TIREVIO

TIV2501A/B Universal Programmable TPMS Sensor

Installation and Operation Manual

CRITICAL SAFETY WARNINGS

- Installation must be performed by a certified tire service professional.
- Sensors must be programmed using a Tirevio-compatible TPMS tool BEFORE installation.
- Use only Tirevio-certified valve stems and components.
- Tire Pressure Monitoring System (TPMS) does not replace manual tire pressure checks.
- Never use tire sealants or balancing beads. They can permanently damage the sensor.
- OPERATING LIMITS:
  - Max Speed:
  - ◆METAL VALVE STEMS: Max 155 mph(250 km/h)
  - ◆RUBBER VALVE STEMS: Max130 mph(210 km/h) ← TRA Requirement
- WARRANTY: 36 months or 30,000 miles(whichever comes first). This warranty does not cover damage caused by improper installation, misuse, or accidents.

1. PRE-INSTALLATION PREPARATION

1.1 REQUIRED TOOLS:
- Tirevio-compatible TPMS Programming Tool*
- Calibrated Torque Wrenches

1.2 SENSOR PROGRAMMING (MUST COMPLETE BEFORE INSTALLATION):
- Use Tirevio-compatible TPMS tool (e.g. TVT01)
- Program with vehicle-specific parameters
- Verify successful programming

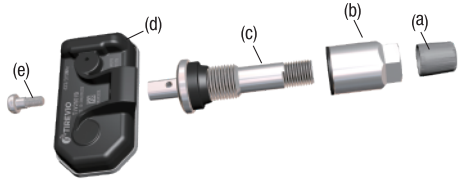
*Contact Tirevio for compatible tool models

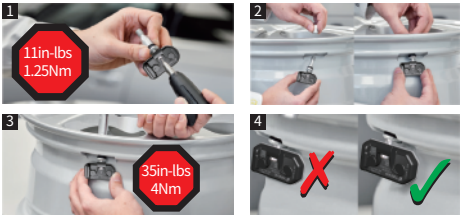
1.3 COMPONENT INSPECTION:
- Sensor body (d) - no cracks/damage
- Valve stem (c) - certified type (metal/rubber)
- Lock nut (b) and washers (metal valves only)
- Sealing gaskets(metal valves only)

1.4 TORQUE WRENCH SETTINGS:
- Sensor Assembly: 11 in-lbs(1.25 Nm)
- Wheel Installation: 35 in-lbs(4.0 Nm)

2. INSTALLATION PROCEDURES

A.For Sensors with METAL VALVE





1. Assemble Sensor & Valve Stem (If NOT factory pre-assembled)
   -Using a calibrated T-10 torque wrench, assemble valve (c) and sensor (d) with T-10 screw (e) by tightening to a torque of 11 in-lbs (1.25 Nm). (Note: This assembly is typically pre-assembled at the factory.)
2. Mount Sensor to Wheel
   -From the INSIDE of the wheel rim, insert the valve stem with attached sensor through the valve hole.
   -Press the sensor body (d) firmly against the wheel hub.
   -Hand-tighten the lock nut (b) for metal valves.
3. Secure Sensor (Metal Valve Stems)
   -Ensure torque wrench is set to 35 in-lbs(4Nm).
   -Continuously tighten the lock nut (b) until the torque reaches 35 in-lbs(4.0 Nm), securing the sensor firmly to the wheel hub.
4. Final Positioning Check
   -Ensure NO PART of the sensor body (d) contacts the wheel rim.
   -Ensure the sensor is NOT pinched between the tire bead and the rim.

B.For Sensors with RUBBER VALVE

[TRA COMPLIANCE NOTICE]
According to TRA standards (Section E.7):
- Rubber valve stems SHALL NOT be used for speeds > 130 mph (210 km/h)
- Vehicles exceeding this limit MUST use metal valve stems
- High-speed failure risk: Rubber may deform above 130 mph

1. Assemble Sensor & Valve Stem (If NOT factory pre-assembled)
   -Using a calibrated T-10 torque wrench, assemble valve and sensor with T-10 screw by tightening to a torque of 11in-lbs (1.25 Nm). (Note: This assembly is typically pre-assembled at the factory.)
2. Lubricate rubber valve with tire bead lubricant
   - Avoid coating sensor
3. Insert valve using ONLY Tirevio compatible Tool
   - Standard valve tools are UNACCEPTABLE
4. Pull vertically through rim hole
   - Ensure sensor is not tilted
5. Verify installation:
   - Valve seated correctly if the collar could be visible clearly
   - Sensor floats freely without rim contact

TIREVIO

CONTACT & SUPPORT

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Tool Compatibility: support@tirevio.com
Web: www.tirevio.com
Hours: Mon-Fri 8:00 AM - 5:00 PM CST

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3. TIRE MOUNTING CRITICAL PROTOCOLS

▶ POSITIONING:

- Keep mounting head(m) ⩾4" (10 cm) from valve hole (k)
- Maintain 120° minimum clearance zone around sensor

▶ SENSOR PROTECTION:

- NEVER allow tire bead to contact sensor body
- PREVENT lubricant from entering pressure port
- AVOID sensor contact with rim weights

▶ POST-INSTALLATION CHECK:

- Sensor fully seated against wheel hub
- Valve stem perpendicular to rim surface
- No visible damage to components

4. TPMS RELEARN PROCEDURE

4.1 VEHICLE-SPECIFIC METHOD SELECTION:

Choose One Method:

- Automatic Relearn
- Manual Relearn
- OBD Relearn

Note: Select the method based on vehicle requirements and tool availability.

4.2 EXECUTION STEPS:

1. Inflate tires to manufacturer's specified pressure
2. Initiate relearn via:
   - Vehicle menu system OR
   - Tirevio-compatible programming tool
3. Follow tool/vehicle prompts precisely
4. Confirm completion when TPMS warning light extinguishes

4.3 VERIFICATION:

- Test drive vehicle (minimum 15 minutes > 15Mph)
- Confirm no TPMS warning lights
- Verify pressure readings in vehicle display

5. MAINTENANCE & REPLACEMENT

5.1 VALVE STEM REQUIREMENTS:

▶RUBBER VALVES:
- MUST be replaced at EVERY tire change
- Discard after single use

▶METAL VALVES:
- Replace washer nut and gasket at EVERY tire change
- Annual inspection for corrosion/damage

5.2 SENSOR SERVICE:

- Clean sensor surface during tire rotation
- Inspect for physical damage or corrosion
- Replace entire unit if:
  - Casing is cracked
  - Valve stem shows wear
  - Error codes persist after troubleshooting

6. TECHNICAL SPECIFICATIONS

MODEL: TIV2501A/B

PROGRAMMING TOOL: Tirevio-compatible TPMS tools required*

OPERATING TEMPERATURE: -40°C to +125°C (-40°F to +257°F)

BATTERY LIFE: 5-7 years (typical)

FREQUENCY: 315 MHz / 433 MHz (region dependent)

VALVE ANGLE: 20°

*Compatibility list: www.tirevio.com/service/compatibility