



E40D FORD DIESEL TRANSMISSION



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SUNCOASTPERFORMANCE.COM



SunCoast Converters, Inc. was established in 1989 as a two-man operation in the back of a transmission shop. Today, SunCoast has grown to over forty employees and over 70,000 sq. ft. of room to conduct operations. SunCoast started with a quest to answer the demand for quality after-market torque converters, transmissions, and parts.

Since then, SunCoast has identified and corrected failure points within numerous OEM transmissions and torque converters. SunCoast formulates test data using real-world scenarios, along with the latest technology and design methods, to manufacture parts that correct the cause of these failures. This practice has helped SunCoast stay ahead of its competitors in not only quality, but also extending past that to the winner's podium for its customers and sponsored vehicles. The company's research and development, combined with years of transmission and torque converter experience, is unparalleled.

Pride in design, manufacturing, technical support, and customer satisfaction has been and always will be the primary goal of SunCoast. The company tries to educate the public on the differences in products from other manufacturers, mainly so its customers know when they are getting product of substance versus a product that is simply relabeled. SunCoast will never sacrifice quality for price point. They have numerous CNC machines that run around the clock making parts for in-house use. They also have multiple CAD developers, as well as programmers on staff, making innovation in design second nature.

SunCoast is known throughout the transmission world for its top-of-the-line torque converters, transmission and rebuild kits because the company has taken the time to listen, learn, research, and respond to its customers' suggestions, with outstanding results. The company will continue to make its converters and transmissions the best in the business, while continuously researching new technologies that shine new light on the industry. Design copying is easy. Innovations, however, are more difficult.





BEFORE INSTALLATION OF YOUR NEW SUNCOAST TRANSMISSION PLEASE FOLLOW THESE INSTRUCTIONS:

Once the old transmission is removed check the following:

1. Make sure both dowel pins are still in place in the motor plate.

This will insure correct alignment for your new transmission. Failure to make sure both dowel pins are in place can cause premature transmission failure that will not be covered under warranty.

2. Clean all electrical connections to the transmission and/or transfer case.

A loose or improper electrical connection can cause premature transmission failure that will not be covered under warranty.

3. Check all u-joints, carrier bearing and motor mounts.

Bad u-joints, carrier bearing, and motor mounts can cause premature transmission failure and/or cracks in the transmission and transfer case. Failures and/or cracks are not covered under warranty if caused by bad u-joints, carrier bearing and/or motor mounts.



SUNCOAST HOT FLUSH PROCEDURE

Once the old transmission is removed the cooler and lines must be flushed for your Suncoast warranty to be valid.

In house Suncoast uses a Hot Flush machine. Using hot oil and reversing the flow for a microsecond is the only way to dislodge foreign material from the cooler. This is the only approved method of flushing your cooler and lines.

Failure to properly flush trans oil cooler system will result in erratic operation and premature failure.

NOTE: If a warranty claim is started and you did not flush your cooler and lines, your warranty will be denied.

SunCoast Flexplate

If you purchased your transmission with a SunCoast billet flex plate, refer to factory specs when torqueing the flex plate bolts. Also leave any spacers that were with the factory flex plate off.

SunCoast Torque Converter Bolts

If you purchased your transmission with a Suncoast torque converter you **MUST** use the supplied bolts with our converter. Failure to do so will cause damage to the torque converter that will not be covered under warranty

SunCoast Recommended Service Intervals

The following service intervals can vary based on the use of the truck.
Every 35,000 miles Suncoast recommends fluid and both filters be serviced.



SunCoast-Recommended Transmission Fluid

SC-TYPE-D ATF

SunCoast recommends our proprietary full synthetic transmission fluid in all SunCoast transmission builds.

Features and Benefits Include:

- Outstanding low temperature performance and sheer resistance
- Dramatic improvements in thermal stability during endurance environments
- Optimized frictional properties that can provide smoother shifting during low temperature operation, reducing shudder and vibration
- Outstanding resistance against sludge and deposit formation
- Improved anti-wear protection, which directly contributes to extended transmission life
- Unsurpassed low temperature stability
- Resists foaming and thereby promotes outstanding operability

Throughout the years, SunCoast has put enormous effort into the research and development of failure prevention in some of the most extreme environments that exist today. These environments are not limited to hot shot driving, sled pulling, drag racing, and the Texas Mile.

For our own success and growth, it has been imperative that oil analysis be our measuring stick for improvements. We can use this to determine the amount of degradation that transpires during a drive cycle. This is key when we are determining what friction coefficients work best in a particular application. This process has evolved with both the friction material and fluid types.

As technology has evolved, so has transmission fluid. Here at SunCoast, we have been on the leading edge of this development. We have seen the evolution from the original Dexron that was introduced back in the late 60's, that utilized sperm whale oil as a friction modifier; to the early 70's when Jojoba oil was introduced, along with corrosion inhibitors, making it hygroscopic. Fast forward to today and the evolution continues.

SunCoast has known for quite some time that we have more success with certain fluids than others. There is a science to the madness, and we knew it was in our best interest to ensure we understood this. In 2006, when General Motors released Dexron VI it set a new standard within the industry. Through our independent testing, we were able to verify that this was an improvement over anything we had seen to date. This is when SunCoast made the decision that this was an area we should become more familiar with, knowing this is how we are protecting our units. Since 2006, SunCoast has spent countless hours reviewing data from oil samples that we have sent in for testing, in an attempt to figure out what works best for our environments.

This new full synthetic transmission fluid contains all of the prescribed combination additives that improve the lubricating qualities for your high stress transmission. The specialized additives include anti-wear, rust and corrosion inhibitors, detergents, dispersants, and surfactants (surfactants protect and clean metal surfaces). In addition, we have also added very specific viscosity modifiers, seal and swell additives, and anti-foam additives. This fluid has yielded us the best test results to date and offers uncompromised performance. We are also proud of the fact that this fluid is full synthetic, not a blended fluid as so many others have attempted to pass off. The SunCoast Type-D Full Synthetic transmission fluid also has a slightly lower viscosity at lower temperatures than the competitor's fluid, decreasing parasitic drag during normal driving conditions. This, of course, requires the use of higher-quality, more sheer stable base oil compounds when manufacturing. Rest assured, with this new full synthetic fluid you are getting the absolute best protection on the market today.



TRANSMISSION FLUID FILL PROCEDURE FLUID CAPACITY

Stock Pan – 18 Quarts + or – 1

Deep Pan – 26 Quarts + or – 1

To avoid overfilling the trans, perform the following:

- Remove the dipstick.
- Add approximately 10 quarts for stock pan or 14 quarts for deep pan.
- Apply the parking brake.
- Start and run engine at normal curb idle speed.
- Apply service brakes, shift trans to NEUTRAL, set the parking brake, and leave engine running at curb idle speed.
- Add fluid until the fluid is in the hash marks.
- Insert dip stick and check fluid level. If level is low, add fluid to bring level to MIN mark on the dipstick. Make sure to check that both sides of the dipstick are level. If one side is noticeably higher than the other, the dipstick has picked up some oil from the dipstick tube. Allow the oil to drain back down the tube and re-check.
- Shift the trans while the parking brake and service brakes are applied from DRIVE TO REVERSE 4 to 5 times. Then shift back to neutral.
- Re-check the fluid level on the dipstick.
- Drive the vehicle until transmission fluid is at normal temperature.
- With engine running at curb idle speed, move the gear selector to NEUTRAL, and the parking brake applied, re-check the transmission fluid level.

CAUTION: Do not overfill the transmission, fluid foaming and shifting problems can occur!

When fluid level is correct, shut off the engine, release the park brake and install the dipstick in the fill tube.



Core Return Deductions

The following are deductions on core returns that will be implemented immediately.

1. Late core returns (Stocking orders after 90 days)
 - After 45 days 15% deduction
 - After 1 year no core return unless prior arrangements are made with Suncoast (Subject to 15% to 85% deduction)
2. Core returned must be equivalent to product purchased (Year, Type, Etc.)
3. Core return paperwork not filled out - \$35.00
4. Converter/Transmission/Valvebody, excessive fluid leakage (All products should be drained prior to shipping back to Suncoast)- \$50.00
5. If Converter/Valve body are not returned in the provided bag to contain possible fluid leakage - \$25.00 – This prevents possible UPS/FEDEX re-boxes which will cause delay in core return.
6. Transmission core returned with no tote - \$350.00
7. Transmission core returned in tote with no clips - \$10.00
8. Cores returned must be packaged properly. Suncoast is not liable for improper packaging or damage caused during return transit.
9. Broken or unusable cores – Price will vary based on current cost of replacement.

***Please allow up to 19 days for core refund to be applied. 3-4 days for inspections and 10-15 days for refund.**

