

Installation Manual v1.2:

PN: 204-950-2326

2-Piece Pulse Flow Exhaust Manifold

2007½ - 2018 Dodge Ram 6.7L Cummins Stock Replacement

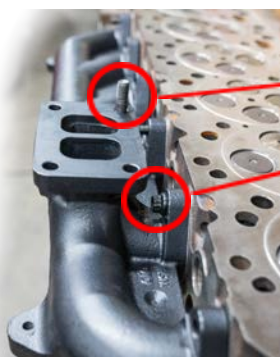


Please read all instructions before installation

Thank you for purchasing the ATS Pulse Flow Exhaust Manifold.

BILL OF MATERIALS:

- 1) 2 Piece Pulse Flow Manifold Dodge 6.7L Holset 2007½ -2018, Assembly (204-200-2326) (Qty: 1)
- 2) Hardware Kit, Exhaust Manifold, 6.7L Cummins (204-051-2326) (Qty: 1)
 - a) M10 Double End Stud 42mm Long(Qty: 7)
 - b) ARP Nut (Qty: 5)
 - c) M10 Even Thread Stud (Qty: 2)
 - d) Stud Part (Qty: 11)
 - e) 12-Point Nut (Qty: 11)
- 3) Gasket Kit, Exhaust Manifold, Stage 2, 2007½ - 2018 Dodge RAM 6.7 L Cummins (204-011-2326) (Qty: 1)
 - f) Multi-Layer Exhaust Manifold Gasket (Qty: 6)
 - g) Multi-Layer Turbo Gasket to Manifold Holset Flange Dodge RAM 6.7 L Cummins (Qty: 1)
 - h) Rear EGR Multi-Layer Gasket (Qty: 1)
 - i) EGR Cooler Gasket (Qty: 1)



a
b&c



1. Disconnect negative battery terminals
2. Drain cooling system
3. Remove four bolts and engine oil dipstick and remove EGR crossover cover
4. Remove front air cleaner housing bolt
5. Disconnect MAF and IAT/Baro sensor
6. Loosen clamp on intake tube at air cleaner housing
7. Remove air cleaner housing from vehicle
 - a. If equipped: Disconnect active air motor connector and disengage retaining clip from air cleaner housing.
8. Disconnect CCV breather hose from intake tube
9. Loosen clamp on intake tube at turbo and remove intake tube from vehicle
10. Remove V-Band clamp on EGR crossover pipe at EGR cooler bypass valve
11. Remove V-Band clamp on EGR crossover pipe at EGR Valve
12. Slide EGR crossover pipe towards driver's side of engine to allow room for EGR removal
13. Remove degas bottle to coolant riser hose from banjo fitting
14. Remove heater core to coolant riser hose from coolant riser
15. Disconnect EGR bypass motor, EBP sensor, and CCV filter electrical connectors
16. Remove bolts securing EBP tube, coolant riser, CCV breather hose, and EGR bypass motor from EGR cooler bracket
17. Position EGR bypass motor assembly to allow access to V-Band clamp holding EGR bypass valve to EGR cooler
18. Remove CCV breather hose
19. Remove V-Band clamp at EGR cooler
20. Remove two 15mm nuts securing EGR bypass valve to exhaust manifold
21. Remove EBP tube from exhaust manifold
22. 2013-18 vehicles: Remove eight bolts retaining CCV filter cover and remove CCV filter cover
23. Remove two bolts holding coolant pipe to EGR cooler and EGR cooler bracket
24. Disconnect coolant tube from port on cylinder head and rotate coolant pipe over towards passenger fender
25. Remove remaining three bolts securing EGR cooler to EGR cooler bracket
 - a. If equipped: Remove 10mm nut retaining transmission dipstick tube to EGR cooler retaining bolt and position tube aside
26. Remove two 15mm nuts securing rear EGR cooler flange to exhaust manifold
27. Lift rear of EGR cooler past mounting studs and slide EGR cooler towards firewall to disengage cooler from coolant riser and remove cooler from vehicle
28. Remove two bolts holding EGR cooler bracket to cylinder head and remove bracket
29. Remove exhaust hanger from transmission bellhousing by removing 2 9/16" bell housing bolts (This will allow turbo to move slightly, aiding in exhaust manifold removal and installation)
30. Remove six nuts retaining heat shield to exhaust manifold and remove heat shield
31. Remove four 15mm nuts from exhaust manifold to turbo flange
32. If equipped: remove retaining strap from rear exhaust manifold bolts
33. Remove twelve exhaust manifold bolts
34. Remove exhaust manifold from vehicle
35. Ensure gasket surfaces on cylinder head and turbo flange are clean
36. Install one M10x1.50x40mm stud (C) into lower bolt hole on cylinder 5 exhaust port in cylinder head
37. Install a new exhaust manifold gasket over stud in cylinder head
38. Install one 70/30 split M10x1.50x42mm stud (B) into threaded hole on turbo flange on exhaust manifold. Thread shorter length of thread into manifold

39. Install one M10x1.50x40mm stud (C) into front outboard (passenger side) hole at turbo flange on turbo
40. Install two 70/30 split M10x1.50x42mm studs (A) into rear threaded holes on turbo flange at turbo. Thread shorter thread section of stud into turbo flange
41. Install new turbo flange gasket onto turbo
42. Lower exhaust manifold onto turbo flange
43. Install one M10x1.50 12-point nut (B) onto cylinder 5 manifold stud (DO NOT FULLY TIGHTEN)
44. Install new exhaust manifold gaskets at remaining ports threading original exhaust manifold bolts through gaskets into their original positions. (If included install Premium studs (D) in place of factory exhaust manifold bolts)
45. Starting from the center and working outward torque exhaust manifold bolts (or 12 point Premium nuts (E) if included) and 12-point nut at cylinder 5 to 39 lb. ft.
46. Install one M10x1.50 12-point nut (B) onto front outboard turbo flange stud
47. Install three original 15mm nuts onto remaining 3 turbo flange studs (if included replace factory 15mm nuts with remaining 12 point nuts (B))
48. Torque turbo flange nuts in a cross pattern to 32 lb. ft.
49. Reinstall exhaust hanger to transmission bellhousing using original bolts
50. Install two 70/30 split M10x1.50x42mm studs (A) into rear EGR port and two 70/30 split M10x1.50x42mm studs (A) into front EGR port in exhaust manifold (thread shorter thread into exhaust manifold)
51. Install new gaskets onto front and rear EGR ports
52. Install EGR cooler bracket (Tighten bolts hand tight)
53. Install EGR cooler on the exhaust manifold and EGR cooler bracket ensuring the front coolant port slides into the coolant riser.
54. Install original nuts onto rear EGR cooler flange studs hand tight
55. Install new gasket onto EGR bypass valve assembly and install assembly onto exhaust manifold ensuring bypass V-Band flange clicks into place on EGR cooler
56. Install original nuts onto EGR bypass mounting studs hand tight
57. Install V-Band clamp from EGR cooler to bypass valve and tighten hand tight
58. Install three EGR cooler to EGR cooler bracket bolts hand tight
59. Install new gaskets on EGR crossover tube and install tube ensuring V-Band flanges click into place on EGR bypass valve and EGR valve flanges
60. Install EGR crossover tube V-Band clamps onto flanges and tighten hand tight
61. Once all EGR components are installed torque hardware in the following sequence
 - a. Tighten rear EGR Flange nuts to 44 lb. ft.
 - b. Tighten EGR cooler to bracket bolts to 18 lb. ft.
 - c. Tighten EGR cooler bracket to cylinder head bolts to 27 lb. ft.
 - d. Tighten EGR cooler bypass to exhaust manifold nuts to 32 lb. ft.
 - e. Tighten EGR cooler to EGR cooler bypass V-Band clamp to 89 lb. in.
 - f. Tighten EGR crossover tube V-Band clamps to 89 lb. in.
62. Install EGR cooler to cylinder head coolant tube back onto port on cylinder head and torque retaining bolts to 18 lb. ft.
63. If removed, reinstall CCV cover and torque bolts to 89 lb. in.
64. If removed, reinstall transmission dipstick tube bracket onto EGR cooler retaining bolt and tighten nut
65. Install EBP tube into exhaust manifold hand tight
66. Install CCV breather hose onto CCV filter cover
67. Position EGR bypass valve motor assembly for reattaching to EGR cooler bracket
68. Install bolts securing EGR bypass valve motor bracket, coolant riser, CCV breather hose, and EBP tube.

69. Tighten EBP tube fitting into manifold
70. Connect EGR bypass, EBP sensor, and CCV electrical connectors
71. Install heater core hose onto coolant riser
72. Install degas bottle to coolant riser hose onto banjo fitting
73. Install intake tube onto turbo (do not tighten clamp at this time)
74. Install CCV breather hose on intake tube
75. Install air cleaner housing connecting active air motor electrical connector, if removed
76. Install air cleaner housing front mounting bolt torque to 71 lb. in.
77. Install intake tube onto air cleaner housing and torque clamps at housing and turbo to 97 lb. in.
78. Connect MAF and IAT/Baro sensor electrical connectors
79. Install EGR crossover cover and torque bolts to 89 lb. in.
80. Install engine oil dipstick
81. Connect both negative battery cables
82. Refill cooling system
83. Start engine and check for any cooling system and exhaust system leaks
84. Test drive vehicle, it is recommended to drive vehicle with exhaust brake turned on to hear any small exhaust leaks at higher exhaust manifold pressures

CARB E.O. Label

Clean a flat visible surface under the hood and affix the enclosed CARB EO sticker for SMOG purposes. See the illustration below for acceptable locations to affix to vehicle. ATS Diesel recommends using the radiator shroud if possible.



Vehicle CARB E.O. Label Placement



IMPORTANT: Be sure to clean and dry a flat visible surface under the hood prior to affixing the enclosed CARB EO sticker.

Locations

underside of vehicle hood

engine valve cover

radiator shroud
(preferred location)



Sample label

