

**Procedure:** L140-07.04

**Operation:** Thermo coupling interface replacement

**A Control of correct thermo-coupling interface replacement**

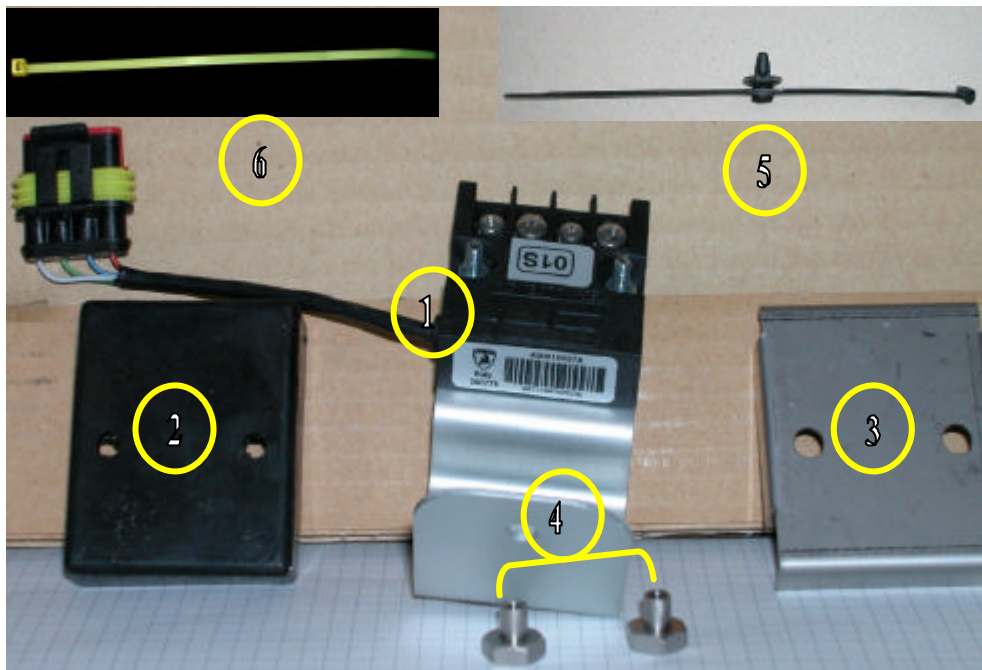
**PARTS:**

Thermo coupling interface (ref. 1) p/n 400919935A

Protection (ref. 2,3,4): p/n 400919221A; Clamp A (ref. 5) p/n N 90926601

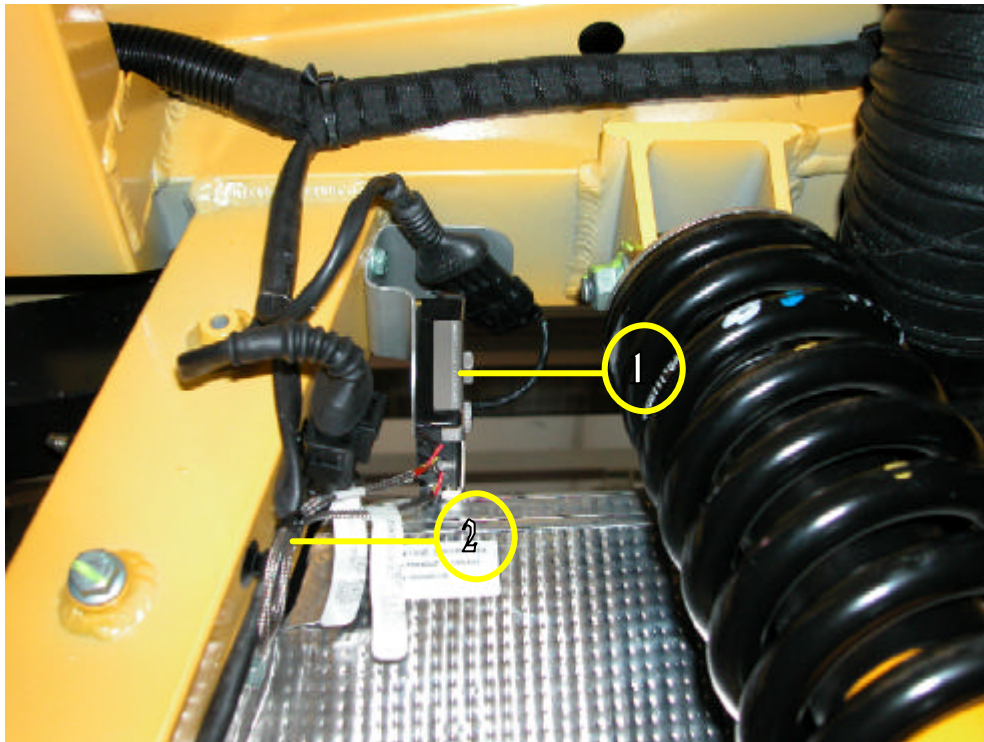
Clamp B (rif. 6) P/n N 10562301

Fig. 1



- 1.1 Place the car on the lift and after mount protective covers on the vehicle body.
- 1.2 Remove the rear right wheel
- 1.3 Remove gravel guard on the rear wheel
- 1.4 The thermo-coupling interface with its bracket Fig.2 is now accessible
- 1.5 Check if the cover fig.2 rif.1 is present, if it is without protection you have to go on with step B.
- 1.6 Check if the wires of the sensors are properly fixed as shown in fig.2 rif.2, refer to step C.

Fig.2



- 1.7 Reassemble the parts you have previously disassembled tightening the wheel bolts with torque measurement of 140 Nm.

**B. Thermo coupling interface substitution**

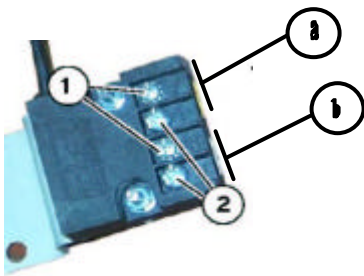
- 1.1 It would be advised to use a small light to get the best possible lighting while you are working.
- 1.2 Remove the two bolts anchoring the component to the chassis Fig.3 ref.1
- 1.3 Disconnect the connector (Fig.3 ref.2) from the thermo coupling interface

Fig.3



- 1.4** Loosen the bolts and remove the 4 input terminals from the terminal blocks (fig 4 ref 1 and 2)

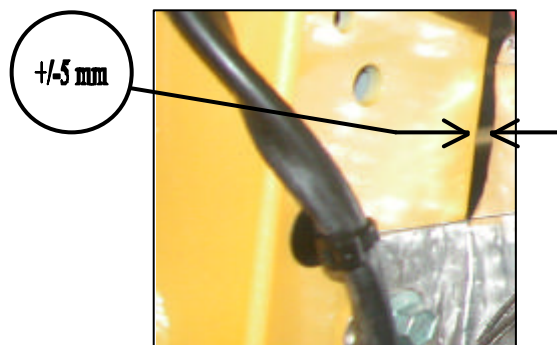
Fig.4



- a) a) Banked thermocouple input 6-10 (yellow)  
b) Banked thermocouple input 1-5 (white)  
1) Terminal block for the yellow wire  
2) Terminal block for the red wire

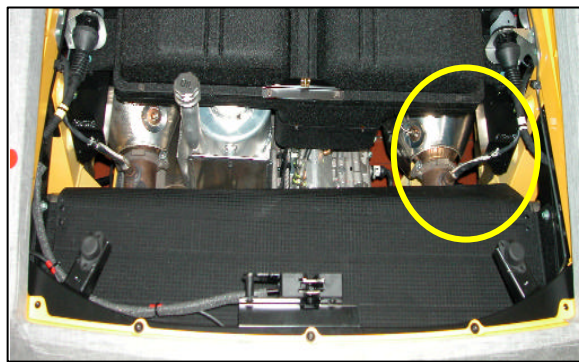
- 1.5** Widen the terminal passage of the sensors using a screwdriver or other device (fig.5)

Fig.5



- 1.6** Lower the car height on the lift, then open the engine bonnet and remove the panel placed over the muffler to identify the working area (fig. 6)

Fig.6





- 1.7** Remove the cable tie from the clamp A (Fig.1 ref. 5 p/n N 90926601) and then insert it in to B (Fig.1 ref.6 P/n N 10562301) so you get a new fastening device C ( fig. 7)

Fig.7



- 1.8** Extend properly the Thermo coupling interface wires , make the terminals run through the passage (item**1.4**) as shown in fig.8 ref.1 and tighten the wires with a clamp C to the frame as in fig.8 ref.2.

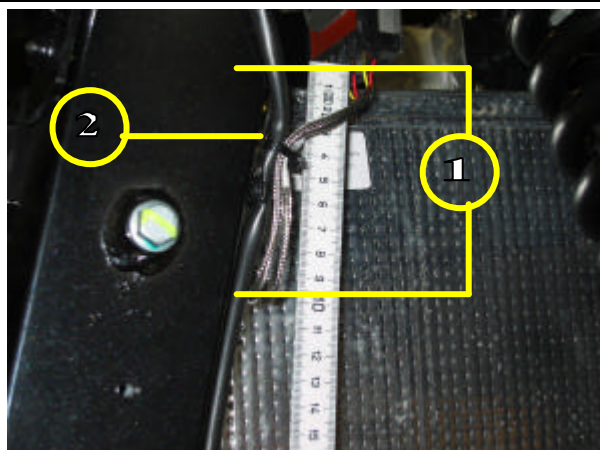
Fig.8



- 1.9** Reassemble the panel placed over the muffler, close the engine bonnet and lift again the car in order to access the rear right wheel area.
- 1.10** Connect the wires to the terminals of the **new thermo coupling** as shown in fig.4 ref.1 and 2
- 1.11** Plug the connector in as shown in Fig 3.ref.2
- 1.12** Position the gasket (fig.1 ref. 2 )on the new thermo coupling interface.
- 1.13** Assemble the metal protection fig.1 ref.3 by tightening the bolts fig .1 ref.4 properly.
- 1.14** Tighten the new thermo coupling interface on the frame (fig. 3 ref.1) with a proper torque measurement.
- 1.15** Position the thermo coupling wires (fig. 9 ref.1) and fasten them with a clamp B (p/n N 10562301) to the next closest wire assembly(fig.8 ref.2).



Fig.9



- 1.16 Reassemble the parts you have previously disassembled tightening the wheel bolts with torque measurement of 140 Nm.

### C Routing of the thermo coupling interface wires

- 1.1 Remove the metal protection (fig. 1 ref. 3) by unscrewing the nuts
- 1.2 Remove the sealing gasket (fig.1 ref. 2)
- 1.3 Loosen the bolts and remove the 4 input terminals from the terminal blocks (fig 4 ref 1 and 2)
- 1.4 Widen the terminal passage of the sensors using a screw driver or other device (fig.5)
- 1.5 Lower the car height on the lift, open the engine bonnet and remove the panel over the muffler to identify the working area (fig. 6)
- 1.6 Remove the cable tie from the clamp A (Fig.1 ref. 5 p/n N 90926601) and then insert it into B (Fig.1 ref.6 P/n N 10562301) so you get a new clamp C ( fig. 7)
- 1.7 Extend properly the Thermo coupling interface wires , make the terminals run through the passage (item1.4) as shown in fig.8 ref.1 and fasten the wires with a clamp C to the frame as in fig.8 ref.2.
- 1.8 Reassemble the panel placed over the muffler, close the engine bonnet and lift again the car in order to access the rear right wheel lodge
- 1.9 Connect the wires to the terminals of the thermo coupling as shown in fig.4 ref.1 e 2
- 1.10 Position the gasket (fig.1 ref. 2 )on the new thermo coupling interface.
- 1.11 Assemble the metal protection fig.1 ref.3 by tightening the bolts fig .1 ref.4 properly
- 1.12 Position the thermo coupling wires (fig. 9 ref.1) and fasten them with a clamp (p/n N 10562301) to the next closest wire assembly (fig.8 ref.2).
- 1.13 Reassemble the parts you have previously disassembled tightening the wheel bolts with torque measurement of 140 Nm.