

Changing the V-belts

Last Update: 3-31-15

Note: this checklist assumes that the alternator pulley update has been performed. This checklist is for the standard 3 V-belt setup, but with the fan belt tension sensor removed.

Parts

Fan belt	999-192-338-50	
Alternator belt	999-192-343-50	
A/C belt	999-192-363-50	
Fan pulley screws	900-119-026-02	(3)

Tools

24mm box-end wrench
magnetic pickup tool
5mm hex bit socket with guide pin, 1/2" drive (Stahlwille 54IC-5)
8mm socket 1/4" drive
1/4" ratchet
1/2" ratchet
13mm socket 1/2" drive
1/2" drive 6" extension
Polygon wrench (Porsche 999-571-052-02))
long flat-blade screwdriver
13mm extra deep offset box-end wrench (Stahlwille 12x13 PN 41041213)
Krikkit IV - belt tension gauge (Gates 91107)
Stahlwille torque wrench (730/20)
Stahlwille 24mm ring insert tool (732/40-24)
Stahlwille torque wrench (730/2)
Stahlwille 1/2 inch ratchet insert tool (735/10)

Disassembly

CAUTION! Work best carried out on cold engine

1. Remove air filter cover
2. Remove the A/C belt
 - 8mm bolt on fan shroud
 - 13mm bolts on A/C compressor

3. Remove alternator shaft nut
Polygon wrench
24mm box-end
4. Remove alternator outer pulley half
Polygon wrench
5. Remove alternator belt
6. Remove alternator shims (2)
7. Remove alternator inner pulley half
8. Remove fan pulley M6 screws (3) and shims (2)
5mm hex bit socket with guide pin
9. Remove fan outer pulley half (but leave inner pulley half and shims (3))

Reassembly

1. Install fan belt (numbers facing rear)
2. Install fan outer pulley half
3. Install spare fan pulley shims (2) and 3 new screws. (just take slack up, not tight)
4. Remove DME relay
5. Turn over the engine a few times to seat the belt
6. Torque fan pulley M6 screws to 9.7 Nm
7. Install alternator inner pulley half
8. Install the alternator belt (numbers facing rear)
9. Install the 2 shims
10. Install the alternator outer pulley half
11. Install the alternator nut and take up the slack, not tight
12. Turn over the engine a few times to seat the belt

13. Torque alternator nut to 50Nm
14. Slacken A/C adjuster nut
15. Install A/C belt (numbers facing rear)
Drop in bolts in sequential order (LR-RR-RF-LF) and get each nut started before moving on to the next bolt. Apply leverage with long flat-blade screwdriver. Then tighten all down equally but just loose.
16. Adjust A/C belt tension to 30-35 Kg (or 1/2 turn if tight against stop already)
17. Tighten the 3 long bolts and 1 short bolt and the adjuster lock nut
18. Install 8mm bolt on fan shroud
19. Install air filter cover
20. Install DME relay
21. Start engine and check operation
22. Drive several miles and get engine hot
23. Next morning recheck A/C belt and readjust tension to 30 Kg.