

# MISHIMOTO 2015 MUSTANG ECOBOOST DIRECT-FIT OIL COOLER KIT

## PARTS LIST AND INSTALLATION GUIDE

### PARTS LIST

- 3PC** | APPLICATION-SPECIFIC MOUNTING BRACKETS AND SPACER
- 1PC** | 9-ROW OIL COOLER (SLEEK SILVER OR STEALTH BLACK)
- 1PC** | 4FT, 3.5IN STAINLESS STEEL BRAIDED HOSE WITH 45-DEGREE AND 120-DEGREE -10AN FITTINGS
- 1PC** | 4FT, 10.5IN STAINLESS STEEL BRAIDED HOSE WITH 90-DEGREE AND 120-DEGREE -10AN FITTINGS
- 1PC** | THERMOSTATIC SANDWICH PLATE (NON-THERMOSTATIC AVAILABLE)
- 1PC** | ¾ X 16 STAINLESS STEEL SANDWICH PLATE ADAPTER
- 2PC** | M20 X -10AN STRAIGHT FITTINGS
- 1PC** | MOUNTING HARDWARE SET

### TOOLS NEEDED

- |                                |                              |
|--------------------------------|------------------------------|
| 5.5MM SOCKET                   | 3/8" DRIVE RATCHET           |
| 7MM SOCKET                     | ½" DRIVE FIVE INCH EXTENSION |
| 8MM SOCKET                     | 27MM (1 1/2" DRIVE)          |
| 10MM SOCKET                    | ½" DRIVE RATCHET             |
| ¼" DRIVE SIX INCH EXTENSION    | FLATHEAD SCREWDRIVER         |
| ¼" DRIVE RATCHET               | 3/16TH ALLEN KEY             |
| 13MM SOCKET (3/8" DRIVE)       | 10AN WRENCH                  |
| 3/8 DRIVE THREE INCH EXTENSION | OIL FILTER WRENCH            |
|                                | TORQUE WRENCH                |

### DISCLAIMER

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

### INSTALLATION INSTRUCTIONS

#### 01 | REMOVING THE FRONT BUMPER AND AIR DAM

1. Raise the car by using a lift or jack stands.
2. Remove the undertray. (14x 7mm bolts, 6x pop clips, 2x 5mm bolts)
3. Remove the plastic air diversion cover. (8x pop clips)



4. Remove the bumper hardware, but do not fully remove the front bumper yet. (4x pop clips – 2 located on each side, 6x 8mm screws)
5. Unclip the bumper from the vehicle. Once the bumper is loose, unclip the six wire harnesses to the turn signals, headlights, and fog lights. The front bumper cover may now be fully removed, and you may need an assistant.



6. Remove the air dam. (2x pop clips, 4x 8mm bolts)
7. Separate the clip to free the air shutter arm; you can use your fingers to pinch the clip.
8. Disconnect the connector for the air shutter motor.
9. Remove the two tree clips for the ambient temperature sensor. You can set the sensor off to the side.

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# 01

# MISHIMOTO 2015 MUSTANG ECOBOOST DIRECT-FIT OIL COOLER KIT

## INSTALLATION GUIDE

### 02 | INSTALLING THE MISHIMOTO OIL COOLER KIT

1. Remove the oil filter.
2. Lubricate the O-ring on the sandwich plate.
3. Attach the sandwich plate using the supplied 3/4"-16 stainless steel adapter. But do not fully tighten yet, the sandwich plate should still be free to swing back and forth for adjustment.
4. Attach the straight fittings to the sandwich plate, torque to about 15-20 ft. lbs. (2x -10AN fittings)
5. Attach the preassembled, braided -10AN straight fittings. The 120-degree fittings will connect to the sandwich plate.
6. Once the fittings are attached to the sandwich plate, please check for proper oil filter clearance, you can then tighten the center bolt on the sandwich plate to 35 ft. lbs. (1x 27mm bolt)
7. Hold onto the oil line fittings and tighten, ensure there is still proper oil filter clearance after the fittings are tight.



8. Lubricate the O-ring and, reinstall the oil filter.
9. Route the oil lines next to the steering rack, but away from the moving steering shaft. The oil lines will be routed around the intercooler next to the cold-side charge coupler.



10. Route shorter line first with 45-degree fitting first, this will be the first to attach to the oil cooler.
11. Detach front support bars. (4x 13mm bolts, 1x 13mm nut)
12. Attach the three brackets to the oil cooler starting from the top of the cooler. The bottom bracket will attach near the oil cooler fittings (6x 10mm bolts and nuts)

13. Attach the oil cooler and brackets to the car. Keep in mind since the oil cooler is mounted upside down, we are not displaying the logo on the oil cooler. (4x 13mm bolts, 1x 13mm nut)
14. First, attach the 45-degree fitting to the oil cooler. (10 AN wrench)
15. Then, attach the longer hose with the 90-degree fitting to the opposite side of the oil cooler and tighten both fittings (90-degree fitting).
16. While tightening the fittings, be careful of damaging the AC condenser core.
17. Attach the oil-line stay. It's best to attach the oil line-stay between the front swaybar and radiator fan shroud for best results. (3/16" Allen key)
18. Reattach the air dam to the front of the vehicle, and make sure to route the air shutter arm around the front crash beam. The air shutter arm will reattach to the clip on the air dam. Reattach the ambient temperature sensor. (2x pop clips, 4x 8mm bolts)
19. NOTE: For optimum oil cooler performance, Mishimoto recommends leaving the air shutter motor disconnected. The air shutter closes at highway speed and re-opens when coolant temperature reaches a certain threshold. Leaving the air shutters open will give unrestricted air to the oil cooler and radiator. This will not cause any drivability issues or check engine lights.
20. Place the front bumper in front of the vehicle. Reconnect the six wire harnesses to the turn signals, headlights, and fog lights.
21. Reinstall the front bumper. Make sure the bumper clips into the slots by the headlight housings. Check for any pinched wires or plastic trim before fastening the hardware. (4x pop clips - 2 located on each side, 6x 8mm screws)
22. Reattach the plastic air diversion cover. (8x pop clips)
23. Reattach the undertray. (14x 7mm bolts, 6x pop clips, 2x 5mm bolts)
24. Double check the front bumper hardware for tightness, also re-check the oil line fittings on the sandwich plate before lowering the vehicle.
25. Check the oil, the kit will require an additional 3/4 quart to the system.
26. Start the vehicle and let run for a few minutes to check for any oil leaks, then re-check the oil.
27. You have now successfully installed the Mishimoto Mustang EcoBoost Oil Cooler Kit. Enjoy!

# 02