



**MK CONTROLS**  
ENGINEERED FOR YOUR IMAGINATION

# LIGHTNING BUG™

## VERSION 3.1

### INSTRUCTION MANUAL

Please remember that your safety is much more important than getting the shot.

MK Controls, Inc. is not liable for any injuries or damage that may occur while using our products. Being safe should always be your primary concern. Lightning can be lethal. Be sure to seek shelter if a storm is too close!

***Please note: MK Controls, Inc. is not liable for any damage or injury associated with the use of the Lightning Bug™.***



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# **Introduction**

## **The Lightning Bug™ – Engineered for your imagination.**

The Lightning Bug™ is based upon the science of lightning. There are two components of lightning; the bright white flash everyone wants to capture and the unseen infrared light that always precedes it. The Lightning Bug™ uses a high-speed photodiode sensor optimized to sense the infrared burst that occurs just before a lightning strike. This infrared light comes from the vaporization of air and particles in the air. The Lightning Bug™ acts as a lookout for your camera, watching for a change in infrared light. When a significant change of infrared light over a very short period of time is detected, it trips the camera shutter to capture the visible lightning bolt.

The Lightning Bug™ can also be used to take photos of fireworks, cannon shots, virtually anything that produces a fast-acting rise of infrared light formed by a high-temperature event.

The Lightning Bug™ exclusive sensitivity adjustment circuitry allows the photographer to customize the unit's operation to any shooting situation. This gives the photographer full control over when to take the picture. If you only wanted to capture the brightest and closest lightning bolts you would decrease the sensitivity. If you wanted to capture lightning over the city or mountains from a long distance, just increase the sensitivity. Only the Lightning Bug™ gives you this level of control.

The Lightning Bug™ has, as standard, premium features not found in simpler lightning detectors. The user can limit the number of possible exposures per second to between 1 and 10. This feature allows you to capture repeated lightning strikes successfully, up to the maximum frame rate of your camera.

When trying to capture weather events, your photography gear can get wet; we've designed the Lightning Bug™ to withstand exposure to rain. The design incorporates weather resistant soft touch buttons.



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The hot shoe mount included on the Lightning Bug may have an external flash PC port, or a ¼-20 mount, depending on when it was purchased. Starting in August of 2015, in response to customer suggestions, we modified our hot shoe mount to incorporate a standard threaded mounting port.

To help you get the most out of your purchase please take a few minutes to read this manual. If you still have questions about using your Lightning Bug™, feel free to email our technical support team at [support@mkcontrols.com](mailto:support@mkcontrols.com). We'll be happy to assist.

For examples of the kinds of images that can be taken using the Lightning Bug™, please look at our gallery website page: <http://www.mkcontrols.com/gallery>

Here are a few images created using the Lightning Bug™.



Mike Lenoard Photo ©



Bill Lea Photo ©



Susan Candelario Photo ©



Bill Long Photo ©



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# **Lightning Bug™ Features**

- 26 Levels of sensitivity adjustment.
- Automatic or manual operation of the camera's meter.
- Auto-meter Off feature to help preserve your camera battery during long sessions.
- Exclusive Fireworks delay mode – allows a delay between the initial detected burst, and the actual shutter release. The delay can be adjusted from 0 to 2.25 seconds in 1/4 second increments.
- Attaches to your camera via an industry standard hotshoe mount. Cables are available to fit a wide range of cameras.
- Three simple buttons control all of the features.
- Allows limiting of frames per second – can be adjusted from 1 to 10 FPS.
- Water resistant overlay with soft-touch controls protects the Lightning Bug™ from inclement weather, and ensures that it won't be accidentally turned on or off.
- Highly visible orange LED display shows at a glance the current configuration settings.
- Bright yellow LED flashes when the unit detects an event within its field of view.
- Allows testing of your camera connection.
- Retains user settings, even with battery removed.
- Power saving mode to prolong battery life.
- Battery can be removed or replaced without removing the Lightning Bug™ from your camera.
- Power On Self-Test (POST) insures that the unit is operational every time you turn it on.
- Electrical isolation between the unit and your camera via MOSFET technology to protect the camera's electronics.



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## **Specifications**

<b>Front overhang from center of camera shoe:</b>	<b>3.51" / 89.15 mm</b>
<b>Rear overhang from center of camera shoe:</b>	<b>0.74" / 18.80 mm</b>
<b>Overall Height not including shoe mount:</b>	<b>1.13" / 28.70 mm</b>
<b>Overall Height including shoe mount:</b>	<b>2.10" / 53.34 mm</b>
<b>Overall Length:</b>	<b>4.25" / 107.95 mm</b>
<b>Overall Width:</b>	<b>2.60" / 66.04 mm</b>
<b>Weight without battery:</b>	<b>2.96 oz / 83.9 g</b>
<b>Weight with battery:</b>	<b>4.48 oz / 127.0 g</b>
<b>Camera connector port~:</b>	<b>2.5mm Stereo</b>
<b>Battery*:</b>	<b>Standard 9 Volt</b>

~Please contact MK Controls, Inc. Technical Support for more information if you intend to make your own cables.

\* MK Controls, Inc. recommends either an Alkaline or General Purpose battery. Rechargeable batteries are not recommended.



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# **Battery Installation/Removal**

The Lightning Bug™ case incorporates a battery compartment at the rear of the unit. A small latch unlocks a removable battery compartment door.

A standard 9 Volt battery is required for operation. To insert it, gently pull the 9V connector wires out from the compartment and attach a battery. The leads will only allow the battery to be connected in one direction, and snap the leads in place.

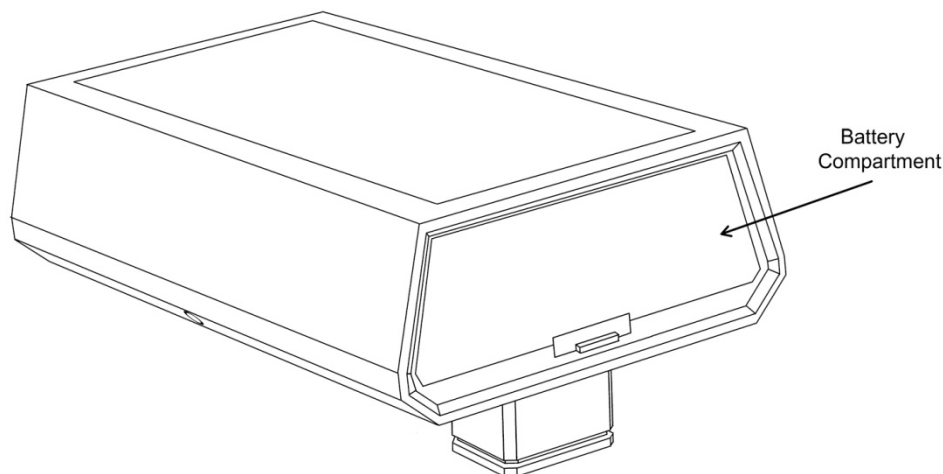
After installation of the battery, the compartment door should be replaced – it snaps into position with an audible click.

To remove the battery, reverse the process.

## *Please note:*

MK Controls, Inc. does not recommend leaving the battery in place during long storage periods. There is a slight current draw whenever the battery is installed, and after a period of months the battery may no longer have sufficient operating power if left in the Lightning Bug™ during long-term storage. In addition, batteries can, on occasion, leak electrolytes. This fluid is corrosive, and can damage the circuitry of the Lightning Bug™, in addition to the battery connector. The Lightning Bug™ Warranty does not cover damage due to a leaking battery.

Rechargeable batteries are not recommended for use in the Lightning Bug™ due to the current consumption characteristics of the circuitry during operation.



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## **Camera Connection**

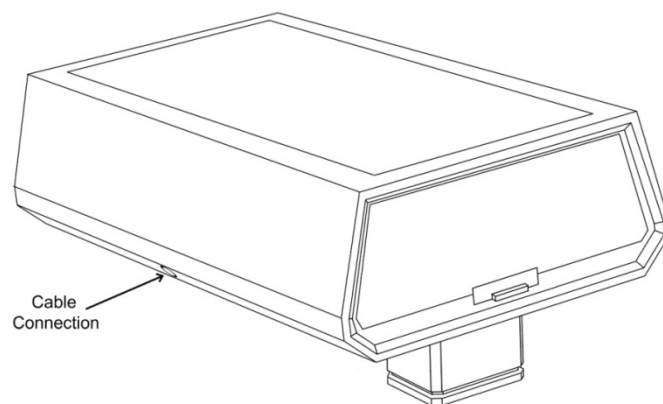
Each Lightning Bug™ purchased includes one cable for connection to your camera. Additional and/or replacement cables are available from MK Controls, Inc.

The camera connector has a 2.5mm stereo male plug on one end, and the appropriate connector for your camera on the other. The 2.5mm female socket is located at the lower right on the unit. When inserting the cable, please make sure it is fully seated for proper operation.

The camera connector is specific for the model camera you're using – please follow manufacturer's recommendations for insertion of this connector.

When the Lightning Bug™ is powered on, it will automatically activate your camera's meter (on cameras that support this feature). Turning the unit 'off' automatically will release the meter. There is also a feature that allows your meter to always remain deactivated until the shutter is tripped – please see the 'Additional Features' section for more information.

The Lightning Bug™ is designed to fit an industry standard shoe mount, and is self-explanatory. For SONY cameras, a hotshoe adapter may be required – see our website for full details.



**WARNING** – Do NOT leave the cable inserted in the Lightning Bug™ during storage – this may damage to the connector. The Lightning Bug™ Warranty does not cover this type of damage.



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# Operation

## Mounting the Lightning Bug™ on a Camera

First, make sure that both the Lightning Bug™ and your camera are powered off. Attach the unit to your camera's hotshoe, and then install the shutter cable. You can then power both units on – either can be turned on first.

Point your camera, and then let the Lightning Bug™ do the rest!

## Basic User Controls

The Lightning Bug™ has three 'soft-touch' buttons that are used to operate all of the features:



**On/Off**



**Decrease Sensitivity (or Delay in Fireworks Mode)**



**Increase Sensitivity (or Delay in Fireworks Mode)**

## Standard Mode vs. Fireworks Mode

While powering on the Lightning Bug™, the unit will start in Standard Mode (suitable for Lightning photography) or Fireworks Mode (allows for delayed shutter release) depending on which buttons are held down during startup.

To start the unit in **Standard Mode**, press and hold the On/Off button for approximately 2 seconds.

To start the unit in **Fireworks Mode**, press and hold the On/Off button, and the Increase Sensitivity button (the rightmost button) simultaneously for approximately 2 seconds, then release both buttons.

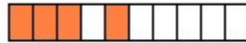


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When the Lightning Bug™ is first turned on, it will display the current firmware version by illuminating the LED's. This version information will remain displayed until the power button is released. This manual describes firmware version 3.1, which will be displayed as shown here:



After releasing the power button, the unit will then execute a Power On Self-Test (POST), which will light up all of the LED's and perform an internal function verification. If during the POST you notice that any LED's fail to illuminate, please contact MK Controls, Inc. Technical Support for troubleshooting.

The Lightning Bug™ remembers important settings including the Frames per Second, the Meter On/Off Mode, and the Sensitivity; these all will load at startup.

To help preserve your camera battery, the Lightning Bug™ will automatically turn your meter off after approximately 15 minutes of inactivity.



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## **Standard Operating Mode**



### **Decrease Sensitivity**

Press this button to decrease the sensitivity of the Lightning Bug™. When this button is pressed, the bargraph display (orange LED's) will show the current sensitivity level. There are a total of 26 levels of available sensitivity. The factory default setting is level 12.



### **Increase Sensitivity**

Press this button to increase the sensitivity of the Lightning Bug™. When this button is pressed, the bargraph display (orange LED's) will be show the current sensitivity level.

## **Determining the Current Sensitivity**

The orange LEDs on the top of the Lightning Bug™ will always display the current sensitivity level whenever the unit is powered on. See Table 1 for more details.

When making adjustments, all the LED's to the leftmost side will illuminate to allow easier visualization of the setting. Within approximately 1 second of no further adjustments, the display will return to the normal display mode, showing the current setting.

The yellow LED (shaped like a lightning bolt) illuminates whenever the unit has detected an event and has tripped the shutter. When making adjustments to the Meter Mode or Frames per Second Mode, this LED flashes at a rate of approximately 2 times per second.



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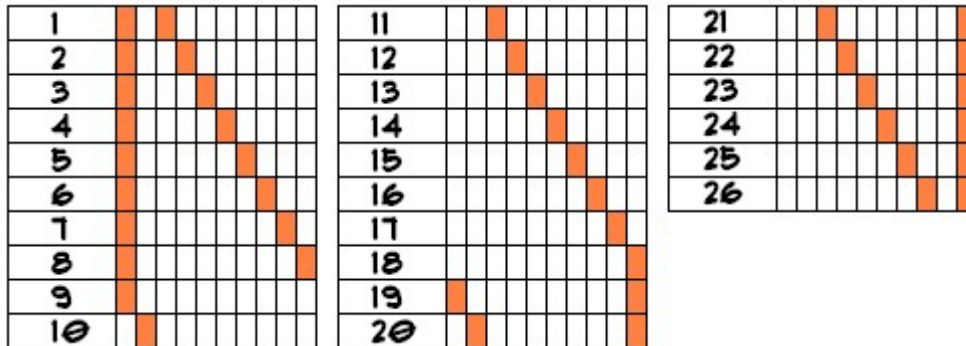
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### Table 1: LED Bar graph Display:

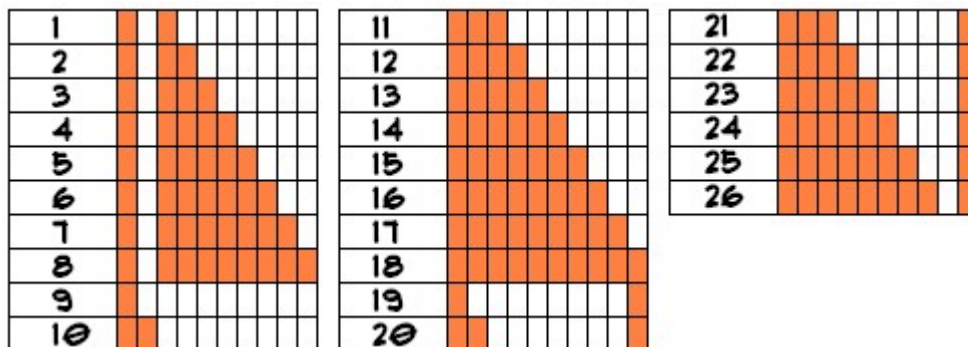
Shown below, Level 1 is the LEAST sensitive, Level 26 is the MOST sensitive setting.

Standard Mode:

Normal (low power) display:



Displayed while making adjustments:



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## **Fireworks Mode**

When the unit starts in **Fireworks Mode**, the yellow activity light will flash to let you know you're in this special mode. To exit this mode, you must turn the unit off, then back on again. NOTE: Fireworks generate very small amounts of IR light as compared to a lightning bolt; because of this, you must be relatively close to the fireworks to be successful – generally within ½ mile. Local conditions such as humidity, altitude, and ambient temperature can have an effect on how well the Lightning Bug™ will be able to detect fireworks.

The **Fireworks Mode** allows you to choose a delay time between the capture of the 'burst' and the release of the shutter, allowing time for the event to fully bloom before tripping your camera. When in **Fireworks Mode**, the sensitivity is automatically set to the 3rd from highest level.



### **Decrease Delay**

Press this button to decrease the time delay. There are a total of 10 levels of available delay, ranging from 0 seconds to 2.25 seconds in 1/4 second increments. The factory default setting is 0 seconds.



### **Increase Delay**

Press this button to increase the time delay.

## **Determining the Current Delay Level**

The orange LEDs on the top of the Lightning Bug™ will always display the current delay level whenever the unit is powered on. See Table 2 for more details.

When making adjustments, all the LED's to the leftmost side will illuminate to allow visualization of the setting. Within approximately 1 second of no further adjustments, the display will return to the normal display mode, showing the current setting.



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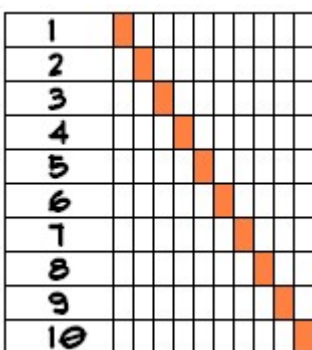
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The yellow LED (shaped like a lightning bolt) will always flash twice, then delay, and repeat this sequence approximately once every 2 seconds.

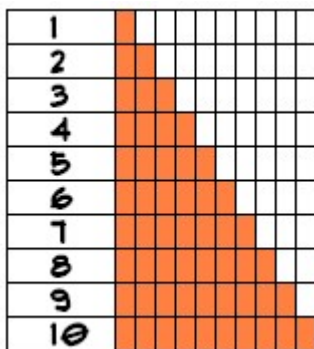
**Table 2: LED Bar graph Display:**

Shown below, a setting of 1 is equivalent to NO delay, a setting of 10 is equivalent to a 2.25 second delay.

**Normal (low power) display:**



**Displayed while making adjustments:**



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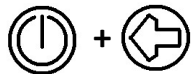
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# **Additional Features**

## **Adjust Frames per Second**

You can adjust the maximum~ number of frames per second that the Lightning Bug™ will cause a shutter trip. This can be adjusted from as few as 1 per second, to as many as 10 per second. The factory default setting is 4 FPS. The Lightning Bug™ will only trip your camera once per lightning strike.

To adjust the FPS, the unit must be powered on. Simultaneously press the On/Off Button and the Decrease Sensitivity Button and hold them for approximately 1 second.



The yellow detection light will flash at a rate of approximately 2 times per second when this mode is correctly entered. Use the Sensitivity Buttons to decrease or increase the number of frames per second. The orange LED display will be updated to show the current setting from 1 to 10. If no keystrokes are detected within approximately 3 seconds, the FPS setting is stored, and the unit returns to the normal operating mode (the yellow detection light will cease to flash). You can also press the Power Button to immediately exit the adjustment mode and return to normal operation.

## **Adjust Active/Inactive Meter Mode**

By default, the Lightning Bug™ will activate your camera's meter anytime the unit is powered on. This functions on most cameras as if the shutter was held down halfway. This greatly reduces the lag between the Lightning Bug™ triggering the camera and the camera actually taking the image. In most situations, this is the ideal setting as it decreases the chance of missing an image.



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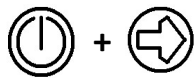
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Powering off the Lightning Bug™ will deactivate the camera meter. This allows easy review of any captured images. In some situations, it may be desirable to have the Lightning Bug™ activate the camera's meter only when the shutter is triggered. This will allow you to review your image on the camera's LCD after the image is captured without turning off the Lightning Bug™.

Warning – if you enable this feature, you may miss shots. Enabling this feature will increase the time it takes for the shutter to be triggered by the Lightning Bug™

To modify this setting, the unit must first be powered on. Simultaneously press the On/Off Button and the Increase Sensitivity Button and hold them for approximately 1 second.



The yellow detection light will flash at a rate of approximately 2 times per second when this mode is correctly entered. Press either Sensitivity Button to toggle between the On and Off modes for automatic meter control. When the automatic mode is On, the rightmost orange LED (below the + sign) will be illuminated. When the automatic mode is Off, the leftmost orange LED (below the – sign) will be illuminated. You can also press the Power Button to immediately exit the adjustment mode and return to normal operation.

When the automatic meter control is Off, the meter will remain OFF until the shutter trips. When the automatic meter control is On (factory default), the meter will remain ON whenever the Lightning Bug™ is powered on (and will be turned OFF when the unit is powered off).



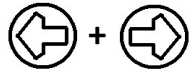
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## **Verify Shutter Trip**

You can verify that the unit is properly tripping your cameras shutter, and also verify the FPS rate, by holding down both the Decrease and Increase Sensitivity Buttons simultaneously.



While holding these buttons, the Lightning Bug™ will continuously trip your camera shutter at the current FPS setting~. Release both buttons to return the unit to the normal operating mode.

~ The Lightning Bug™ is not capable of exceeding your camera capacity for frames per second – this setting reflects the number of times per second that the unit will ‘attempt’ to trip your shutter.



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# **Photography Tips**

## **Camera Settings - Day or Night**

1. Set your lens to Manual focus. Prefocus on your subject, i.e. a tree, building etc. You can also focus on a distant subject, or set the lens on the infinity setting ( $\infty$ ). With some lenses it helps to place a piece of tape on the focus ring to hold the focus at the proper point.

Note: You can also use the hyperfocal method to ensure there will be enough Depth of Field in your images. If you are unaware of how to use hyperfocal focusing, the Internet is a valuable resource; there is ample information available.

2. Set the Lightning Bug™ to match the frames per second (FPS) that the camera is using (see your camera manual for more information). This will allow the Lightning Bug™ to drive the camera quickly in case of repeated lightning strikes. In the right conditions with a fast camera, you can capture up to 10 lightning strikes per second.
3. Disable live view on cameras that support this feature.
4. Disable mirror lockup on cameras that support this feature.

## **For day-time use**

1. Set the camera to Aperture Priority (A mode). The camera will calculate the proper shutter speed. Set your aperture using the chart below. If the calculated shutter speed is faster than 1/60<sup>th</sup> of a second, either decrease the ISO, or decrease the aperture (higher numbers). Shutter speeds faster than 1/60<sup>th</sup> of a second may cause completion of the exposure prior to the formation of the visible portion of the lightning strike.
2. Neutral density filters, or circular polarizing filters may be used as an aid to decrease shutter speed.
3. You can increase or decrease the sensitivity on the Lightning Bug™ based on shooting conditions. The default sensitivity is 12, out of 26 levels. The Lightning Bug™ only triggers your camera's shutter. Changing the sensitivity only changes when the camera captures an image. It does not change the exposure used by the camera during the capture.



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Use the chart below for recommended settings.

Day	Close	Middle	Distant
Very Dim	ISO 100 @ f5.6	ISO 100 @ f4	ISO 200 @ f2.8
Average	ISO 100 @ f8	ISO 100 @ f5.6	ISO 200 @ f2.8
Very Bright	ISO 100 @ f16	ISO 100 @ f11	ISO 200 @ f4

### **For night-time use**

1. Set the camera to Manual Mode (M mode). Set your aperture using the chart below.
2. Set the shutter speed to 1/4 second or longer. When shooting cityscapes, capture several test images. Your exposure should be for the ambient light within your composition.
3. Be sure to experiment with shutter speeds.

Night	Close	Middle	Distant
Very Dim	ISO 200 @ f5.6	ISO 200 @ f4	ISO 400 @ f2.8
Average	ISO 200 @ f8	ISO 200 @ f5.6	ISO 400 @ f2.8
Very Bright	ISO 100 @ f16	ISO 100 @ f11	ISO 200 @ f4



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# **Troubleshooting**

- 1. The Lightning Bug™ will not power on**
  - Try a fresh 9V battery.
  - Check that the battery connector is firmly attached to the battery.
- 2. During the POST (Power On Self-Test), some of the LED's do not light up or appear dim**
  - Try a fresh 9V battery.
  - Check that the battery connector is firmly attached to the battery.
- 3. Not all of the functions described in the manual seem to work on my unit**
  - If the serial number (found on the bottom of the unit) contains ONLY numbers, your unit can be upgraded to incorporate these new features – contact us for further information.
- 4. There's lightning all around me, but I'm not getting any pictures!**
  - Try pressing the LEFT and RIGHT buttons simultaneously with the unit powered on and connected to your camera. If your camera takes a picture once per second, the Lightning Bug™ is communicating with your camera.
  - Try a fresh 9V battery.
- 5. My camera takes a picture when I press the LEFT and RIGHT buttons, but I'm still not getting any shots of lightning!**
  - Watch the yellow lightning bolt on the Lightning Bug - if it lights up, the unit is 'seeing' the lightning flashes. If your camera still isn't taking pictures when the yellow LED lights up the lightning bolt, your camera may not be configured correctly. - Make sure all of your camera settings are set to 'Manual' - the 'Auto' mode will, in many cases, prevent the Lightning Bug™ from correctly triggering your camera.



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**6. When I press the LEFT and RIGHT buttons to test the system, nothing happens**

- Please verify that your camera to Lightning Bug™ cable is fully inserted, and inserted correctly, into your camera. Some cables, like the Nikon DC2, can inadvertently be plugged in backwards.

**7. There's lightning all around me, but the lightning bolt on the Lightning Bug™ never lights up**

- Increase the sensitivity of the Lightning Bug™ by pressing the RIGHT arrow.
- Make sure that the Lightning Bug™ is not behind a pane of glass - most modern glass windows in cars and homes block infrared light, which the Lightning Bug™ needs to 'see' in order to function.

**8. My camera keeps tripping the shutter whenever the Lightning Bug™ is attached to it**

- Decrease the sensitivity of the Lightning Bug by pressing the LEFT arrow.

**9. I can't see my pictures on the camera back immediately after a shot is taken**

- Change the meter mode function in the Lightning Bug™ to set the meter to 'Always Off' - see the Operations section of this manual for more details.

**10. What do I do if none of these suggestions works?**

- You can either contact us to discuss the issue, or you can return the unit to us for service - see

<http://www.mkcontrols.com/lightningbug/rma/> for instructions.

Note: For SONY cameras, a hotshoe adapter may be required – see our website for full details.



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## **Lightning Safety**

Please remember that your safety is much more important than getting the shot. MK Controls, Inc. is not liable for any injuries or damage that may occur while using our products. Being safe should always be your primary concern.

MK Controls, Inc. recommends that you follow all lightning safety tips that can be found at:

<http://www.lightningsafety.noaa.gov/>

<http://www.lightningsafety.com/>

<http://www.ready.gov/thunderstorms-lightning>

***Please note: MK Controls, Inc. is not liable for any damage or injury associated with the use of the Lightning Bug™.***



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# **Warranty**

## **MK CONTROLS, INC. LIMITED WARRANTY AND NON-WARRANTY REPLACEMENT POLICY**

### **LIMITED WARRANTY INFORMATION**

MK Controls, Inc. (the “Company”) warrants its products against defects in material and workmanship for a period of three (3) years from the date you purchase the same as stated on your sales or delivery receipt. This limited warranty applies only if you are the original purchaser and the limited warranty is non-transferable. As a condition of warranty service, warranty service requests must be accompanied by a valid proof of purchase, and a full written description of the problem. The Company will, at its sole discretion, repair or replace any defective part or product with a functionally-equivalent, new or factory-reconditioned part or product. Replacement parts and products are warranted to be free from defects in material and workmanship for ninety (90) days, or for the remainder of the applicable three (3) year limited warranty period for the parts or products they are replacing or in which they are installed, whichever is longer. The Company will have no obligation to repair or replace any part or product until you return the allegedly-defective item to the Company, postage prepaid, at the following address:

MK Controls, Inc.  
Attn: Product Returns  
5804 Old Valdosta Rd.  
Nashville, GA 31639

In order to submit a valid warranty claim, you must also complete the RMA form located at: <http://www.mkcontrols.com/lightningbug/rma/> prior to shipping your product back to MK Controls, Inc. Complete instructions are given during the creation of the RMA.

### **EXCLUSIONS**

This limited warranty does not apply to (1) normal wear from regular use of the product, (2) any product with the serial number (or equivalent) removed, (3) any product that has been operated in a manner inconsistent with its intended purpose, or (5) any part or machine/product if damaged or defective due to: (a) abuse, accidental misuse, improper or inadequate operation, maintenance or calibration or other external causes; (b) failure to properly maintain the product including, but not limited to, damage from battery leakage; (c) software, interfacing parts and supplies not supported by the Company; (d) loss resulting from an act of God; (e) loss or damage in transit; or, (f) modification or service by a party other than the Company.



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## LIMITATION OF WARRANTY

EXCEPT AS EXPRESSLY SET FORTH IN THE LIMITED WARRANTY, THE COMPANY MAKES NO WARRANTIES, COVENANTS OR CONDITIONS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE COMPANY EXPRESSLY DISCLAIMS ALL WARRANTIES, COVENANTS AND CONDITIONS NOT STATED IN THIS LIMITED WARRANTY TO THE MAXIMUM EXTENT PERMITTED BY LAW. ANY IMPLIED WARRANTY THAT MAY BE IMPOSED BY LAW IS LIMITED IN DURATION TO THE APPLICABLE LIMITED WARRANTY PERIOD. SOME JURISDICTIONS MAY ALLOW A LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR ON THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGE TO CONSUMER PRODUCTS, OR OF A CONSUMER'S STATUTORY RIGHTS. IN SUCH JURISDICTIONS, SOME EXCLUSION OR LIMITATION OF THIS LIMITED WARRANTY MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY, IS APPLICABLE IN ALL JURISDICTIONS AND MAY BE ENFORCED IN ANY JURISDICTION WHERE THE COMPANY OR ITS AUTHORIZED SERVICE PROVIDER OFFERS WARRANTY SERVICE. ALL DISPUTES ARISING UNDER THIS LIMITED WARRANTY SHALL BE RESOLVED BEFORE A COURT OF COMPETENT JURISDICTION IN HAMILTON COUNTY, OHIO.

ANY ACTION FOR BREACH OF WARRANTY OR OTHERWISE AGAINST THE COMPANY SHALL BE LIMITED TO, AND THE SOLE REMEDY AFFORDED BY THE COMPANY SHALL BE, THE REPAIR OR REPLACEMENT OF ANY DEFECTIVE PART OR PRODUCT AS STATED IN THIS LIMITED WARRANTY AND THE COMPANY SHALL HAVE NO LIABILITY FOR CLAIMS, LOSSES, COSTS, LIABILITIES, DAMAGES OR EXPENSES (WHETHER INCIDENTAL, CONSEQUENTIAL OR SPECIAL) ARISING FROM OR IN CONNECTION WITH THE USE OR MISUSE OF ANY PART OR MACHINE/PRODUCT OR FOR BREACH OF WARRANTY, STRICT LIABILITY IN TORT OR OTHERWISE.

THE INFORMATION IN THIS LIMITED WARRANTY IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. IN THE EVENT THAT THERE ARE DIFFERENCES BETWEEN THIS WARRANTY AND THE PROVISIONS OF ANY ADVERTISEMENT, DOCUMENTATION, PRODUCT BROCHURE, OR PACKAGING CARTONS, THE TERMS OF THIS LIMITED WARRANTY WILL PREVAIL.

## NON-WARRANTY REPLACEMENT POLICY

In the event that your product is not eligible for the limited warranty listed above, the Company will repair or replace the product for the cost of \$49.00, plus any applicable shipping charges. The non-warranty replacement price is subject to change without notice. To take advantage of the Company's non-warranty replacement policy, please follow the instructions in this link: <http://www.mkcontrols.com/lightningbug/rma/> prior to shipping your product back to the Company. Complete instructions are given during the creation of the RMA. If the unit is damaged, we'd like to hear your story of how the damage occurred. We reserve the right to use these stories on our website. Your name will not be revealed. Prior to returning your unit, we will contact you for billing instructions.



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We must be able to identify that the pieces were indeed our product; the internal circuit board must be identifiable for us to replace the unit under our replacement policy. Your damaged unit will not be returned. Please note that interface cables are NOT covered under the non-warranty replacement policy.



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## **Company Information**

The Lightning Bug™ is produced and warranted by MK Controls, Inc., an Ohio Corporation. MK Controls, Inc. is based in Harrison, OH, and has manufacturing facilities located in Nashville, GA.

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