



## INSTALLATION GUIDE FOR 987.1 and 987.1 S Part #'s 87182, 87174-3.4, 87174-3.2 and 87174-2.7

Thank you for purchasing your new 987.1 Cayman / Boxster IPD intake plenum. Installing the IPD plenum is a relatively simple R & R (Remove & Reinstall) procedure.

Recommended tools required for the installation include:

- \* 7mm socket and ratchet to R & R hose clamps.
- \* An E10 socket or nut driver for Throttle Body, oil filler tube bracket and factory plenum hold-down nut.
- \* Torx 30 to remove the engine cover.
- \* Large Flat head Screwdriver
- \* Pliers and/or Channel Lock pliers for vacuum lines

1. Remove luggage net and carpeted engine cover. This requires the carpet and attached foam to be bent in order to clear the outside tabs. It is recommended to begin the removal process at the front of the cover where the tabs are smaller. Now remove 5 bolts that secure the engine cover with Torx 30 socket/driver.
2. Disconnect crank case vent breather lines from both sides of the factory plenum and where they converge at the oil separator. Remove entire breather line assembly. Note these clamps are "Finger" squeeze type clamps that lock into place at the top and bottom of the clamp.
3. Remove 10mm nut that connects factory plenum to support bracket located next to the engine hoist support.
4. Loosen all 4 hose clamps around the rubber boots that connect factory intake plenum to intake manifold. Make sure to loosen clamps as much as possible.
5. To remove factory plenum slide the rubber boots outward (away from the plenum) onto the intake manifold as far as possible. Try to push the boots further onto the manifold towards the outside of the car to help ease factory plenum removal.
6. Loosen hose clamp on ribbed intake hose that attaches throttle body to Mass Air Flow Sensor.
7. Remove factory plenum by lifting plenum upward. The plenum will still be attached by two vacuum lines on underside of plenum. First disconnect the vacuum line that attaches to the factory vacuum actuated valve. Disconnect this line by carefully pulling so as to avoid disconnecting vacuum line from opposite end deep inside the engine compartment.
8. Disconnect throttle body from factory plenum by removing all 4 E10 bolts. Then lay throttle body to the left side of the motor.
9. Now disconnect the second vacuum line situated on the underside of the plenum. Slide squeeze clamp off nipple with a pair of pliers and slide hose off nipple.

10. Remove the clamp that attaches the crank case breather vent line to the engine block so as to provide additional room for the IPD silicone hose.
11. Remove the rubber mount that previously supported the factory plenum, located next to the engine hoist bracket and crank case breather vent line.
12. Remove the two E10 bolts that hold down factory engine hoist bracket. This will provide additional room for routing of crank case vent line. Keep engine hoist bracket stored where you will not forget its location.
13. Remove factory rubber ribbed hose that connects to Air Mass Sensor.
14. You are now ready to begin the IPD plenum installation. First, plug vacuum line that previously connected to factory flapper valve. Use small provided plastic line plug. This line is no longer necessary with the IPD plenum.
15. Reconnect vacuum line with squeeze clamp on IPD Cayman S plenum and slide into place in between manifold hose clamps.
16. Slide rubber boots onto IPD plenum. Be VERY sure that rubber boots are properly seated, aligned and positioned to as to avoid any leaks which could cause Check Engine Lights.
17. Attach hose clamps that connect rubber boot to IPD plenum FIRST, leaving the manifold clamps still loose so as to be able to maneuver plenum up and down for proper orientation.
18. Angle plenum upward so you can visually verify that the rubber boots are properly spaced by looking down inside the IPD plenum.
19. Snug rubber boots that connect to manifold tight enough so you can still adjust the angle of the plenum manually.
20. Reinstall the throttle body onto the IPD plenum. Be sure that throttle body is positioned so that the black plastic portion of the TB is situated to the left (driver's side).
21. Reposition the driver's side shifter cable so it is re-routed on the driver's side of the plenum.
22. Wrap supplied hose protector around crank case breather line where the crank case breather line may come in contact with the engine case and /or starter. This will prevent any unwanted abrasion of the vent line.
23. Place factory hose clamp (previously used to attach original factory ribbed hoses to Mass Air Flow Sensor) onto IPD silicone hose and push silicone hose onto MAF sensor housing.
24. Now for the most difficult part of the install. Place other hose clamp on throttle body end of silicone hose and gently bring throttle body and silicone hose together. This will require some good old fashion elbow grease. Twist and turn silicone hose and throttle body until you achieve the optimum fit that enables the hose to be as "open" (less kinked) as possible.
25. With a pair of pliers bend the tab (on the body) that would normally cause interference with

the new silicone hose. This will prevent any unwanted slicing and/or rubbing of the hose causing premature failure.

26. Double check to make sure that all connection between the silicone hose and rubber boots between plenum and manifold are properly spaced and positioned correctly, once verified tighten all connections.

27. Reinstall breather vent line assembly. Reconnect hose lines to the oil separator and the right hand side of the IPD plenum. The hose that extends to the driver's side receives a block off cap which is included with kit. The block off cap should snap into place with enough pressure.

28. Double check to confirm that all hose connections, boots, clamps and bolts are tight and secure

29. Reinstall aluminum engine cover and secure with five Torx 30 bolts.

30. Reinstall rubber backed carpet engine cover by inserting the rear tabs into the body slots first. Then flex the cover piece to fit side and then front tabs until completely secure. Be sure that the luggage D rings are in the up position so they don't get caught beneath cover.

It will take approximately 5 to 50 miles for the DME/ECU to recognize and fully adapt to the increased air flow and make the necessary adaptation corrections complete. The DME tends to adapt quicker when driven in a more spirited manor. Thank you once again for your purchase of the IPD intake plenum. If you experience any issues during the installation process or and CEL after the install please contact us.

Please note that some 987.1 Caymans and Boxsters may experience a faulty MAF sensor CEL code after installation. This is because the factory MAF sensor has a tendency to go bad / not allow the engine to function at optimum levels after 5 years. After man years



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