

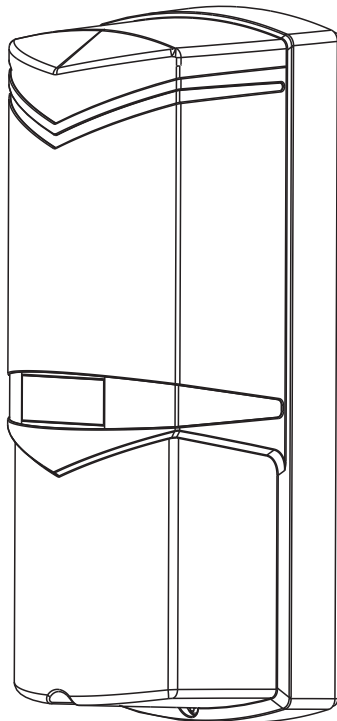


a **Nice** brand

PHOTO BEAM

R4222

THROUGH BEAM



Nice

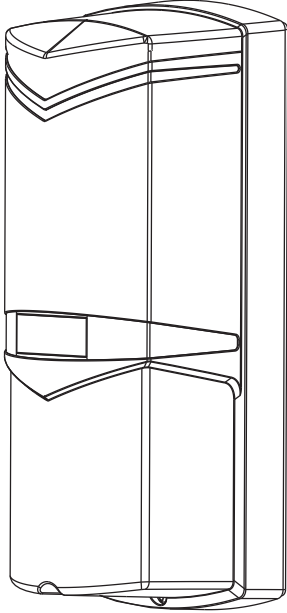
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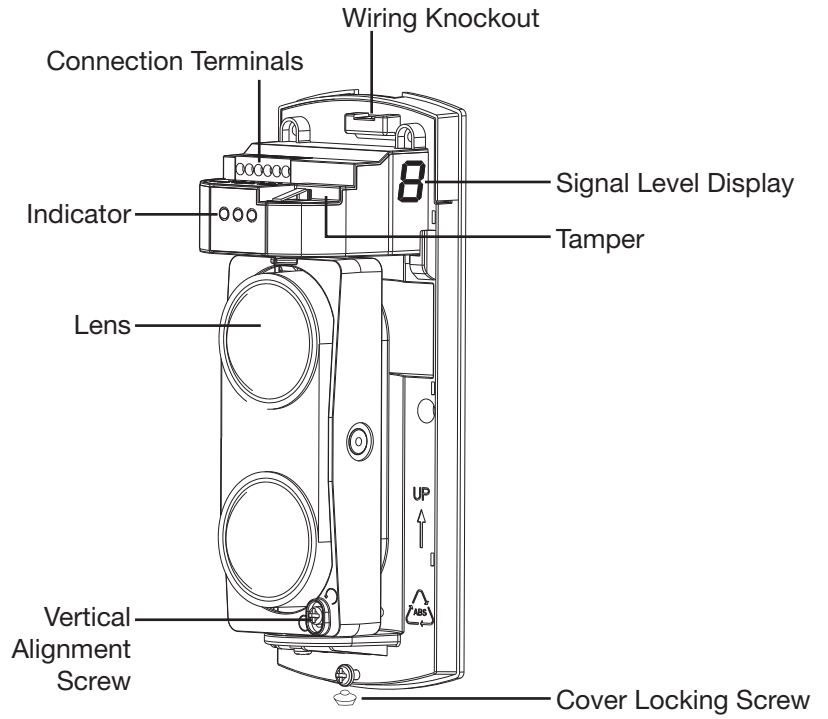
Photoelectric Dual Beam Detector

Parts

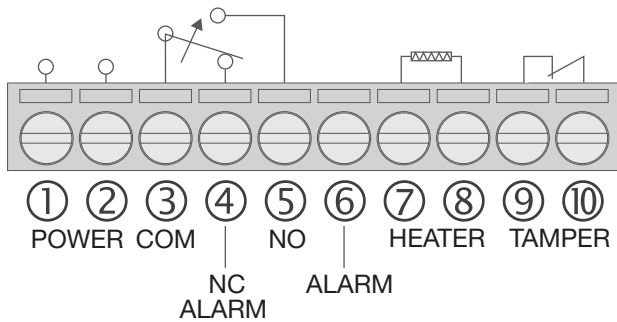
Cover



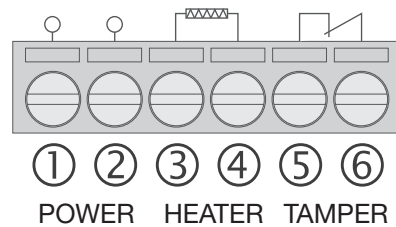
Internal View



Receiver Wiring Terminals



Transmitter Wiring Terminals



Receiver Indicators

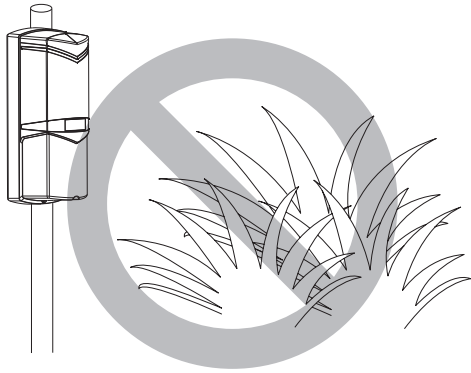
- GOOD LED (Green). Use when adjusting beam alignment. ON when beams are aligned, OFF when beams are not aligned. (Refer to operation instructions)
- LEVEL LED (Red). ON indicates received signal. Brightness varies, depending on incident level.
- ALARM LED (Red). ON indicates beam blocked. Use when setting response time. (Refer to operation instructions)

Transmitter Indicators

- POWER LED (green). ON when light beam is transmitting.

Mounting Cautions

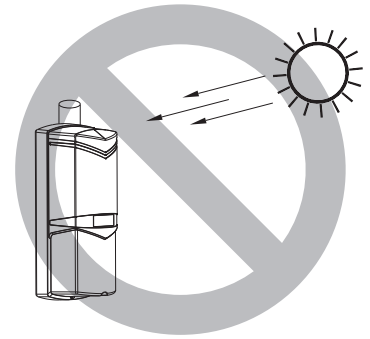
Do not mount the detector in the following conditions:



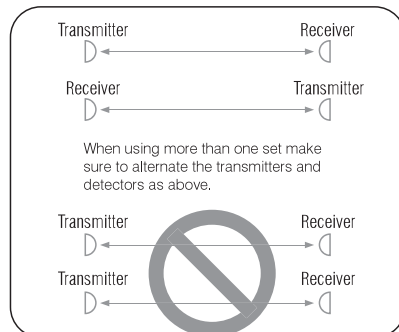
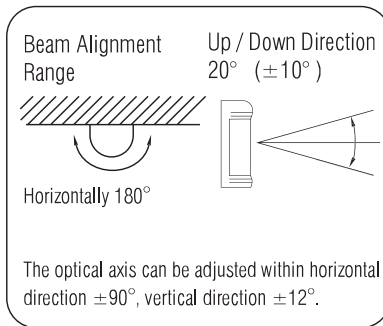
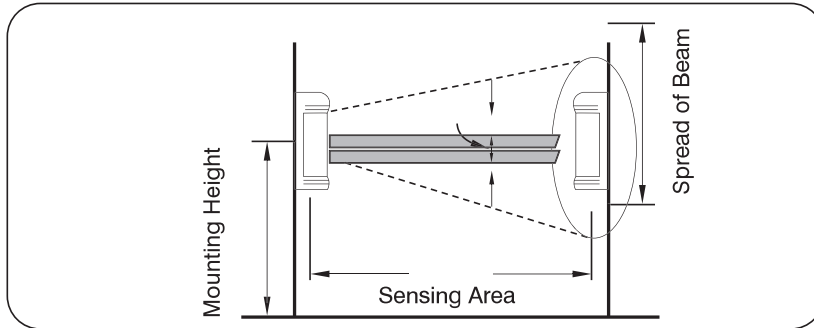
Where obstructions (plants, fences, etc.) are between the receiver and the sender.



Where the mounting surface is unstable.

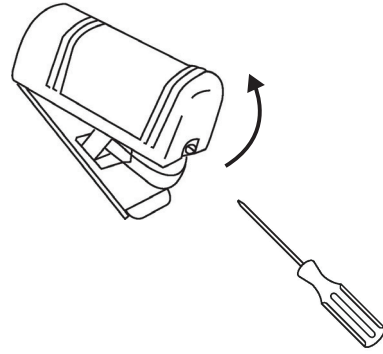


Where sunlight and headlights shine directly into the front of the receiver.

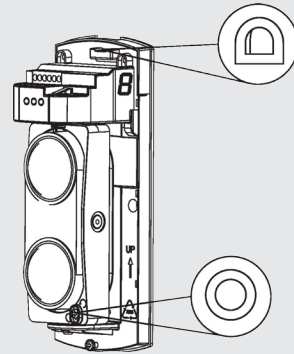


Mounting and Connections

1. Loosen the cover holding screw, and remove the outer cover.



2. Remove the rubber knockout, and use the screw holes to mount the unit.

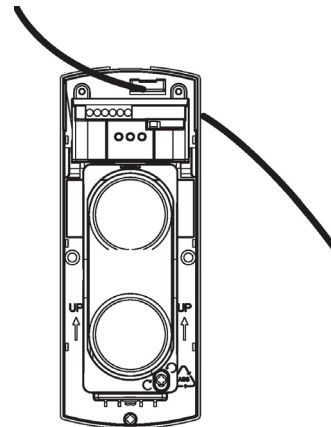


3. Remove the rubber knock-out, and pull the wire through.

Wiring

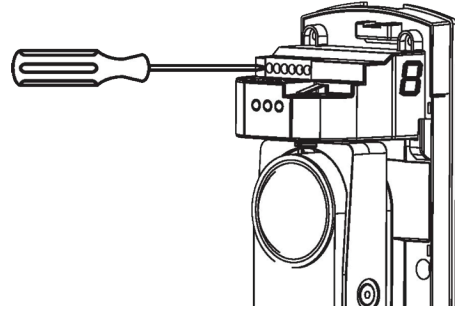


Back Cover

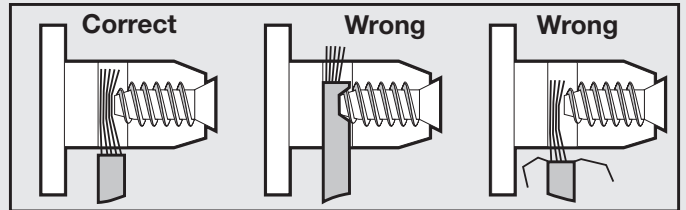


4. Mount the detector on the wall.

5. Connect wires to the terminals:
See wiring diagram, next page.



- Wire with 22awg minimum
- 300 ft (91 .4m) max length
- Be sure to capture the wire ends under the wire clamp plates.
- Avoid frayed ends on wires that might produce a short circuit.

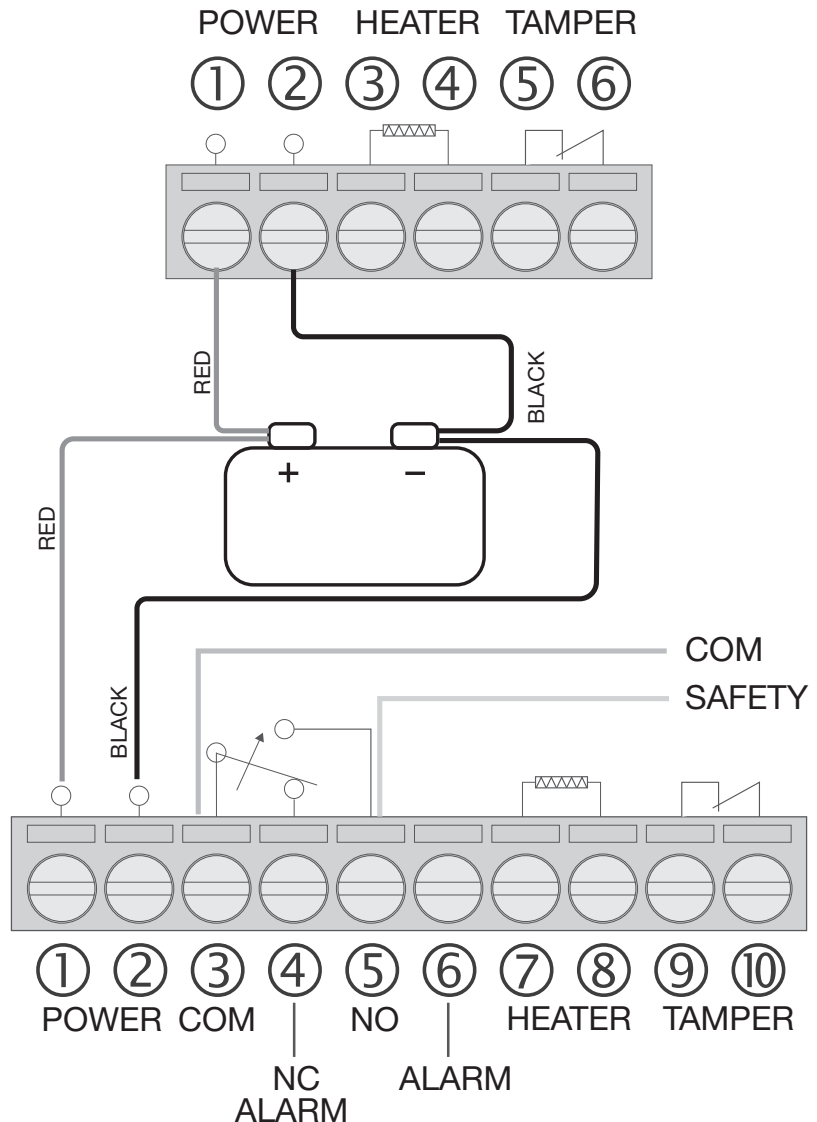


Wiring the R4222 Photo Eyes to Gate Operators

Compatible with Mighty Mule® Gate Openers

1. Connect the (①) Terminals of the TRANSMITTER and RECEIVER to the POSITIVE terminal of battery with wire. Alternatively (not displayed below), 1 from the transmitter's terminal can also be directly connected to 1 on the receiver's terminal as long as the transmitter or receiver's terminal 1 is also connected to battery's positive terminal.
2. Connect the (②) Terminals of the TRANSMITTER and RECEIVER to the NEGATIVE terminal of battery with wire. Alternatively (not displayed below), 2 from the transmitter's terminal can also be directly connected to 2 on the receiver's terminal as long as the transmitter or receiver's terminal 2 is also connected to battery's negative terminal.
3. Connect the (③) Terminal of the RECEIVER to the COM/COMMON terminal of your gate opener control board with wire.
4. Connect the (⑤) Terminal of the RECEIVER to the SAFETY terminal of your gate opener control board with wire.

Transmitter Terminal

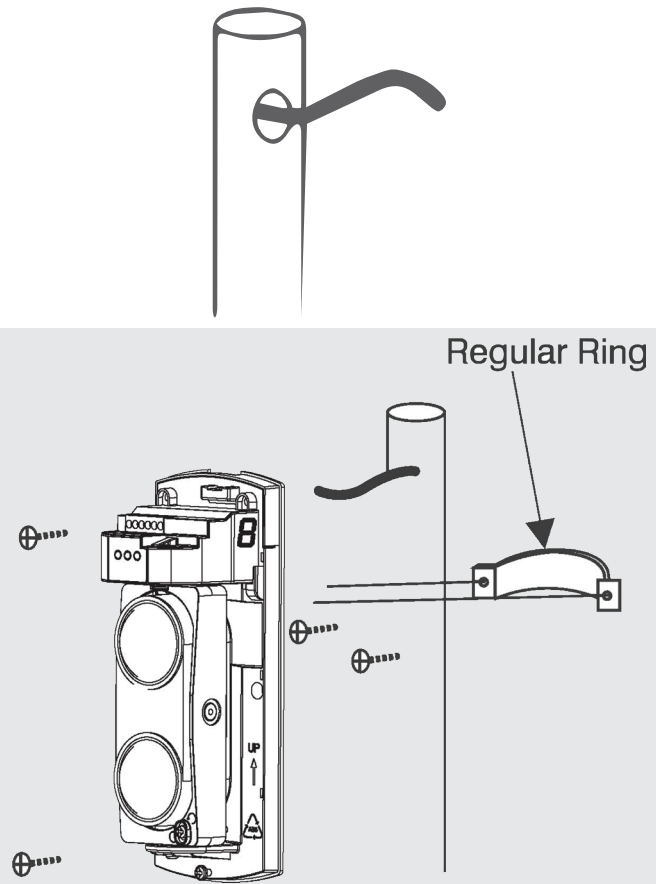


Receiver Terminal

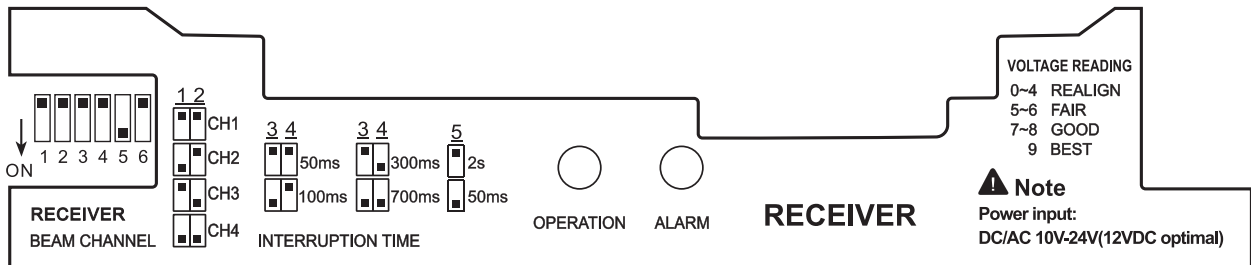
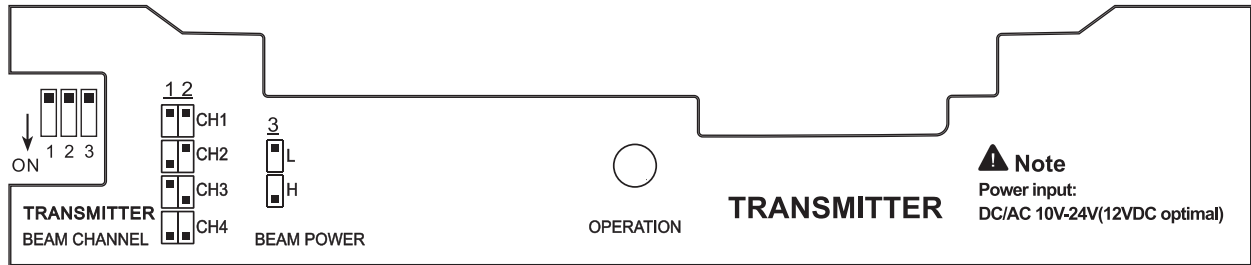
Pole Mounting

1. Break out the wire hole on the bracket then pull out the wires.

2. Remove the cover.
3. Attach the base plate on the bracket using the Regular Ring.



Dip Setting

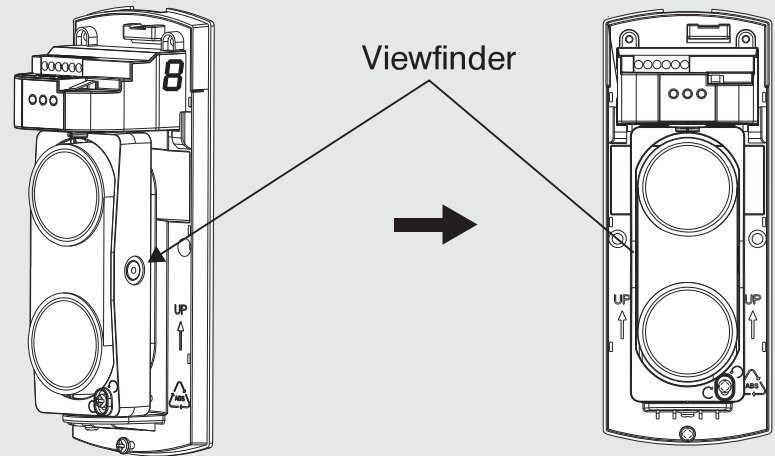


NOTE:

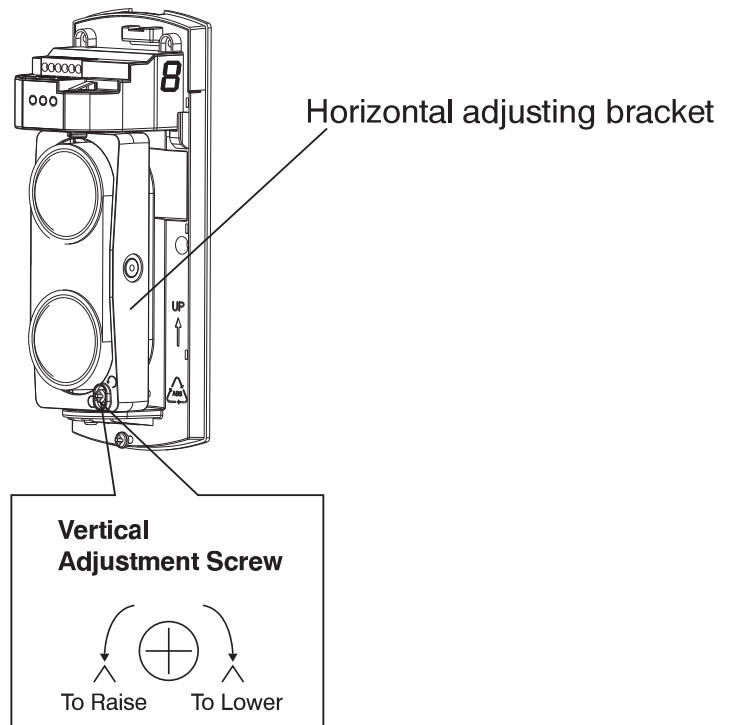
1. DIP 1 & 2 on Transmitter & Receiver must be on the same position (same channel).
2. Dial the PIN 5 at "ON" position on Receiver. STARTUP time is about 0.06 seconds.

Beam Alignment

1. Remove the cover, and turn ON power.



2. Adjust the horizontal pivot, and the vertical adjustment screw using the built-in viewer.
3. Look through the peep hole on either side and adjust so that the photo-beams are aligned.



Beam Interruption Time Adjustment

1



Fast running
20ft/s (6.9m/s)

2



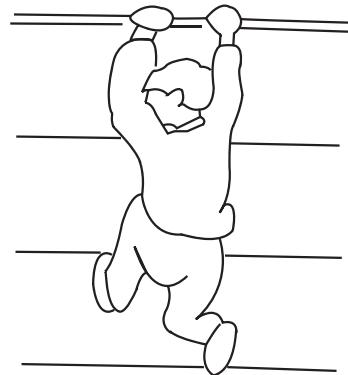
Fast walking with quick
steps 4ft/s (1.2m/s)

3



Normal walking
2.5ft/s (0.7m/s)

4



Slow action
less than 2ft/s (0.3 - 0.5m/s)

Verify Correct Operation

After installation, confirm correct operation by suitable walking.

	Condition	Indication
Transmitter	Transmitting	Green LED is ON
	Beam Clear	GOOD-LEVEL Indication
Receiver	Beam Blocked	Alarm indication lamp is ON

Troubleshooting

Symptom	Possible Cause	Remedy
Transmitter LED does not light.	Improper voltage supplied.	Check the power supply and wiring.
Receiver LED does not light.		
Alarm LED does not light, even when beams are blocked.	<ol style="list-style-type: none"> 1. Beams reflect to the receiver by other objects. 2. Both beams are not blocked simultaneously. 3. Beam block time is too short. 	<ol style="list-style-type: none"> 1. Remove the reflecting object or change optical axis direction. 2. Block both beams. 3. Increase beam block time.
When the beams are blocked, the receiver LED light is ON, but not alarm.	<ol style="list-style-type: none"> 1. Wiring is short circuited. 2. Wiring connection is not good. 	Check wiring and connection spot.
The alarm indication lamp of receiver is always on.	<ol style="list-style-type: none"> 1. Optical axis is not properly adjusted. 2. There are obstructions between the transmitter and the receiver. 3. The outer covers are dirty. 	<ol style="list-style-type: none"> 1. Adjust the optical axis. 2. Remove the obstructions. 3. Clean with window cleaner and a soft cloth.
Intermittent Alarm	<ol style="list-style-type: none"> 1. Bad wiring. 2. Fluctuating power supply/ voltage. 3. Intermittent blockage between the transmitter and the receiver. 4. The receiver or transmitter is unstable. 5. Blocked by other moving objects. 	<ol style="list-style-type: none"> 1. Check wiring. 2. Check the power supply. 3. Remove the obstruction or relocate. 4. Fix the mounting. 5. Adjust the optical axis. 6. Adjust interruption time or change installation position.

Specifications

Model		R4222
Detection Method		Infrared photoelectric
Range	Outdoor	98.4 ft (30m)
	Indoor	295.2 ft (90m)
Beam Characteristics		Pulsed infrared dual beams
Response Time		50~700m seconds (selectable)
Power Input		DC12V~24V
Current Consumption		40mA max
Output Pulse Duration		2 Seconds (±1) nominal
Alarm Output		Form C relay (AC/DC 30V 0.5A max)
Tamper Switch		N.C. Opens when cover is removed (receiver only)
Operating Temperature		-13°F (-25 C)~131°F (55°C)
Environment Humidity		95% max
Alignment Angle		±5° vertical, ±90° horizontal
Mounting		Wall or pole
Weight		.66lbs (300g) Both transmitter and receiver
Appearance		PC Resin (Black)

Limited Warranty

This product is warranted to the original consumer (“You”) by Nice North America LLC against defects in material and workmanship. This limited warranty only extends to You if You purchased directly from Nice North America or through one of Nice North America’s authorized sales partners. The warranty period commences on the date of Your purchase and survives for the respective product warranty period, as set forth in the chart below.

Model	Warranty Length
Gate Accessories	12 months

Please note, you are responsible for all labor costs associated with removing, reinstalling and returning the product to Nice North America, including the cost of shipping the product to Nice North America. Nice North America will, at its option, either repair or replace any product that it confirms is defective and is eligible for service under this warranty and will return the repaired or replaced product to You at Nice North America’s cost. Replacements may be made from b-stock products. If an exact replacement is not available, Nice North America will, at its option, select the nearest equivalent product. Nice North America will return warranted repaired or returned replacements by UPS Ground or an equivalent service. Second day or next-day service may be available at Your expense.

This warranty does not apply to damage to the product from negligence, abuse, abnormal usage, misuse, accidents, acts of god, normal wear or tear or due to failure to follow the manufacturer’s instructions, or arising from improper installation, storage or maintenance. EXCEPT FOR THE EXPRESS WARRANTIES EXPRESSLY CONTAINED IN THIS LIMITED WARRANTY, NICE NORTH AMERICA MAKES NO OTHER PRODUCT REPRESENTATIONS OR WARRANTIES OF ANY KIND. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. IN NO EVENT WILL NICE NORTH AMERICA BE RESPONSIBLE FOR INCIDENTAL, COMPENSATORY, PUNITIVE, CONSEQUENTIAL, INDIRECT, SPECIAL, OR OTHER DAMAGES. Some states do not allow the exclusion or limitation of incidental and consequential damages, so the above limitation or exclusion may not apply to You. Any warranties implied by law are limited to the time periods set forth above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to You. This warranty gives You specific legal rights, and You may also have other rights which vary from state to state.

In order to be protected by this warranty, a copy of the receipt or other valid proof of purchase must be provided; the warranty cannot be honored without proof of purchase. You must send a copy of your proof of purchase with any product that is being repaired or replaced under this warranty. In order to initiate warranty service for Your product, please call Technical Services at (800) 421-1587 for a Return Authorization Number (“RA#”) and other important details. You must obtain a RA# before returning Your product for warranty service.



Mighty Mule Sales & Technical Service: 800-421-1587

For more information about the full line of Mighty Mule Automatic Gate Operators, Gate Openers and Access Controls visit

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