

TCM ADAPTIVE RELEARN PROCEDURE (NO SCAN TOOL)

FOR 2008–2010 FORD F-250/F-350 SUPER DUTY – 6.4L POWER STROKE DIESEL

(NO SCAN TOOL REQUIRED)

Step 1: Reset TCM Memory (Optional but Recommended)

- Disconnect both negative battery cables.
- Touch the cables together for 30 seconds to fully drain power (clears TCM adaptive memory).
- Reconnect batteries and ensure tight connections.

Step 2: Start and Warm Up

- Start the engine and let it idle for 10–15 minutes until coolant and transmission temps reach normal operating range (around 190–200°F for coolant).
- Don't rev the engine — just idle.

Step 3: Perform the Adaptive Drive Cycle

You're aiming to expose the transmission to various load conditions so it can relearn shift timing and line pressure.

Phase A – Light Acceleration

- From a full stop, gently accelerate using 15–25% throttle.
- Keep RPMs between 1,500–2,200 RPM.
- Shift through all gears up to around 45–55 MPH.
- Let off throttle and coast to a stop (no hard braking).
- Repeat this 3–5 times.

Phase B – Moderate Acceleration

- From a stop or rolling start, apply 30–50% throttle.
- Let the truck shift normally up to 60 MPH.
- Keep RPMs under 2,800 RPM.
- Gently coast or brake to a stop.
- Repeat this 2–3 times.

Phase C – Highway Cruise

- Maintain steady speed at 55–65 MPH for 5–10 minutes.
- Use cruise control if available, or keep throttle consistent.
- Allow the TCM to learn steady-state and torque converter behavior.

Phase D – Stop-and-Go Traffic Simulation

- Drive at low speed (10–30 MPH), including turns and rolling stops.
- Let the truck shift between 1st, 2nd, and 3rd gears repeatedly.
- Do this for at least 10–15 minutes if possible.

Step 4: Repeat if Needed

- It may take 2–3 separate drive sessions for full adaptation.
- Avoid towing or heavy throttle during the relearn period.
- Shifting should gradually smooth out as the TCM adapts.

Important Notes:

- **Harsh or delayed shifting at first is normal.**
- **If shifts remain erratic after relearn, a scan tool may be needed to:**
- **Reset TCM adaptations**
- **Check for fault codes**
- **Flash a calibration update if needed**

