Di600

for Canon EOS / Nikon digital SLR cameras

for Sony digital SLR cameras

INSTRUCTION MANUAL

NISSIN.JAPAN

Thank you for purchasing a Nissin product

Before using this flash unit, please read this instruction manual and refer your camera owner's manual carefully to get a better understanding of the proper operation to enjoy flash photography.

Nissin Di600 type Canon, Nikon and Sony are designed for Canon, Nikon and Sony digital SLRs, with the latest TTL flash control system. Please note that Di600 Canon, Nikon and Sony are not usable with other branded cameras for TTL operation.

Nissin Di600 is designed for digital SLRs cameras with hotshoe and the latest TTL flash control technology.

Note: No film camera can be used with Di600.

Attach Di600 to your camera, and then almost all jobs are controlled by the camera for the most proper exposure.

Read this instruction manual and refer your camera owner's manual to enjoy flash photography.

Compatible cameras

Please refer Nissin's compatibility chart shown at its home page for details and recent updates: http://www.nissin-japan.com or http://www.nissindigital.com

SAFETY INSTRUCTIONS

These safety instructions refer to important information on how to use this product safely and properly. Please read the following instructions before using the product.

WARNING

This sign refers to the danger or serious damage.

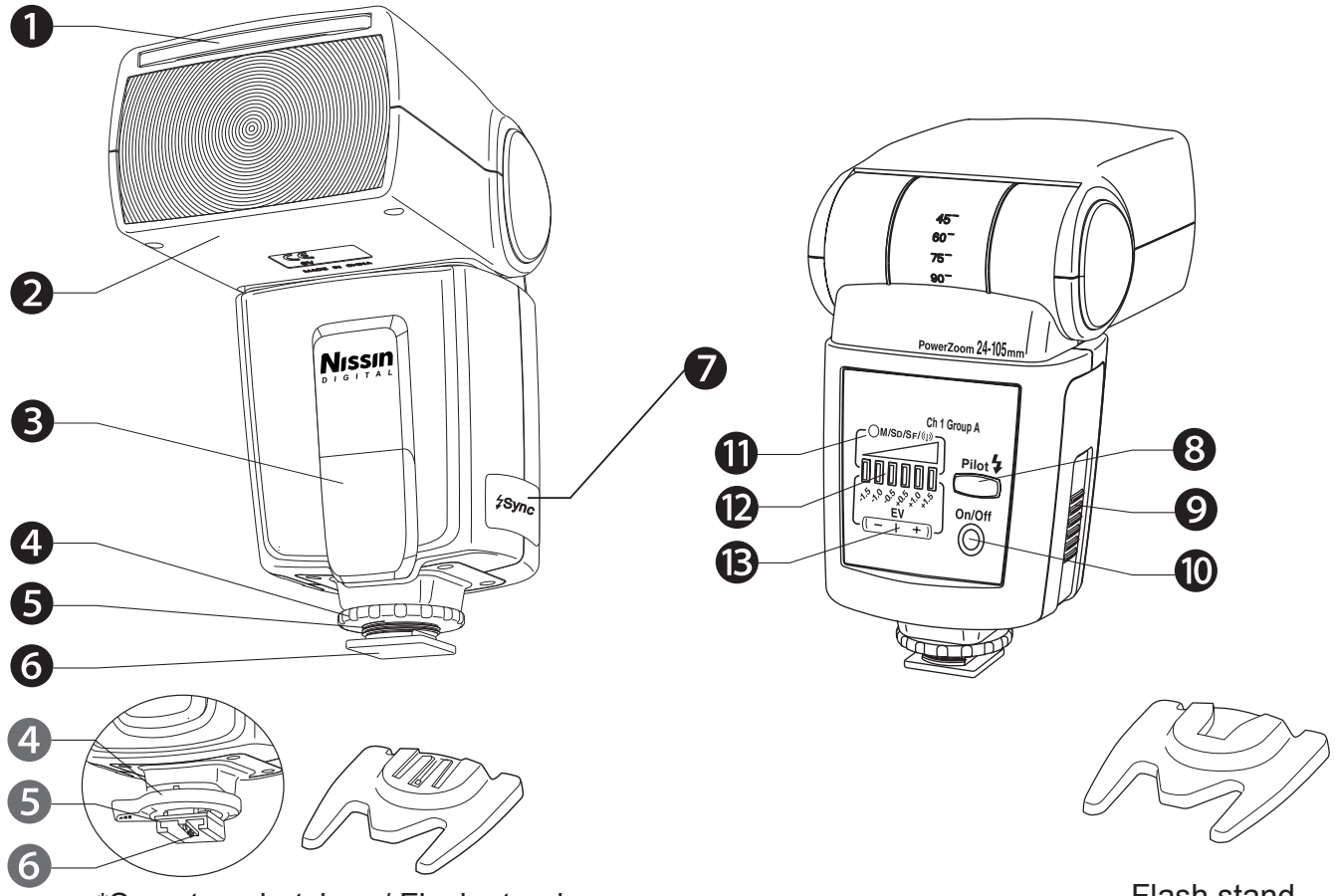
- The flash unit contains high voltage electric parts. Do not try to open or repair the flash unit. Return it back to the repair service station or the store where you bought it from.
- Do not touch the inside parts from the opening when the unit was dropped or broken.
- Do not shoot the flash directly to the eyes at short distance. It may damage the eyes.
- When taking a flash picture, especially toward a baby, it is recommended to keep the flash unit at least 1 meter (3.3feet) away from the subject. Or use diffuser or bounce the light to the ceiling or wall to soften its intensity.
- Do not place the flash unit near any flammable gas, chemicals or such liquids. It may cause fire or electric shock.
- Do not touch the flash unit with wet hands or use in the water. The flash unit carries high voltage inside and it may cause an electric shock.
- Do not shoot the flash unit directly at the driver of automobiles or such vehicles.
- Do not set the flash window close to the human body and shoot, which may get scalded.
- Place the batteries correctly in position. Placing the batteries in wrong polarity may cause leakage, exothermic heat or explosion.

CAUTIONS

This sign refers to conditions which may cause damage or defect.

- Do not leave or store the flash unit in the temperature over 40ºC/ 140ºF, such as in the automobile.
- The flash unit is not water resistance. Keep the unit away from rain, snow and humidity.
- Do not use benzene, thinner or other alcoholic agents to clean the unit.
- Do not use this flash unit with the cameras which are not recommended in compatibility list at official website, otherwise it may damage the camera's circuitry.
- Remove the batteries when not in use for a longer period of time.
- Do not have a heavy impact to the flash unit, nor throw it onto a hard surface floor.

■ Names of the Components



*Sony type hotshoe / Flash stand

Flash stand

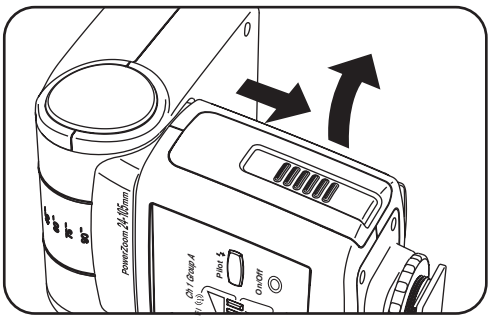
❶ Light diffusing panel / Fill-in reflector
❷ Flash head
❸ AF-assist light / wireless flash sensor
❹ Lock ring
❺ Mounting foot
❻ Hotshoe contacts
❼ X - Terminal
❽ Pilot button (Test flash button)
❾ Battery compartment door
❿ Power switch (Press button)
⓫ Mode select button / indicator
(TTL → Manual → SD → SF → Wireless TTL slave)
⓬ Flash power level indication lamp (6 LEDs)
⓭ Flash power level select button

Accessories: Flash stand

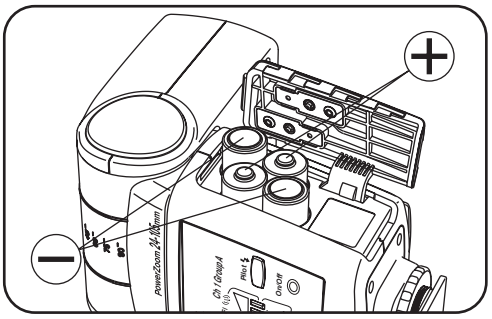
■ Basic Operation

Inserting batteries

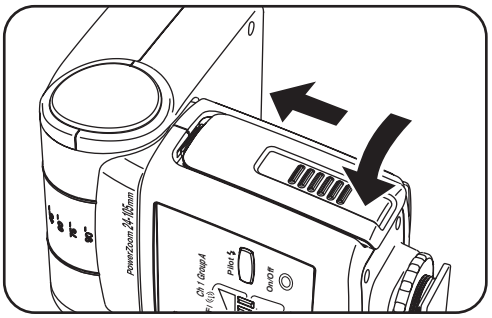
- Open the battery compartment door and insert 4 x size AA batteries as shown by the picture.



- Make sure the + and - battery contacts are correctly inserted at the battery compartment.



- Close the battery compartment door and slide it back in place.



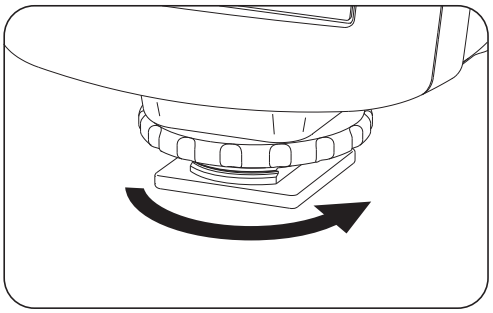
NOTE

- It is recommended to use all 4 batteries of the same brand and type, and replace them all the same time.
- Wrong insertion of each battery would not make electric contact.

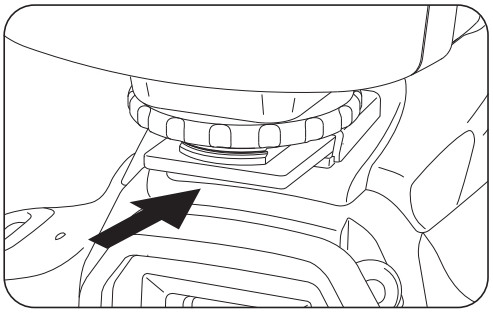
Mounting Di600 on the camera

*For Nikon and Canon type digital SLR cameras

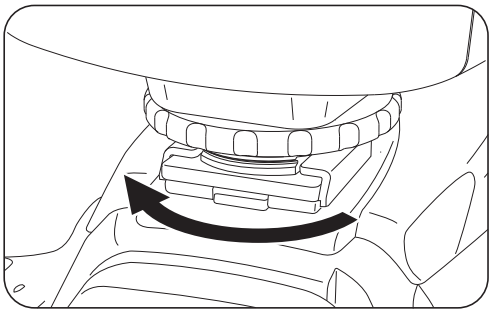
- Twist the lock ring anti-clockwise to loosen it as shown in the picture.



- Slide the mounting foot of Di600 into the hotshoe of camera.



- Twist the lock ring clockwise to tighten it.



Removing Di600 from the camera

- Loosen the lock ring and slide the mounting foot of Di600 off the hotshoe of camera.

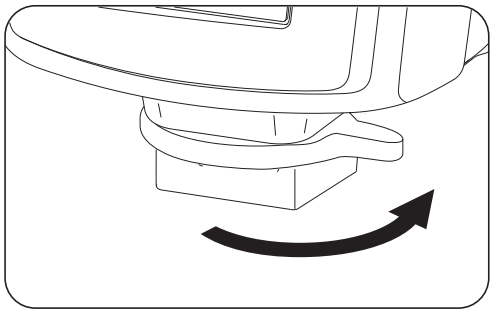
NOTE

- Before mounting or removing Di600 into or from the camera, make sure to turn off the power switch of both Di600 and the camera.

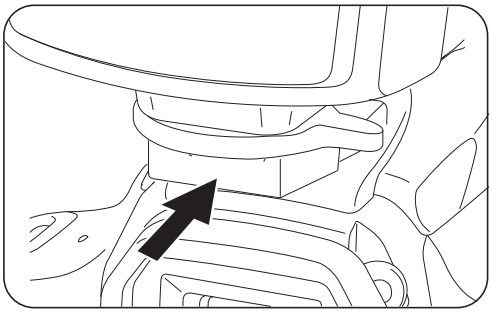
Mounting Di600 on the camera

*For Sony type digital SLR cameras

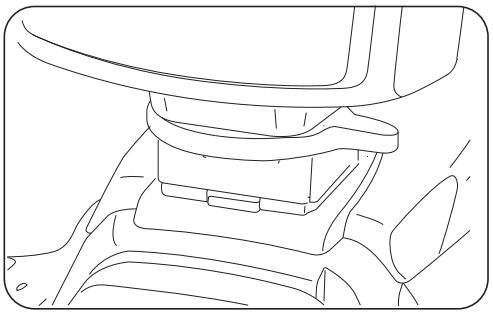
- Push the lever of the locking ring (in the direction of the arrow) of Di600 to loosen it as shown in the picture.



- Slide the mounting foot of Di600 into the hotshoe of the camera while holding down the lock ring.



- Release the lock ring of Di600 when the mounting foot is fully slide into the hotshoe of the camera.
- Lock pin comes out to hook the foot at the hotshoe for sure contact.



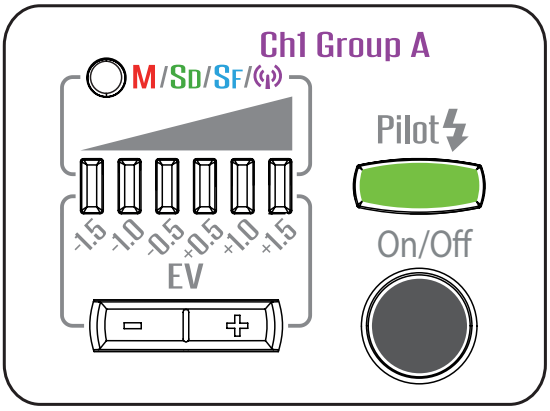
Removing Di600 from the camera

- Push down the lock ring and slide the mounting foot of Di600 off the hotshoe of the camera. Make sure to slide off the mounting foot and completely clear the lock pin off the hooking slot on the hotshoe.

NOTE

- Before mounting or removing Di600 into or from the camera, make sure to turn off the power switch of both Di600 and the camera.

Turn on the flash unit



- Press the On/Off switch and the Pilot button turns red showing the unit is turned on.
- In a few seconds, the Pilot button turns green. The Di600 is ready to shoot.
- For a test flash, press the Pilot button. When using the test flash as an open flash, please note that the reference guide number in this case is G.No.10 (ISO 100).
- To turn off the flash unit manually, press the On/Off switch for 2 seconds.

Di600 has an energy saving power off function

To save battery energy, the power is automatically turned off (switch to stand-by mode), both in TTL mode & Manual Power mode, in about 2 minutes of idle use.

While Di600 is in the stand-by mode a Pilot lamp blinks every 2 seconds showing the flash unit is in stand-by mode.

To turn on Di600 again, press the camera's shutter button halfway or press any button of the flash unit.

In case Di600 is not in use over 60 minutes, the unit is completely turned off and shut out the current leakage from the batteries.

In case of using Di600 in slave or remote mode, Di600 will not go into the stand-by mode. It will however automatically turn off when not used over 60 minutes.

To turn on Di600 again, take the first step of turning the flash unit on.

Shooting Di600 automatically

Canon cameras

[**P**] (Program), [□] (Full Auto), [**Av**] (Aperture priority),
[**Tv**] (Shutter priority) or [**M**] (Manual);

Nikon cameras

[**P**] (Program), [AUTO] (Full Auto), [**A**] (Aperture priority),
[**S**] (Shutter priority) or [**M**] (Manual);

Sony cameras

[**P**] (Program), [AUTO] (Full Auto), [**A**] (Aperture priority),
[**S**] (Shutter priority) or [**M**] (Manual);

In all camera's shooting modes listed above, Di600 will fully work in TTL (ETTL, ETTL-II for Canon, i-TTL for Nikon and ADI, P-TTL for Sony) automatic-flash system.

- Set Di600 to the camera's hotshoe and turn on the power switch.
- Di600 is automatically set for the camera's TTL mode when ready lamp lights up.
- Press the shutter button of your camera halfway to focus the subject.
- Shutter speed, aperture and flash mark (⚡) are indicated in camera's view finder.
- Take the picture. Di600 is fired and the result is immediately shown on the camera's LCD display.
- When you change the focal length, the power zoom flash head of Di600 responds without delay and immediately sets its position to match the lens focal length you selected.
- The flash illumination coverage of Di600 responds to the lens focal length of 24mm to 105mm (35mm film camera standard).

Set the camera's shooting mode, select focal length and take pictures with Di600 on your camera.

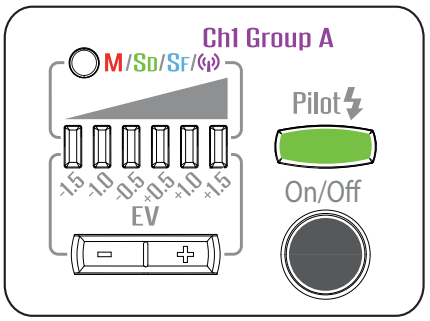
Di600 is a supplement to help you in taking a creative and live picture. Almost all tasks are automatically done by the camera and you just control the camera only.

Mode			Shutter Speed	Aperture Setting	Control on the camera
Canon	Nikon	Sony			
[□]	[AUTO]	[AUTO]	Automatic	Automatic	Automatic
[**P**]	[**P**]	[**P**]	Automatic	Automatic	Automatic
[**Tv**]	[**S**]	[**S**]	Manual	Automatic	Any available shutter speed can be set
[**Av**]	[**A**]	[**A**]	Automatic	Manual	Any available f-stop can be set
[**M**]	[**M**]	[**M**]	Manual	Manual	Any available shutter speed / f-stop can be set

Joy of Flash Photography

TTL flash power compensation

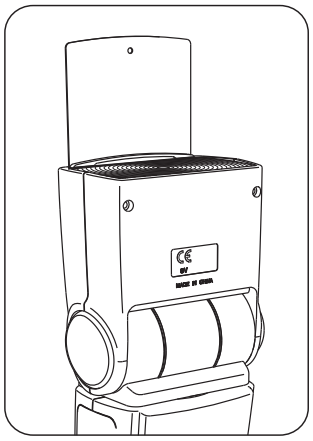
With the latest TTL flash control system, the flash power level is always automatically controlled by the camera for the most appropriate exposure. If you wish, you can soften or weaken the flash light, or give more light to the subject without changing the environmental or background exposure effect. The Di600 can make it possible to quickly adjust the exposure for each partucular flash picture as needed.



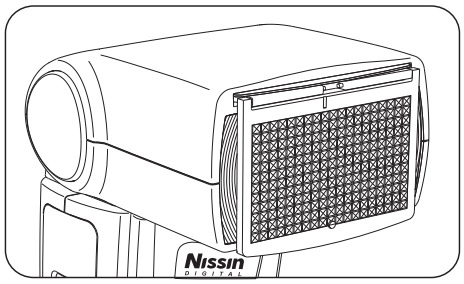
- TTL flash power compensation is provided in 7 steps by half Ev increments for -1.5, -1.0, -0.5, 0, +0.5, +1.0, and +1.5 Ev.
- To set the Flash power level select button to the power level you desire.
- When Di600 shows no level indication LED is turned on, the flash power compensation level is at even (0 Ev) level as default value.
- Press the flash power select button, by each press of + marked knob, it sets the power of +0.5 → +1.0 → +1.5 Ev. and the - marked knob sets it to -0.5 → -1.0 → -1.5 Ev. The power level indication lamp shows the power level you set.
- Take a picture and the aimed subject is shown with required lighting effect by keeping the background exposure level as originally expected.
- On some cameras, the TTL flash power compensation setting is provided in its menu mode. When setting the TTL flash power compensation on your camera, any compensation which is also set on the Di700 will be counted in addition to the compensation you selected in the camera's menu mode.

Fill-in flash and Light diffusing panel

For short distance or portrait flash photography, if the light is not too sharp or too strong to the subject. Use fill-in reflector flash or diffuse the light.



- If the subject is close (within 2 meters), turn the flash head 90° upward and pull out the fill-in reflector as shown in the picture.
- Take a picture as usual. A blink of fill-in flash freshens up the subject in natural image.
- This small blink of flash is also useful when taking a picture of a baby without scaring him.
- This technology is also useful to eliminate the shadow on the subject under the tree.

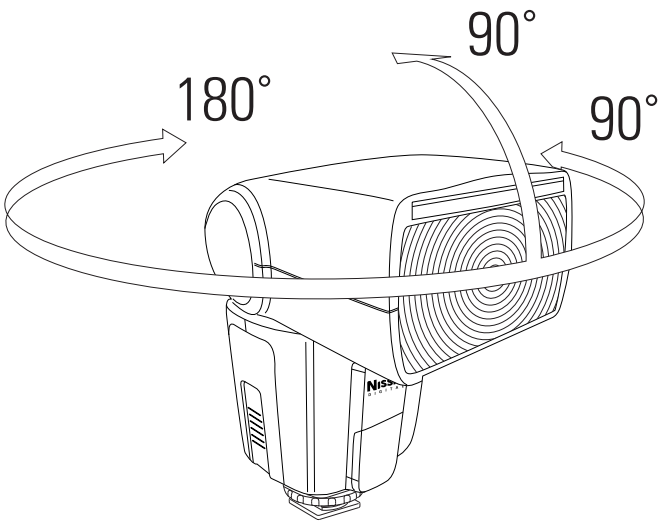


- For portrait photography, pull out the light diffusing panel and place it over the flash window as shown in the picture. The diffusing panel makes the flash light soften and creates a lively color effect on the subject.

- Since the light diffusing panel expands the lighting area, it covers the range of 16mm focal length lens.

Bounce lighting

When lighting a subject in front of the wall, an unnecessary sharp shadow may appear on the wall behind the subject resulting in a disappointing picture. Bounce the light off the ceiling or wall to soften the light on the subject, and the shadow will fade.



- Turn the flash head up. It turns upward to 45° >60° >75° >90°.
- Or tilt the flash head sideway to left 30° >60° >90° or to right 30° >60° >90° >120° >150° >180°.
- Or mixing it upward/ sidways, you can set it in multiple directions as shown.
- When the flash head stays at turning or tilting position, the zoom setting position of Di600 is automatically set at the position for a50mm focal length lens.
- The wall or ceiling in this case should be a flat surface and white color is preferable. Colored ceiling or wall may reflect its color on the subject.

AF assist light emitter

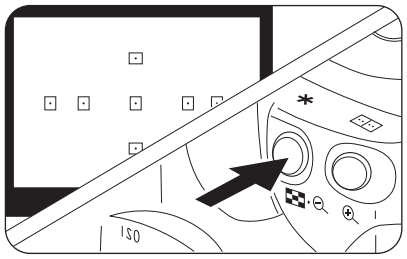
Under a low light condition, or in a dark place, the AF assist light will automatically emit the beam and illuminate the subject, so that the camera can easily focus on the subject in darkness. The beam is however not shown in the picture.

Flash Power Lock

When the back ground of the main subject is too bright, the camera's exposure reading system adjusts the flash light intensity for such back ground condition and it results in the main subject being under-exposed. Or in case the main subject is not placed in the center of the viewfinder, the flash picture may result the aimed targeted subject being under or over exposed.
You can lock the correct flash exposure for the targeted subject in such a condition. This flash exposure pre-set remains locked in, even if you change the aperture or zoom the lens in and out. This mode can only be set on the camera.

With Canon cameras: FE lock

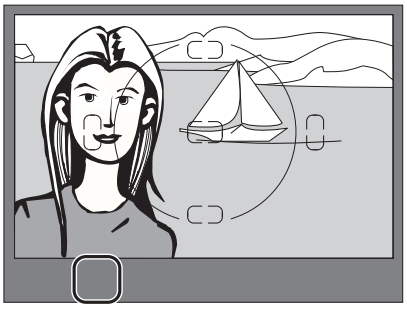
- Focus the subject.
- Aim the viewfinder center over the main subject and press [⚹] button on the camera (or [**FEL**] button on some cameras).
- Pre-flash is fired to pre-set the correct light amount for the main subject.



Remarks: **FEL** only works on P, TV, AV, M & A-Dep mode.

(It depends on different type of camera, please check your camera instruction manual.)

With Nikon cameras: Fv lock



- Set the Fv lock mode at the menu on your camera.
- Focus the subject.
- Aim the viewfinder center over the main subject and press [**AE-L**] button on the camera (or [**AF-L**] button on some cameras).
- Set the picture frame as you desire and release the shutter.

Remarks: **AE-L** only works on P, S, A & M mode.

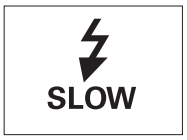
(It depends on different type of camera, please check your camera instruction manual.)

For Nikon Version only

Following functions are available on Nikon cameras.
Refer to camera owner's manual for details.

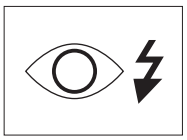
Slow shutter synchronization

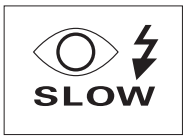
The flash is controlled at a slow shutter speed to the correct exposure for both the main subject and back ground in low light conditions or at night.



Red-eye reduction

To prevent the subject's eyes from appearing red, Di600 fires three controlled flashes just before the picture is taken. Red-eye reduction can be combined with slow sync.





Rear curtain synchronization

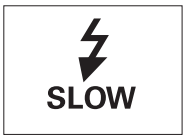
In rear-curtain sync., the flash fires just before the rear curtain closes. By using this function at slow shutter speeds, a moving subject will appear with such moving marks behind.

For Sony Version only

Following functions are available on Sony cameras.
Refer to camera owner's manual for details.

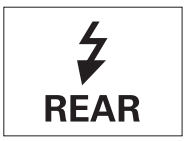
Slow shutter synchronization

The flash is controlled at a slow shutter speed to the correct exposure for both the main subject and back ground in low light conditions or at night.



Rear curtain synchronization

In rear-curtain sync., the flash fires just before the rear curtain close. By using this function at slow shutter speeds, a moving subject will appear with such moving marks behind.

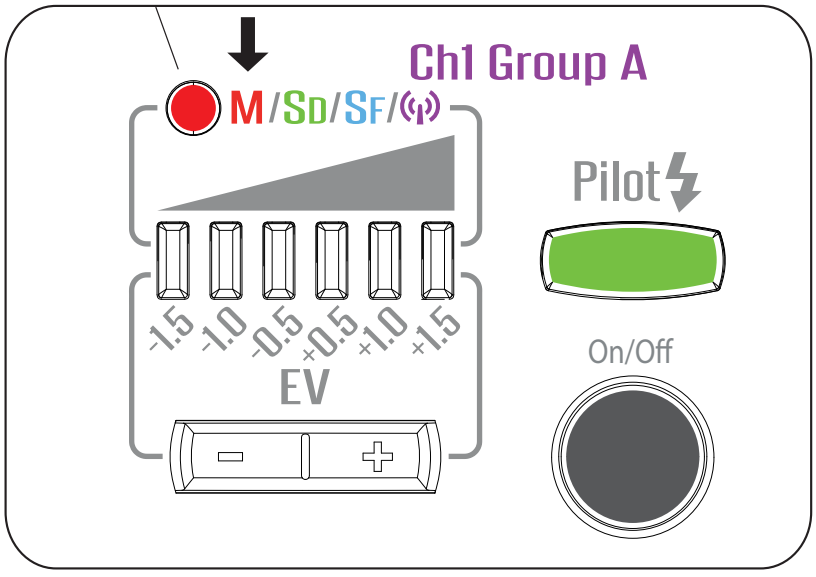


Manual Exposure Flash

In some occasions, or for special expression, you may need your own flash exposure instead of the automatic controlled exposure. You can set Di600 for non-automatic flash mode, and select the desired flash power from 6 different levels

- When the flash unit is turned on, it is automatically set for TTL (E-TTL II / E-TTL for Canon, or i-TTL for Nikon, or ADI / P-TTL for Sony) automatic flash mode. In this mode, the mode select indicator does not light.
- Press the mode select button.
- The color of mode select indicator turns to Red as shown in the picture.
- You can select the power by pressing the -- / + button, from the left to right, 1/32 – 1/16 – 1/8 – 1/4 – 1/2 – 1/1(Full) power.
- Set the camera shooting mode to either [**AV**](Canon), [**A**](Nikon), [**A**](Sony), or [**M**].
- Select your desired F--stop and / or shutter speed. Point the subject and press the shutter.

Red



Synchro Terminal

Di600 is equipped with a Synchro terminal (X terminal) to connect an off-camera cable. This allows photography with flash units separate from the camera. This feature can be applied in Manual mode only.

Wireless slave Flash

Di600 has a wireless remote flash system as a slave unit.
You can enjoy creative flash photography with multiple lightings from the various directions. 3 slave modes are provided, Slave Digital (SD: green color) for digital pre-flash system; Slave Film (SF: blue color) for analogue flash system and Wireless ((ı)):purple color) for wireless remote channel 1 group A digital flash.

SD: In this mode, Di600 synchronizes to the pre-flash system. The master flash is to be set at TTL (E-TTL for Canon, i-TTL for Nikon amd ADI / P-TTL for Sony) mode.

SF: In this mode, Di600 synchronizes to the traditional single flash system. The master flash is to be set at manual mode. Studio lighting system synchronizes to this mode. This mode is also available for open flash, and for a standard flash in the market.

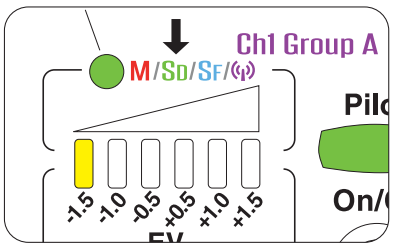
Wireless TTL slave:
For Canon and Nikon systems: In this mode, Di600 synchronize to the wireless TTL slave flash system. The master flash is to be set at Channel 1 group A in wireless TTL slave mode.

For Sony system: In this mode, Di600 synchronize to the wireless TTL slave flash system. The master flash is to be set at Channel 1 Remote (RMT) in wireless TTL slave mode.

■ Setting slave flash Di600:

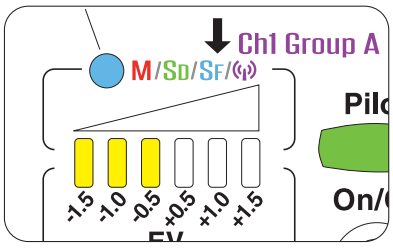
- Switch Di600 on and while the ready lamp is on, press the mode select button to select desired mode. The mode select button turns to TTL (no light)— Manual (red)—SD (green)—SF (blue)----- Wireless TTL slave(Purple) and back to TTL.

Green

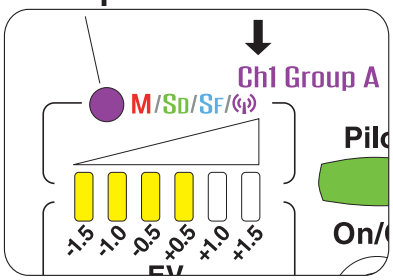


- When flash is set to SD or SF mode, the first lamp of flash power level is lighten. This lamp shows the 1/32 manual power level. Press the flash power level select button at marked + to select different power of 1/16→1/8→1/4 →1/2 and Full.
  Press the button at marked — to power downward. The power you selected is memorized and remains unchanged untill the unit is switched off.
  When the flash is set to Wireless mode, the power level will be controlled by the Master flash. Therefore, no setting is required on Di600.

Blue



Purple



- Set slave flash at any place and direct the flash head as you desire. Slave sensor may not respond to the master flash in the extremely bright condition or under the poor sensing situation.

- Use the flash stand included. Place Di600 on to the flash stand which can be placed either on a flat surface, or on the tripod by the screw.

NOTE

- Metal type accessory shoe is not recommended since it may give electric damage on the electrical contact of the flash hotshoe.

■ Shooting the subject:

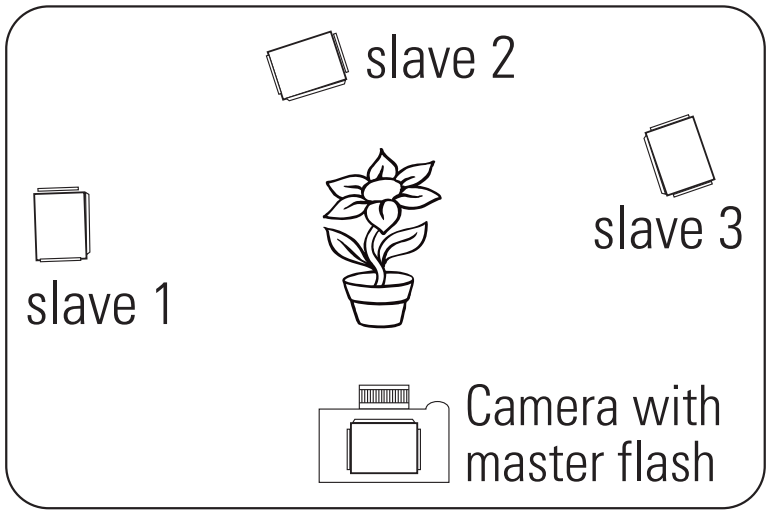
Set the camera for flash shooting mode. Point at the subject and shoot. The slave flash will synchronize to the master flash and gives additional lighting from the different direction you desired.

Energy saving system for stand-by mode will not work when it's in slave mode.

Automatic shut off function is however in effect. It automatically turns-off when not in use over 60 minutes.

The zoom setting position is automatically set for the focal length of 35mm while using Di600 as a slave unit.

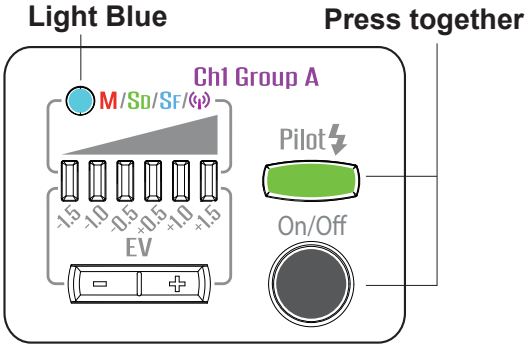
To reset the flash unit to another mode, press the mode select button for TTL and or Manual mode.



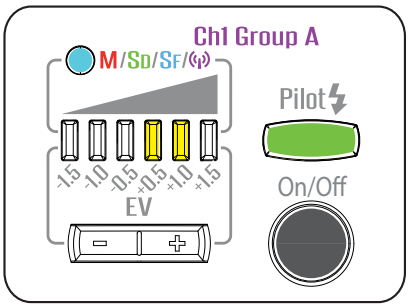
TTL Exposure level custom setting

TTL exposure level is accurately calibrated for standard balance in accordance with Nissin's standard. If any adjustment is however required, or if you like to set your preferable level, it can be adjusted for about ±0.75 (3/4) Ev. This adjustment can only be set when the flash is off. Insert 4 AA batteries in the battery compartment.

Press the pilot button and On/Off switch both together and hold for 3 sec. The mode select lamp turns light blue color showing the unit is ready for TTL exposure level adjustment.



Press the power level select button either + or - to adjust it to the required exposure level. Each LED shows 0.25 (1/4) Ev. increments and it can be adjusted up to +0.75 (3/4)Ev. (over exposure efficiency), or down to -0.75 (3/4)Ev. (under exposure efficiency). Press the On/Off switch for 3 sec. to turn the unit off. The adjusted level is memorized and kept as customized default TTL exposure level. This setting is permanently kept until you alter the setting to the other required level.



Start to use flash unit from "Turn on the flash unit" at "BASIC OPERATION" explained as above.

■ Specifications

Usable cameras	Canon EOS digital SLR cameras	Nikon iTTL digital SLR cameras	Sony ADI/P-TTL digital SLR cameras
Guide No.	44/145 at 105mm focal length (ISO 100 m/ft)		
Illumination coverage	24-105mm (16mm with diffuse panel) (Automatically set for the lens focal length)		
Power source	4 x size AA alkaline batteries (Size AA Ni-MH or lithium batteries usable)		
Battery life	200-1500 flashes according to the mode (with alkaline batteries)		
Energy saving	Switch to Stand-by mode in 2 minutes., and power off in 60 minutes. After the power on or the last use of flash unit.		
Recycle time	5 seconds with fresh alkaline batteries		
Flash exposure	Automatic exposure		
	E-TTL / E-TTL II	iTTL	ADI / P-TTL
Flash power lock	FE lock With [FEL] or [⚹] button on EOS cameras	Fv lock With [AE-L] or [AF-L] button on the cameras	N/A
AF assist light	Effective range of approx. 0.7 to 6m / 2.3 to 20 ft.		
Color temperature	5600 K		
Flash duration	1/800 (full power flash) sec. 1/800 - 1/20,000 (controlled flash) sec.		
Wirless flash	SD: Slave Digital / SF: Slave Film (Slave function with 6 power level) Wireless TTL Slave: for Canon/ Nikon-- Wireless TTL slave Channel 1 Group A for Sony-- Wireless TTL slave Channel 1 Remote (RMT) (Controlled by Master flash) *See guide number table as below		
Dimensions	77(W) x 130(H) x103(D) mm / 3.0(W) x 5.1(H) x 4.0(D) inches		
Weight	315 g / 11 ounces		

■ Guide Numer table

Guide No. at manual exposure mode (ISO 100 in meters)

Zooming Position	Flash Power Level					
	Full	1/2	1/4	1/8	1/16	1/32
24mm	25	18	13	9	6	5
28mm	28	20	14	10	7	5
35mm	32	22	16	11	8	6
50mm	35	25	18	13	9	6
70mm	38	27	19	14	10	7
85mm	41	29	20	14	10	7
105mm	44	31	22	16	11	8

■ Trouble Shooting

The flash unit does not start charging.

- Batteries are not correctly installed
  >>> Install batteries to correct direction.
- Batteries are exhausted
  >>> Replace the batteries if the recycle time is beyond 30 seconds.

The flash unit does not fire.

- The flash unit is not firmly clipped on the camera
  >>> Mount the flash unit firmly on the camera's hot shoe.
- The flash unit is automatically powered off
  >>> Turn on the switch again.

The flash picture is overexposed or underexposed.

- A reflective object or strong lighting is near the subject
  >>> Use FE or Fv lock.
- The unit is set for manual exposure mode
  >>> Set to TTL mode or other power level.

■ Warranty

In case of the following reason of the defect, it may void the warranty. Please refer the respective warranty condition for details which depends on the country of purchase.

1. The product is not used in accordance with the instruction of the owner's manual.

2. The product is repaired or modified by the one who is not an authorized repair service.

3. When the product is used with the cameras not applicable, lens, adaptors or such accessories produced by the third party.

4. Fault or defect caused by fire, earthquake, flood, public pollution and such natural accident.

5. In case that the product is stored in dust, moisture, extremely high temperature or such poor condition.

6. Scratch, blemish, crush or worn out by a violently use or treatment.

7. Guarantee card without name of place purchased or date of purchase stamped, or no guarantee card.

Nissin

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