



MICHELIN



***WHEEL SECURITY AND
TYRE PRESSURE
MANAGEMENT SYSTEM***

***HEAVY FLEET
FITMENT PROCEDURE***

IMPORTANT INFORMATION

Please note it is imperative that all staff/personnel are aware that, although the MICHELIN Wheel Security System is an in-motion wheel loss and hub/brake temperature detection system, your normal tyre and wheel removal, maintenance & walk round procedures/policies must still be adhered to. You cannot rely on this system as a means of omitting any undertaking of these activities or responsibilities. It is also the case for the tyre pressure monitoring system that all normal inspection & maintenance procedures are 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.

WORKING TEMPERATURES OF THE SYSTEM

Solar receiver -20°C upto 65°C

Solar booster -20°C upto 80°C

TPMS sensor -40°C upto 120°C

Wheel loss sensor -40°C upto 120°C

FITMENT INFORMATION

NOTE:

It is important that these devices are fitted in the correct locations (as per the enclosed pictures) for ease of identifying.

All sensors are colour coded as per vehicle positions to ease early identification in an alert situation, being Black sensors (front) of vehicle, e.g. in a 2x axle bus, black sensors on the front axle and for a tractor/trailer, the black sensors will be on the tractor unit. The rear sensors will be Blue in colour.

If you are fitting the Tyre Pressure sensors to inner wheels, make sure you have Brass extensions fitted (NOT PLASTIC- AS THESE DO NOT EMIT AIR FOR THE SENSOR TO MONITOR THE TYRE)

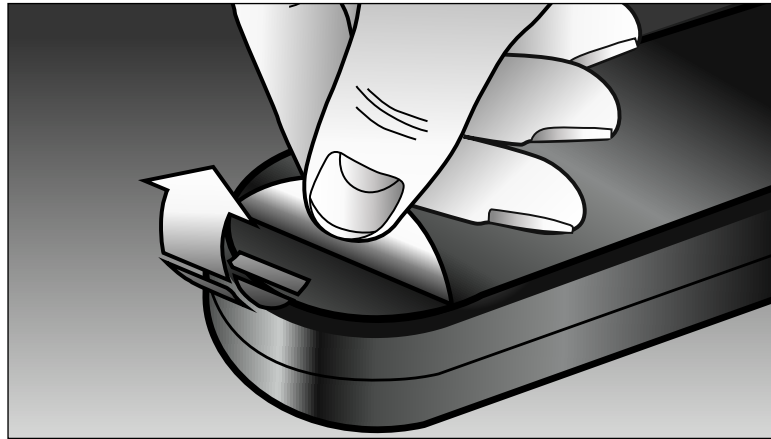
CONTENTS:

<i>FITMENT OF THE WIRED RECEIVER.....</i>	<i>4</i>
<i>FITMENT OF THE SOLAR RECEIVER.....</i>	<i>5</i>
<i>FITMENT OF WHEEL LOSS SENSOR AND BRACKET.....</i>	<i>6 - 13</i>
<i>FITMENT OF TYRE PRESSURE MONITORING SENSORS (TPMS).....</i>	<i>14 - 17</i>
<i>FITMENT OF FUSED SIGNAL BOOSTER (WIRED).....</i>	<i>18 - 19</i>
<i>FITMENT OF SIGNAL BOOSTER (SOLAR).....</i>	<i>20 - 21</i>
<i>FITMENT OF TELEMATICS RECEIVER (WIRED).....</i>	<i>22</i>
<i>FITMENT OF TELEMATICS RECEIVER (SOLAR).....</i>	<i>23</i>
<i>PRESSURE CHECKER.....</i>	<i>24 - 25</i>
<i>CARE AND MAINTENANCE.....</i>	<i>26</i>
<i>PRODUCT DISCLAIMER AND WARRANTY.....</i>	<i>27</i>
<i>WARNINGS ALARMS.....</i>	<i>28</i>

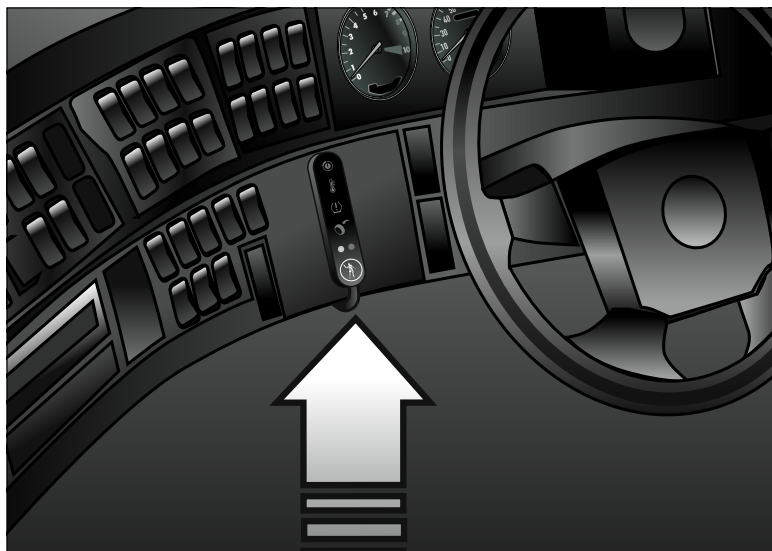
FITMENT OF THE WIRED RECEIVER

*PLEASE CONNECT THE RED WIRE DIRECTLY TO A VEHICLE 12V/24V IGNITION FED POWER SUPPLY (POSITIVE).
THE BLACK WIRE IS CONNECTED TO A GROUND WIRE (NEGATIVE).*

Consult manufacturers wiring guidelines where applicable to avoid any warranty issues.



Remove the backing from the adhesive pad at the rear of the receiver taking care not to touch the adhesive surface.



The receiver should be mounted on a clean even flat surface so that it does not obscure the view of the road or any instrumentation but is clearly visible to the driver from a normal driving position.

ENSURE THAT THERE ARE NO TRAILING WIRES AFTER INSTALLATION.

NORMAL OPERATION MODE

The "Michelin" Logo will be permanently lit WHITE.

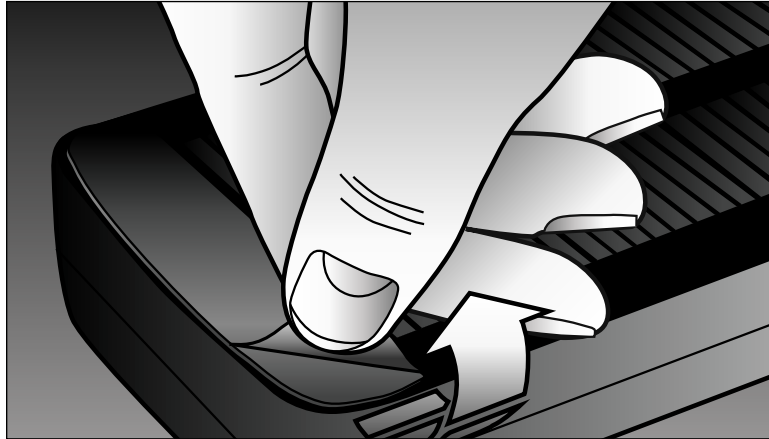
STATIONARY SLEEP MODE

When the vehicle is stationary for more than 15 minutes and with the ignition on the receiver will go into Stationary Sleep Mode. No Lights will be on at all in this mode.

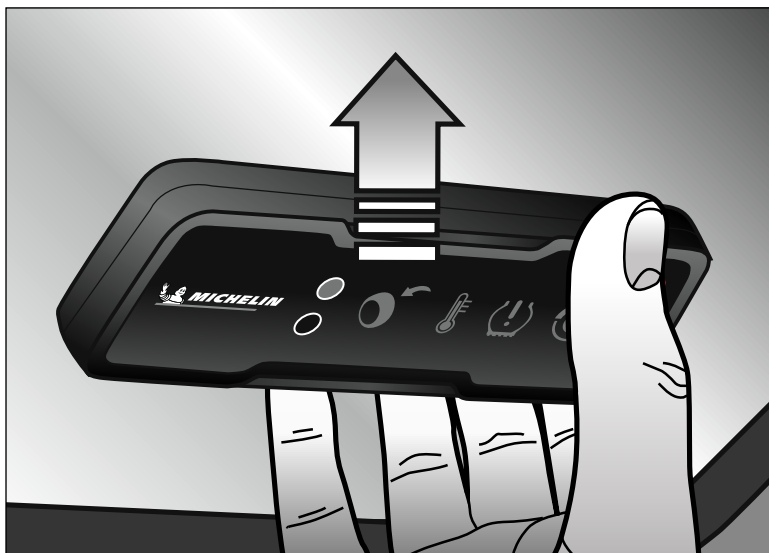
NO POWER

If the receiver has no power during a journey then the "Michelin" Logo will not be lit. This situation must be remedied by reconnecting to the power source.

FITMENT OF THE SOLAR RECEIVER



Remove the backing from the adhesive pad at the rear of the receiver taking care not to touch the adhesive surface.



Find the ideal position for the receiver on the windscreen (ideally towards the top of the windscreen) ensuring that it is outside the wiper sweep. Ensure the solar panel is not blocked by the black border that exists around many windscreens.

The area of the windscreen where the receiver is to be fitted should be clean and free from dust or grease. Place the receiver in the correct position and push firmly against the windscreen, holding and pushing for up to 10 seconds.

NORMAL OPERATION MODE

The power icon will flash once every 30 seconds when in journey mode.

LOW POWER

When the solar receiver has less than 15% power the power icon will flash red every 10 seconds.

To charge the solar receiver plug the charger into the side of the receiver and connect to a power source.

The power icon will stay permanently white when fully charged.

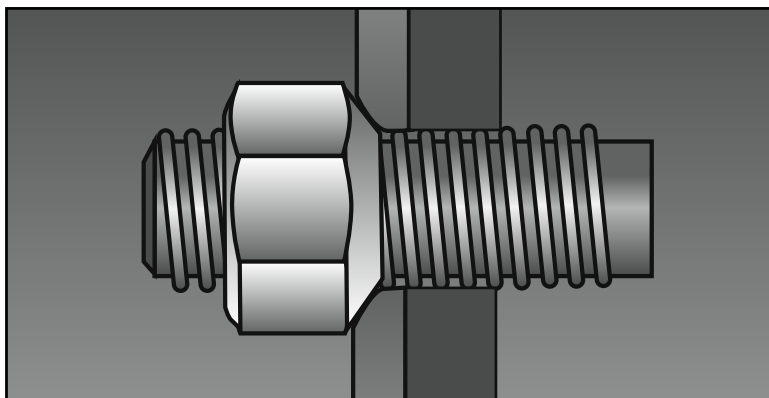
STATIONARY SLEEP MODE

When the vehicle is stationary for more than 15 minutes the receiver will go into Stationary Sleep Mode.

No Lights will be on at all in this mode.

FITMENT OF WHEEL LOSS SENSOR AND BRACKET

PREPARING & PLANNING TO FIT THE WHEEL LOSS SENSORS & BRACKETS GET 2 SENSORS AND BRACKETS FOR EACH OUTER WHEEL READY TO FIT



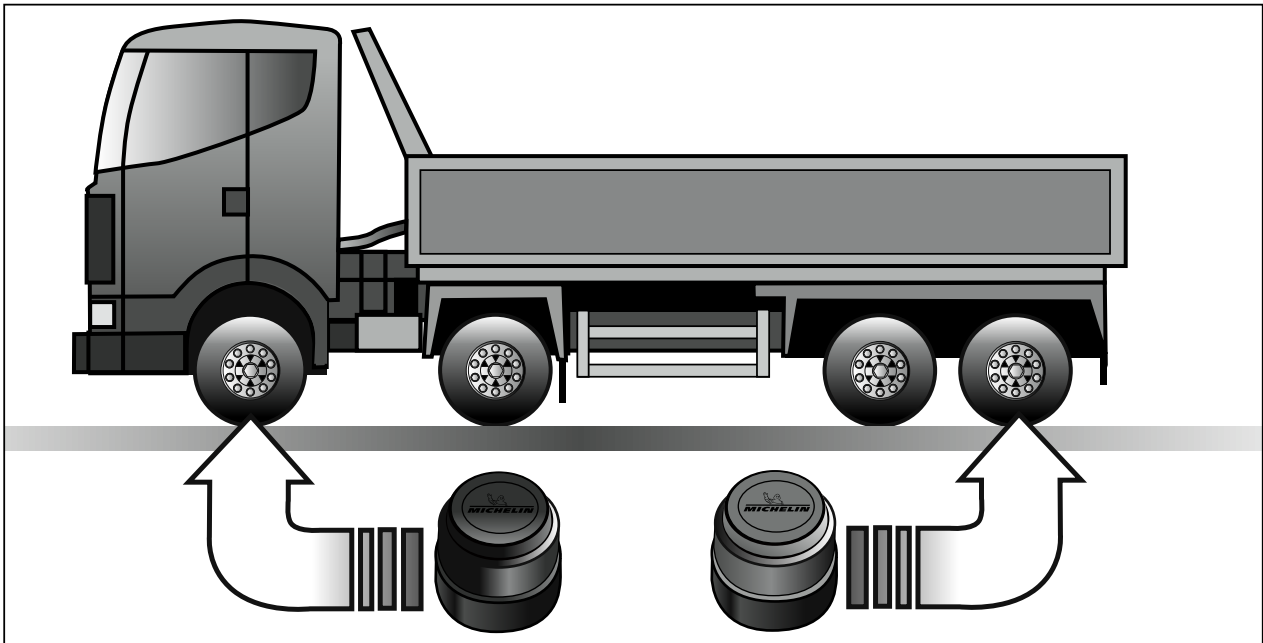
Note:

If the wheel fixing has a conical or spherical stud fixing, please contact Wheely-Safe prior to installing the system, for guidance.

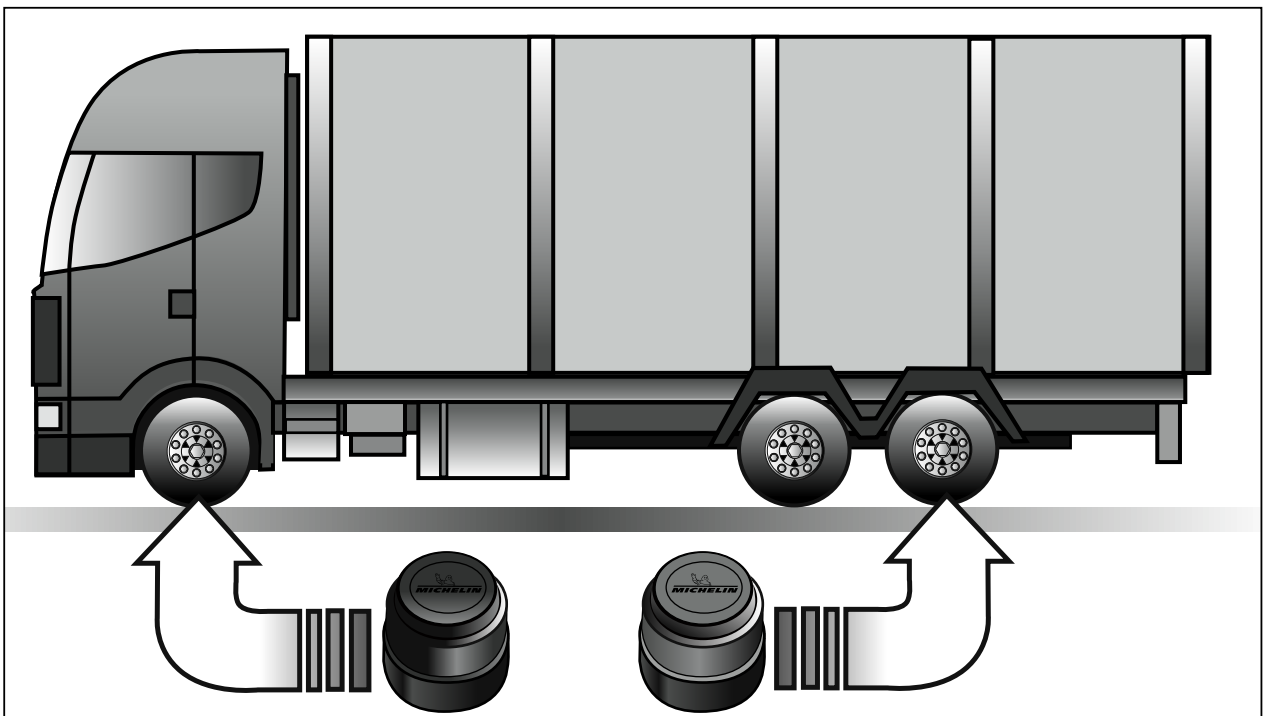
SENSORS : BLACK FOR FRONT - BLUE FOR REAR



The top of the sensor is identified by a Michelin logo.



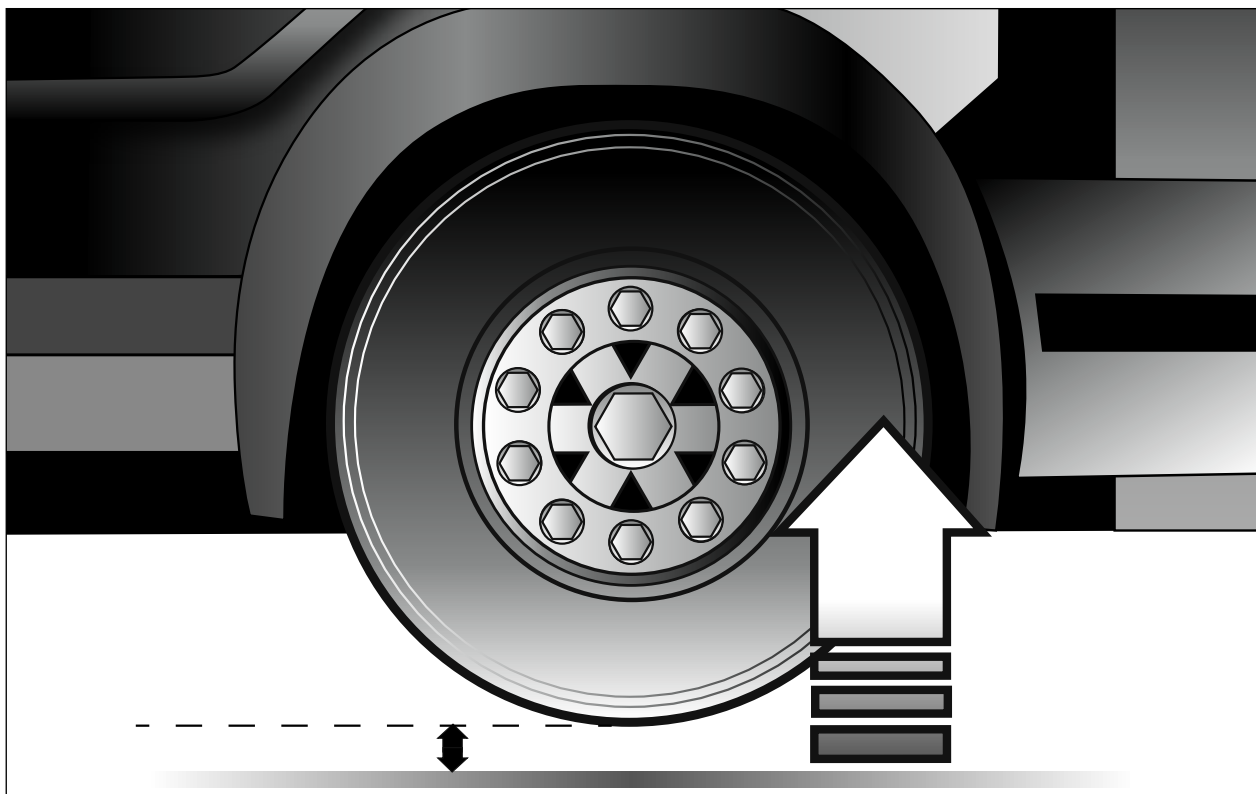
The black sensors are fitted on the front (tractor) wheels and blue sensors fitted to rear (trailer) wheels.



For rigid vehicles, coaches & buses: Black at front, Blue at rear

Different coloured sensors make it easier to identify the fault when an alert occurs on the receiver and to assist the driver/engineer in locating where the fault may lie on the vehicle. This is in addition to the sensor also flashing for 3 minutes.

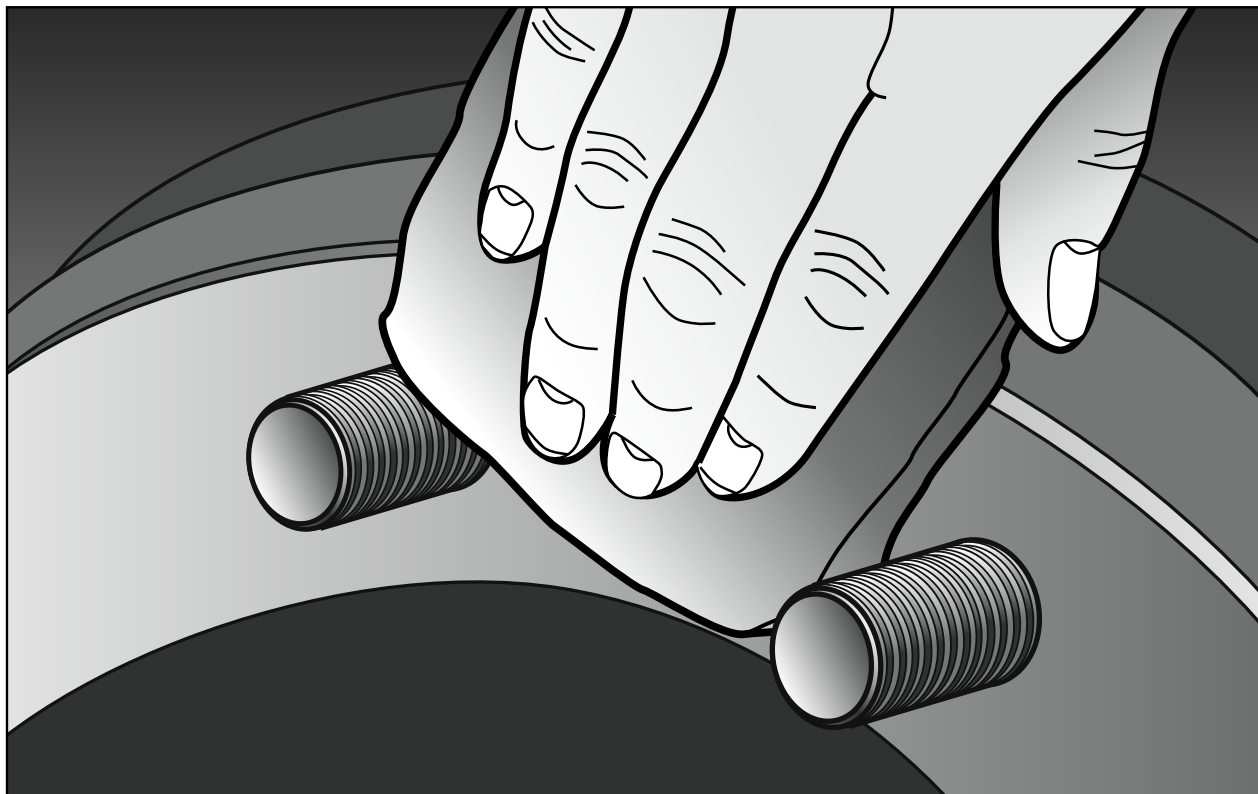
FITMENT OF WHEEL LOSS SENSOR AND BRACKET
CONTINUED



The wheel that requires the wheel loss system to be fitted must be jacked up so that the tyre is off the ground.



Remove all nuts and the wheel.

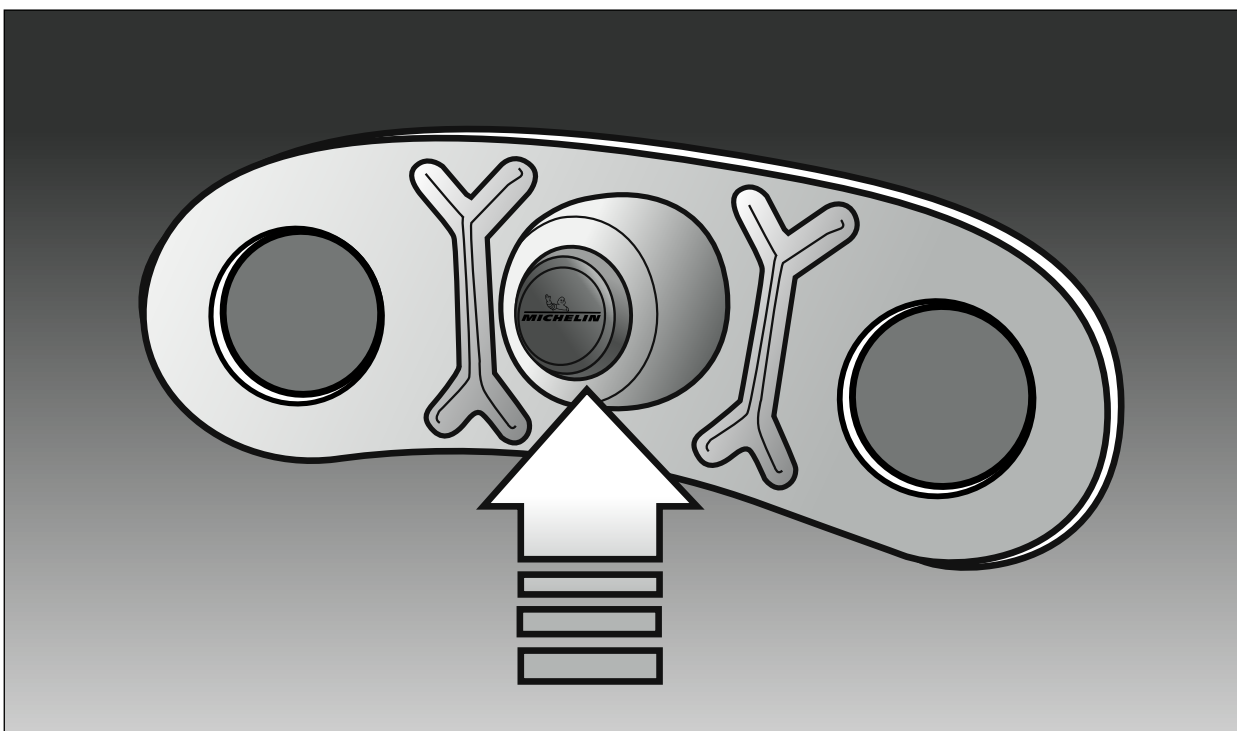
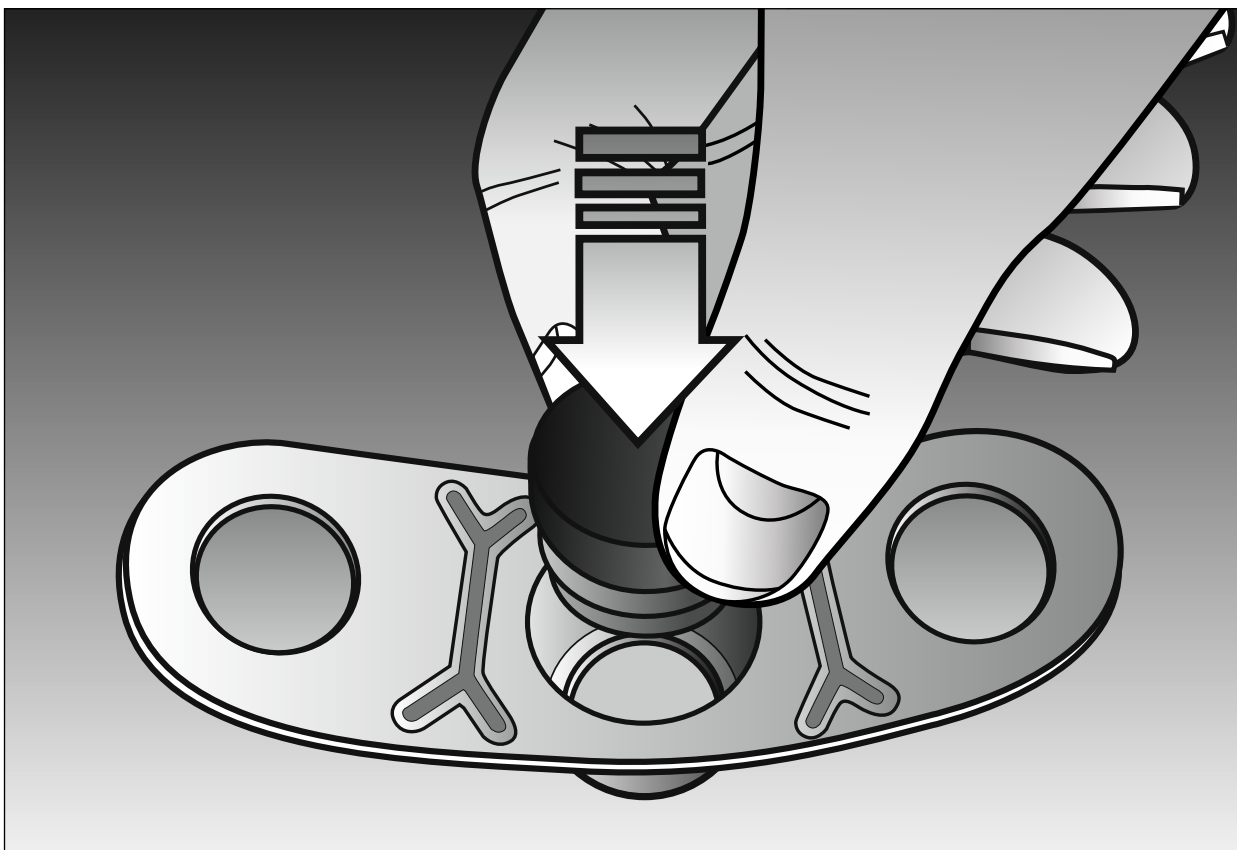


Both the mating face of the wheel rim and bracket should be clean and free from dirt, paint, rust and grease.

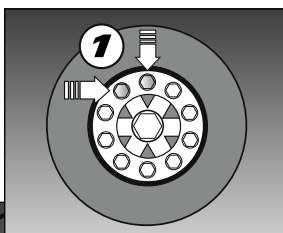


Put the wheel back on to the hub.

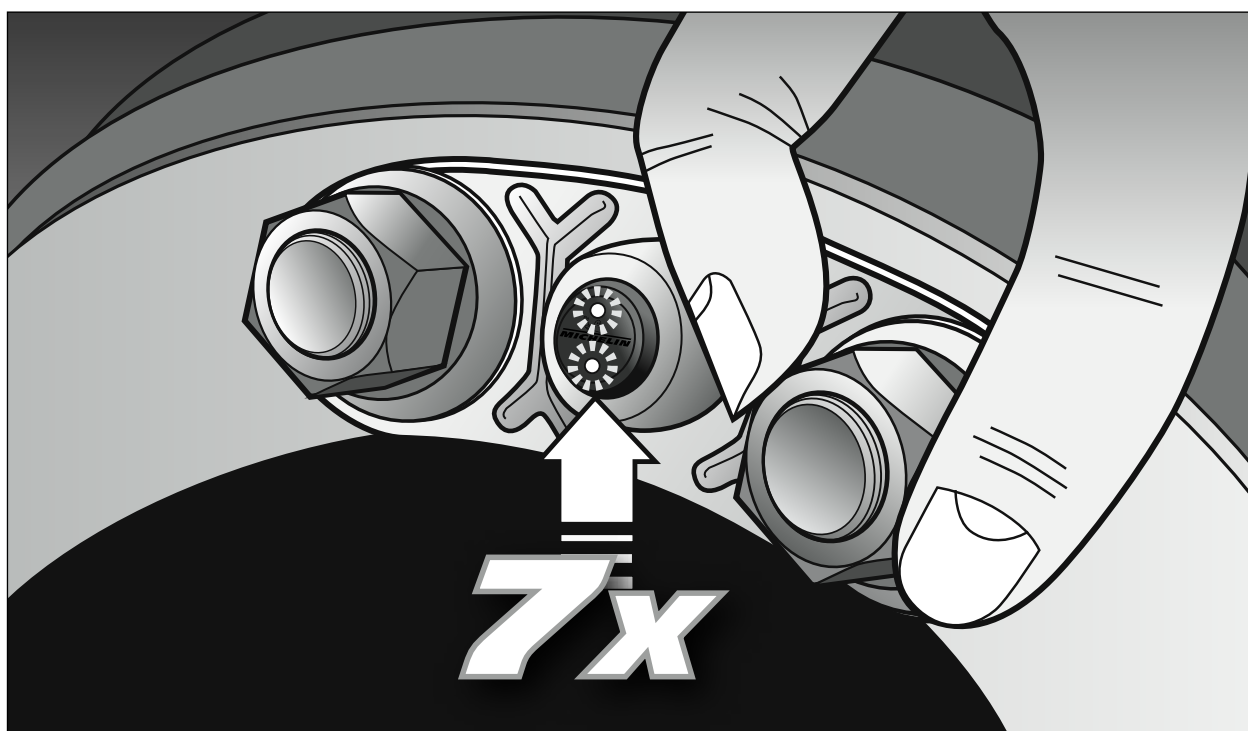
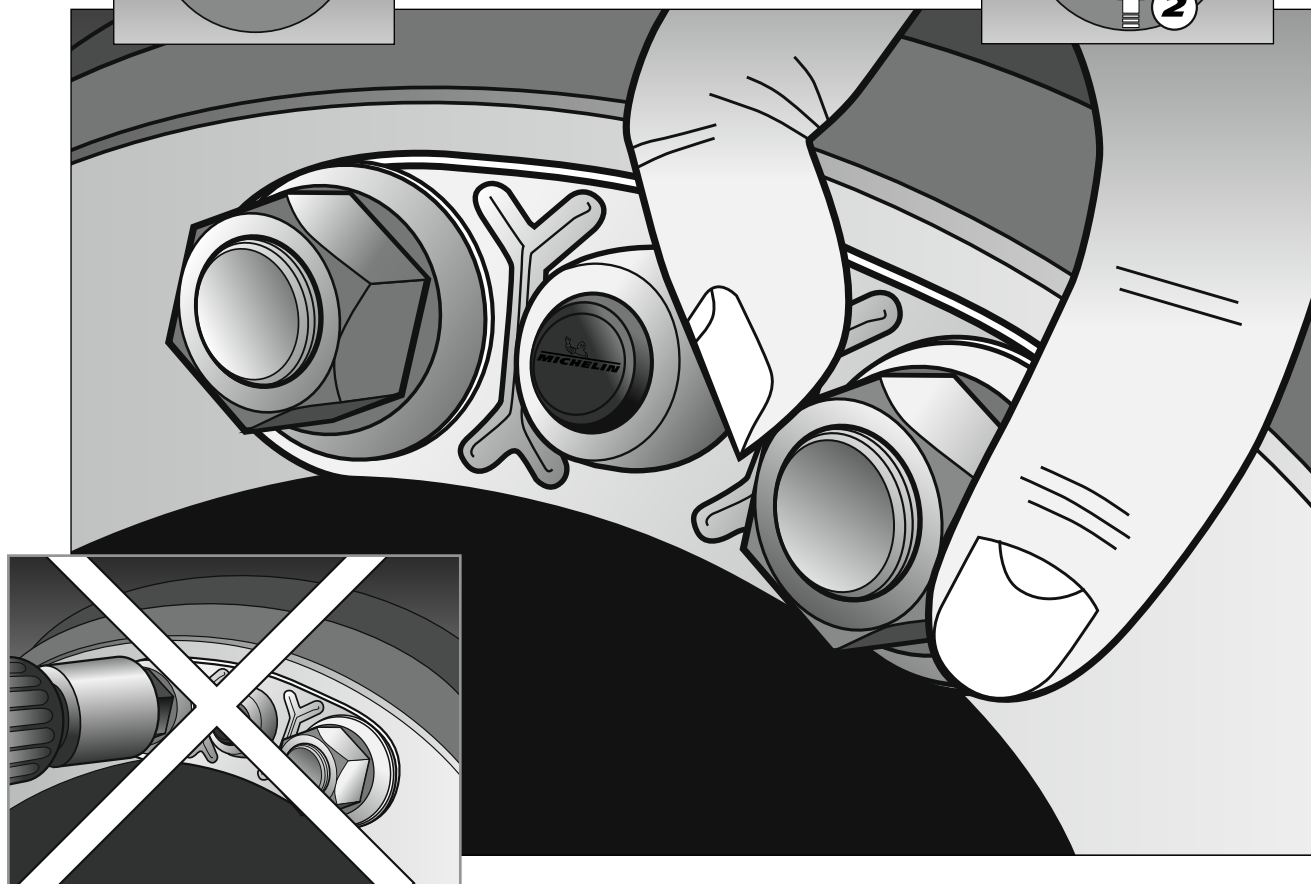
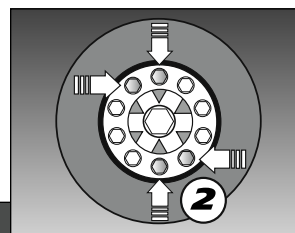
***FITMENT OF WHEEL LOSS SENSOR
AND BRACKET - CONTINUED***



WHEN FITTED CORRECTLY THE TOP OF THE SENSOR WILL PROTRUDE SLIGHTLY ABOVE THE BRACKET.



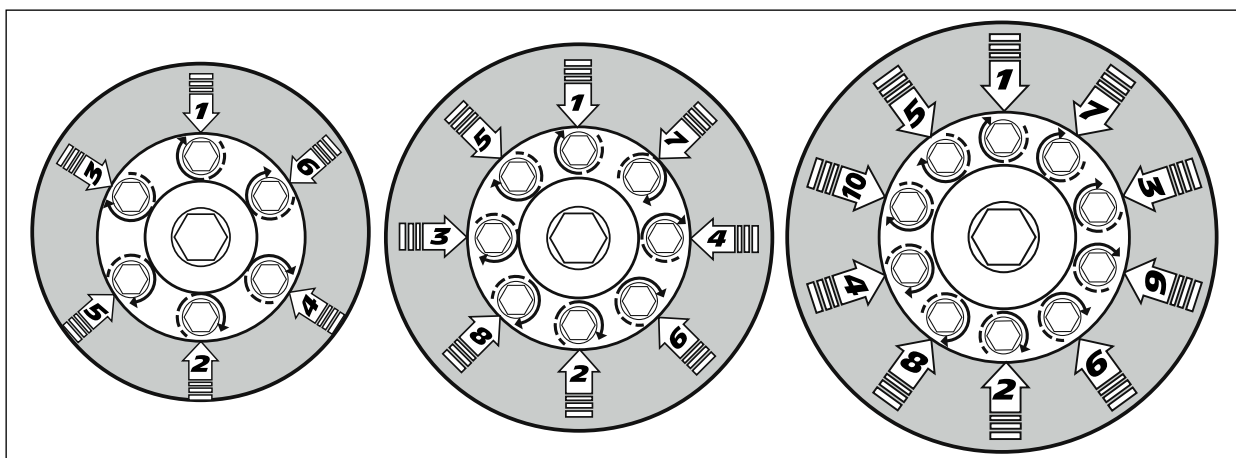
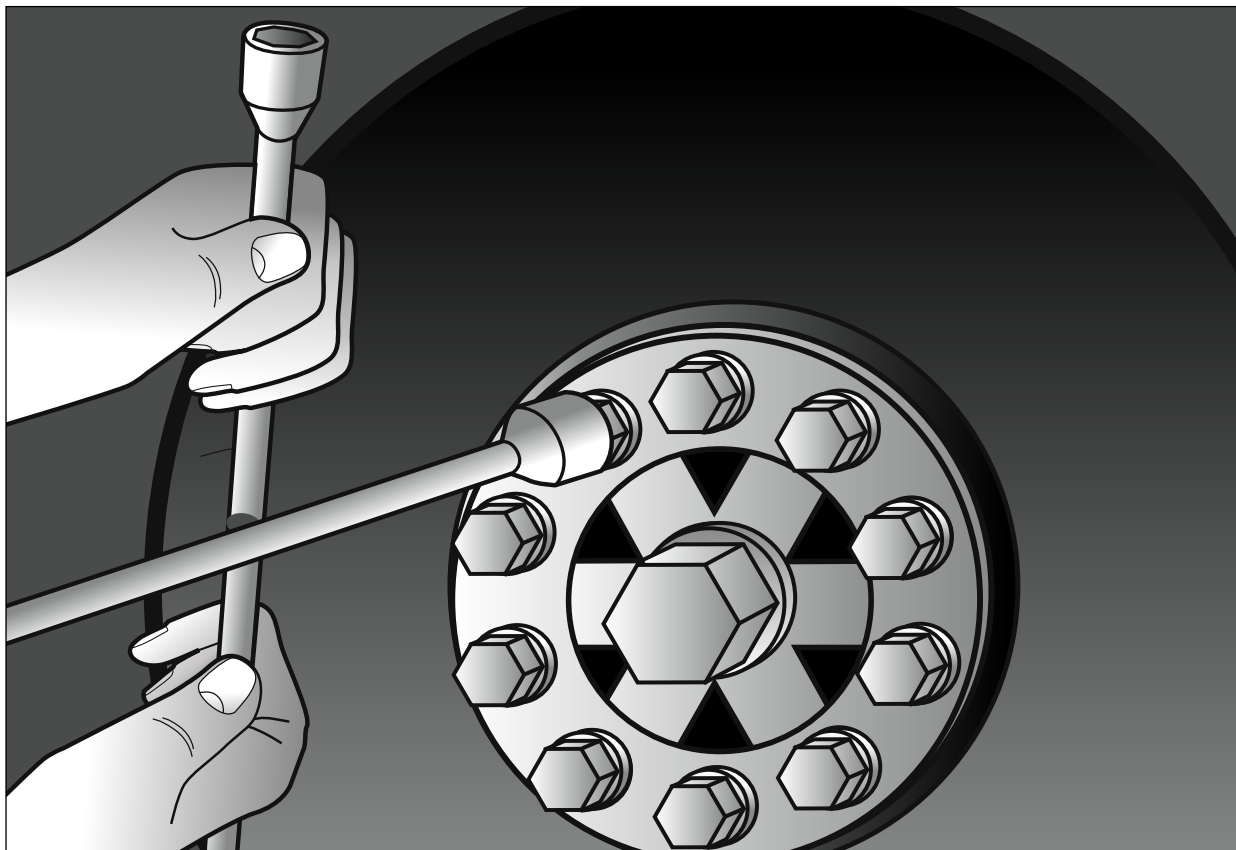
Position the sensor and brackets diagonally opposite each other.

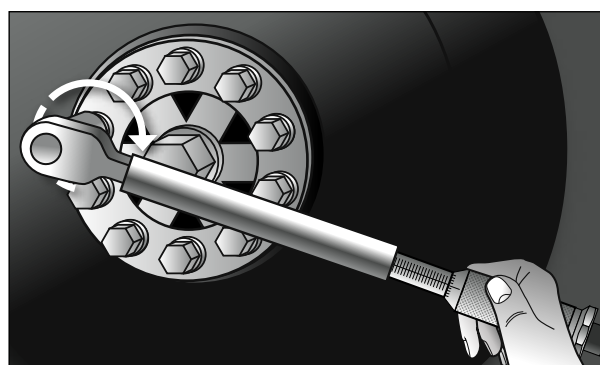
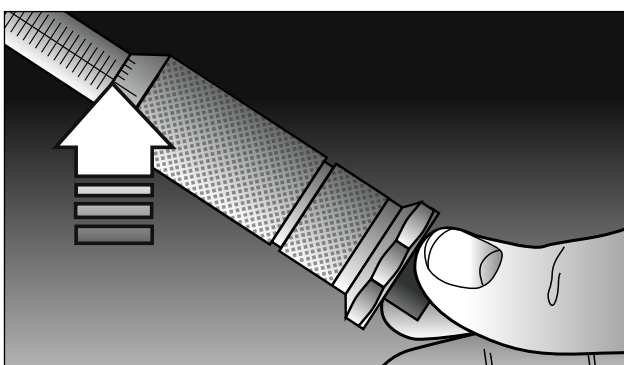
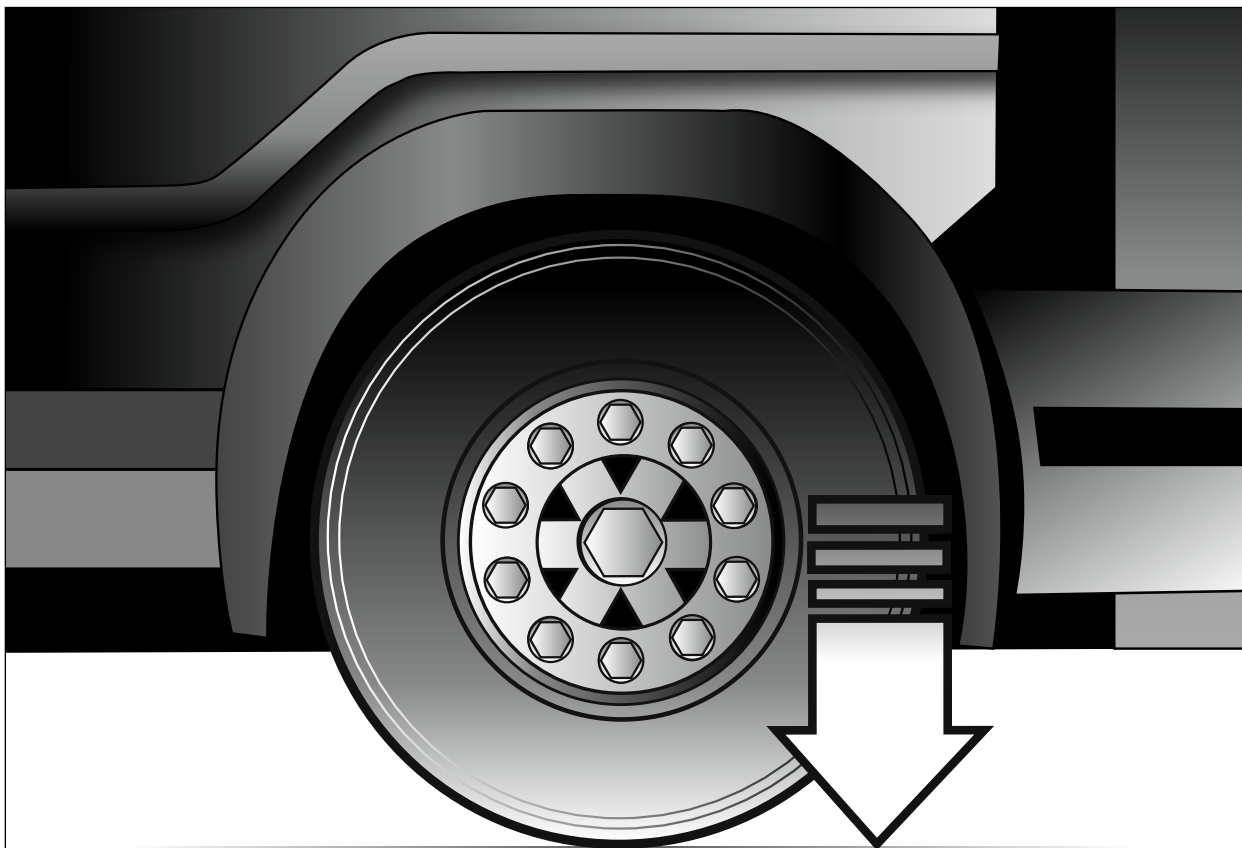


When fitting and tightening the wheel nuts, and in its clamped position, the sensor LED will flash 7 times for 18 seconds. This is the indication that the sensor is activated and the user can have the confidence that the Michelin Wheel Security System is working.

FITMENT OF WHEEL LOSS SENSOR AND BRACKET - CONTINUED

**REFER TO A RECOGNISED INDUSTRY STANDARD WHEEL SECURITY BEST PRACTICE GUIDELINE
FOR NUT TIGHTENING SEQUENCE.**





Then follow your own proven wheel security procedure

IMPORTANT Failure to release the clamping force of ALL the wheel nuts and only releasing the clamping force of the nuts required to fit the brackets could result in a torque imbalance. Any torque imbalance then has the potential to result in nuts coming loose in a very short journey time.

Note: **On Completion of fitting the Bracket & Sensor**

All wheels changed/disturbed must be rechecked for tightness before entering service and a torque wrench must be used for checking wheel nut tightness to manufacturer's guidelines. Then your own company Wheel removal Maintenance & Walk round procedures/policies must be adopted for ongoing checks thereafter.

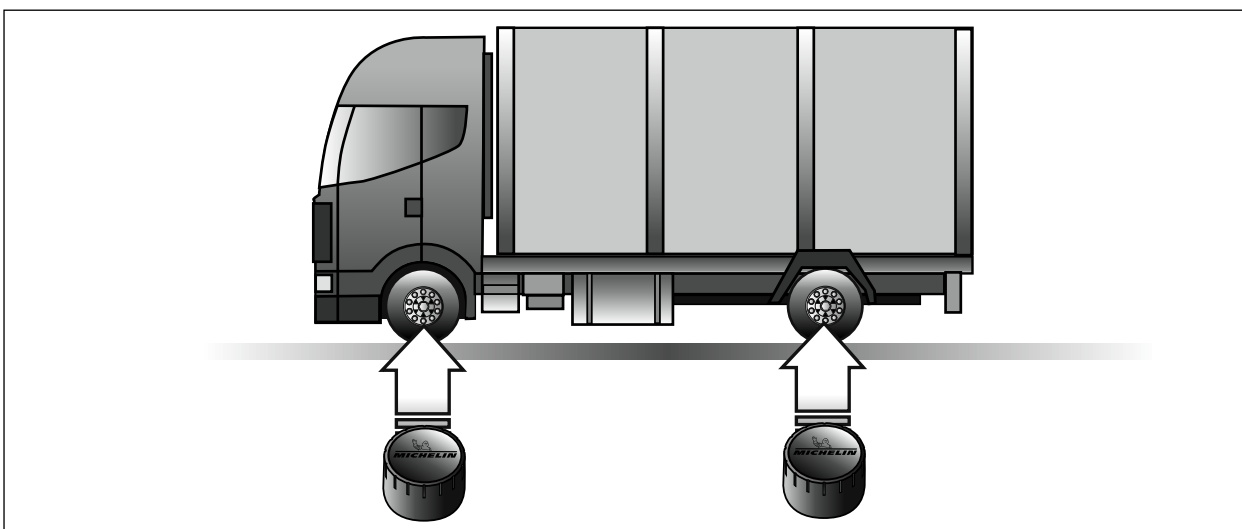
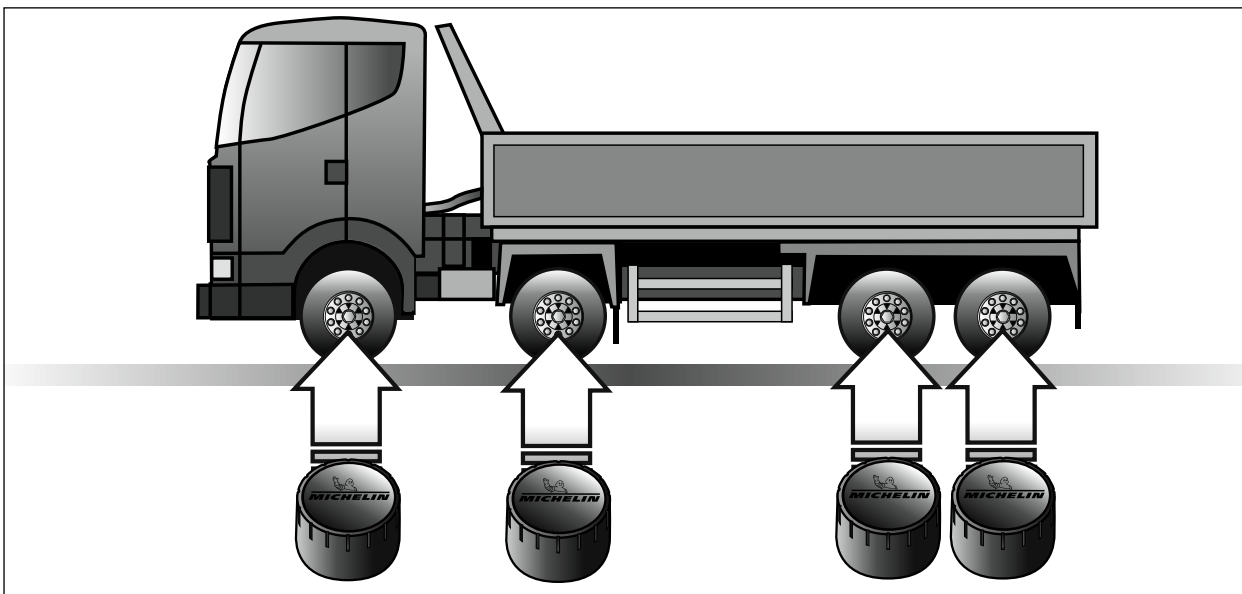
FITMENT OF TYRE PRESSURE MONITORING SENSORS (TPMS)

PLEASE ENSURE THAT ONLY BRASS EXTENSIONS ARE USED FOR INNER WHEELS WHEN FITTING SENSORS (NOT PLASTIC- AS THESE DO NOT EMIT AIR FOR THE SENSOR TO MONITOR)

FITMENT INFORMATION – WHEN FITTING THE TPMS SENSOR YOU SHOULD ENSURE THAT IT IS NOT TOUCHING THE WHEEL RIM.

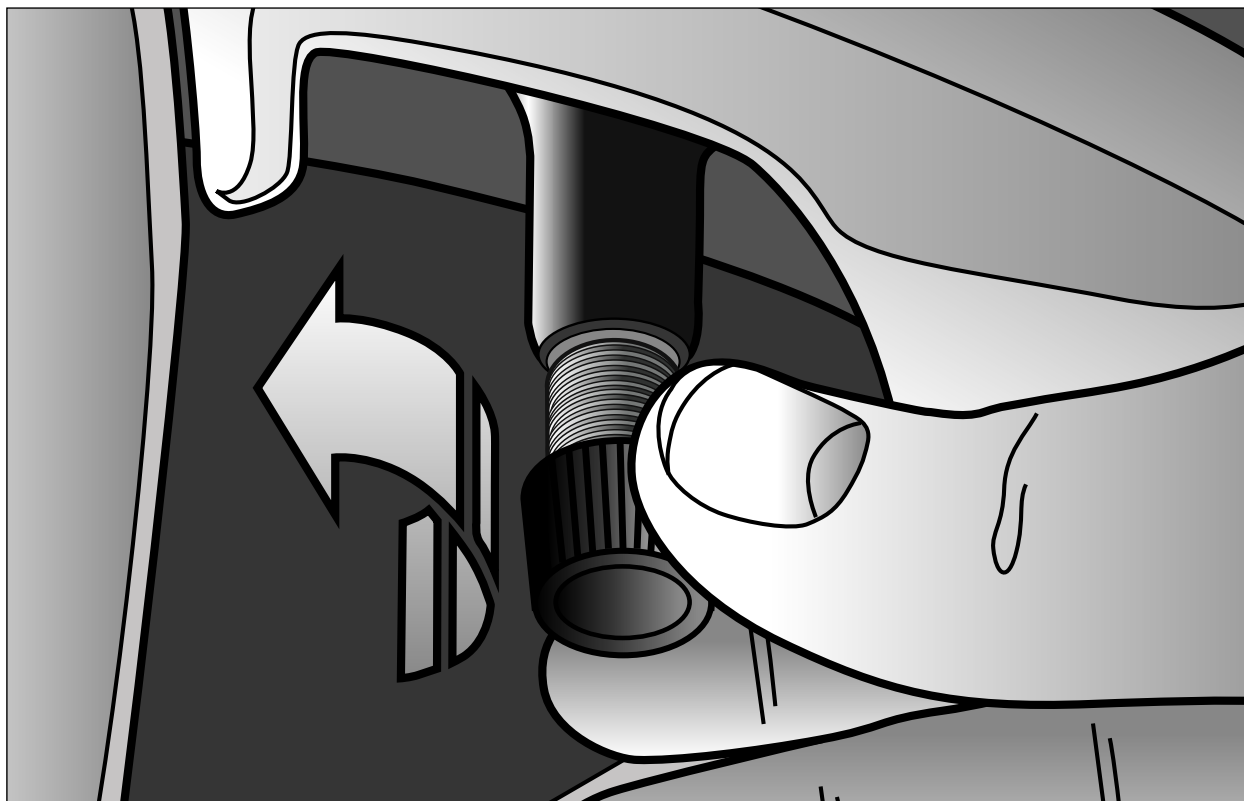


The black sensors are fitted on the front (tractor) wheels and blue sensors fitted to rear (trailer) wheels.

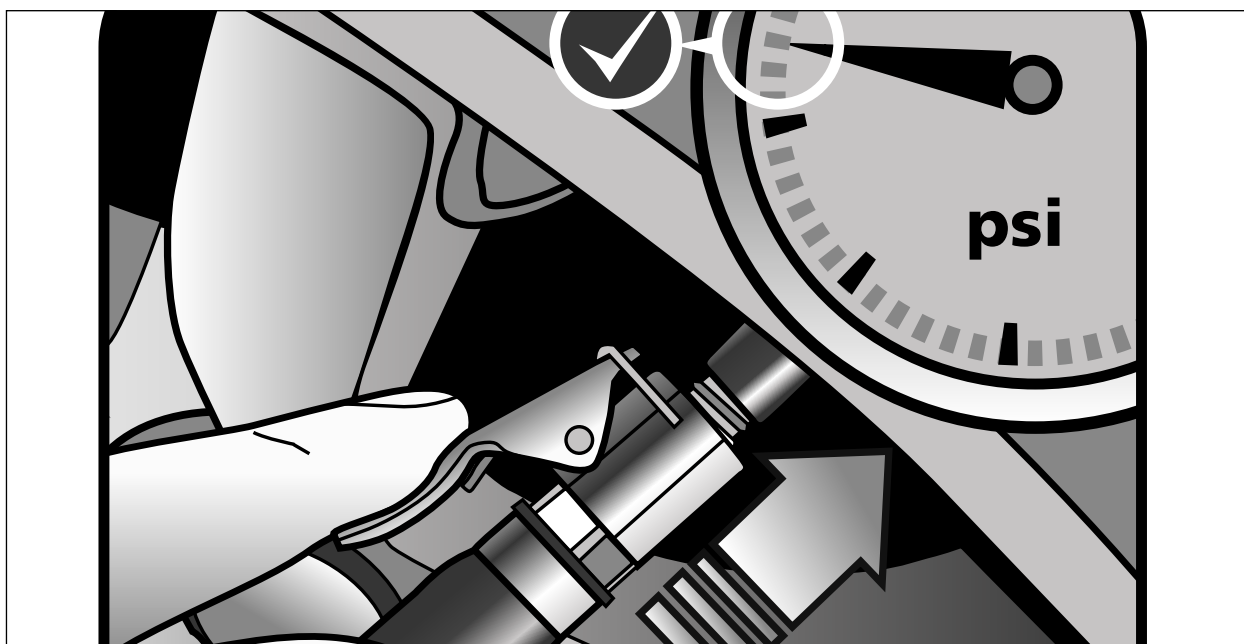


For rigid vehicles, coaches & buses: Black at front, Blue at rear

Different coloured sensors make it easier to identify the fault when an alert occurs on the receiver and to assist the driver/engineer in locating where the fault may lie on the vehicle. This is in addition to the sensor also flashing for 3 minutes.

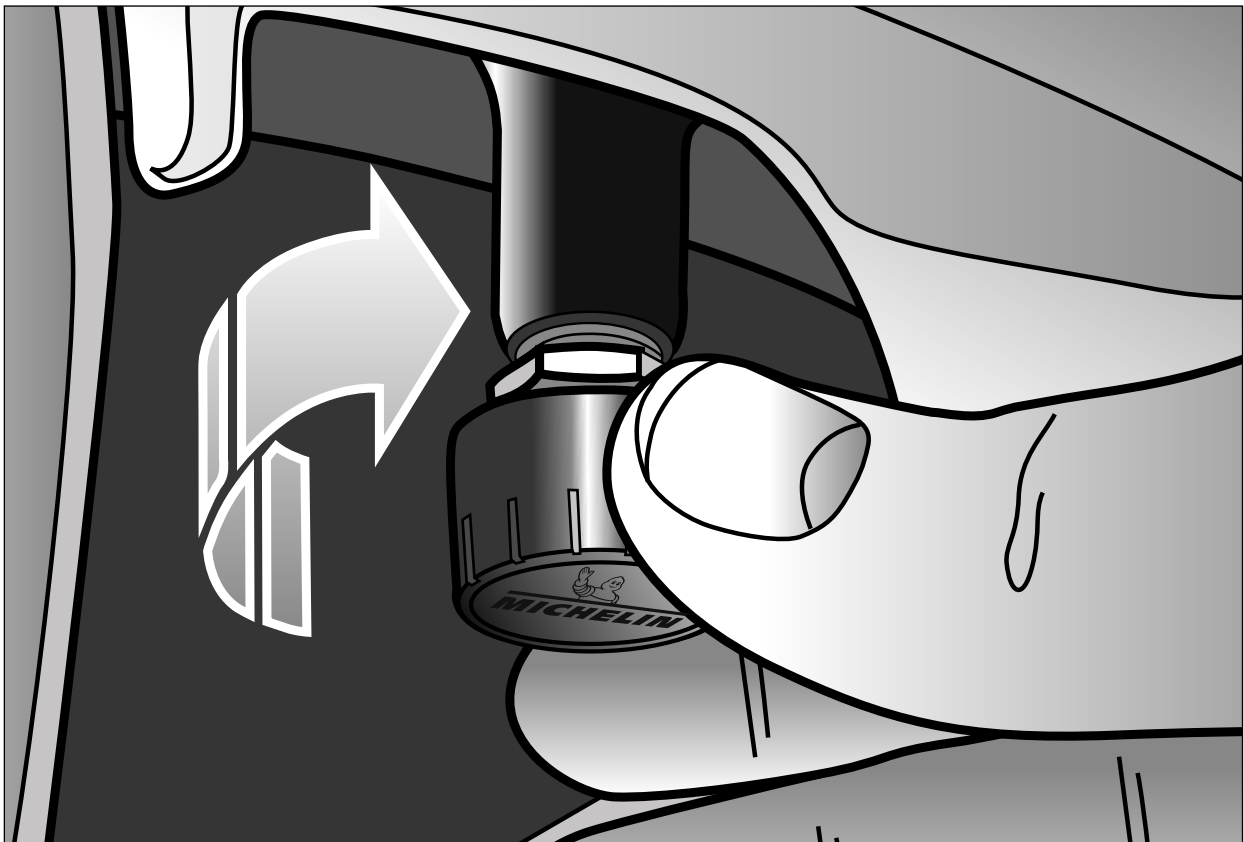


Remove the dust cap



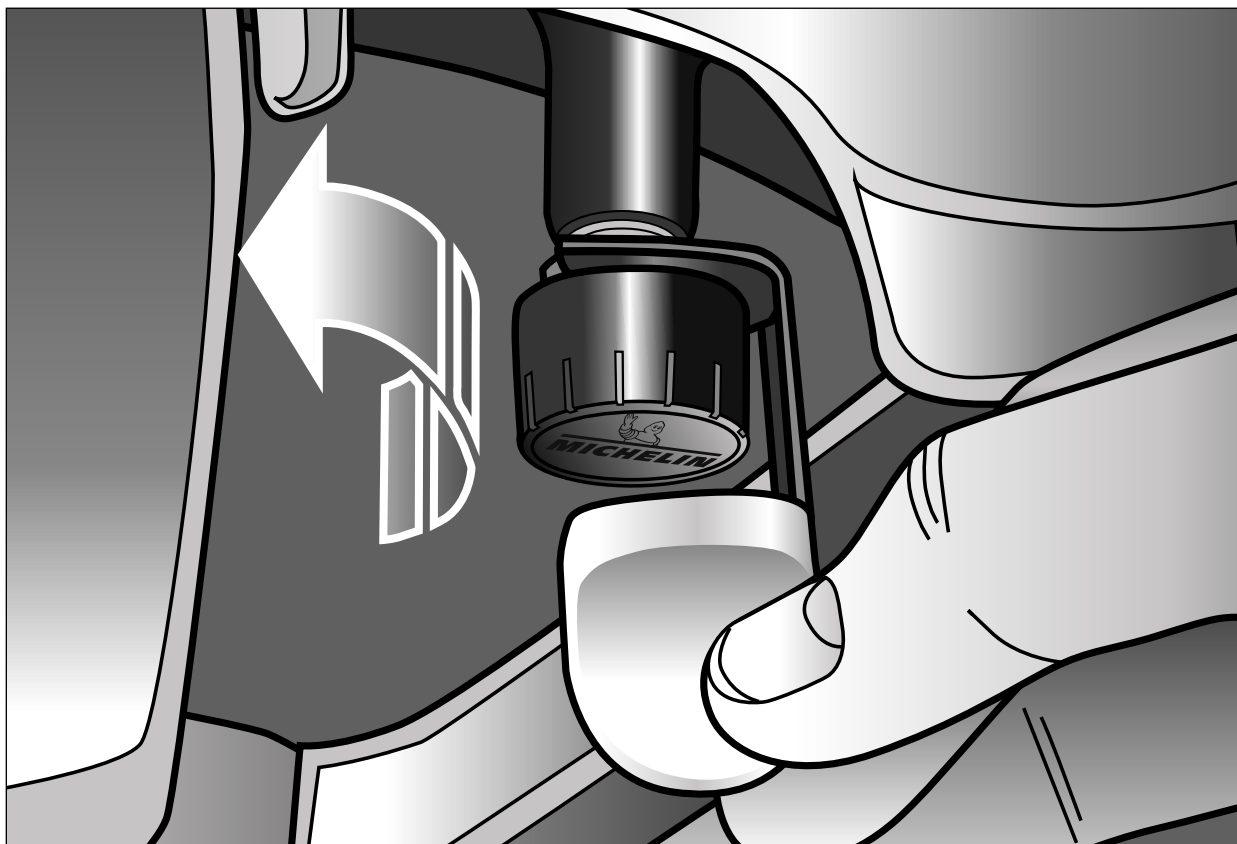
Check the tyre pressure is correct before fitting the TPMS sensor. The target pressure is for the normal COLD operating temperature recommended by the vehicle manufacturer.

FITMENT OF TYRE PRESSURE MONITORING SENSORS (TPMS)
CONTINUED



Twist on the sensor (finger tight)

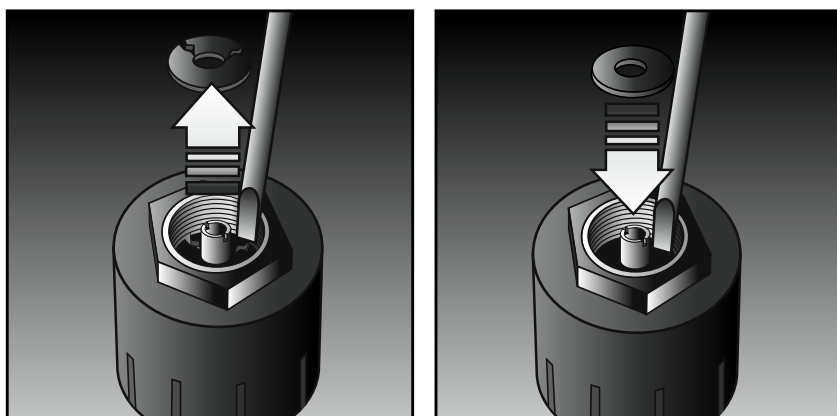
Check for the red LED flashing while the clever sensor self-calibrates to the current tyre pressure.



OPTIONAL:

If using anti-theft nuts attach these to the tyre valve by screwing the nut onto the valve ensuring you leave enough thread so that the TPMS sensor can be fully screwed onto the tyre valve. Screw the TPMS sensor onto the valve and then using the lock nut tool tighten the nut back towards the TPMS sensor until tight. During the tightening process it is imperative that you hold the TPMS sensor in place to stop it

SENSOR GASKET REPLACEMENT



For your information, If the gasket is damaged or perished during the 12-month warranty period the customer needs to replace it with the spare one that will be provided when they first purchase the product.

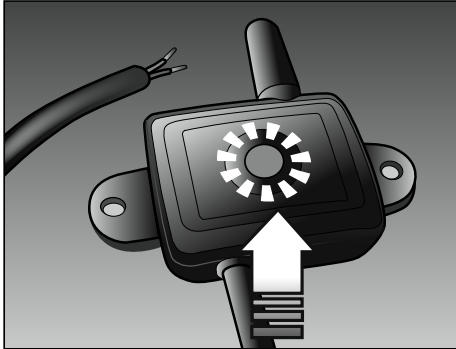
FITMENT OF FUSED SIGNAL BOOSTER (WIRED)

FUNCTION:

TO BOOST THE SIGNAL FROM THE REAR WHEEL SENSORS TO RECEIVER.

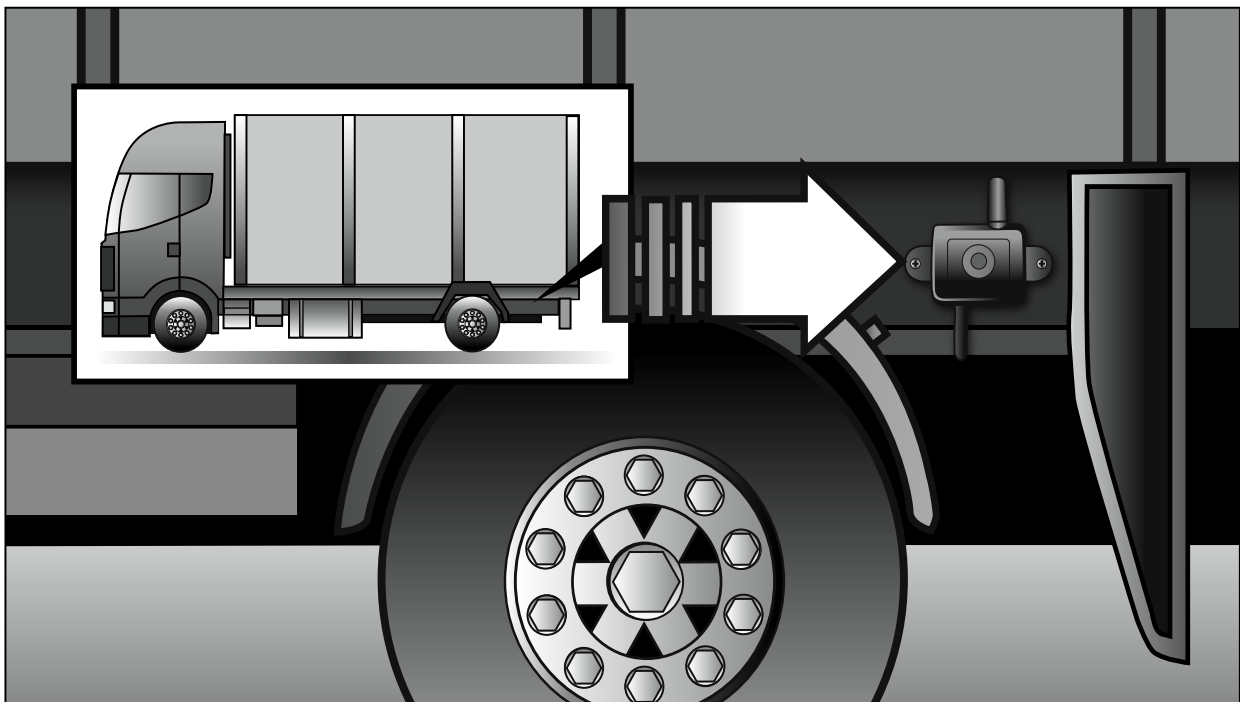
NOTE: FIT ONE BOOSTER TO EITHER SIDE OF THE VEHICLE. 2 X BOOSTERS FOR TRAILERS AND RIGID CHASSIS. NONE REQUIRED FOR TRACTOR UNITS.

The signal booster is fitted as close to the rear most sensor (wheel loss or TPMS) as possible. This area will normally be the rear most axle. You are not required to fit a booster on the tractor unit.

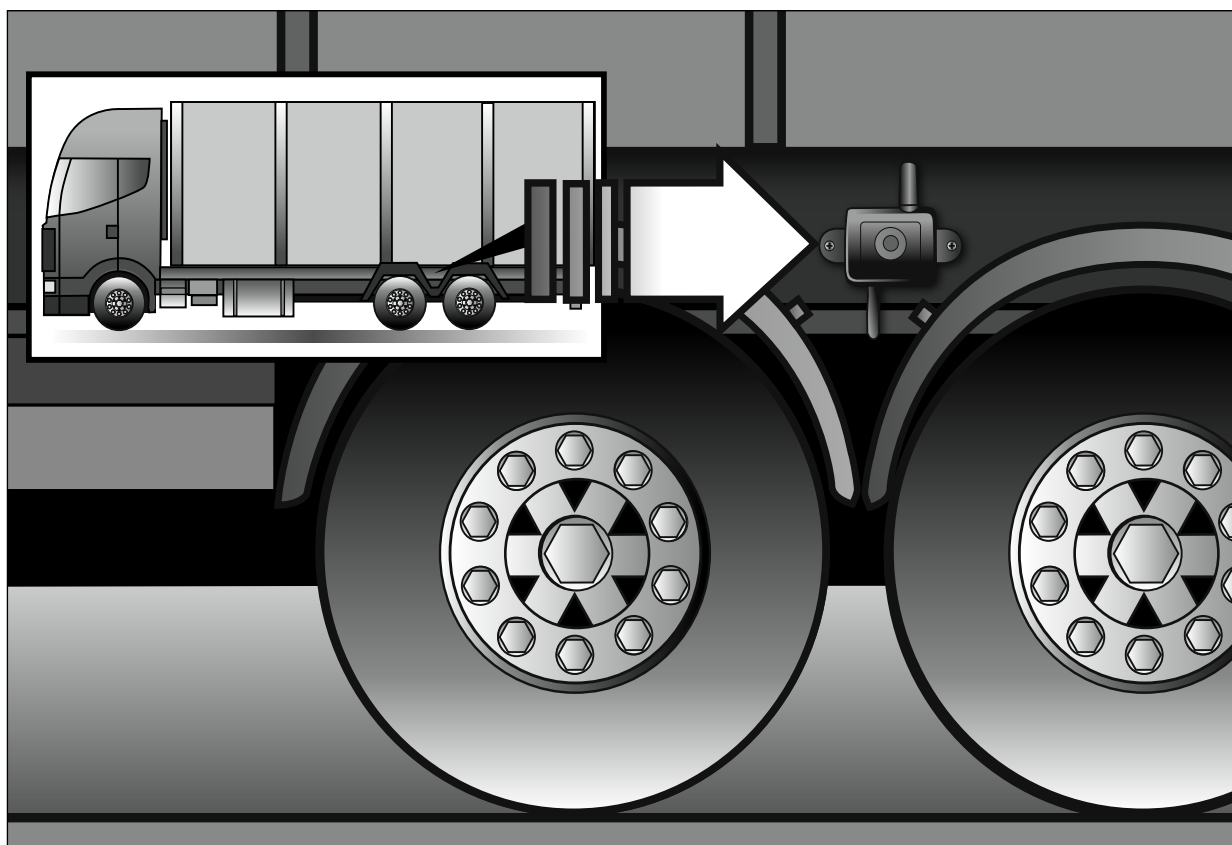


RED Wire: connect to vehicle 12V/24V power supply directly(12~24V)
Black Wire: connect to Ground wire.

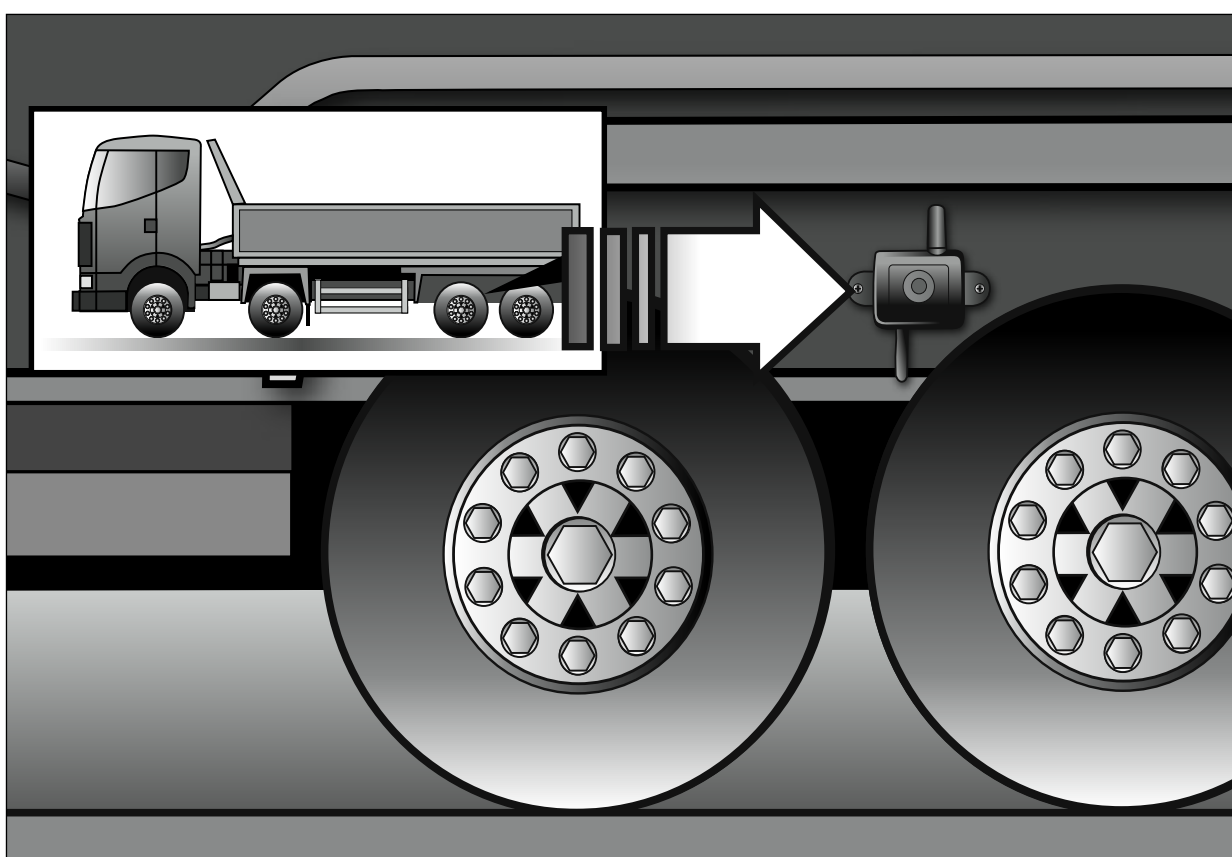
On rigid vehicles , where possible, connect to a permanent power source so that the booster is powered when the ignition is off.
For trailer fitment please wire into a positive feed and test by connecting to a suitable tractor unit.



Fitting position - Rigid



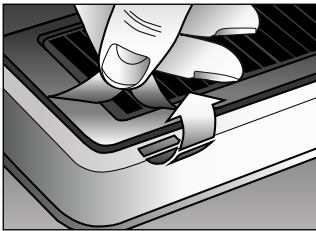
Fitting position - Rigid twin axle



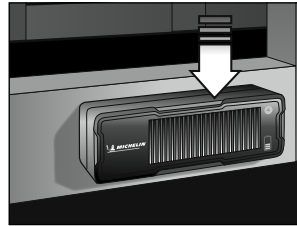
Fitting position - Trailer

FITMENT OF SIGNAL BOOSTER (SOLAR)

The solar booster should be fitted externally in an area that is close to the rear most sensors and is visible to daylight. Because of the vast variance in trailers and rigid vehicles a degree of common sense needs to be applied. Fit 2 x boosters, one each side of a rigid vehicle or trailer (note, boosters are not required for tractor units) Fit in an area that is close to the rear most sensors which can be above them, in-front of or behind them. The roof can be considered as an option. The rear of the vehicle should also be considered as an option if there is no other obvious area available. Metallic or glass surfaces are acceptable as a fitting surface, with a none metallic surface being preferred.

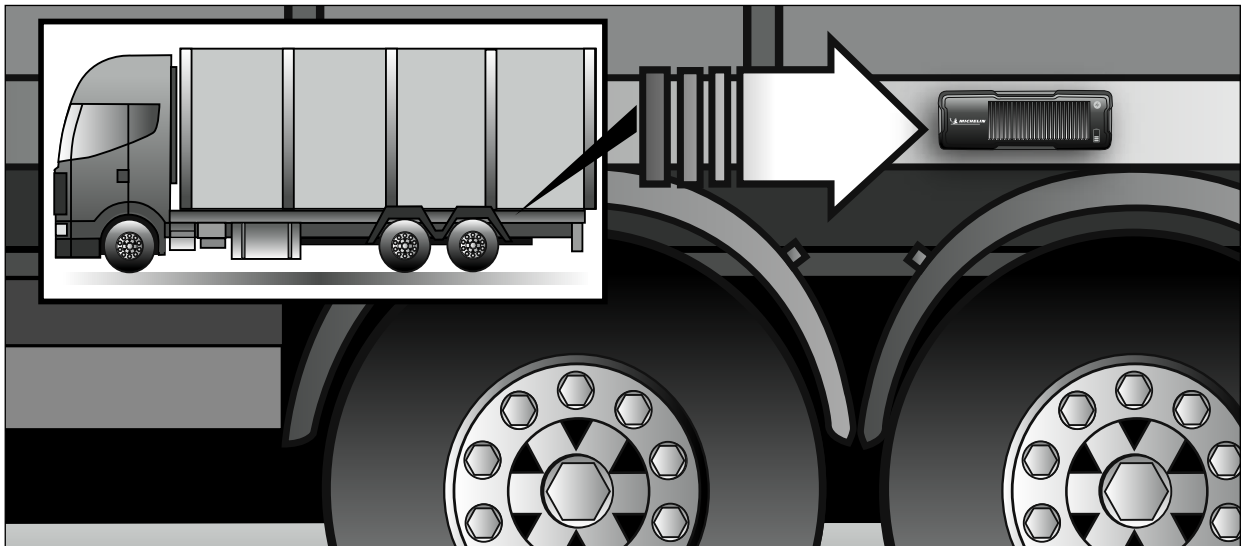


The fitting area should be cleaned and free from rust/dirt/grease.

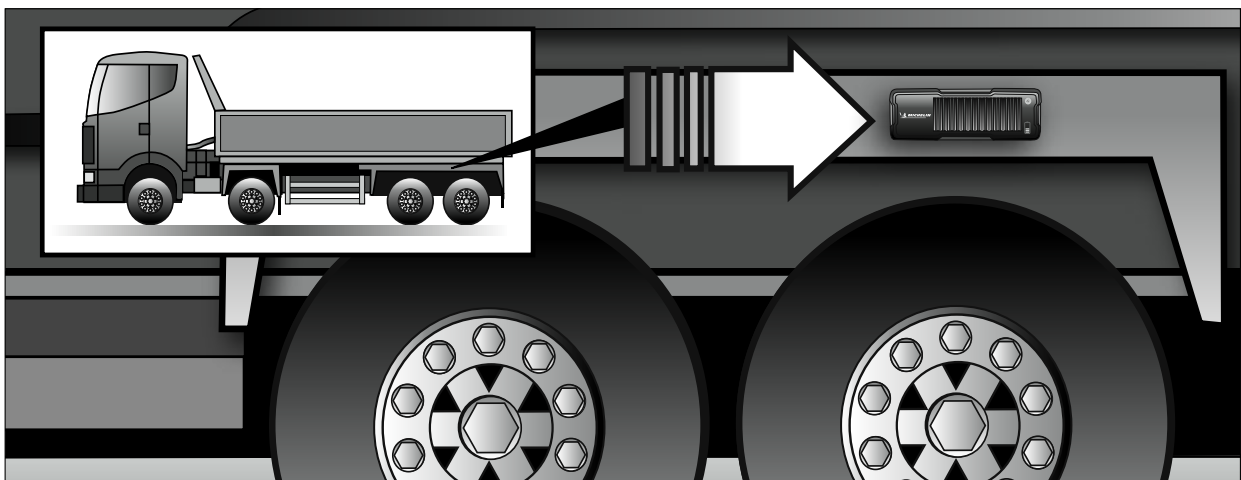


Note:
Fit one booster, externally, to either side OR TO THE REAR of the vehicle.

POSITION OPTION 1

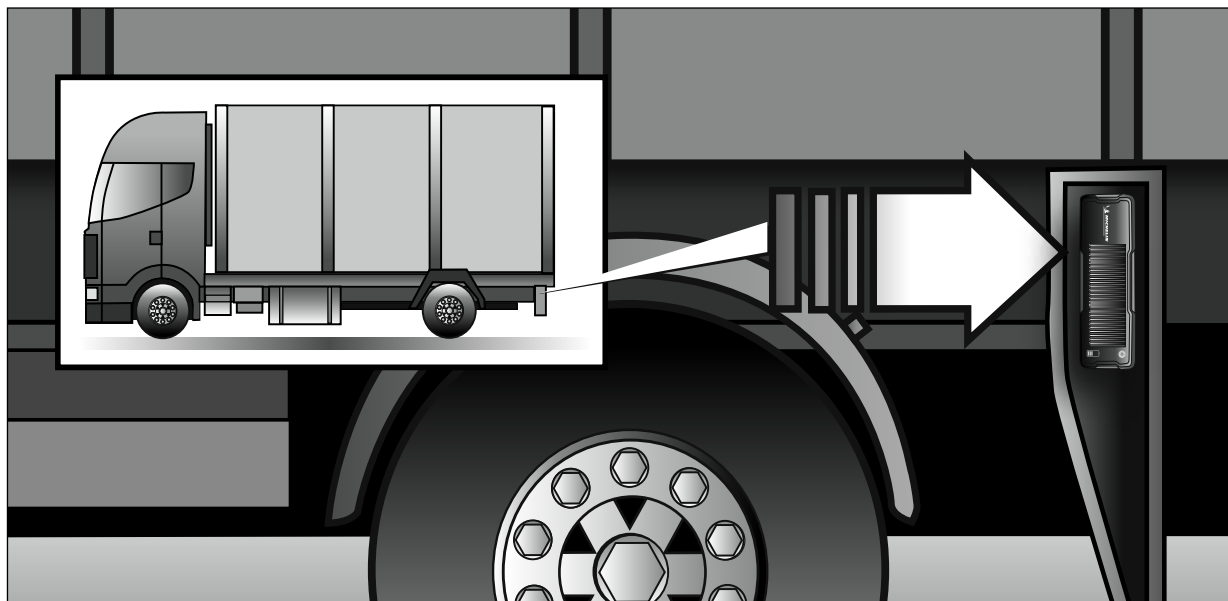


POSITION OPTION 2

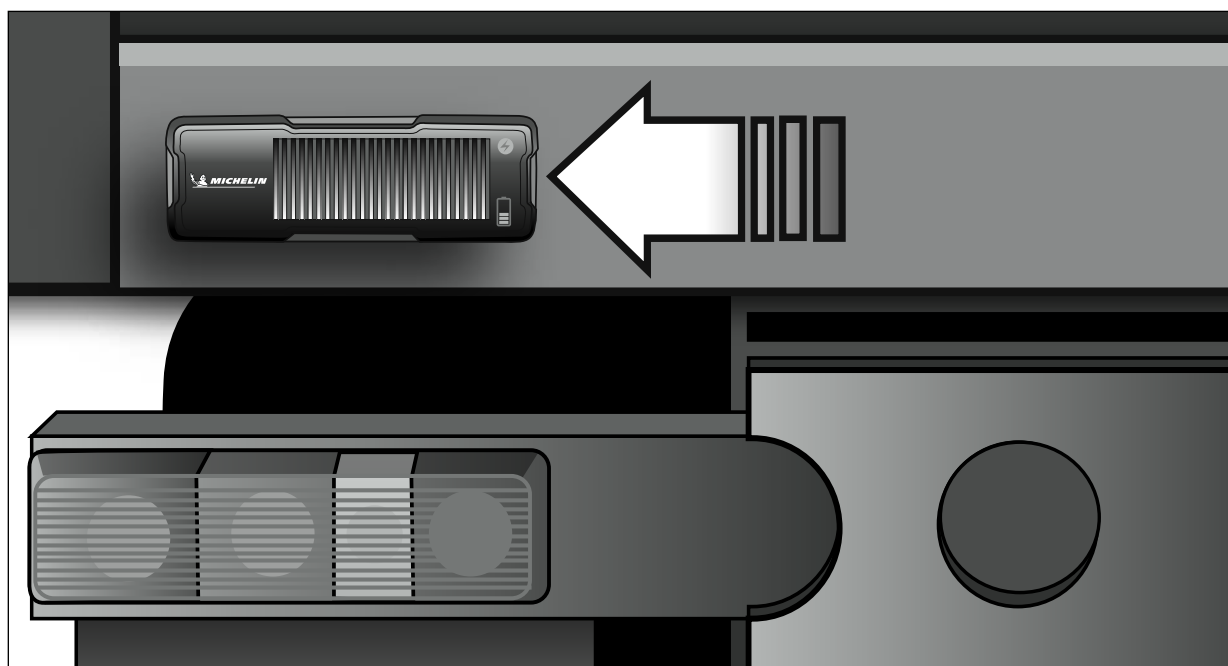


The signal booster should be fitted as close to the rear TPMS/Wheel loss sensor as possible.

**POSITION
OPTION 3**



**POSITION
OPTION 4**



The signal booster should be fitted as close to the rear TPMS/Wheel loss sensor as possible.

The booster should be positioned so that the solar panel is facing up-wards. Having the solar panel facing sideways is acceptable, but the booster solar panel facing down is not recommended.

Switching on the Solar Powered Booster.

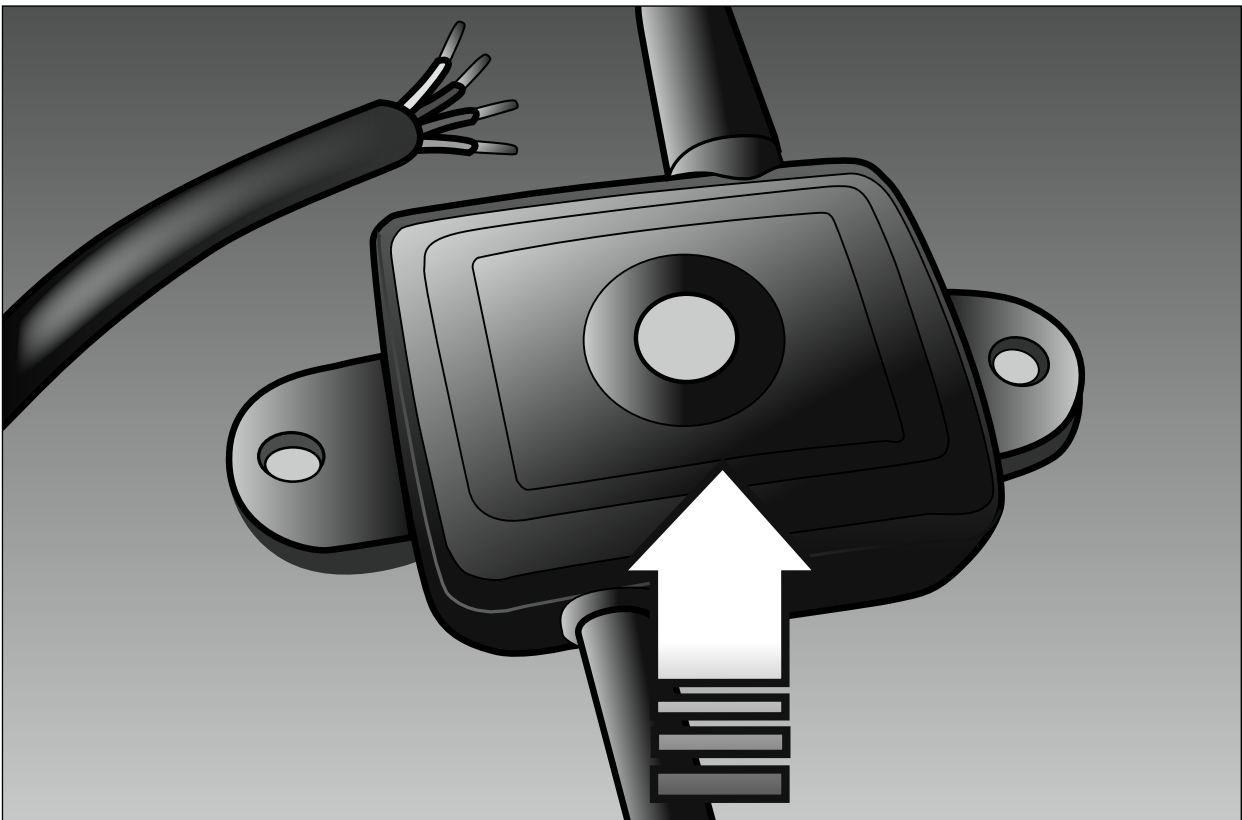
Hold the pressure checker directly above the battery icon for 5 seconds.

The power light will flash and the solar powered booster is now active.

TELEMATICS RECEIVER MODULES (WIRED)

Note that the TRM looks similar to the booster, please refer to the typical id number RP03 on the back of the TRM

WIRED VERSION



There are 4 wires for this type of TRM - connect as below:

TX (green wire)

RX (yellow wire)

Power supply + (red wire)

Power supply - (black wire)

TELEMATICS RECEIVER MODULES (BLUETOOTH)

The solar powered receiver has Blue Tooth built in allowing data transmission to telematic systems.

BLUETOOTH VERSION



PRESSURE CHECKER



TURN ON

Insert 2 AAA batteries in the Pressure Checker. Press down the Power button for 3 seconds and the Pressure Checker will Power up with a bleep sound. The battery indicator in the bottom right of the screen shows the remaining powerlevel of the AAA batteries.



CHANGE UNITS

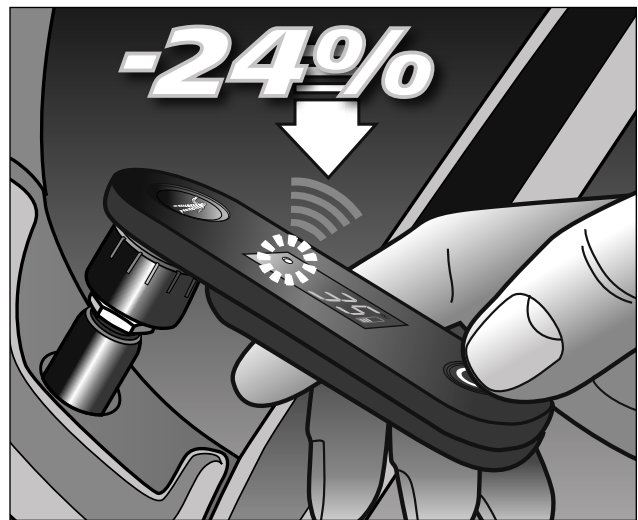
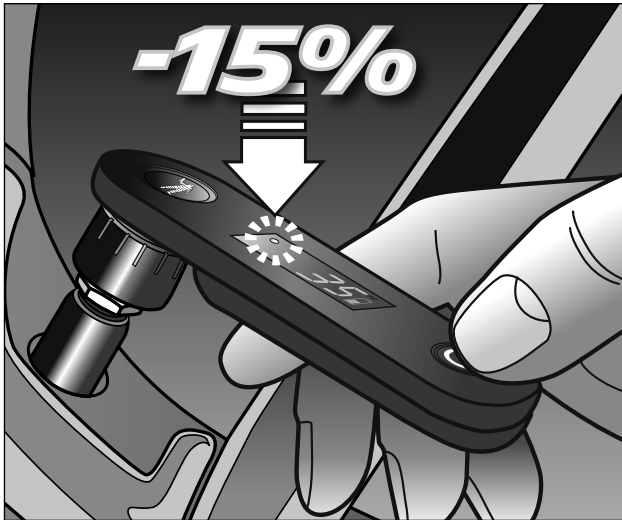
Factory setting is in psi. To change to display pressures to bar, press the Power button five times quickly, and to return the setting to psi, press 5 times again.



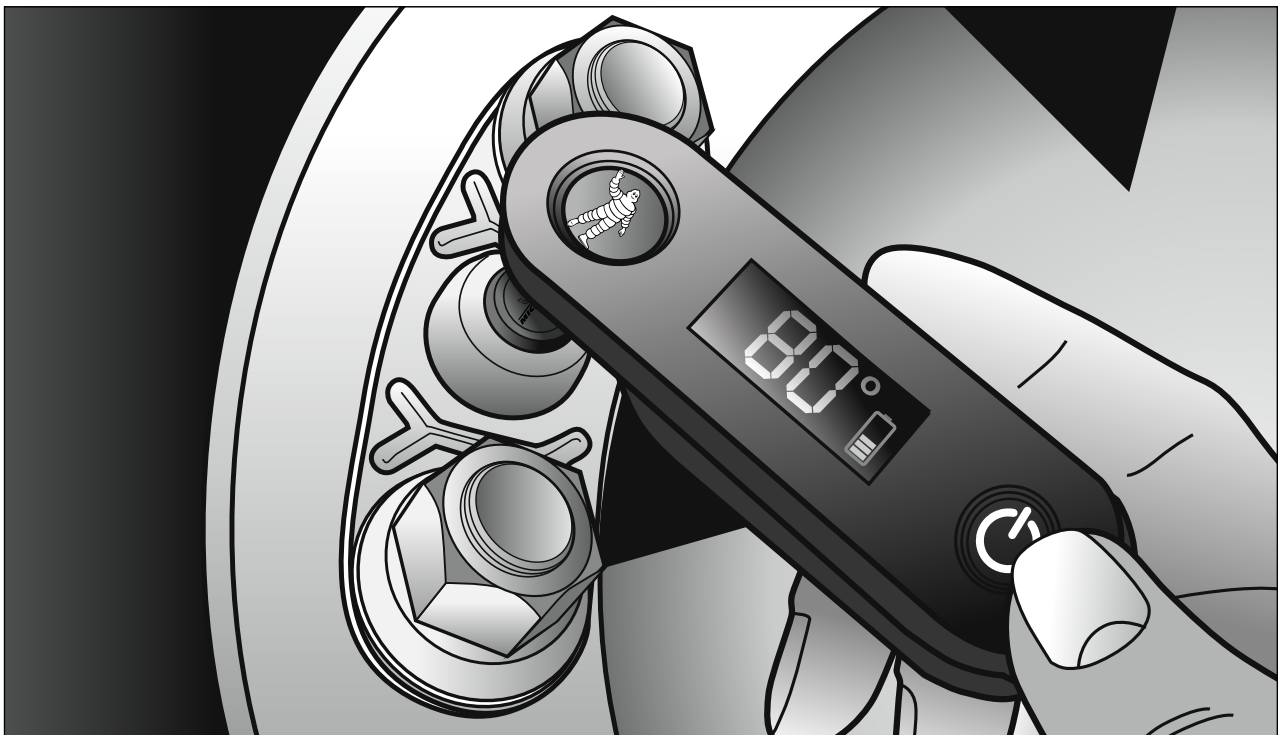
Place the MICHELIN man logo of the pressure checker over the MICHELIN logo on the TPMS sensor (you will feel a magnetic pull). Within 5 seconds the TPMS sensor will detect the presence of the pressure checker. The TPMS sensor will flash RED once and the current tyre pressure and sensor battery level will be displayed on the pressure checker.

PRESSURE CHECKER WARNING SIGNALS

When checking a tyre pressure prior to the start of the journey if the tyre pressure has fallen below 15% of the calibrated pressure the pressure checker will flash.



If the calibrated pressure has fallen below 24% the pressure checker will flash and bleep.



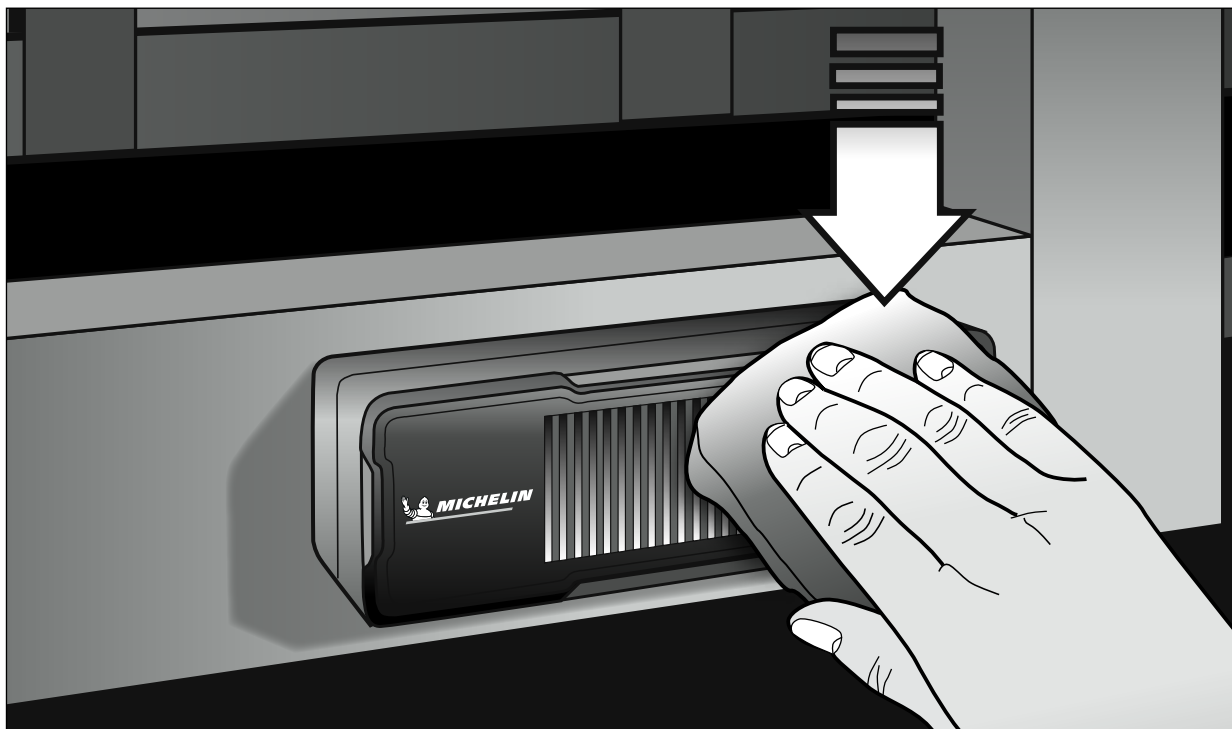
RECENT HUB TEMPERATURE

Place the MICHELIN man logo of the pressure checker over the wheel loss sensor and the highest hub temperature in °C within the last 24 hours will be displayed on the pressure checker.

NOTE

Access to a pressure checker is required to read the remaining battery life of both the wheel loss and tyre pressure management sensors. The battery life will be displayed on the battery indicator when the checker is presented to the sensor.

CARE AND MAINTENANCE



Regular checks should be made to ensure that the solar cells on the booster are not covered and should be kept clean using a pH neutral cleaner.
All sensors should also be kept clean so that any flashing LED warning will be visible.

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant

to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference

received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

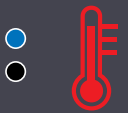
PRODUCT DISCLAIMER AND WARRANTY

The Wheely-Safe safety system is designed as a driver assistance device and should not be used as a substitute for regular manual wheel & 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 using, 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 & tyre safe. All wheels and tyre pressures should be checked before any journey, when the tyres are in their cold state, using an accurate Tyre pressure gauge. Whilst checking pressures it is also recommended to give the tyres a thorough inspection for any tyre damage, tread depth or uneven wear and the wheel nuts, studs and rims are damage free and in a suitable and sound for purpose condition prior to commencing the journey. Published product details, specifications and suitability information is the best available at the time. Wheely-Safe Ltd shall not be held responsible for the accuracy of any advice given regarding the suitability (or otherwise) of any part(s).

We encourage you to ensure 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 part.

Please ensure that you have read your warranty conditions before attempting to install a part or otherwise repair an item. Wheely-Safe Ltd cannot be held responsible if the item is damaged or your warranty is voided. Some manufacturer guarantees may be on condition that you use a qualified technician.

WARNINGS ALARMS

RECEIVER ICONS	INITIAL ALARM	FINAL ALARM	SENSOR ALERT TIME
 Early Low / Early High Tyre Pressure Alerts a 15% drop in calibrated pressure	Pressure icon flashes RED with front/rear position icon and a bleep sound and then alternately all icons flash RED . This sequence continues every 10seconds for 2mins.	Pressure icon flashes RED every 20seconds until the journey ends.	2 mins
 Critical Low Pressure/Blow Out/Fast Leakage. Leakage Alerts a 24% drop in calibrated pressure, or pressure loss exceeding 2psi per minute.	Pressure icon flashes RED with front/rear position icon and a bleep sound and then alternately all icons flash RED . This sequence continues every 5seconds for 3 mins.	Pressure Icon flashes RED with a bleep every 10seconds until the journey ends.	3 mins
 High Temperature (pressure monitor) Air Temperature inside tyre has exceeded 100°C	All icons flash with a bleep sound and temperature icon flashes red alternately every 10seconds for 60 seconds.	Temperature Icon flashes RED with a bleep every 20seconds until the journey ends.	As long as temp. is exceeded.
 Wheel Loose On set of wheel loss detected	All icons flash with a bleep sound and wheel loss icon flashes red alternately every 4seconds for 60 seconds.	Wheel loss Icon flashes RED with a bleep every 2seconds until the journey ends.	3 mins
 High Temperature (Wheel Loss Sensor) Hub Temperature has exceeded 90°C	All icons flash with a bleep sound whilst Temperature & Brake Icons flash red with a bleep alternately every 10 seconds for 60 seconds.	Temperature & Brake Icons flashes RED with a bleep every 20seconds until the journey ends.	As long as temp. is exceeded.

- Front or Rear Icons remain on to indicate the location of the problem

AFTER LOOKING AT THE RECEIVER FOR INFORMATION THE DRIVER IS ADVISED TO STOP THE VEHICLE SAFELY AND THEN, WHEN SAFE TO DO SO, WALK ROUND THE VEHICLE. THE RED FLASHING LEDS ON EITHER THE SENSOR ON THE TYRE VALVE OR THE WHEEL LOSS SENSOR WILL SHOW WHICH WHEEL/TYRE HAS THE PROBLEM.

Manufactured and distributed under licence by Wheely Safe Ltd.
Unit 8 Queens Drive Industrial Estate,
Queens Drive,
Burntwood,
Staffordshire, WS7 4QF
Email: info@wheely-safe.co.uk
Tel: 01543 415823

© 2018 Michelin. www.michelin-lifestyle.com
MICHELIN and/or the Michelin Man Device and/or
BIBENDUM are trademark(s) owned by, and used with
the permission of, the Michelin Group.



Customer Enquiries

We are at your service.
Let us help you find a better way forward.

Tel: 01543 415823
Email: info@wheely-safe.co.uk