

2016+ MAZDA MIATA BAFFLED CATCH CAN

PARTS LIST AND INSTALLATION GUIDE



PARTS INCLUDED

- 2PC** | APPLICATION-SPECIFIC MOUNTING BRACKETS
- 1PC** | BLACK, ANODIZED 6061 ALUMINUM CATCH CAN
- 2PC** | DIRECT-FIT HOSES
- 1PC** | DRAIN HOSE
- 1PC** | DRAIN VALVE
- 3PC** | PLASTIC BARBED FITTINGS
- 6PC** | WORM-GEAR CLAMPS
- 1PC** | AIR DIVERTER
- 1PC** | INTERNAL BAFFLE & ROD
- 1PC** | 3/8" NPT PLUG
- 1PC** | LARGE O-RING
- MOUNTING HARDWARE

TOOLS NEEDED

- 2.5MM ALLEN KEY
- 8MM SOCKET
- 10MM SOCKET
- 10MM SWIVEL SOCKET
- 1/4" DRIVE 6" EXTENSION
- 1/4" DRIVE 12" EXTENSION
- 1/4" DRIVE RATCHET
- T25 TORX BIT
- 12MM SOCKET
- 14MM DEEP SOCKET
- 3/8" DRIVE RATCHET
- 11/16" WRENCH
- FLATHEAD SCREWDRIVER
- DIAGONAL CUTTING PLIERS
- HOSE CLAMP PLIERS
- NEEDLENOSE PLIERS

INSTALL TIME 1.5 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

The following instruction guide is intended for installations on a naturally aspirated Miata engine. Installation of the Mishimoto catch can on a forced-induction system will not affect the performance of the catch can. However, if you have modified your Miata to include a forced-induction system, consider replacing the PCV valve with a component rated for boost to avoid pressurizing the crankcase.

INSTALL PROCEDURE

CATCH CAN PREPARATION

1. Remove the catch can from its packaging, and ensure that the can is screwed firmly onto the lid.
2. Using an Allen wrench or socket, remove the plug on the bottom of the catch can. (1x 8mm Allen-head plug)
3. Using an 11/16" wrench, install the supplied threaded fittings to the catch can. Please note that these fittings use a tapered thread; they do not need to bottom out in the can to seal properly. (3x Plastic Fittings)
4. Using the supplied hardware, install the mounting bracket onto the catch can. Position the catch can so that the two ports are facing toward you; the bracket arm will extend to your right when properly oriented. Be sure that the bump in the bracket faces downward, toward the drain port. (2x 2.5mm Allen bolts)



CONTINUED ON FOLLOWING PAGE

01

2016+ MAZDA MIATA BAFFLED CATCH CAN INSTALLATION GUIDE



5. Locate the catch can drain hose. The drain hose is the shortest one in your kit. The end with the 90-degree bend will route through the wheel well. Attach the end with the shallow bend to the lower port on the catch can.

Proceed to the section for PCV Hose Installation, with or without intake manifold removal.

PCV HOSE INSTALLATION (Without intake manifold removal)

1. Raise and support the hood.
2. Remove the engine cover from the intake manifold by lifting directly upward. Rubber grommets hold the cover in place.



3. Reach around the back of the intake manifold (the firewall side) and locate the PCV hose where it attaches to the purple nipple on the PCV vent assembly (on the side of the engine block). The PCV hose is a short, U-shaped hose with no clamps.

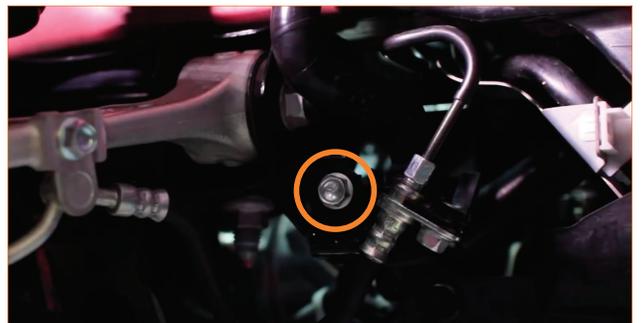


4. Detach the PCV hose from the purple nipple on the engine and from the PCV port on the back of the intake manifold. Remove the hose from the engine bay and set aside.
5. Locate the two silicone PCV hoses in your catch can kit; these are the longer hoses. Locate the ends of the hoses without Mishimoto logos. The hose with the 90-degree bend attaches to the intake manifold port, while the hose with the straight end attaches to the purple nipple on the side of the engine block. These connections do not require clamps, but we have included them for your convenience. [2x clamps]

6. Connect the straight hose to the purple nipple on the side of the engine block.
7. Connect the 90-degree hose to the intake manifold port.
8. Reinstall the engine cover.

CATCH CAN INSTALLATION

1. Remove the 10mm nut that connects to the ECU bracket, just in front of the brake master cylinder. (1x 10mm nut)
2. Remove the 14mm nut on the strut tower, just in front of the ECU bracket. (1x 14mm nut)
3. From underneath the vehicle, remove the pop-clip on the inside lower edge of the driver-side fender liner. You should be able to reach this pop-clip without raising the car, by turning the steering wheel all the way to the right. If you cannot reach it, set the vehicle on an automotive lift, or raise it with a jack and place it securely on jack stands. Remove the wheel. Refer to your owner's manual for safe lifting points if you are unsure. (1x pop-clip)
4. Lower the catch can into place [just in front of the brake master cylinder] while feeding the drain hose through the wheel well near the pop-clip you just removed. The bracket should slide over the ECU bracket stud and strut stud where you removed the two nuts in steps 1 and 2. The 90-degree bend on the bottom of the drain hose should loop behind the steel brake line, away from the wheel well.
5. Reinstall the nut that attaches to the strut tower. (1x 14mm nut)
6. Reinstall the nut that connects to the ECU bracket. (1x 10mm nut)
7. Attach the hose with the 90-degree bend to the "IN" port on the catch can. This is the PCV hose that you connected to the purple nipple on the engine.
8. Attach the hose with the straight, shallow section to the "OUT" port on the catch can. This is the PCV hose that you connected to the intake manifold port.
9. From underneath the vehicle, remove the 12mm bolt that secures the brake hose to the front subframe (not the bolt on the aluminum lower control arm). (1x 12mm bolt)



CONTINUED ON FOLLOWING PAGE

02

2016+ MAZDA MIATA BAFFLED CATCH CAN INSTALLATION GUIDE



10. Install the supplied bracket so that the two holes face away from the wheel well (on the engine side of the brake line).
11. Install the provided tree-clip zip ties to the drain valve so that the clips are facing the same direction. (2x tree-clip zip ties)
12. Make sure the drain valve is in the closed position, and then insert the drain valve into the drainage hose so that the tree-clips line up with the holes in the bracket.
13. Clip the drain valve to the bracket.
14. Reinstall the pop-clip to the fender liner.
15. Double check all your connections to make sure that the lines are properly routed and fully engaged on each port.

INTAKE MANIFOLD REMOVAL/INSTALLATION

Note: It is not necessary to remove the intake manifold to install the catch can. The PCV hose can be removed by reaching around the intake manifold from the top or reaching up from below. The stock and Mishimoto hoses are friction fitted and do not need clamps to remain attached. If you are having difficulty locating the PCV hose, PCV valve, or PCV port (on the intake), it may be helpful to view our installation video. Removing the intake manifold is recommended only if you are unable to access or remove the PCV hose in the normal way.

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

Caution: Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.

Caution: Fuel line spills and leaks from the pressurized fuel system are dangerous. Fuel can ignite and cause serious damage and injury or death. Fuel can also irritate skin and eyes. To prevent this, always complete the Fuel Line Safety Procedure in the next section.

Caution: A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before performing work on the fuel system, discharge static electricity by touching the vehicle body.

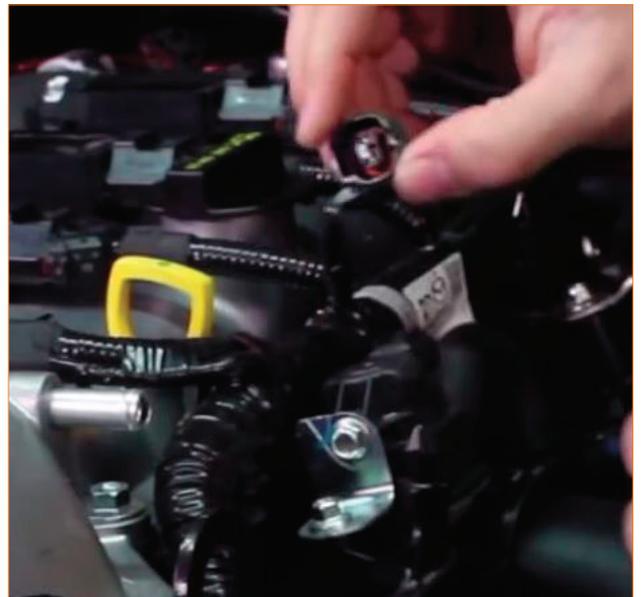
FUEL LINE SAFETY PROCEDURE

1. Remove the fuel-filler cap to release the pressure inside the fuel tank.
2. Remove the fuel pump relay from the main fuse block.
3. Start the engine, and allow it to run until it stalls.
4. After the engine stalls, crank the engine several times.

PCV HOSE INSTALLATION

(With intake manifold removal)

1. 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.
2. Remove the plastic engine cover by lifting directly upward. Rubber grommets hold the cover in place.
3. Loosen the two clamps that secure the intake boot.
4. Remove the breather hose where it connects to the top of the valve cover.
5. Disconnect the noise generator at the intake boot by squeezing the clamp and pulling out the noise generator tube.
6. Remove the intake boot from the vehicle and set it aside.
7. Disconnect the wiring harness from the throttle body by pulling on the connector while depressing the lock tab.
8. Remove the four 8mm bolts that hold the throttle body to the intake manifold. Remove the throttle body and set it aside. (4x 8mm bolts)
9. Disconnect the electrical harness from the top of the solenoid, which is located on top of the intake manifold.



10. Remove the 8mm bolt that holds the solenoid to the top of the intake manifold. (1x 8mm bolt)
11. Remove the two screws that hold the solenoid to the top of the intake manifold. (2x T25 Torx screws)

CONTINUED ON FOLLOWING PAGE

03

2016+ MAZDA MIATA BAFFLED CATCH CAN INSTALLATION GUIDE



12. Remove the solenoid from the intake manifold by pulling it up and out of the rubber grommet. Remove the entire assembly and set it aside.
13. On top of the manifold, remove the 8mm bolt that secures the fuel line to the intake manifold. (1x 8mm bolt)
14. Follow the fuel line safety procedure described above. Place a rag under the fuel line connection, and release the yellow locking tab by gently lifting it upward, away from the connector. Separate the connector and be ready to capture any spilled fuel.



15. Clean up all the spilled fuel, and dispose of the rag properly.
16. Tuck the fuel lines out of the way, and secure them with zip ties. Bend the lines upward to keep additional fuel from spilling.
17. Remove the tree-clips that hold the wire harness to the intake manifold. (2x tree clips)
18. Remove the vacuum line for the brake booster at the rear of the manifold by squeezing the spring clamp and pulling off the hose.
19. From underneath the vehicle, cut the zip tie connecting the wire harness to the intake manifold. Be careful not to cut any wires!
20. Release the electrical connector from the sensor on the back of the intake manifold. This sensor is located on the back of the lower intake plenum, along the firewall.
21. Working around the intake, release all the clips that secure the electrical harness to the manifold.
22. Remove the five bolts that secure the top of the intake manifold to the engine. Use a magnet to extract the bolts and reduce the chance of dropping them. (5x 10mm bolts)
23. Remove the bolt connecting the bottom of the intake manifold to the engine. (1x 10mm bolt)
24. Remove the intake manifold from your Miata.

25. Locate the two silicone PCV hoses in your catch can kit; these are the longer hoses. Locate the ends of the hoses without Mishimoto logos. The hose with the 90-degree bend attaches to the intake manifold port, while the hose with the straight end attaches to the purple nipple on the engine (PCV valve). These connections do not require clamps, but we have included them for your convenience. (2x clamps)
26. Connect the straight hose to the purple nipple on the side of the engine block. Route the hose so that the free end sits just in front of the brake master cylinder.



27. Connect the 90-degree hose to the intake manifold port. Route the hose so that the free end will sit just in front of the brake master cylinder when the manifold is installed.
28. Replace the rubber gasket for the intake manifold. This is recommended any time you remove an intake component, unless a new gasket has been installed very recently. Failure to replace the manifold gasket can result in intake air leaks and drivability issues.
29. Install the intake manifold by aligning the holes and threading in the bolts, and then tighten the bolts connecting the intake manifold to the motor. When tightening the intake manifold, start from the middle and work your way toward the outside. (6x 10mm bolts)
30. Reconnect the electrical harness to the intake manifold, and ensure that all the connectors reach their components.
31. Use the supplied zip tie to secure the wiring harness, replacing the one you cut earlier. (1x zip tie)
32. Reconnect all the sensors and emission components. You should hear an audible click when the locking tab engages on the connector.
33. Replace the throttle body gasket, and install the throttle body onto the intake manifold. (4x 8mm bolts)
34. Reconnect the throttle body electrical connector, and make sure that the locking tab clicks into place.

CONTINUED ON FOLLOWING PAGE

04

2016+ MAZDA MIATA BAFFLED CATCH CAN INSTALLATION GUIDE



35. Reattach the vacuum line for the brake booster hose at the rear of the intake manifold, and secure it with the original spring clamp. (1x spring clamp)
36. Cut the zip ties you used to hold the fuel lines out of the way, and reconnect the lines. Ensure that the locking tab is in place, and give a quick tug on the lines to make sure that they are locked together.
37. Reinstall the fuel pump relay.
38. Secure the fuel line bracket on the intake manifold, using the original bolt. (1x 8mm bolt)
39. Insert the solenoid into the orange rubber grommet, and reconnect the hose.
40. Install the bolt holding the solenoid onto the intake manifold. (1x 8mm bolt)
41. Tighten the screws holding the solenoid to the top of the intake manifold. (2x T25 Torx screws)
42. Reinstall the engine cover.

43. Reinstall the intake boot.
44. Reinstall the noise generator hose onto the intake boot.
45. Reconnect the breather hose from the intake boot to the valve cover.
46. Tighten both clamps that hold the intake boot in place.
47. Proceed to the section for Catch Can Installation on page 2.
48. After the catch can is installed, prime the fuel system. Install the fuel pump relay. Turn the ignition on, but do not start the car. Wait for 5–10 seconds, and turn off the ignition. Repeat this procedure several times to allow the fuel pump to pressurize the system before starting the car. Check the fuel lines for leaks.

Congrats! You just finished installing the 2016+ Mazda Miata Baffled Catch Can.



05