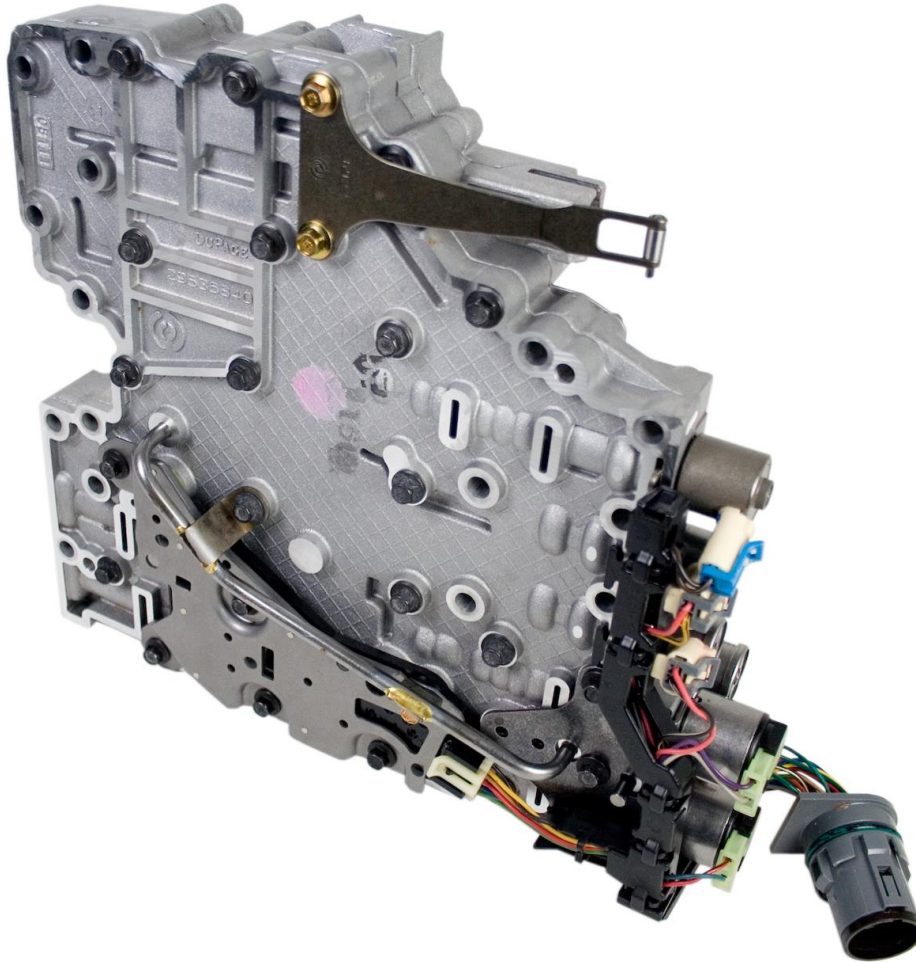




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BD Diesel Valve Body

For GMC/Chevrolet Duramax 6.6L Trucks

1030470	2001-04 Duramax (LB7)
1030471	2004-05 Duramax (LLY)
1030472	2006-07 Duramax (LBZ)
1030473	2007-10 Duramax (LMM)

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

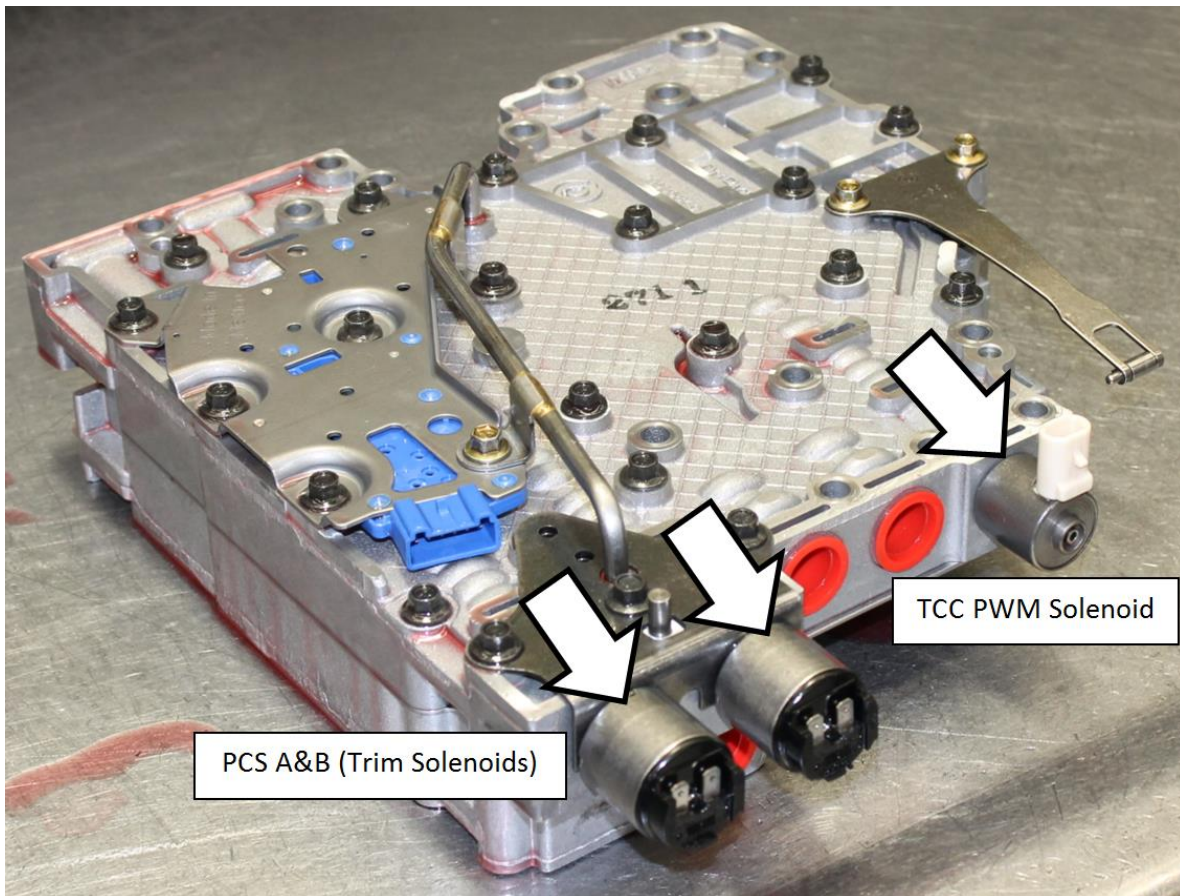
VALVE BODY REMOVAL INSTRUCTIONS

NOTE: Occasionally when purchasing the **1030470** valve body, you may receive a **1030471** valve body with minor modifications. This also includes 4 longer bolts to hold in the G-solenoid, and will still work as intended in place of the **1030470**.

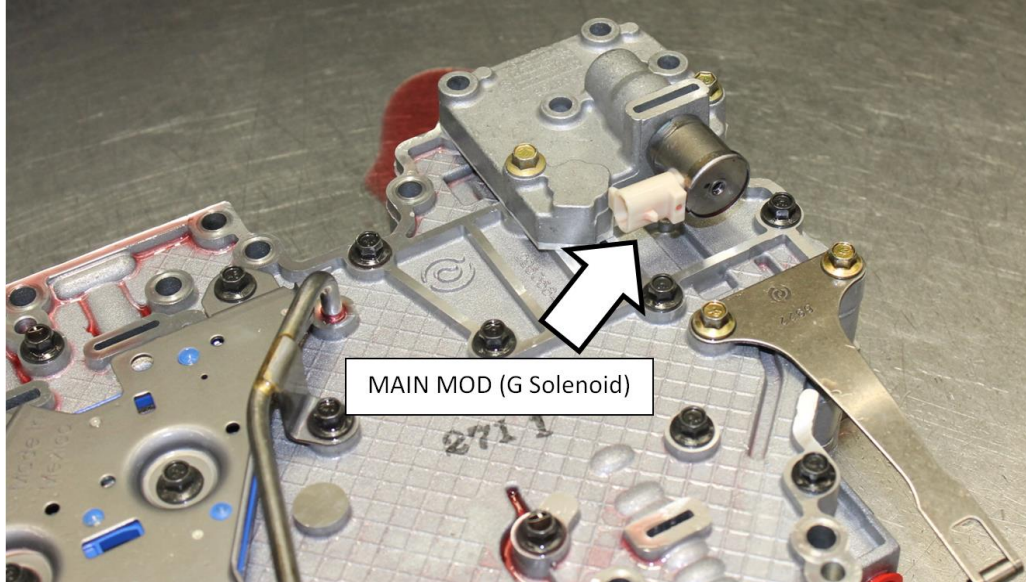
- Remove the drain plug from the transmission oil drain. If the transmission fluid is relatively clean, then drain the fluid into a suitable container for re-use after installation.
- Remove the 12 bolts that fasten the oil pan to the main transmission housing.
- Remove the oil pan and gasket. Check the magnet in the oil pan for excessive or large metallic particles. If there is excessive material present, a transmission overhaul may be necessary.
- Remove the filter by pulling straight down when the suction tube is seated in the transmission case.
- Remove the suction seal from the seal bore in the transmission case if it remained. Discard the old seal and filter if it is being replaced.
- Release the main electrical connector from the transmission case. This allows the internal wiring harness to remain with the valve body as it is being removed. As the valve body is removed, be careful not to lose the manual selector valve pin or allow the manual selector to slide out.
- Remove the 15 bolts that fasten the valve body to the transmission case. Be ready to support the weight of the valve body as the last bolt is removed.
- Remove the valve body assembly from the dowel pins in the transmission case. When the valve body has cleared the dowel pins, move it sideways to disengage the pin in the manual selector valve from the slot in the detent lever.
- Remove the valve body assembly.

VALVE BODY INSTALLATION INSTRUCTIONS

- Remove the BD Allison Valve Body from the packaging and ensure the manual valve and pin are present (usually in a separate bag at the bottom of the packaging foam).
- The BD Allison Valve Body is supplied with the more critical solenoids which have been tested in our facility during assembly. The customers original solenoids must be returned with their core for full credit.
- **1030470** – 2001-2003 Allison valve bodies are supplied with three solenoids. Pressure Control A (TRIM A), Pressure Control B (TRIM B) and the TCC PWM Solenoid.



- **1030471-1030473** – 2004-2010 Allison valve bodies are supplied with four solenoids. Pressure Control A (TRIM A), Pressure Control B (TRIM B), TCC PWM and Main Mod (G Solenoid).



- Remove the wiring harness from the stock valve body.
- Remove the three shift solenoids from the original valve body. These are the three solenoids not included with the BD valve body. Inspect the seals for any damage and replace if necessary.
- Install the three shift solenoids into the BD valve body, being careful not to nick the seals and reinstall the existing wiring harness onto valve body.
- Verify that all solenoids and electrical connectors are correctly installed and seated before proceeding with installation.
- Align the BD Allison Valve Body assembly with the dowel pins to the transmission case. Ensure that the manual valve pin is installed in the linkage slot.
- Push the main electrical connector harness outward through the hole in the transmission case.
- Seat the valve body assembly against the transmission case and install one bolt to hold the assembly in place.
- Re-install the remaining 14 bolts that fasten the valve body assembly to the transmission case. Tighten the bolts to **7-10 lbs-ft**.
- Ensure that the retaining feet of the connector are properly seated in the transmission case.

- Install a new seal on the filter suction tube.
- Remove any gasket material from the transmission case and check the flange for scratches to eliminate any chance of split-line leaks.
- Install a new pan gasket and align / install pan bolts. Tighten to **18-21 lbs-ft.**
- Re-install the drain plug and sealing washer. Tighten to **22-30 lbs-ft.**
- Replace any lost transmission fluid to recommended levels using **DEXTRON VI** transmission fluid.
- The transmission controller must be relearned whenever the transmission solenoids, valve body or entire transmission are replaced. Before proceeding, verify transmission fluid level and allow transmission to come up to normal operating temperature.

If a Tech II factory scan tool is available, reset all of the adaptive learned values (TAPS). Then proceed to do a fast learn. In this procedure, the transmission controller will shift through all of the gears to learn the clutch apply rates. This will significantly reduce the drive learning time required.

If a Tech II scan tool is not available, many aftermarket tuners are capable of resetting the transmission learned values (TAPS). These devices are not capable of doing a fast learn and it will take longer to achieve the desired shift quality.

Once the adaptive values have been reset, drive the vehicle at light throttle through all gear shifts three times, or until the shifts are not objectionable. Repeat with increased throttle until transmission shifts normally. Transmission relearn is now complete and shifts quality will continue to improve as the vehicle is driven.

TIGHTENING SPECS	
Valve Body Assy. To Main Housing Bolts (x15)	7-10 lbs-ft.
Transmission Oil Pan	18-21 lbs-ft.
Drain Plug and Sealing Washer	22-30 lbs-ft.



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