

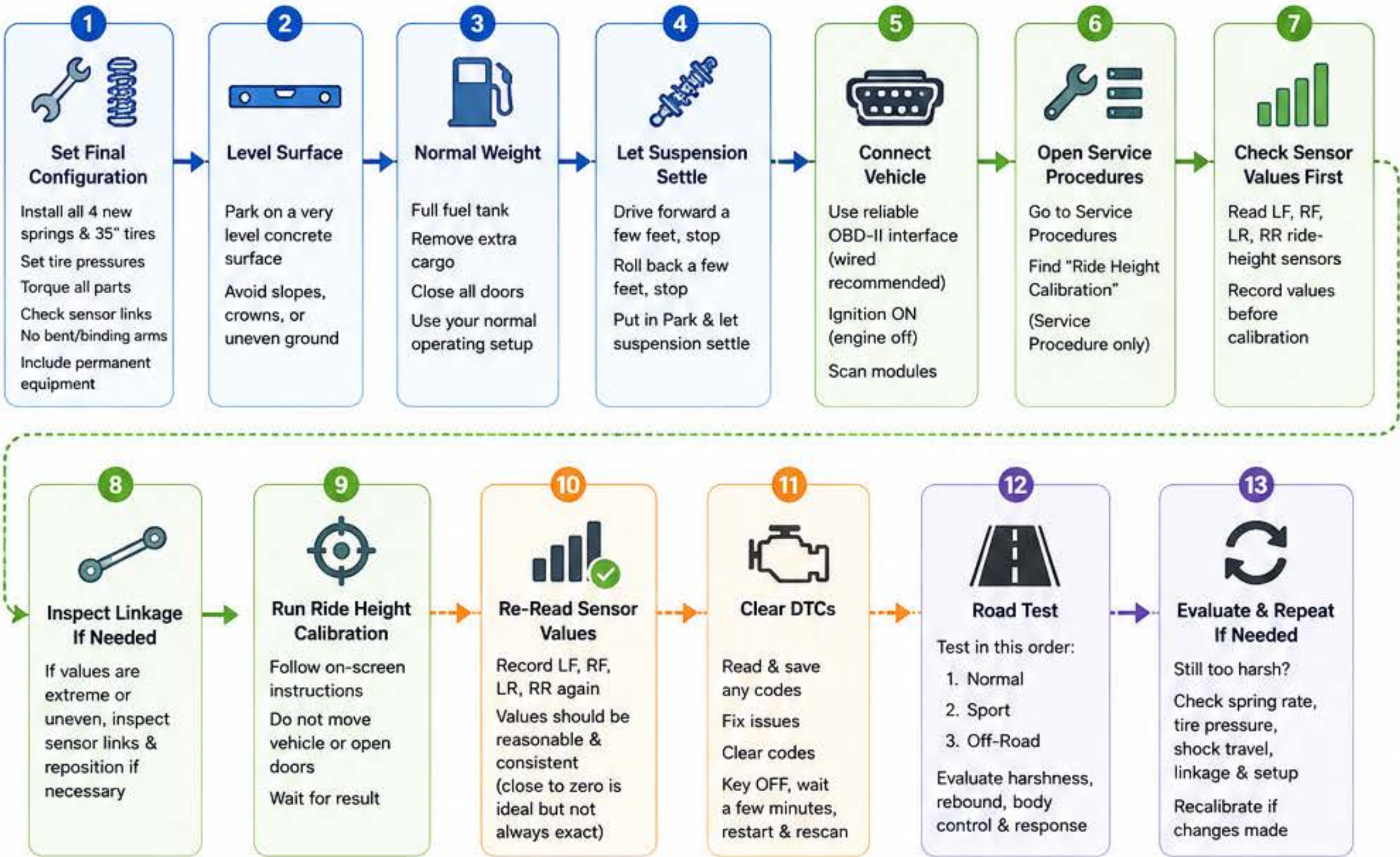


2024 Ford Ranger Raptor

Electronic Suspension Fine Tune & Ride Height Calibration Guide

Goal: Recalibrate ride-height sensors so the Electronic Live Valve system works correctly with your new springs and 35" tires.

- Preparation
- Calibration Steps
- Verification
- Testing & Tuning



How the System Works



The system uses ride-height sensors, accelerometers, steering, braking & other inputs to continuously adjust damping. Changing spring/ride height = recalibrate the new zero/reference position.

Important Preparation Checklist



Calibration vs Tuning (Know the Difference)

- A

Ride-Height Sensor Calibration

☒ Yes – electronically possible.
Use Service Procedure (e.g., FORScan).
- B

Live Valve Electronic Damping Control

☒ Yes – vehicle does this automatically.
Continuously adjusts damping.
- C

Mechanical FOX Shock Tuning

☒ No – not through a simple reset.
Requires mechanical changes to shocks.

Do NOT

- Change As-Built values or suspension module programming
- Modify damping tables or CAN parameters
- Force calibration if linkage or sensor range is incorrect
- Expect factory ride with stiffer springs or different tires

Why Your Ride May Be Harsh

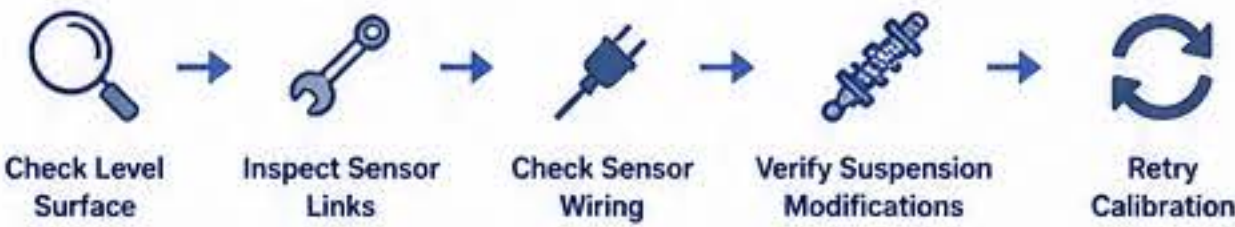
- Spring Rate – stiffer springs = harsher ride
- Static Position – shocks may sit in a different part of their travel
- Shock Operating Zone – internal-bypass design behaves differently through stroke
- Tire Characteristics – heavier, stiffer, different construction
- Tire Pressure – incorrect pressure greatly affects comfort

Sensor PID Values (Example)

Corner	Before Calibration	After Calibration	Notes
LF (Left Front)	___ mm	___ mm	Values should be reasonable & consistent, not necessarily exactly 0 mm.
RF (Right Front)	___ mm	___ mm	
LR (Left Rear)	___ mm	___ mm	
RR (Right Rear)	___ mm	___ mm	

Large differences may indicate linkage out of range. Adjust linkage before attempting calibration.

Troubleshooting Calibration Failure



If it still fails, do not repeatedly run the procedure. Fix the root cause first.

