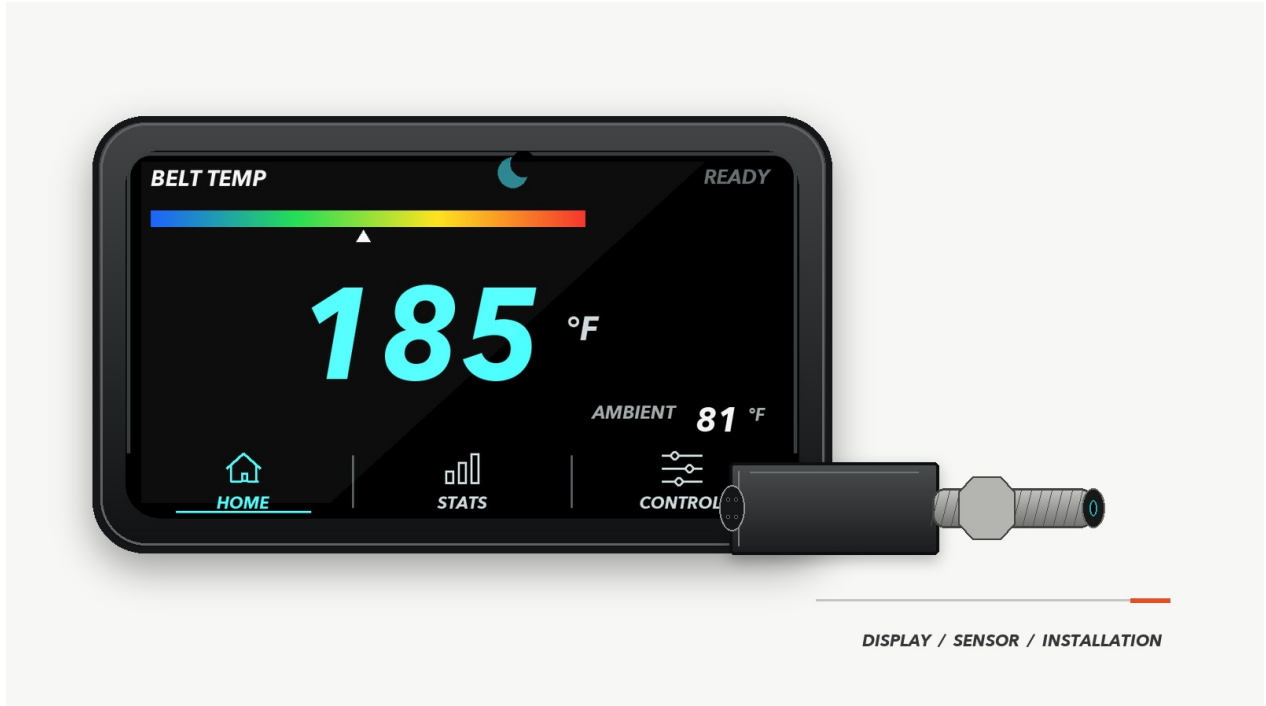




THERMOVUE PRO2

Vehicle Installation Manual

Display, sensor, cable, key-on power, and approved dim-input installation

INSTALL MANUAL V1_5 | THERMOVUE PRO2 | SEPTEMBER 2026

BEFORE YOU BEGIN

Plan the complete installation

Choose every mounting point and wire route before drilling, cutting, or connecting power.

ThermoVue Pro2 monitors drive-belt temperature from a remote infrared sensor. A dependable reading requires three things: a secure display, a sensor aimed correctly at the belt, and stable fused key-on power.

SAFETY FIRST Park on a level surface, set the parking brake, remove the key, let hot parts cool, and disconnect the negative battery cable before permanent wiring. Never work near an exposed belt or clutch while the engine is running.

Installation path

STEP	WORK
1	Inventory the parts and gather the correct tools.
2	Select a safe display position and bracket.
3	Mount the sensor and aim it at the belt.
4	Route and secure both M8 cable assemblies.
5	Connect fused key-on power and ground.
6	Inspect, power up, and confirm a live reading.

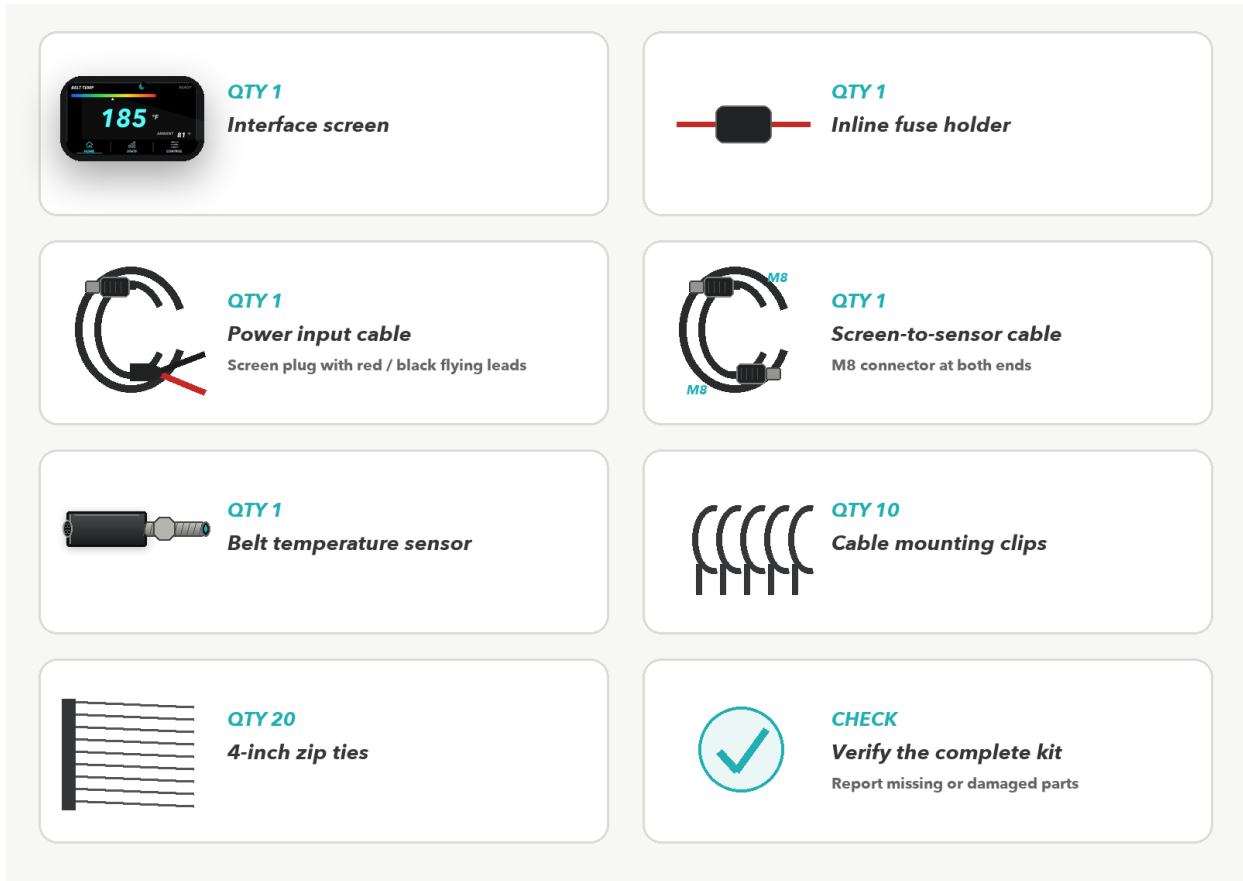
Stop and use a qualified installer if

- You cannot identify a true key-on power source and clean ground with a multimeter.
- The installation requires drilling near wiring, fuel, brake, coolant, airbag, or structural parts.
- The sensor or cable cannot be kept clear of the belt, clutch, exhaust, steering, suspension, or other moving parts.
- The selected mounting point would weaken or prevent proper refitting of a factory guard or cover.

WHAT'S INCLUDED

Check the box before you begin

Confirm every supplied part is present and undamaged.



Your kit includes 1 interface screen, 1 fuse holder, 1 power input cable with preinstalled heat-shrink, 1 screen-to-sensor cable, 1 sensor, 10 mounting clips, and 20 four-inch zip ties.

Recommended tools

GROUP	RECOMMENDED TOOLS
Safety	Safety glasses, gloves, wheel chocks, and adequate lighting.
Electrical	Digital multimeter, wire stripper, quality crimp tool, and heat gun.
Mounting	Hand tools, center punch, drill, 16 mm bit or step bit, and deburring tool.
Routing	Split loom, grommets, and additional automotive-grade supports as needed.

FUSE VALUE Use the fuse supplied with the ThermoVue harness or the value specified by Auburn Wire Works. Never install a larger fuse. If the required value is not marked or supplied, stop and confirm it before wiring.

VEHICLE PREPARATION

Mount the display where it belongs

Easy to see, easy to reach, and safely clear of vehicle operation.



The touchscreen is on the front. The POWER and SENSOR M8 connectors are both on the back.

Choose the display location

CHECK	ACCEPTABLE LOCATION
Sight line	Readable with a quick glance without blocking the road, gauges, warning lamps, mirrors, or controls.
Touch access	Reachable while parked and seated normally; never place it where normal body movement can strike it.
Clearance	Away from airbags, moving controls, sharp edges, direct exhaust heat, and locations that trap water.
Cable access	Enough room behind the display for both M8 connectors, gentle cable bends, and strain relief.

Vehicle-specific bracket: Use the correct bracket when available and follow its installation instructions.

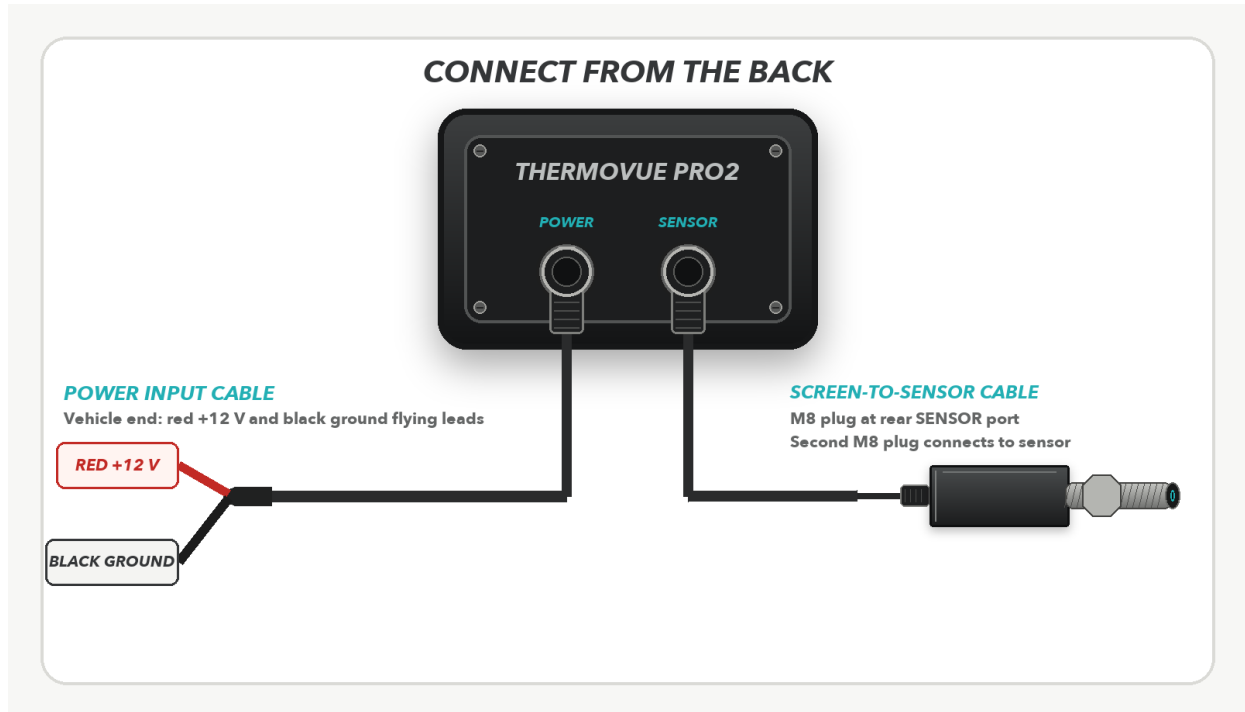
Universal mount: Use only a rigid, approved mount on a stable surface with room behind the screen for both M8 plugs and gentle cable bends.

BEFORE DRILLING Inspect both sides of the surface. Do not drill near hidden wiring, hoses, tanks, safety equipment, or structural members. Remove the panel before drilling when practical, collect chips, deburr the hole, and protect every cable pass-through with a grommet.

SYSTEM LAYOUT

Two cables, two jobs

Make every display connection from the back before applying power.



Both display ports are on the back. The sensor also has a rear M8 socket.

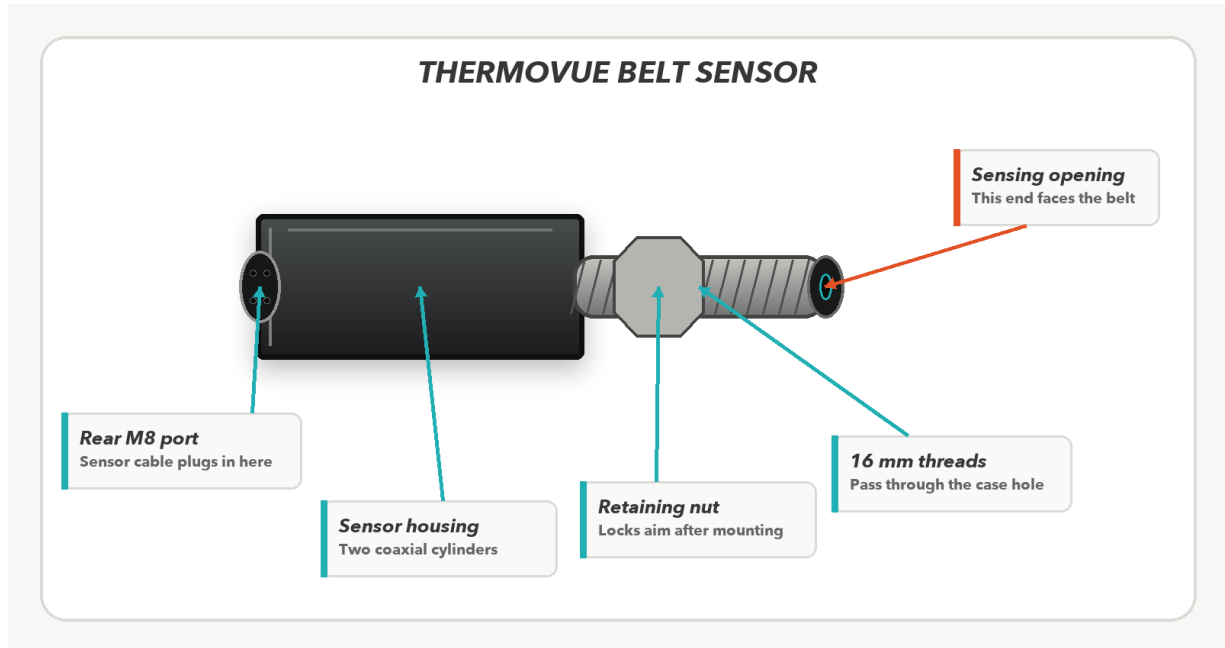
CONNECTION	ROUTE
POWER port	Connect the power harness M8 plug. Red goes to fused key-on +12 V; black goes to clean ground.
SENSOR port	Connect one end of the sensor cable. Connect the other end to the belt temperature sensor.
Both M8 plugs	Align the keyway, seat straight, and tighten the coupling nut by hand. Never force or cross-thread.

DO NOT POWER YET Complete the sensor mount, cable routing, fuse, and ground connection first. Power is restored only after the final inspection.

SENSOR MOUNTING

Mount through a clean 16 mm hole

The sensing opening at the threaded end must face the belt.



The housing is two straight, coaxial cylinders. The sensor cable plugs into the rear M8 socket.

Mounting procedure

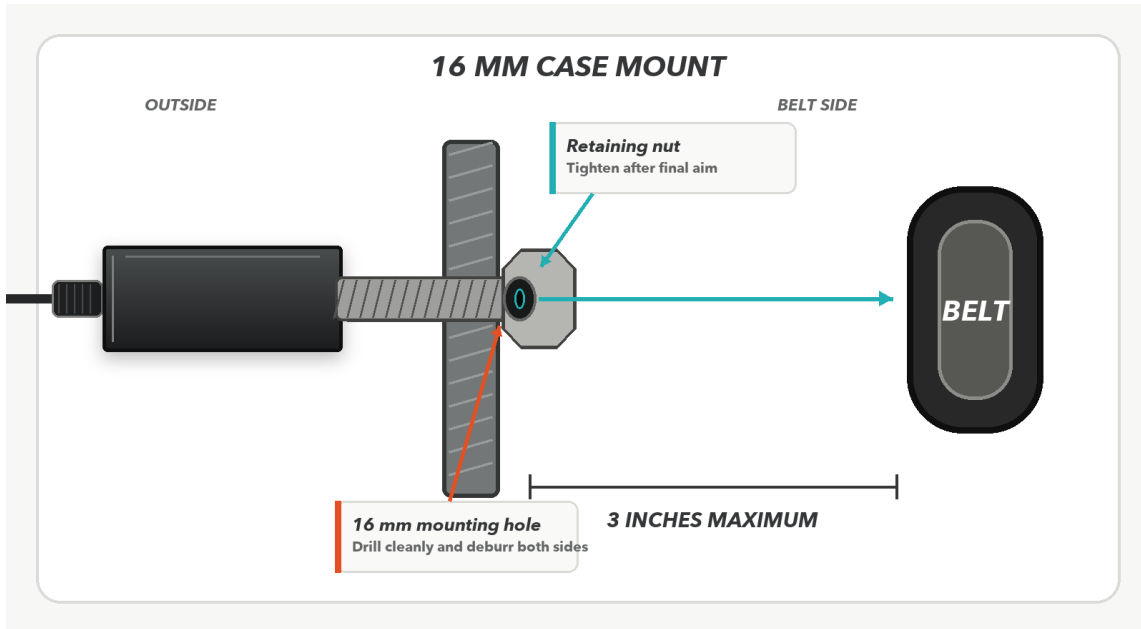
1. Select an approved stationary bracket or case location with a clear view of the belt.
2. Check both sides for wiring, hoses, moving parts, and enough room for the sensor body, nut, cable plug, and a gentle cable bend.
3. Mark the center, make a clean 16 mm mounting hole, and deburr both sides.
4. Pass the 16 mm threaded stem through the hole with the sensing opening directed toward the belt.
5. Install the retaining nut and tighten it after the final aim is set. Hold the sensor so it cannot rotate.
6. Align and hand-tighten the screen-to-sensor cable at the rear M8 socket.
7. Support the cable near the sensor without pulling on the connector or creating a sharp bend.

DO NOT OVERTIGHTEN The retaining nut must prevent movement, but excessive force can damage the sensor, threads, bracket, or case. Do not grip or twist the cable to tighten the mount.

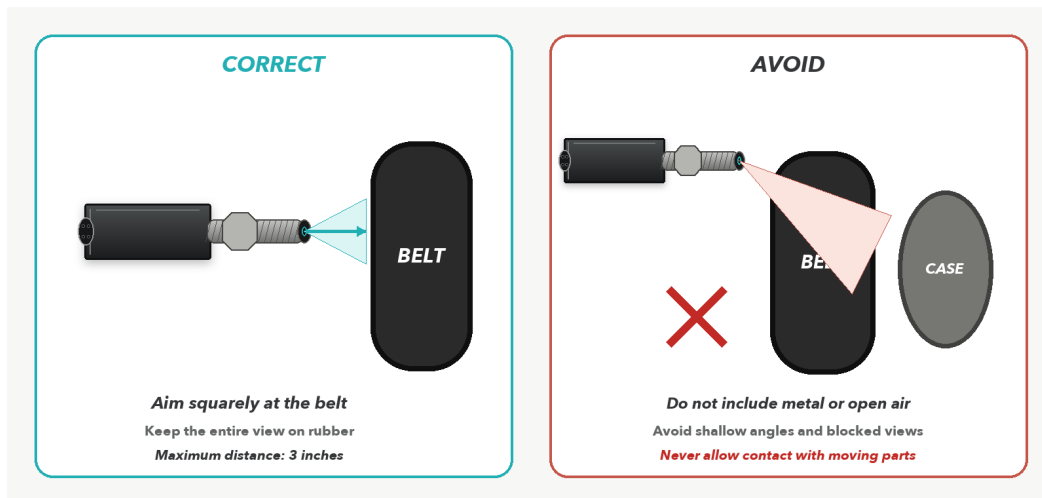
SENSOR POSITION

Aim at rubber, not the surroundings

Distance and line of sight determine whether the reading represents the belt.



Keep the sensing opening within 3 inches of the belt and clear of every moving part.



Aim squarely at rubber with no metal or open air inside the sensor's view.



CHECK YOUR SENSOR COVERAGE

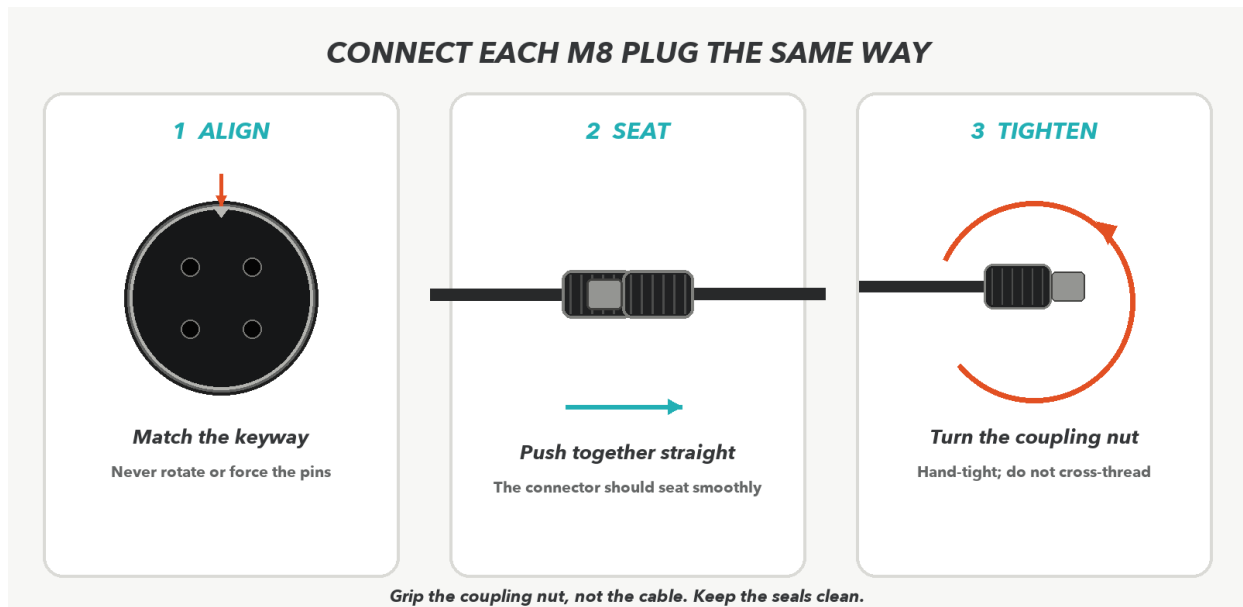
The Sensor Calculator estimates how much of the belt is being read at your chosen distance. Visit ThermoVuePro.com and select Sensor Calculator at the top right, or open thermovuepro.com/calculator.html.

FINAL AIM CHECK With the engine OFF and key removed, confirm the sensor cannot contact the belt, clutch, guard, or case. Recheck after tightening the nut and installing every factory cover.

CONNECTIONS AND ROUTING

Seat each M8 connector cleanly

Correct alignment protects the pins, seal, and coupling threads.



Align the keyway, push straight together, then hand-tighten the coupling nut.

Route the cables

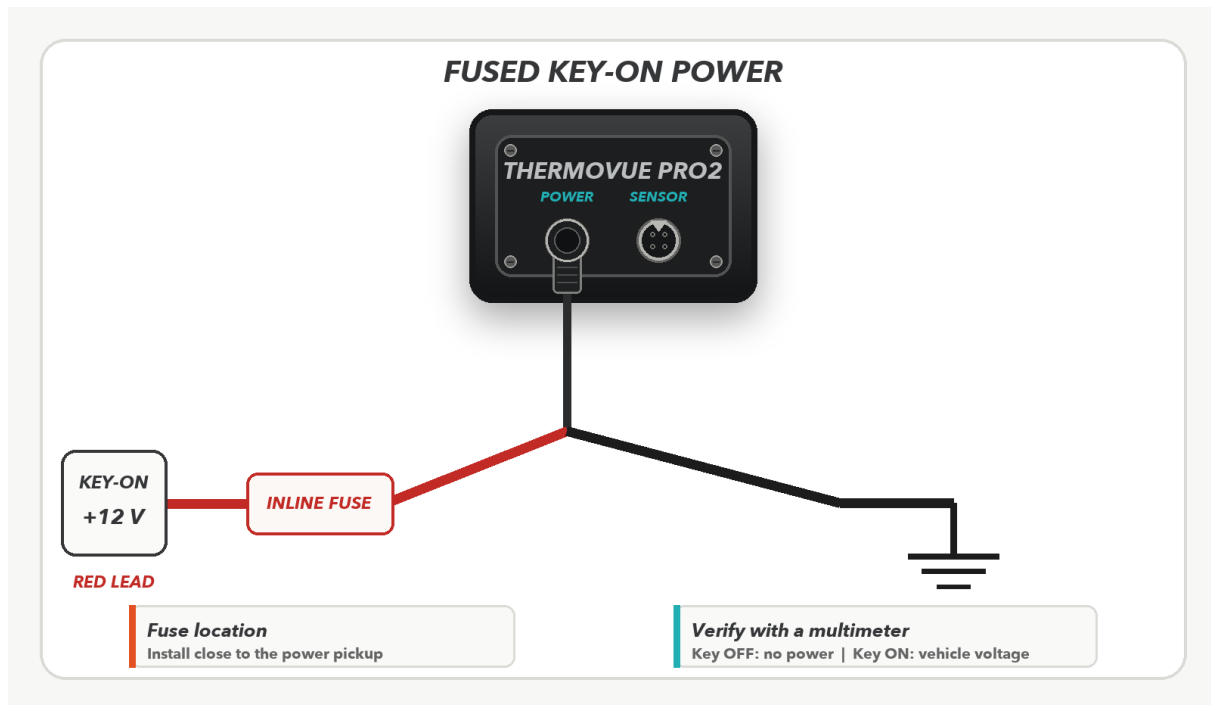
KEEP CLEAR OF	ROUTING RULE
Heat	Keep away from exhaust, engine surfaces, hot coolant lines, and other heat sources.
Movement	Keep away from the belt, clutch, fans, steering, suspension, pedals, shafts, and linkages.
Edges and panels	Use loom and a grommet at every metal pass-through. Avoid pinch points and sharp edges.
Support	Follow factory harness routes when practical. Add cushioned clamps or cable ties at regular intervals.
Ends	Leave a small service loop and strain relief. Do not hang cable weight from a connector.

CONNECTOR CARE Keep pins and seals clean. Grip the coupling nut, not the wire. Do not use pliers unless a supplied harness instruction specifically requires a tool and tightening value.

ELECTRICAL CONNECTION

Use fused key-on power

ThermoVue should turn on with the vehicle key and turn off when the key is removed.



Red connects to fused switched +12 V. Black connects to a clean chassis or approved vehicle ground.

1. If the source was not verified before disassembly, secure all loose parts, temporarily reconnect the negative battery cable, and use the vehicle wiring information and a multimeter to find switched +12 V: no power with the key OFF and vehicle voltage with the key ON.
2. Turn the key OFF, remove it, and disconnect the negative battery cable again before cutting, stripping, or connecting any wire.
3. Install an automotive inline fuse as close to the power pickup as practical. Use only the supplied or specified fuse value.
4. Connect the red lead to the fused key-on source using a sealed, properly crimped automotive connection.
5. Connect the black lead to an approved ground point. Remove paint or corrosion only where the vehicle maker permits, then protect the finished connection.
6. Support the harness so no connection carries cable weight. Cover exposed conductors and keep the fuse holder accessible for service.
7. If vehicle dimming is installed, use only the approved accessory/controller interface. Never connect a vehicle lighting wire or 12 V directly to ThermoVue GPIO2 / DIM_N.

NEVER USE CONSTANT POWER Do not connect the red lead directly to an always-live battery circuit. Do not tap airbag, brake, steering, engine-control, or other safety-critical wiring. Never bypass the fuse.

COMMISSIONING

Inspect first, then power up

Do not start the engine until every mechanical and electrical check passes.

Final installation check

AREA	PASS CONDITION
Display	Bracket and display are secure; view and controls remain clear.
Sensor	Nut is secure; opening faces the belt; maximum distance is 3 inches.
Clearance	Sensor and cables cannot touch the belt, clutch, exhaust, steering, suspension, or sharp edges.
Connections	Both M8 plugs are fully seated and hand-tight; no pins, seals, or wires are damaged.
Power	Red is fused key-on +12 V; black is clean ground; no bare conductor is exposed.
Dim input	If fitted, the approved interface isolates vehicle voltage; raw 12 V never reaches GPIO2 / DIM_N.
Vehicle	All guards, panels, battery covers, and factory fasteners are correctly reinstalled.

First power-up

1. Clear tools and loose parts from the vehicle. Reconnect the negative battery cable.
2. Turn the key ON without starting the engine. ThermoVue should show its startup screen, then the Home screen.
3. Confirm a live belt temperature appears. Do not accept NO SENSOR, STALE, or a blank reading as a completed installation.
4. If vehicle dimming is installed, turn the lights on after the five-second startup grace and confirm the saved Dim Level. Confirm the darkest active setting wins when combined with Night Mode or Day brightness.
5. Turn the key OFF. The display must shut down. If it remains on, correct the power source before continuing.
6. Start the vehicle only after all guards are installed. Observe the display from the operator position; never reach near the belt or clutch while running.
7. After the first short drive, turn the vehicle off, remove the key, let hot parts cool, and recheck the mount, cables, fuse, and connectors.

DO NOT RELEASE THE VEHICLE If ThermoVue does not power down with the key, does not show live sensor data, or any cable can move into a hazard, stop and correct the installation.

SERVICE AND RECORD

Finish with proof, not assumptions

Correct the cause of any fault before relying on the temperature display.

SYMPTOM	CHECK
Display does not turn on	Check the key-on source, inline fuse, black ground, power M8 plug, and damaged wiring.
Display stays on with key OFF	The red lead is on constant power. Move it to a verified key-on source.
NO SENSOR	Check the sensor cable at both ends, inspect the M8 pins and seals, and confirm the correct display port.
Headlights do not dim display	Verify the approved dim interface, control ground, GPIO2 / DIM_N path, and Control > Dim Level.
Reading seems wrong	Clean the sensing opening, confirm a direct belt view, and keep the sensor within 3 inches.
Reading cuts in and out	Inspect for a loose M8 coupling, pin damage, crushed cable, poor strain relief, or unstable power.
Display restarts	Inspect the fuse holder, red connection, ground point, and vehicle voltage for an intermittent connection.

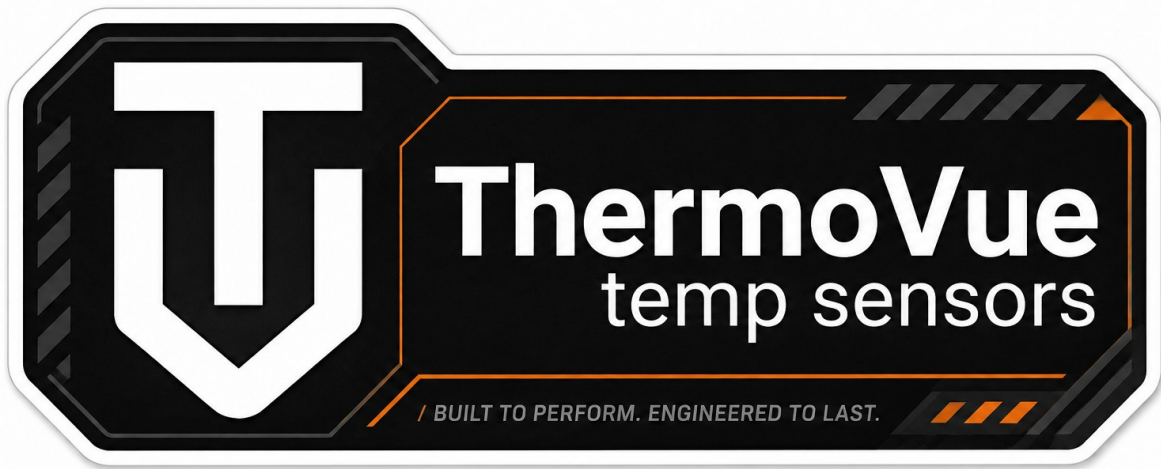
Ongoing inspection

- Inspect the bracket, sensor nut, cable supports, fuse holder, and M8 couplings after hard use or vehicle service.
- Keep the sensor opening clean. Use a soft cloth; do not scrape the sensing surface with a tool.
- Replace damaged cable, seals, fuse holders, or mounting hardware before operating the vehicle.
- Never increase the fuse value to hide a recurring electrical fault.

INSTALLATION RECORD	DETAILS
Date installed	
Vehicle / machine	
Installer / shop	
Fuse value / power source	
Sensor location	

NEED HELP Stop using the reading until the fault is corrected. Current support information is available at ThermoVuePro.com/support.

The installer is responsible for safe mounting, wiring, routing, final inspection, and compliance with the vehicle manufacturer's requirements.



BUILT TO PERFORM. ENGINEERED TO LAST.

Product support, current guides, and installation resources

[ThermoVuePro.com](https://www.thermovuepro.com)