



VM-160-V2

# LED MACRO RING LIGHT

User Manual

## Thank you for choosing Bolt.

Thank you for choosing the Bolt VM-160-V2 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 of flowers, insects, and products. Among the benefits you'll enjoy:

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

## Table of Contents

Precautions .....	4
Overview .....	6
Battery Installation .....	9
Mounting the Power Control Unit.....	11
Mounting the LED Ring Light.....	12
Operating the VM-160-V2.....	13
Attaching the Amber Filter .....	16
Troubleshooting .....	17
Specifications .....	18
One-Year Limited Warranty.....	19

## 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.
- 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.
- If the product sustains 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.

## Overview

### Power Control Unit

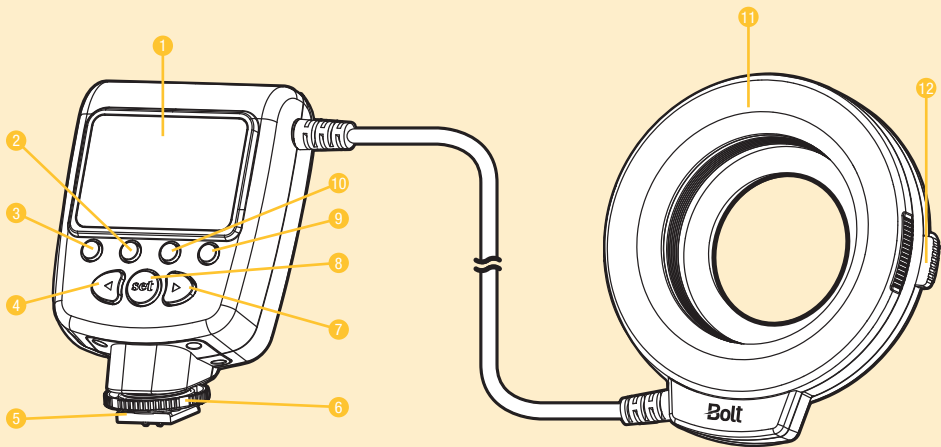
- 1 LCD
- 2 Mode button
- 3 Pilot button (Test)
- 4 Left navigation button
- 5 Mounting foot
- 6 Locking Wheel
- 7 Right navigation button
- 8 Set button
- 9 Power button
- 10 Light button

### LED Ring Light

- 11 LED
- 12 Lens adapter ring locks

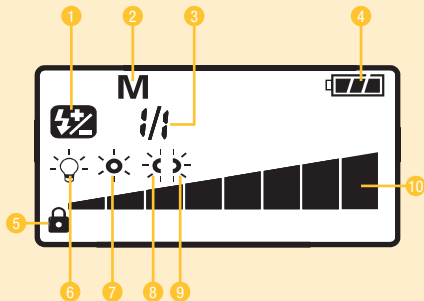
### Included Accessories

- Amber filter
- Eight adapter rings (40.5, 52, 55, 58, 62, 67, 72, and 77 mm)



## LCD

- 1 Exposure parameter
- 2 Manual mode
- 3 Flash output power
- 4 Battery capacity
- 5 Lock
- 6 Light mode
- 7 Full flash mode
- 8 Left flash mode
- 9 Right flash mode
- 10 Power level



## Battery Installation

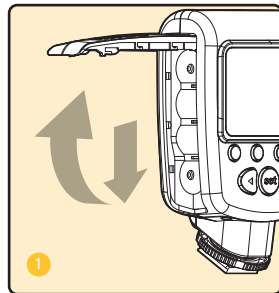
The VM-160-V2 can be powered by four AA batteries of several types:

- Lithium (1.5 V)
- Nickel-metal hydride (NiMH) (1.2 V)
- Alkaline (1.5 V)

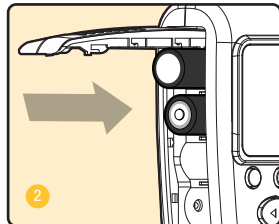
**Note:** For the longest battery life, lithium or NiMH batteries are recommended.

To install batteries, make sure the VM-160-V2 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.

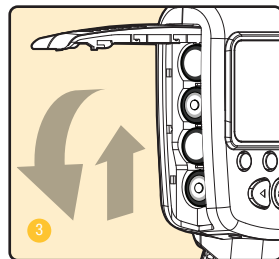


2. Insert batteries in the correct orientations.



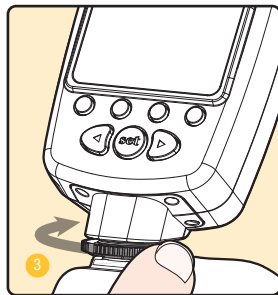
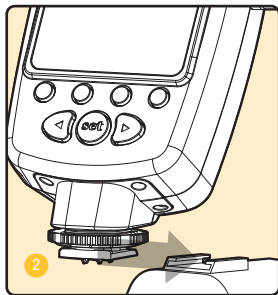
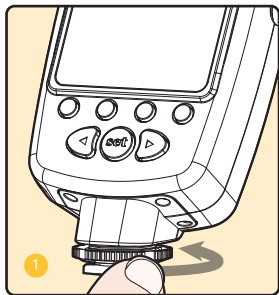
3. Close the battery compartment cover.

**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 Power Control Unit

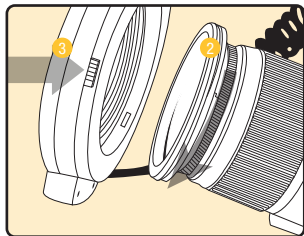
1. Make sure the VM-160-V2 is turned off, and rotate the locking wheel counterclockwise to loosen it.
2. Slide the mounting foot all the way into your camera's hot shoe.
3. Rotate the locking wheel clockwise until secure.



## Mounting the LED Ring Light

The LED ring light mounts onto your camera's lens via one of the included adapter rings: 40.5, 52, 55, 58, 62, 67, 72, and 77 mm.

1. Determine the adapter ring size for your camera lens. The engraving on the ring should match your lens's filter thread.
2. Screw the adapter ring onto your camera lens.
3. Press and hold both lens adapter ring locks and attach the ring light onto the lens adapter. Make sure the ring light is securely attached onto the lens adapter, and release the locks.



**Note:** Make sure the Bolt logo is on the bottom of the ring light and facing away from the camera.

**Important!** Use manual focus as some lenses have front elements that rotate during autofocusing.

## Operating the VM-160-V2

### Power

Press and hold the Power button for 3 seconds until the LCD on the power control unit turns on.


### Test Flash

Fire a test by pressing the Pilot button. The ring light will flash once.

### Full Flash Mode

Full Flash uses all the ring light's LEDs and turns on for approximately half a second when the camera's shutter is released. Engage the Full Flash mode by pressing the Mode button repeatedly until the indicator appears on the LCD.

### Left and Right Flash Mode

For more dramatic lighting, you can set your VM-160-V2 to illuminate only from the left or right half of the LED ring light. To set your VM-160-V2 to Left or Right mode, press the Mode button repeatedly until the  indicator appears on the LCD.

### Light Mode

Pressing Light mode will turn on the LEDs for continuous lighting. This is ideal for seeing exactly where the light will fall, as well as for shooting video. Press the Light button so the indicator appears on the LCD.

### **Brightness Adjustment**

You can adjust the brightness output of your VM-160-V2 with eight levels from 1/128, 1/64, 1/32, 1/16, 1/8, 1/4, 1/2, and 1/1. Adjust by pressing the Right or Left navigation buttons to increase or decrease the brightness. The onscreen power level displays the current brightness output.

### **LCD Illumination**

To illuminate the LCD, press the Set button. The LCD will illuminate for about 10 seconds.





### **Sleep Mode**

After 30 seconds of inactivity, the VM-160-V2 will automatically enter SL power-saving mode to conserve battery life. To reactivate the VM-160-V2, press the Power button or your camera's shutter-release button. During long periods of inactivity, use the Power button to turn the ring light off completely.

### Battery Level Indicator

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

When switching from Light mode to a Flash mode, the power level indicator may rise to a higher level. This happens when the battery power is very low and indicates the batteries will have a longer effective life in Flash mode.

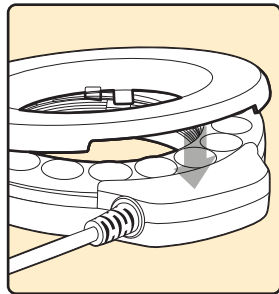
LCD Display Status	Battery Level
	70%–100%
	40%–69%
	10%–39%
	0%–9%

**Note:** the flash modes will work only if the control unit is mounted on the camera's hot shoe.

## Attaching the Amber Filter

The VM-160-V2 comes with an amber filter which modifies the light output and produces a warmer glow on your subject.

Match the filter with the base of the ring light and press it on until secure.



## Troubleshooting

Problem	Solution
The VM-160-V2 is stuck in the camera hot shoe.	Make sure the mounting foot lock is loosened.
The VM-160-V2 is turned on and is in Light mode but won't light up.	Make sure fresh batteries are installed and are in the proper orientation.
The VM-160-V2 is turned on and is in Flash mode but won't fire.	Make sure fresh batteries are installed and are in the proper orientation.  Make sure the control unit is securely attached to the camera.  Make sure the electrical contact on the foot of the control unit is not dirty. Clean it and try again.
The VM-160-V2 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

<b>Mount</b>	Standard hot shoe
<b>Lens filter thread</b>	40.5, 52, 55, 58, 62, 67, 72, and 77 mm
<b>Color temperature</b>	5500 K
<b>Filter color temperature</b>	3200 K
<b>Exposure time</b>	1/100 sec.
<b>Power source</b>	4× AA lithium, NiMH, or alkaline batteries
<b>Dimensions (H × W × D)</b>	<b>Power control unit:</b> 4.1 × 2.75 × 1.65 in. (104 × 70 × 42 mm) <b>LED ring light:</b> 4.8 × 4.6 × 0.8 in. (123 × 117 × 21 mm)
<b>Weight (without batteries)</b>	7.8 oz. (224 g)

## 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](http://www.boltflashes.com) or call Customer Service at 212-594-2353.

Product warranty provided by the Gradus Group.

[www.gradusgroup.com](http://www.gradusgroup.com)

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