same flash output, select ALL <RATIO OFF> in step 2.

Setting <M> Flash Mode

You can directly operate the slave unit to manually set the manual flash or stroboscopic flash.



- 1 Setting the slave unit. (Page 46)
- 2 Setting flash mode to <M>.
 - Press <MODE> button so that <M> is displayed.
 - Set the manual flash output. (Page 43)



7. Multi: Wireless Flash Shooting with Manual Flash



Setting <MULTI> stroboscopic flash.

- Press <MODE> button so that <MULTI> is displayed.
- Setting the stroboscopic flash. (Page 44)

- The firing frequency of stroboscopic flash during the optic transmission wireless shooting can be set from 1Hz to 199Hz (settings from 250 Hz to 500 Hz are not available).

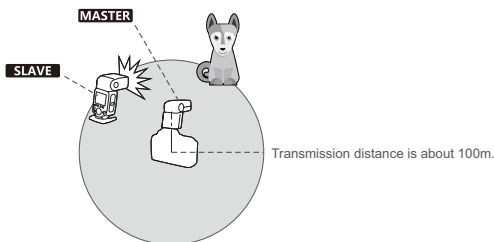
Wireless Flash Shooting: Radio (2.4G) Transmission

Using a flash (master/slave) 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 /ETTL autofocus shooting just by setting the master unit to <ETTL>.

Positioning and Operation Range (Example of wireless flash shooting)

- Autoflash Shooting with One Slave Unit



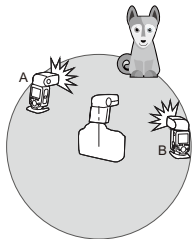
- Use the supplied mini stand to position the slave unit.
- Before shooting, perform a test flash and test shooting.
- The transmission distance might be shorter depending on the conditions such as positioning of slave units, the surrounding environment and whether conditions.

Wireless Multiple Flash Shooting

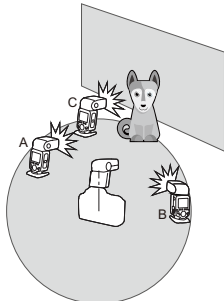
You can divide the slave units into two or three groups and perform E-TTL II/E-TTL autofocus while changing the flash ratio (factor). In addition, you can set and shoot with a different flash mode for each firing group, for up to 5 groups.

- Auto Shooting with Two Slave Groups

• Auto Shooting with Two Slave Groups



• Auto Shooting with Three Slave Groups



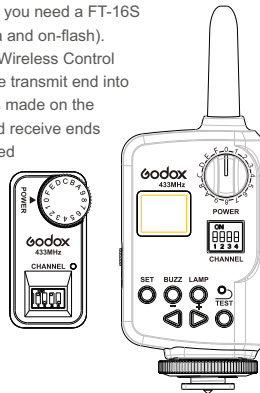
Wireless shooting using radio transmission has advantages over wireless shooting using optic transmission, such as being less affected by obstacles, and not having to point the slave unit's wireless sensor toward the master unit. The main functional differences are as follows:

Function	Radio Transmission	Optic Transmission
Distance	100m	15m
Channel	1~32	1~4
A/B/C Power	OFF, 1/128~1/1	1/128~1/1

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.



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.
- The modeling flash cannot be fired with the EOS 300 and Type-B cameras.

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. If you want to turn off the auto focus assist beam, set the "AF" to "OFF" on the C.Fn settings.

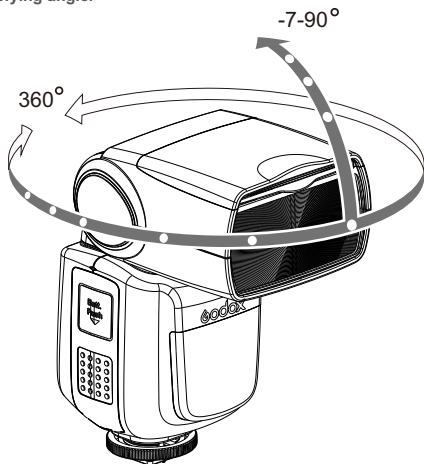
- If you find the auto focus assist beam does not light up, this is because the camera has got a correct autofocus.

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.

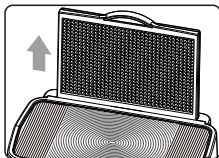
To set the bounce direction, hold the flash head and turn it to a satisfying angle.



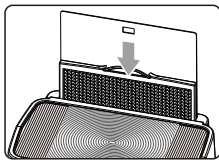
- If the wall or ceiling is too far away, the bounced flash might be too weak and result in underexposure.
- The wall or ceiling should be a plain, white color for high reflectance. If the bounce surface is not white, a color cast may appear in the picture.

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.

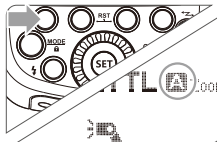


- 3 Push the wide panel back in.
 - Push in only the wide panel.
 - Follow the same procedures as for bounce flash.

- ▲ 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

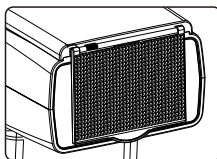
The flash coverage can be set automatically or manually. It can be set to match the lens focal length from 20 mm to 200mm. Also, with the built-in wide panel, the flash coverage can be expanded for 14mm wide-angle lenses.



In Manual Zoom mode, press the <ZOOM/C.FN> button.

- Turn the Select Dial to change the flash coverage.
- If <A> is 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/C.FN> button will not work.



Low Battery Warning

If the battery power is low, < > will appear and blink on the LCD panel. Please replace the battery immediately.

C.Fn: Setting Custom Functions

The following table lists the available and unavailable custom functions of this flash.

C.Fn Custom Functions				
Custom Function Signs	Function	Setting No.	Settings & Description	Custom Functions No.
m/ft	Distance indicator	m	m	C.Fn-00
		ft	feet	
APO	Auto power off	ON	ON	C.Fn-01
		OFF	OFF	
FEB ACL	FEB auto cancel	ON	ON	C.Fn-03
		OFF	OFF	
FEB	FEB order	0 → → +		C.Fn-04
		→ → 0 +		
AF	AF-assist beam	ON	ON	C.Fn-08
		OFF	OFF	
Sv APOT	Slave auto power off timer	60min	60min	C.Fn-10
		30min	30min	
BEEP	Beeper	ON	ON	C.Fn-20
		OFF	OFF	
LIGHT	Backlighting time	12sec	Off in 12 sec.	C.Fn-22
		OFF	Always off	
		ON	Always lighting	
LCD	LCD contrast ratio	0-9	10 levels	

- Press **<Zm/C.Fn>** Backlight/Custom Setting Button for 2 seconds or longer until C.Fn menu is displayed. The "Ver x.x" in the top-right corner refers to the software version.
- Select the Custom Function No.
 - Turn the Select Dial to select the Custom Function No.
- 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.
- In the C.Fn states, long press the "Clear" button for 2 seconds until "OK" is displayed on the panel, which means the values in C.Fn can be reset.

Control with the Camera's Menu Screen

If the camera flash is attached to an EOS camera which has a speedlite control function, the flash can be controlled using the camera's menu screen. For the menu operation procedure, refer to your camera's instruction manual.

● Setting Camera Flash Functions

The following flash functions are settable according to different flash modes.

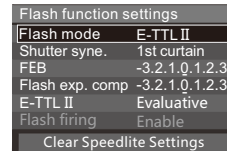
- Flash mode
- Shutter sync (1st/2nd curtain, high speed sync)
- FEB
- Flash exposure compensation
- Flash firing
- Clear camera flash's settings

● Custom Functions of Camera Flash

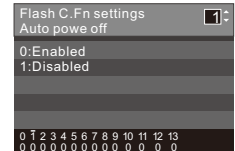
C.Fn-00, C.Fn-01, C.Fn-03, C.Fn-04, C.Fn-08, C.Fn-10, C.Fn-20, and C.Fn-22.

Clear All Flash Custom Functions

Flash function settings screen



Flash C.Fn settings screen




* Screens from the EOS-1D Mark III.

- If flash exposure compensation has already been set with the camera flash, flash exposure compensation cannot be set with the camera. To set it with the camera, the camera flash's flash exposure compensation must be set to zero.
- If any Flash Custom Functions and flash settings other than flash exposure compensation have been set by both the camera and the flash, the latest settings will take effect.

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 over 10 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.
E9	There are some errors occurred during the upgrading process. Please using the correct firmware upgrade method.






Technical Data

Model	V860IIC	
• Type		
Compatible Cameras	Canon EOS cameras (E-TTL II autoflash)	
Guide No.	60 (m ISO 100)	
(1/1 output @ 200mm)	190 (feet ISO 100)	
Flash Coverage	20 to 200mm (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 seconds	
• Exposure Control		
Exposure control system	E-TTL II autoflash and manual flash	
Flash exposure compensation (FEC)	Manual. FEB: ±3 stops in 1/3 stop increments (Manual FEC and FEB can be combined.)	
FE lock	With <FEL> button or < * > 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, 199Hz)	
• Wireless Flash		
Wireless flash function	Master, Slave, Off	
Controllable slave groups	3 (A, B, and C)	
Transmission range (approx.)	Optic	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
	2.4G	100m
Channels	Optic	4 (1, 2, 3, and 4)
	2.4G	32 (1~32)
Slave-ready indicator	Two red indicators blink	
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	
• Color Temperature	5600±200k	
• Dimensions		
W x H x D	64*76*190 mm	
Weight without battery	430g	
Weight with battery	540g	

Troubleshooting

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

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.
- <  > or <  H > 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 <  > or <  H > 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 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 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 FE lock (**FEL**).
- 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 **ETTL** 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 20 and 200mm, 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

Canon EOS series camera models:

1DX	5D Mark III	5D Mark II	6D	7D	60D	50D	40D	30D
650D	600D	550D	500D	450D	400D Digital	1100D	1000D	

-  This table only lists the tested camera models, not all Canon EOS series 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.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ -Reorient or relocate the receiving antenna.
- ▶ -Increase the separation between the equipment and receiver.
- ▶ -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ -Consult the dealer or an experienced radio/TV technician for help.

*RF warning:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.