



Auxiliary Transmission Filter Kit Dodge 94-07 (I-00224)















Auxiliary Transmission Filter Kit

Part #	Vehicle	Application
1064017	Dodge	1994-2007

The BD Transmission Filter Kit will provide added security for your performance transmission. Oil normally flowing from the torque converter through the cooler and back to the pan will be filtered thru the LFP5570/ transmission filter that is rated at 98% efficient at 25 micron for extra protection and allow for easy filter replacements.

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

Kit Contents

1604120 Filter Head	1604125 Filter Head Mounting Bracket	1604008 Oil Filter	1604046 ½" NPT x #8 ORB 90° Fitting
			
Qty: 1	Qty: 1	Qty: 1	Qty: 2
1604048M #8 JIC x ¼" NPT Straight Fitting	1604049 #8 JIC-F x ½" Barb – 45°	1604038 #8 Versaflore Tube Ferrule	1604039 #8 Versaflore Tube Nut
			
Qty: 1	Qty: 1	Qty: 1	Qty: 1
1604041 #8 JIC Adapter Union	1452821 Hose Clamp	1604124 Filter Head Bolt	1300130 Long Tie Wrap
			
Qty: 1	Qty: 4	Qty: 2	Qty: 2
1100111 ¼" Flat Washer	1100112 ¼" Lock Washer	1604047 #8 JIC x ½" Hose	1604054 1/2" Transmission Hose
			
Qty: 2	Qty: 2	Qty: 3	Qty: 1 x 74"
1500359 3/8" Thread Cutting Bolt	1200105 Flat Washer	1120031 3/8" Lock Washer	1120033 3/8" Nut
			
Qty: 2	Qty: 2	Qty: 2	Qty: 2

Tools Required

- Set of combination wrenches
- Power drill with 1/8", 1/4" & 3/8" bits
- Hammer
- Center punch
- Drain pan
- Pipe cutter
- Thread sealant (liquid, paste or tape)

Oil Filter Cross Reference

HASTINGS	BALDWIN	DONALDSON	FLEETGUARD	FRAM	LUBER-FINER	WIX
LF364	BT230	P555570	LF3342	PH3519	LFP5570	51268

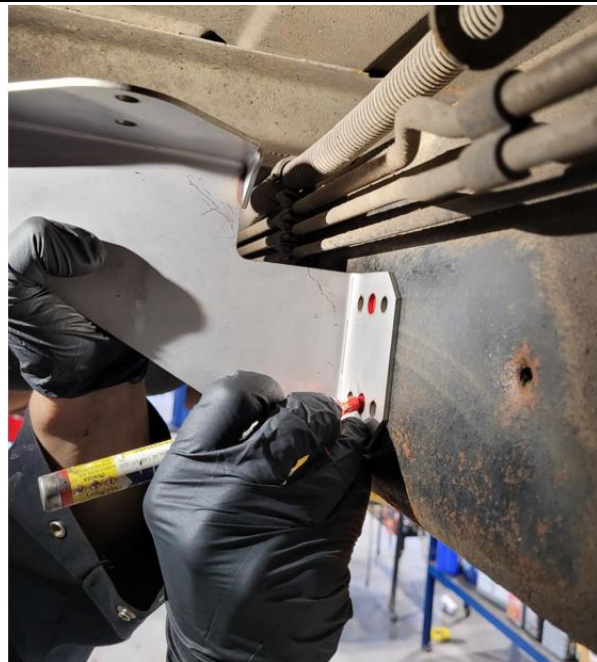
Installation

Raise the vehicle on a hoist or safety stands to gain access to the driver's side of the transmission area.

Locate and clean a spot to mount the filter housing along the left hand (driver side) frame rail.



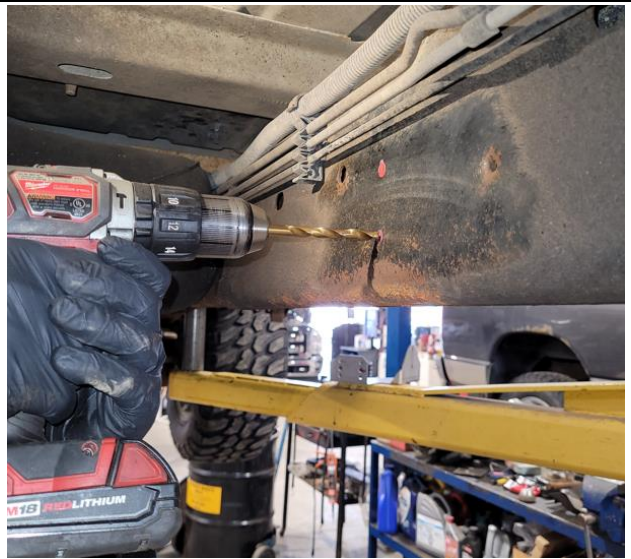
Using the filter mounting bracket as a guide, mark the 2 spots for the mounting bolts. The bracket will be positioned so that the filter will be pointing downward when installed as shown.



To allow for easier drilling, center-punch the two marked spots for the mounting bolts.



Using a 5/16" drill bit, drill pilot holes for thread cutting mounting bolts.



Make pilot thread using supplied thread cutting bolt on the two holes as shown.



Place the trans filter bracket and tighten the two bolts using breaker bar as shown

Nuts and lock washers are supplied for applications where access to the back of the bolts is available.



Install the two **90° ORB fittings** (1604046) into the filter head (do not use pipe sealant). When installed, the fittings need to point toward the front of the vehicle. For ease of installation, we recommend assembling the fittings on the filter head on a workbench before installing it onto the vehicle as shown.

Twist the fitting in until the O-ring gets as close as possible to the filter head, then by holding the fitting, tighten the jam nut as shown.



Install the **#8 JIC female fitting x 1/2" hose barbed fitting (1604047)** into the **90° ORB fitting (1604046)** as shown.



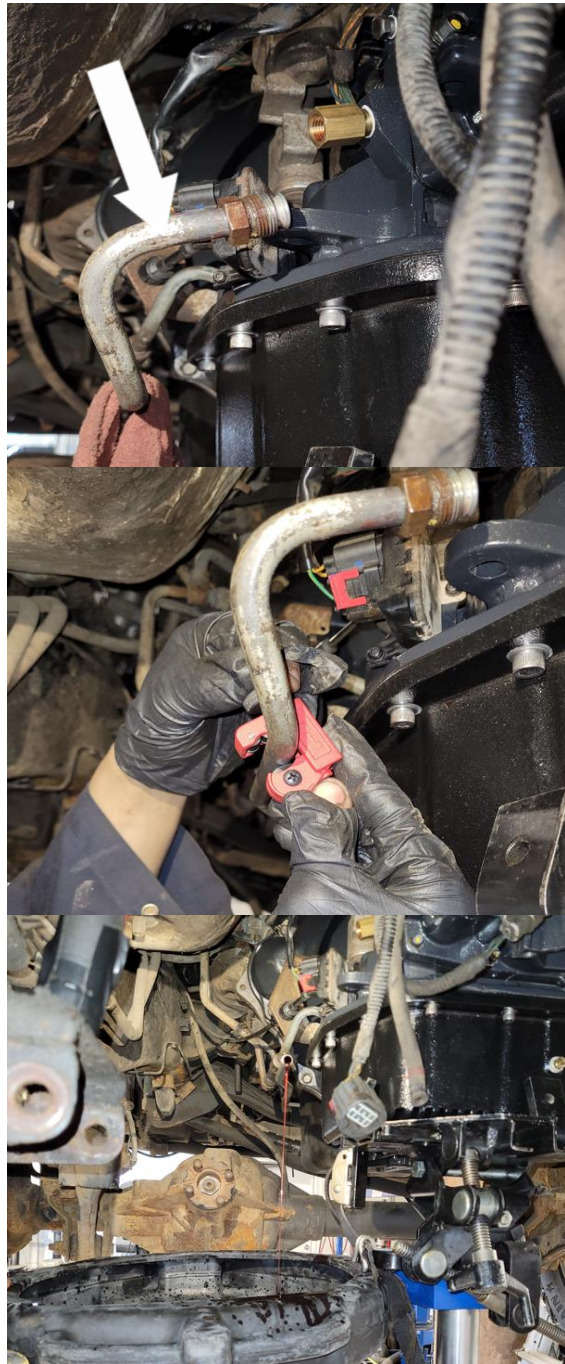
After assembling the fittings on the inlet and outlet ports of the filter head, it is ready to mount on the filter mounting bracket.



Position the filter head on the filter mounting bracket and install the 2 bolts using the flat washers supplied.



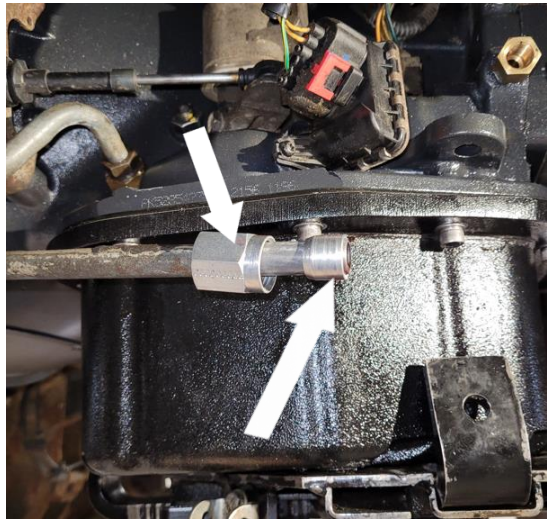
Locate the oil cooler line towards the rear of the transmission.
Using a small pipe cutter, cut the line approximately 6" from the bend.
NOTE: You may want to use the drain pan to capture any spilled fluid as shown.



Clean the ends of the cut pipe and then discard the short portion and fitting from the transmission side.

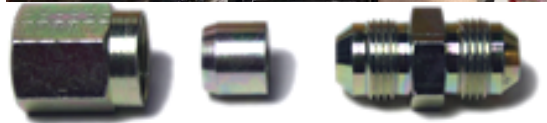


Insert the supplied fitting components as shown



Insert the compression nut, compression ferrule and the JIC fitting (1604041) over the forward portion of the transmission line and tighten.

These are pressure fittings so do not over-tighten.





Install the straight 1/4NPT-JIC (1604048M) fitting into the open port on the transmission using pipe sealant on the threads. Thread the fitting in finger tight, and then turn once more with a wrench. Do not over torque as you will damage the case.



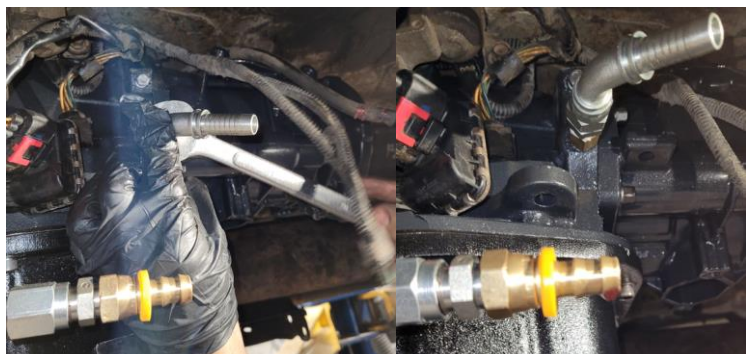
Thread the strait JICF to 1/2 Hose barb fitting (1604047) on strait JICM in place. Use a second wrench to hold the JIC fitting as shown.

Thread sealant is not needed.

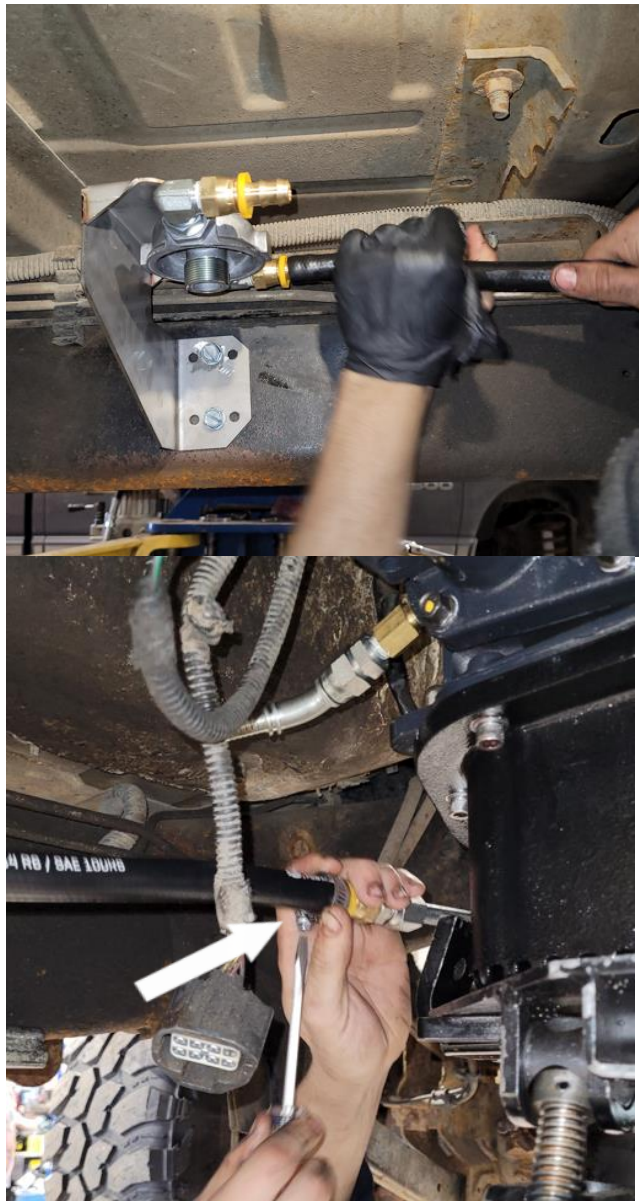


Thread the 45° JICF to 1/2 Hose barb fitting (1604049) in place. Align the hose inlet correctly and tighten with a wrench, use a second wrench to hold the NPT(1604048M) fitting.

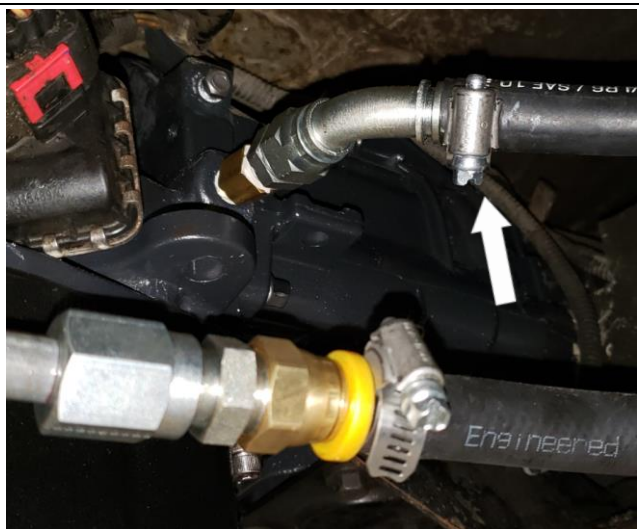
Thread sealant is not needed.



Measure and cut a section of the transmission filter hose supplied and install onto the barb fitting at the "IN" port of the filter head and secure it tightly with hose clamps. Install the other end of the hose onto the barb fitting attached to the return line from the cooler and secure tightly with hose clamps as shown.



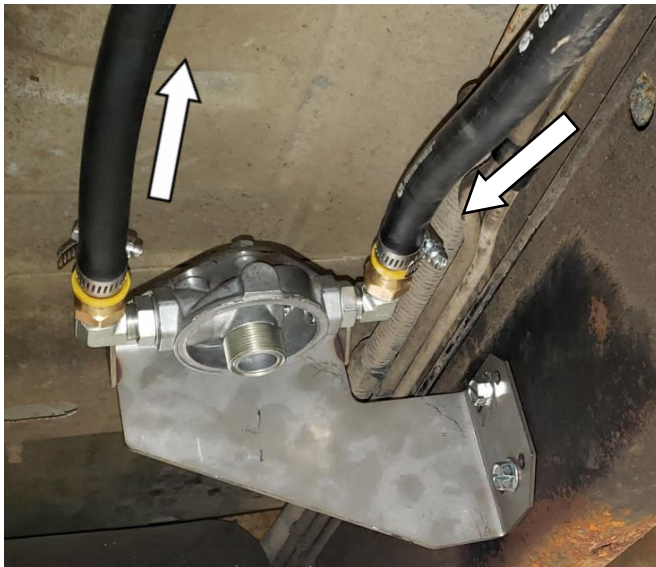
Measure and cut a section of the transmission filter hose supplied and install onto the barb fitting at the "Outlet" port of the filter head and secure it tightly with hose clamps. Install the other end of the hose onto the 45° barb fitting placed on the transmission secure tightly with hose clamps as shown.



Flow direction from cooler to the filter and from the filter to the transmission case.

Note:

When routing hoses, make sure that they are not rubbing against anything that will cause them to wear. Secure the hoses using tie wraps, but leave enough slack for flex movement.



Add fresh transmission fluid into the oil filter (check with transmission specifications for proper fluid type or confirm with vehicle owner as which fluid he may be using) and lubricate the oil filter seal with some fresh transmission fluid.

Screw the filter onto the threads of the filter head and once the rubber seal has contacted the mating surface of the filter head, tighten the oil filter an additional $\frac{1}{4}$ to $\frac{1}{2}$ turn.

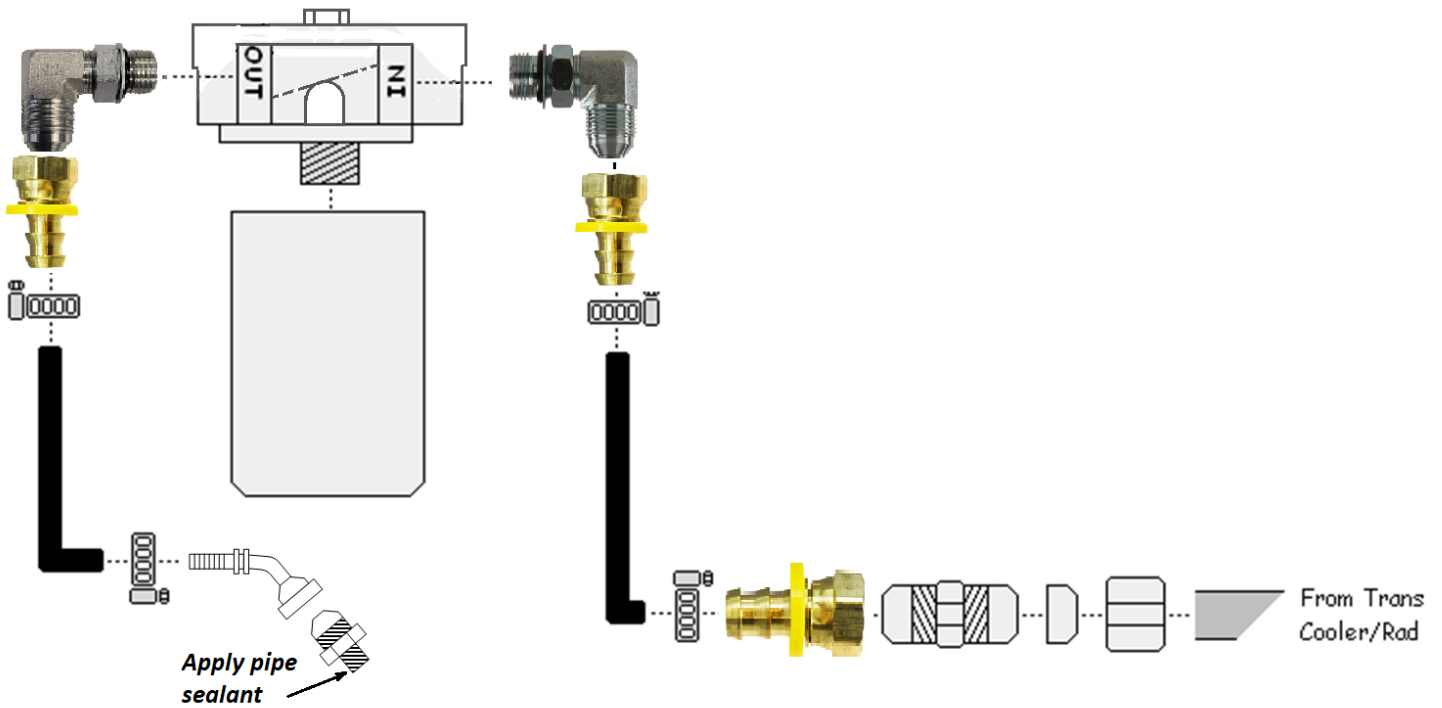
Note:

Do not use a filter wrench to tighten the filter element and do not over tighten the filter.



After installation is completed, take the vehicle on a short road test, check for any leaks and top up the fluid level.

Filter Flow Layout



If you experience any problems or difficulties with the installation of this kit, please contact the BD Technical Department at (800) 887-5030 or fax at 1-604-853-8749, between 8:00am and 4:30pm Pacific Standard Time.





**DOWNLOAD COLOUR
INSTALL MANUALS AT
www.bddiesel.com**

**DO NOT USE WATER-BASED
TRANSMISSION FLUSHING
FLUID – THE CONVERTER
LOCKUP CLUTCH LINING
WILL DISINTEGRATE, AND
WARRANTY WILL BE VOIDED.**



Dodge 47/48RE



Torque Converter

Installation Instructions

1060210X	518/618 Non L/U	1988-1993
* 1070247X, -LX, -X-HS		
+1071217X, -LX	47RH & 47/48RE	1994-2007
^1071218X, -LX		

PART NUMBERS WITH “X” FEATURE ENHANCED STALL, “LX” LOW STALL, AND “X-HS” HIGH STALL

* Features single lock-up clutch

† Features triple lock-up clutches

^ Features triple lock-up clutches and BigShaft turbine hub

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLING THIS PRODUCT.

Important Tips Before You Start

Always service the transmission when installing a torque converter. This will ensure that both the torque converter and transmission will be operating with fresh clean transmission fluid.

Please be aware that engine horsepower increase modifications may require an increase in transmission mainline pressure, to prevent transmission or converter clutches from slipping. Contact a BD service representative for more vehicle-specific details.

Preparing the Crankshaft and Converter for Installation

- Always check crankshaft pilot for burrs and out-of-round.
- Remove any rust with fine emery paper, and lightly grease pocket receiving torque converter pilot hub.
- Remove any paint from torque converter's crank pilot hub with fine emery paper.
- Before installation, pre-fit torque converter to flex plate, and into back of the crankshaft. It should be a snug, even fit (neither loose nor binding).
- Slowly pour two quarts of automatic transmission fluid into converter.
- Check flex plate for cracks or worn teeth.
- If replacing the torque converter only, replace the transmission front seal.

Converter Installation

Support and rotate torque converter back and forth while installing it into transmission. You will feel it seat 3 times for the input shaft, stator support, and oil pump notches. Use care to not damage the front seal. Make sure that the converter is fully installed— do not assume that it is in place when you receive the transmission. After you are sure it is in place, always keep the tail end of the transmission low so that it cannot slip out.

Checking Converter-to-Flex Plate Alignment

- Bolt the transmission to the engine with two bell housing bolts (hand tight), and check the converter for free movement.
- After the bell housing bolts are tightened, the converter should have 1/16"-1/8" of clearance between the pads on the converter and the flex plate. If there is not enough clearance, remove the transmission and double-check if the converter is seated properly in the front of the transmission.
- Add Loctite® to the torque converter nuts and/or bolts before installation.
- Draw the converter bolts up evenly, so as not to bind the converter, which can cause vibration and pump bushing failure.
- If there is a vibration after installation, you could try marking the converter to the flex plate, then rotating it one bolt at a time.

NOTE: The #1 cause of vibration is the failure to prepare the crankshaft for installation. Each time the converter is installed without polishing off the crankshaft rust, removing the paint from the converter pilot, and adding a little grease, the converter may be drawn up crooked with the first bolt. This condition may cause converter run-out and will usually ruin the pump bushing. The second most common complaint on converters is a whine after installation. This usually means that there is too much clearance between the converter pads and the flex plate. This draws the converter hub too far out of the pump drive gear, causing the gear to "rock".

Reusing Converter When Replacing the Transmission

We strongly recommend replacing the converter with every rebuilt transmission because of the difficulty of thoroughly cleaning it on the inside. If you choose not to replace it, the converter must be removed and thoroughly flushed. Make the following inspections: internal thrust washers and bearings for misalignment, condition of the inner sprag, inner turbine hub splines, inner lockup seal (on lockup converters), hub condition for wear/scoring, the drain plug, pilot and mounting devices to ensure proper alignment and overall good condition.

Cooler & Cooler Lines

The cooler and cooler lines **MUST** be flushed to remove all metal particles and oil. **DO NOT BLOW THEM OUT WITH AIR.** Use a solvent that will flush out old oil and metal particles. This is particularly important if the transmission you have removed has metal in the fluid. **DO NOT USE WATER BASED TRANSMISSION FLUSHING FLUID!**

Flex Plate Inspection

Inspect for cracks where the plate bolts to the engine, and out of round holes where the converter bolts to the flex plate. Check for warping. Inspect the ring gear teeth for excessive wear or missing teeth.

Manual Control Linkage (if applicable)

The manual control linkage must be re-adjusted according to the repair manual, to assure proper setting for the unit being installed. Adjust the linkage with the vehicle in actual road operation.

Shift Linkage

Excessive shift linkage wear (including slop at the steering column) may cause shifting malfunctions such as improper throw, dragging into or out of gears, or jumping out of gear.

Motor & Transmission Mounts

The condition of the motor mounts & transmission mounts can affect linkage adjustments. Worn mounts can create in-vehicle noises, and can cause excessive wear to internal transmission parts. Broken or oil-soaked mounts must be replaced.

U-Joints and Driveshaft Yoke

Tight or worn U-Joints may cause vibration in the driveline, as well as premature failure of bushings and seals in the tail casting. A tight or worn (tapered) front yoke will quickly damage the rear seal and bushings, causing loss of lubricant, which in turn can lead to transmission failure.

Important Engine/Transmission Notes

Before operating an electronic transmission after re-installing it, connect a scan tool to record and clear any transmission trouble codes. The TPS and temperature sensor play a critical role in the operation of electronic transmissions. The converter clutch will not operate until the transmission reaches a certain temperature. Be sure these sensors are working properly, and replace faulty units. Fill the transmission with the correct amount of the specified transmission fluid. Test drive the vehicle to check transmission operation, and to complete any relearn procedures. Refer to the service manual for the detailed relearn procedure.

***DO NOT:** Check the operation of the transmission with the drive wheels off the ground.

***DO NOT:** Re-use old oil. Dirty oil causes valves to stick and may clog the lines if contaminated. Both may lead to premature failure of the transmission or torque converter!



General Policy

All core returns must be,

- like for like, no mixed models
- drained of all fluids (\$50 Charge)
- be returned in the original packaging
- Part Disassembled
- No junkyard cores (core must have been removed from vehicle)
- No fire damage
- Free of excessive Rust or Water Damage

Returned cores that fail to follow the above conditions will be disallowed and scrapped or returned at the customer's expense. Freight and removal damage are not covered. BD Diesel reserves the right to adjudicate cores as it sees fit and may deviate from its policy.

BD FUEL INJECTION CORE ACCEPTANCE POLICY		
Model	Deduction	No Credit
P7100 Injection Pump	<ul style="list-style-type: none"> • AFC Housing Damaged (25% Deduction) • Governor Housing Damaged Front or Back (25% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Camshaft on 911/913 pumps. • Main Body Damaged
Bosch VE Pump	<ul style="list-style-type: none"> • AFC Housing Damaged (25% Deduction) • Cold Advanced Housing Damaged (50% Deduction) • Governor housing damaged front or back (25% deduction) • Main Body Damaged (50% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized Head (Does not turn)
CP3		<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized (Does not turn) • Catastrophic Shaft Failure (Frost Plugs Damaged or Missing) • Front Cover Damaged
VP44	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized Head (Does not turn)
Common Rail Injectors	<ul style="list-style-type: none"> • Solenoid melted or destroyed, stretched terminals (25% Deduction) • 5.9/6.7 Broken Solenoid Terminal Divider (No Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Body
Mechanical Injectors		<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Body

BD TURBOCHARGER CORE ACCEPTANCE POLICY		
Turbo Model/ Application	Deduction	No Credit
Cummins ISX VGT Air or Electronic Actuated	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) • Missing Clamps (25% Deduction) • Missing Parts or Actuators (50% Deduction) • Turbine Wheel Separation (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Part Disassembled
Caterpillar (Ball Bearing) Models		<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Caterpillar (Standard Turbocharger) 704604-9007, 704604-9011		<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Turbo with 3 support Webs

Detroit Diesel VGT	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Ford 6.4 Powerstroke	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Part disassembled • Wheel Separation
Ford 6.7 Powerstroke	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Wheel Separation
GM 6.6 L5P	<ul style="list-style-type: none"> • L5D Version (due to incorrect compressor cover) (25% Deduction) • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Dodge Cummins 6.7 HE351VG/HE300VG	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine)
Standard Turbochargers (All Models, Non VGT)	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) • Missing Clamps (25% Deduction) • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation

The above criteria apply to customer core returns. The following criteria will apply for core purchases.

Deduction	No Credit
<ul style="list-style-type: none"> • Cracked or Damaged due to freight • Damaged Electronics • Missing Parts or Actuators • Heavily Damaged Wheels and/or Shaft • Missing Clamps • Turbine Wheel Separation • Heavily Modified Turbochargers 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine)

BD TRANSMISSION/TORQUE CONVERTOR CORE ACCEPTANCE POLICY

Model	Deduction	No Credit
Transmissions	<ul style="list-style-type: none"> • Cracked Overdrive housings (\$100 Deduction) • 68rfe Cracked Case (25% Deduction) • Part disassembled (50% Deduction) • Missing Transmission Shipping Crate (\$200 Deduction) • Missing TC/Transmission bracket (\$50 Deduction) 	<ul style="list-style-type: none"> • Cracked Case (Except 68rfe)
Torque Convertors	<ul style="list-style-type: none"> • Hub and Impeller damaged. (50% Deduction) 	<ul style="list-style-type: none"> • Excessive corrosion • Part disassembled
Valve Bodies	<ul style="list-style-type: none"> • Missing electronics (25% Deduction) 	<ul style="list-style-type: none"> • Excessive corrosion • Part disassembled

GENERAL CORE ACCEPTANCE POLICY

Model	Deduction	No Credit
EGR Cooler		<ul style="list-style-type: none"> • Brackets broken

Please note that all cores have a time eligibility restriction. Please see BD Terms & Conditions for further details. https://cdn.bddiesel.com/downloads/bd_terms_general.pdf