

# PR001 Installation Guide

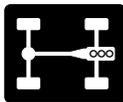
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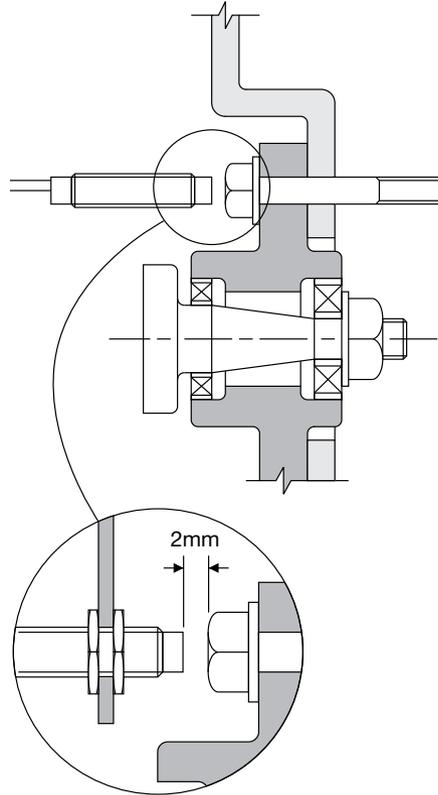
PR001-EN  
Standard Wheel Probe

Suitable for all types  
of vehicles.



## Operating Principle

The Monit Wheel Probe works by detecting the presence of metal as it is brought near the end of the sensor. It is typically fitted to a vehicle's wheel hub so that it senses the back of the wheel studs, or the bolts that hold the brake disc on, as they rotate past. In this way, it can be used to measure speed and distance on a wide variety of vehicles.



## Step 1:

Mount the Wheel Probe to the vehicle. A typical wheel-hub installation is shown in the figure, however, on some vehicles it may be easier to mount it to another part of the drive-train.

- The normal setup sensing distance is 1.0 - 2.50mm (Note: the probe is a 4mm sensing probe but it should be setup at less than 2.50mm for correct operation).
- Ideally, the probe should produce between 2 and 8 pulses for every rotation of the wheel.
- Mount the probe to a non-driven wheel to reduce the effects of wheel-spin.
- The probe should be protected from excessive heat and debris.
- The mounting bracket should be rigid enough to maintain the correct sensing distance at all times.

## Step 2:

Connect the Wheel Probe to the Rally Computer wiring loom using the dedicated connector.

- Do not route the cable near high voltage ignition leads.
- If the cable is too short an extension pack can be ordered. Contact your Monit dealer for details.
- If you have a Monit tripmeter purchased prior to November 2012 then please refer to the note in the 'Troubleshooting' section.

## Step 3:

Apply power to the Rally Computer. On the back of the Wheel Probe there is a small LED indicator that illuminates when the probe detects metal. Slowly rotate the wheel and check that this illuminates each time a bolt head goes past the end of the probe. Adjust the sensing distance if required.

Installation is now complete.

*Note: The speed and distance measurements will not be accurate until the system has been calibrated.*

## Troubleshooting

### NOTE:

This probe is designed to run on a 12+volt power supply as provided for in Monit Qseries and Gseries manufactured post November 2012. If you have a Monit unit from prior to this date, you will need to provide a 12+volt supply to this probe. You can do this by cutting the Brown probe wire and connecting this to 12+volts (Red wire on Monit Loom).

Contact your Monit dealer or [info@monitrally.com](mailto:info@monitrally.com) if you have any questions.

### **The distance does not increment**

Check all connections and the sensing distance. Note that the sensing distance is approximately halved when used with non-ferrous metals.

If the probe cannot be made to work, contact your Monit dealer.

### **The distance/speed is inaccurate when cornering**

Check for flexing of the mounting bracket or excessive play in the vehicle's wheel bearings. If the correct sensing distance (2mm) is not maintained, the probe may operate unreliably.

### **The distance increments when the vehicle is stopped**

Check for interference from other parts of the vehicle's electrical system. The problem can usually be solved by moving the Wheel Probe's cable away from other wires. Take particular care to avoid parts of the ignition system.

## Technical Specifications

Sensing Distance	4.0mm
Max. Detection Frequency	500Hz
Operating Temperature	-20C to 75C