

#### **PARTS INCLUDED**

**1PC** Mishimoto Performance Intercooler

1PC Performance Intercooler Pipe Kit (Only for the Kit SKUs)

**2PC** CNC-Machined Aluminum Mounting Brackets Mounting Hardware

#### **TOOLS NEEDED**

10mm Socket 16mm Socket T25 Torx T30 Torx

T50 Torx

1/4" Drive Ratchet & Extensions

3/8" Drive Ratchet & Extensions

Pick Tool

**Needlenose Pliers** 

2.5mm Allen Key

#### **INSTALL TIME 3 Hours**

### INSTALL DIFFICULTY 666

#### **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. Disconnect the battery.

Remove the bolts that secure the front grille.
 These are located along the top edge.
 (2x T25 torx bolts)



3. Disconnect the electrical harness at the back of the grille and remove the grille.



4. Separate the splash shield from under the vehicle. Once you've removed the bolts, press the tabs along the front edge to release the splash shield and slide it back to remove it. (8x T25 torx bolts)



5. Remove the bolts that secure the lower and side edges of the bumper. (15x T25 torx bolts)

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- Pull the outer edges of the bumper to release them.
- 7. Disengage the tabs on the upper edge of the bumper.



- 8. Disconnect the electrical harnesses within the bumper. With the bumper now free, pull it from the front of the vehicle. Be careful to avoid rubbing the edges against the headlights.
- Loosen the clamps on the intercooler couplers to separate them from the intercooler. (4x worm gear clamps)



10. Separate the wiring harness from each horn bracket and remove both horns.(2x T50 torx bolts)



11. Disconnect the ambient temperature sensor behind the crash beam.



12. Release the support bar above the driver-side headlight. This will allow you to access the tabs that hold the hood latch cable. (4x T30 torx bolts)



13. Free the hood latch cable from the support bar by compressing the gray tree clips that hold it. Next, separate the two pieces that hold the hood latch cable together.









14. Reach down behind the driver-side headlight and unplug the headlight.



- Remove the bolts that secure the headlight. Two are located behind the headlight, and there's one at the side. Then remove the headlight. (3x T30 torx bolts)
- 16. Remove the support bar above the passenger-side headlight. (3x T30 torx bolts)
- 17. Unplug the driver-side headlight.



- 18. Remove the bolts that secure the headlight. As with the other headlight, there are two bolts behind and one at the side. Once free, remove the headlight. (3x T30 torx bolts)
- 19. Remove the cover on the plastic casing above the radiator. (2x T30 torx bolts)
- 20. Disconnect the back portion of the plastic casing. Tabs at the side and middle hold it together.



- 21. Pull apart the plastic casing and remove both pieces.
- 22. Disconnect the hood latch sensor. Underneath that one are the crash sensors. Disconnect these, too. Slide the red locking tab down to separate each connection.



23. Separate the bumper support bracket that sits above the crash beam. (3x T30 torx bolts)



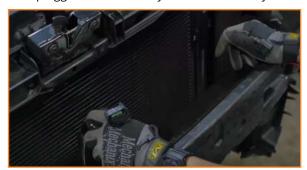




24. Remove the hood latch bracket in front of the cooling stack. (2x T30 torx bolts, 2x 10mm nuts)



25. Move the ambient air temp sensor and emblem light sensor wiring harnesses that were unplugged earlier so they are out of the way.



- 26. Release the clips on the shrouding around the cooling stack and remove the shrouding.
- 27. Remove three of the four bolts on each side of the crash beam. Leave one in to keep the crash beam stable. You can use a long bolt here (M10 thread size) in one of the empty slots to keep the crash beam from shifting. (6x 16mm bolts)



28. Disconnect the hood latch sensor and coolant sensor.



- 29. Support the lock carrier (the plastic frame around the cooling stack) so it does not cause any unnecessary stress on the attached lines.
- 30. Loosen the bolts that secure the lock carrier to the crash beam. (4x T30 torx bolts)



- 31. With help, hold the crash beam and cooling stack as you remove the last bolts on the crash beam. Pull the crash beam from the front of the vehicle. (2x 16mm bolts)
- 32. Disengage the two latches that hold the cooling stack to the lock carrier.







33. Lift the AC condenser off the radiator brackets.

Move the AC condenser to the side.



34. Remove the cooling stack casing by disengaging the pegs on the bottom of the cooling stack from the casing. Lean the casing back and lift the cooling stack to free the pegs.



35. Release the tabs holding the intercooler to the radiator.



- 36. Remove the intercooler.
- 37. Install the Mishimoto intercooler. Lift the radiator and engage the tabs at the bottom with the brackets on the intercooler.



38. Attach the provided CNC brackets to the radiator's upper tabs.



39. Secure the intercooler to the CNC brackets. (4x 10mm bolts)



- 40. Transfer the lock carrier latches onto the Mishimoto intercooler. Then reapply the lock carrier over the cooling stack.
- 41. Secure the AC condenser onto the appropriate intercooler tabs. Remove the pre-installed set screws (2x 2.5mm hex screws) from the Mishimoto intercooler. Attaching the AC



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- condenser to the intercooler must be done with the lock carrier free.
- 42. Secure the intercooler tabs using two set screws previously removed. (2x 2mm hex screws)
- 43. Engage the latches at the sides of the lock carrier.
- 44. Reinstall the crash beam. Make sure the cooling stack is resting on the edges of the crash beam. (8x 16mm bolts)
- 45. Secure the cooling stack to the crash beam. The cooling stack must be positioned at the front-most slots on the crash beam to not compromise its energy damping functions in the event of a crash. (4x T30 torx bolts)
- 46. Reconnect the two crash sensors, the coolant temperature sensor, and the hood latch sensor.
- 47. Reinstall the shrouding that surrounds the cooling stack.
- 48. Reinstall the hood latch bracket. (2x T30 torx bolts, 2x 10mm nuts)
- 49. Reinstall the bumper support above the crash beam. Be sure to engage the tabs along the edge. (3x T30 torx bolts)
- 50. Secure the wiring harnesses for the ambient temperature sensor, then reconnect it.
- 51. Reattach the three plastic casing pieces above the radiator. (4x T30 torx bolts)
- 52. Piece the hood latch cable back together.
- 53. Lift the passenger-side headlight back into place and secure it. (3x T30 torx bolts)
- 54. Reconnect the headlight's electrical harness.
- 55. Reinstall the support bar above the headlight. (4x T30 torx bolts)
- 56. Lift the driver-side headlight back into place and secure it. (3x T30 torx bolts)
- 57. Reconnect the headlight's electrical harness.
- 58. Reattach the hood latch cable to the headlight's support bar and secure the bar. (4x T30 torx bolts)
- 59. Reinstall both horns and reattach their cables. (2x T50 torx bolts)
- 60. Reconnect the electrical harness at the back of the bumper.

- 61. Slide the bumper back into place and engage the tabs at the front and sides.
- 62. Secure the side and lower edges of the bumper. (15x T25 torx bolts)
- 63. Reconnect the emblem light electrical harness and reinstall the grille. (2x T25 torx bolts)
- 64. Reinstall the splash shield. (8x T25 torx bolts)
- 65. Reconnect the battery.

Congratulations! You have finished installing the Mishimoto 2006-2014 Volkswagen GTI/Golf R Performance Intercooler.

