



INTERNAL TPMS SENSORS TIH AND TIL

FITTING INSTRUCTIONS



STEP-BY-STEP FITTING GUIDE

Wheely-Safe use 3M VHB tape to bond the sensor to the internal well of wheel rim.

Step 1: Surface Preparation

Cleaning the substrate surface helps any adhesive or tape achieve a better bond

Getting the surface right up front can save time and trouble later. Cleaning helps form a better bond, and some contaminants require more attention than others. Priming will improve the ability of the adhesive to stick to the substrate.

Use a disposable towel or cloth (light colors preferred to show contaminant removal) with a solvent.

Solvent

- Dust, dirt, fingerprints: isopropyl alcohol solution (70% IPA/30% water)
- Oily substances: acetone

Cleaning

- Quick pre-clean of tough spots if necessary
- Wet cloth to remove most contaminants
- Final wipe with dry cloth

Suggested Products

- Isopropyl Alcohol (IPA) 70% - if stronger than 70%, dilute with water
- Kimberly-Clark Professional™ WypAll® X60 Cloths or similar
- Kimberly-Clark Professional™ KIMTECH® WETTASK® System 06001 or similar

Step 2: Priming

A primer creates a new surface for the adhesive to bond to and can improve initial and ultimate adhesion to many materials such as plastics, paints and other Low Surface Energy substrates.

1. Clean before priming (see above)
2. Apply primer
 - a. Primer on a disposable towel, followed by a dry towel
 - b. Dauber bottle followed by a dry towel
 - c. Foam brush
3. Let dry before taping (approx. 1 minute)

Primer Suitability by Surface

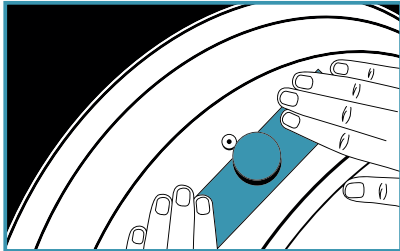
3M Primer	Common surfaces	Recommended application method
3M™ Adhesion Promotor 111	Metal and painted surfaces	Tissue or disposable towel, dauber bottle

Suggested Products:

- Adhesion Promoter - 3M™ Adhesion Promotor 111 (AP111)

Step 3: Sensor Application

Remove the backing tape taking care to not contaminate the adhesive surface.



The sensor must be applied directly in the centre line of the wheel opposite the valve outlet to easily identify its position on the wheel rim when using Wheely-Safe checking tools.

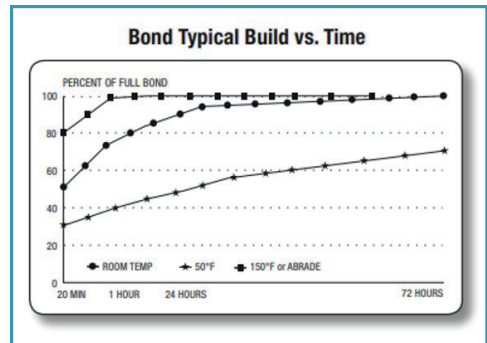
Start at one end of the sensor and lay it down to prevent air entrapment, applying constant pressure as you go. Apply a roll down force of at least 15 PSI with a dense J-roller (eg. Gundlach V300-SB pressure roller or similar laminate roller) over the entire area to ensure good contact between the tape and the substrate surface.

Bond time:

After application, the bond strength will increase as the adhesive flows onto the surface (also referred to as “wet out”).

At room temperature approximately 50% of ultimate bond strength will be achieved after 20 minutes, 90% after 24 hours and 100% after 72 hours. This flow is faster at higher temperatures and slower at lower temperatures.

Ultimate bond strength can be achieved more quickly (and in some cases bond strength can be increased) by exposure of the bond to elevated temperatures (e.g. 150°F [66°C] for 1 hour). This can provide better adhesive wet out onto the substrates. Abrasion of the surfaces or the use of primers/ adhesion promoters can also have the effect of increasing bond strength and achieving ultimate bond strength more quickly.



Resources

All information regarding 3M VHB tapes sourced from 3M publications and current as of August 2023.

www.3m.com/3M/en_US/vhb-tapes-us/resources/applying-3m-vhb-tapes/

Other useful 3M resources

“Surface Preparation for 3M VHB Tape Applications” dated April 2007.

“How to apply 3M™ VHB Tapes”.

TECHNICAL ASSISTANCE

If you have any queries regarding the installation or use of this product please contact Wheely-Safe directly:

info@wheely-safe.co.uk

IMPORTANT INFORMATION

It is imperative that all staff/personnel be aware that even with the Wheely-Safe system fitted, normal tyre and wheel inspection, removal, maintenance and walkaround procedures/policies must still be adhered to.

No liability can be offered by Wheely-Safe Ltd for any loss or damages incurred as a result of the devices being fitted.

For further technical information, please refer to the product's technical specification.

PRODUCT DISCLAIMER

The Wheely-Safe system is designed as a driver assistance device and should not be used as a substitute for regular manual wheel and tyre safety checks.

- Neither the seller, nor the manufacturer, will be liable for any loss, damage or injury, directly or indirectly arising from the use or inability to determine the use of this product.
- Before fitting, the user shall determine the suitability of the product for its intended use, and the user shall assume all responsibility and risk in connection herewith.
- The driver/operator is always responsible for the condition of the wheels/tyres on their vehicle and regular pre-use visual checks are essential to stay wheel and tyre safe.
- All tyres/wheels, including pressures, should be checked before any journey, when tyres are in their cold state, using an accurate tyre pressure gauge.
- When checking pressures, it is recommended all tyres receive a thorough inspection, checking tread depths and looking for any tyre damage or uneven wear. Wheel nuts, studs and rims should also be checked to ensure they are damage free and in a suitable condition prior to commencing the journey.

Published product details, specifications and suitability information is the best available at the time of publication. Wheely-Safe Ltd shall not be held responsible for the accuracy of any advice given regarding the suitability (or otherwise) of any part(s).

WARRANTY

All Wheely-Safe products are covered by a comprehensive 12-month warranty, beginning from the date of purchase.

We encourage you to ensure that all parts are fitted by a competent person in accordance with manufacturer specifications. Wheely-Safe Ltd cannot be held liable for any damage caused by the fitting of a Wheely-Safe component.

Please ensure that you have read your warranty conditions before attempting to install the Wheely-Safe system, or repair an item on your vehicle. Wheely-Safe Ltd cannot be held responsible if an item is damaged or your warranty is voided. Please be aware that some manufacturer guarantees may be on the condition that you use a qualified technician for the installation of any ancillary equipment.

