



RING LIGHT

VM-110 LED MACRO RING LIGHT

User Manual

Thank you for choosing Bolt.

Thank you for choosing the Bolt VM-110 LED Macro Ring Light. This LED light combines a compact design with versatile features to give you both ease of use and creative lighting control. It's great for shooting close-ups and even portraits at close range. Among the benefits you'll enjoy:

- Six levels of brightness adjustment
- Left- and right-only illumination modes
- Flash mode
- Automatic power-saving function

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Precautions



- Before using this product, please thoroughly read the following safety notices to ensure safe use and help prevent damage to your flash or injury to yourself and others.
- Do not fire the flash at close range directly into the eyes of people or animals. This can cause damage to the retina and may even lead to blindness.
- To avoid overheating and damaging your flash unit, please wait for at least ten minutes after twenty-five continuous flashes at full power.
- Do not disassemble or attempt to repair this product yourself. There are high-voltage components inside that can produce a hazardous electric shock.
- Keep this product and its batteries out of the reach of children.
- Use only the power sources specified in this manual.
- Always switch the flash off before changing the batteries.
- Always install batteries of the same type, brand, and age. Do not combine different types or brands, or old and new batteries. This can cause the batteries to leak, overheat, or explode. Install the batteries in the proper orientation, according to the indicator in the battery chamber. Installing batteries in the reverse orientation may cause them to leak, overheat, or explode.
- Do not clean this product with agents containing corrosive or flammable substances such as paint thinner, benzene, or nail-polish remover.

- Do not use or store this product in flammable conditions (such as environments containing flammable gases or liquid chemicals). This can damage the flash, start a fire, or cause an electric shock.
- This product is not water resistant. Keep it away from rain, snow, humidity, and general moisture.
- If you detect a burning smell, smoke, or excessive heat coming from the flash, immediately stop operation and remove the batteries to prevent the product from igniting or melting.
- Do not drop or otherwise cause a strong physical impact to this product, as this can cause a malfunction that may cause it to explode or ignite.
- Should the product sustain physical damage, do not touch any exposed interior metal parts. If touched, they may generate an electric shock or cause a malfunction. Promptly remove the batteries, and take the product to an authorized service center for repair.
- For long-term storage, remove all batteries from this product to prevent the product from igniting or leaking corrosive liquids.
- Do not store or use this product at temperatures above 149°F (65°C).

- Keep the metal contacts in the battery compartment clean and free of corrosion and dirt. Do not touch them with your fingers. Corrosive elements on the contacts can damage this product and prevent it from functioning properly. Contacts may be cleaned with isopropyl alcohol on a cotton swab.
- Dispose of used batteries properly. Never heat them or throw them into a fire, as this can cause the batteries to leak corrosive liquids, generate heat, or explode.
- Images are for illustrative purposes only.

Contents

- VM-110 LED Macro Ring Light
- 4 diffusers (clear, frosted white, blue, and amber)
- 8 adapter rings (49, 52, 55, 58, 62, 67, 72, and 77mm)
- Stand / tripod mount

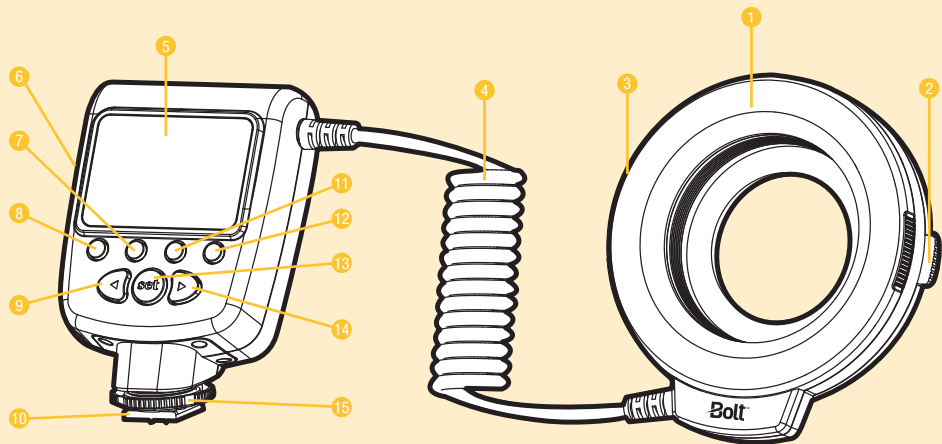
Overview

LED Ring Light

- 1 LED array
- 2 Adapter ring locks
- 3 Diffuser mounting indicators
- 4 Cable

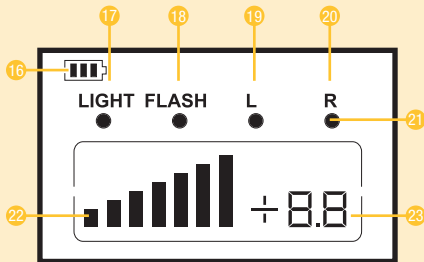
Power Control Unit

- 5 LCD
- 6 Battery compartment cover
- 7 Mode button
- 8 Pilot button
- 9 Left navigation button
- 10 Mounting foot
- 11 Light button
- 12 Power button
- 13 Set button
- 14 Right navigation button
- 15 Locking wheel



LCD

- 16 Battery level indicator
- 17 Light mode
- 18 Flash mode
- 19 Left mode
- 20 Right mode
- 21 Dot indicator
- 22 Power output level indicator
- 23 Power output value



Battery Installation

The VM-110 can be powered by four AA batteries of several types:

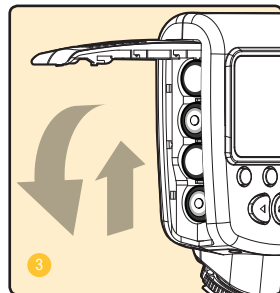
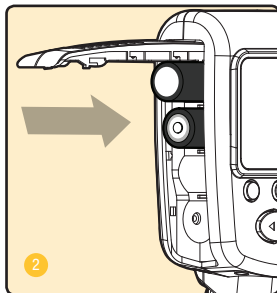
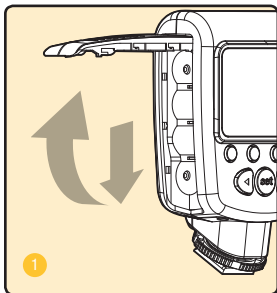
- Lithium (1.5 V)
- Nickel-metal hydride (Ni-MH) (1.2 V)
- Alkaline (1.5 V)

Note: For the longest battery life, lithium or Ni-MH batteries are recommended.

To install batteries, make sure the VM-110 is turned off and follow these steps:

1. Press on the battery compartment cover and slide it in the direction of the arrow to open it.
2. Insert batteries in the orientations indicated by the illustrations inside the compartment.
3. Close the battery compartment cover by pressing and sliding it into place, in the opposite direction of the arrow on the cover.

Important! When battery power is low, the battery level indicator will blink on the LCD. Replace all four batteries at the same time. Do not mix battery types or brands, or use old and new batteries together.

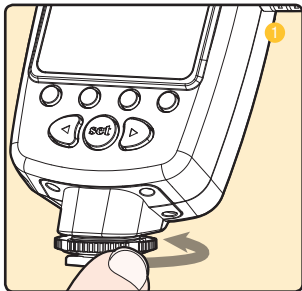


Mounting the VM-110

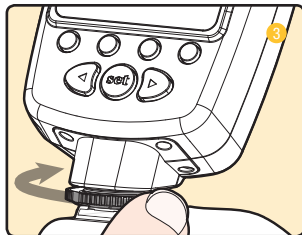
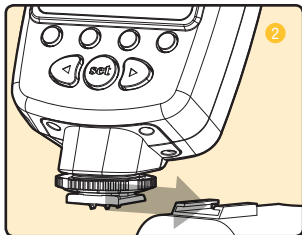
The VM-110 has two main components, the power control unit and the LED ring light. The power control unit mounts onto your camera's hot shoe mount, and the LED ring light mounts onto your camera's lens via one of the included adapter rings. There are eight adapter rings included: 49, 52, 55, 58, 62, 67, 72, and 77mm.

To mount the power control unit on your camera, make sure the VM-110 is turned off and follow these steps:

1. Rotate the locking wheel counterclockwise to loosen it.

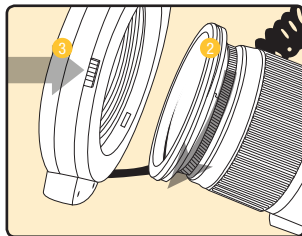


2. Slide the mounting foot all the way into your camera's hot shoe.
3. Rotate the locking wheel clockwise until secure.



To mount the LED ring light on your camera, follow these steps:

1. Determine what size adapter ring will fit your camera lens; the engraving on the ring should match your lens's filter thread.
2. Align the adapter ring with the thread on the inside of the lens, and screw it on until secure. Do not overtighten.
3. Press and hold the adapter ring locks while mounting the ring light onto the adapter. Make sure that the Bolt logo is on the bottom of the ring light and facing away from the camera.



To dismount the VM-110 from your camera, make sure that it is turned off and follow these steps:

1. Press and hold the adapter ring locks to release the LED ring.
2. Rotate the locking wheel counterclockwise to release the power control.
3. Slide the mounting foot out of your camera's hot shoe.
4. If desired, remove the adapter ring from your lens.

Mounting the VM-110 power control on the included stand:

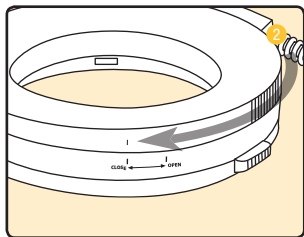
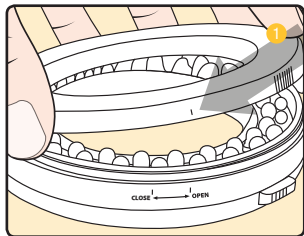
You can mount the VM-110 power control unit on the included stand in the same way you would mount it on your camera. This allows you to set it on a flat surface or to attach it to a tripod head, light stand, or clamp that has a compatible 1/4"-20 screw mount. Using your VM-110 in this manner will free up your camera's hot shoe.

Using the Diffusers

The VM-110 comes with four diffusers that modify the light output: clear, frosted white, blue, and amber. The frosted white diffuser will produce a more diffused light than the clear one. The blue and amber diffusers will cool and warm the light, respectively. Note that you will lose a bit of light with the blue and amber diffusers.

To mount the diffuser on your LED ring:

1. Match up the alignment line on the diffuser with the OPEN alignment line on the LED ring.
2. Fit the diffuser onto the LED ring and rotate it so the alignment line on the diffuser matches up with the CLOSE alignment line on the LED ring.



To remove the diffuser, rotate it so that the indicator matches up with the OPEN alignment line. The diffuser can then be removed.

Tip: Using the VM-110 without any diffuser in place will result in the maximum brightness, but the light will also be the least soft.

Turning On the VM-110 and Firing a Test

To turn the VM-110 on, press and hold the power button until the LCD on the power control unit turns on. To fire a test, press the PILOT button.

Important! Some lenses have front elements that rotate during autofocus. In such a case, we recommend using manual focus to prevent any possible damage to your lens or camera.

Automatic power-saving function: After thirty minutes of inactivity, the VM-110 will automatically enter power-saving mode to conserve battery life. To reactivate the VM-110, press the SET button. During long periods of inactivity, it is recommended that you use the power button to turn the LED off completely.

LCD illumination: When you turn on the VM-110 or press any button, the LCD will be illuminated for about twenty seconds.

Battery level indicator: The battery level indicator on the LCD shows the remaining battery power.

LCD Display Status	Battery Level
	70%–100%
	40%–69%
	10%–39%
	0%–9%

Operation Modes

Light Mode

During Light mode, the light will be on continuously. This is ideal for seeing exactly where the light will fall, as well as for shooting video. Press the LIGHT button to turn on the LEDs for constant lighting. The dot indicator on the LCD will switch to Light mode.

Flash Mode

To save battery power, you can engage the flash mode so the LED turns on for approximately half a second when the camera's shutter is released. To engage the Flash mode, press the MODE button repeatedly until the dot indicator on the LCD switches to Flash mode.

When switching to Flash mode from Light mode, the power level indicator may rise to a higher level. This happens when the battery power is very low and indicates that the batteries will have a longer effective life in Flash mode. Note that the flash mode will work only if the control unit is mounted on the camera's hot shoe.

Left and Right Mode

For more dramatic lighting, you can set your VM-110 to illuminate only from the left or right half of the LED array. To set your VM-110 to Left or Right mode, press the MODE button repeatedly until the dot indicator on the LCD switches to Left mode or Right mode.

Brightness Adjustment

You can adjust the brightness output of your VM-110 from -1.5 to +1.5. To adjust, press the right or left navigation buttons to increase or decrease the brightness. The onscreen power output level indicator displays the current brightness output.

Troubleshooting

Problem	Solution
The VM-110 is stuck in the camera hot shoe.	Make sure that the mounting foot lock is released.
The VM-110 is turned on and is in Light mode but won't light up.	Make sure that fresh batteries are installed and are in the proper orientation.
The VM-110 is turned on and is in Flash mode but won't fire.	Make sure that fresh batteries are installed and are in the proper orientation. Make sure the control unit is securely attached to the camera. Make sure that the electrical contact on the foot of the control unit is not dirty. Clean it and try again.
The VM-110 is rotating right or left while the camera is focusing.	Your lens has a rotating front element. Use manual focus.
The battery indicator fluctuates between full and empty when reinstalling the same batteries repeatedly.	This is normal and may happen when the batteries are nearly exhausted. Replace the batteries.

Specifications

Type: On-camera LED macro ring light

Compatible cameras: All cameras with a standard hot shoe and a lens filter thread of 49, 52, 55, 58, 62, 67, 72, or 77mm

Guider number (at 50mm focal length, ISO 100):
GN 15

Effective distance: Up to 4.9 ft. (1.5 m)

Color temperature: 3,000–15,000 K using diffusers

Power Source: 4 AA lithium, Ni-MH, or alkaline batteries

Power control unit dimensions: 4.5 × 2.75 × 1.4 in.
(114 × 70 × 35 mm)

LED ring dimensions: 4.5 × 4.3 × 0.75 in.
(114 × 109 × 19 mm)

Weight: 7.1 oz. (200 g) without batteries

One-Year Limited Warranty

This BOLT product is warranted to the original purchaser to be free from defects in materials and workmanship under normal consumer use for a period of one (1) year from the original purchase date or thirty (30) days after replacement, whichever occurs later. The warranty provider's responsibility with respect to this limited warranty shall be limited solely to repair or replacement, at the provider's discretion, of any product that fails during normal use of this product in its intended manner and in its intended environment. Inoperability of the product or part(s) shall be determined by the warranty provider. If the product has been discontinued, the warranty provider reserves the right to replace it with a model of equivalent quality and function.

This warranty does not cover damage or defect caused by misuse, neglect, accident, alteration, abuse, improper installation or maintenance. EXCEPT AS PROVIDED HEREIN, THE WARRANTY PROVIDER MAKES NEITHER ANY EXPRESS WARRANTIES NOR ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This warranty provides you with specific legal rights, and you may also have additional rights that vary from state to state.

To obtain warranty coverage, contact the BOLT Customer Service Department to obtain a return merchandise authorization ("RMA") number, and return the defective product to BOLT along with the RMA number and proof of purchase. Shipment of the defective product is at the purchaser's own risk and expense.

For more information or to arrange service, visit www.boltflashes.com or call Customer Service at 212-594-2353.

Product warranty provided by the Gradus Group.

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