

# 2016–2018 FORD FOCUS RS

## BAFFLED OIL CATCH CAN, PCV SIDE

### PARTS LIST AND INSTALLATION GUIDE



#### PARTS INCLUDED

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

#### TOOLS NEEDED

- |                        |                      |
|------------------------|----------------------|
| 11/16" WRENCH          | 8MM ALLEN KEY        |
| 15MM RATCHETING WRENCH | 1/4" EXTENSION       |
| 17MM WRENCH            | 1/4" RATCHET         |
| T30 TORX SOCKET        | TORQUE WRENCH        |
| 7MM SOCKET             | POP-CLIP PLIERS      |
| 10MM SOCKET            | PANEL TOOL           |
| 13MM SOCKET            | FLATHEAD SCREWDRIVER |
| 2.5MM ALLEN SOCKET     | MASKING TAPE         |

#### INSTALL TIME **4 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.

#### CAUTION

Never work on the cooling system when it is hot. The coolant temperature in the radiator can be considerably higher than boiling, and the system may be under pressure. Opening a cooling system that is hot or under pressure can result in serious injury. Always wait until the system has cooled completely before servicing it in any way.

#### NOTE

Mishimoto recommends checking the contents of the baffled catch can every 1,000 miles until a baseline for oil accumulation is established. Oil blow-by accumulation will vary with ambient temperatures and driving conditions. It is important that the contents of the can do not rise above the internal baffle.

#### INSTALL PROCEDURE

- 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.** Make sure that the ignition is off.
- 03.** Install the plastic fittings to the catch can. These fittings are made of plastic and have tapered threads. Snug them down, but do not overtighten them. They might not be flush with the can when fully installed. (2x plastic fittings)
- 04.** Install the bracket to the catch can, and secure it with the provided Allen bolts and washers. (2x 2.5mm Allen bolts, 2x plastic washers)



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# 01

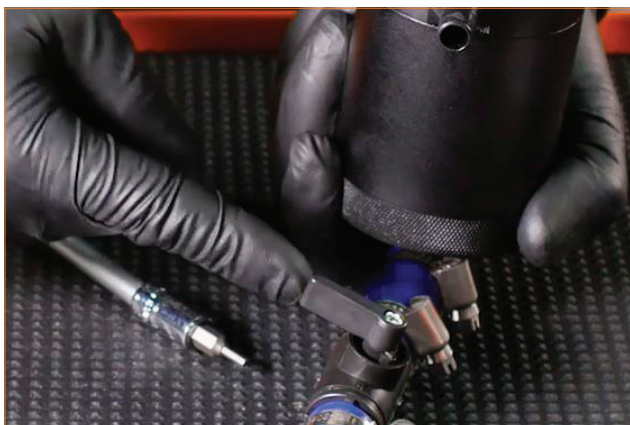
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- 05. Remove the drain plug from the bottom of the catch can. (1x 8mm Allen plug)
- 06. Install the 90° fitting to the bottom of the catch can. Install the short silicone hose to the fitting, and secure it with a worm-gear clamp. Slip another worm-gear clamp over the short hose, and install the drain valve. Slip the longer hose over the other end of the drain valve, and secure it with a third worm-gear clamp. Ensure that all worm-gear clamps are tight and that the drain valve is in the closed position. (3x worm-gear clamps)



- 07. Remove the eight Torx screws and four pop-clips that secure the splash panel to the underside of the vehicle. (8x T30 Torx screws, 4x pop-clips)
- 08. Take note of the two points where the splash panel sits on the subframe, and then remove the splash panel by sliding it forward.



- 09. Disconnect the vacuum line from the three clips that secure it to the intake manifold.
- 10. Disconnect the electrical harness from the MAP sensor, and lead the harness back under the vacuum line to get it out of the way. To release the connector, depress the black tab and slide the connector off the sensor.
- 11. Remove the locking clip from the vacuum line where it connects to the intake manifold by pulling the wings out and sliding the clip off the connector.



- 12. Disconnect the vacuum line from the intake manifold by depressing the white tab and sliding the connector off the manifold.
- 13. Loosen the worm-gear clamp that secures the induction pipe to the throttle body. Then separate the induction hose from the throttle body. (1x 7mm worm-gear clamp)
- 14. Remove the five bolts that secure the intake manifold to the engine. (5x 10mm bolts)
- 15. Gently pull the intake manifold back toward the radiator to expose the wiring harness underneath.

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16. Separate the two electrical connectors from their mounts on the back of the intake manifold. Each connector has a groove that slips over the mount, which can be removed by sliding the connector away from the center of the vehicle.



17. Separate the PCV hose from the intake manifold by squeezing the knurled tabs and pulling the hose off the port.



18. Separate the throttle body wiring harness clip from the throttle control motor by pushing it off.
19. Disconnect the electrical harness from the throttle control motor. To release the connector, slide the red locking tab away from the connector. Then press the black tab and pull the connector off the throttle control motor.
20. Remove the intake manifold from the vehicle. Apply masking tape over the intake ports to prevent debris from entering the engine while you work.

21. Separate the PCV hose from the blue PCV elbow on the side of the engine block. Use a flathead screwdriver or panel tool to get the hose started, and then work it off the rest of the way by hand. Be very gentle with the blue elbow and PCV assembly when removing the hose to prevent damaging it. Then separate the black fitting from the hose.



22. Locate the vapor hose with a 180° bend in your kit. Slip one of the provided worm-gear clamps over this end, and install it to the blue PCV elbow on the engine block. Then lead the other end of the hose behind the wiring harness and coolant hose; it should lie above the starter and hang over in front of the transmission when properly installed. **Tip:** Orient the clamp so that the adjustment nut is on the bottom for a flush installation. (1x worm-gear clamp)



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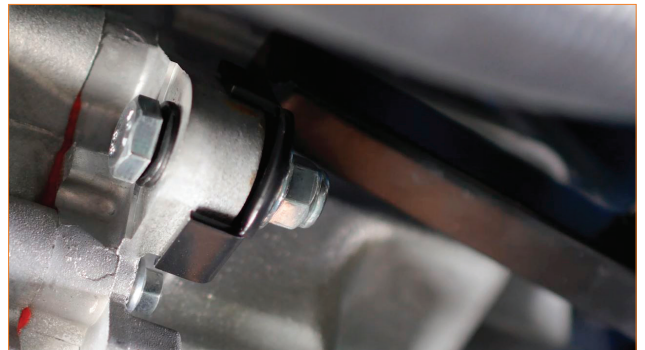
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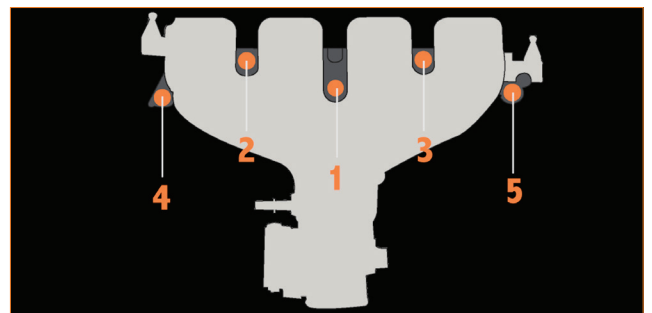
23. Locate the other vapor hose in your kit. Slip one of the provided worm-gear clamps over the end of this hose, and install the black fitting that you removed earlier. Orient the hose so that the bend will turn toward the transmission when installed on the intake manifold. (1x worm-gear clamp)



24. Label the other end of the hose by wrapping it with masking tape. This will help you identify the hoses later when you connect them.
25. From underneath the vehicle, locate the hoses that you just led. The hoses should run in front of the lower harness but behind the intercooler coupler.
26. Slip a worm-gear clamp over each hose. Attach the hose with the masking tape to the port marked **OUT** on the catch can. Attach the hose without tape to the port marked **IN** on the catch can. Then secure the hoses with the worm-gear clamps. (2x worm-gear clamps)
27. Locate the ear on the transmission that has an unused hole. Slip the provided washer over the large bolt, and slip the bolt through the unused hose so that the threaded end points toward the transmission. Install the catch can bracket over this bolt so that the tabs on the bracket engage the ear on the transmission. Secure the catch can bracket with the provided bolt and Nyloc nut. (1x 17mm bolt, 1x washer, 1x 15mm Nyloc nut)



28. Remove the masking tape from the intake ports, and lower the intake manifold into place.
29. Connect the electrical harness to the throttle control motor, and lock the connector with the red tab. Then secure the wiring harness to the throttle motor with the integrated clip.
30. Connect the black fitting to the port on the back of the intake manifold. Simply press it on until it clicks, and rotate the hose as needed to clear the throttle body.
31. Attach the two electrical connectors to the intake manifold. Align the groove on the connector with the mount, and slide it on until it clicks.
32. Install the intake manifold. Align the two pins on the back of the intake manifold with the holes in the cylinder head. Thread all five bolts in by hand until the manifold is snug against the engine. Then tighten each bolt to 15 ft-lb using the sequence shown below. Failure to tighten the bolts in the proper sequence can lead to air leaks and performance issues. (5x 10mm bolts)



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- 33. Loosely install the locking clip to the fitting on the vacuum line. Connect the vacuum line to the three clips that secure it to the intake manifold. Install the fitting over the port on the intake manifold, and engage the locking clip to secure it.
- 34. Lead the harness for the MAP sensor underneath the vacuum line, and connect the harness to the sensor.
- 35. Slip the induction pipe over the throttle body, and secure the pipe with the worm-gear clamp. (1x worm-gear clamp)
- 36. Adjust the drain hose so that it will exit at the corner of the splash panel, and install the splash panel over the two tabs on the subframe. Then secure the splash panel with the

original hardware. You may need to adjust the position of the plastic mount on the front stabilizer bar to make it line up with the splash panel. (4x pop-clips, 8x T30 Torx screws)

- 37. Install the engine cover by pushing it down over the mounting studs.

**Congrats! You just finished installing the 2016–2018 Ford Focus Baffled Oil Catch Can, PCV Side.**

