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BD Diesel Exhaust Manifold

Installation Instructions





1045948	1989-98* 12v Cummins
1046048	1989-98* 12v Cummins Complete Kit
1045947	1998½-2002 24v Cummins
1046047	1998½-2002 24v Cummins Complete Kit

*Does not fit California vehicles that utilize an EGR system

Please read all instructions before installation

1045948 / 1046048 are replacement for Cummins # 3911349
1045947 / 1046047 are replacement for Cummins # 3946036

KIT CONTENTS






Common Kit Contents - 1045948 & 1046048				
1405948		FT-11509452	1405986	1462441
				
12V Manifold		Washer; M10	Bolt; M10x45mm	Nut; M10
Qty: 1		Qty: 4	Qty: 2	Qty: 4
1462430	1405936	FT-11113082		FT-11116075
				
Stud; M10 x 30mm	Spacer; 12v Coolant	Bolt; M8x95mm		Bolt; M10x 60mm
Qty: 2	Qty: 1	Qty: 1		Qty: 10
1401556	1200208	1405981		1405937
				
Washer; M8	Plug; 1/8" NPT	Bolt; M10x 35mm		Spacer; Manifold
Qty: 1	Qty: 2	Qty: 2		Qty: 10
Additional Kit Contents - 1046048 Only**				
3927154		1045912		
				
Manifold Gaskets		Turbo Gasket Dual Volute		
Qty: 6		Qty: 1		

Note Part numbers: 1462430, FT-11113082, 1401556, FT-11116075, 1405986, FT-11509452, 1405981, 1200208 are supplied in a pre-bagged fastener kit part number FK-1045948

Common Kit Contents – 1045947 & 1046047

1405947			FT-11509452	1405986	1462441
					
12V Manifold			SS Washers	M10x45mm	Nut
Qty: 1			Qty: 4	Qty: 2	Qty: 4
1462430	1200208	1405981	1405938	1900014	FT-11116243
					
Stud; M10x30mm	Plug; 1/8" NPT	M10x35mm	Coolant Bracket	M8 Flange	M8x16mm
Qty: 2	Qty: 2	Qty: 2	Qty: 1	Qty: 1	Qty: 2

Additional Kit Contents – 1046047 Only**

1405900	1405912	2485000
		
Manifold Gasket 6-Pack	Gasket Dual Volute	Gasket Single Volute
Qty: 1	Qty: 4	Qty: 2
1405937	FK-1045982	
		
Manifold Spacers	M10 x 60	M10 x 35
Qty: 12	Qty: 12	Qty: 2
		M10 Washer
		Qty: 2

Note Part numbers: FT-11116243, 1900014, 1200208, 1462430, 1405981, FT-11509452, 1405986 are supplied in a pre-bagged fastener kit part number FK-1045947

Separate Gasket Sets

Description	Part #
12V Exhaust Manifold Gasket Set	1045981
24V Exhaust Manifold Gasket Set	1045986

Removal

Remove the intake air hose from the front of the turbo and disconnect the coolant line brackets from the stock manifold.

Now disconnect the turbo from the stock manifold by removing the 4 15mm nuts. *Note that you do not need to remove the turbo from the engine compartment.*

Once the turbo is disconnected from the manifold, remove the manifold by removing all the bolts using a 13mm socket.

Once the manifold is removed, clean the head and turbo flange surfaces of any debris.

Remove the two studs from the turbo exhaust housing and discard.

Remove the two studs from the stock manifold and install them into the same hole location of the performance manifold.

Installation

1045948 comes with 10 new manifold flange bolts and spacers which will replace the OEM spacers and bolts. Be careful not to mix the new bolts/ spacers with the OEM hardware. If not using sensor ports, install provided 1/8" NPT plugs (1200208) into the manifold.

INSTALL 6 NEW GASKETS IN BETWEEN THE HEAD AND THE MANIFOLD. THE RIDGE ON THE GASKETS CAN FACE EITHER THE HEAD OR MANIFOLD.

Install the new performance manifold utilizing the factory bolts and spacers. You will need to use the two 10x35mm long stainless Allen bolts and washers for the two top mounting holes of the center section of the manifold. **Torque bolts to 35 ft/lbs.**

You may have to adjust the manifold to head alignment. Bolt the manifold center piece to the head, then use a plastic mallet to align the end/outside manifold pieces.

INSTALL A NEW GASKET IN BETWEEN THE TURBO AND THE MANIFOLD. THE RIDGE ON THE GASKET CAN FACE EITHER THE MANIFOLD OR TURBO.

Place the turbocharger onto the performance manifold, the two studs should be inserted in the turbocharger flange. Use the supplied 14mm nuts.

Use the remaining two 10 x 45mm Stainless Allen head bolts and washers to secure the turbocharger to the manifold. **Tighten to 32 ft/lbs.**

Important! Improper turbo flange torque can lead to exhaust leak and gasket failure.

After installation is complete, re-install the coolant line brackets. Early model 24V trucks will need to use the coolant bracket 1405938 and the supplied M8 bolts/nut to secure the coolant tube in place. Re-install intake air hose and other components removed.

RE-TORQUE ALL BOLTS AFTER AT LEAST ONE HEAT CYCLE