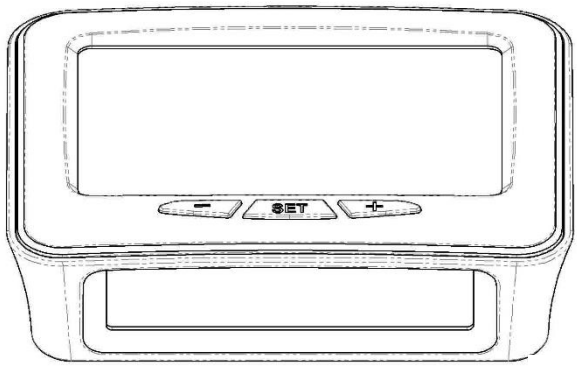
SOLAR COLOUR PRO TPMS - USER MANUAL

- KIT INCLUDES EXTERNAL SENSORS

4x PRE-REGISTERED TCSO



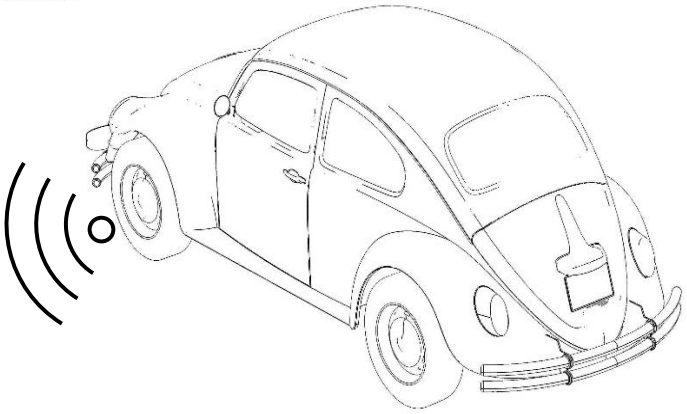
VEHICLE USE:

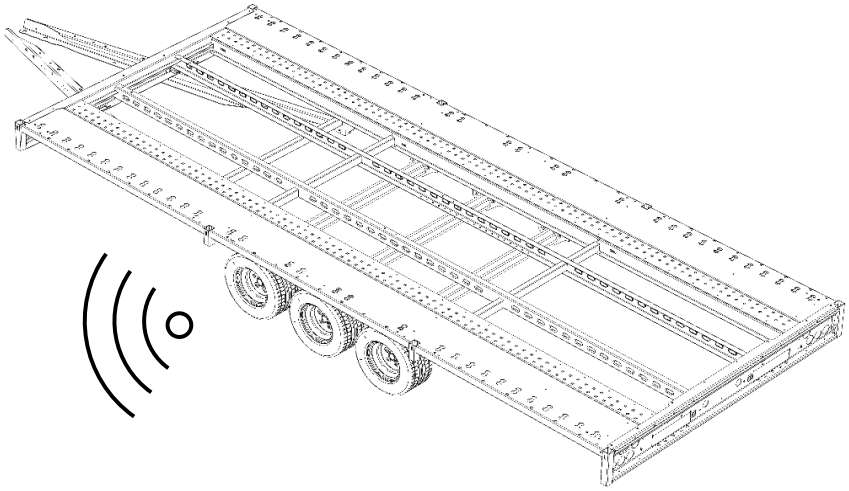
CARS, CLASSIC CARS, VANS

MOTORHOMES, CAMPERVANS

TWIN-AXLE CARAVANS

TWIN-AXLE TRAILERS





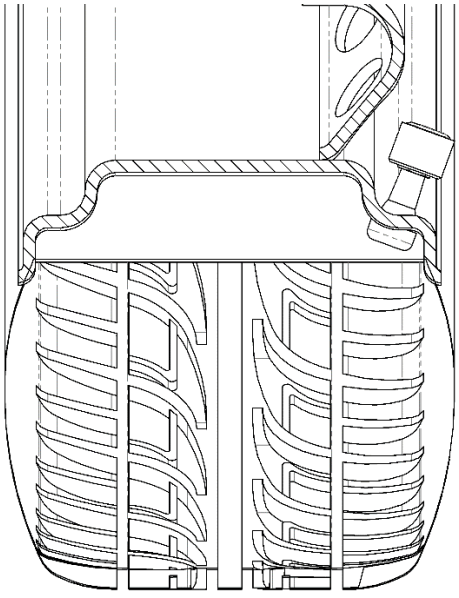
MAX= +80°C; MIN= -20°C

MAX= 99psi / 6.8Bar

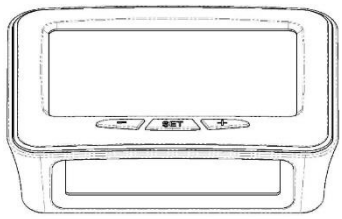
MAX= 120mph

MONITORS LEFT UNDER WINDSCREENS CAN EXPERIENCE EXTREME HEAT - THIS CAN DAMAGE THE DEVICE

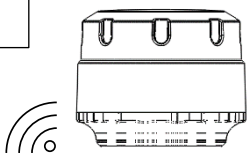
DO NOT USE WITH TYRE SEALANT



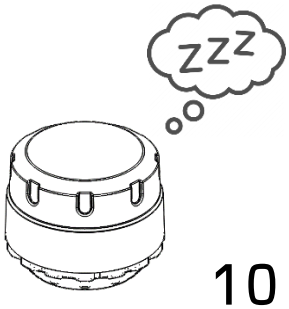
ENSURE SENSOR DOES NOT PROTRUDE BEYOND TYRE SIDEWALL



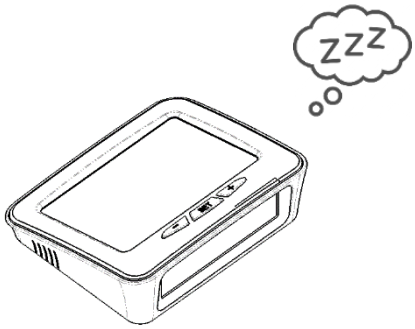
NOTE: FOR DISTANCES GREATER THAN 7.0M OUR TCRR-2 SMART SIGNAL REPEATER IS REQUIRED



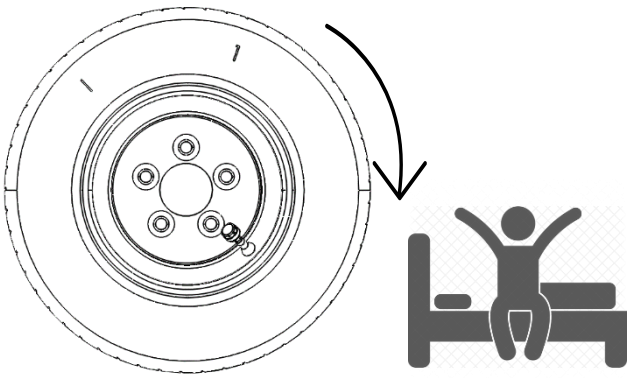
7.0M max



10 min



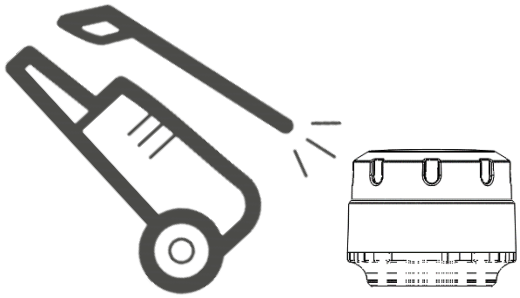
10 min



SENSORS GO TO SLEEP AFTER 10 MINUTES OF NO VEHICLE MOVEMENT.

MONITOR GOES TO SLEEP AFTER 10 MINUTES OF NO VEHICLE MOVEMENT.

SENSORS AND MONITOR WAKE UP WHEN MOTION OR VIBRATION ARE DETECTED.



DO NOT PRESSURE-WASH SENSORS

READ INSTRUCTIONS BEFORE INSTALLING

THIS KIT DOES NOT REPLACE THE NEED TO CARRY OUT REGULAR CHECKS ON THE CONDITION AND WEAR OF THE TYRES

MONITOR SHOULD BE INSIDE VEHICLE WHERE IT DOES NOT INTERFERE WITH DRIVING

IT IS YOUR RESPONSIBILITY TO ENSURE THIS KIT IS SUITABLE FOR YOUR PARTICULAR VEHICLE, THAT IT IS WORKING CORRECTLY, AND PROPERLY MAINTAINED

CHECK THE SENSORS AND VALVE STEMS REGULARLY FOR DAMAGE OR CORROSION

KEEP SMALL PARTS AND BATTERIES OUT OF THE REACH OF CHILDREN. SEEK MEDICAL ASSISTANCE IF PARTS ARE SWALLOWED

DO NOT HOLD A BATTERY WITH METAL TWEEZERS OR PLIERS, WHICH MAY LEAD TO A SHORT CIRCUIT CAUSING A FIRE OR EXPLOSION OF BATTERY

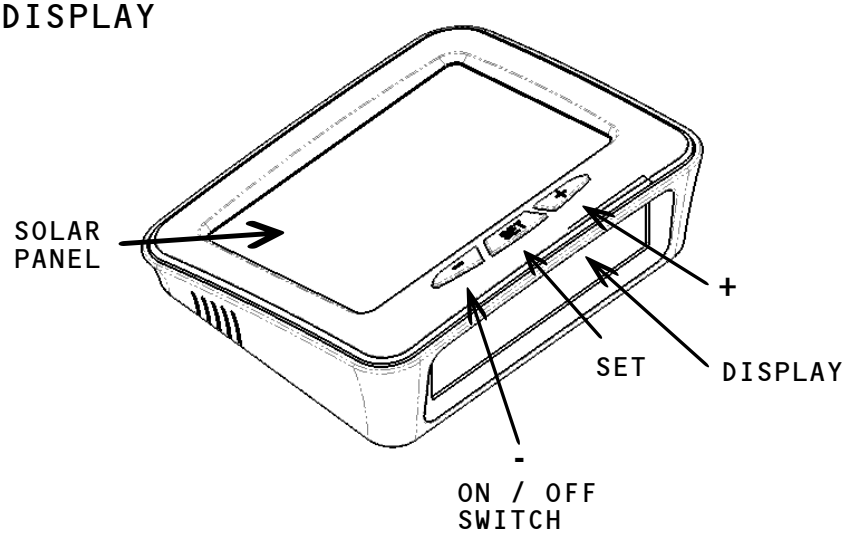
DO NOT ADJUST MONITOR SETTINGS WHILST DRIVING

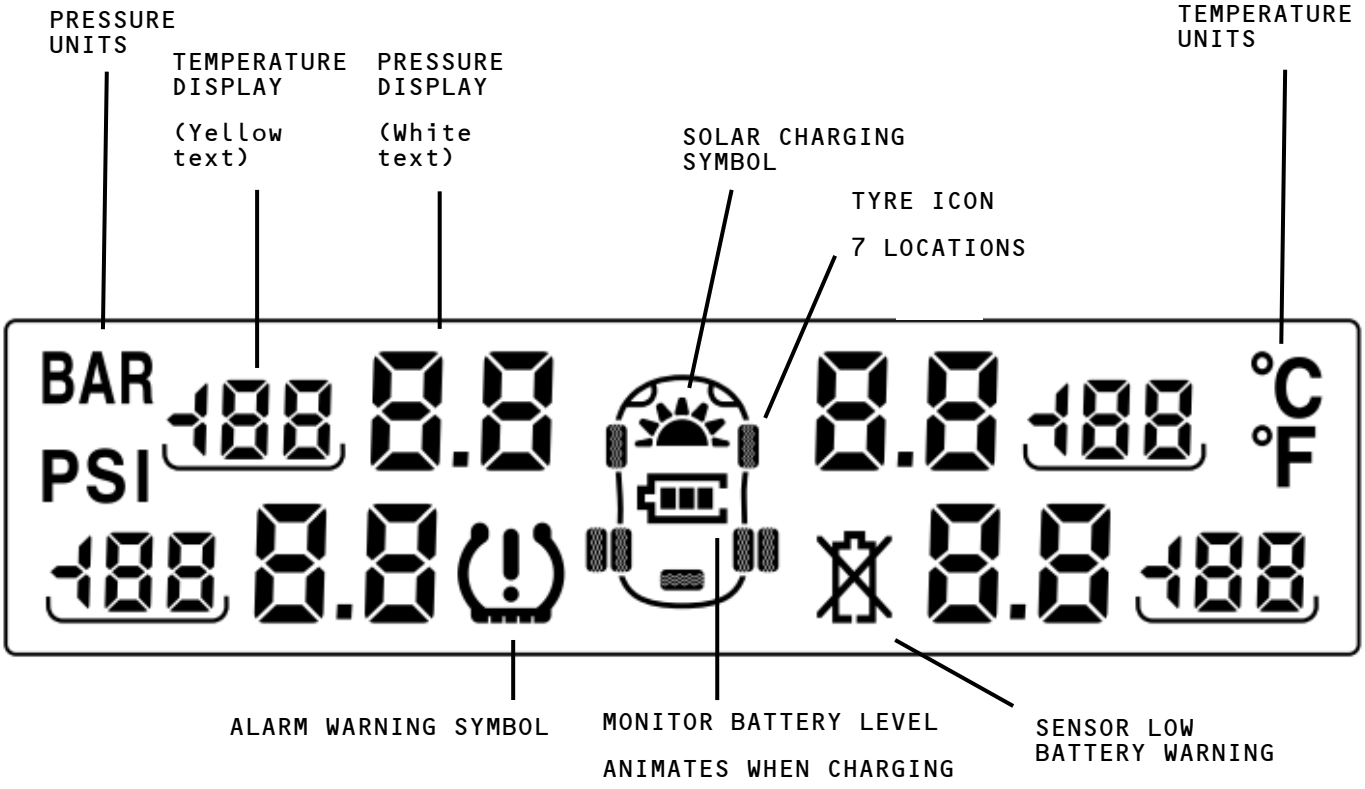
IF THE MONITOR ALARMS PULL OVER WHEN IT IS SAFE TO DO SO AND CHECK THE TYRES

WEIGHT OF SENSORS WITHIN TOLERANCE FOR WHEEL BALANCING. NO NEED TO REBALANCE WHEELS AFTER SENSOR INSTALLATION. IF VIBRATION IS FELT WHEN DRIVING AT SPEED, AFTER FITTING SYSTEM, THE WHEELS MUST BE REBALANCED

MONITOR OVERVIEW

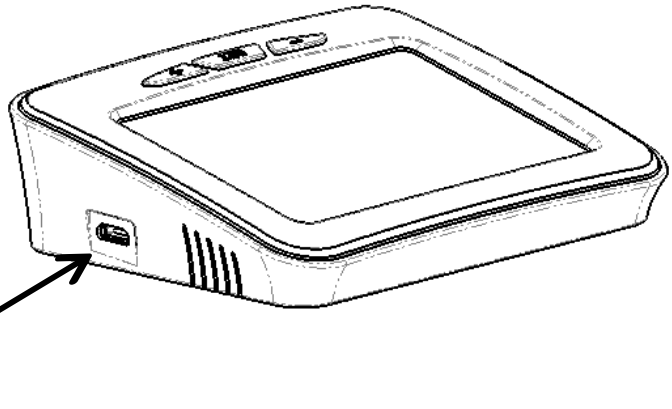
MONITOR BUTTONS, DISPLAY LAYOUT & ICONS





CHARGING PORT

ONLY USE CHARGING LEAD PROVIDED IN KIT.



5V USB CHARGING PORT

NOTE: THE INTERNAL BATTERY PROVIDES THE MONITOR WITH APPROX 60 HRS OF LIFE. WHEN NEW IT IS FULLY CHARGED.

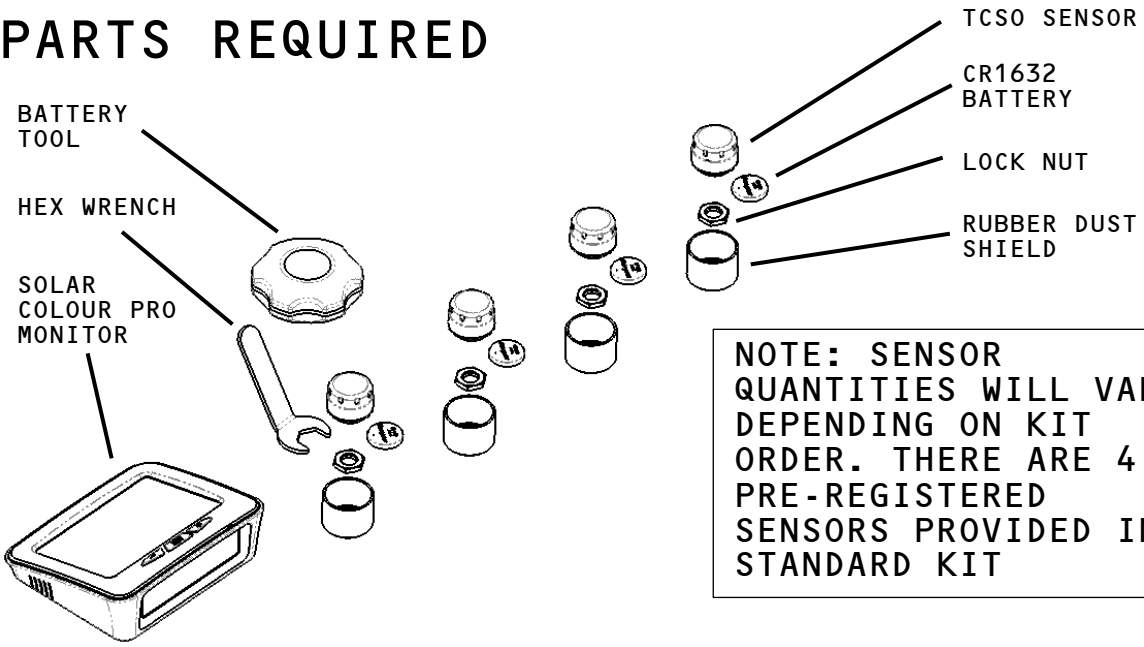
THE SOLAR PV PANEL PROVIDES A TOP-UP CHARGE WHEN THE MONITOR IS IN USE.

THE MONITOR WILL WORK OUT OF SUNLIGHT.

WE RECOMMEND THAT THE MONITOR IS NOT PERMANENTLY LEFT UNDER A WINDSCREEN. THE EXPOSURE TO EXTREME HEAT AND CONSTANT CHARGING CAN REDUCE THE MONITOR'S BATTERY LIFE AND POTENTIALLY DAMAGE THE DEVICE.

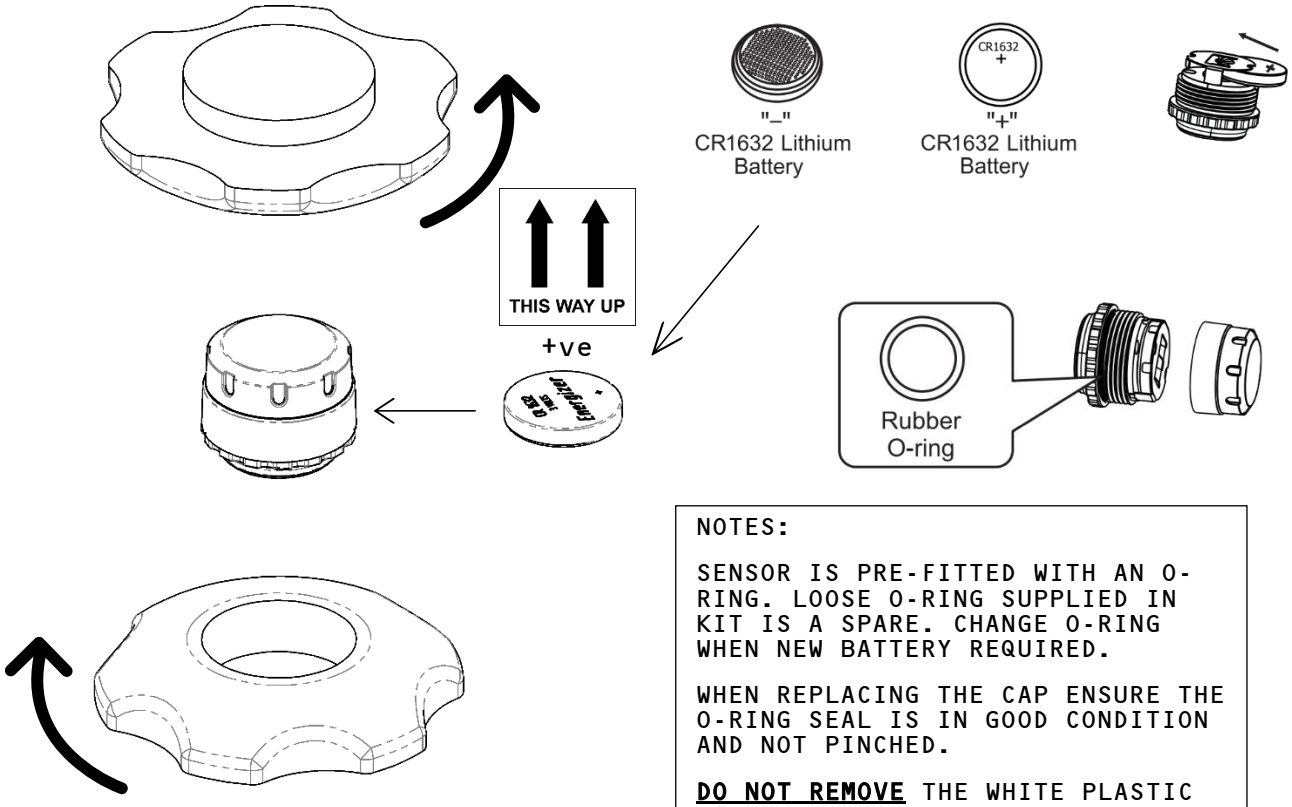
INSTALLATION & SET-UP PROCEDURE- PRE-REGISTERED TCSO SENSORS

1 PARTS REQUIRED



NOTE: SENSOR QUANTITIES WILL VARY DEPENDING ON KIT ORDER. THERE ARE 4 PRE-REGISTERED SENSORS PROVIDED IN STANDARD KIT

2 BATTERY INSTALLATION-SLIDES INTO PLACE



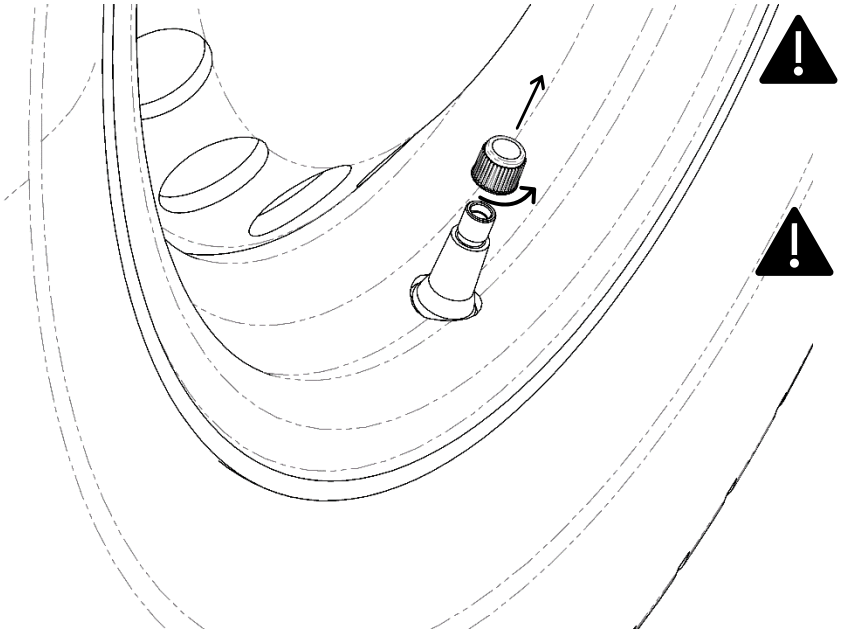
NOTES:

SENSOR IS PRE-FITTED WITH AN O-RING. LOOSE O-RING SUPPLIED IN KIT IS A SPARE. CHANGE O-RING WHEN NEW BATTERY REQUIRED.

WHEN REPLACING THE CAP ENSURE THE O-RING SEAL IS IN GOOD CONDITION AND NOT PINCHED.

DO NOT REMOVE THE WHITE PLASTIC LABEL UNDER THE BATTERY TERMINALS

3 VALVE DUST CAP REMOVAL

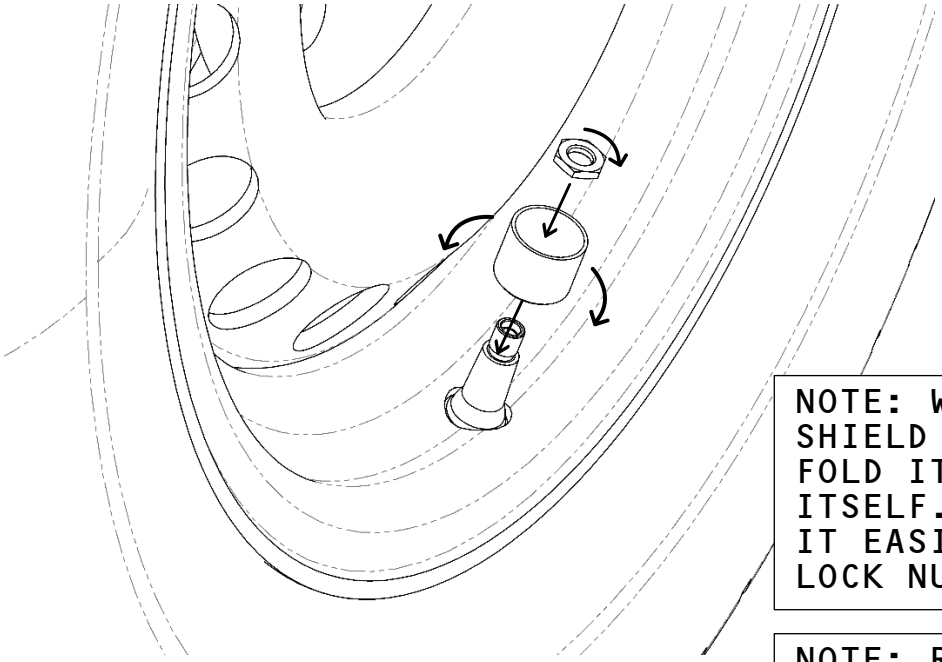


CHECK TYRE PRESSURES BEFORE SENSORS ARE INSTALLED

MIN. VALVE THREAD LENGTH = 9.0mm

NOTE: REPEAT FOR ALL WHEELS REQUIRING SENSORS

4 INSTALL DUST SHIELD & LOCK NUT

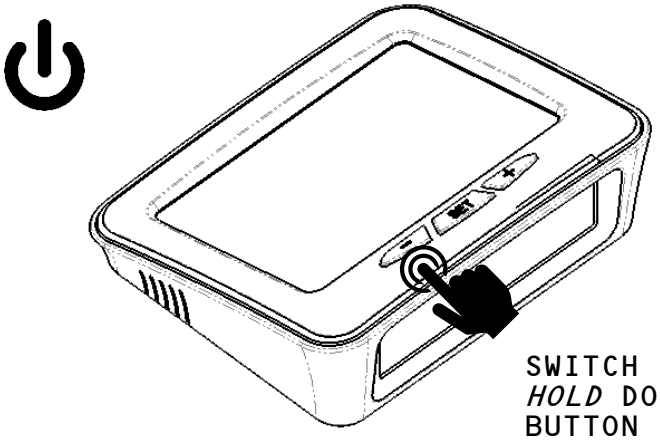


NOTE: WHEN THE DUST SHIELD IS FITTED FOLD IT BACK ON ITSELF. THIS MAKES IT EASIER TO FIT LOCK NUT AND SENSOR.

NOTE: REPEAT FOR ALL TYRES REQUIRING SENSORS

CHECK TYRE PRESSURES BEFORE SENSORS ARE INSTALLED

5 PREPARE MONITOR



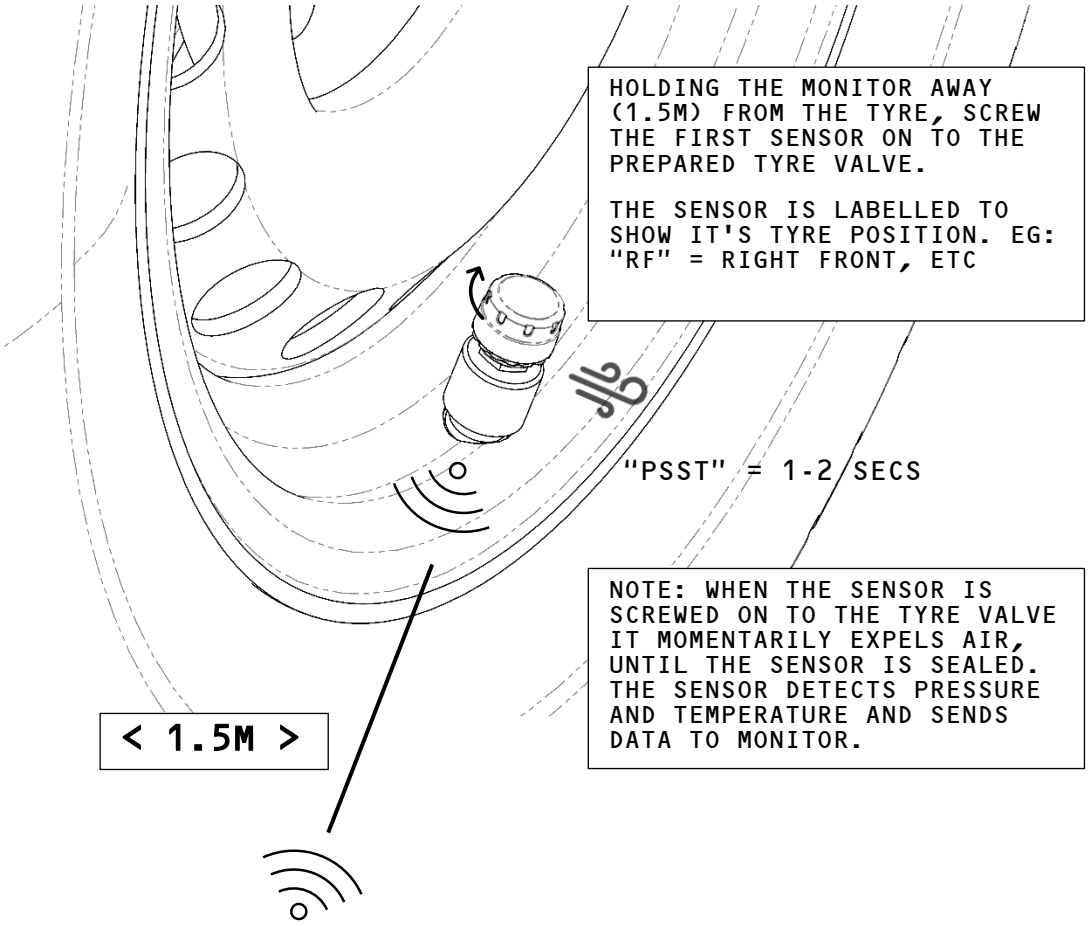
SWITCH ON – PRESS AND *HOLD* DOWN "-" (MINUS) BUTTON FOR 4-5 SECS

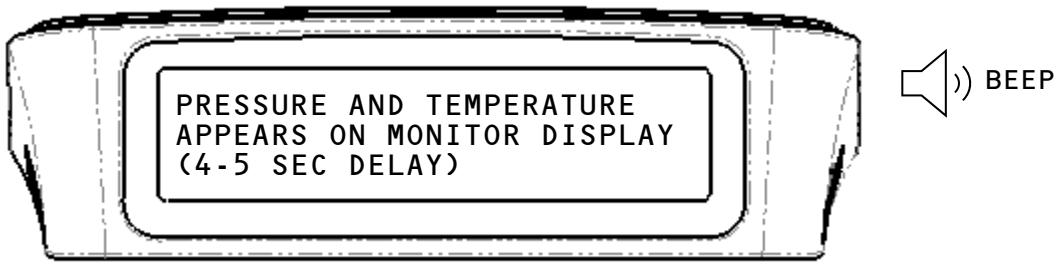
PLEASE NOTE:

* FOUR TCSO SENSORS ARE INCLUDED AND ARE PRE-REGISTERED TO THE MONITOR.

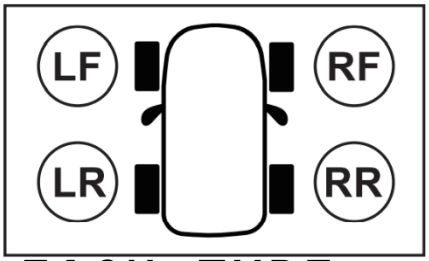
* WHEN MONITOR IS TURNED ON, NO DATA IS DISPLAYED INITIALLY

6 INSTALL PRE-REGISTERED TCSO SENSORS



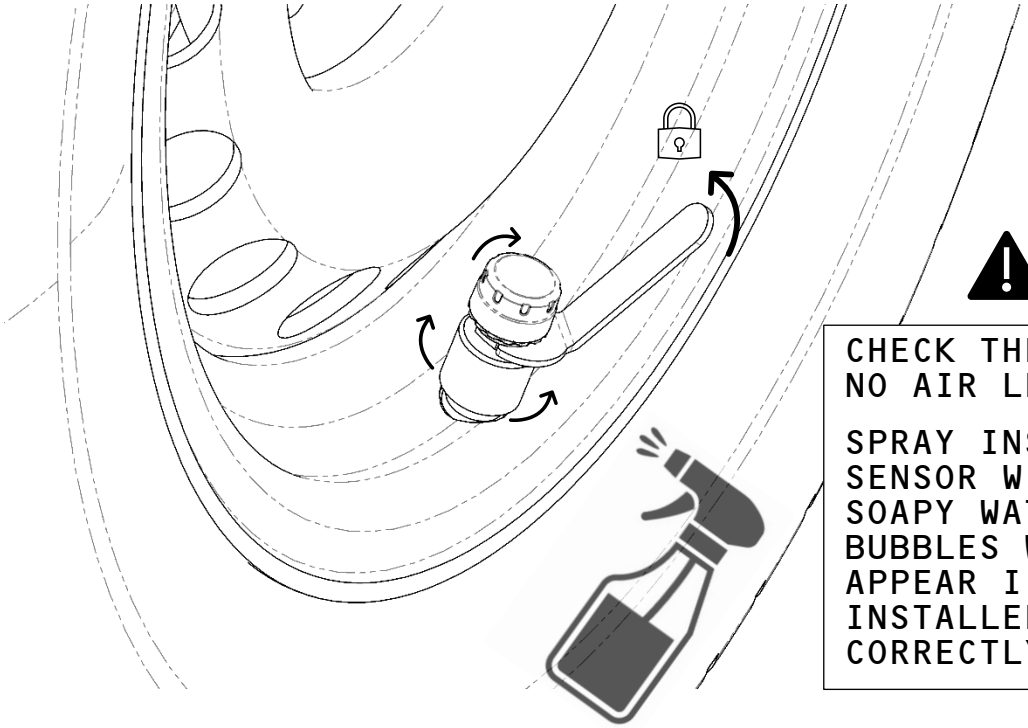


NOTE: TCSO SENSORS ARE SUPPLIED PRE-REGISTERED TO THE MONITOR. EACH SENSOR IS LABELLED TO SHOW THE WHEEL/TYRE IT IS REGISTERED TO. FOR EXAMPLE, A SENSOR LABELLED "RF" SHOULD BE FITTED TO THE RIGHT FRONT WHEEL (THE RIGHT HAND SIDE OF THE CAR IS DEFINED AS THE SIDE ON THE DRIVER'S RIGHT WHEN SEATED AND FACING FORWARD)



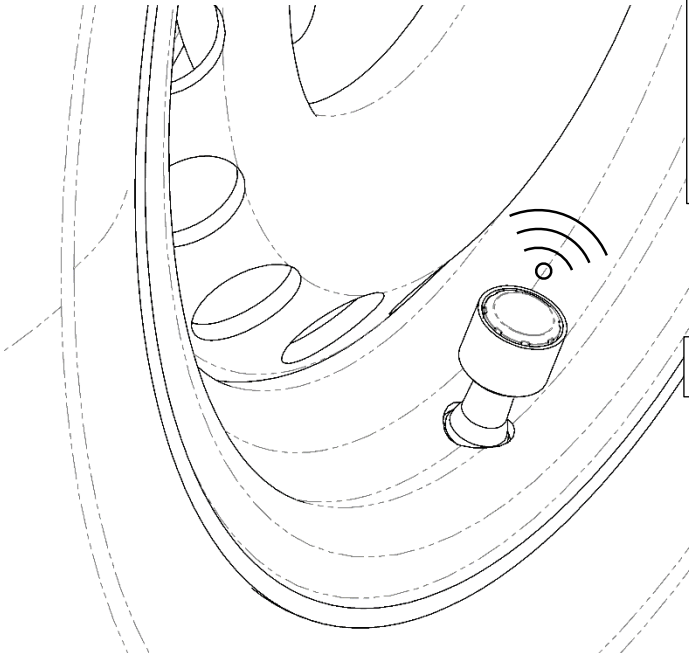
REPEAT INSTALLATION FOR EACH TYRE

7 FINISH SENSOR INSTALLATION



CHECK THERE ARE NO AIR LEAKS

SPRAY INSTALLED SENSOR WITH SOAPY WATER. NO BUBBLES WILL APPEAR IF INSTALLED CORRECTLY



LOCK SENSOR USING HEX WRENCH SUPPLIED IN KIT

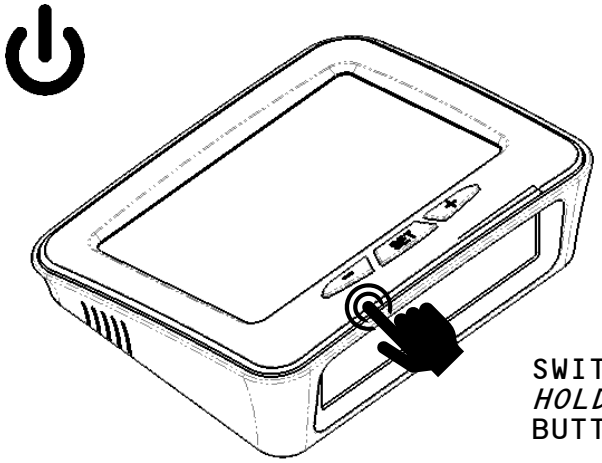
FOLD BACK RUBBER DUST SHIELD SO IT COVERS THE SENSOR

FINAL INSTALLED SET-UP

REPEAT FOR EACH TYRE SENSOR!

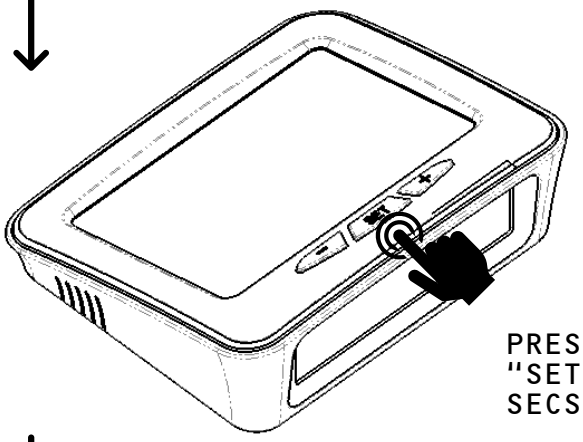
➢COMPLETE THE ALARM SETTINGS…

8 SET DATA UNITS & ALARMS



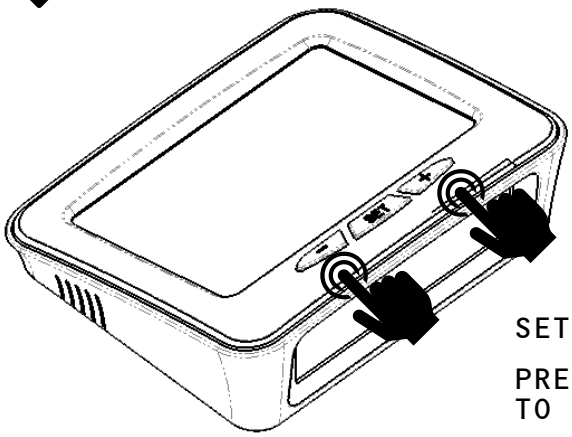
BEEP

SWITCH ON - PRESS AND *HOLD* DOWN "-" (MINUS) BUTTON FOR 4-5 SECS



BEEP

PRESS AND *HOLD* DOWN "SET" BUTTON FOR 4-5 SECS

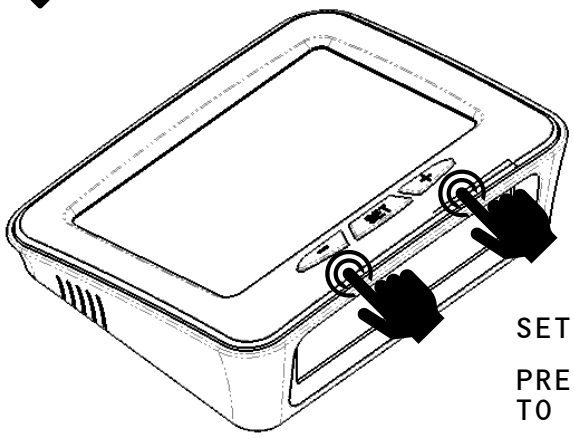


BEEP

SET PRESSURE UNITS

PRESS "+" OR "-" BUTTON TO SELECT "PSI" OR "BAR"

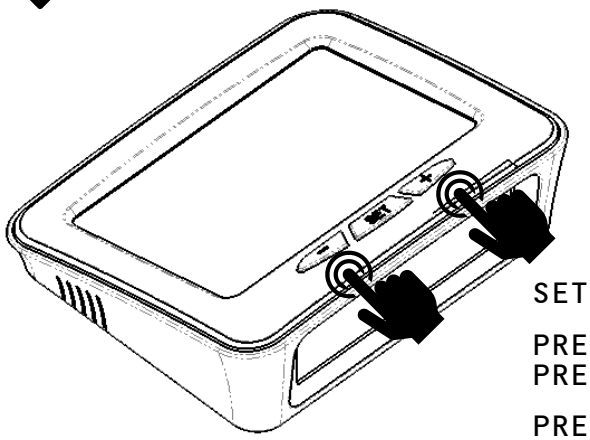
PRESS "SET" ONCE WHEN PRESSURE UNIT IS CHOSEN



SET TEMPERATURE UNITS

PRESS "+" OR "-" BUTTON TO SELECT "°C" OR "°F"

PRESS "SET" ONCE WHEN TEMPERATURE UNIT IS CHOSEN



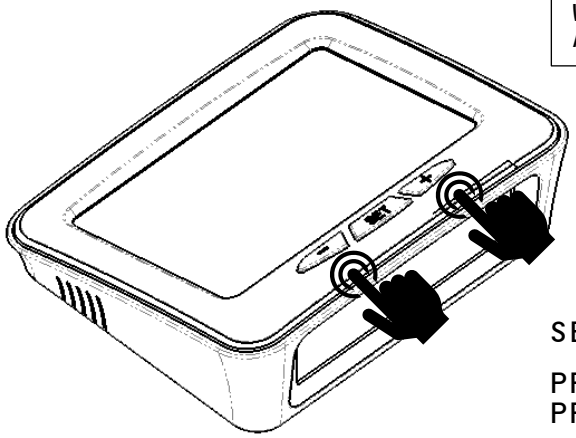
SET HIGH PRESSURE ALARM LEVEL 25% ABOVE VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET FRONT AXLE HIGH PRESSURE ALARM

PRESS "+" OR "-" BUTTON TO SELECT HIGH PRESSURE ALARM LIMIT

PRESS "SET" ONCE WHEN FRONT AXLE HIGH PRESSURE ALARM LIMIT IS SET

NOTE: THE MONITOR WILL NOT ALLOW THE HIGH PRESSURE ALARM LEVEL TO BE LESS THAN THE LOW PRESSURE ALARM LEVEL. THE FACTORY SET LOW PRESSURE ALARM LEVEL IS 29 PSI. IF YOU WANT THE HIGH PRESSURE ALARM BELOW 29PSI ADJUST THE LOW PRESSURE ALARM FIRST.

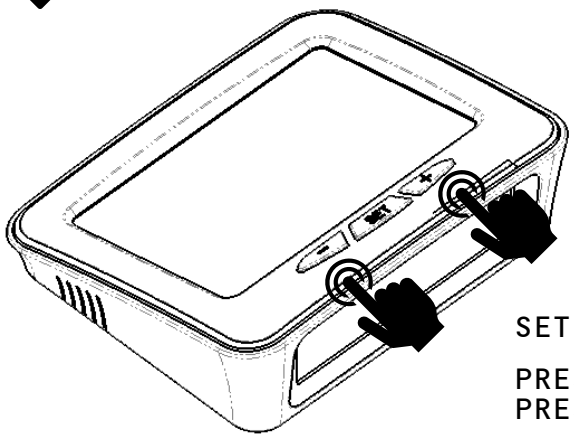


SET LOW PRESSURE ALARM LEVEL 15% BELOW VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET FRONT AXLE LOW PRESSURE ALARM

PRESS "+" OR "-" BUTTON TO SELECT LOW PRESSURE ALARM LIMIT

PRESS "SET" ONCE WHEN FRONT AXLE LOW PRESSURE ALARM LIMIT IS SET

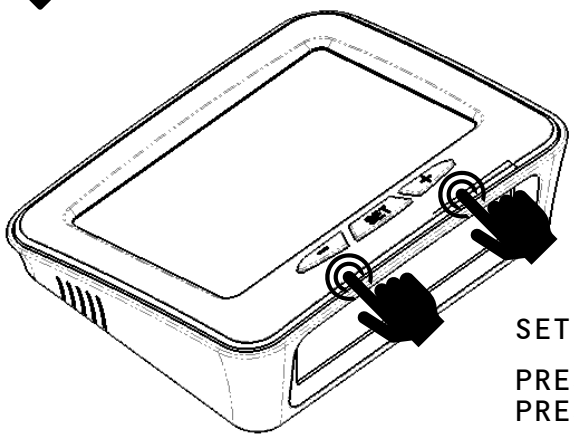


SET HIGH PRESSURE ALARM LEVEL 25% ABOVE VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET REAR AXLE HIGH PRESSURE ALARM

PRESS "+" OR "-" BUTTON TO SELECT HIGH PRESSURE ALARM LIMIT

PRESS "SET" ONCE WHEN REAR AXLE HIGH PRESSURE ALARM LIMIT IS SET

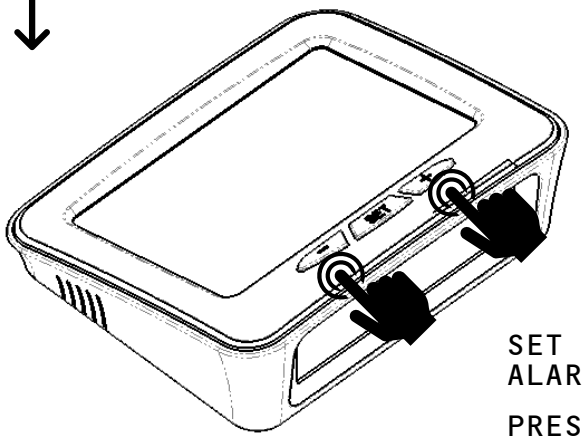


SET LOW PRESSURE ALARM LEVEL 15% BELOW VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET REAR AXLE LOW PRESSURE ALARM

PRESS "+" OR "-" BUTTON TO SELECT LOW PRESSURE ALARM LIMIT

PRESS "SET" ONCE WHEN REAR AXLE LOW PRESSURE ALARM LIMIT IS SET

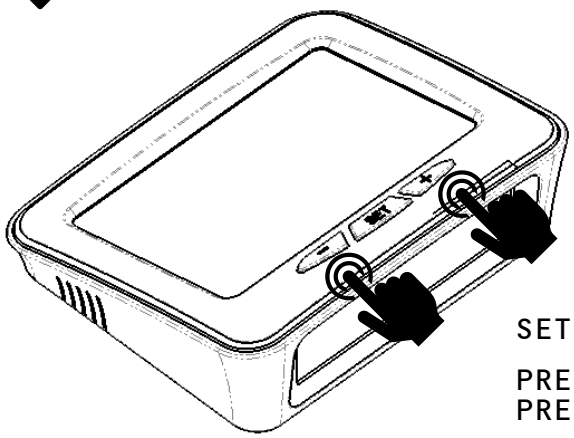


SET HIGH PRESSURE ALARM LEVEL 25% ABOVE VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET SPARE WHEEL/TYRE HIGH PRESSURE ALARM IF REGISTERED SENSOR FOR SPARE

PRESS "+" OR "-" BUTTON TO SELECT HIGH PRESSURE ALARM LIMIT

PRESS "SET" ONCE WHEN SPARE TYRE HIGH PRESSURE ALARM LIMIT IS SET

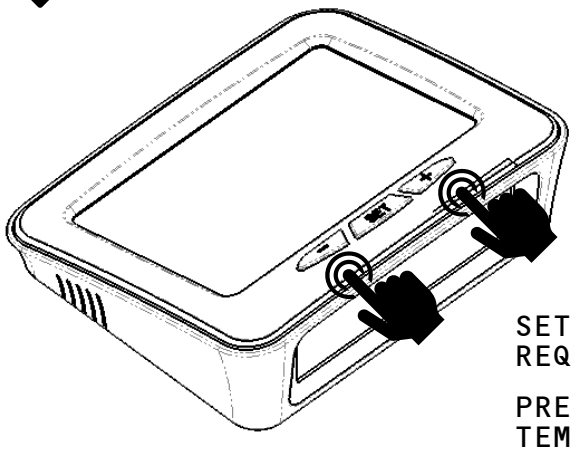


SET LOW PRESSURE ALARM LEVEL 15% BELOW VEHICLES RECOMMENDED TYRE PRESSURE FOR AXLE SELECTED

SET SPARE WHEEL LOW PRESSURE ALARM

PRESS "+" OR "-" BUTTON TO SELECT LOW PRESSURE ALARM LIMIT

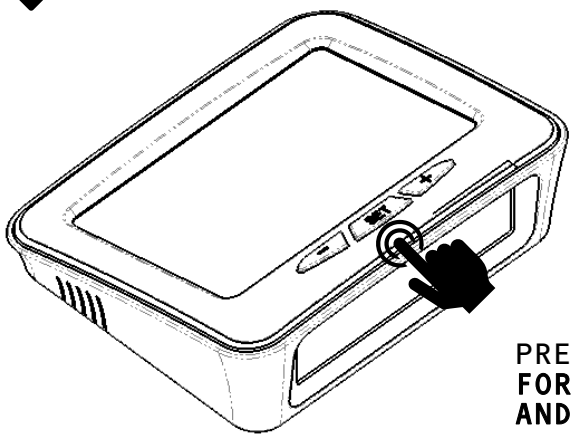
PRESS "SET" ONCE WHEN SPARE WHEEL LOW PRESSURE ALARM LIMIT IS SET



WE RECOMMEND THE HIGH TEMPERATURE ALARM IS SET TO 70°C (158°F) **FACTORY DEFAULT SET**

SET HIGH TEMPERATURE ALARM (IF REQUIRED)

PRESS "+" OR "-" BUTTON TO SELECT HIGH TEMPERATURE ALARM LIMIT

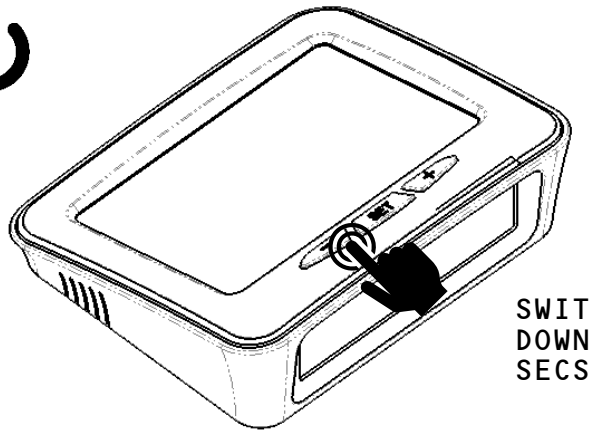


BEEP

PRESS AND ***HOLD*** **THE "SET" BUTTON FOR 4-5 SECS TO REGISTER THE UNIT AND ALARM SETTINGS**

CONGRATULATIONS! THE PROCESS IS NOW COMPLETE AND YOU SHOULD TURN THE MONITOR OFF.

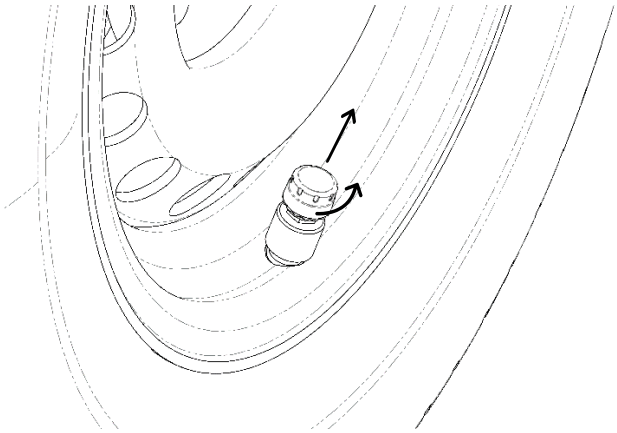
9 TEST THE TPMS SET-UP - Either drive vehicle or when stationary, follow below:



BEEP

SWITCH MONITOR ON - PRESS AND *HOLD* DOWN "-" (MINUS) BUTTON FOR 4-5 SECS. NO DATA IS SHOWN YET.

WHILST HOLDING THE MONITOR 1.5M AWAY FROM TYRE, REMOVE SENSOR FROM TYRE VALVE STEM. MONITOR SHOULD ALARM. REPLACE SENSOR TO CANCEL ALARM.

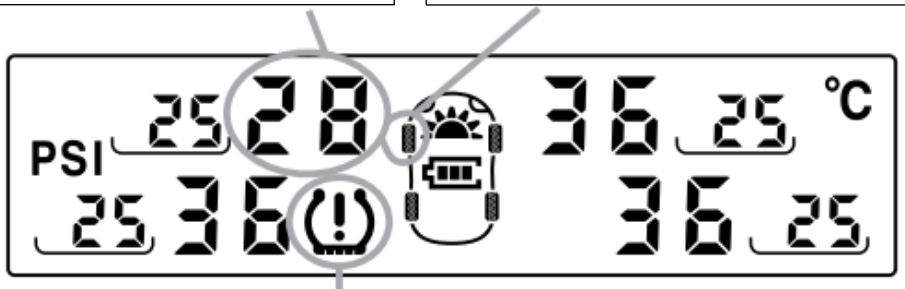


NOTE: WHEN THE SENSOR IS REMOVED THE DISPLAY WILL EMIT AN AUDIBLE ALARM, AND THE TYRE ICON AND PRESSURE DISPLAY FOR THAT WHEEL WILL FLASH, ALONG WITH THE TPMS WARNING SYMBOL

BEEP - BEEP - BEEP…

PRESSURE DISPLAY FLASHES

TYRE ICON FLASHES



TPMS WARNING SYMBOL FLASHES

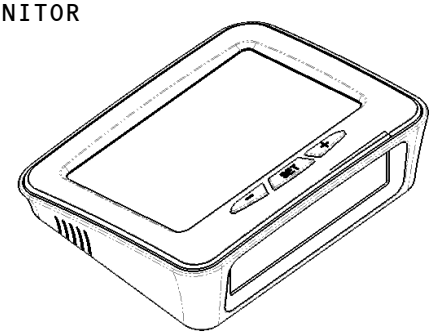
REPEAT FOR ALL POSITIONS

INSTALLATION & SET-UP PROCEDURE- SENSORS WITH 'LF' FEATURE

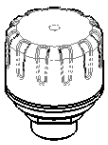
THE SOLAR COLOUR PRO MONITOR CAN BE SUPPLIED WITH THE OPTIONAL TCSI INTERNAL SENSORS AND TCSE EXTERNAL COMMERCIAL GRADE SENSORS, WHICH FEATURE OUR 'LF' REGISTRATION SYSTEM

1 PARTS REQUIRED

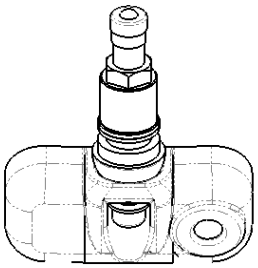
SOLAR COLOUR PRO MONITOR



TCSE EXTERNAL SENSOR



TCSI INTERNAL SENSOR



NOTE: BOTH TCSE AND TCSI SENSORS HAVE BATTERIES PRE-FITTED FROM THE FACTORY

2 INSTALLING TCSI INTERNAL SENSORS

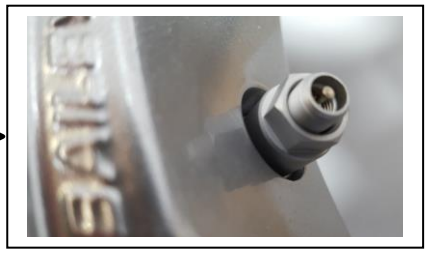
PREPARE SENSOR AS SHOWN

REMOVE OLD VALVE STEM AND CLEAN VALVE STEM HOLE AND MOUNTING FACES

INSTALL SENSOR THROUGH VALVE STEM HOLE FROM INSIDE THE RIM

ENSURE THE SENSOR RUBBER SEAL AND VALVE STEM ARE SEATED SQUARE

CAREFULLY INSTALL THE WASHER AND ENSURE IT IS SEATED CORRECTLY



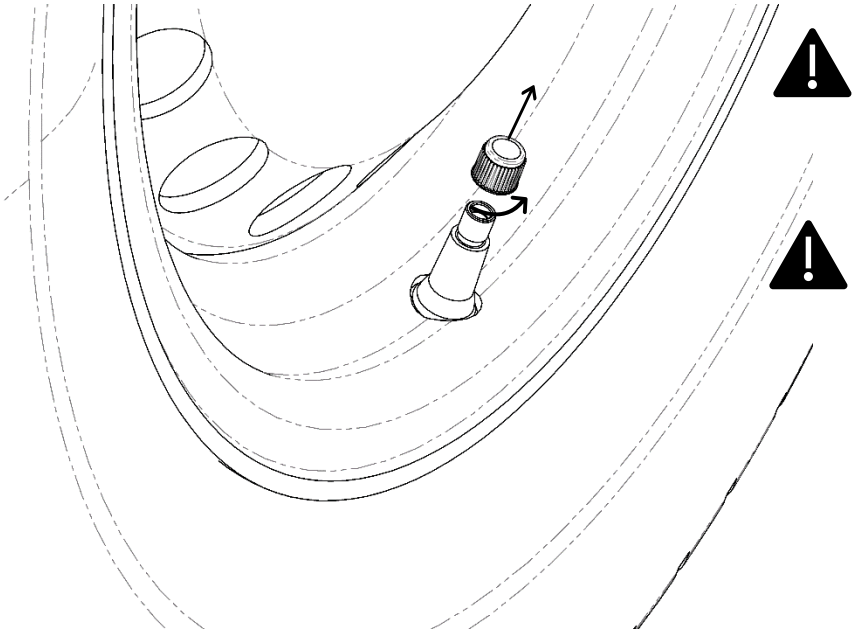
ATTACH THE THREADED COLLAR WITH HEXAGON UPPERMOST, AS SHOWN

TORQUE THE THREADED COLLAR TO 6.8Nm. REFIT THE TYRE & INFLATE

TEST THE VALVE WITH SOAPY WATER TO ENSURE THERE ARE NO AIR LEAKS

NOTE: WE RECOMMEND THE ABOVE PROCEDURE IS COMPLETED BY A PROFESSIONAL TYRE FITTER

3 INSTALLING TCSE EXTERNAL SENSORS
VALVE DUST CAP REMOVAL

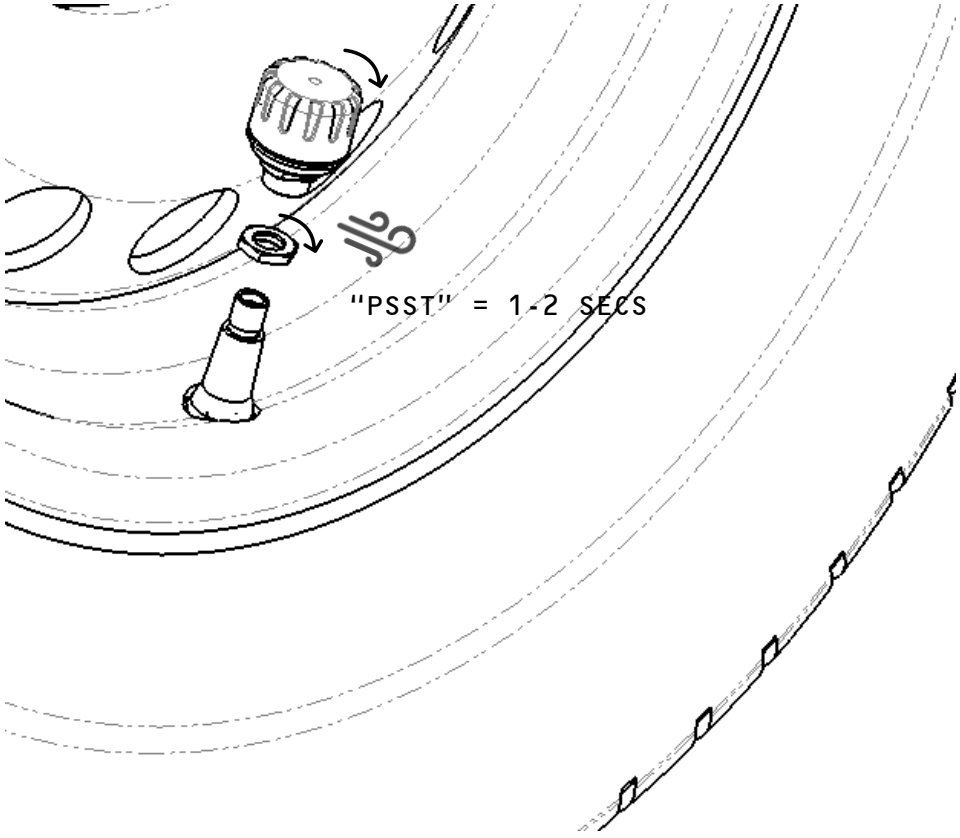


CHECK TYRE PRESSURES BEFORE SENSORS ARE INSTALLED

MIN. VALVE THREAD LENGTH = 9.0mm

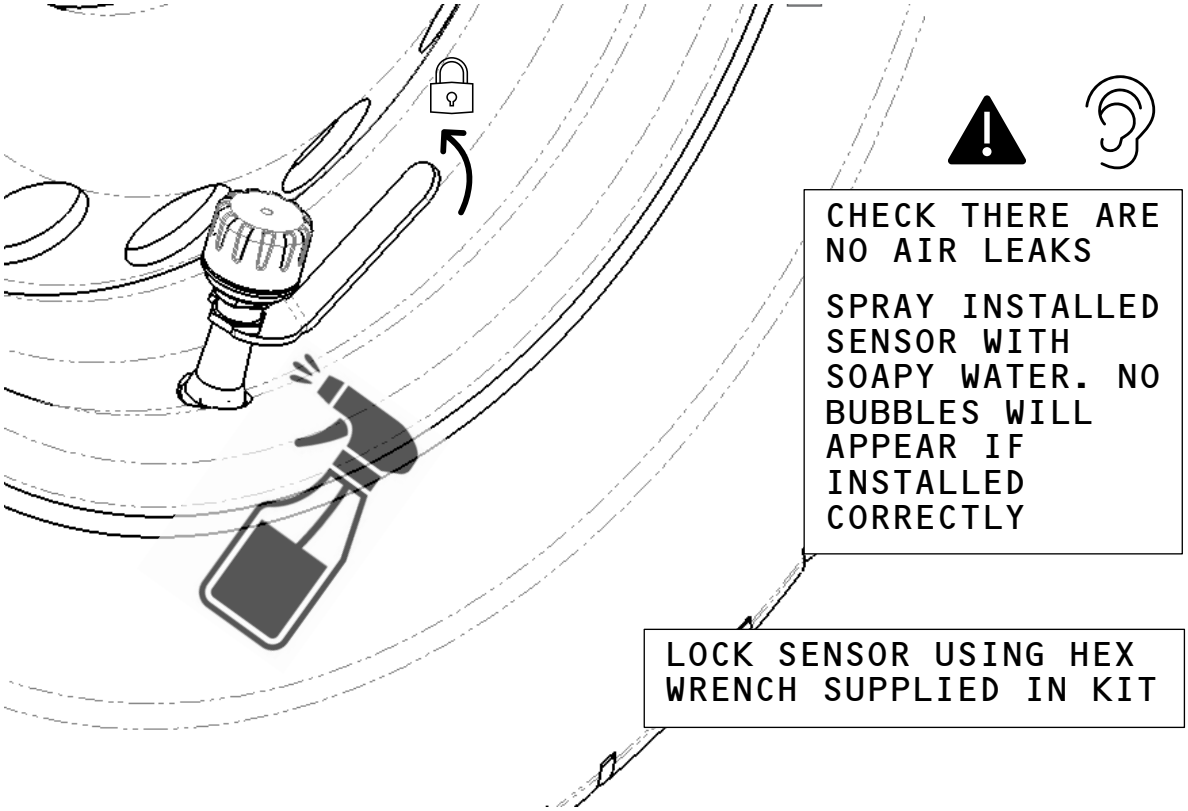
NOTE: REPEAT FOR ALL WHEELS REQUIRING SENSORS

4 INSTALL LOCK NUT & TCSE SENSOR



5 FINISH TCSE SENSOR INSTALLATION

6

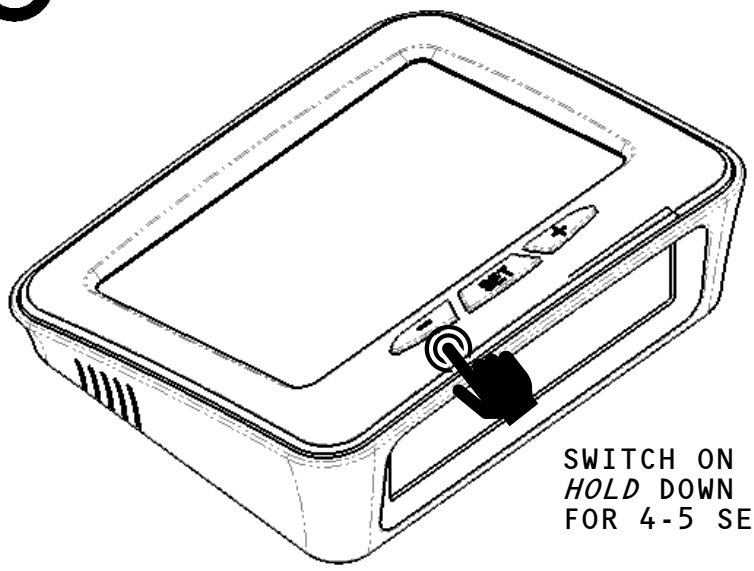


CHECK THERE ARE NO AIR LEAKS

SPRAY INSTALLED SENSOR WITH SOAPY WATER. NO BUBBLES WILL APPEAR IF INSTALLED CORRECTLY

LOCK SENSOR USING HEX WRENCH SUPPLIED IN KIT

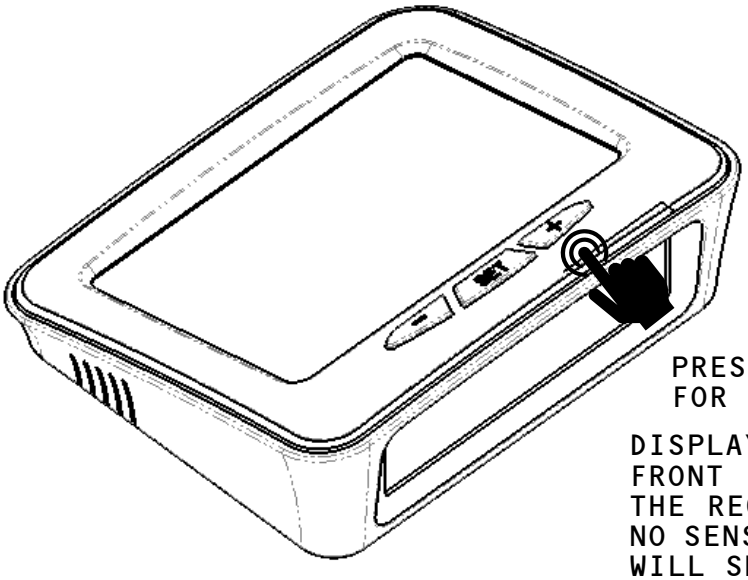
PREPARE MONITOR FOR LF CODING



BEEP

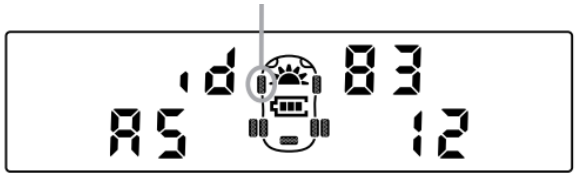
SWITCH ON – PRESS AND *HOLD* DOWN "-" BUTTON FOR 4-5 SECS

7 ENTERING 'CODING' MODE

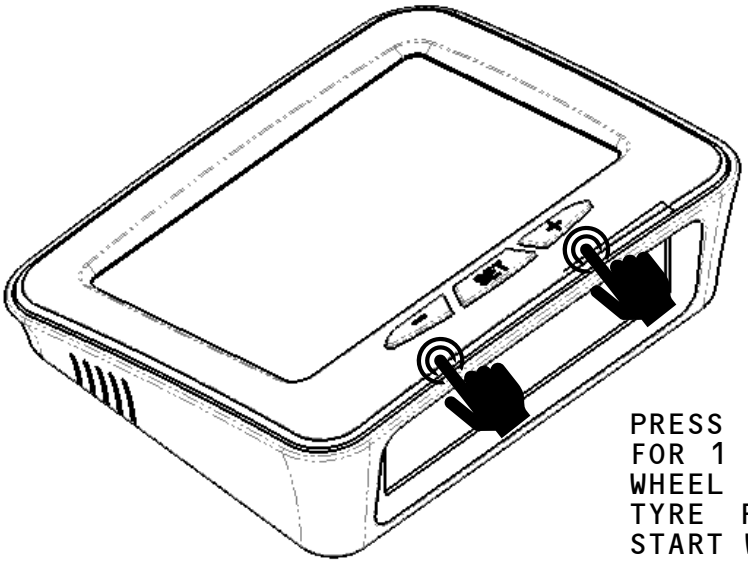


PRESS AND *HOLD* THE "+" BUTTON FOR 4-5 SECS

DISPLAY WILL SHOW THE LEFT-HAND FRONT TYRE ICON FLASHING AND THE REGISTERED SENSOR ID. (IF NO SENSOR IS REGISTERED DISPLAY WILL SHOW "ID -- -- --")

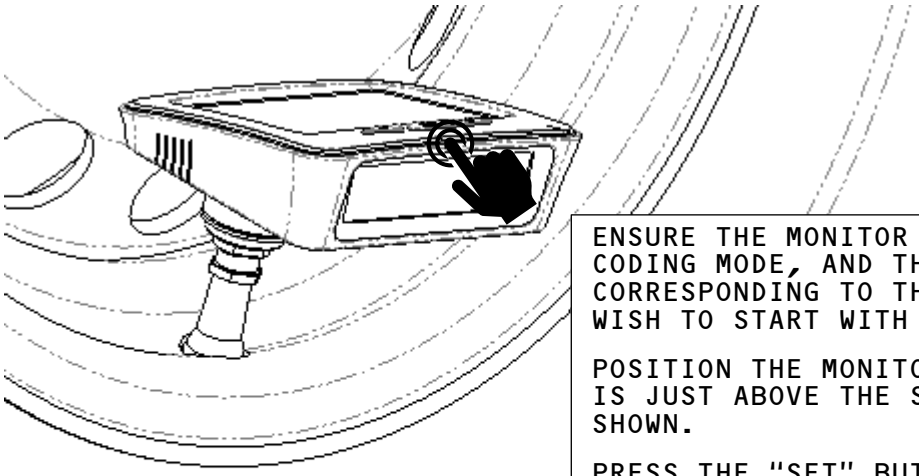


EXAMPLE SHOWS SENSOR ID NUMBER IS 83 A5 12



PRESS THE "+" OR "-"BUTTON FOR 1 SEC TO SCROLL BETWEEN WHEEL POSITIONS. SELECT THE TYRE POSITION YOU WISH TO START WITH

8 REGISTER LF SENSORS TO THE MONITOR



ENSURE THE MONITOR IS SET TO CODING MODE, AND THE TYRE ICON CORRESPONDING TO THE WHEEL YOU WISH TO START WITH IS FLASHING.

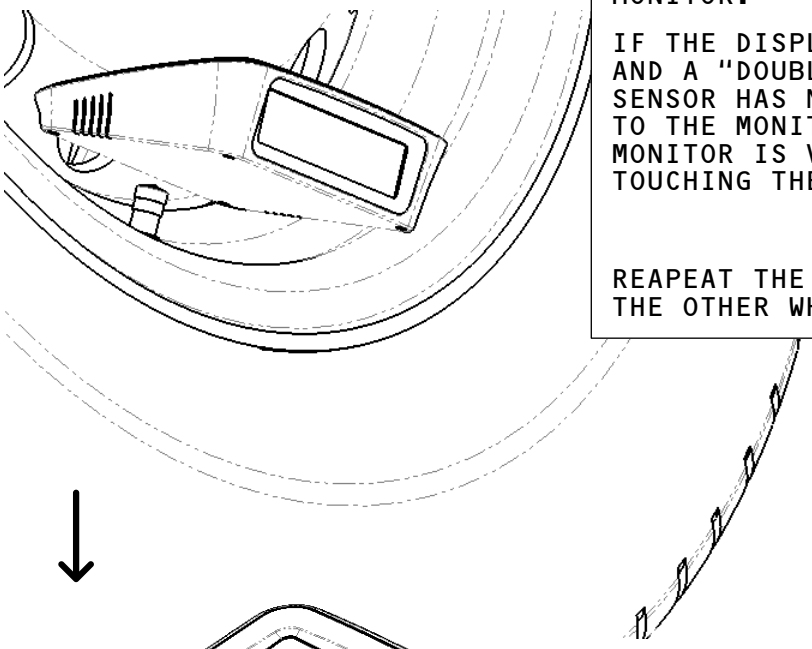
POSITION THE MONITOR SO THAT IT IS JUST ABOVE THE SENSOR, AS SHOWN.

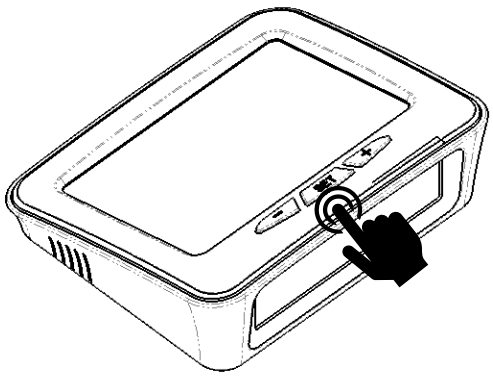
PRESS THE "SET" BUTTON FOR 1 SEC.

A "BEEP" SHOULD BE HEARD AND THE SENSOR ID NUMBER SHOULD CHANGE TO A NEW NUMBER. THE SENSOR HAS NOW BEEN REGISTERED TO THE MONITOR.

IF THE DISPLAY DOES NOT CHANGE AND A "DOUBLE BEEP" IS HEARD THE SENSOR HAS NOT BEEN REGISTERED TO THE MONITOR. CHECK THE MONITOR IS VERY CLOSE OR TOUCHING THE SENSOR, AND REPEAT

REAPEAT THE CODING PROCEDURE FOR THE OTHER WHEELS



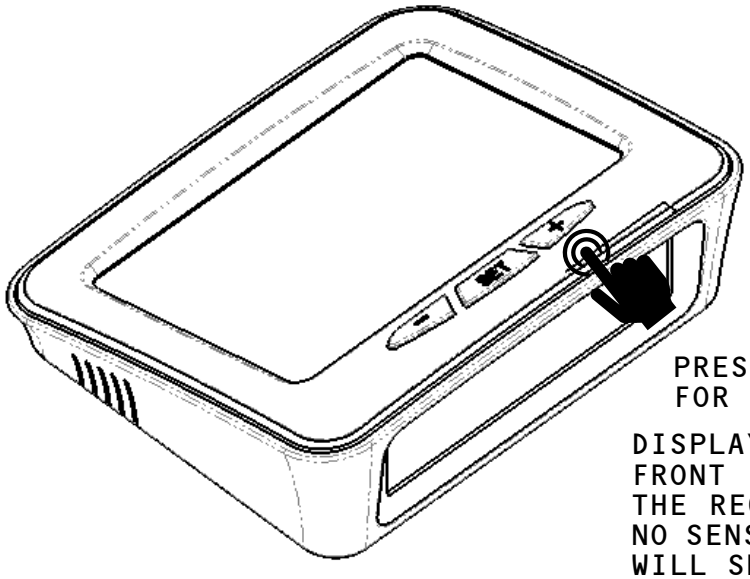


PRESS AND *HOLD* THE "SET" BUTTON FOR 4-5 SECS TO REGISTER THE SENSOR ID SETTINGS

TO REGISTER REPLACEMENT (OR ADDITIONAL) TCSO EXTERNAL SENSORS

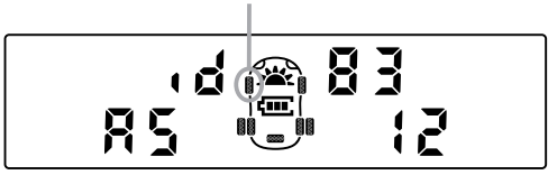
THE TCSO SENSORS CAN BE REPLACED, OR THEIR POSITIONS SWAPPED. FOLLOW THE PROCEDURE BELOW TO REGISTER NEW SENSORS, OR TO SWAP POSITIONS. UP TO 3 ADDITIONAL SENSORS CAN BE REGISTERED.

1 ENTERING 'CODING' MODE

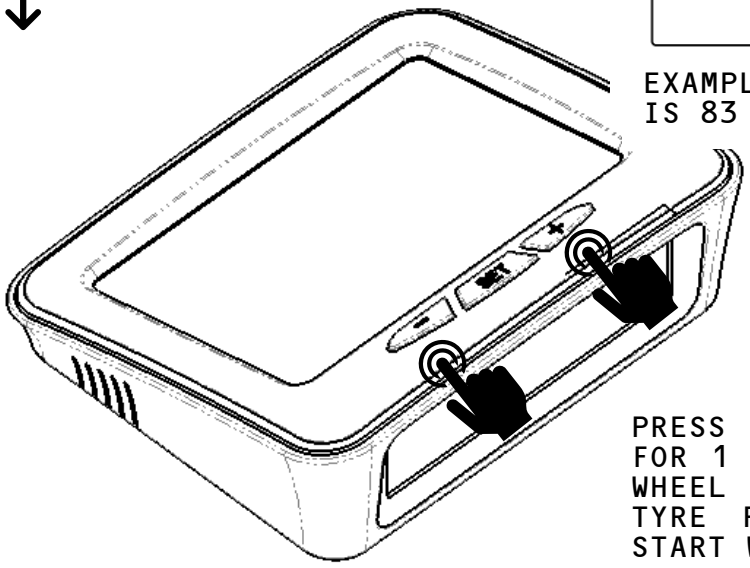


PRESS AND *HOLD* THE "+" BUTTON FOR 4-5 SECS

DISPLAY WILL SHOW THE LEFT-HAND FRONT TYRE ICON FLASHING AND THE REGISTERED SENSOR ID. (IF NO SENSOR IS REGISTERED DISPLAY WILL SHOW "ID -- -- --")

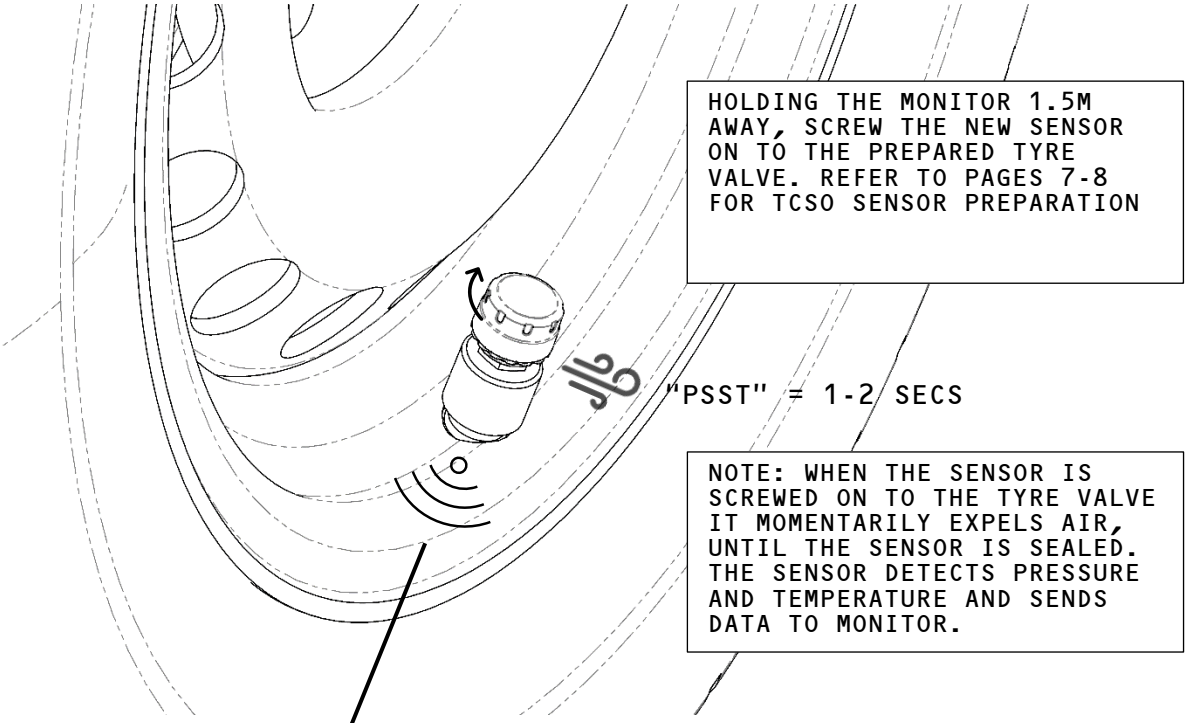


EXAMPLE SHOWS SENSOR ID NUMBER IS 83 A5 12



PRESS THE "+" OR "-" BUTTON FOR 1 SEC TO SCROLL BETWEEN WHEEL POSITIONS. SELECT THE TYRE POSITION YOU WISH TO START WITH

2 INSTALL NEW TCSO SENSOR

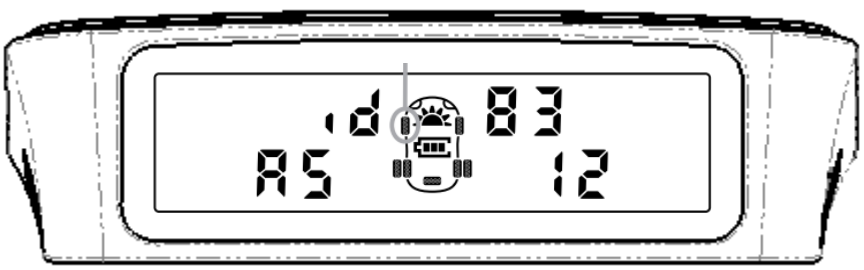


HOLDING THE MONITOR 1.5M AWAY, SCREW THE NEW SENSOR ON TO THE PREPARED TYRE VALVE. REFER TO PAGES 7-8 FOR TCSO SENSOR PREPARATION

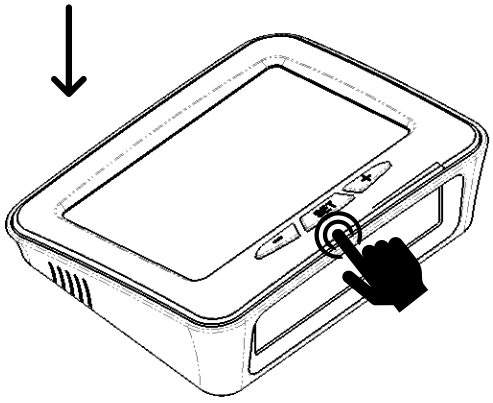
"PSST" = 1-2 SECS

NOTE: WHEN THE SENSOR IS SCREWED ON TO THE TYRE VALVE IT MOMENTARILY EXPELS AIR, UNTIL THE SENSOR IS SEALED. THE SENSOR DETECTS PRESSURE AND TEMPERATURE AND SENDS DATA TO MONITOR.

AFTER 4-5 SECS THE NEW SENSOR ID SHOULD APPEAR ON THE DISPLAY, FOLLOWED BY A "BEEP"



BEEP



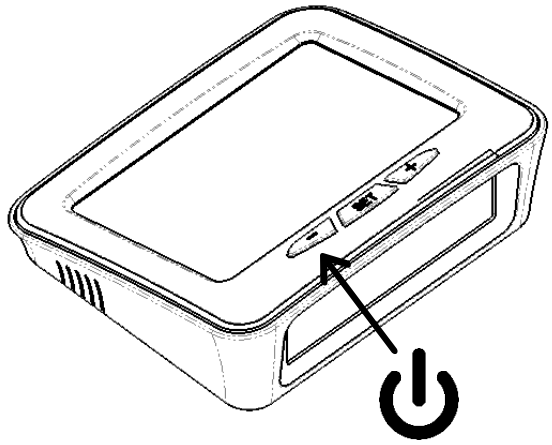
NOTE: THE MONITOR CANNOT DISPLAY THE SAME SENSOR IN TWO POSITIONS. IF A SENSOR IS MOVED TO A NEW POSITION IT WILL BE DELETED FROM IT'S OLD POSITION. THE SENSOR ID IN THE OLD POSITION WILL BE DELETED AND REPLACED WITH "ID -- -- --" THE TYRE ICON WILL NOT BE DISPLAYED EITHER, UNTIL A NEW SENSOR IS REGISTERED TO THAT POSITION

PRESS AND *HOLD* THE "SET" BUTTON FOR 4-5 SECS TO REGISTER THE SENSOR ID SETTINGS

NOW SET THE ALARM PARAMETERS P.12

DAILY OPERATIONS

SWITCHING ON AND SLEEP MODE



PRESS AND *HOLD* "-" BUTTON FOR 4-5 SECS TO TURN MONITOR ON

PRESS AND *HOLD* "-" BUTTON FOR 4-5 SECS TO TURN MONITOR OFF

NO DATA IS SHOWN ON SCREEN WHEN MONITOR IS FIRST TURNED ON

THE MONITOR DOES NOT NEED A PERMANENT POWER SUPPLY FROM THE VEHICLE TO FUNCTION. THE INTERNAL BATTERY PROVIDES APPROX. 60 HOURS OF CHARGE.

THE MONITOR CAN BE SAFELY LEFT SWITCHED ON IF THE VEHICLE IS USED REGULARLY. EVENTUALLY THE MONITOR WILL NEED RECHARGING. PLEASE USE THE RECHARGING LEAD PROVIDED.

THE MONITOR WILL GO TO SLEEP AFTER 10 MINUTES OF INACTIVITY. IT WILL WAKE UP WHEN IT DETECTS MOTION, OR ANY BUTTON IS PRESSED.

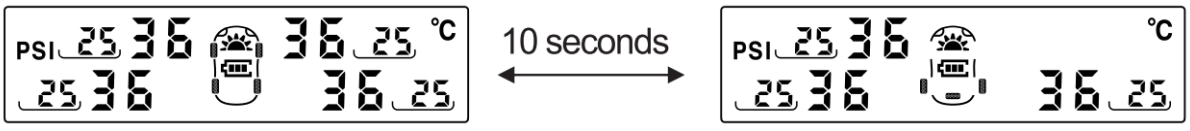
FOR EXTENDED PERIODS OF INACTIVITY WE RECOMMEND SWITCHING THE MONITOR OFF.

HANDY HINT: TO OPTIMISE THE MONITOR 'WAKE-UP' TIME WE RECOMMEND THE FOLLOWING OPERATION.

WHEN YOU STOP DRIVING TURN THE MONITOR OFF, RATHER THAN LETTING IT GO INTO 'SLEEP' MODE

BEFORE YOU COMMENCE DRIVING TURN THE MONITOR BACK ON. WHEN VEHICLE MOTION IS DETECTED THE SENSORS WILL WAKE UP AND QUICKLY SEND OUT A SIGNAL. WITHIN A MAXIMUM OF 6 SECS OF DRIVING THE MONITOR WILL DISPLAY THE TYRE PRESSURES AND TEMPERATURES. THIS METHOD OF OPERATION PROVIDES THE DRIVER WITH A FAST AND ACCURATE INDICATION OF THE TYRE STATUS.

DISPLAYING MORE THAN FOUR SENSORS



IF MORE THAN FOUR SENSORS ARE REGISTERED TO THE DISPLAY IT WILL CYCLE BETWEEN THE TWO DISPLAYS SHOWN ABOVE, EVERY 10 SECONDS

ALARMS

WHEN ALARM SOUNDS PULL OVER WHEN SAFE TO DO SO AND INSPECT WHEELS AND TYRES

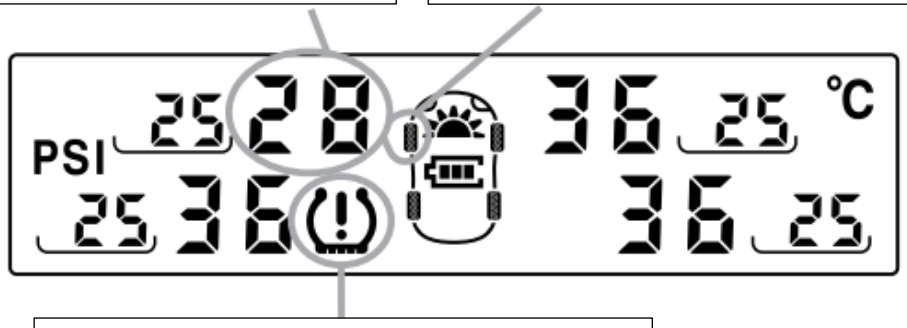
NOTE: FAST LEAKAGE ALARM IS TRIGGERED IF SYSTEM DETECTS A LOSS EXCEEDING 3 PSI (0.14 BAR) WITHIN ONE MINUTE

HIGH PRESSURE, LOW PRESSURE AND FAST LEAKAGE ALARMS

IF THE TYRE SENSORS DETECT THAT THERE IS A FAST LEAK, OR THE PRESSURES EXCEED THE UPPER OR LOWER ALARM THRESHOLDS, THE DISPLAY WILL EMIT AN AUDIBLE "BEEP" AND THE WHEEL, OR WHEELS, WILL FLASH AS INDICATED BELOW. THE TPMS WARNING SYMBOL WILL ALSO FLASH.

PRESSURE DISPLAY FLASHES

TYRE ICON FLASHES



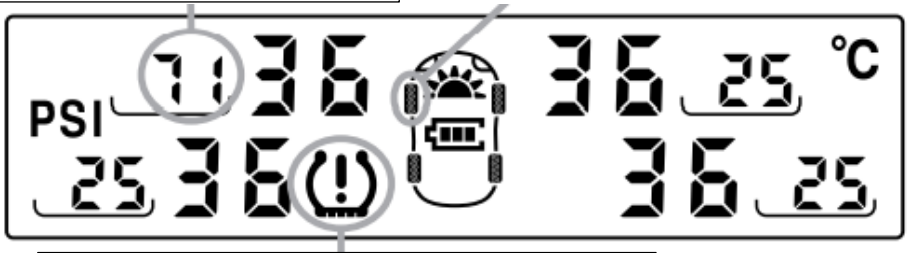
TPMS WARNING SYMBOL FLASHES

HIGH TEMPERATURE ALARM

IF THE TYRE SENSORS DETECT THAT THE TEMPERATURE EXCEEDS THE ALARM THRESHOLDS, THE DISPLAY WILL EMIT AN AUDIBLE "BEEP" AND THE WHEEL, OR WHEELS, WILL FLASH AS INDICATED BELOW. THE TPMS WARNING SYMBOL WILL ALSO FLASH.

TEMPERATURE DISPLAY FLASHES

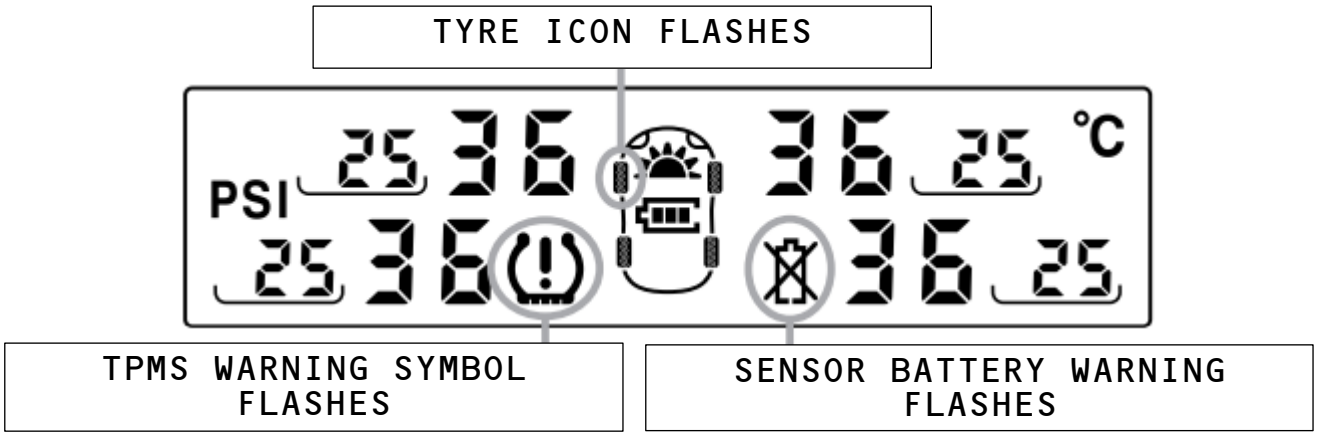
TYRE ICON FLASHES



TPMS WARNING SYMBOL FLASHES

SENSOR BATTERY LEVELS

IF THE SENSOR BATTERY VOLTAGE IS LOW IT WILL SEND AN ALERT TO THE MONITOR. THE DISPLAY WILL SHOW WHICH SENSOR HAS A LOW BATTERY, ALONG WITH AN AUDIBLE BEEP. THE BATTERY SOMETIMES EXPIRES TOO QUICKLY, THEREFORE NOT ENOUGH POWER TO SEND WARNING.



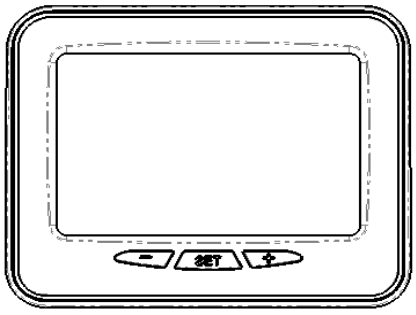
General TCSO sensor maintenance

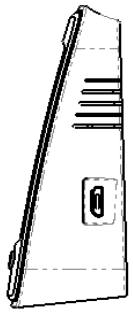
THE SENSORS REQUIRE OCCASIONAL MAINTENANCE

- Only use the battery tool provided to open the sensor, to change the battery
- Replace the outer rubber O Ring when you change the battery
- If the sensor starts to leak air, check and change the valve seal inside the thread
- Trouble shooting - ensure that the battery terminals are clean, contacting properly and that new batteries being fitted are at least 3v. Check for signs of corrosion (green residue) -if corroded the sensor is permanently damaged. Check that O Ring and Valve Seal are in good condition
- If the sensor has been 'lost' from the monitor, complete all above checks and then re-register to the monitor by following instructions carefully in the User Manual for your monitor

TECHNICAL SPECIFICATION – SCP MONITOR

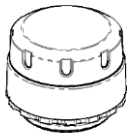
DIMENSIONS	98mm x 80mm x 29mm Weight 96g
POWER	Powered by internal lithium battery recharged from vehicle power supply. Automatically shuts down when not in use and reactivates as vehicle is used. Charger input 5V / 1A USB Battery life is approximately 60 hours per charge.
DISPLAY	Clear LCD screen with automatic backlight. Screen size 63mm x 17mm.
ALARMS	Display icons flash to indicate location and type of alarm. Audible alarm can be silenced by pressing any button. User can adjust threshold for alarms Distinct alarms are given for the following conditions: Pressure thresholds exceeded. Temperature above user threshold Preset alarm levels: High Pressure 44psi / Low pressure 29psi / High Temperature 70°C Warnings are also given if the sensor signal is lost, if a sensor battery is low, or when the monitor battery needs recharging
UNITS	Pressure: PSI or Bar Temperature: °C or °F





TCSO EXTERNAL SENSORS

WORKING TEMPERATURE	Max 80 °C / Min -20°C
STORAGE TEMPERATURE	Max 85 °C / Min -20°C
PRESSURE RANGE	0 - 99 PSI / 0 - 6.8 Bar
PRESSURE ACCURACY	±1.5 PSI (±0.1 Bar)
TEMPERATURE ACCURACY	± 3°C
TRANSMISSION POWER	<10dBm
TRANSMISSION FREQUENCY	433.92MHz
BATTERY LIFE	18 Months (CR1632)
DIMENSIONS + WEIGHT	DIA 21mm X 17.5mm / 10g
TRANSMISSION INTERVAL	5 Minutes
MEASUREMENT INTERVAL	6 Seconds
SLEEP FUNCTION	Yes. After 10 minutes of inactivity
FAST LEAKAGE THRESHOLD	If pressure falls 3 psi continuously within one minute



FAQ

Q: My tyre pressures and temperatures increase when I'm driving?

A: It is completely normal for tyre pressures and temperatures to increase during driving. The vehicle and tyre manufacturers takes this in to account. Our recommended alarm levels allow for this normal pressure and temperature change.

Q: How do I calculate my tyre pressure alarm levels?

A: Check your vehicle owners handbook for the recommended tyre pressures. Using these values set the upper alarm level 25% higher, and the lower level 15% below for each axle, eg: For a recommended tyre pressure of 40 psi set the upper alarm level to 50 psi, and the lower alarm level to 34 psi.

Q: I have set my tyre pressures exactly the same using a gauge, but the monitor shows different pressure?

A: Both the gauge used to check the tyre pressures, and our sensors, will have a tolerance on their measurement. Our pressure sensors have a tolerance of +/- 1.5 psi. Worse case this means there can be a normal 3 psi maximum variation between tyre pressures. Variations in pressure can also occur due to the suns location on the vehicle, and road surface conditions.

Q: The display is showing the tyre icons, but not the pressures and temperatures for all wheels. The display also 'beeps' at each monitored position?

A: The wheel sensors have gone to sleep. The wheel sensors will go to sleep after 10 minutes, and they will stop displaying on the monitor. Drive the vehicle and the display should display pressure and temperatures, and the beeping will stop.

Q: One sensor has stopped displaying on the monitor?

A: If left for a period of time the sensor battery can go flat before a low-battery level warning appears on the monitor. Remove the sensor, and then remove the cap using the battery tool supplied in the kit. Replace the battery, and cap. Check the o-ring seal is OK. Reinstall the sensor. Drive the vehicle to ensure the sensor is awake.

Sometimes debris or tyre sealant can clog the sensor pressure aperture. Check there is no debris on the inside of the sensor threads

Q: Do I need to re-register the sensor after removing it to adjust tyre pressures?

A: No, the sensor ID remains in the monitor's memory.

MANAGING TYRE PRESSURES

The recommended cold tyre pressures are given in the vehicle handbook and are designed to provide the best balance between comfort and fuel economy for your vehicle. The handbook will recommend different tyre pressures depending on how the vehicle is loaded.

The tyre sidewall is embossed with a tyre pressure. This is NOT the recommended service pressure. Always refer to your vehicle handbook for the recommended tyre pressures

Under-inflated tyres have a greater rolling resistance, so they waste fuel and wear faster. Driving on under-inflated tyres can cause excess heat leading to a blow-out.

Over-inflated tyres reduce grip and cause uneven tyre wear.

EFFECT OF TEMPERATURE

Tyre pressure is determined by two factors. The volume of air in the tyre, and the temperature of the air. If the air is heated it wants to take up more volume. The air trapped inside the tyre cannot increase it's volume, so instead the tyre pressure increases. The opposite occurs when the air in the tyre is cooled.

Tyre and vehicle manufacturers allow for the normal heating and cooling of the tyres when specifying the recommended tyre pressures.

Vehicle handbook tyre pressures are specified for cold tyres. The tyres warm up during driving, and the extra heat causes the tyre pressure to increase by about 10% in normal service. Tyre pressures should, therefore, be checked before they are heated by driving.

In winter, tyre pressures fall due to low temperatures. Additional air will be required to bring them back up to manufacturers recommended pressure. Re-setting cold tyre pressures may need to occur more regularly on inter-continental road trips, where variations in ambient air temperatures can vary significantly in a short time period during the course of the trip.

SPARE PARTS & ACCESORIES

DESCRIPTION	PART NUMBER
TCSO EXTERNAL SENSOR	505-915-100-0
SOLAR COLOUR PRO MONITOR	505-916-106-0
TCSO BATTERY TOOL	505-918-102-0
CR1632 BATTERY	505-918-105-0
TCSO CAP O-RING SEAL	505-918-107-0
CHARGING LEAD (SOLAR COLOUR PRO)	505-918-113-0
STICKY PAD	505-918-104-0
TCSO VALVE SEAL	505-918-112-0
TCSO LOCK NUT HEX WRENCH	505-918-114-0
TCSO LOCK NUT	505-918-115-0
TCSO DUST SHIELD	505-918-116-0
TCRR-2 SMART SIGNAL REPEATER	505-920-100-0

WARRANTY

Please register your warranty by completing details on our website.

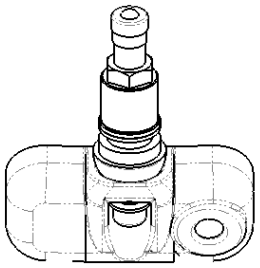
The system is warranted to be free from manufacturing defects and is guaranteed for a period of 12 months from date of purchase.

There are no user-serviceable parts inside the monitor or sensor. If internal parts have been tampered with the warranty will be void.

This warranty does not affect your statutory rights.

TCSI INTERNAL SENSORS (WITH SOLAR COLOUR PRO)

WORKING TEMPERATURE	Max +80 °C / Min -30°C
STORAGE TEMPERATURE	Max 85 °C / Min -20°C
PRESSURE RANGE	0 - 99 PSI / 0 - 6.8 Bar
PRESSURE ACCURACY	±1.5 PSI (±0.1 Bar)
TEMPERATURE ACCURACY	± 3°C
TRANSMISSION POWER	<10dBm
TRANSMISSION FREQUENCY	433.92MHz
BATTERY LIFE	3 - 5 Years (Non-Replaceable)
DIMENSIONS + WEIGHT	60mm x 31mm x 20mm / 48g
TRANSMISSION INTERVAL	5 Minutes
MEASUREMENT INTERVAL	6 Seconds
SLEEP FUNCTION	Yes. After 10 minutes of inactivity
FAST LEAKAGE THRESHOLD	If pressure falls 3 psi continuously within one minute



TCSE SENSORS (HEAVY DUTY / TRUCK)

WORKING TEMPERATURE	Max +80 °C / Min -40°C
STORAGE TEMPERATURE	Max 85 °C / Min -40°C
PRESSURE RANGE	0 - 188 PSI / 0 - 13 Bar
PRESSURE ACCURACY	±1.5 PSI (±0.1 Bar)
TEMPERATURE ACCURACY	± 3°C
TRANSMISSION POWER	<10dBm
TRANSMISSION FREQUENCY	433.92MHz
BATTERY LIFE	1 - 2 Years (CR2032 replaceable)
DIMENSIONS + WEIGHT	24.4mm x 23.1mm / 16.8g
TRANSMISSION INTERVAL	5 Minutes
MEASUREMENT INTERVAL	6 Seconds
SLEEP FUNCTION	No
FAST LEAKAGE THRESHOLD	If pressure falls 5 psi within one minute, then 1.45psi next minute