

Changing the V-belts

Last Update: 10-7-15

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

- nitrile gloves
- 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))
- 3/8" x 8" pipe extension
- long flat-blade screwdriver
- 13mm extra deep offset box-end wrench (Stahlwille 12x13 PN 41041213)
- Krikit 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 + pipe extension
24mm box-end
4. Remove alternator outer pulley half
Polygon wrench
5. Remove alternator belt
6. Remove alternator shims (3)
7. Remove alternator inner pulley half
8. Remove fan pulley M6 screws (3)
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 and 3 new screws. (just take slack up, not tight)
3. Remove DME relay
4. Turn over the engine a few times to seat the belt
5. Torque fan pulley M6 screws to 9.7 Nm
6. Install alternator inner pulley half
7. Install the alternator belt (numbers facing rear)
8. Install the 3 shims
9. Install the alternator outer pulley half
10. Install the alternator nut and take up the slack, not tight
11. Turn over the engine a few times to seat the belt

12. Torque alternator nut to 50 Nm
13. Slacken A/C adjuster nut
14. 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 to get RR. Then tighten all down equally but just loose.
15. Adjust A/C belt tension to 30-35 Kg (or 1/2 turn if tight against stop already)
16. Tighten the 3 long bolts and 1 short bolt and the adjuster lock nut
17. Install 8mm bolt on fan shroud
18. Install air filter cover
19. Install DME relay
20. Start engine and check operation
21. Drive several miles and get engine hot
22. Next morning check A/C belt tension and readjust to 30 Kg.