# PERFORMANCE INTERCOOLER PARTS LIST & INSTALLATION GUIDE



#### **PARTS INCLUDED**

**1PC** Mishimoto Intercooler

**1PC** Left & Right Diversion Plates

**2PC** Brackets

**2PC** Clip Nuts

9PC 10mm Bolts

#### **TOOLS NEEDED**

7mm Socket 8mm Socket 10mm Socket 10mm Wrench 3/8" Drive and Extensions T25 Torx Screwdriver Flathead Screwdriver T30 Torx Screwdriver

# INSTALL TIME 2 Hours INSTALL DIFFICULTY OO OO OO

- 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.

#### **INSTALL PROCEDURE**

 Release the headlights from the front of the vehicle. Remove the screws holding them in place and disconnect the electrical harness kept underneath. To release the harness, depress the tab at the center. (4x T30 torx screws)



2. Note the tabs at the bottom edge of each headlight as well as the vehicle's frame for when you must reinstall them later.



3. Remove the pop-clips that secure the undertray to the stabilizer bar. (2x pop-clips)



 Remove the undertray by unscrewing the rest of the hardware securing it. (8x T30 torx screws, 2x pop-clips)

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- 5. Release the lower front edge of the front bumper. There is a total of sever screws holding this area together. (7x T30 torx screws)
- 6. Disconnect the fender liners, and then separate the bumper from the fenders on both the driver side and the passenger side.

  (4x pop-clips, 4x T30 torx screws)



7. Remove the top edge of the front bumper. (5x T30 torx screws, 2x pop-clips)



- 8. Disconnect the hood release cable from the hood latch assembly by lifting the cable up. Then, remove the cable stop from the lever.
- 9. Lift the tabs on the radiator support to release the bumper.



- 10. Remove the front bumper from the vehicle.
- 11. Separate the break ducting from both sides of the vehicle. (6x T25 torx screws)



12. Loosen the clamp securing the hot-side pipe to the intercooler end tank. Then, separate the connection. (1x worm gear clamp)



13. Loosen the clamp securing the cold-side hose to the intercooler end tank. Then, separate the connection. (1x worm gear clamp)

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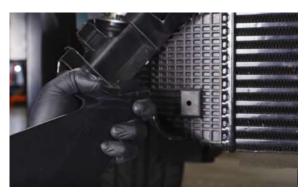
- 14. Remove the engine cover.
- 15. Disconnect the MAP sensor above the cold-side connection. To disconnect this harness, depress the tab at the center.



- 16. Remove the air diverter along the upper edge of the vehicle's frame.
- 17. Separate the side ducts connected to the bumper bar. (2x T30 torx screws)



18. Pull the rest of the ducting at the sides of the intercooler from behind the bumper bar.



- 19. Remove the bolts securing the bottom of the intercooler. (2x 8mm bolts)
- 20. Tilt the bottom of the intercooler toward you, and then lower it from the vehicle.
- 21. Transfer the MAP sensor from the stock intercooler to the Mishimoto one. (1x T25 torx screw, 1x 10mm bolt)



22. Slide the provided clip nuts onto the intercooler's lower brackets.



23. Install the Mishimoto intercooler by lifting the top into position first, with the bottom angled outward, and then push the bottom onto

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the lower brackets.

24. Use the brackets included in your kit to secure the top of the intercooler. (4x 10mm bolts)



25. Secure the bottom of the intercooler with the original hardware.



26. Install both diversion plates included in your kit to the bottom edges of the intercooler. Be careful not to overtighten these bolts during installation.



- 27. Reinstall the ducting to the bumper bar. (2x T30 torx screws)
- 28. Reconnect the MAP sensor above the cold-side connection.
- 29. Connect the hot and cold-side pipes to the intercooler, securing them with the original clamps. (2x worm gear clamps)
- 30. Reinstall the brake ducting on both sides using

- the original hardware. (6x T25 torx screws)
- 31. Reinstall the front bumper. Engage the tabs on the top edge of the frame and the lower sides with the fender liners.
- 32. Reinstall the top edge of the front bumper. (5x T30 torx screws, 2x pop-clips)
- 33. Secure the fender liners with the original hardware. (4x pop-clips, 4x T30 torx screws)
- 34. Reconnect the hood release cable.
- 35. Secure the lower edges of the front bumper with the original hardware. (7x T30 torx screws)
- 36. Reinstall the undertray and attach it to the stabilizer bar. There are tabs at the front of the undertray that slide into position first before the back is raised and fastened down. Use the original hardware to secure the undertray.

  (4x pop-clips, 8x T30 torx screws)
- 37. Reconnect the lighting harness.
- 38. Reinstall the headlights, reconnecting the electrical harness under each light and using the original hardware to fasten them to the frame. (4x T30 torx screws)

Congratulations! You have finished installing the Mishimoto 2016–2018 Ford Focus RS Performance Intercooler.

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