

# Alignment Guide— IR5500 Open Path Gas Detector



## Tools Required

- 1 x 5 mm Allen wrench
- 2 x 2.5 mm hex wrenches
- Range finder or Rolling Distance Measuring wheel
- Alignment Scope (optional, P/N 329082-1)



Ensure that there is not combustible gas present in the background before proceeding. Failure to do this could desensitize the system to gas.



Two people are recommended, but not required to complete the alignment process. Each person should have 2 x 2.5 mm hex wrenches.

## Clear Path and Measure Distance

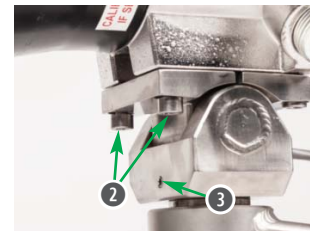
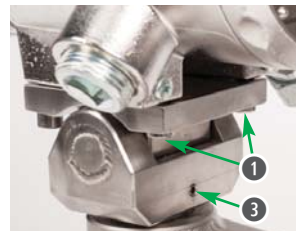
- Clear the path of any obstructions
- Measure and record distance between Source and Receiver



Installing open path gas detection in areas of high traffic or with permanent obstructions in the path will result in frequent critical faults. See Installation Guide for complete list of recommendations.

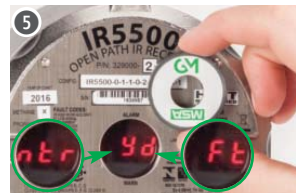
## Rough Align Source and Receiver

- 1 Fully tighten back cap screws with 5 mm Allen wrench
- 2 Loosen front cap screw with 5 mm Allen wrench
- 3 Loosen fine adjust screws with 2.5 mm hex wrench so that they are flush with housing
- 4 Starting at Source, use the housing sights to aim the units at each other. Align the notch and pin of the sights with the center of the opposing unit



## Enter Percent Signal Menu (Pct) and Path Information (Pth)

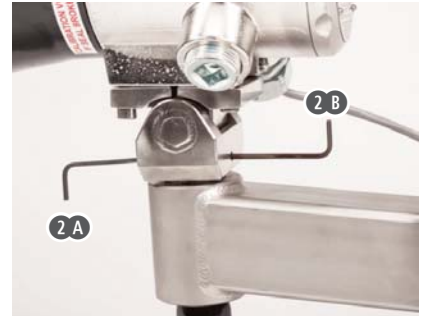
- 1 Hold the GM magnet over the GM logo on the label of the Receiver for approximately five seconds
- 2 The display will cycle between the menu options
- 3 Remove magnet when "Pct" appears to enter Percent Signal menu
- 4 Quickly apply magnet over "Pth" and hold there
- 5 Display will cycle through path length unit options Yard ("Yd"), Meter ("nt"), Feet ("Ft")
- 6 Select unit by removing magnet when unit is displayed
- 7 Quickly reapply magnet when "LEn" displays and hold
- 8 Enter measured distance between Source and Receiver by removing the magnet when the value displays
- 9 Options for Light Filter and Attenuator (short range only) will display:
  - "nLF" (no light filter), "LF" (light filter)
  - "nAT" (no attenuator), "AT" (attenuator)
- 10 Change option by applying magnet when option is displayed
- 11 Apply magnet over "Fi" when finished to enter alignment mode



Because every life has a purpose...

## Optimize Percent Signal Using Fine Adjust Screws

- 1 The display will flash a value between 1–80 to indicate the percent signal received
- 2 Starting at Source, place a 2.5 mm hex wrench in each fine adjust screw. Tilt Source head up and down by simultaneously tightening one fine adjust screw while loosening the other. Do this until the percent signal reading on Receiver is maximized.
  - a. Tightening the front screw will tilt Source head downwards.
  - b. Tightening the back screw will tilt Source head upwards.
- 3 When finished with Source fine adjust, use the 5 mm Allen wrench to tighten all four cap screws.
  - a. The percent signal value may decrease when the four cap screws are tightened. You may need to over compensate on fine adjust screws to accommodate the change from tightening the cap screws.
- 4 Move to Receiver and repeat step 2. The percent signal received should be at or above 100% for best performance and fault tolerance. The numbers will stop flashing to indicate that an acceptable value has been reached.
  - a. The absolute minimum signal is 80% and the numbers will stop flashing at this point.
  - b. It is highly recommended to get a value as high as possible.
- 5 When finished with Receiver alignment, tighten all four cap screws (see step 3).
- 6 Place magnet over the GM logo to exit. The unit will go through a zero calibration, and then return to normal operation.



*Failure to firmly tighten cap screws will result in critical faults due to misalignment.*



*If using two people, have one at Source and one at Receiver.*



*The percent signal mode will time out in 60 minutes.*

## AJ Mode Alignment

- IR5500s built before July 2016 do not have the “PcT” alignment mode
- All of the same steps should be followed, except user will not be asked to enter path information
- Instead of “PcT,” user will see “AJ” and select by removing magnet
- Unit will go straight into the flashing A## menu
- The “AJ” value should be maximized for the ranges provided below

STD. CONFIG. RANGE (20-100 m)	20 m	30 m	40 m	50 m	60 m	70 m	80 m	90 m	100 m
EXTENDED PATH RANGE (80-150 m)	N/A	80 m	90 m	100 m	110 m	120 m	130 m	140 m	150 m
<b>AJ VALUE</b>	72 to 67	65 to 60	59 to 54	53 to 48	49 to 43	45 to 38	43 to 35	39 to 32	35 to 30

*“AJ” Mode is still available on models built after July 2016. Refer to operation manual for details.*

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products. Specifications subject to change without notice.



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