Installation instruction do88 performance Intercooler for Volvo S60 / V60 / XC60 / S90 / V90 / XC90 SPA platform

This instruction shows how to replace the OEM intercooler with do88 performance intercooler.



At this type of installation we always recommend that you have mechanical experience and knowledge about safety during work on vehicles.

Parts included:

- 1. 1pc do88 Performance Intercooler
- 2. 1pc Intercooler inlet hose
- 3. 1pc Intercooler outlet hose
- 4. 2pcs air guides for S60/V60
- 5. 2pcs air guides for S90/V90
- 6. Grille shutter simulator
- 7. T-shaped rotation limiter
- 8. 6pcs M5x12mm Black Allen screws
- 9. 1pc M5x12mm hex flange screw
- 10. 3pcs 5.5x22mm Large washers
- 11. 4pcs 5.3X10X1mm Nylon washers
- 12. 2pcs 5.0X25mm Torx T-25 Thermo plastic screw
- 13. 4pcs hose clamps
- 14. 2pcs 370mm stripe

This installation instruction are based on our installation performed on a Volvo V60 T6 MY -19. Other vehicles this product fit to might have some differences in the installation procedure.



2. Remove 10pcs Torx T30 and two plastic clips then remove the plastic shield under the engine.





Remove 7pcs Torx T25 in each wheel arch.



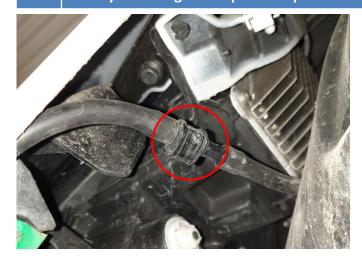
3. In the lower edge of the bumper remove 3pcs plastic rivets. Press both the plastic tabs towards the middle and then gently pull it out in its collar.



5. In the lower left corner of the bumper, disconnect the electrical connectors by pushing their release tabs and separate them.



6. Behind the left headlight, disconnect the washer fluid line by removing lock clips and separate.



7.

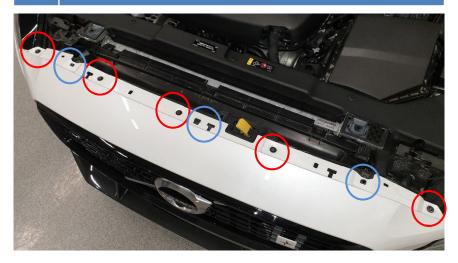
In front of each wheel arch, remove 2pcs 8mm hex screws that holds bumper to front fender.



8. Remove the 2 plastic rivets on top of the bumper cover by pushing the middle part down and then pull rivet up in its collar. Then carefully remove the cover fastened with plastic tabs.



9. From the top of the bumper, remove 5pcs Torx T25 marked in red.



11 Loosen intercooler hoses from intercooler by pressing hoses to the intercooler and at the same time pry out the lock clip until in position as on picture. Then slide the hoses from the intercooler connections.



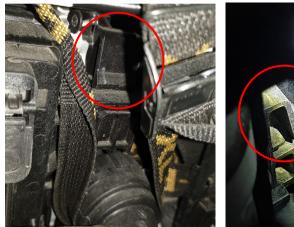
10. With help of an assistant now remove the bumper by first carefully pulling the edges of bumper that meets the front fenders down a bit then out from the car. When separated in the corners, lift the top of bumper from the 3 tabs marked in blue on picture under step 9 then remove the entire bumper cover in a forward direction.



Secure the radiator/condenser/fan cover with a strap on the right side and included stripe on left side according to pictures.



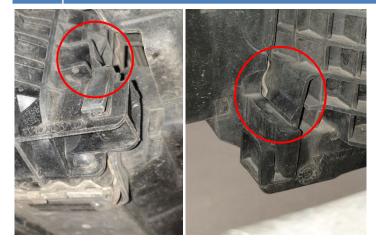
Loosen the fan cover by pressing in the locking tabs on both sides, then lift the fan cover about 2cm (3/4") upwards. Leave it in this position.



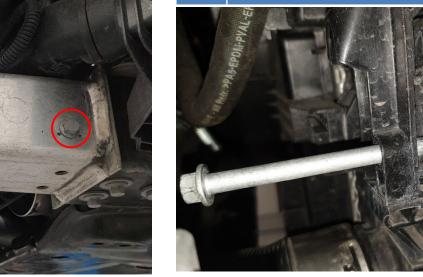
13.



14. Loosen intercooler air guide from the intercooler by pressing in the locking tabs and then lift the air guide a bit upwards.



- **15.** Remove 2pcs 10mm hex screws on each side that holds the intercooler mounts.
- **16.** Push in the locking tab that holds the right side of the intercooler and use one of the screws just removed to hold the tab



Pry here with a screwdriver to separate the intercooler. Then remove intercooler from car by first lowering the right side until the left side slides out of its bracket. Be aware of the lower left fan cover bracket so you don't damage it.

17.



19. Use an angled pry tool from the backside of the intercooler air guide to separate it from the locking tabs then lift it off the hooks and remove.





20. Disconnect cable connector from right side horn and then loosen the 8mm hex screw and remove horn from car.





21. Loosen hose clamps (7mm hex) that holds intercooler hoses to pipes then remove hoses from car.



23. Install the intercooler mounts on the do88 intercooler, in same direction as it had on OEM intercooler. Secure in place using 1pc 5,5x22mm washer and 1pc M5x12mm Allen screw on each side.



22. Remove both intercooler mounts from intercooler by prying locking tabs seen from bottom of intercooler using a screwdriver then remove locking plates and slide mounts off the intercooler.



24.

Install both intercooler hoses with clamps to the intercooler pipes in an approximate angle, do not tight the clamps yet.

25.

Install intercooler in car in the opposite way that the OEM intercooler was removed.

Fasten the intercooler mounts in the car with the 4pcs OEM screws previously removed, do not tighten yet.

26. Fasten the right side of the intercooler using included 1x M5x12 hex flange screw and 1x 5,5x22mm. Tighten the 4 screws holding the intercooler mounts.

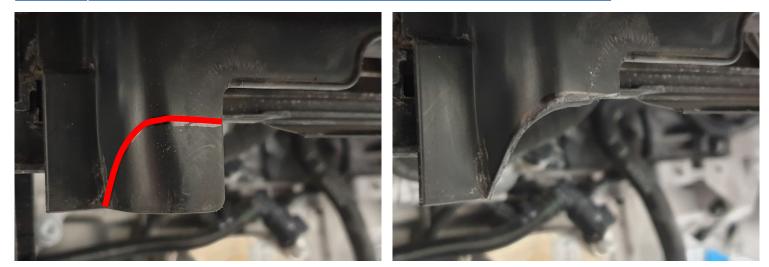






28.

On S90/V90 and some other models it might be necessary to cut the corners of the upper air guide according to before and after pictures below.



Install the suitable pair of supplied air guides to the intercooler with 4pcs supplied nylon washer between intercooler and air guide and secure with 4pcs M5x12 Black Allen screws.

NOTE! On some car models it might be necessary to trim the best fitting pair of plastic air guides for best fit.



30. If car have active grille shutter follow step 30-34: Note the position of the active grille shutter and keep it in this position. Remove two Torx T20 and then remove actuator from shutter.



31. Notice the position of the rotation limiter in the grille shutter.



29.

-Check in which direction the grille shutter simulator should sit on the actuator. -Place the T-shaped rotation limiter in grille shutter simulator so it is turned the same way as the rotation limiter in the grille shutter.



33. Assemble the actuator to the grille shutter limiter with the T-shaped rotation limiter as close as possible to the rotation just determined. Secure with 2pcs 5x25 screws included, screw in slowly to avoid damages to the actuator housing.



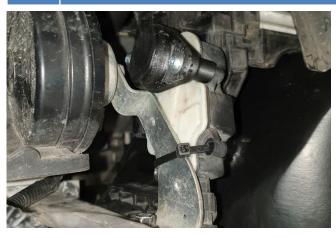


32.

Reinstall removed horn and secure shutter actuator to the horn bracket with included stripe and reconnect its electrical connector.



Install all other parts in reverse order.





Installation instruction do88 performance intercooler pipes for Volvo S60 / V60 / XC60 / S90 / V90 / XC90 SPA platform

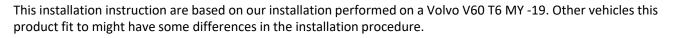
This instruction shows how to replace the OEM intercooler pipes with do88 performance intercooler pipes.



At this type of installation we always recommend that you have mechanical experience and knowledge about safety during work on vehicles.

Parts included:

- 1. 1pc Turbo to intercooler pipe
- 2. 1pc Intercooler to throttle body pipe
- 3. 1pc Silicone hose Turbo outlet (this photo shows the Petrol version)
- 4. 1pc Silicone hose Intercooler inlet
- 5. 1pc Silicone hose Intercooler outlet
- 6. 1pc Silicone hose Throttle body
- 7. 8pcs hose clamps
- 8. 2-4pcs Henn connector adapters
- 9. 1pc M5x12mm hex flange screw
- 10. 3pcs M8x20mm hex flange screws
- 11. 2pcs 370mm stripe

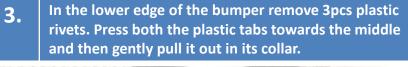




2. Remove 10pcs Torx T30 and two plastic clips then remove the plastic shield under the engine.



4. Remove 6pcs Torx T30 screws.







5. Remove 7pcs Torx T25 in each wheel arch.



7. Loosen the bottom plastic part just behind the bumper. If needed to remove completely to gain access it might be necessary to cut a few cable ties that holds cables on top of it.



6. In the lower left corner of the bumper, separate the electrical connectors from the bottom plastic so they are loose from it.



8.

Loosen the hose lock clip from throttle body by pushing hose towards throttle body and at the same time pry the lock clip to the same position as on the picture. Loosen the hose clamp in other end of hose.



9.

12.

Disconnect cable from sensor on upper pipe and separate the coolant hose secured in the upper intercooler pipe bracket.



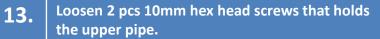
10. Loosen the hose clamps that holds the hoses to the lower intercooler pipe.

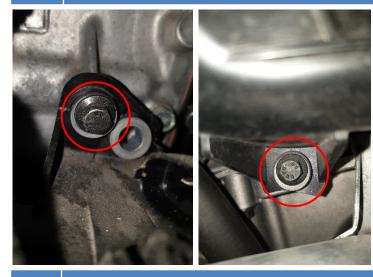
11.

Loosen the hose clamp that holds the intercooler hose to the upper intercooler pipe.

Remove the coolant hose secured in the lower intercooler pipe bracket. Then remove 3pcs 10mm hex head screws that holds the lower intercooler pipe.







15. From both intercooler connections and turbo outlet, remove clips the way described in step 8 and then remove these three hoses.



14.With both pipes loose, now remove the upper
pipe from the hoses to make space for removal of
lower pipe.
Then remove the lower intercooler pipe from its

Remove the upper intercooler pipe downwards.

Remove the throttle body hose.

hoses and jiggle it out downwards.



Remove Torx T30 screw that holds sensor to upper OEM intercooler pipe. Remove the sensor from lower intercooler pipe.



17. Install sensor in do88 intercooler pipe and secure with supplied M5x12 Flange screw



18. Determine which machined Henn connector adapters are included in your pipe kit (2-4pcs) then select the matching size OEM hose for each adapter and move the sealing and lock clips from that to the included connectors according to following steps.

19.

Remove lock clips by putting it in unlocked position then carefully from pry the plastic lock part upwards from the inside with a small screwdriver. Remove plastic part and lock clips. <u>Remove the</u> sealing ring.



20. Install the sealing ring and lock clips in the included Henn connector adapters. Make sure the sealing ring is installed in the same direction as it was in the OEM hose.



21. Install the included Henn connector adapters in the appropriate hose ends and secure with hose clamps.



23. Install upper intercooler pipe in hoses and fasten it using 2pcs included M8x20 hex head screws. Install hose clamps and tighten them.

24. Install lower intercooler pipe in hoses and fasten it using 1pc included M8x20 hex flange screw in the front bracket and the previously removed OEM screw in the rear bracket. Install hose clamps and tighten them.

25.

Secure the two coolant hoses in the pipe brackets with the included cable ties. Do not tighten to hard as it may deform the hose and restrict flow.



Install all other parts in reverse order.

