

# MSA-B

## Passive Infrared Motion sensor

Manual Version 2.00



## Table of Contents

Introduction .....	1
Operation .....	1
Wiring.....	2
Adjustments .....	2
Mounting.....	2
Sealing for Rain .....	2
Connecting multiple Sprites to one MSA-B sensor .....	3
Support .....	3
Custom Orders .....	3

## Introduction

The MSA-B is a “passive infrared” motion sensor that is well suited to work directly with the Sprite® video repeater or the Hydra® input output accessory. The sensor will detect warm body motions crossing its view and output a TTL “High” pulse. It operates on 5 Volts DC from the Sprite’s IO port with minimal power use and directly triggers the Sprite® with no other electronics needed. The range of the sensor is about 25 feet with about 120° field of view, but can vary by ambient conditions. In example, if the room temperature is close to body temperature, the sensor may not detect motion well.

## Operation

When first powered on, the sensor will need a minute or two to calibrate itself to the room. During this time there will be no trigger output. The sensor then “watches” for heat moving across its path from one zone to another. With this in mind, the sensor may not easily detect a person walking directly toward it, and is more likely to detect a person walking across its view.

If using the MSA-B with the Sprite® or Sprite® 4K video repeater, you should set the Sprite’s Play Mode to “Video Control Mode” for video files, or “Audio Control Mode” for audio files. Then set the Control Mode to the “Trigger High No Interrupt” setting. You will need 2 files on the SD memory card (or USB drive) named 000 and 001. The 000 file will loop continuously when power is applied until there is a trigger event. The MSA-B will cause a trigger event when it detects motion, and the Sprite® will play the file named 001. Both files should be longer than 5 seconds. We recommend 30 seconds or longer for the loop file. The loop can be a black video or a silent audio file if you want it to be un-noticed before the trigger event. You can add some extra time or black space to the end of the 001 file as a delay to allow the person to walk away before a new trigger occurs. Using a Hydra® allows you to set the delay from a few seconds up to 15 minutes and trigger multiple files in order or randomly.

---

## Wiring

### **If connecting direct to the Sprite® or Sprite® 4K**

The MSA-B will plug into the Sprite's I/O port.  
Set the Sprite® to the "Trigger High No Interrupt" option.

### **If connecting to the Hydra®:**

The MSA-B will plug into the Hydra's Port 2.  
Follow the directions in the Hydra manual for the selected Mode of operation.

## Adjustments

You may need to experiment with the sensor location and aim for best results. Sometimes mounting on a wall is best, for other applications the ceiling is best. You can narrow the view by masking it with black tape, recessing it into a wall or pipe, mounting it high aiming down or low aiming up etc. to reduce unwanted triggers.

You can add "exit" delay after your triggered file if desired by adding some black or other uninteresting video at the end of the triggered file. This will allow the person time to exit the area before allowing a new trigger event. Or you can add a Hydra® input / output accessory to set a delay from a few seconds to 15 minutes.

## Mounting

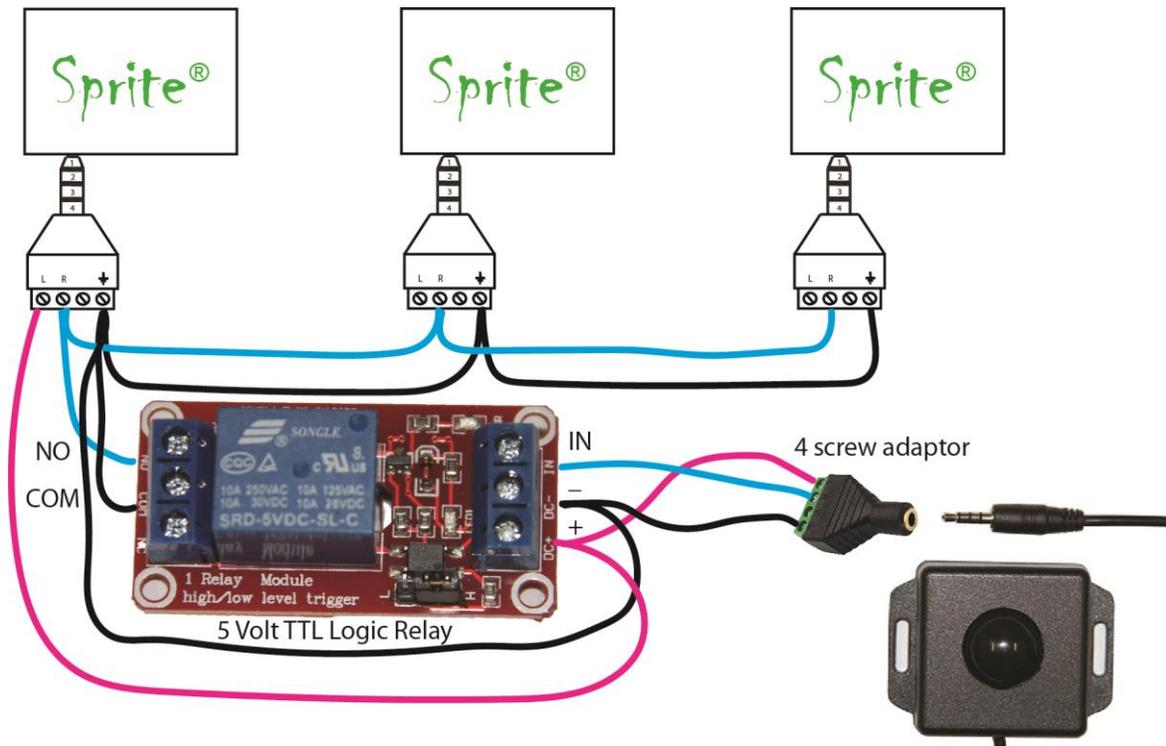
The MSA-B sensor can be mounted using screws in the provided holes.

## Sealing for Rain

If you need to operate the MSA-B in a wet location, you can use RTV silicone to seal the sensor dome to the case, and seal the wire exit hole.

## Connecting multiple Sprites to one MSA-B sensor

If you want to trigger multiple Sprites from one MSA-B sensor, you should use a relay as shown below. Use a 3.5mm TRRS jack to 4 screw adaptor and a 5 Volt TTL logic relay.



## Support

[support@medeawiz.com](mailto:support@medeawiz.com)

[support@TeamKingsley.com](mailto:support@TeamKingsley.com)

## Custom Orders

We offer value added options such as:  
Adding wire in various lengths  
Sealing for outdoor applications

Contact sales for a custom quote.  
[sales@teamkingsley.com](mailto:sales@teamkingsley.com)