

Water Pump – 2009-2016 3.5L Chevrolet Impala

Required Tools

- Socket Wrench
- 10 mm, 12 mm, 15 mm, & 15 mm Sockets
- 3/8 Inch Breaker Bar
- Pan
- Coolant
- Funnel
- Tarp

General Repair Steps

1. Remove Coolant Fill Cap.
2. Place pan underneath Radiator to collect coolant.
3. Loosen Petcock on the Radiator, and allow coolant to drain.
4. Remove 10 mm bolts on the battery.
5. Remove the Battery Terminals.
6. Remove the three 15 mm bolts from the brace.
7. Remove the connector attached to the brace, and then move the brace aside.
8. Loosen the 13 mm bolt on the Battery Bracket and remove the bracket.
9. Remove the two 12 mm bolts from the Fuse Box.
10. Move the Fuse Box to the side and remove the Battery.
11. Remove 10 mm bolts from the Coolant Bottle and place bottle to the side.
12. Remove the 13mm bolt from the Hose Bracket near the Serpentine Belt.
13. Push the Hose Bracket to the side.
14. Loosen the four 10 mm bolts on the Water Pump Pulley.
15. Loosen the 15 mm on the Belt Tensioner.

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.

16. Using a 3/8 inch breaker bar, insert the bar into the tensioner, and pull the bar forward to release the tension on the Serpentine Belt.
17. Slide the Serpentine Belt off the Water Pump Pulley.
18. Remove the bolts on the pulley and remove the pulley.
19. Remove the five 13 mm bolts on the Water Pump and remove the Water Pump and the gasket.
20. Install the new Water Pump and gasket using the five 13 mm bolts.
21. Torque the Water Pump bolts to 11 foot pounds.
22. Replace the Water Pump Pulley by putting the four 10 mm bolts hand tight.
23. Using the breaker bar again, release the tension on the Serpentine Belt and put the belt back on the Water Pump Pulley.
24. Tighten the 15 mm bolt on the Belt Tensioner.
25. Torque the Water Pump Pulley bolts to 18 foot pounds.
26. Reconnect the Hose Bracket.
27. Put the Coolant Bottle back in place.
28. Reinstall the Battery.
29. Tighten the bolts on the Fuse Box.
30. Put the Battery Bracket back in place.
31. Reconnect the Battery Terminals (positive first).
32. Put the brace back in place, and plug in the connector on the bracket.
33. Insert a funnel into the Coolant Filler and pour coolant in until it reaches the top of the filler opening.
34. Squeeze the Coolant Hose to allow some air out of the system, and then top up the coolant.

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35. Put the Coolant Filler Cap on just enough to engage the threads (this is to avoid building up too much pressure which can result in spraying hot coolant when opening the Filler Cap in later steps).
36. Start the engine and run at 2500 rpm for 40 seconds.
37. Carefully remove the Coolant Filler Cap and top up the coolant.
38. Replace the Coolant Filler Cap just enough to engage the threads.
39. Start the engine and run at 2500 rpm for 30 seconds.
40. Carefully remove the Coolant Filler Cap and top up the coolant.
41. Replace the Coolant Filler Cap just enough to engage the threads.
42. Start the engine and run at 2500 rpm for 20 seconds.
43. Carefully remove the Coolant Filler Cap and top up the coolant.
44. Fill the Coolant Bottle with 400 ml of coolant.
45. Replace the Coolant Filler Cap and tighten completely.
46. Start the engine and run at 2500rpm until engine is heated.
47. Bring engine up to 3000 rpm for 4 seconds, then let it drop to idle for 4 seconds (do this three times).
48. Shut off the engine at let it cool.
49. When the engine is cool, top up the coolant in the Coolant Bottle.