

Water Pump – 2006-2011 Honda Civic

Required Tools

- Trim removal tool
- Impact Drill
- 8mm allen head socket
- 10mm & 12mm socket
- 10mm, 19mm, & 22mm wrench
- Socket wrench
- 3/8 inch torque wrench
- Breaker Bar
- Flat head screwdriver
- Drip pan
- Funnel
- Coolant

Optional Tools

(if removing wheel and/or dropping engine)

- 17mm & 19m sockets
- U-joint
- Socket extensions
- Wire brush
- Jack
- Jack stands
- Penetrating oil
- Hockey puck or wooden block

General Repair Steps

1. Remove the splash shield (under the car near the front bumper) by removing all the clips on the underside of the car and in the wheel wells.
2. Remove the Radiator Cap when the engine is cool (using a rag and safety glasses to avoid coming in contact with any possibly hot coolant).
3. Place a drip pan under the car and completely drain the coolant by opening the petcock (under the car, near the front bumper in the middle of the car).
4. Optional, but recommended: Remove front, passenger side wheel beginning by jacking up the car on the front jack point, and then placing jack stands on the jack points on the sides of the car. Removing the wheel will allow much more room to work with later in the fix.
5. Continue removing the wheel by removing all five 19mm lug nuts.
6. Disconnect the battery by loosening the 10mm bolts on both leads, and remove the leads starting with the ground (black) first.
7. Remove the belt by putting a 19mm wrench on the Tensioner bolt, and pushing the wrench forward slowly to relieve the tension on the belt. Be careful not to place your fingers between the belt and any pulleys when removing the belt.
8. Remove the battery cable from the Alternator by removing the 10mm nut.

Disclaimer: The above list is meant to aid you during your repair, and is meant to be used in conjunction with the corresponding Fear No Fix repair video.

9. Disconnect both Alternator connectors.
10. Remove both cable brackets from the Alternator.
11. Use a screwdriver to pry off the two tabs holding the connector wiring onto the Alternator.
12. Remove both 12mm bolts from the Alternator, and then remove the Alternator.
13. Accessing it from the passenger side wheel well, remove the belt.
14. Jam a screwdriver through the hole on the backside of the Water Pump Pulley to hold it in place. Then using a 10mm wrench, break the torque on the three 10mm bolts and remove them.
15. Remove the Water Pump Pulley.
16. Remove the 12mm bolt on the front of the Tensioner.
17. Remove the 8mm bolt from the back of the Tensioner, using an 8mm Allen head socket. This bolt is notorious for being very difficult to remove due to becoming excessively rusted and corroded. Below are a few options for removing the bolt.
18. OPTION A: If possible, simply use a breaker bar and an 8mm Allen head socket to break the torque on the bolt (coming in from the top of the engine bay).
19. OPTION B: If A doesn't work, you can attempt to use a u-joint and extensions on an impact drill to reach the nut from the wheel well and attempt to remove it. However, you may lose so much torque through the u-joint that it may not be enough to loosen the bolt.
20. OPTION C: Worst case scenario, but sometimes necessary. Drop the engine slightly (be removing the passenger side motor mounts), so that you can hit the bolt directly with an impact gun. If this is necessary for your fix, the following steps will tell you how to do this.

Skip steps 21-28 if you managed to remove the 8mm bolt without needing to drop the engine:

21. Place a jack under the oil pan, and place a hockey puck or wood block on top of the jack arm.
22. Raise the jack until the puck (or wood) just makes contact with the oil pan.

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23. Remove the three 17mm bolts on the T shaped motor mount brace on the passenger side of the engine bay.
24. Remove the T shaped brace.
25. Moving onto the second, slightly triangular shaped motor mount brace (under the T shaped one that was just removed), remove the 17mm bolt, the 19mm bolt, and the 19mm nut.
26. Remove the triangular shaped bracket.
27. Drop the engine an inch or two (slowly) until you see the 8mm Tensioner bolt just appear in the passenger side wheel well.
28. Using an impact gun, remove the 8mm socket (take your time, and use penetrating oil if necessary, to avoid stripping the bolt or cracking it off inside the block!).
29. With both the 12mm and 8mm bolts removed, remove the Tensioner.
30. Remove the five 10mm bolts on the Water Pump.
31. Remove the old Water Pump, placing a drip pan underneath it to catch any remaining coolant left in the system.
32. Clean off the Water Pump mating surface.
33. Put the new Water Pump into place, ensuring the new gasket is seated correctly, and replace the five 10mm bolts.
34. Torque the 10mm bolts to 8.7 foot-pounds or 104 inch-pounds.
35. Put the Tensioner back in place, and secure it with the 12mm and 8mm bolts.
36. Torque the 8mm bolt to 40 foot-pounds, and the 12mm bolt to 17 foot-pounds.
37. Put the Water Pump Pulley back on using the three 10mm bolts.
38. Again, jam a screwdriver into the holes on the Water Pump Pulley to stop it from spinning, and then torque the 10mm bolts to 10 foot-pounds.

Steps 39 – 44 are concerned with replacing the motor mounts. If you didn't need to take these off, skip ahead to step 45:

39. Jack the motor back up to level.

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40. Put the triangular mount back into place, and secure it with the 17mm bolt, 19mm bolt and 19mm nut.
41. Torque the 17mm and 19mm bolts to 52 foot-pounds. Torque the 19mm nut to 54 foot-pounds.
42. Put the T shaped bracket back into place, securing it with the three 17mm bolts (longest bolt goes in the single hole nearest the rear of the car).
43. Torque all three 17mm bolts to 47 foot-pounds.
44. Lower and remove the jack.
45. Route the belt back through the pulleys (see video for demonstration on proper order/ orientation).
46. Put the Alternator back into place, and secure it with the two 12mm bolts (longest bolt goes near the top of the Alternator)
47. Torque both 12mm bolts to 17 foot-pounds.
48. Using a 19mm wrench again, place the wrench on the Tensioner bolt, and push the wrench forward slowly to relieve the tension on the Tensioner. Slip the belt over the Alternator and lower the wrench to put tension back onto all the pulleys.
49. Reconnect all the brackets and cables to the Alternator.
50. Reconnect the battery leads, starting with the positive lead (red), and tighten the 10mm bolts.
51. Put the wheel back on, and tighten the lug nuts to 80 foot-pounds.
52. Remove the cap from the Radiator.
53. With a funnel placed in the Radiator opening, fill the coolant. Necessary coolant levels listed below:
 - a. Manual Sedan: 5.2L
 - b. Manual Coupe: 5.2L
 - c. Automatic Sedan: 5.3L
 - d. Automatic Coupe: 5.5L
54. Squeeze the Radiator hose to remove air from the system.
55. Top up the coolant.
56. Loosely replace the Radiator cap.

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- 57.** Start the engine, run it at idle until the radiator fan comes on, goes off, and comes on again. Then shut the engine down.
- 58.** Top up the coolant, replacing the Radiator cap tightly when finished.
- 59.** Start the engine one last time, checking for any leaks coming from around the Water Pump.
- 60.** Replace the splash shield.

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