

# Assembly & Installation notes JUBU gearbox oil cooling upgrade Exige S / 350 / 380)

Please follow the instructions in this manual for a proper assembly & installation of the JUBU gearbox oil cooling upgrade for Exige S, Exige 350 and Exige 380.

- 1. PART LIST
- 2. ASSEMBLY & INSTALLATION NOTES MECHANICALLY
- 3. INSTALLATION NOTES ELECTRONICALLY (WIRING HARNESS)

### 1. PART LIST

III.	Item	Item No	No of items
1	Gearbox oil heat exchanger	JPP620146	1
2	Bracket for gearbox oil heat exchanger	JU00151ART	1
3	Mount for gearbox oil heat exchanger	JU00309ART	1
4	Gearbox oil pump	JU00254ART	1
5	Gearbox oil filter	JPP620252	1
6	Bracket for gearbox oil pump EA60	JU00310ART	1
7	Hose #1 (oil from gearbox to pump)	JU00311ART	1
8	Hose #2 (oil from pump to heat exchanger)	JU00312ART	1
9	Hose #3 (oil from heat exchanger to gearbox)	JU00313ART	1
10	Silicone hose Ø 16mm 90°		2
11	Fitting 90° (AN8 female to AN8 female)	JU00095	1
12	Clamp for gearbox oil return adapter	JPP620075	1
13	M18x1.5 to AN8 adapter		1
14	USIT washer M18		1
15	Hose connector Ø 19mm	JU00255	1
16	Pipe clamp clamp Ø 20mm		1
17	Pipe clamp clamp Ø 45mm		1



III.	Item	Item No	No of items
18	Head cap screw DIN 912 M5x10		1
19	Head cap screw DIN 912 M5x30		4
20	Head cap screw DIN 912 M6x16		2
21	Head cap screw DIN 912 M6x20		4
22	Head cap screw DIN 912 M8x12		3
23	Head cap screw DIN 912 M8x20		2
24	Head cap screw DIN 912 M10x1.25x20		1
25	Washer DIN 125 M5		4
26	Spring washer DIN 137 M5		1
27	Spring washer DIN 137 M6		2
28	Spring washer DIN 137 M8		3
29	Spring washer DIN 137 M10		1
30	O-clip		4
31	Hose clamp Ø 26-28mm		3
32	Wiring loom JUBU gearbox oil cooling Exige S/350/380	JU00315ART	1
33	Fuse, 10A		1
34	Cable tie		10



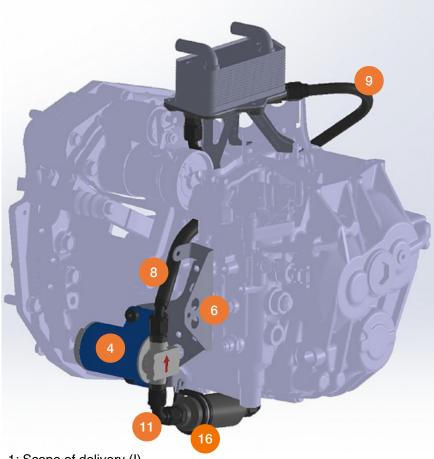


Fig. 1: Scope of delivery (I)

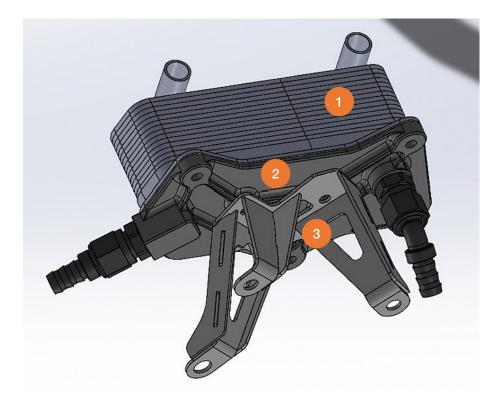


Fig. 2: Scope of delivery (II)



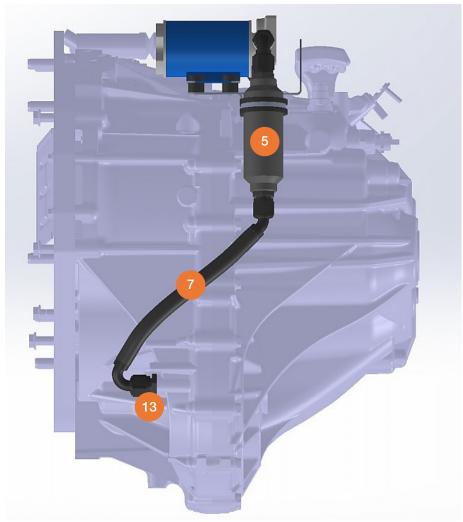


Fig. 3: Scope of delivery (III)



## **ASSEMBLY & INSTALLATION NOTES MECHANICAL**

- 1. Screw part JU00309ART (3) to the gearbox by using 1x DIN 912 M10x1,25x20 screw (24) (apply 50Nm of torque) and 2x DIN 912 M8x20 screws (23) (apply 25Nm of torque). Fix the screws with screw lock *LOCTITE 243 screw locking lacquere*.
- 2. Screw part JU00151ART (2) to part JU00309ART (3) by using 4x DIN 912 M6x20 screws (21) (apply 10Nm of torque). Fix the screws with screw lock *LOCTITE 243 screw locking lacquere*.
- 3. Make sure that the 19x3 O-rings sit correctly in their grooves of part JU00151ART (2).
- 4. Screw part JPP620146 (1) to part JU00151ART (2) with 3x DIN 912 M8x12 screws (22) and 3x DIN137 M8 spring washers (28) (apply 20Nm of torque). Fix the screws with screw lock LOCTITE 243 screw locking lacquere.
- 5. Replace the OEM clutch shock absorber bracket with the JUBU gearbox pump bracket JU00310ART (6). Re-use the OEM screws for mounting (apply 25Nm of torque) as well as the OEM clutch shock absorber (apply 10Nm of torque). Fix all screws with screw lock *LOCTITE 243* screw locking lacquere.
- 6. Replace the OEM oil drain screw by the M18x1.5 to AN8 adapter (13), and the USIT washer M18 (14) (apply 35Nm of torque).
- 7. (If not already pre-assembled), couple the gearbox oil filter JPP620252 (5) with hose # 1 JU00311ART (7) at the side with the straight AN8 adapter. The laser marked arrows on the filter have to point away from the hose. After attaching the filter, connect the 90° AN8 female to AN8 female fitting JU00095 (11) to the hose-assembly.
- 8. Connect the M18x1,5 to AN8 adapter (13) and the oil filter JPP620252 (5) via this hose assembly. (The 90° AN8 female to AN8 female fitting has to be screwed on the entry side of the pump).
- 9. Fix the oil filter JPP620252 (5) to part JU00310ART (6) by mounting 1 x pipe clamp Ø 45mm (16) with 1x DIN912 M6x16 screw and 1 x spring washer DIN 137 M6 (apply 10Nm of torque). Fix the screw with screw lock LOCTITE 243 screw locking lacquere.
- 10. Connect the gearbox oil pump (4) and the gearbox oil heat exchanger (1) via hose #2 JU00312ART (8). Fix the hose by mounting 1 x pipe clamp Ø 20mm (16) with 1x DIN912 M5x10 screw (18) and 1x spring washer DIN 137 M5 (26) to part JU00310ART (6)(apply 6Nm of torque). Fix the screw with screw lock *LOCTITE 243 screw locking lacquere*.
  ATTENTION! The AN8 connections have to be tightened with a maximum of 35Nm of torque. If the AN8 screwing connections are tightened with too much torque, they might start to leak!
- Start implementing the heat exchanger into the circle of the engine water cooling system by cutting the OEM water cooler hose that leads to the engine before and after the bleeder screw. Fix the side of the hose that is still connected to the engine with a hose clamp Ø 26-28mm (31) on the engine side.
- 12. Install the hose connectors  $\emptyset$  19mm (15) on both (now loose) ends of the OEM water hose and fix them with 1x hose clamp  $\emptyset$  26-28mm (31) each.



- 13. Install the Ø16 silicon hoses (10) on the hose connectors Ø 19mm (15) and fix them with 1x Oclip (30) each.
- 14. Install both Ø16 silicon hoses to the heat exchanger and fix them with 2x O-clip (30) (as shown on the picture below).

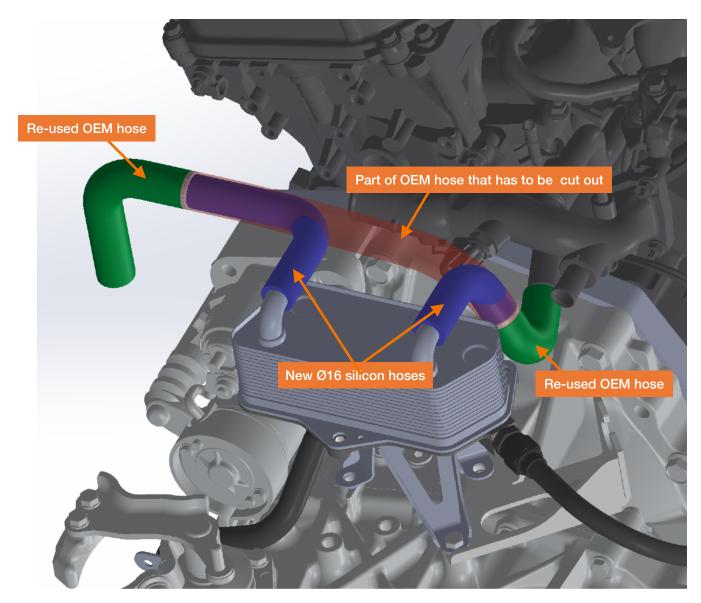


Fig 4. Correctly integrated heat exchanger



# **INSTALLATION NOTES ELECTRONICAL (WIRING HARNESS)**

- 1. **ATTENTION!** Before beginning any work on the electronics, disconnect battery from the car first!
- Put the wiring loom for the JUBU gearbox oil cooling Exige S/350/380 JU00315ART (32) through the grommet in the engine bay (direction: from the engine bay to the rear fuse box. NOTE: a small, enlarging cut in the grommet may be necessary).
- 3. Loosen the locking mechanism of the fuse carrier to be able to move it out of its fixed position.



Fig 5. Fuse carrier locking mechanism

- 4. Put the pin of the wiring loom (32) in the port marked in Fig. 5 from the rear.  $\triangle$  Make sure that the nose of the pin faces to top as shown in Fig. 7.
- 5. Insert the new Fuse 10A (33) in the socket marked in Fig. 6 and re-engage the lock of the fuse carrier.

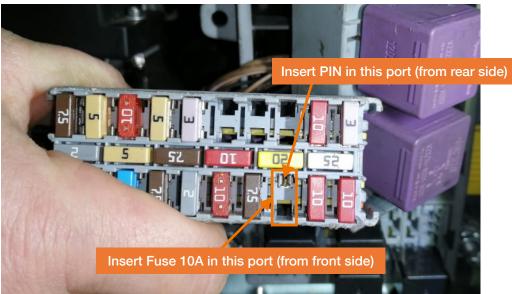


Fig. 6: Correct installation of pin from wiring loom and fuse 10A



Nose of pin has to face upwards when inserted into the fuse carrier (insert from rear side)

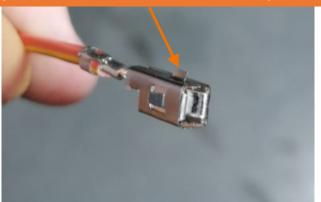


Fig. 7: Nose of pin has to face upwards

- 6. Connect the cable of the pump that has a tab on its end with the ground-screw which is located next to the engine control unit (ECU).
- 7. Connect the loose end of the JUBU gearbox oil cooling wiring loom (32) to the gearbox oil pump (4).
- 8. Fix the JUBU wiring loom at the engine main wiring loom with cable ties (34).
- 9. Re-assemble electronic compartment of the car.

If you have any questions or need additional information, please contact us by email: <u>info@jubu-performance.com</u>

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