

## PARTS INCLUDED

**1PC** Mishimoto Intercooler

## TOOLS NEEDED

8mm Socket  
13mm Socket  
1/4" Drive Ratchet & Extension  
3/8" Drive Ratchet, Extension, Spinner Handle  
T25 Torx  
T27 Torx  
T45 Torx  
Flathead Screwdriver  
Pick Tool

**INSTALL TIME** 2 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.

## INSTALL PROCEDURE

1. Tape the front edges of the bumper to prevent damage to the paint.
2. Peel off the weather stripping from along the upper edge of the bumper.



3. Remove the bolts on the upper portion of the bumper. (6x T27 torx bolts)
4. Separate the splash shield from the vehicle. (21x 8mm bolts)



5. Pull back the fender liner to expose the passenger-side wheel well. (3x 8mm screws)
6. Remove the screws on the passenger side that secure the edge of the bumper. (3x 8mm screws)



7. Pull back the fender liner to expose the driver-side wheel well.
8. Remove the screws on the driver side that secure the edge of the bumper. (3x 8mm screws)

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**01**



9. Disconnect the headlight washer line on both sides. Have a bucket ready to catch any residual fluid.



10. Pull the front bumper off the vehicle.  
11. Release the crash bar insert and slide it off the bumper.



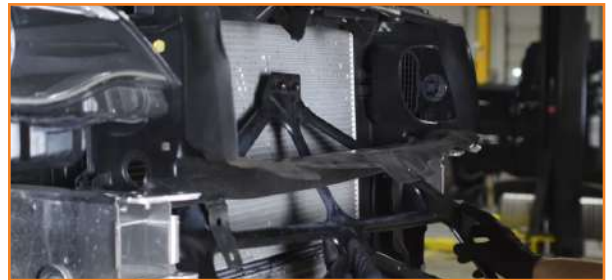
12. Remove the crash bar. There are four bolts and two plates that secure it. (4x 13mm bolts)



13. Release the tabs and clips to free the shrouding. Remove the shrouding from around the intercooler.



14. Remove the bolts that secure the bracket covering the intercooler. Two of the bolts can be found within the top edge of the engine bay. (6x T45 torx bolts)



15. Disconnect the hot-side pipe from the intercooler end tank. (1x spring clamp)



16. Disconnect the cold-side pipe from the intercooler end tank. (1x spring clamp)

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**02**



17. Remove the bolts on the bottom of the intercooler. Support the intercooler with your off hand to prevent it from falling. (2x T25 torx bolts)
18. Lower the intercooler to remove it from the vehicle.
19. With help, whether that be another person or a prop to hold the Mishimoto intercooler, lift the intercooler into position and secure the brackets on the sides. (2x t25 torx bolts)



20. Attach the cold and hot-side pipes to the intercooler end tanks. (2x spring clips)
21. Cut the bracket you removed earlier to make it fit around the Mishimoto intercooler. This is only for the M2. If you do not have an M2, you will not have this component and will not have to cut anything.



22. Reinstall the bracket over the intercooler. (6x T45 torx bolts)
23. Reinstall the crash beam. Remember the brackets go on the bottom. (4x 13mm bolts)
24. Reinstall the crash beam insert.
25. Lift the bumper back onto the front of the vehicle.
26. Secure the top of the bumper with the original hardware. (6x T27 torx bolts)
27. Secure the edges of the fender on both passenger and driver side. (6x 8mm screws)
28. Reconnect the headlight washer lines on both sides.
29. Reinstall the fender liner to the front bumper on both sides. (6x 8mm screws)
30. Reinstall the splash panel. (21x 8mm bolts)
31. Reinstall the weather stripping. There is a white mark underneath the stripping to help you align it properly.

**Congratulations! You have finished installing the Mishimoto 2012-2016 BMW F20/F30 Performance Intercooler.**