

Installation instruction do88 performance Intercooler for Volvo V70/S80 MY08-

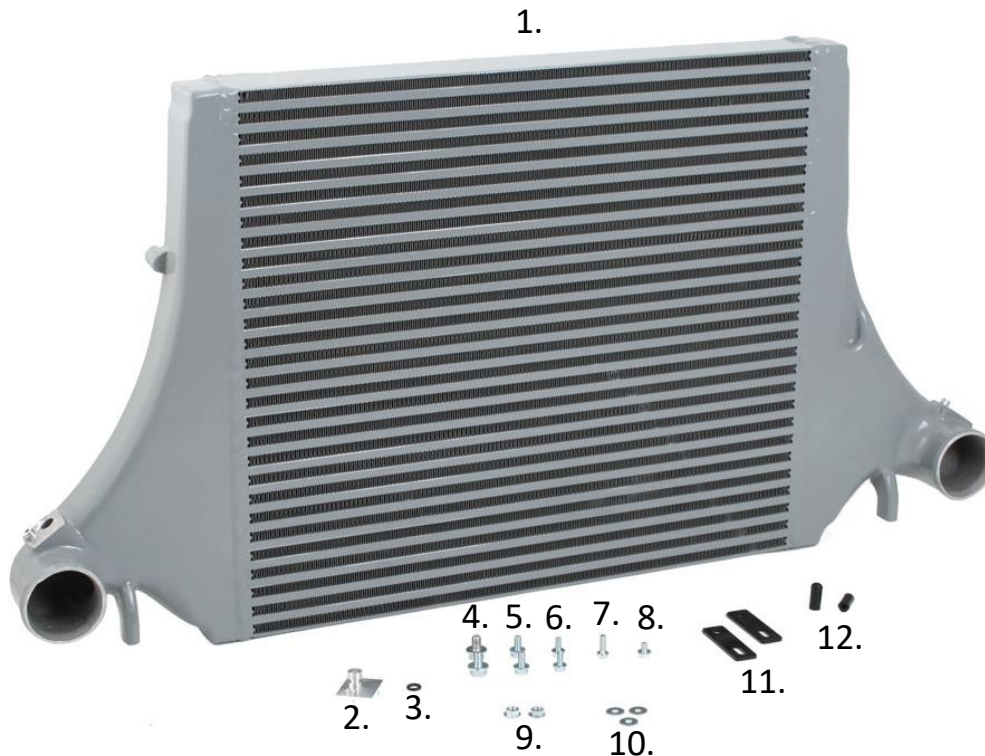
Part number: ICM-220-V70

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

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

Parts included:

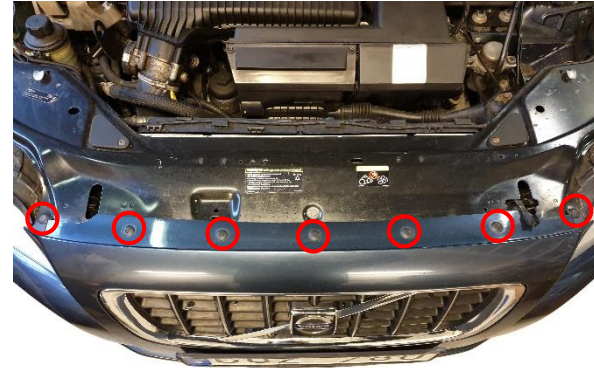
1. 1pc do88 Performance Intercooler
2. 2pcs Sensor connection cover
3. 2pcs O-ring for sensor cover
4. 2pcs M8x12mm screws
5. 4pcs M6x12mm screws (2pcs on picture)
6. 4pcs M5x12mm screws
7. 1pc Torx T25x16mm screw
8. 2pcs M5x8mm screw
9. 2pcs M6 nuts
10. 2pcs M5 nuts (not on picture)
11. 4pcs M5 washer
12. 4pcs brackets (2pcs on picture)
13. 2pcs P-clamp with rubber (not on picture)
14. 1pc 4mm Silicone caps



This installation instruction are written according to our installation of this intercooler performed on a Volvo V60 T6 AWD MY-12. Other vehicles that this intercooler also fit to might have some differences in the way of installation.



1. Loosen the 7 pcs plastic rivets on top of the bumper by pressing the middle part down and then pull rivet up by its collar.



2. In the wheel arch on both sides, remove 4pcs Torx T25.
In left wheel arch, remove 2 pcs 10mm hex plastic nuts.



3. For cars with headlight washers only. Inside the left wheel arch behind the inner fender you need to disconnect the hose for the head light washers and the connector on top of the pump.

Carefully remove the quick connector for the hose and seal the connection on the pump with the included silicone cap to prevent leakage.



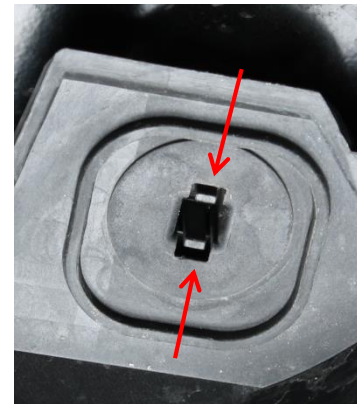


4. Remove the head lights. On both sides pull the two large metal locking pins straight up.
- Gently pull the head light forward until you can reach and disconnect the cable connector.

5. On both sides remove 1 pc Torx T25 in the front lower end in each wheel arch.



6. 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.



7. Disconnect the large cable connector located in the bottom of the bumper in front of the right inner fender.

Disconnect cable connectors from both fog lights.



8. This step should be performed with the help of an assistant.

On both sides, pull the bumper cover out from the fender to loosen the plastic clips that holds it in place.

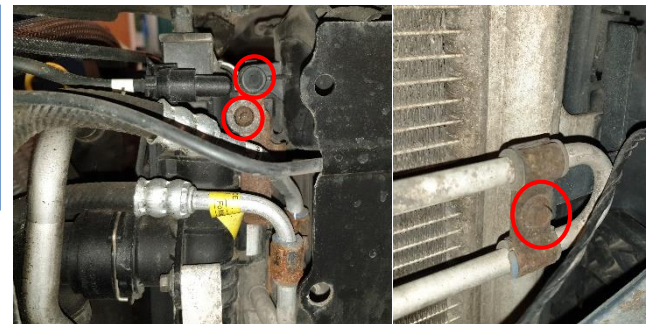
Remove the bumper cover from vehicle by gently pulling it straight forward from car until it comes loose from clips.

Now remove the bumper from the car.



9. Loosen the power steering cooling loop by removing the T30 screw and plastic clip inside of the right headlight.

Then remove the bracket in the other end of the loop by loosening the 8mm hex screw.

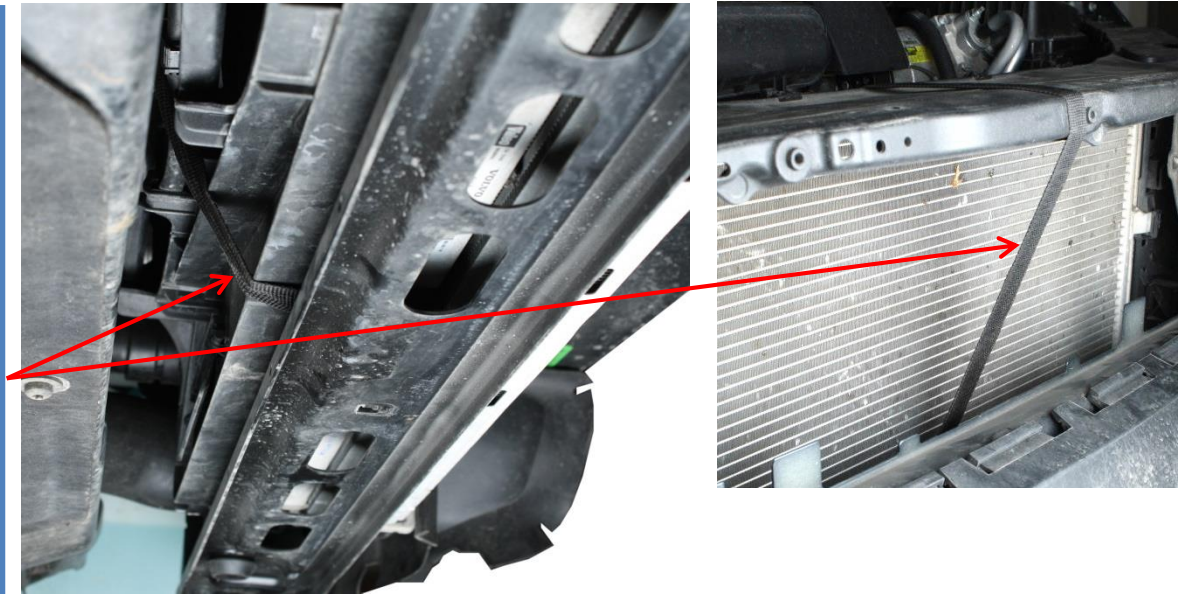


10.

To be able to remove intercooler the lower radiator support member must be removed. While this is removed the radiator and AC-condenser needs to be supported.

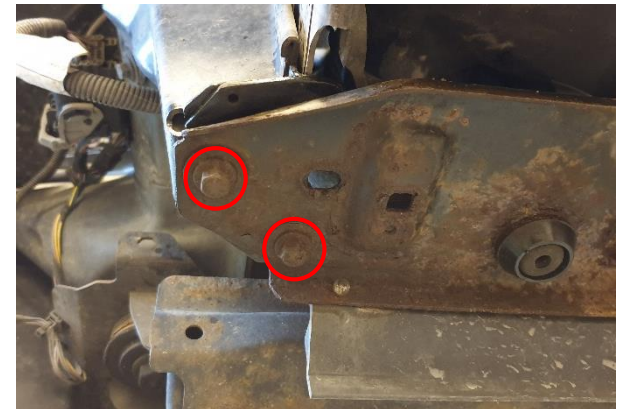
Use one or two long straps to support the radiator and AC-condenser.

Pull the strap in the gap between the AC-condenser and intercooler, then in gap between the bottom of the radiator and the radiator support member. Before tightening the strap make sure it does not damage anything.



11.

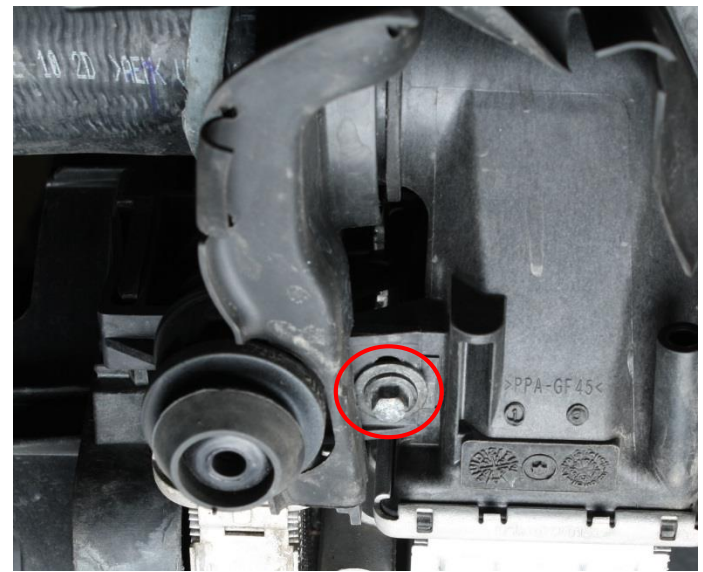
On both sides of the radiator support member remove 2x Hex 10mm. Remove it from the vehicle.



12.

Loosen the hose clamps on both the intercooler inlet and outlet. Pull the hoses off the connections.

13. Remove the 2pcs Hex 8mm on the intercooler bottom brackets. (The photo only shows the right side screw)



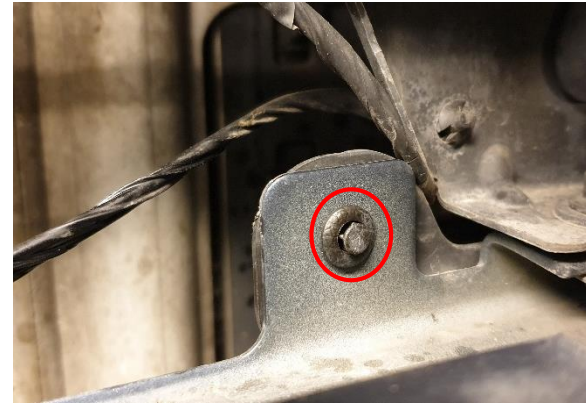
14. Now gently remove the intercooler from vehicle downwards. Remember to disconnect the sensor cable from the intercooler outlet once you have clearance to reach it.

15. Remove the sensor from the OEM intercooler 1pc Torx T25. Install the sensor in the flange on the same side it was located on your OEM intercooler. Fasten the sensor with the included Torx T25x16mm. Install the included sensor cover plate with o-ring installed in groove in the sensor flange on the other side of the intercooler. Fasten it with the included M5x8mm screw and washer. For some vehicles there are no sensor located on the intercooler at all, in these cases install one sensor cover in each sensor flange.



16.

Remove two plastic rivets that holds the air guides to the beam on both sides. Remove these by pressing the middle part down and then pull rivet up by its collar.



17.

Lower the radiator package a bit then unhook the right upper air guide from the radiator tab. Don't remove it completely just leave it in that position separated from the radiator.



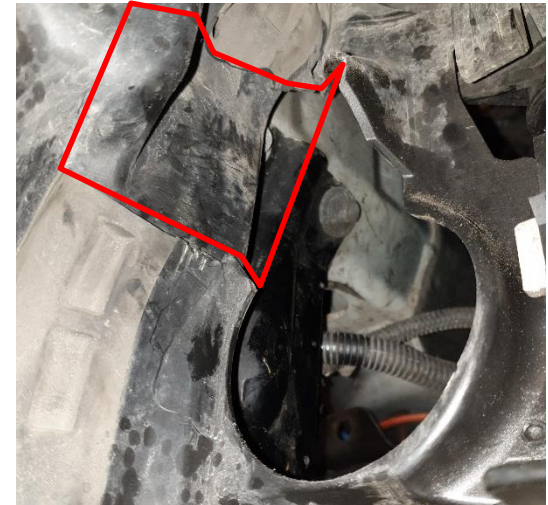
18.

Support the radiator and AC-condenser with something stable from the underside. And then remove the strap you installed in step 10. (The strap cant be kept since it will interfere with the do88 intercooler).

Now remove the strap.



- 19.** The plastic above the intercooler connection with the sensor installed to it needs to be trimmed to make space for the sensor and cable connector. Carefully cut the plastic according to the photo using a metal shears.



- 20.** Install the extension brackets under the intercooler mounting brackets located on the radiator on both sides. Insert M5x12 screw from the bottom of the extension bracket then M5 washer and M5 flange nut on top of the radiator bracket. Do this on both sides.



- 21.** This step should be performed with the help of an assistant.
- Now lift the do88 performance intercooler into place, it is a tight fit. So please take your time to carefully adjust into the right place. Make sure the 2 bottom brackets align with the brackets installed in step 19.
- Install the 2pcs included M5x12 screws into the 2 bottom intercooler brackets. Since this intercooler is quite heavy we recommend that you support its weight with a strap until you have installed the two top brackets as well.
- Connect the cable to the sensor previously installed on the intercooler.

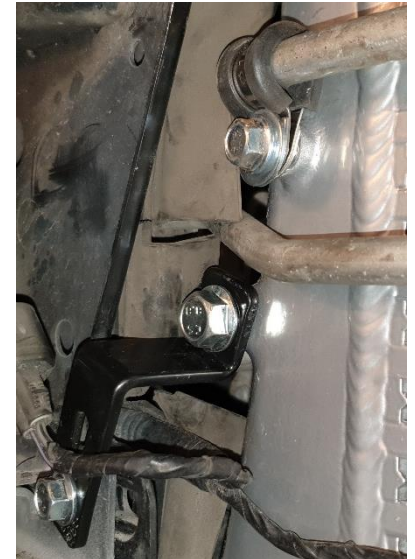
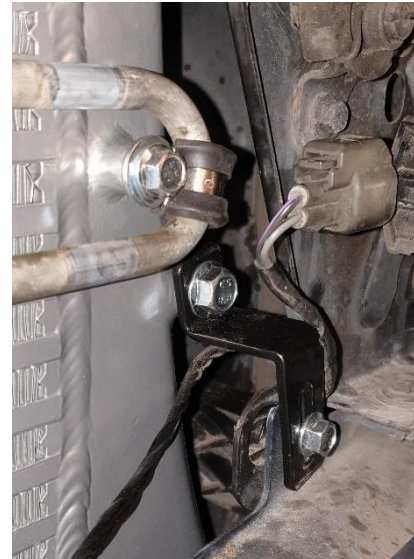
22. Connect the inlet and outlet intercooler hoses and tighten the hose clamps.

23. Re-install the radiator support member you removed in step 11.

24. This step should be performed with the help of an assistant. **If you have radar on your car please see step 26*.**

1. On both sides install the included brackets on the intercooler with the M8x12mm screws according to pictures below. Do not tighten them yet.
2. On both sides install the included M6x12mm screws and nuts in the oval hole in the brackets and the holes in the crash beam. Do not tighten them yet.
3. Now let your assistant gently lift the entire intercooler up a bit. Now tighten all screws. This way the 2 top brackets will support the major part of the intercooler weight.

25. Install the power steering cooling loop to the intercooler using the two included P-clamps and 2pcs M6x12 flange screws according to pictures.





26*.

*Only for cars with radar / adaptive cruise control.

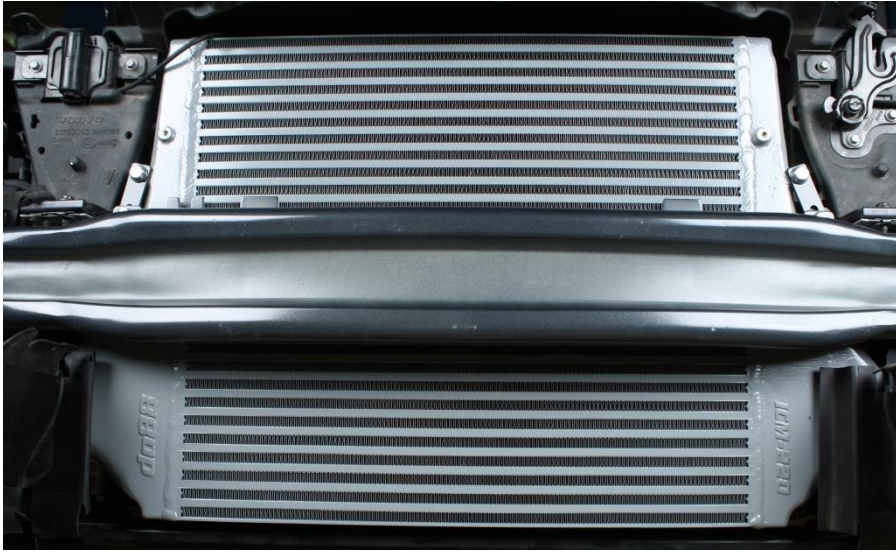
Note! It is not possible to install this intercooler together with the first version of radar sensor sold 2007-2008!

Apart from the steps in 24, you need to make clearance for the radar unit. This is achieved by placing the plastic shroud in-between the bracket and crash bar bracket.

Exchange the OEM screw marked on the photo with the included M6x12 Hex screw.



This intercooler does not fit with this type of adaptive cruise control radar sensor used up to 2012 (P# 30764939)



27. Install all other parts in reverse order.