

Canon

**Macro Ring Lite
MR-14EX II**

Beautifully and easily
photograph **everything**
from **flowers and insects**
to **small items and people!**

Guide to Mastering the Macro Ring Lite Flash



Introduction

What is a Macro Ring Lite flash?

The Macro Ring Lite is a ring-shaped flash that attaches to the front of the lens

This flash fires from the very front of the lens for even area lighting. Making use of this ability, the Ring Lite flash can be used in a variety of situations, from capturing shots of small subjects such as flowers and insects to portrait photography. Browse through this guide to find a use that perfectly fits your style.



Canon
Macro Ring Lite
MR-14EX II



Photo captured with a Macro Ring Lite flash



Photo captured with shoe-mount flash

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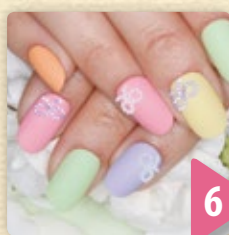
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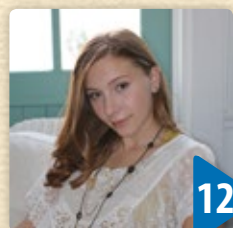
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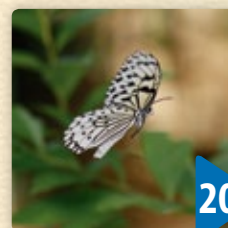
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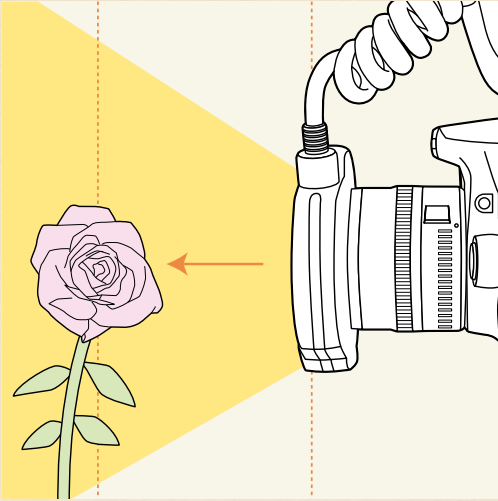
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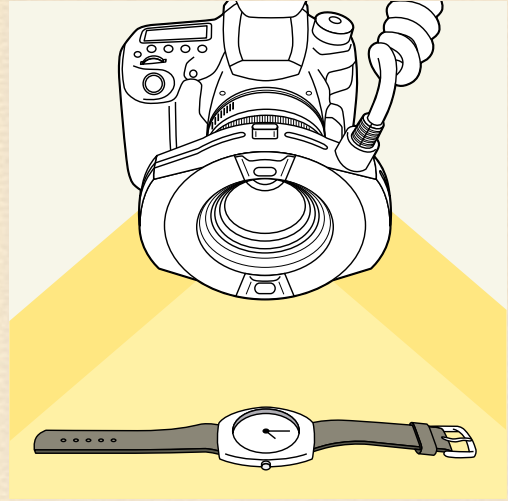
Get close to small flowers when shooting

Because light from this kind of flash is not obstructed by the lens as happens with built-in or clip-on flashes, you can feel comfortable getting close to subjects.



Flat light means fewer shadows

Because the flash tubes are ring shaped, the overall subject is evenly illuminated for minimal shadows and vividly detailed subjects.

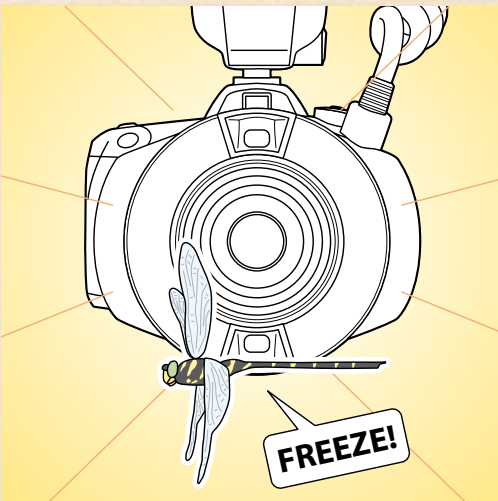


Four major merits



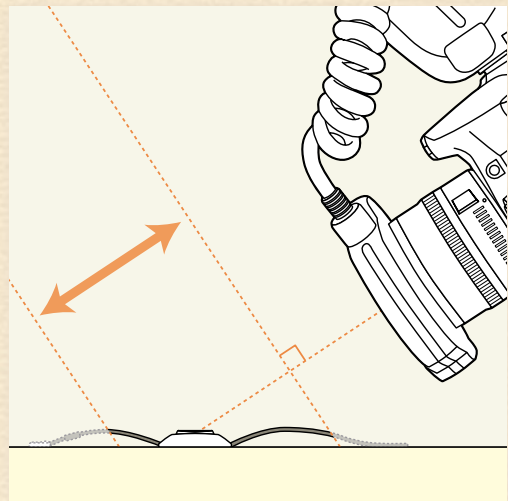
Reduced camera shake and subject blur

Because the subject is illuminated only for a moment, this flash produces the same effect as when using a high shutter speed, for reduced camera shake and subject blur.



Sharp photos from the foreground to background

Because the light from the flash is bright, the aperture can be stopped-down for a wider in-focus area, and accurate, three-dimensional subject details.



Icons used in this guide



Macro Ring Lite flash



clip-on flash



Built-in flash



No flash



Get close to small subjects when shooting



Flat light Fewer shadows



Reduce blurring



Sharp shots from the foreground to background



With a Macro Ring Lite flash you can...

Basics
1

Reduce shadows with flat lighting

Easily and beautifully capture the details of **trinkets and accessories**



Close-up shots



Minimal shadows



Flat lighting provides shadow-free images and reproduces shapes and colors as they appear to the naked eye

Have you ever shot a favorite accessory with an SLR only to end up with strong shadows in the photo? If so, a Macro Ring Light is just for you. Because this flash emits light evenly from a ring-shaped flash tube, it is possible to illuminate each and every

detail of the subject so that annoying shadows from a single direction are not a problem. This flash offers a variety of easy flash lighting solutions, such as in photos of handicrafts for a blog, or shooting small figures for an online auction.



Macro Ring Lite flash

Shapes and colors are clear without any annoying shadows

Everything from the fine shapes, colors, and materials of the colorful, overlapped buttons are vividly captured.

- EOS 70D, with EF-S 60mm f/2.8 USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/60 sec. at f/11; ISO 400
- +2.0 flash exposure compensation



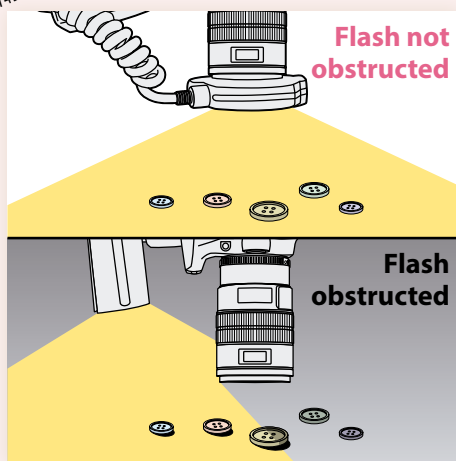
clip-on flash

Blocked flash and strong shadows

A shoe-mounted flash causes strong shadows in the photo. Also, when the light from the flash is obstructed by the lens, the brightness differs where light is illuminating the subject and where it is insufficient.

Simple and beautiful
with the MR-14EX II

Simply attach the Macro Ring Lite to the lens for macro shots that are a touch different than the average



Because light is evenly distributed, strong shadows are less likely to occur



Because light is not obstructed you can get close to the subject

'Blocked flash' refers to obstruction of the flash by the lens, resulting in dark sections in the image.

Tips

Extreme close-ups of a single button on a macro lens

Because macro lenses are designed for close-ups, you can focus in close on a single small button. The Macro Ring Lite makes it possible to perfectly illuminate the subject, whereas a built-in flash would be inadequate at this distance.



Macro Ring Lite flash



Close-up of an elegantly-designed button. Even with a diameter of approximately 0.8 inch (2cm), the fine indentations and ridges, as well as textures are captured in great detail with lighting from the MR-14EX II.



This is the EF-S 60mm f/2.8 Macro USM, optimal for cameras equipped with an APS-C size sensor. Not only is this lens perfect for macro shooting, but it can be used in a wide variety of applications such as landscapes, portraits and candid images.



With a Macro Ring Lite flash you can...

Basics
2

Sharp and vivid from the foreground to background

Vividly capture the natural, three-dimensional feel of **nail art** designs



Close-up shots



Minimal shadows



Sharp foreground and background



The subject is brightly lit and in-focus all the way to the background

In macro photography without using a flash, shadows from the lens or camera can make the subject appear dark as well as make camera shake more likely to occur, and drastically reduce the area in focus (depth of field). When shooting nail art,

these factors often result in photos with dull-looking nails. If you use a Macro Ring Lite flash, the bright flash lets you stop down the aperture for a greater depth of field. The instantaneous illumination also helps to prevent camera shake.



Macro Ring Lite flash

Sharply capture overlapping fingers

The overlapping fingers in both the foreground and background are both sharply in focus and the fine designs on the nails are vividly recorded.

- EOS 70D, with EF-S 60mm f/2.8 USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/60 sec. at f/32; ISO 400
- +2.0 flash exposure compensation



Without the flash, the focus is shallow, and with the normal flash, strong shadows appear.

When shooting without the flash and at wide lens apertures, the range of focus becomes shallow. A clip-on flash makes it easier for strong shadows to appear.



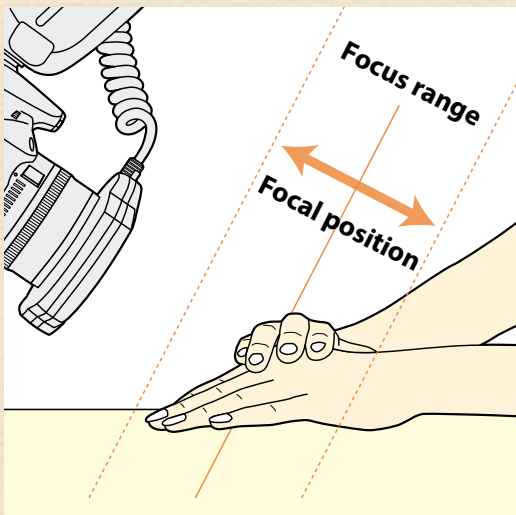
No flash

Without flash: nails in the background look blurred, from wide lens aperture



clip-on flash

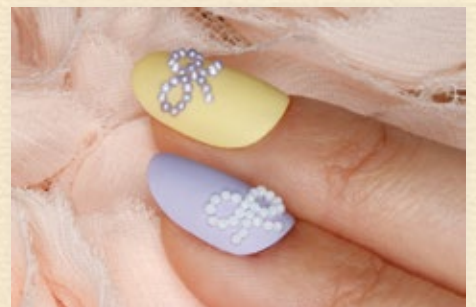
Shoe-mount flash: sharp focus, but annoying shadows and uneven exposure



Simple and beautiful
with the MR-14EX II

Stop down the aperture for a sharp foreground and background

Because you can stop down the aperture when using a Macro Ring Lite flash, the depth of focus (depth of field) can be increased.



You can shoot vivid extreme close-ups

Even during extreme close-ups, the Macro Ring Lite flash produces uniform lighting, making it possible to capture the minute patterns and subtle tones of the nail art perfectly.



With a Macro Ring Lite flash you can...

Basics
3

Compatible from close-ups to normal shooting distances

With this single flash, you can shoot photos of a favorite **accessory** on its own or a shot of someone wearing it



Close-up shots



Minimal shadows



With this single lens, you can shoot both close-up and pulled back photos with complete freedom

The Macro Ring Lite flash is not just for close-ups, but is fully capable of being used at general shooting distances.

You can easily shoot a favorite accessory on its own or a shot of someone wearing it for inclusion

in a blog or online auction.

Because the MR-14EX II flash tubes are split into two semicircles, **A** and **B**, the strength ratio of the flash (flash ratio) can be easily adjusted for shots that perfectly match the feel of your subject.

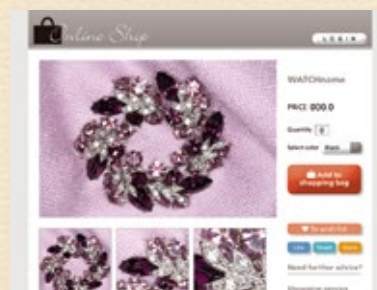


Macro Ring Lite flash

No troublesome shadows, and the overall shot is beautifully captured

The light passes over the complex shape of the entire brooch for beautiful colors and sparkling light.

- EOS 5D Mark III, with EF 100mm f/2.8L IS USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/60 sec. at f/16; ISO 800
- +1.0 flash exposure compensation





Details of a single enlarged section are perfectly captured Macro Ring Lite flash



Simple and beautiful
with the MR-14EX II

Both close-ups and pulled back shots are quick and easy

With a single Macro Ring Lite flash, you can easily shoot close-ups of a part of an accessory, or pull slightly back to capture what it looks like when a person is wearing it.



Macro Ring Lite flash

Because shadows are not noticeable around the neck and clothing, the subject stands out even more



clip-on flash

Strong shadows clash with the image of the jewelry

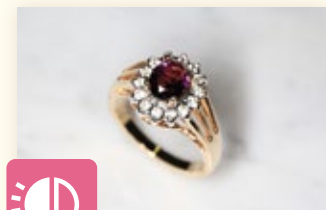
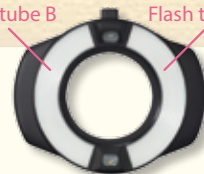
There are strong shadows on the accessory and cloth. The jewels on the inside section are difficult to make out, and the image is lacking in three-dimensional feel.

Tips

Adjust the flash ratio of both lamps to perfectly match your ideas

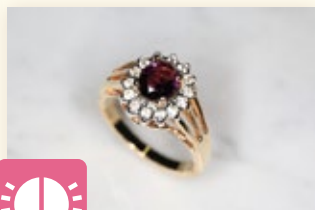
You can adjust the flash ratio of both flash tubes in half steps from 1:8 to 1:1, and from there to 8:1. Because you can change the direction (position) of where shadows emerge, and how strong they are, you can shoot with your ideal lighting.

Flash tube B Flash tube A



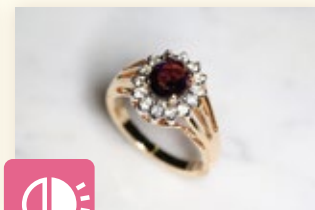
8 : 1

There is a somewhat strong shadow on the upper right part of the stone. Shadows on gemstone photos make for a complex and confusing impression.



1 : 1

Details in the ring are sharp. Faint shadows appear on both sides.



1 : 8

There is a shadow on the upper left side of the ring. Even though a shadow appears in the direction of the loop, the effect is natural.



With a Macro Ring Lite flash you can...

Basics
4

Blur-free shots even in dark locations

Easily capture shots of **small berries found close to the ground** in a dark forest



Close-up shots



Reduced blur



Reduce blur during shooting even in difficult outdoor lighting conditions

The Macro Ring Lite flash is useful even for nature photography. For example, sweet flowers blooming in the deep forest, or small berries found close to the ground. Even dark subjects such as these are easy to capture without blurring. In that kind of situation, comfortable shooting from

a low position is possible when using a camera equipped with a variangle LCD touch screen monitor. With touch operations, various settings can be adjusted and the AF point can be moved for effective shooting utilizing the flash even in positions or angles that are normally difficult to shoot in.



Macro Ring Lite flash

Capture bright, beautiful images of berries even in dark, low positions

This shot was taken in a dark forest, which is generally difficult to shoot in. However, the flat lighting helped to faithfully reproduce the colors and shape of the subject.

- EOS 70D, with EF-S 60mm f/2.8 USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/60 sec. at f/5.6; ISO 400
- +1.0 flash exposure compensation



No flash

Blurry and dull

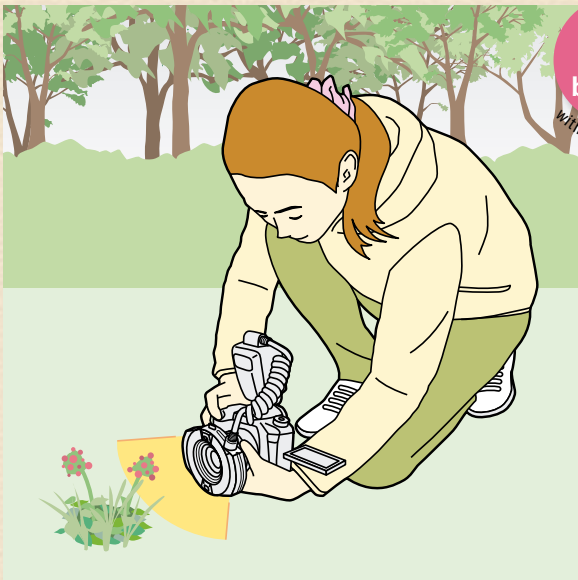
This image was shot without a flash while hand-holding the camera. Not only did camera shake occur, but it is difficult to make out the characteristics of the flower due to dull colors.



Built-in flash

Annoying shadows are present

Photos shot with the built-in flash end up with shadows of the leaf cast on the berries for an unpleasant result.



Simple and beautiful
with the MR-14EX II

The Macro Ring Lite flash is great at shooting even in dark, low locations

Because the flash tubes are located on the front of the lens for the Macro Ring Lite flash, it can be used to shoot subjects in low positions. Shooting from a low position is especially easy when using a camera equipped with a variangle LCD touch screen monitor.



Easy focusing with two bright LED focusing lamps

A pair of focusing lamps are located in between the flash tubes. This makes focusing easy, even in dark locations. With a Custom Function, you can activate them with two quick half-presses of the shutter button.

Tips

The flash can be controlled from the camera

On EOS digital cameras sold from 2007 onward, flash exposure compensation and all other flash settings can be adjusted from the camera menu. On models equipped with a touch screen LCD monitor, these settings can easily be adjusted with touch operations.



This screenshot is from the EOS 70D. When External Speedlite control is selected, the screen will switch to settings for each function.

Examples of items that can be set on the camera*

- Flash firing
- E-TTL II flash metering
- Flash synchronization speed in Av mode
- Flash mode
- Shutter synchronization
- Flash exposure compensation
- FEB

*Differs depending on the camera



Effective lighting for daylight shooting

Utilize the flash to supplement the ambient light for more beautiful **portraits**



Actively use the flash as assist lighting for perfectly captured expressions

The Macro Ring Lite flash is not limited to just macro (close-up) photography, but can also be used as a fill flash for portrait photography. Because this flash is different than a shoe-mount or built-in flash, and fires from a position closer to the optical axis of the lens, the major merit of the ring lite is its ability to erase shadows from around the neck. This is extremely effective as supplementary illumination when shooting portraits in front of a window where strong light hits the subject from outside, and when shooting strongly backlit portraits outdoors.



Macro Ring Lite flash

Just the right brightness on the model's face and the window without any annoying shadows

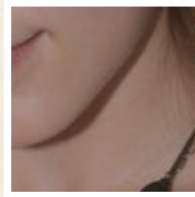
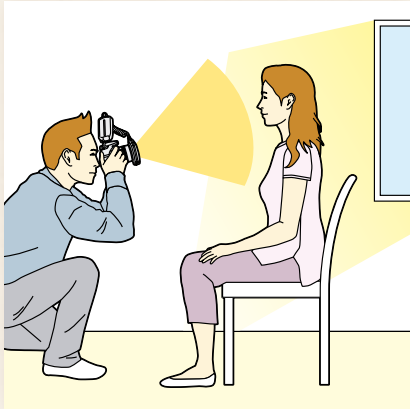
This is a portrait shot in backlit conditions. The Macro Ring Lite flash illuminates the subject without any annoying shadows for just the right amount of brightness on the model's face and from the window.

- EOS SD Mark III, with EF 50mm f/2.5 compact macro lens
- Av exposure mode; E-TTL II flash
- 1/125 sec. at f/4; ISO 400
- +0.7 flash exposure compensation

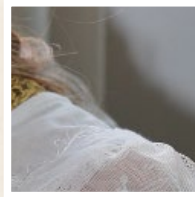
The Ring Lite flash is effective in bright locations

Increase photo quality
With advanced techniques!

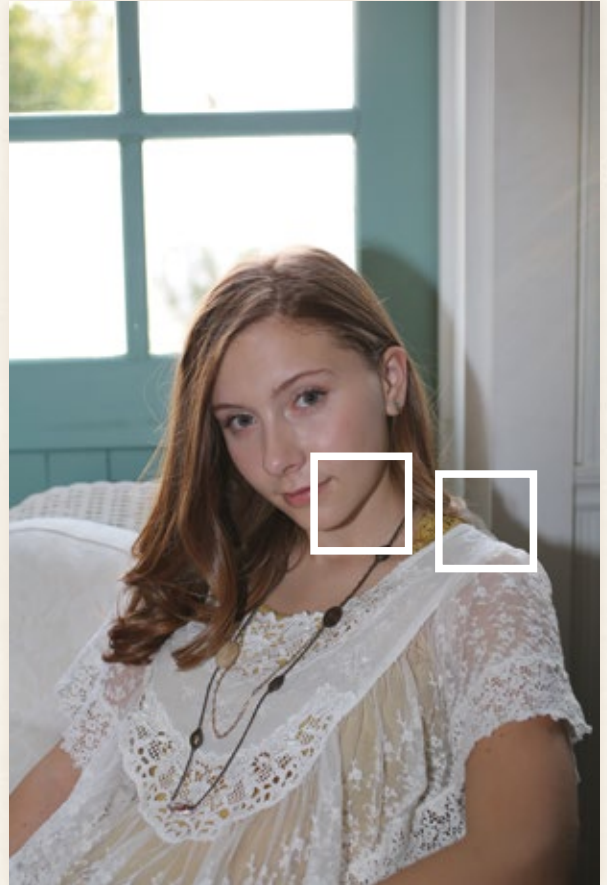
In situations where the background is extremely bright and the subject is in shadow, people's faces tend to turn out dark. By adding illumination from the front with the Macro Ring Lite flash, the result is a shot with balanced brightness on both the background and person.



Below the chin



Wall in the background



The Ring Lite flash is effective for shooting in backlit outdoor locations

These shots were taken in backlit outdoor conditions. When shot without the flash, the sky in the background is adequately bright, but the person appears dark. Although there are noticeable shadows on the chin and under the ear in the shot captured with an clip-on flash, the shot taken with the Macro Ring Lite flash illuminates the entire face for just the right brightness.



clip-on flash

Strong shadows behind the subject and on her chin

This photo was shot with on-camera flash. Because the flash illuminates the subject from an axis away from the lens, strong shadows appear behind the subject and on her chin.



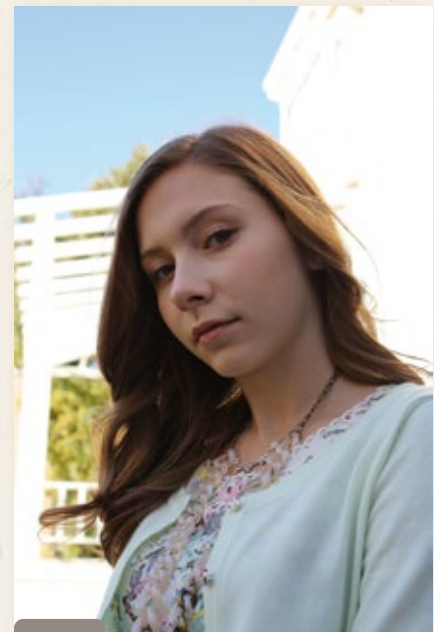
Macro Ring Lite flash

No troublesome shadows, and the overall shot is beautifully captured



clip-on flash

The clip-on flash causes strong shadows



No flash

Without a flash the face is dark

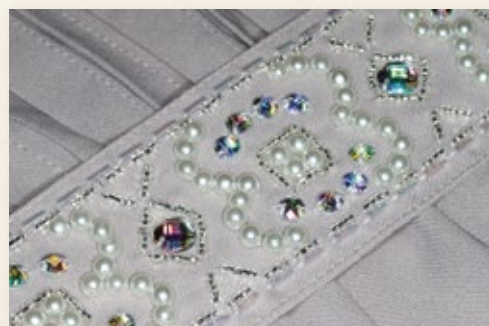
Points of note when shooting

Because the light from the ring lite is close to the optical axis, red eye may occur. When this happens, avoid shooting close-ups of a face, and shoot away from the line of sight to avoid or reduce chances of red eye.



Utilize the flash mode for more realistic photos

Depict everything from the texture and feel of **clothes** to the weave of the fabric



Skillfully use the A/B flash tubes to bring out the feel of the subject

Not only can it be used for portraits, but the Macro Ring Lite flash is effective for fashion photography. Because this flash can help to vividly capture the texture and patterns of fabrics, it is useful for when you want to show the true appeal of certain clothes on internet shops or blogs.

This flash offers flexibility with the ability to capture close-ups of clothes or photographs of an entire outfit. You can also use both semicircle flash tubes **A** and **B**, changing [A/B Flash ratio] and [Single tube] settings for a more three-dimensional look to close-up shots of fabric texture and weaves.



Macro Ring Lite flash

Easily photograph different variations

With the Macro Ring Lite flash, you can faithfully capture everything from an overall shot to close-ups of clothing features right down to the feel of the materials for exciting shots. The close-up shot of the ribbon was taken with A:B flash ratio set to 8:1.



Built-in flash

Strong shadows appear on the folds of the clothing, the edge of the belt, and the beads almost looking like borders, detracting from the shot.



Macro Ring Lite flash

The decorations on the belt are sharp from the foreground to background. The shadows on the surface are reduced to an appropriate level, revealing the texture of the fabric.

Accurately capture details without worrying about strong shadows

With a Macro Ring Lite flash, you never have to worry about troublesome strong shadows even when enlarging a portion of a piece of clothing for shooting. Because you can stop down the aperture, sharp focus from the foreground to background is possible.

Produce a three-dimensional feel with flash techniques

Increase photo quality
With advanced techniques!

By adding shadows you can enhance the three-dimensional feel of subjects. Simply press the RATIO button to set either A or B only to fire. Rotate the ring section to adjust where to position the shadows. Not only can you adjust them in the horizontal and vertical positions, but from angles as well.



Screen showing when only A is fired



You can rotate the ring section of the Ring Lite to adjust where shadows appear



Capture images with comfortable controls

Beautifully record the delicate details of a **watch** collection



Flash photography techniques with a slow shutter

When photographing a wristwatch, the surroundings often are reflected in the bezel and dial, and special techniques are needed to make the watch look beautiful in a photo. The angle and background must be manipulated, and a tripod is necessary for the perfect finish.

By lowering the shutter speed, and mixing flash with ambient light, the resulting shots will appear more natural. By using flash exposure compensation, you can achieve shots that look exactly as you imagined them, bringing out the true beauty of the wristwatch.



Macro Ring Lite flash

A refined, three-dimensional finish

There are no noticeable shadows from the watch's second hand, and the finely engraved markings on the watch face are clearly captured. The texture of the stainless steel case is beautifully expressed in the shot.

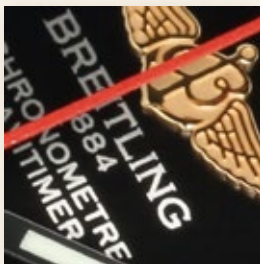
- EOS 5D Mark III, with EF 100mm f/2.8L IS USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/30 sec. at f/22; ISO 400
- +1.0 flash exposure compensation



Persistent shadows and poor textures

Shoe-mount flash: although this is not bad in terms of a hard, modulated type of shot, shadows from the second hand and case stand out, and the light from the flash is reflected in the crystal, detracting from the overall shot.

clip-on flash



Close-up of a single part

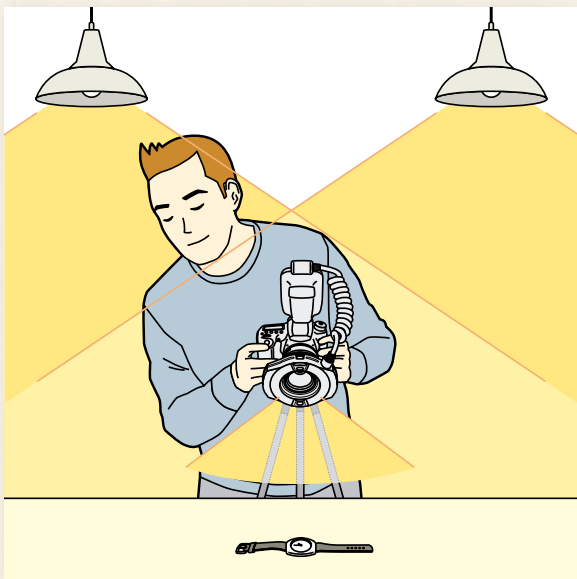
Because this image was shot with a clip-on flash, strong shadows are clearly visible beneath the second hand. When shot with the Macro Ring Lite flash, there are no troublesome shadows and the dial is beautifully captured.



Macro Ring Lite flash



clip-on flash



Increase photo quality
With advanced techniques!

Incorporating ambient light with slow sync makes for refined lighting in shots

When making use of ambient lighting in shots, you can produce photos with a different feel than those taken with the flash only. Because the shutter speed is slower, a tripod is often necessary. Try adjusting flash exposure compensation for a technique that matches your ideas perfectly.



Macro Ring Lite flash

Partial close-ups of favorite items

Photos of an engraving on the back cover, the buckle, or a special crown are great ways to keep a memento of a favorite watch. The Macro Ring Lite is the perfect flash for beautifully capturing these types of details.



Crisp flash exposure compensation with dial controls

On the MR-14EX II, press the function button 2, the Set button, or turn the Select dial to set flash exposure compensation. Compensation values can be set up to ± 3 stops, in 1/3 stop increments. The MR-14EX II's dial makes settings quick and easy.



Expanded expressions with filters

Create impressive shots with vividly colored **flowers and blue skies**



Expand flash photography expressions with a filter

The MR-14EX II is compatible with 67mm diameter screw-in filters. For example, when a PL (polarizing) filter is attached to the flash and it is used for daylight shooting, the blue sky in the background and green of the

trees can be captured vividly while maintaining the brightness of the main subject. This is also helpful for reducing the gleam off flower petals and leaves, and reflections off the water for expanded flash photography possibilities.



Bright flowers and bright blue sky in the background

By illuminating the flower with the flash as the main subject it appears bright and clear, and the polarizing filter makes the sky appear a rich blue in the background.

- EOS 7D, with EF-S 60mm f/2.8 USM macro lens
- Av exposure mode; E-TTL II flash
- 1/60 sec. at f/32; ISO 800



No flash

The flowers are silhouettes

Because this was shot near a shaded window, the flowers which are the central part of the shot ended up as silhouettes. Using exposure compensation alone to brighten the flowers causes the sky to be overexposed.



With polarizing filter



No polarizing filter



Remove reflections with a polarizing filter

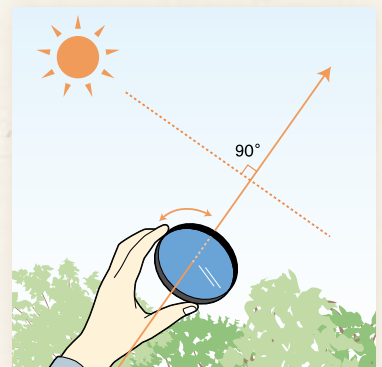
By shooting with a polarizing filter attached to the flash, unnecessary reflections from the flowers and leaves are reduced for a more vivid shot that reproduces the actual colors.



No polarizing filter

There is something lacking in the way the background is portrayed

The flowers are bright and vivid, however, the contrast between the clouds and sky is poor and one-dimensional.



A rich blue sky is achieved with a polarizing filter and the flowers in the foreground are brightened with the flash

Increase photo quality
with advanced techniques!

When the subject is illuminated with direct light or backlit, a polarizing filter is ineffective. It's most effective when the position of sunlight to the optical axis of the lens is at 90°. You can also control the strength of the filter by rotating it.

Tips

67mm diameter filters are supported

Polarizing filters are one of the best ways to expand the possibilities of flash photography. Additionally, other 67mm protective filters are available for keeping lenses free from scratches.





Never miss a photo opportunity

Try to capture a shot of a **butterfly** with the quick charge feature



Freeze a flying butterfly with High-speed sync

To freeze the wings of a flying butterfly, high-speed sync is an effective flash feature. In this mode, because a faster shutter speed than the normal flash synchronization speed can be used, the shutter can be set to a high-speed 1/2000 to

freeze the motion of a butterfly's wings. Using the MR-14EX II's Quick Flash feature while shooting continuously*, you can capture the best possible pose of a flying butterfly.

* Activated by flash Custom Function 06-1 on Macro Ring Lite MR-14EX II



Macro Ring Lite flash

Perfectly capture a butterfly's wing beats

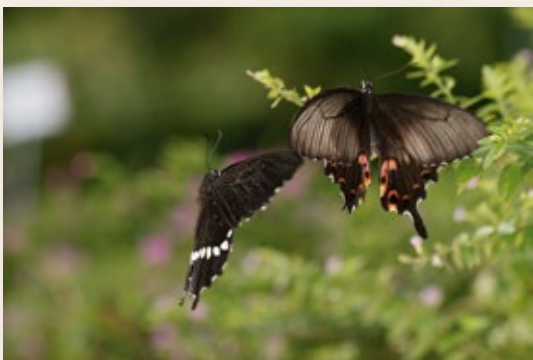
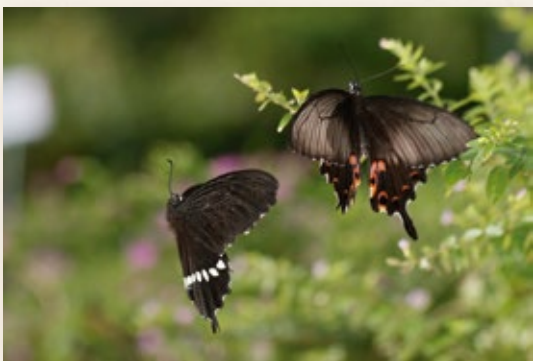
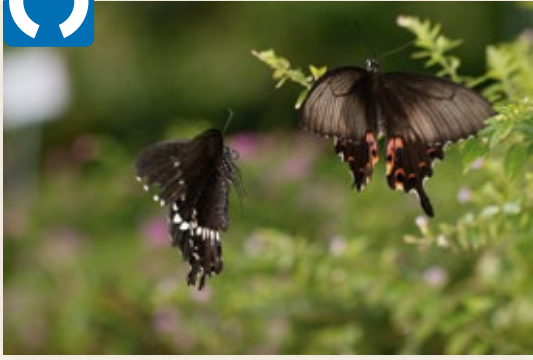
With the Macro Ring Lite flash, even the patterns on a butterfly's wings can be vividly captured. A flash is an absolute necessity for insect photography.

- EOS 7D, with EF 100mm f/2.8L IS USM macro lens
- Manual exposure mode; E-TTL II flash
- 1/2000 sec. at f/4.5; ISO 640 — Hi-speed sync.

Try to capture a shot of a butterfly with the quick charge feature



Macro Ring Lite flash



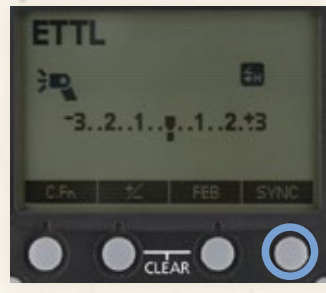
The combination of both high-speed sync and continuous shooting helps capture moving subjects

Increase photo quality
With advanced techniques!

Try continuous shooting with the camera set to high-speed sync. With the combination of the subject-freezing capabilities of a high shutter speed and the large amount of frames from continuous shooting, it's easier

to capture the best possible moment. If you set the MR-14 EX II custom function to C.Fn-06 continuous shooting Quick flash option to [On], the Quick flash function will operate, making shooting intervals shorter.

EOS 70D; EF 100mm f/2.8L Macro IS USM, manual exposure, f/4.5, 1/2500 sec., ISO 800, high-speed sync



How to set High-speed sync

Press function button 4 to display [Fn] on the LCD panel. The higher the shutter speed becomes while in High-speed sync, the lower the flash's maximum power becomes.



Wings are significantly blurred

Without flash, 1/60 sec. won't freeze this movement. Settings are determined on a case-by-case basis — however, butterflies in flight usually require at least 1/1000 sec. to freeze wing motion.



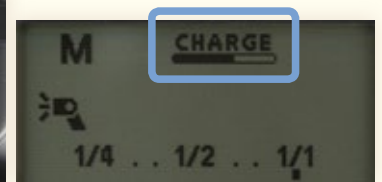
Tips

More convenient recycling function

The MR-14EX II charges faster than the previous model (the maximum of 7 sec.* is reduced to approx. 5.5 sec.*). Because you can check the charging status on the indicator, the flash is now easier to handle than ever before. This model is also equipped with Quick flash for flash photography before the flash is fully charged. Flash output decreases, however, this is effective for when you want to shorten the firing time.



When the charging indicator is lit green, Quick flash is available. However, this is not available during Manual Flash.



New: MR-14EX II indicator bar display. This lets you check recycle status at a glance, after each shot is taken.

* Based on new AA/LR6 alkaline batteries, both sides firing, and Canon's testing standards.

Major features

of the Macro Ring Lite MR-14EX II that expand photographic possibilities



Four major merits of the Macro Ring Lite flash

- Get close to small subjects when shooting**
 You can illuminate close subjects without obstructing the flash with the lens
- Flat light means fewer shadows**
 You can vividly capture subject details while reducing strong shadows
- Reduced camera shake and subject blur**
 The momentary light from the flash reduces camera shake and subject blurring
- Sharp photos from the foreground to background**
 Because the flash is bright, you can stop the aperture down for greater depth of field

MR-14EX II

Main Features

- Superb controls and visibility**
 Quick settings with the Select dial and an easy to view, graphical controls with LCD panel
- Control Unit that makes a compact flash possible**
 Smaller, more compact design — usability is even further improved when attached to a camera
- Bright focusing lamp**
 A high-intensity white LED lamp is used for improved focusing in dark locations
- Shorter recycle time**
 Charging time is less than approximately 5.5 seconds* for fast shooting, especially when Quick flash function is active
- Compatible with 67mm diameter filters**
 This flash can be used with polarizing filters

*Based on new AA/LR6 alkaline batteries, both sides firing, and Canon's testing standards.

Macro Ring Lite MR-14EX II specifications

Flash unit	Guide Number, at ISO 100	Both sides firing: Approx. 45.9, feet (14 — meters); Single-side firing: Approx. 34.4, feet (10.5 — meters)
	Flash coverage	Approx. 80° vertically, 80° horizontally
	Filter	A 67 mm filter can be attached on the front face of the flash unit; lens shoots through filter (filter doesn't cover flash tubes)
	Focusing lamp	Coverage • Upper lamp: Approx. 60° vertically and 60° horizontally • Lower lamp: Approx. 45° vertically and 45° horizontally Light intensity: Adjustable
Exposure control	Exposure control system	E-TTL II/E-TTL autoflash; TTL autoflash with older EOS 35mm film SLRs; or manual flash
	Flash mode/Flash ratio control	Both sides firing; Flash ratio control (8:1~1:1~1:8, 1/2-stop increments); Left or Right side only firing
	Flash exposure compensation/FEB	1/3, 1/2 steps in ±3 steps (FEB can be used with flash exposure compensation)
	High-speed sync	Activated via Function button; allows flash at up to camera's fastest shutter speed
	Manual flash	Normal flash: 1/1~1/128 power (1/3-stop increments); High-speed sync: 1/1~1/64 power (1/3-stop increments)
Flash recycling	Firing interval (recycling time)	Normal flash: Approx. 0.1 - 5.5 sec; Quick flash: Approx. 0.1 - 3.3 sec. * When using AA/LR6 alkaline batteries
Optical transmission wireless master function	Channel	Ch. 1~4
	Slave unit control	Add "C" group slave unit(s), using A:B C ratio; Add "A" and "B" slave units when MR-14EX II C.Fn 15-1 is active, and A:B or A:B C is set
Customizable functions	Optical Transmission range	Indoors: Approx. 0.66~16.4 ft. (0.2~5 m), at the front; Outdoors: Approx. 0.66~9.8 ft. (0.2~3 m) at the front. Transmission coverage approximately 60° vertically and 80° horizontally
	Custom functions	12
Power Source	Personal functions	3
	Internal power source	Four AA/LR6 alkaline batteries, in shoe-mounted controller unit * AA/LR6 Ni-MH and AA/LR6 lithium batteries also usable
	Battery life (number of flashes)	Approx. 100 to 700 times * When using AA alkaline batteries
Dimensions and Weight	External power source	Compact Battery Pack CP-E4 can be used (adds eight AA batteries to four AA's normally used)
	Dimensions (W x H x D)	Flash unit: Approx. 5.1 x 4.4 x 1.0 in. (129.6 x 112.1 x 25.3 mm) / Control unit: Approx. 2.7 x 4.7 x 2.8 in. (69.6 x 118.8 x 71.4 mm)
	Weight	Approx. 16.05 oz. (455 g) — MR-14EX II only, excluding batteries

All specifications above are based on Canon's testing standards. Product specifications and external appearance are subject to change without notice.

Nomenclature



Explanation of terms

E-TTL II/E-TTL

This is an advanced autofocus metering system developed by Canon. This feature controls flash output using metering results obtained from taking ambient light and pre-flash light before shooting into consideration. E-TTL II uses the same EOS multi-segmentation metering sensor that meters ambient light for autofocus metering, and in addition to lens distance information and AF point location information, carries out high-precision flash compensation.

FEB

This stands for Flash Exposure Bracketing, which allows three separate exposures while changing the flash output (up to ± 3 stops apart).

Guide Number

This is an index that shows the brightness of the flash. The higher the guide number, the greater the flash output, and the further the flash will illuminate subjects more brightly.

Flash exposure compensation

This adjusts the flash output amount. This allows you to intentionally lighten or darken automatic flash output.

Flash synchronization speed

This is the upper limit of the shutter speed that can be set on the camera for normal flash photography. With most EOS cameras, it's 1/200 sec. or 1/250 sec.

Fill flash

Blending flash illumination with ambient light in a scene. It can be anything from bright sunlight outdoors, to indoor lighting. This is useful for situations where the subject's face becomes dark (or the background is overexposed). Simply illuminate the subject with a fill flash when shooting for the proper brightness on both the subject's face and the background. In Av or Tv modes, balanced fill flash occurs automatically, even in dimly-lit conditions.

High-speed sync

This mode allows shooting at a faster shutter speed than the normal max. sync speed, but flash power drops as shutter speeds rise.

Canon