

## PARTS INCLUDED

- 1PC** Mishimoto Intercooler
- 1PC** T25 Torx Bolt for Sensor

## TOOLS NEEDED

- 1/4" Drive Ratchet
- 1/4" Extension
- 7mm Socket
- 8mm Socket
- T25 Torx
- T30 Torx
- Pick Tool
- Flathead Screwdriver

**INSTALL TIME** 2.5 HOURS

**INSTALL DIFFICULTY** 

## DISCLAIMER

- Allow vehicle to cool completely prior to attempting installation.
- 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

1. Using a flathead screwdriver, remove the pop-clips on the top of the bumper cover located in the engine bay. (4x pop-clips)



2. Disconnect the hood-release cable.

3. Now you can 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.
4. Unseat the fender liner by unscrewing the hardware within the passenger-side wheel well. Repeat this step on the driver side. (4x T30 torx, 2x pop-clips)
5. Remove the pop-clips under the front bumper. (6x pop-clips)
6. Remove the lower air diverter. (3x T30 torx)



7. Remove the plastic undertray panel. (8x T30 torx)



8. Remove the final plastic under-panel that's directly under the front bumper. (4x T30 torx)



9. Pull back both edges of the front bumper to release them.
10. Remove the two screws securing each headlight. (4x T30 torx)

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11. Remove the last two screws next to the headlights securing the top edge of the bumper. (2x T30 torx)
12. Slide each headlight forward and disconnect the electrical connector to remove the headlights from the vehicle.



13. Pull up on the two tabs holding the front bumper. You can then lift the front bumper and slide it forward to separate it, but before completely removing the bumper, disconnect the fog light electrical connector.



14. Remove the upper air shroud by releasing the two clips that hold it in place.



15. Remove the lower air shroud, which is held by two screws.



16. Disconnect the electrical connector for the active grille shutters, and then pull out the tree-clips holding the wire. (2x tree clips)



17. Squeeze the four tabs to release the bumper guard.



18. Loosen the clamps on the cold- and hot-side pipes connected to the intercooler. (2x worm gear clamps)



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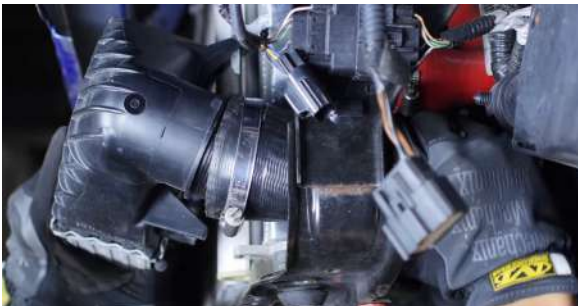
19. Release the electrical harness for the sensor on the cold side of the intercooler. To disconnect this harness, depress the tab at the top of the clip and separate the two pieces.



20. Remove the two bolts that secure the intercooler to the lower mounts. (2x 8mm bolts)



21. Use a pick tool to loosen the connection between the pipes and end tanks on the intercooler. Then, slide each pipe off the port.



22. Tilt the bottom of the intercooler upward, and then lower it from the vehicle.



23. Remove the sensor from the end tank on the stock intercooler. (1x T25 torx screw)



24. Install the sensor removed from the stock end tank onto the Mishimoto intercooler. Secure it with the bolt from your kit. (1x T25 torx bolt)



25. Install the Mishimoto intercooler, making sure as you lift it into position to slide the tabs on the radiator into the upper intercooler hangers. Then, push the bottom of the intercooler forward and allow it to sit on the mounts.

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Step 25 continued...



26. Secure the intercooler to the lower mounts using the original bolts. (2x 8mm bolts)
27. Slide the cold-side pipe over the outlet on the Mishimoto intercooler. Make sure it is fully seated and the clamp is square before tightening it down. (1x worm gear clamp)
28. Reconnect the electrical harness above the cold-side pipe.
29. Install the hot-side pipe to the Mishimoto intercooler. Make sure the pipe is fully seated and the clamp is square before tightening it down. (1x worm gear clamp)
30. Reinstall the bumper guard. You will hear it click when fully in place.
31. Reinstall the rubber shrouding above the bumper guard. There are tabs on each side of the shrouding that slide into clips on the frame.
32. Reinstall the lower shrouding over the face of the intercooler using the original hardware. (2x T30 torx bolts)
33. Reconnect the fog lights and reinstall the bumper cover. Make sure to only connect the front part of

the bumper for now.

34. Reinstall the headlights, but first reconnect the headlight connector for each side. (4x T30 torx)
35. Clip on both sides of the front bumper. Secure the upper edge of the bumper with the original pop-clips and screws. (4x pop-clips, 2x T30 torx)
36. Reinstall the hood-release cable.
37. Secure the fender liner within each wheel well using the original hardware. (4x T30 torx, 2x pop-clips)
38. Reinstall the front under-panel. (4x T30 torx, 6 pop-clips)
39. Reinstall the undertray panel. (8x T30 torx)
40. Reinstall the lower air diverter. (3x T30 torx)

**Congratulations! You have finished installing the Mishimoto 2013+ Ford Focus ST Performance Intercooler.**