

Complete Vehicle Installation & Sensor Replacement Guide

A step-by-step technical reference covering receiver mounting, repeater placement, external sensor fitting, and display unit programming for TPMS systems on 12V and 24V vehicles.

Cab Receiver

Dashboard mounting, power harness wiring, and interference clearance

Smart Repeater

Chassis frame placement and 12V/24V power connection

External Sensors

Valve stem fitting, anti-theft locking, and leak testing

Display Programming

Sensor deletion, pairing, and unit configuration

System Overview & Pre-Install Prep

- ⊗ **Crucial Rule:** Always power on the cab receiver unit BEFORE installing repeaters or sensors so the system automatically captures live signals during installation.

Required Tools & Equipment

Display & Mounting

- TPMS Receiver Display Unit
- Mounting Bracket

Signal Hardware

- Smart Repeater Unit(s)
- External TPMS Sensors (matching specific wheel positions)

Security

- Anti-theft nuts
- Dedicated spanner

Wiring & Testing

- Wire strippers
- Electrical tape / heat shrink
- Cable ties
- Soapy water spray bottle (leak testing)

Inside the Cab – Receiver Installation (12V / 24V)

Mounting Location

Fix the bracket to the dashboard using the supplied 3M tape or screws. Position near the upper corner of the A-pillar or centre dash so it does not obstruct the driver's line of sight.

Interference Clearance

Mount the display unit at least **50 cm** away from high-power electrical devices, DVD screens, or UHF radios to avoid signal blockage.

Power Harness Wiring (12V / 24V Compatible)

Connect the 3-core power cable directly to the vehicle electrical system:

Yellow Wire (B+)

Connect to constant 12V or 24V battery power.

Red Wire (ACC)

Connect to switched ignition power (12V or 24V ACC).

Black Wire (GND)

Secure to a clean vehicle chassis earth.

Serial Connection (Optional)

Connect the RS232 serial cable to the cab telematic device if fleet monitoring integration is required.

Outside Chassis – Smart Repeater Installation (12V / 24V)

Mounting Location

Screw the repeater unit onto the chassis frame near the rear wheels in an open position. Ensure it sits higher than the lowest frame beam to protect it from road debris.

Signal Clearance

Do NOT install the repeater inside an enclosed steel cavity or toolbox (3 or 4 metal sides), as this completely shields radio signals.

Power Harness Wiring (12V / 24V Compatible)

Connect the 2-core power cable:

Red Wire

Connect to positive 12V or 24V power supply.

Black Wire

Connect to negative chassis earth.

Secure Wiring

Fasten all cable runs along the chassis rails using cable ties and tape to prevent snags or short circuits.

Outside Tyres – External Sensor Installation

1 Clean Stem Threads

Wipe off road grime, grease, and corrosion from each tyre valve stem.

2 Fit Anti-Theft Nut

Thread the anti-theft nut **clockwise** onto the valve stem first.

3 Mount Sensor

Screw the external sensor **clockwise** onto the valve stem until hand-tight. Ensure the sensor position number matches the actual tyre location on the truck.

4 Lock Unit

Using the provided spanner, turn the anti-theft nut **counterclockwise** back against the base of the sensor to jam it securely in place.

5 Leak Test

Spray or smear soapy water around the valve stem base. If bubbles form, re-seat the sensor immediately.

Display Unit Programming – Replacing & Pairing Sensors

Step A: Clearing Damaged Sensor ID

01

On the cab receiver display, press and hold the **ID button** for **3 seconds**.

02

Press the ID button briefly once more to enter the **single tyre deletion screen**.

03

Use the **Left or Right arrow keys** to highlight the specific wheel position containing the damaged sensor.

04

Press and hold the **M button** to wipe the existing code. The screen will display **DEL OK** upon successful removal.

Step B: Pairing New Sensor

01

From the main display screen, press and hold the **ID button** for **3 seconds**.

02

Use the **Up, Down, Left, or Right arrow keys** to highlight the target wheel position (the icon will flash continuously).

03

Screw or unscrew the new external sensor onto the valve stem to force a **wireless signal transmission**.

04

The receiver unit will **beep** and automatically log the new sensor ID once captured.

05

Press the ID button **twice** (or leave idle for **90 seconds**) to save settings and return to the main display.

Beginner Pro-Tips & Troubleshooting

Watch the Screen Timeout

The screen automatically exits pairing mode if left idle for **90 seconds** (or **30 seconds** during single deletion). If the screen reverts to the main menu while reading instructions, hold the ID button for 3 seconds to reopen setup.

Lock Nut Direction

To lock the sensor, thread the nut **clockwise** onto the valve first, screw on the sensor hand-tight, then turn the spanner **counterclockwise** to jam the nut back against the sensor base. Do not overtighten, or valve threads may strip.

Waking Up a Stubborn Sensor

External sensors enter sleep mode when static to save battery. If screwing the sensor on does not trigger pairing immediately, unscrew it completely and re-thread it, or let **2-3 PSI** out of the tyre to force a live transmission.

Changing Pressure Units (Bar to PSI)

The display defaults to **Bar**. To switch to PSI, press and hold the **M button** for 3 seconds on the main screen, select PSI using the Left/Right arrow keys, and press M to confirm.