

**Installation Manual v1.1:  
204-941-2218**  
**T4 Single Piece PulseFlow Exhaust Manifold**  
**1998.5-2007 Dodge Ram 5.9L 24V/Common Rail Cummins Diesel**



**Please read all instructions before installation.**

Thank you for purchasing the ATS PulseFlow Exhaust Manifold. This manual is to assist you with your installation and operation of the unit. If you are installing the unit for a customer, please pass this manual on to your customer for future reference.

**BILL OF MATERIALS:**

1. M10-1.5 DIN 934 Plain Finish Steel Class 8 Hex Nut (p/n: 001-55) (Qty: 4)
2. M10 DIN 127 Plain Finish Split Lock Washer (p/n: 001-51) (Qty: 12)
3. 3/8" (M10) Black Steel Schnorr® (Belleville) Washer (p/n: 001-56) (Qty: 4)
4. M10 x 1.5 x 50mm, ZINC T-ROD (p/n: 001-53) (Qty: 2)
5. M10 x 20mm OD DIN 125 Low Carbon Plain Finish Steel Type A General Purpose Flat Washer (p/n: 001-50) (Qty: 12)
6. Manifold, T4 Pulse Flow, 24V (p/n: 204-121-2218) (Qty: 1)
7. T4 Gasket (p/n: 204-010-1000) (Qty: 1)
8. M10-1.5 x 35mm ISO 4762 Hex Drive Class 12.9 Black Oxide Finish Alloy Steel Socket Cap Screw (p/n: 001-52) (Qty: 12)
9. M10-1.5 x 40mm Plain Finish DIN 6921 Class 10.9 Hex Flange Bolt (p/n: 001-54) (Qty: 2)
10. Gasket, Exhaust Manifold to Engine Block (p/n: 204-004-2218) (Qty: 6)

**TOOLS NEEDED:**

1. 13mm socket or wrench
2. 15mm socket or wrench
3. 17mm wrench or socket
4. 180 grit sandpaper
5. 8mm allen-head socket or wrench
6. 8mm socket or wrench (for hose clamp removal)

## **INSTRUCTIONS:**

1. Remove air cleaner hose from the vehicle and disconnect the water line brackets from the manifold.
2. Next, disconnect the turbo from the stock manifold by removing the 4 nuts, using a 15mm socket or wrench

**NOTE:** It is not necessary to remove the turbo from the engine compartment, but it can be done for easier installation.

3. Once the turbo is disconnected, remove the bolts on the stock manifold using a 13mm socket or wrench.
4. After the stock manifold is removed, sand the head and turbo surfaces for a better seal.
5. Remove the 4 turbo studs from the stock manifold and screw them into the ATS single piece PulseFlow exhaust manifold.
6. Install the manifold using the allen head bolts and washers supplied in the kit. Tighten the allen head bolts with an 8 mm allen head socket.



**IMPORTANT!** Make sure the gaskets are in position between the head and manifold. Use of new gaskets is recommended for replacement but is not needed unless old gaskets are damaged or burned. Tighten all bolts to 35 foot pounds or torque in a clockwise manner starting from the center.

7. After the manifold is tight, reconnect turbo to the manifold and tighten nuts.



**IMPORTANT!** 24-valve manifold assembly requires you to drill out the tapped holes in the turbo for the studs to go through. This is done with a 7/16" drill bit.

8. After turbo and manifold is complete, reinstall air cleaner hose and water hose brackets.



## **CONTACT US**

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## **TROUBLESHOOTING:**

Thank you for purchasing the ATS PulseFlow Exhaust Manifold. This manual is to assist you with your installation and operation of the unit. Please use the contact information to the left for assistance with any questions regarding this installation. If you are installing the unit for a customer, please pass this manual on to your customer for future reference.