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How to change water pump & timing belt kit on NISSAN NV200 / Evalia Minibus – replacement guide







SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

i Important!

This replacement procedure can be used for: NISSAN NV200 / Evalia Minibus 1.5 dci

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: RENAULT Clio III Hatchback (BR0/1, CR0/1) 1.5 dCi

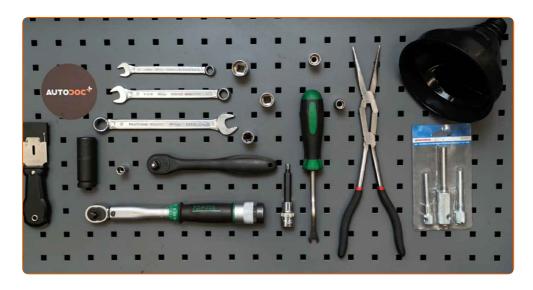
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REPLACEMENT: WATER PUMP & TIMING BELT KIT – NISSAN NV200 / EVALIA MINIBUS. TOOLS YOU MIGHT NEED:



- Brake cleaner
- Copper grease
- Sealant
- Torque wrench
- Combination spanner #10
- Combination spanner #13
- Combination spanner #16
- HEX bit No.H6.
- Drive socket # 8
- Drive socket # 10
- Drive socket # 13
- Drive socket # E14
- Drive socket # 16

- Drive socket # 18
- Wheel impact socket #17
- Ratchet wrench
- Funnel
- Fluid container
- Seal scraper
- Clic-R collar pliers
- Long round nose pliers
- Clip removal tool
- Engine timing tool set
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

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Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. AUTODOC experts recommend:

- Follow the terms, recommendations and requirements of the part operation provided by the manufacturer.
- All work should be done with the engine stopped.

REPLACEMENT: WATER PUMP & TIMING BELT KIT - NISSAN NV200 / EVALIA MINIBUS. RECOMMENDED SEQUENCE OF STEPS:

- 1 Open the bonnet.
- Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.
- Unscrew the fasteners of the car battery terminals. Use a drive socket #10. Use a ratchet wrench.



A Remove the battery terminals.



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5 Unscrew the coolant reservoir cap.



6 Secure the wheels with chocks.



Loosen the wheel mounting bolts. Use wheel impact socket #17.



- Raise the front of the car and secure on supports.
- 9 Unscrew the wheel bolts.



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Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Tip:

• To avoid injury, hold up the wheel when unscrewing the bolts.

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13

Remove the wheel.



Remove the wheel arch cover. Use a clip removal tool.



Unscrew the fuel filter bracket fixing bolts. Use a drive socket #13. Use a ratchet wrench.



Remove the fuel filter fastening bracket.



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Unscrew the fuel filter bracket fixing bolts. Use a combination spanner #10.



Remove the fuel filter fastening bracket.



Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #16.



17 Remove the V-ribbed belt.

18



Return the tensioner pulley to its initial position. Use a combination spanner #16.

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Support the subframe. Use a hydraulic transmission jack.



Clean the subframe fasteners. Use a wire brush. Use WD-40 spray.



Unscrew the subframe reinforcement bracket fasteners. Use a drive socket #13. Use a ratchet wrench.



Unscrew the subframe fastening. Use a drive socket #18. Use a ratchet wrench.



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Remove the support from under the subframe.



AUTODOC recommends:

- Replacement: water pump & timing belt kit NISSAN NV200 / Evalia Minibus.
 Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.
- Unscrew the TDC timing pin plug. Use a drive socket #E14. Use a ratchet wrench.



25

Install the crankshaft gear locking tool according to the factory marks. Use an engine timing tool set.



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Unscrew the crankshaft pulley fastener. Use a drive socket #18. Use a ratchet wrench.



Remove the crankshaft pulley.



- Screw in the crankshaft pulley fastener. Use a drive socket #18. Use a ratchet wrench.
- Remove the crankshaft gear locking tool.



Remove the lower timing cover.



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Support the engine in the oil pan area. Use a hydraulic transmission jack.



Unscrew the upper fastener of the engine mount. Use a drive socket #16. Use a ratchet wrench.



Remove the upper part of the engine mount.



Remove the upper timing cover.



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Unscrew the engine mount fasteners. Use a combination spanner #10. Use a drive socket #10. Use a ratchet wrench.



Remove the engine mount.



Turn the crankshaft gear. Use a drive socket #18. Use a ratchet wrench.



Please note!

- The piston should be at its top dead centre (TDC).
- Install the crankshaft gear locking tool according to the factory marks. Use an engine timing tool set.



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Make a mark on the crankshaft gear.



Install the camshaft gear locking tool according to the factory marks. Use an engine timing tool set.



Make a mark on the camshaft gear.



Loosen the fastener of the timing belt tensioner pulley. Use a combination spanner #13. Use HEX No.H6.



Pull aside the timing belt tensioner pulley.



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Remove the timing belt.



- Return the tensioner pulley to its initial position.
 - Remove the timing belt tensioner pulley.



Unscrew the fasteners of the middle timing cover. Use a drive socket #8. Use a ratchet wrench.



48

Unscrew the fastener of the serpentine belt tensioner pulley. Use a combination spanner #13.



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Remove the serpentine belt tensioner pulley.



Remove the middle timing cover.



Detach the clamp of the lower coolant pipe. Use long round nose pliers.



52 Prepare a container for fluids.



Detach the lower coolant pipe.



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Drain the coolant from the engine.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Professionals recommend:

- Caution! The coolant can be very hot.
- Wear gloves to prevent contact with hot liquid.
- All work should be done with the engine stopped.

55 Attach the lower coolant pipe.

56



Attach the clamp of the lower coolant pipe. Use clic-R collar pliers.



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Unscrew the water pump fasteners. Use a drive socket #8. Use a ratchet wrench.



Remove the water pump.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Tip:

• Caution! Coolant may come out from the water pump channels and body.

Clean the water pump mounting seat. Use a seal scraper.



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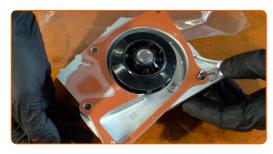




Treat the fastening bolts. Use a sealant.



61 Install the water pump gasket.



62 Install the new water pump.



Tighten the water pump fasteners. Use a drive socket #8. Use a torque wrench. Tighten it to 12 Nm torque.



64 Install the middle timing cover.



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Screw in the fasteners of the middle timing cover. Use a drive socket #8. Use a ratchet wrench.



Treat the fastening bolt. Use a sealant.



Install the timing belt tensioner pulley.

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Install the new timing belt according to the factory marks.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. AUTODOC experts recommend:

• Be careful not to damage the timing belt.

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Adjust the timing belt tension by moving the tensioner pulley. Use HEX No.H6.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. AUTODOC recommends:

• Make sure that the timing belt is properly tensioned.

Screw in the fastener of the timing belt tensioner pulley. Use a combination spanner #13.



71 Remove the camshaft gear locking tool.



Remove the crankshaft gear locking tool.



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73 Turn the crankshaft gear. Use a drive socket #18. Use a ratchet wrench.



AUTODOC recommends:

- Make sure all the timing belt components are mounted correctly.
- Tighten the fastener of the timing belt tensioner pulley. Use a drive socket #13. Use a torque wrench. Tighten it to 27 Nm torque.



75 Treat the engine mount fasteners. Use a sealant.



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76 Install the engine mount to its mounting seat.



Tighten the engine mount fastening bolts. Use a drive socket #10. Use a torque wrench. Tighten it to 40 Nm torque.



Install the upper timing cover. Make sure you hear a click indicating that it is locked in place.



79 Install the upper part of the engine mount.



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Treat the engine mount fasteners. Use a sealant.



Tighten the upper fastener of the engine mount. Use a drive socket #16. Use a torque wrench. Tighten it to 76 Nm torque.



Remove the support from under the engine.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Tip from AUTODOC:

• Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

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83 Install the lower timing cover.



Treat the fastening bolt. Use a sealant.



Install the serpentine belt tensioner pulley.



Tighten the fastener of the serpentine belt tensioner pulley. Use a drive socket #13. Use a torque wrench. Tighten it to 35 Nm torque.



Unscrew the crankshaft pulley fastener. Use a drive socket #18. Use a ratchet wrench.



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Install the crankshaft pulley according to the factory marks.



- Install the crankshaft pulley locking tool. Use an engine timing tool set.
- Tighten the crankshaft pulley fastener. Use a drive socket #18. Use a torque wrench. Tighten it to 60 Nm torque.+90°



AUTODOC recommends:

• Important! Be sure to use new fasteners.

Remove the crankshaft pulley locking tool.



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Screw in the TDC timing pin plug. Use a drive socket #E14. Use a ratchet wrench.



Pull aside the V-ribbed belt tensioner pulley. Use a combination spanner #16.



94 Install the V-ribbed belt.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Tip from AUTODOC experts:

• Make sure that the V-ribbed belt fits all pulleys snugly.

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Return the tensioner pulley to its initial position. Use a combination spanner #16.



Screw in the subframe fasteners. Use a drive socket #18. Use a ratchet wrench.



Tighten the subframe reinforcement bracket fasteners. Use a drive socket #13. Use a torque wrench. Tighten it to 35 Nm torque.



Tighten the subframe fastening. Use a drive socket #18. Use a torque wrench. Tighten it to 105 Nm torque.



98

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99 Install the fuel filter fastening bracket.



Screw the fixing bolts of the fuel filter bracket. Use a combination spanner #10.



101 Install the fuel filter fastening bracket.



Screw the fixing bolts of the fuel filter bracket. Use a drive socket #13. Use a ratchet wrench.



Install the wheel arch cover to its mounting seat.

103



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104

Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



105

Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus.
 After applying the spray, wait a few minutes.

106

Install the wheel.



AUTODOC recommends:

• To avoid injury, hold up the wheel when screwing in the fastening bolts.

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Screw in the wheel bolts. Use wheel impact socket #17.



Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 105 Nm torque.



109 Remove the jacks and chocks.



110 Remove the coolant reservoir cap.



111 Insert the funnel.



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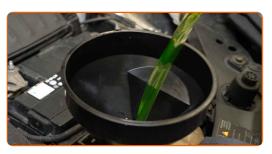






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Pour coolant in the coolant reservoir.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. AUTODOC recommends:

- Only use the coolant recommended by the manufacturer.
- The coolant level should be at the MAX mark.
- · Wait until the air goes out of the system.

113

Attach the terminals to the battery.



Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus.

AUTODOC experts recommend:

 Be careful! Do not mix up the positive and the negative terminals of the car battery.

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Screw in the fasteners of the battery terminals. Use a drive socket #10. Use a ratchet wrench.



Run the engine for a few minutes. This should be done in order to remove residual air from the cooling system and to check if the components are operating correctly.



- 116 Shut off the engine.
- 117 Install the coolant reservoir cap.
- 118 Screw on the coolant reservoir cap.



Check the coolant level. If necessary, top up to the required level.

Please note!

• The coolant level should be at the MAX mark.

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Remove the fender protection cover.

121 Close the hood.

Replacement: water pump & timing belt kit – NISSAN NV200 / Evalia Minibus. Tip from AUTODOC experts:

 Be sure to record the mileage at which you replaced the timing belt and water pump kits.



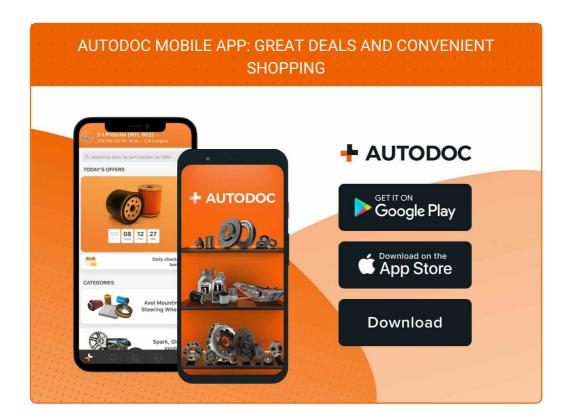
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WATER PUMP & TIMING BELT KIT: A WIDE SELECTION

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