

Gotcha!

Installation Manual



GT500



GT500R

RAB

How Does Gotcha Work?

Gotcha's infrared sensor "sees" small temperature changes caused by the motion of people or cars within its protection zone and turns on lights automatically. It welcomes visitors and may deter intruders.

How long do the lights stay on?

Lights turn off a short time after motion in the detection range stops. You can adjust this time from 10 seconds up to 5 minutes. Since the lights are only on when needed, and the sensor uses only four watts, Gotcha is extremely energy efficient.

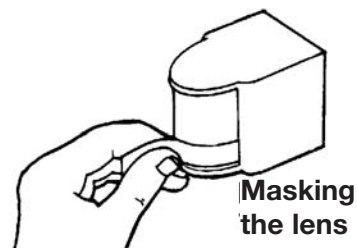
Can outdoor lights still be turned on with the light switch?

Yes. Gotcha can be controlled by a conventional indoor switch or circuit breaker. Lights can be turned on or off manually at any time.

- Lights off: Flip the switch "off".
- Automatic operation: Turn the switch "on". Gotcha will first run through a 5 minute test period for daytime testing. The sensor will then be ready to detect movement within its zone at night only.
- Manual Override Mode (to keep lights on): Flip the switch "off" then on again two times (off-on-off-on) within 2-3 seconds.
- To Resume Automatic Operation: Flip the switch once (off-on) within 2 seconds. Sensor will also reset to Automatic Mode after 6 hours or at dawn.

Will Gotcha detect animals?

Gotcha will not detect cars, birds or small dogs. It may detect large dogs and larger animals. Having animals trigger Gotcha can help give property a "lived-in" look. You limit animal detection by turning down the sensitivity knob or by placing electrical tape on the lower part of the lens, or both.



How are Time and Sensitivity set?

Time and Sensitivity adjustments are located on the underside of the sensor and are protected by weatherproof caps. To adjust, remove the cap and use a small screwdriver. Replace the cap after adjustment is completed.

- Time: sets the time that lights will remain on after protection zone is vacated.
- Sensitivity: increases or decreases the responsiveness of the sensor and its range.

Specifications:

Switching Capacity: 500 watts
Voltage: 120 volts
Protection Pattern: 60' x 110°
Time Adjustment: 10 seconds to

5 minutes

Power Consumption: 4 watts

UL Listing: Raintight
Photoelectric
Switch



Gotcha! Assembly and Wiring

- To install a GT500 Sensor with separately purchased floodlights, start at #1.
- For GT500R Pre-wired Floodlight Kit, see page 5.

Cautions

TURN OFF ALL POWER AT CIRCUIT BREAKER / FUSE PANEL

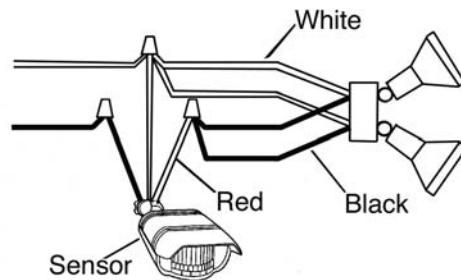
- Read entire Installation Manual before proceeding.
- All wiring should comply with local electrical codes and requires a qualified electrician.
- The total lighting load connected to Gotcha must not exceed 8 amps (500 watts incandescent or quartz, 250 watts fluorescent). To switch more wattage an electrician can install a relay.
- Line Carrier Remote Control Systems such as X-10, Leviton or Radio Shack are incompatible with sensors and cause false activations.
- Do not install sensors on a circuit that feeds motor loads like kitchen appliances, HVAC equipment, washer/ dryer or garage door openers.
- Sensors must be below and as far as possible away from lights.
- Sensor functions best when the direction of the expected movement is across its detection pattern, not towards the sensor.
- Mount 6-12 feet high for optimum range and detection.

1. Twist the threaded arms of each floodlight into the RAB CU4 EZ plate.
2. Screw the threaded arm of the sensor into the bottom hole of the EZ plate. Sensor should be below and as far away from the floodlights as possible.
3. Attach the Universal Mounting bar with the bar screws (provided) to the junction box. If you are attaching your GT500 kit to a surface mount weatherproof box, you must use both gaskets, with the metal mounting plate sandwiched between.
4. • **Easy wiring Tip:**
Use the "S" shaped Hands Free Hanging Hook to hold the EZ plate during wiring.

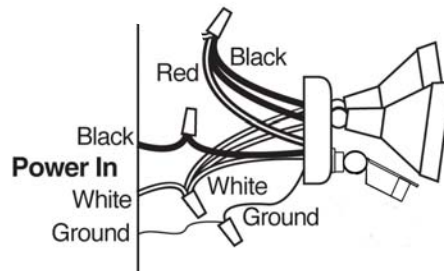
5. Bring power leads, light fixture and sensor leads through holes in all gaskets and mounting plates into junction box.
6. Attach ground wire(s) to junction box grounding screw.
7. Position EZ plate gaskets and metal plate. (see pg #5)
8. Strip 1/2" of insulation from all leads. Connect as shown in wiring diagram.
9. Twist on wire nuts.
Secure with electrical tape.
10. Make sure all unused openings in EZ plate are closed with plugs (provided).
11. Screw in light bulbs. Turn on power.
12. Conduct walk test to adjust sensor response.

Wiring Diagrams

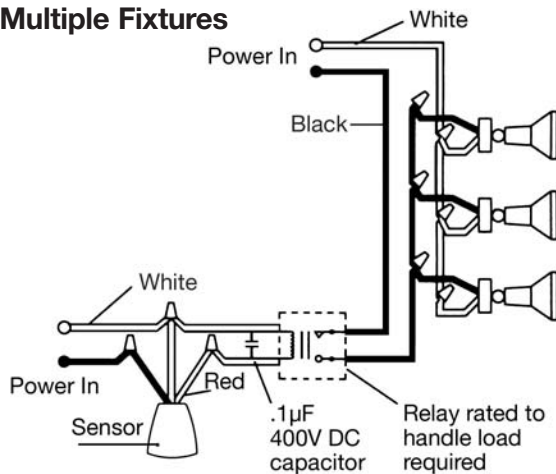
Basic Wiring Diagram



Basic Kit Wiring



Multiple Fixtures



While multiple fixtures may be wired to a single sensor, multiple sensors should not be wired together, as problems become difficult to troubleshoot. Single sensors that control their own lights will give a more accurate location of movement and trouble-free operation.

To handle loads greater than 1,000 watts, a qualified electrician should install a relay.

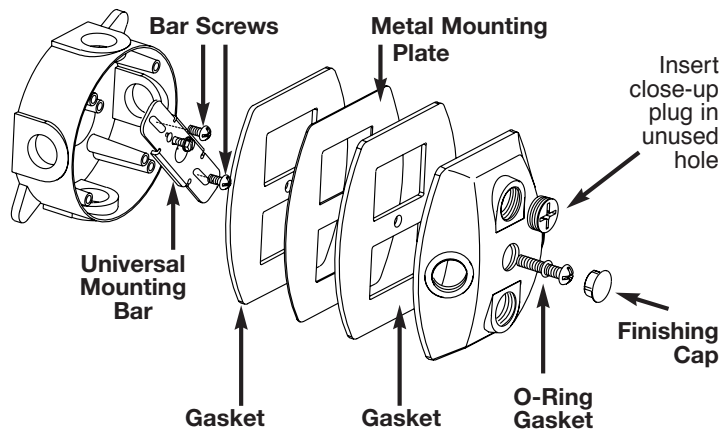
Power Quality

It is not recommended to install sensors on a circuit that also feeds motor loads such as HVAC equipment, kitchen appliances, or garage door openers. The Gotcha circuit is surge and transient protected to IEC specifications. However, if voltage varies significantly from 120 volts, sensor will malfunction.

Gotcha Kit Assembly and Wiring

Gotcha floodlight kits come pre-wired and assembled on the RAB CU4 EZ plate, allowing for mounting on round, rectangular or octagonal surface or recessed boxes.

Mounting



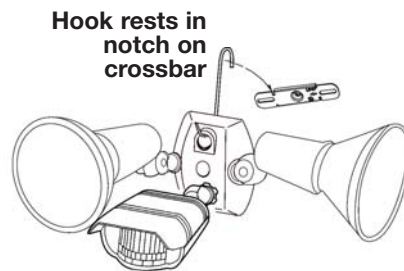
1. Attach the Universal Mounting bar with the bar screws (provided) to the junction box. If you are attaching your kit to a surface mount weatherproof box, you must use both gaskets, with the metal mounting plate sandwiched between.

2. Easy Wiring Tip:

Use the "S" shaped Hands Free Hanging Hook to hold the EZ plate during wiring.

3. Bring power leads and sensor kit leads through holes in all gaskets into junction box.

4. Strip off at least 1/2" of insulation from all leads, and insert through openings in gaskets and mounting plate.

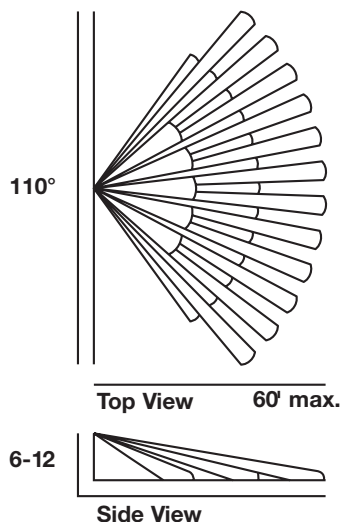


Selecting A Location

How large an area will Gotcha protect?

When mounted at the recommended height of 6 - 12 feet, the detection pattern extends out 40 - 60 feet and is 110° wide. To reduce coverage, aim the sensor towards the ground.

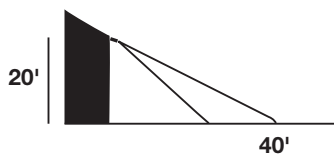
Detection Pattern



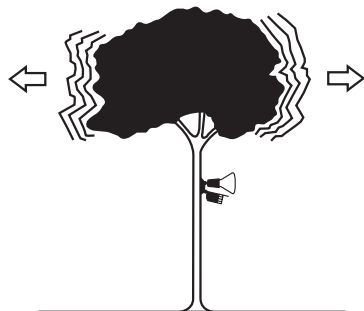
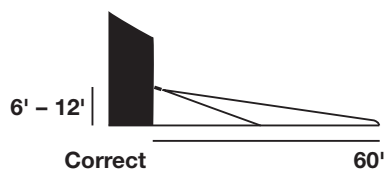
Do Not Locate Gotcha:

- **Too High**

High Mounting reduces range



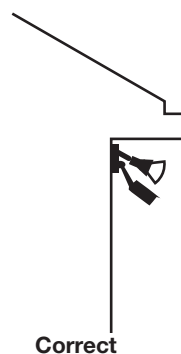
Mounting 6' to 12' high allows maximum range



- **On pole or tree that sways in wind**

Movement triggers sensor

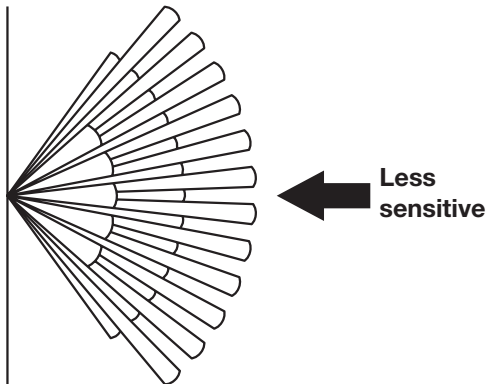
Mount on stable surface



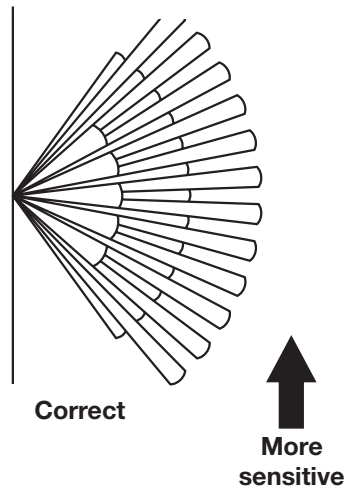
Do Not Locate Gotcha:

- **Where movement is directly toward sensor.**

Less sensitive to movement directly towards sensor



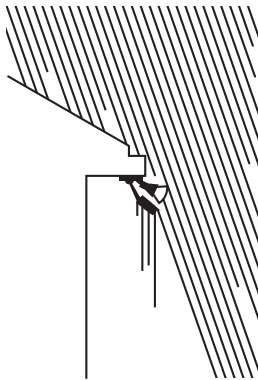
More sensitive to movement across the pattern



- **Exposed to rain or icicles**

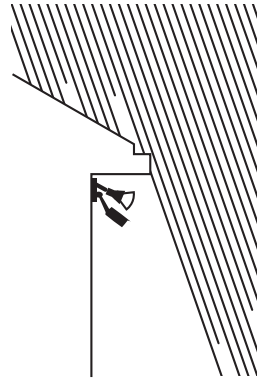
Sensor unprotected and view blocked

Incorrect



Mount sensor in protective area

Correct



- **Over heating vents, dryer vents, air conditioners or any object that may move or change temperature rapidly**

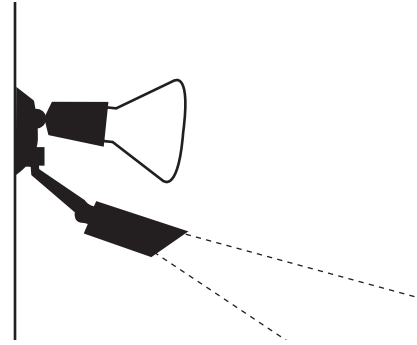
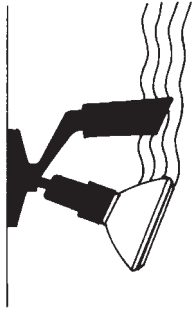
Helpful Aiming Hints

Do Not Aim Gotcha:

- **Above or touching its own lights.**

Heat from lights triggers sensor

Move sensor below lights

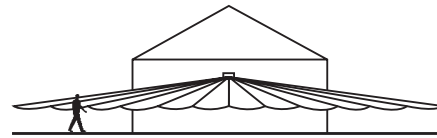
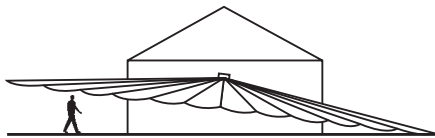


Correct

- **Tilted from side to side.**

Part of protection pattern unusable

Position sensor exactly level from side to side

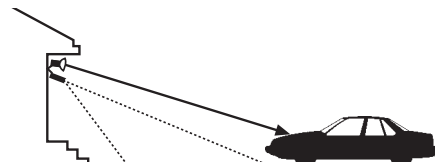
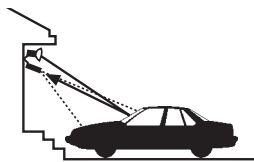


Correct

- **Where reflections come from shiny or light colored objects such as cars, windows or white walls.**

Sensor is triggered by reflections

Aim sensor away from reflective objects



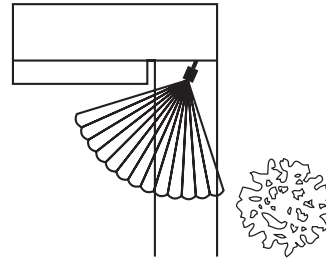
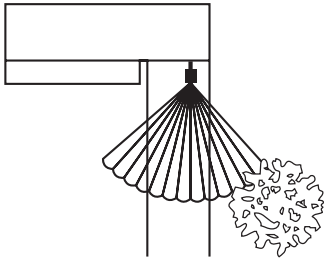
Correct

Do Not Aim Gotcha:

- **Pointing at branches, swimming pools, plants or water.**

Motion triggers sensor

Aim sensor away from obstructions

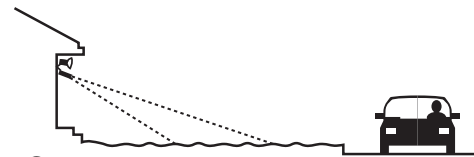
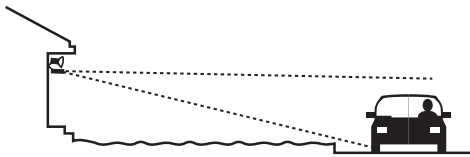


Correct

- **Where sensor may detect passing cars.**

Passing cars activate sensor

Aim sensor down to avoid activation from passing cars



Correct

- **Aimed Above Horizontal**

Aiming at sun will cause erratic sensor performance

Aim sensor down towards ground

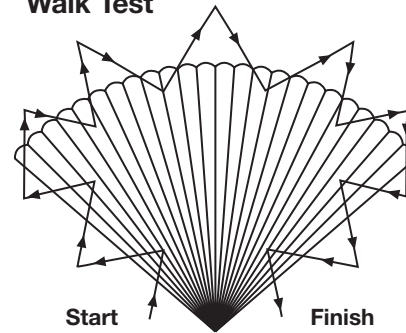
Aiming And Adjustment

The purpose of the Walk Test is to check and adjust the coverage pattern of Gotcha. When power is first applied to the Gotcha, it will automatically provide a 5 minute Walk Test Period. During this period the sensor will operate in daylight and will keep lights on for only 5 seconds after motion ceases.

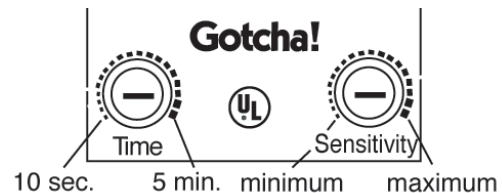
Walk Test

1. Aim the sensor across the traffic pattern you want to protect.
2. Turn on power.
3. Start outside the pattern and walk across the pattern until the lights go on.
4. Adjust the sensor aiming as necessary to improve coverage.
5. Remove weatherproofing cap from sensitivity control. Turn dial gently with a small screwdriver. Less sensitivity may be desired if you wish to protect a limited area (or if the sensor is being activated by wind, foliage or animals.) More sensitivity will help cover a larger area.
6. Repeat steps #3 thru #5 until you are satisfied with the coverage. To conduct another 5 minute walk test, turn off the power for at least 5 seconds and turn it on again.
7. Tighten screws to lock the sensor in position.
8. Set the "Time" control. The minimum setting is 10 seconds, the maximum 5 minutes. This period starts after the movement in the protection pattern ceases.
9. Replace the caps on Time and Sensitivity controls.

Walk Test



Time & Sensitivity Adjustments



Troubleshooting

Each Gotcha undergoes rigorous testing and quality control procedures before it leaves the factory. Malfunctions are most often due to incorrect installation or aiming of the unit.

Lights Do Not Turn On

1. Turn off power for at least 5 seconds, then on again. Remember the daylight test period is only 5 minutes long.
2. Check that bulbs and fixtures work. Compare wiring to the wiring diagram. Check that power is on.
3. Check that sensor is level from side to side and pointed at the area you desire. Sensor should be pointed slightly downward.

Lights Go On and Off Quickly

1. Make sure sensor is located below and in front of the lights. Heat from the lights will cause unsteady sensor performance.
2. Make sure lights are not reflecting back into the sensor. Check for white or reflective surfaces in the protection pattern. Aim sensor and lights in different directions.
3. Note that the sensor is more sensitive in winter since infrared energy is easier for the sensor to detect in cold temperatures.
4. See #3 & #4 of "Lights Do Not Turn Off."

Lights Do Not Turn Off

1. Check that the Time control dial on the bottom of the sensor is set to minimum.
2. Stay completely out of the protection pattern to avoid activating.
3. Make sure unit is not mounted on an unstable object (tree or pole) that sways in the wind. Make sure unit is firmly mounted.
4. Make sure unit is not aimed at something that would cause a temperature change such as tree branches, a body of water, air conditioners or heating vents.
5. Make sure unit is not in "Manual Override" Mode. Turn power off for more than 5 seconds, then back on again to resume automatic operation.
6. Make sure line voltage has not "browned out" to below 100 volts. This might happen if installation is on a day with heavy air conditioner use. If voltage is not adequate, wait for voltage to recover to normal.

Lights Turn On In Storm

Rain, snow and windstorms can create large temperature changes which may turn on the sensor. False triggering can be minimized by installing the sensor in a protected location and turning down the sensitivity control.

Maintenance and Repair

Keep the lens area clean and free of obstructions. Do not attempt to open or repair the unit. There are dangerous voltages inside and no user serviceable parts. For repair service follow your warranty.

Limited Warranty

Your Gotcha will be replaced or repaired, at our option, if it proves to be defective in workmanship or materials within five years from the date of original purchase.

For repair or replacement, return the product freight prepaid and insured to:

RAB Lighting

170 Ludlow Avenue
Northvale, NJ 07647

The unit should be packed carefully. Please include your sales receipt and a description of the problem.

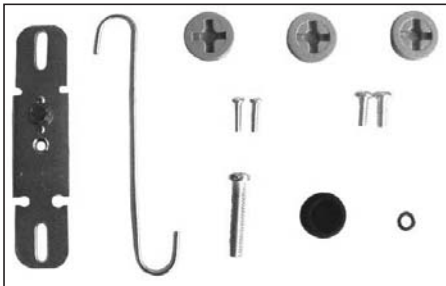
If your unit is out of warranty or the damage is unrelated to the original manufacture, return your unit directly

Contents of Accessory Kit

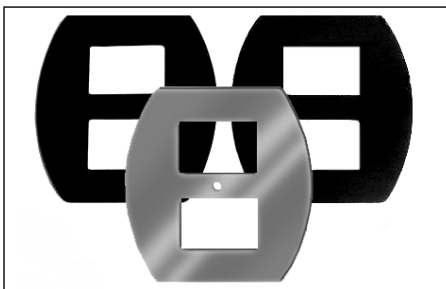
- 3 Wire Nuts



- Crossbar with Green Ground Screw
- Hanging Hook
- 1/2" Close Up Plugs (3)
- Slotted Screws (5)
- Finishing Cap
- O-ring Gasket



- Foam Gaskets (2)
- Metal Plate (for surface junction box mounting)



Easy Installation & Product Help

Toll Free Phone
Call our friendly experts
8AM-6PM ET Mon.-Fri.
888 RAB-1000

E-mail
Questions and requests
answered promptly
tech@rabweb.com

Toll Free Fax
Send faxes to RAB
24/7
888 RAB-1232

www.rabweb.com
Visit our internet site
for product information

Fax On Demand
Faxed Information,
24/7
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