

2013+ FOCUS ST

BAFFLED CATCH CAN, PCV SIDE

PARTS LIST AND INSTALLATION GUIDE



PARTS LIST

- 1 PC** | APPLICATION-SPECIFIC MOUNTING BRACKET
- 1 PC** | BLACK, ANODIZED 6061 ALUMINUM CATCH CAN
- 2 PC** | DIRECT-FIT HOSES
- 2 PC** | PLASTIC BARBED FITTINGS
- 4 PC** | WORM-GEAR CLAMPS
- 1 PC** | AIR DIVERTER
- 1 PC** | INTERNAL BAFFLE & ROD
- 1 PC** | 3/8" NPT PLUG
- 1 PC** | LARGE O-RING
- MOUNTING HARDWARE

TOOLS NEEDED

- | | |
|-------------------------|----------------------|
| 2.5MM ALLEN KEY | 1/4" DRIVE RATCHET |
| T30 TORX BIT | TWO 14MM WRENCHES |
| 7MM DEEP SOCKET | 11/16" WRENCH |
| 10MM DEEP SOCKET | FLATHEAD SCREWDRIVER |
| 13MM DEEP SOCKET | TORQUE WRENCH |
| 1/4" DRIVE 6" EXTENSION | ELECTRICAL TAPE |

INSTALLATION TIME **2 HOURS**

INSTALL DIFFICULTY

DISCLAIMER

- Raise vehicle only on jack stands or on a vehicle lift.
- Allow vehicle to cool completely prior to attempting installation.
- Do not run the engine or drive the vehicle while overheating; serious damage can occur.
- Please dispose of any liquids properly.
- Mishimoto is not responsible for any vehicle damage or personal injury due to installation errors, misuse, or removal of Mishimoto products.
- Mishimoto suggests that a trained professional install all Mishimoto products.

Note: It is recommended that you replace the intake manifold gaskets when this component is removed. Failure to replace intake gaskets after removal can result in intake air leaks, decreased engine performance, and drivability issues. Intake manifold gaskets are not included with the catch can kit.

Note: We recommend checking and emptying the contents of your catch can every 1000 miles until a baseline for oil accumulation is established. This will be different for every car and may change due to ambient temperature and other driving conditions. Properly dispose of fluid that has accumulated in the catch can.

INSTALLATION INSTRUCTIONS

- 01.** Set the vehicle on an automotive lift, or raise it with a jack and place it securely on jack stands. Refer to your owner's manual for safe lifting points if you are unsure.
- 02.** Prep the catch can. Ensure that the can is snugly screwed into the catch can lid. Thread the two plastic fittings into the catch can and tighten them completely. These threads are tapered, so the fittings may not be flush with the can when fully tightened.
- 03.** Using the provided hardware, connect the bracket to the catch can. Orient the bracket so that the flange with the large bolt hole is facing downward. (2x 2.5mm screws and washers)



- 04.** Disconnect the ground strap near the driver-side firewall. Wrap the end of the ground strap with electrical tape to insulate it from the body of the vehicle. (1x 13mm bolt)



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05. Remove the plastic engine cover by lifting upward. This cover is held on by four grommets.

06. Locate the electrical harness that routes over the intake manifold between cylinders #1 and #2. Disconnect the two sensors that attach to this harness. Then lead the harness so that it is free of the intake manifold.



07. Free the vacuum line from the three clips that secure it to the manifold.

08. Disconnect the vacuum line from the intake manifold, just above the throttle body. Release the green clip by gently prying the locking tab on the clip while sliding the clip away from the connector. Then pull the vacuum line off the intake manifold and move it out of the way.



09. Loosen the worm-gear clamp that secures the charge pipe to the throttle body. (7mm socket or flathead screwdriver)

10. Remove the sound generator tube from the intake manifold. There is no fastener on this tube, so just pull it off.

11. Remove the five bolts that secure the intake manifold to the cylinder head. (5x 10mm bolts)



12. Lean the intake manifold back toward the radiator, and reach behind it to locate the PCV hose connection on the back side of the throttle body. Squeeze the connector gently to release it, then slide it off the port.



CAPTION: The PCV port on the back of the intake manifold is not visible while the intake is installed on the vehicle.

13. Slide the charge pipe off the throttle body.

14. Two gray electrical connectors are secured to the intake manifold by tree-clips. Remove these connectors from the intake manifold. The harness connectors do not need to be disconnected.



15. Lift up the manifold a bit more until you see the throttle body. Locate the red tab on the throttle body electrical connector, and slide it back to unlock the connector. Now disconnect the electrical harness from the throttle body.



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16. Remove the intake manifold from the engine bay.
17. Locate the green plastic elbow on the side of the engine block. Slide the orange clip off the green elbow for better access. Remove the black PCV hose from the green elbow by gently prying it off with a screwdriver or panel tool. This elbow is quite fragile and cannot be replaced by itself, so be patient when removing the hose.

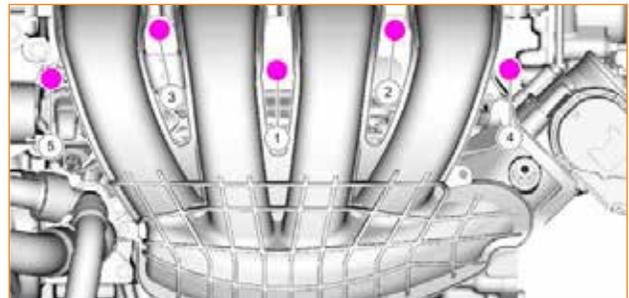


18. Remove the black plastic fitting from the PCV hose by pulling it out.
19. Locate the Mishimoto hose with the 180° bend, and install the fitting you just removed onto the hose end with the 180° bend. Secure the fitting with a hose clamp. (1x hose clamp)



20. Lead the other end of this hose (the end without a fitting) toward the driver side. It should pass over the starter motor and behind the engine harness, exiting in front of the transmission.
21. Locate the Mishimoto hose with two bent ends. Slip a worm-gear clamp over the hose, and install this hose onto the green elbow. Orient the hose so that the elbow is pointed toward the passenger side parallel with the engine block, and tighten the clamp. Now install the orange clip onto the green elbow. (1x worm-gear clamp)
22. Lead the other end of this hose so that it follows the first hose you led: over the starter, behind the engine harness, and exiting in front of the transmission.
23. If you are replacing the intake manifold gaskets, install them now. Simply pull out the old ones and press in the new gaskets.

24. Install the intake manifold. Connect the Mishimoto hose with the 180° bend and black plastic fitting to the port on the back side of the intake manifold, just above the throttle body. It is a push-to-lock fitting and will click when fully installed.
25. Plug in the harness for the throttle body. Engage the red locking tab and ensure that this connector is secure.
26. Using the integrated tree-clips, secure the two gray electrical connectors to the intake manifold.
27. Install the charge pipe onto the throttle body as you lower the intake manifold into place. Wiggling the pipe as you push down the manifold will help to seat it fully.
28. Install the five bolts that connect the cylinder head to the intake manifold. Thread in all the bolts but do not completely tighten them. Then, working from the center toward the outside, torque the bolts to 15 ft-lb. If not torqued in sequence, the intake manifold gaskets may not seal properly. (5x 10mm bolts)



29. Ensure that the charge pipe is fully seated to the throttle body, and then tighten the clamp.
30. Install the sound generator tube to the intake manifold.
31. Move the vacuum line back to its original location, and clip it into the intake manifold. Set the green clip back into the locked position, and press the vacuum line onto the port. It will click when fully installed.
32. Lead the electrical harness between cylinders #1 and #2, over the intake manifold runners, and under the vacuum line. Then attach the harness to the connectors.
33. Reinstall the engine cover by pressing the grommets down onto the posts.
34. Unwrap the electrical tape from the main ground harness, and install the harness using the original bolt. (1x 13mm bolt)
35. Remove the six pop-clips that secure the front splash panel to the bumper cover. (6x pop-clips)
36. Remove the three Torx screws that secure the air diverter strip to the rear of the splash panel. Remove the air diverter strip from the vehicle. (3x T30 Torx screws)

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- 37. Remove the four Torx screws that secure the front splash panel to the fender liner. There are two on each side. Remove the front splash panel. (4x T30 Torx screws)
- 38. Remove the eight Torx screws that secure the rear splash panel to the vehicle. Remove the rear splash panel. (8x T30 Torx screws)
- 39. Locate the free ends of the Mishimoto hoses that you installed earlier, and slip a worm-gear clamp over each. One hose has a bend at the end, and the other is straight. Connect the straight hose to the fitting marked OUT on the catch can, and secure it with the worm-gear clamp. Connect the hose with a bent end to the fitting marked IN on the catch can, and secure it with the worm-gear clamp. (2x worm-gear clamps)
- 40. Move the catch can into position in front of the transmission. There is an open bolt hole where the engine meets the transmission; the catch can bracket mounts to this hole. Using the provided hardware, mount the catch can to the engine. The washer should sit between the engine and the catch can for a flush fit. (1x 14mm bolt, 1x 14mm nut, 1x washer)



- 41. If you are installing a Mishimoto catch can drain kit, now would be a convenient time to do so.
- 42. Reinstall the rear splash panel. (8x T30 Torx screws)
- 43. Reinstall the front splash panel. (6x pop-clips, 4x T30 Torx screws)
- 44. Reinstall the air diverter strip. (3x T30 Torx screws)

Congrats! You just finished installing the 2013+ Focus ST Baffled Catch Can, PCV Side.

