

## One Year Limited Warranty

Hollywood Controls Inc ("the Company") warrants this AHC1016 RIR-MotionSensor Module against defects in material or workmanship for one year from date of original purchase. The Company, at it's option, will repair or replace the components and return them to you free of charge.

This warranty is extended only to the original purchaser on record with the Company.

Your remedy is limited to this warranty policy. This warranty only covers product failure that occurs due to defects in material and workmanship occurring during the normal expected use of the product. It does not cover damage caused by accident, misuse, abuse, lack of reasonable care, alterations or improper installation.

There are no expressed warranties except as described above.

THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL IMPLIED WARRANTIES, IF ANY, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so

the above exclusions or limitations may not apply to you.

No other warranty, written or verbal, is authorized by the Company. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

For service during the warrantee period you must first contact the Company for an Return Merchandise Number (RMA) number. The Company will help you determine which part requires service and ask that you return that component ONLY. The Company, at it's option, will repair or replace the components and return them to you free of charge. All returned components must be accompanied by a RMA number issued by the Company and be returned by insured prepaid freight. Products returned without a Company issued RMA will not be accepted. The Company is not responsible for merchandise damaged in transit. Evident or concealed damage made in transit should be reported at once to the delivery carrier and a claim filed with them.

The Company reserves the right to change or modify the operation, design, components and description of this system without notice.

### HOLLYWOOD CONTROLS INC.

Phone:

Toll-free: 888-318-2380

sales@hollywoodcontrols.com

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Hollywood Controls Inc.

## HC1016 RIR-Barrel-Motion Sensor

Model: HC1016-X

Active Infrared Barrel Motion Detector  
Retro-Reflective Sensing



### Features:

- 3-Wire 5VDC Operation
- 0.87" Circular Barrel Style
- Connector Options
- Visible Trigger Indicator



HC1016 with & without connector

### General Description

The HC1016 *RIR-MotionSensor* retro-reflective infrared motion sensor unit is 0.87" diameter barrel-style detector with a 3-wire interface providing an NPN style output. Power to the sensor must be 5VDC.

The *RIR-MotionSensor* module is housed in a tough plastic case that is nearly indestructible. The IR element is recessed within the protective front cover.

Sensing is based on movement of objects in front of the sensor. The range is typically 18-100", with a detection window for the reflector approximately 12" x 12" at 8 feet.

Detection direction is "line-of-sight from the front of the sensor. The retro-reflecting disk must be mounted in-line with the sensor and aligned such that the sensor turns off. Breaking the "beam" triggers the sensor. Mounting can be in

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### Components for this System

1. RIR Motion Sensor Module
2. Outer Threaded PVC Nut
3. Panel Ring Spacer
4. Inner NPT Thin Metal Nut
5. 5' 3-wire Cable
6. Retro-reflector Disk
7. Use With HC205-4 5VDC Power Module

### Safety Precautions

- DO NOT alter or remove labels.
- 5VDC Operation
- NOT for Safety Applications
- DO NOT pull wire to separate connector!

any angle and position to cover the desired triggering area. Note that the sensor is blind for the first 18" in front of the unit. This is caused by the high return bounce if IR light within this range.

For short range detection, consider using our AHC1015-X Diffuse IR Sensor.

### Bare Wire Interfacing

The 3-wire interface conforms to industry standard for sensors. DO NOT mis-connect wires or sensor damage will occur.

Pin 1 - Brown - Power 5VDC

Pin 2 - Black - Output NPN open collector

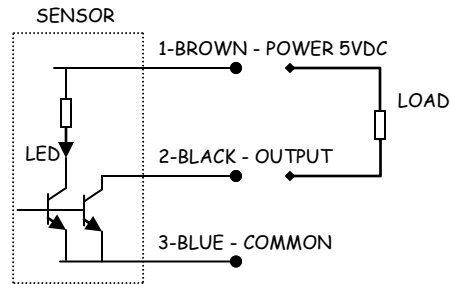
Pin 3 - Blue - Common Return

Max LOAD= 200 ohms

## Operation & Use

The IR-Sensor unit is very easy to use. The sensor on-time and reset periods are rapid and dependent on the objects that break the beam. This is suitable for a wide range of basic event control, including triggering our HC141X *Power Blasters* and our HC2100 series of modular *Event Timers*, and HC1200 *Power Strobes*.

*For those who have an interest in alternate applications, the RIR-Barrel Sensor output is an NPN open-collector switch that can handle about 25mA at 5VDC (200ohm load). DO NOT Exceed this or the unit will be permanently damaged and not covered by the warranty.*



The IR-Sensor module was designed for reliability, simplicity and long life. Since there is no adjustment in the re-trigger rate of the module, this must be implemented within the unit being triggered. With our HC141X *Power Blasters*, this is accomplished by programming a recycle delay into one of the control units triggering channel. Thus, multiple triggers from the *DIR-MotionSensor* module are ignored until the HC141X control is re-armed following the recycle delay.

## RIR-Motion Sensor Mounting & Range Adjust

The HC1016 *RIR-MotionSensor* is designed to fit a standard utility box *knockout* opening. Any opening 0.87" or larger is suitable. The HC1016 *RIR-MotionSensor* is supplied with a straight-thread PVC Front nut, spacer ring & metal 1/2" NPT rear nut and washer. This makes it convenient to mount from either the panel front or rear. The mounting panel depth can range from 1/16" sheet metal to 5/8" wood panel. Use the spacer as necessary to fit the panel thickness.

Adjustment will vary depending on lighting and surrounding conditions. Position the retro-reflector disk opposite the *Sensor* such that the rear trigger indicator turns off. Evaluate the triggering window both horizontally and vertically

and position the reflector accordingly.

The typical retro-reflector disk range is 18-100", with a detection window for the reflector approximately 12" x 12" at 8 feet.

*Triggering will not be effective within 12"-18" of the Sensor due to high beam reflectance.*

Feel free to experiment with sensor mounting and concealment.

## Options

The part number suffix indicates the available cable termination options.

Suffix	Wire Termination	Brand	Part #
-0	tinned wire leads		
-1	male locking connector	N/A	N/A
-4	male locking connector	Switchcraft	EN3C3MX

## Servicing

Your Hollywood Controls HC1016 RIR-MotionSensor should provide many seasons of use without maintenance.

DO NOT disassemble the sensor as there are no user-serviceable parts.