

Powerstroke Diagnostic Tools

TurboTraining does NOT sell software or scan tools

Items that are required to diagnose Ford Powerstroke engines:

1. Appropriate Scan Tool
2. Factory Service Info (motorcraftservice.com) or-
3. Aftermarket service manuals online: Alldata, Mitchell On-Demand, Shopkey, etc.
4. Breakout Boxes (for 7.3 and 6.0, none available for 6.4 and 6.7)
5. Special Service Tools

Appropriate Scan Tool:

Powerstroke 7.3, 1994-2003

- Just about any OBD2 compatible scan tool performs well on this platform. This includes OE scan tools such as NGS, IDS, PDS, and WDS. It also includes all aftermarket scan tools such as Snap-On, Genisys, Auto Enginuity, etc. On these trucks I prefer the IDS or NGS. The only glitch is a few 1994-1995 trucks that are still out there that were built as OBD1 and have never been updated to OBD2. If you have an early truck, verify that it communicates through the 16 pin connector under the dash (verifying that it has been updated to OBD2) and does not still communicate through the OBD1 plug near the left hood hinge.

Powerstroke 6.0, 6.4, 6.7

- Ford has not released the bidirectional CAN code to the aftermarket, so aftermarket scan tools are limited in their abilities on CAN bus Fords, which includes 6.0/6.4/6.7 diesels.
- This means the factory IDS has a huge diagnostic advantage when working on later diesels. Using any aftermarket scan tool severely limits diagnostics when it comes to high pressure oil leaks, EGR diagnostics, cold misfire diagnostics, injector diagnostics, and etc. **On the average, an aftermarket scan tool does less than half of what the IDS does.**
- If you are working on a lot of Fords, spend the money and buy an IDS!
- Shop owners: The unlimited reflashing with an IDS makes the ROI on this scan tool very fast. Not only is it the best tool on the market for Fords, it also pays for itself very quickly! Flashing only 2 vehicles a month makes the tool pay for itself in one year.

Motorcraft IDS:

The IDS uses the Motorcraft VCM2 for communication. For more information go to www.motorcraftservice.com and select "Diagnostic Tool Support", "IDS" from the left side of the screen.

Cost:

- VCM: \$1500 (list) plus \$700/year subscription which includes unlimited flashing
- You can usually get a VCM2 for much less than list price.

IDS Features:

- Trucks covered through F550, no F650 or 750
- Terrific high pressure fuel tests on the 6.4 and 6.7
- Regen on command on 6.4/6.7
- Special 6.0 EGR testing- 8 step automated test!
- Injector kill abilities on 6.0/6.4/6.7
- Special turbo testing capabilities
- Screen very easy to read
- Uses the Motorcraft VCM2 and your laptop
- Excellent graphing capabilities
- Wonderful on Ford cars and Powerstrokes!
- Evap test on command
- Same as WDS in abilities
- Ford only, no generic OBD2, no OBD1
- Full BiDirectional Abilities
- Cranking compression test
- Easy PCM Flashing with calibration files kept on the laptop hard drive
- Full PID list available that's not available on aftermarket scanners
- Talks to all modules
- Automatically upgrades daily on the internet, both diagnostics and calibrations
- Current model year ability, which you'll never see in an aftermarket tool
- You're on a level playing field with the dealer
- Buy the very best tools ... and only cry once instead of every time you use them

Service Manuals:

- Most shops have Alldata, Mitchell On-Demand, Shopkey, etc. If you do not, you will need access to factory service literature from your local library or accessing Motorcraftservice.com. Using factory service manuals at Motorcraftservice.com costs only \$10 per day and is strongly suggested if you have no other options. Purchasing OEM service manual discs from various sources is also suggested.

Other engine specific tools you'll need for each engine family:

Ford Powerstroke 7.3:

- ***Turbo Training's*** Tips and Tricks book for Powerstroke 7.3
- Rotunda tool kit is suggested, but not required
- If you do not buy the Rotunda tool kit, I'd suggest buying an injector sleeve replacement kit from Rich Wengatz at Irontite, (440) 526-9017.
- A known good IDM from a wrecking yard, about \$150 (search www.car-part.com)
- A standard Ford 104 in breakout box is suggested.

Ford Powerstroke 6.0:

- ***Turbo Training's*** Tips and Tricks book for Powerstroke 6.0
- The IDS is a mandatory tool when working on this truck.
- Test fitting, 2003-2004.25 with log style manifold: M 8x1.0, 1/4" NPT OTC 303-766 (\$65) MMTFP081018 from Malone Specialty, 440-255-4200 (\$25)
- Test fitting for '04.25 up, M12-1/4F8OHGS Parker fitting, or MMFP121514R (The same fitting is used for fuel pressure test on F- models) 1/4" NPT female x 12mm-1.5 o-ring
- 105-R0107 Rotunda breakout box adapts your old 104 pin BOB to the new 122 pin setup.
- A known good FICM from a wrecking yard, about \$200 (search car-part.com)
- Rotunda Tool Kit TKIT-1994-FH/LTH is the 2-set red boxes of specialty tools. These are quite expensive from Rotunda, or can be purchased on Ebay relatively cheaply

Ford Powerstroke 6.4:

- ***Turbo Training's*** Tips and Tricks book for Powerstroke 6.4
- The IDS is a mandatory tool when working on this truck.
- Rotunda tool kit TKIT-2006SD-FLM is the 3-set red boxes of specialty tools. These can also be purchased from Rotunda or off of Ebay.
- There is no breakout box available for the 6.4 engine.
- Cab removal is sometimes used for repairs on a 6.4, so a side post lift is suggested.

Ford Powerstroke 6.7:

- ***Turbo Training's*** Tips and Tricks book for Powerstroke 6.7
- The IDS is a mandatory tool when working on this truck.
- Rotunda tool kit **TKIT-2009C-F** is the 8-set red boxes of specialty tools. These can also be purchased from Rotunda or off of Ebay.
- There is no breakout box available for the 6.7 engine.
- Cab removal is needed for some major engine repairs on a 6.7, so a side post lift is suggested.