



VM-1000

TTL MACRO FLASH SET

User Manual

Thank you for choosing Bolt.

The Bolt VM-1000 is a full-featured wireless macro flash for your Nikon, Canon, or Sony camera. This advanced digital flash system puts creative control in your hands with a broad range of automatic and manual features. It can be used to illuminate close-up subjects with multi-flash setups and flexible wireless communication.

Enjoy automatic TTL settings with the ability to use up to three groups and sixteen channels without interference. Change auto flash compensation values or set flash power manually. With the included Macro Flash Ring, you can use up to four VM-1010 flash units. You'll be able to experiment with light and customize lighting settings to illuminate close-up subjects.

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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).

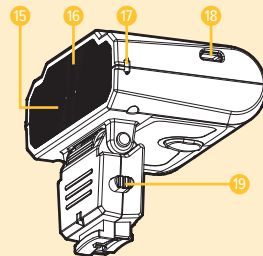
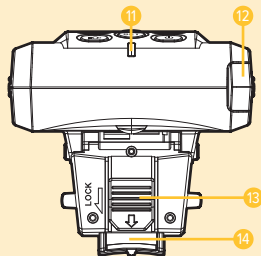
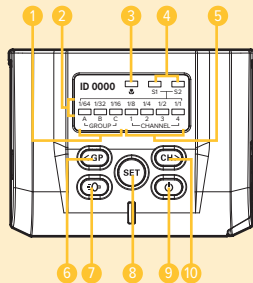
Contents

- 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.
- VM-1010 TTL Macro Flash (×2)
- VM-1020 TTL Transceiver
- Flash mounting ring
- Transceiver mini stand
- Macro Flash stand (×2)
- Shoe adapters (×2)
- Soft diffuser (×2)
- Diffuser (×2)
- 9 color gels (×2)
- Gel pouch (x2)
- Padded zippered case
- Lens adapters: 52, 55, 58, 62, 67, 72, and 77 mm

Overview

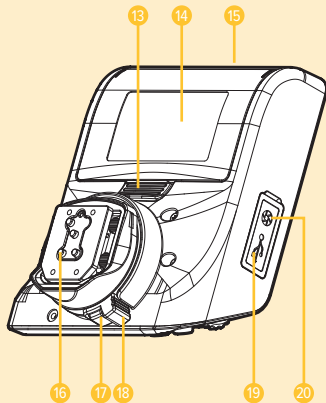
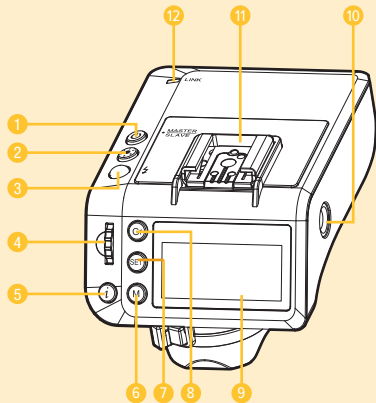
Macro Flash VM-1010

- 1 Group LED indicators
- 2 Luminance LED indicators
- 3 Macro TTL LED indicator
- 4 S1/S2 LED indicators
- 5 Channel LED indicators
- 6 Group / < button
- 7 LED focus assist light / flash test button
- 8 Set button
- 9 Power button
- 10 Channel / > button
- 11 LED status indicator
- 12 Battery cover
- 13 Mounting-foot lock
- 14 Mounting foot
- 15 Flash sensor
- 16 LED assist lamps
- 17 Diffuser notches
- 18 USB interface
- 19 Slide release



Transceiver VM-1020

- | | |
|--|--|
| 1 Power button | 13 Battery compartment button |
| 2 LED focus assist button | 14 Battery compartment door |
| 3 Flash test LED indicator/button | 15 LED focus assist |
| 4 Adjustment dial | 16 Mounting foot |
| 5 Info button | 17 Collar-lock release button |
| 6 Mode button | 18 Foot-collar lock |
| 7 Set button | 19 USB port |
| 8 Group button | 20 2.5 mm shutter-release sync port |
| 9 LCD | |
| 10 1/4-20 socket | |
| 11 Hot shoe | |
| 12 Link indicator LED | |



Flash Mounting Ring

- 1** Ring release button (×2)
- 2** Flash holder ring

Diffuser

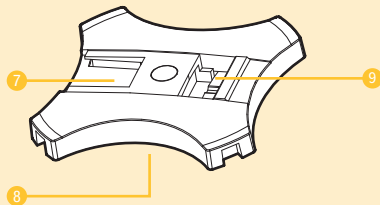
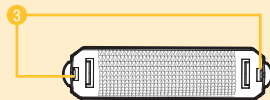
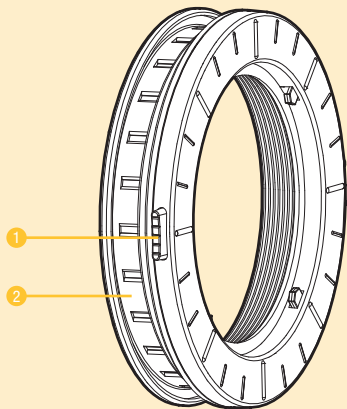
- 3** Notch windows

Shoe Adapter

- 4** Foot mount
- 5** Locking wheel
- 6** Mounting foot

Flash Stand

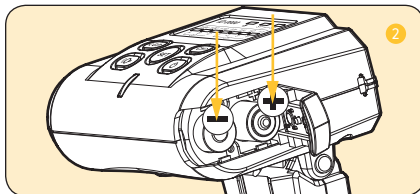
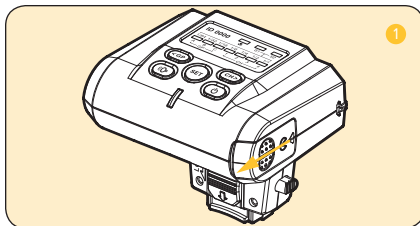
- 7** Cold shoe
- 8** 1/4-20 socket
- 9** Foot mount



Battery Installation

VM-1010

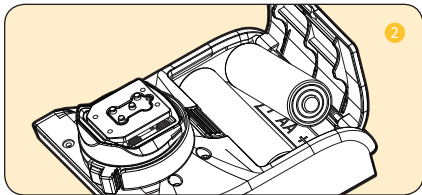
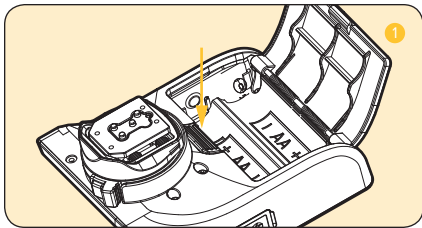
1. Push and slide out the battery compartment door in the direction of the arrow.
2. Insert the batteries with the correct polarity orientation.
3. Slide the battery door closed until it's secure.



VM-1020

1. Press the battery compartment button to open the door.
2. Insert the batteries on top of the release pull, with the correct polarity as shown inside the compartment.
3. Close the compartment door until secure.

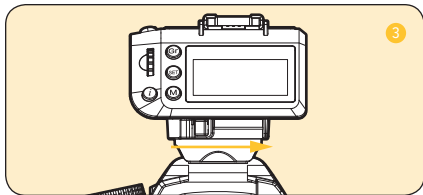
Note: When the batteries are low on power, the battery icon will blink. If the batteries are out of power, the screen displays NO POWER, and the unit will turn off.



Transceiver and Flash Setup

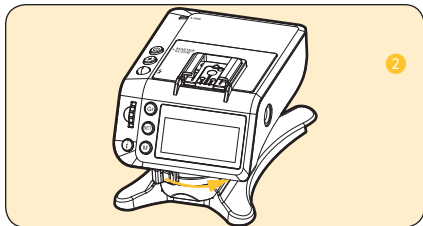
Mounting the Transceiver to a Camera

1. Press the collar-lock release button, and slide the collar to the left to unlock.
2. Insert the mounting foot into your camera's hot shoe.
3. Slide the collar to the right until it clicks and is locked.



Mounting the Transceiver to a Stand *Mini Stand*

1. Make sure the transceiver's collar lock is in the unlocked position.
2. Slide the transceiver into the mini-stand's cold shoe, and slide the collar to the right until it locks.



Light Stand

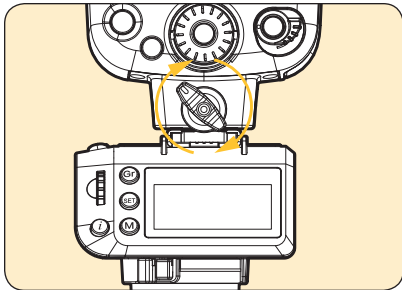
You can mount the transceiver to a light stand, using the mini-stand or transceiver's 1/4-20 socket.

1. Screw the mini stand on to a light stand using the 1/4-20 mount.
2. Attach the transceiver to the mini-stand's cold shoe, and slide the collar lock to the right until secure.

Alternatively, you can screw the transceiver's 1/4-20 socket to a wide variety of grips and mounting hardware.

Mounting a Flash to the Transceiver

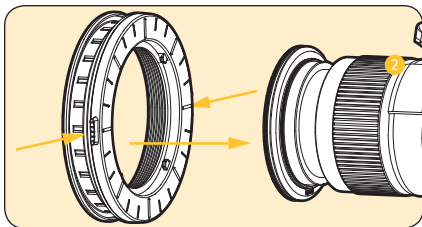
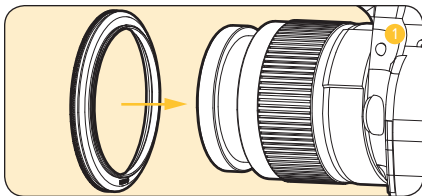
A flash can mount to the transceiver and operate remotely with TTL functionality, as if mounted directly to your camera.



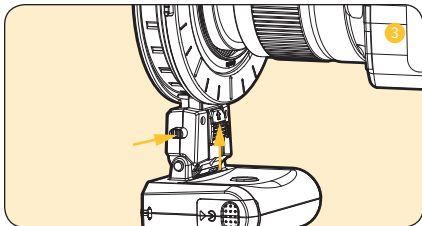
Mounting the Macro Flash

Setting Up the Flash Mounting Ring

1. Choose the lens adapter (52, 55, 58, 62, 67, 72, or 77 mm) that fits your lens, and screw it onto the lens's filter threads.
2. Squeeze the ring release buttons, seat the flash mounting ring over the lens adapter, and release. Wiggle the mounting ring a little to make sure it's secure.

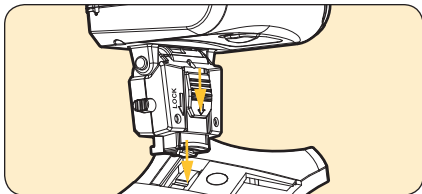


3. Seat the flash's mounting foot into the ring's flash holder, and slide the foot lock down to secure. Use the slide release buttons to adjust the flash's position around the ring.



Mounting the Flash to the Flash Stand

1. Hook the flash's mounting foot into the stand, and seat the foot into the flash stand.
2. Slide the lock down to secure.

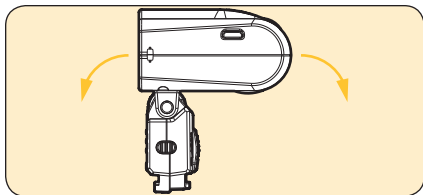
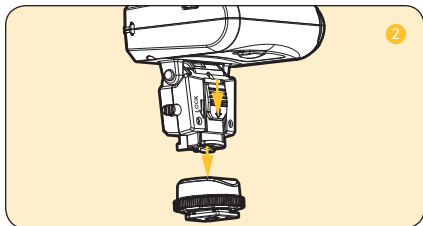


Using the Shoe Adapter

1. Hook the flash's mounting foot into the shoe adapter's foot mount.
2. Slide the lock down to secure.
3. Slide the shoe adapter's foot into the cold shoe of the flash stand.
4. Rotate the locking wheel clockwise until secure.

Adjusting the Flash Angle

You can adjust the flash head to angles of -45° to 60° .



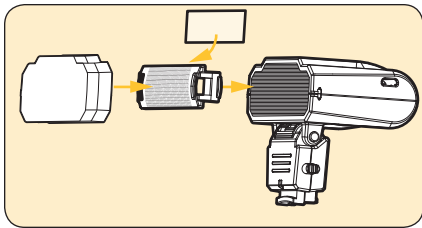
Attaching a Diffuser

Diffuser

Attach the diffuser over the diffuser notches. Make sure they line up with the diffuser notch windows.

Soft Diffuser

You can attach the soft diffuser over the diffuser or directly to the flash head. Make sure the soft diffuser is in the correct orientation.



Using the Gels

A collection of nine color gels are included with each flash, so you can change the flash color temperature.

1. Insert a gel inside the diffuser.
2. Attach the diffuser to the front of the flash.

VM-1010 Flash Settings and Controls

TTL/Macro Mode

Press and hold the power button [⏻] to turn the flash on. LED indicators will light up for TTL/Macro mode, Group A, and Channel 1.

To cycle through groups A, B, and C, press Group [⏮]. To cycle through channels 1, 2, 3, and 4, press Channel [⏪].

Note: When using the flashes with the transceiver, you must make sure to set them all to the same channel and group.

S1/S2 Slave Modes

In the S1/S2 Slave modes, the VM-1010 is set to be optically triggered by an external flash source. The S1 mode fires on any flash, while the S2 mode ignores the preflash and fires on the second flash. You will set the flash power manually when using these modes.

1. Press the Set button  to switch to the S1 or S2 mode.
2. Press  or  buttons to increase or decrease the flash output power.

LED Focus Assist/Flash Test

Press the LED Focus Assist/Flash Test  button to fire off a test flash.

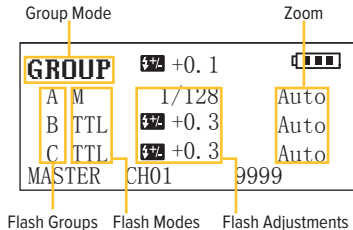
Press and hold the LED Focus Assist/Flash Test  button to enable and disable the LED Focus Assist lights.

VM-1020 Transceiver Settings and Controls

Press and hold the power button [⏻] until the Flash Test button lights up, and the LCD displays the flash settings. Any changes to the settings will be saved after eight seconds of inactivity. Pressing the Info [i] and Mode [M] buttons at the same time will reset all setting and parameter changes.

Group Mode

Group mode allows you to use automatic TTL settings or have manual control over groups A/B/C. Set flash power, focal distance, or overall group compensation. There are three flash modes per group: TTL, M, or Off. TTL uses automatic settings from the camera with user control over flash compensation. Manual allows you to set the flash power of the group. Off will disable a group.



1. Press the Mode **[M]** button to switch to Group mode.
2. Press the Group **[Gr]** button to highlight and enter group selection, and use the Adjustment dial to select the groups A/B/C. Make sure the VM-1010 flashes are set to the same group.
3. Press the Set **[SET]** button once to select the group flash mode. Use the adjustment dial to select TTL, M, or Off.
4. Press the Set **[SET]** button again to change the flash compensation or power. Use the adjustment dial to adjust negative (-) or positive (+) compensation or power values.
5. Press the Set **[SET]** button again to adjust the zoom focus parameter. Use the adjustment dial to set zoom focus to Auto or manually adjust between 18 and 200 mm.
6. Press the Set **[SET]** button again to confirm the group settings.

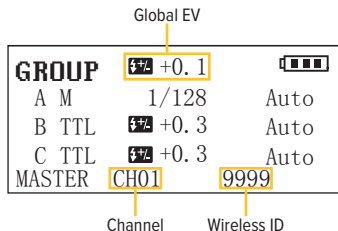
Setting the Wireless Channel

1. Press the Info [*i*] button once, and the wireless channel will blink. Use the adjustment dial to change the channel from 1 to 16.
2. Press the Set [SET] button to confirm.

Keep in mind the VM-1010 macro flashes operate on channels 1 to 4, and the transceiver must be set to one of the corresponding channels.

Setting the Wireless ID

The wireless ID must be set to 0000 to use with the VM-1010 Macro Flashes.



1. Press the Info [*i*] button twice until the first 0 of the ID is blinking. Use the adjustment dial to change values.
2. Press the Info [*i*] button again for each additional digit of the ID, and use the adjustment dial to change the value.
3. Press the Set [*SET*] button to confirm.

Global EV Compensation

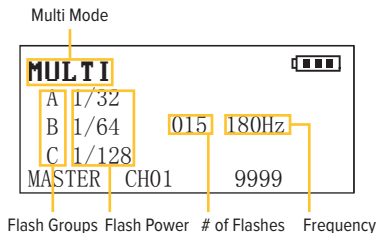
The global EV compensation allows you to apply the same exposure value adjustment to all groups, independent of the flash power set for each one.

Press the Info [*i*] button until global EV is blinking, and use the adjustment dial to change the value. Press the Set [*SET*] button to confirm.

Multi Mode (Canon Only)

Multi mode fires the flash repeatedly during a single exposure, creating a multi-exposure effect. Use this feature to capture stroboscopic photos of a dancer leaping across a stage or a golfer swinging a driver. To use Multi mode, you'll need a second VM-1020 transceiver along with a Canon Speedlite.

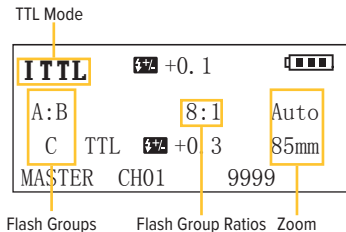
1. Press the Mode **[M]** button to switch to Multi mode.
2. Press the Group **[Gr]** button to highlight and enter group selection, and use the Adjustment dial to select the groups A/B/C.



3. Press the Set  button to highlight and change the flash group's power. Use the Adjustment dial to select the power level in six steps from 1/4 to 1/128.
4. Press the Info  button until the number of shots is flashing. Use the Adjustment dial to select the number of shots from 0 to 90 (selection is based on the camera's shutter speed).
5. Press the Info  button until the frequency of shots is flashing. Use the Adjustment dial to select the frequency from 1 to 199 Hz.
6. Press the Set  button to confirm the settings.
7. Mount your Canon Speedlite on a second VM-1020 transceiver, and set the transceiver to Slave mode (see *Slave Mode* below). Make sure both transceivers are set to the same channel and the slave is set to the desired group.

TTL Ratio Mode

This mode allows you to set power ratios between groups A and B. Group C works independently and offers TTL, manual, or off modes. For example, if you set a ratio of 1:2 between groups A and B, group B will fire with two times more power than group A.



1. Press the Mode **[M]** button to switch to TTL mode.
2. Press the Group **[Gr]** button to highlight and enter group selection, and use the adjustment dial to select groups A:B or C.
3. When A:B is selected, press the Set **[SET]** button once to select the group flash ratios. Use the adjustment dial to select a ratio from 8:1 to 1:8.
4. Press the Set **[SET]** button again to adjust the zoom focus parameter. Use the adjustment dial to set the zoom focus.

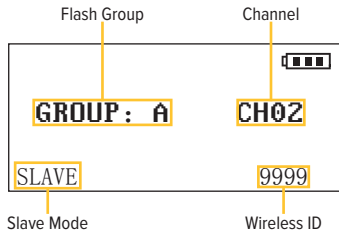
5. Press the Set  button again to confirm the group A:B settings.

You can change Group C settings according to the instructions in *Group Mode* above.

To set the wireless channel and ID number, as well as the overall group compensation, see *Setting the Wireless Channel*, *Setting the Wireless ID*, and *Global EV Compensation* above.

Slave Mode

In this mode, the transceiver acts a slave, and it receives flash information from the master unit. Use this mode when you need to wirelessly trigger a speedlight or camera.



1. With the unit powered on, press the power [⏻] button once to enter Slave mode.
2. Press the Group [Gr] button to cycle through groups A/B/C.
3. Press the Info [i] button to change the wireless channel and ID (see *Setting the Wireless Channel* and *Setting the Wireless ID* above).

LED Focus Assist

Press the LED Focus Assist [☼] button to turn on the transceiver's LED focus assist light. Use the adjustment dial to change the power level. Press and hold the [☼] button to turn on the LED Focus Assist Light for the VM-1010 flashes.



LED Focus Assist Power Level

Flash Test

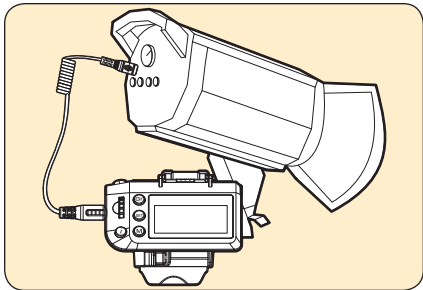
Press the Flash Test [⚡] button to fire off a test flash from all the flashes in your setup. This ensures everything is linked correctly.

Triggering a Studio Light

You can wirelessly trigger a studio light using the VM-1020's 2.5 mm sync port and the master/slave setup between multiple transceivers.

Sleep Mode

When the VM-1020 is idle for ninety seconds, the unit will enter sleep mode. Press any button to wake the VM-1020.



Specifications

Transceiver (VM-1020)

Operating Frequency: 2.4 GHz

Operating Distance: 98 ft. (30 m)

Groups: 3

Channels: 16

Battery Type: AA

High-Speed Sync: 1/8000

LED Light Output: 5500 K $\pm$ 200 K, Ra 90

LED Focus Assist Output: 1.2 to 2 W

Manual Output: 1/128 to 1/1 in 1/3 increments

TTL Output: $\pm$ 3 in 1/3 increments

Antenna: Built-in PCB

Output Ports: 2.5 mm

Input Ports: USB

Input Voltage: n/a

Operating Temperature: 5°F to 149°F (-15°C to 65°C)

Storage Temperature: -22°F to 185°F (-30°C to 85°C)

Dimensions (H $\times$ W $\times$ D): 2.1 $\times$ 2.5 $\times$ 3.3 in.

(5.4 $\times$ 6.3 $\times$ 8.4 cm)

Weight: 3.8 oz. (107 g)

Macro Flash (VM-1010)

Guide Number: 10 (ISO 100 m) / 14 (ISO 200 m)

LED Light: 0.5 W, 5500 K $\pm$ 200 K, RA 90

Groups: 3

Channels: 4

S1/S2 Distance: Indoor: 65.6 ft. (20 m)
Outdoor: 32.8 ft. (10 m)

Wireless Frequency: 2.4 GHz

Wireless Distance: 328 ft. (100 m)

Cover Angle: -45° to 60°

Recycle Time: 4 sec. at 1/1 output

Battery Type: AAA

Operating Temperature: 10°F to 122°F
(-10°C to 50°C)

Storage Temperature: -4°F to 158°F (-20°C to 70°C)

Dimensions (H $\times$ W $\times$ D): 2.8 $\times$ 3 $\times$ 2.4 in.
(7.1 $\times$ 7.8 $\times$ 6 cm)

Weight: 3.7 oz. (105 g)

Troubleshooting

Problem	Solution
The VM-1000 does not turn on.	Replace the batteries. (Note: If the batteries are low, replace both batteries at the same time. Do not use different brands or types of batteries.) Make sure that the batteries are inserted into the battery compartment with the correct polarity orientation.
The slave units do not fire.	Make sure that all VM-1010 and VM-1020 units are set to the same channel and group. Make sure channel ID numbers are set appropriately. The default value for normal operation is 0000. Make sure all devices are powered on. Check the contact between the flash's mounting foot and each hot shoe. Also check the hot-shoe connection between the camera and the transceiver. Make sure all mounting feet have been fully inserted into the corresponding hot shoes. Make sure each VM-1020 is operating in the correct Master or Slave mode.
The picture is underexposed or overexposed.	If the subject looks too dark or light, change the exposure compensation value (EV). If your camera is in HSS mode, the effective flash range is shorter. Position the light closer to the subject.

Firmware Upgrade

Visit www.boltflashes.com for more information on the latest firmware version.

Connect the VM-1010's and VM-1020's USB ports to a computer, and follow the instructions for downloading and installing the latest firmware version.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

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.

www.gradusgroup.com

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