INSTALLATION RECOMMENDATIONS
PLUGTRONIC PREMIUM AND STANDARD
SUZUKI SWIFT

Manual: 29 2401 10 0180. Plugtronic Premium 1850W, compl. Installation/clima-kit: 29 2478 81 8001
Plugtronic Standard 850W, compl. Installation-kit: 29 2478 80 8001



THIS ASSEMBLY APPLIES TO VEHICLES ACCORDING TO THIS PROPOSAL AND WITH THE PRODUCTION YEAR 07/2017 TO THE UPCOMING MODEL CHANGE

0,998l cubic capacity / 82kW – 111 HP



EQUIPMENT

- Fog lights
- Manual airconditioning
- Manual transmission

Mounting time approx. 3 hours

Eberspächer

A WORLD OF COMFORT

INTRODUCTION

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PLEASE NOTE!

This installation recommendation is valid for the above mentioned vehicle to the exclusion of all liability claims.

Deviating model years and/or deviating equipment may result in modifications to this installation recommendation.

It is therefore mandatory to check the feasibility of installing the heater in the vehicle before starting work.

All liability claims resulting from modifications to the vehicle are excluded.

1 INTRODUCTION

SPECIAL TEXT FORMATS, PRESENTATIONS AND PICTURE SYMBOLS

In this installation recommendation, special text formats and picture symbols are used to emphasize different contents. Please refer to the following examples for their meanings and appropriate action.

SPECIAL TEXT FORMATS AND PRESENTATION

- This dot (•) denotes a list, which ist started by a heading.
  - If an indented dash (-) follows a «dot» , this list is a sub- section of the black dot.

PICTURE SYMBOLS

DANGER!
This information points out a potential serious or fatal danger. Ignoring this information can result in severe injuries.

→ This arrow indicates the appropriate precaution to take the avert the danger.

CAUTION!
This information points out a dangerous situation for a person and / or the product. Ignoring this information can result in injuries to people and / or damage to machinery.
→ This arrow indicates the appropriate precaution to take avert the danger.

PLEASE NOTE!
These remarks contain recommendations for use and useful tips for the operation, installation and repair of the heater.

ACCIDENT PREVENTION

General accident prevention regulations / health and safety regulations and the corresponding workshop, company and operating safety instructions are to be observed.

SAFETY INTRODUCION FOR INSTALLATION AND REPAIR

DANGER!
Improper installation or repair of Eberspächer heaters can cause a fire or result in toxic exhaust entering the inside of the vehicle.
This can cause serious and even fatal risks.

→Only authorized and trained persons may install the heater according to the specifications in the technical documents or repair it using original spare parts.

→Installation and repairs by unauthorized and untrained persons, repairs using non-original spare parts and without the technical documents required for installation and repair are dangerous and therefore are not permitted.

→Installation according to this installation recommendation may only be carried out in conjunction with the respective unit-related technical description, installation instructions, operating instructions and maintenance instructions. This document must be carefully read through before / during installation and repair and followed throughout. Particular attention is to be paid to the official regulations, the safety instructions and the general information.

PLEASE NOTE!
- The relevant rules of sound engineering practice and any information provided by the vehicle manufacturer are to be observed during the installation and repair.
- When carrying out electric welding on the vehicle, the positive cable at the battery should be disconnected and earthed to protect the control box.

LIABILITY CLAIM / WARRANTY

Eberspächer does not accept any liability for defects and damage, which are due to installation or repair by unauthorized and untrained persons. Compliance with the official regulations and the safety instructions is prerequisite for liability claims. Failure to comply with the official regulations and safety instructions leads to exclusion of any liability of the heater manufacturer.

1 INTRODUCTION

ADDITIONAL INFORMATION ON THE ALIDITY OF THE INSTALLATION RECOMMENDATION

The installation recommendation is valid for the vehicle with the engine and gearbox options listed in the following.

ENGINE AND GEARBOX OPTIONS

Cubic capacity	kW / hk	Gearbox
0,998l	111hk	Manual

5 S = 5 gear manual box
6 S = 6 gear manual box

PLEAS NOTE!

- The installation recommendation is not valid for right-hand drive vehicles.
- Vehicle models, engine types and featurs options not listed in this recommendation, have not been tested. Installation acccording to this installation recommendation can still be possible

INITIAL STARTUP OF THE HEATER OR FUNCTIONAL TEST

- After installation or carrying out a repair on the heater, the coolant circuit must be carefully vented.
  Comply with the instructions issued by the vehicle manufacturer
- Open all heating circuits before the trial run (set the temperaturecontroller to "hot").
- During the heater trail run, all water connections must be checked for leaks and secure, tight fit.
- Of faults occur while the heater is running, use a diagnostic unit to correct the cause of the fault.

PARTS REQUIRED FOR INSTALLATION

QUANTITY	DESIGNATION	ORDER NO.
1	Plugtronic Premium 1850W EU 12V, compl. Installation and clima-kit	29 2478 81 8001
1	Plugtronic Standard 1200/800W EU, compl. Installation-kit	29 2478 80 8001
	Option	
1	Plugtronic Batteriladdare add-on 7A/12V Suzuki Swift	29 2498 89 0052

SPECIAL TOOLS REQUIRED

- Torque wrench (5…50 Nm)
- Anti-corrosion agent
- Pliers for spring band clamps
- Crimping tool
- Step drill

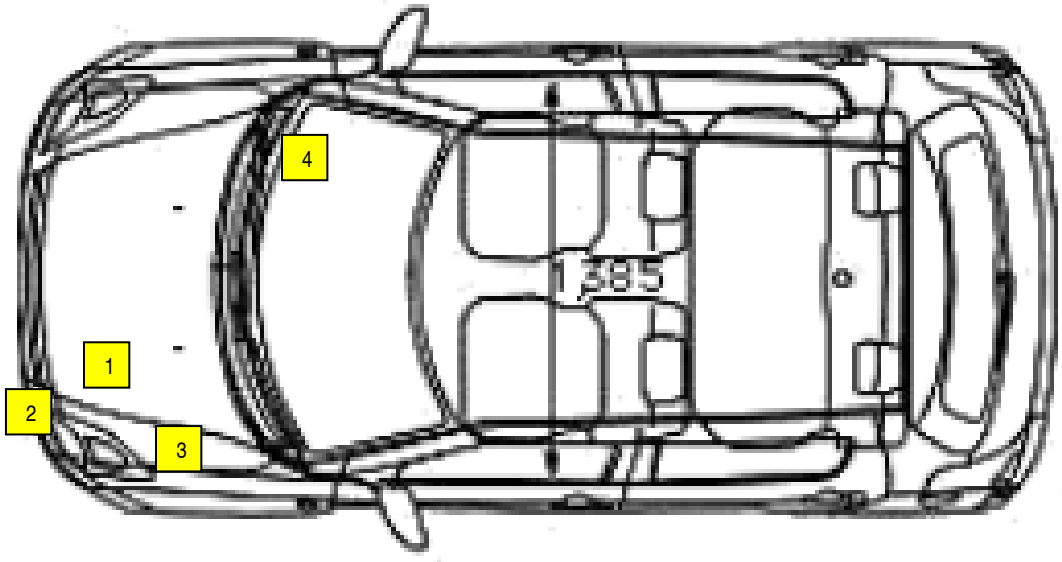
TIGHTENING TORQUES

If no tightening torques are specified, tighten the screw connections according the following table:

Skruforbindelse	Tiltrekningsmomenter
M4	$3^{+0,5}$ Nm
M5	$5^{+0,5}$ Nm
M6	10^{+1} Nm
M8	20^{+2} Nm
M10	45^{+2} Nm
TRX M6	$6^{+0,5}$ Nm
Hose clip for water hose	$3^{+0,5}$ Nm
Hose clip for water hose	$3^{+0,5}$ Nm

1 INTRODUCTION

Installation overview





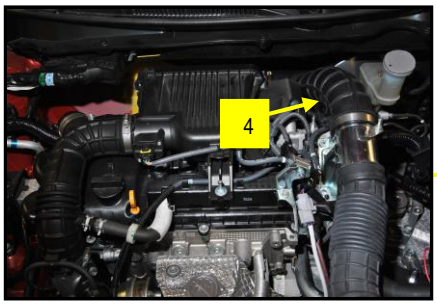
1. Water heater and water pump
2. 230V Cable connection
3. Battery Charger(Option)
4. Climate control connection (Only Premium)

4 INSTALLATION COPE´HEATER

Disconnect the battery (1)

Depressurise the cooling system (2)

Remove the engine cover (3) and the hose from the suction (4)



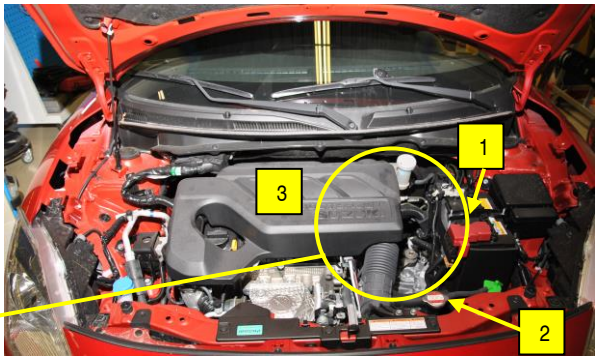


Fig. 1

Affix the duplicate nameplate (1) to the B-column in a clearly visible position.



Fig. 2

Remove the underbody coverage.



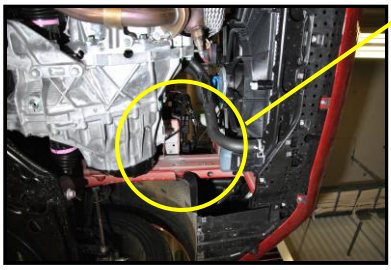
Fig. 3

4 INSTALLATION COPE´HEATER

Premium & Standard.

Take the bracket and hold it with the fix point number one (1) to the already existing hole.
Mark the place for the second fixpoint (2).
Drill a hole with Ø9mm and enlarge the hole for fix point number one up to 9mm.

Fasten blind rivet nuts to both holes.



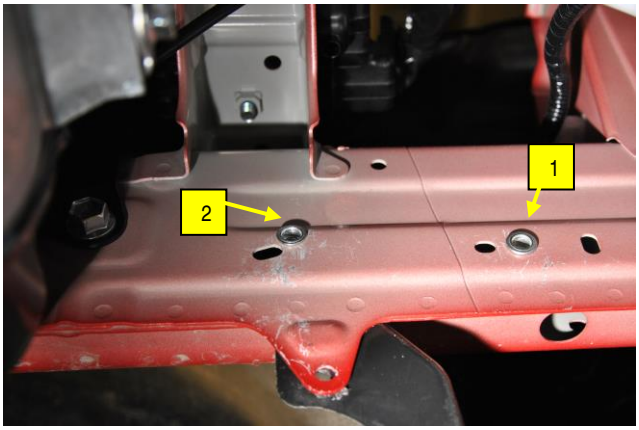


Fig. 4

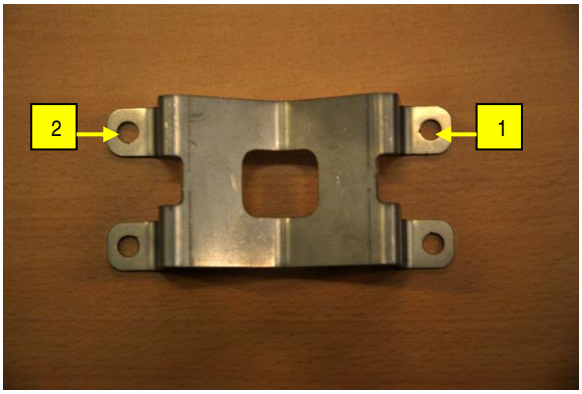


Fig. 5

Drill a hole with Ø6,5mm through the black plastic wheel housing.

CAUTION!
Use rust protection for the drillings to prevent corrosion.



Fig. 6

4 INSTALLATION COPE´HEATER

Premium & Standard.

Fix the mounting bracket to the heater as shown in the picture (1).

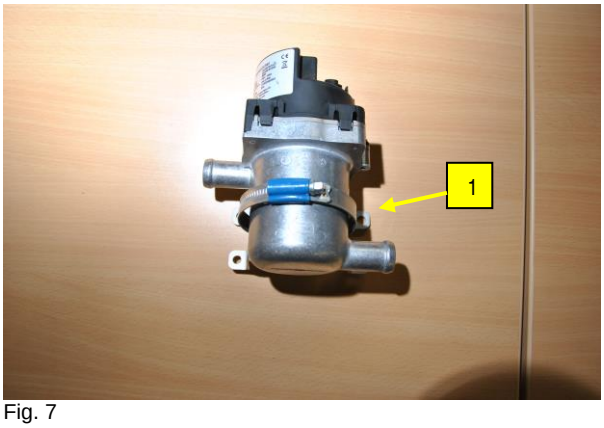


Fig. 7

Mount the rubber (1) on the water pump.



Fig. 8

Fix the water pump to the holder (1).

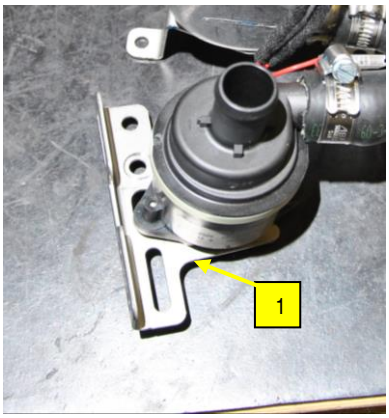
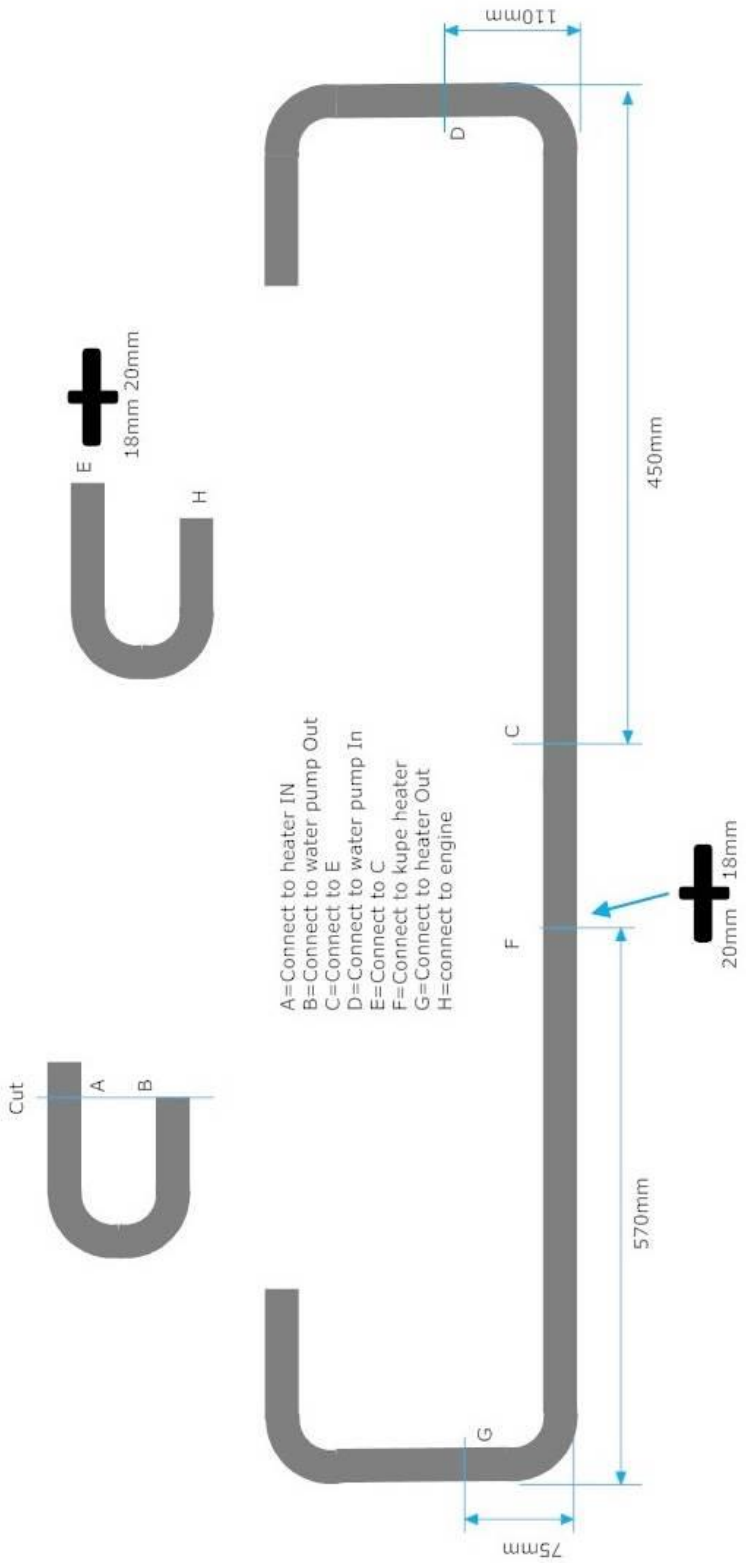


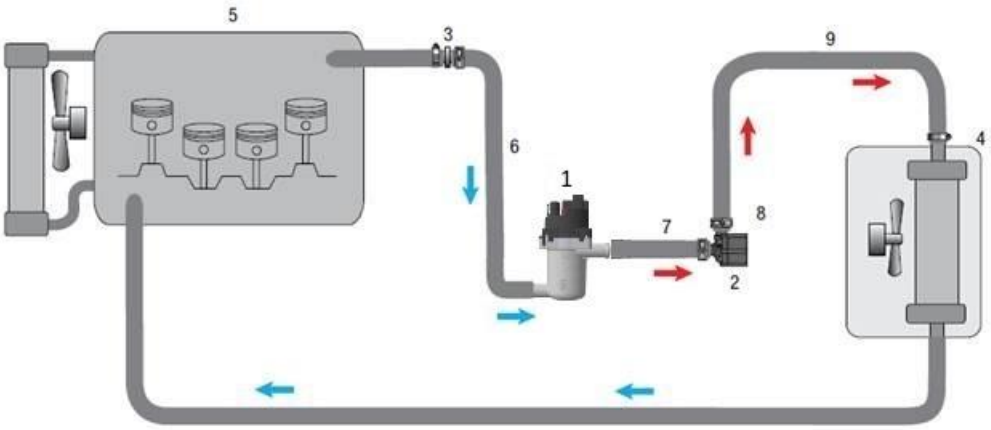
Fig. 9

4 INSTALLATION COPE´HEATER

Preparing of water hoses, Premium & Standard.



4 INSTALLATION COPE´HEATER



1.Heater. 2.Waterpump. 3.Connector to engine. 4. Compartment heater. 5. Engine. 6. Waterhouse to heater. 7. Waterhouse from heater to water pump. 8. Water pump OUT. 9. Waterhose to Compartment heater.

Premium & Standard.

Connect the heater and the water pump with the angled hose (1) with the exit A and B (show in the overview of the hoses).

Use screw clamps for connection (2) !

Connect the cable to the water pump (3).

Use grease for the connection of the electronic parts as well as for the hoses.

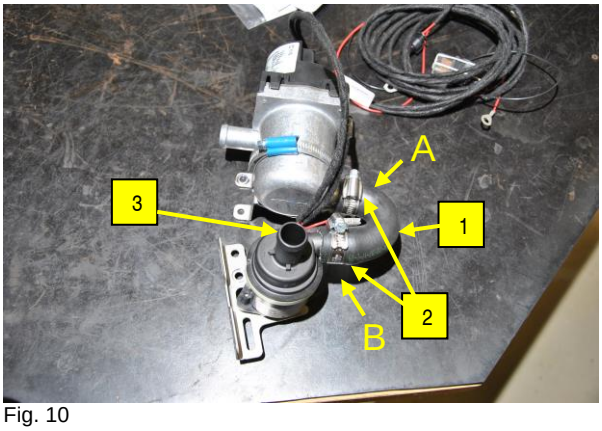


Fig. 10

4 INSTALLATION COPE´HEATER

Premium & Standard.

Connect hose number one (1) to the inlet of the water pump and hose number two (2) to the exit of the heating.

Connect the hoses with the corresponding outputs (marked by letters) as shown in the overview (Page 9).

Use shrinking tubes to protect the water hoses.

Use Screw clamps for connection!

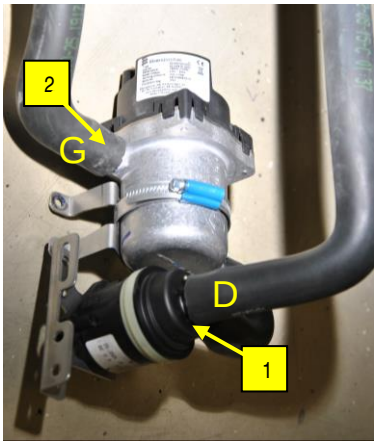


Fig. 11

Mount the heater and the waterpump in the engine compartment.
Mount the screw of the water pump so that the head of the screw points outwards from the wheelhouse (other way to what you can see in the picture) (1).

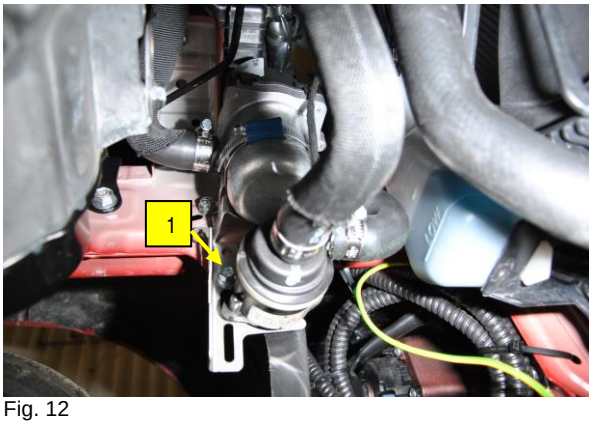


Fig. 12

⚠ CAUTION!

Pay attention that the whater hose does not touch the cooling water tank. If necessary make some adjustments to the holder.

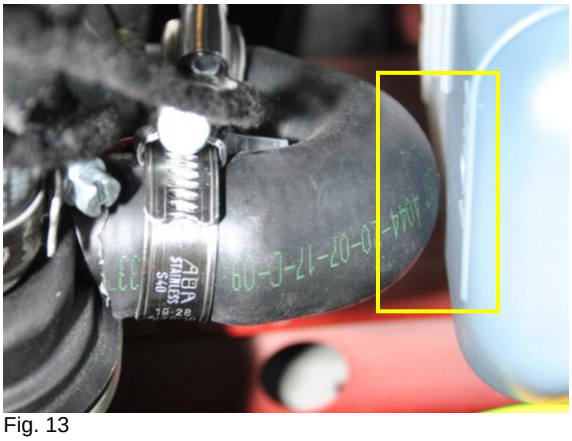


Fig. 13

4 INSTALLATION COPE´HEATER

Premium & Standard.

Drill the marked hole of the bracked up to Ø10,5mm.



Fig. 14

Mount the bracket with the hose holder to the shown place in the engine compartment.
Fix the water hose from the heater (1) to the holder.



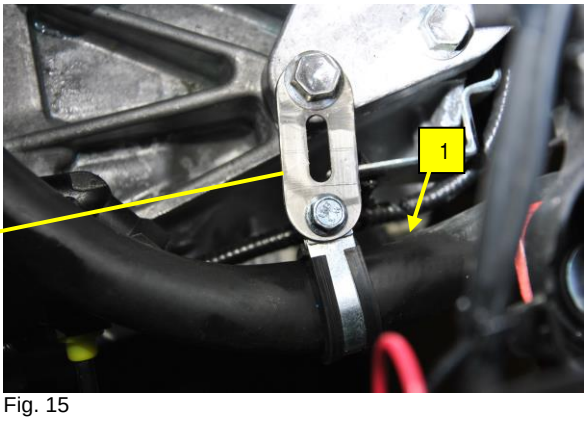
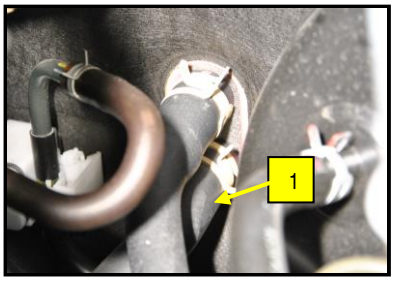


Fig. 15

Clamp the hose to the heat exchanger (1) with a plier (2).



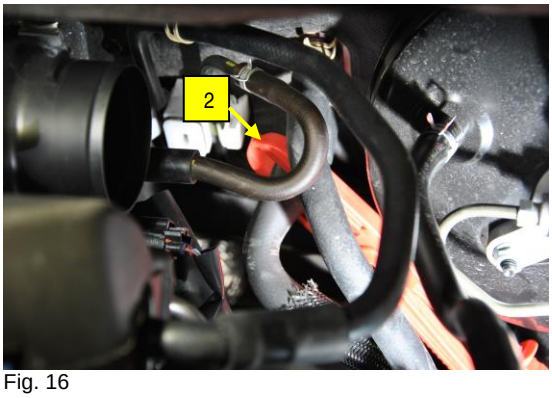
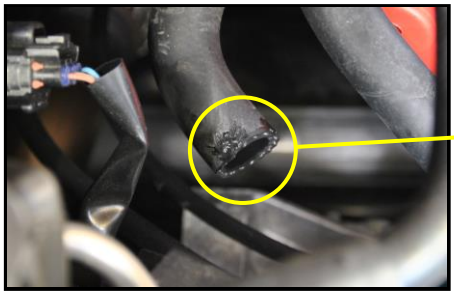


Fig. 16

4 INSTALLATION COPE´HEATER

Premium & Standard.
Cut the hose to the heat exchanger at the marked point.



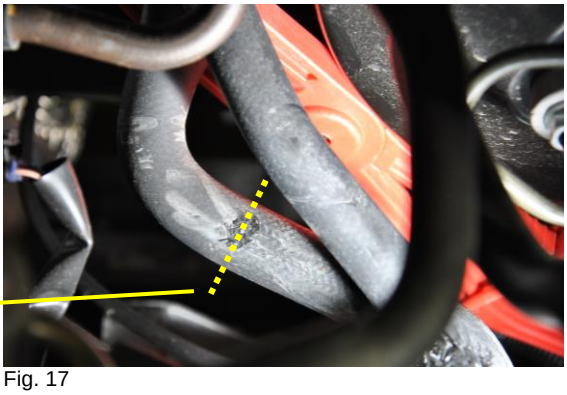


Fig. 17

Connect the hose from the outlet of the heater to the heat exchanger with a transition peace Ø20/18mm (1).
Adjust the length of the hose if necessary.

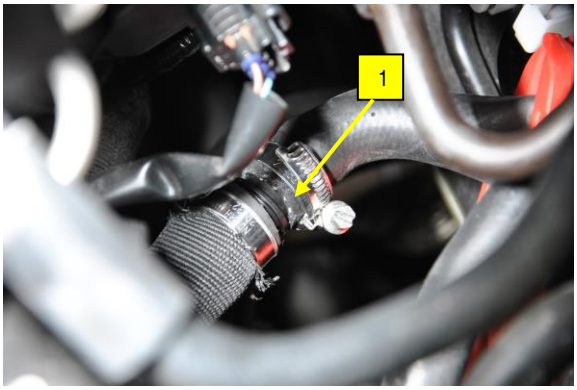


Fig. 18

4 INSTALLATION COPE´HEATER

Premium & Standard.

Remove the cooling hose that come out of the engine (1) and replace it with an 180° angled hose (2).

Connect the hoses with the corresponding outputs (marked by letters H+E) as shown in the overview (Page 9).

Use hose clips for the connection!

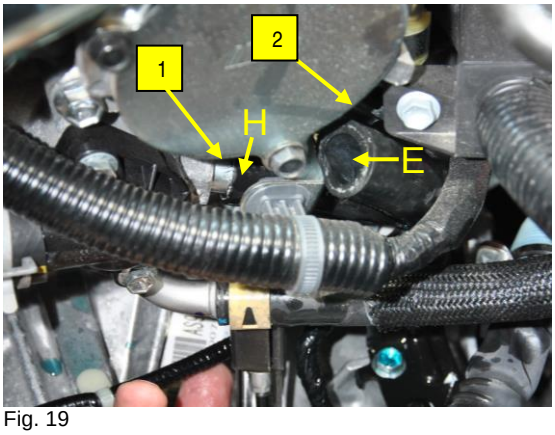
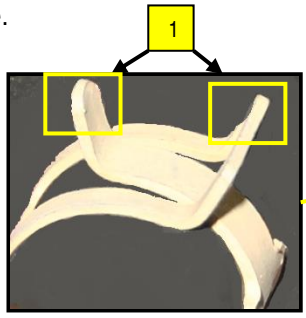


Fig. 19

Turn the clamp from the hose below downwards so far, that the sharp edges get away from the water hose.



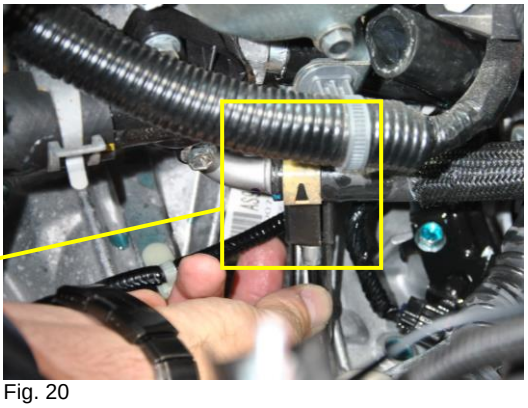


Fig. 20

Connect the hose from the water pump to the angled hose. Use a transition peace Ø20/18mm (1).

Use hose clips to connect the hoses (2).

CAUTION!

Make sure that the hoses have enought distance to hot objekts and do not rub.

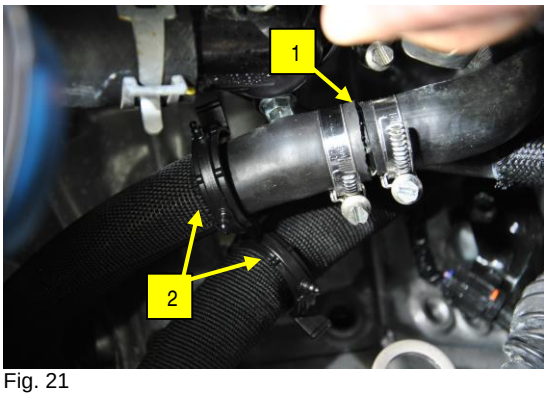


Fig. 21

4 INSTALLATION COPE´HEATER

Premium & Standard.

CAUTION!

Make sure that the hose has enought distance to the edge of the screw.

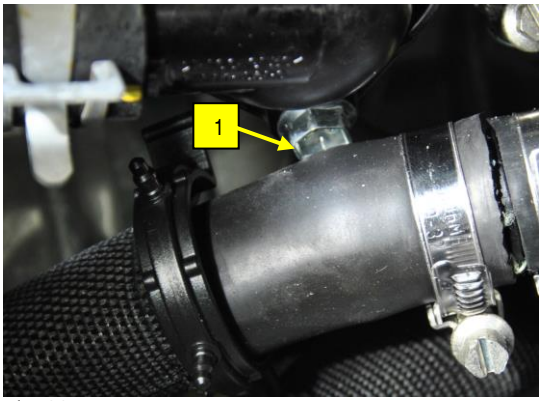


Fig. 22

CAUTION!

Use a hoseclip to prevent the contact between the waterhouse (1) to the heat exchanger and the elektric wire (2) .

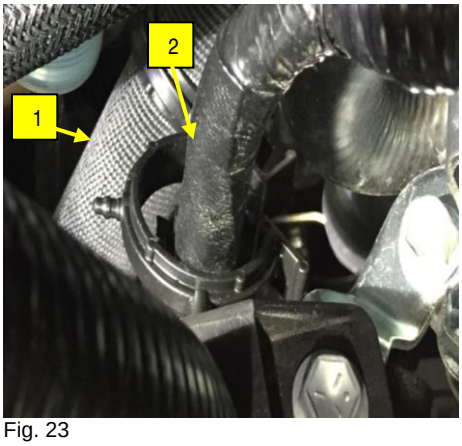


Fig. 23

4 INSTALLATION COPE´HEATER

Installing battery charger

(Option)

Attach the holder to the battery charger as shown in the picture.

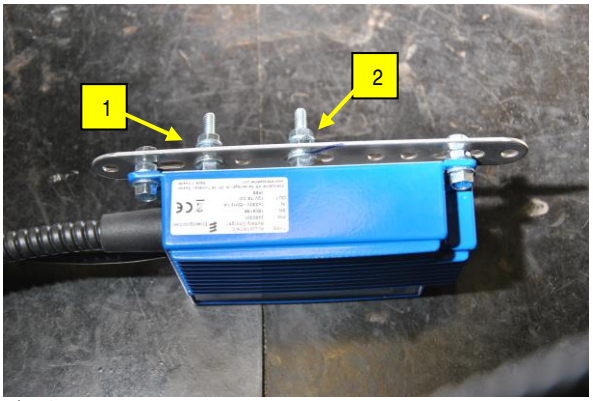


Fig. 24

Hold the holder with the battery charger to the existing hole (1), take a mark and drill the second hole Ø6,5mm (2).

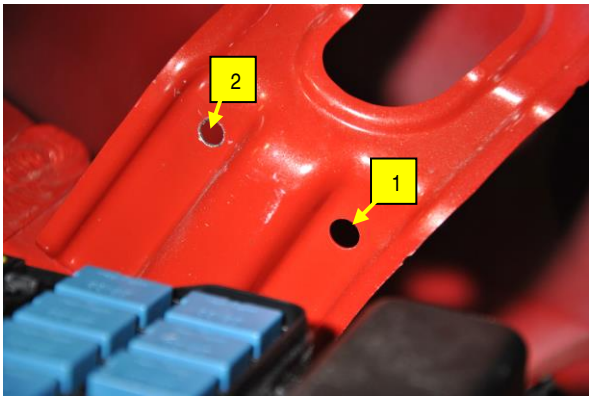
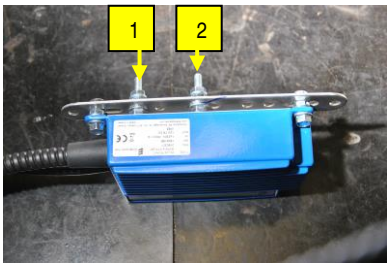


Fig. 25

Fix the battery charger as shown in the picture.



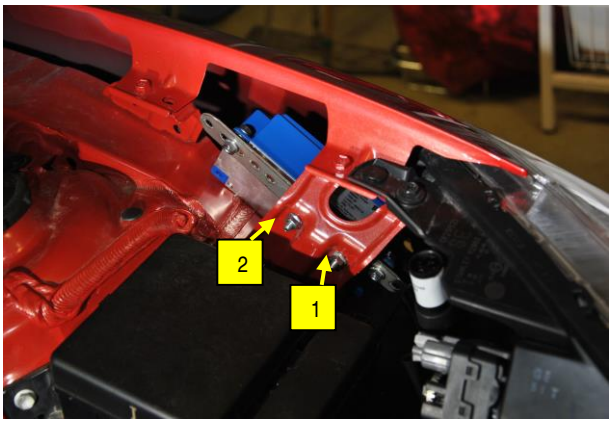


Fig. 26

4 INSTALLATION COPE´HEATER

Installing battery charger, (Option)

Connect a T- peace (1) to the charger and do the connections to the heater with the 230V cable (2). Lead the 12V (3) cables to the battery.

Use grease on all 230V connector O-rings.

Fix as well the climate control cables (fuse and heater) to the connection point (4 Only Premium) and lead them up to into the engine compartment.

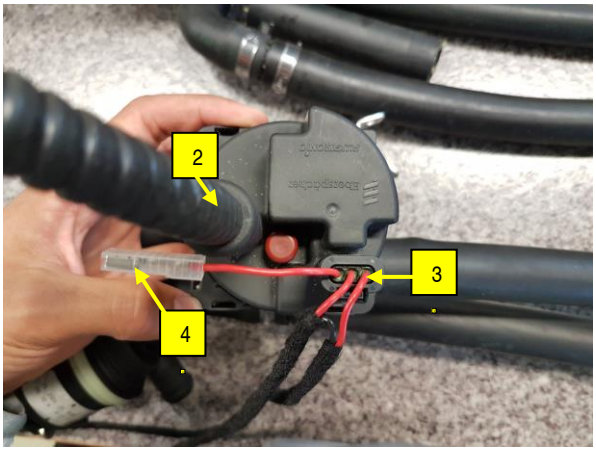
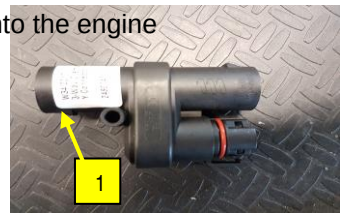


Fig. 27



PLEASE NOTE!

It is not necessarry to remove the heater

Lift the car up and make a mark on the point shown in the picture.

Drill a hole Ø30mm into the bumper and file a small (1) notch on top of the drilling.

Fix the clip (2) and fasten the plug for the 230V connection.

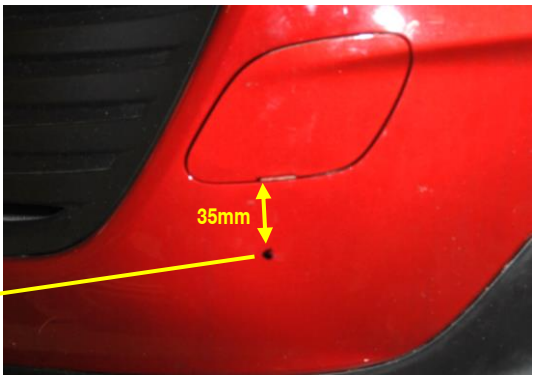
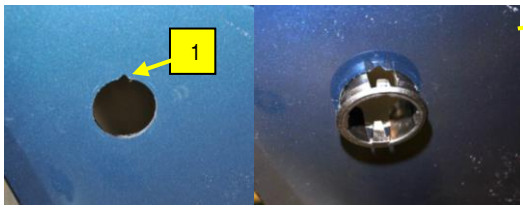
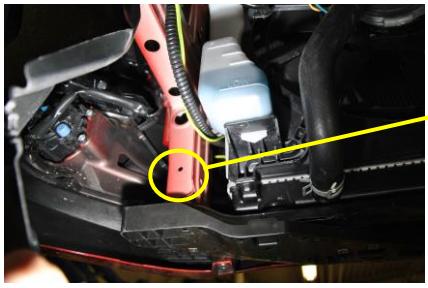


Fig. 28



4 INSTALLATION COPE´HEATER

Lead the cable up to the engine compartment.
Take a self cutting screw and fix the ground cable at the marked place.



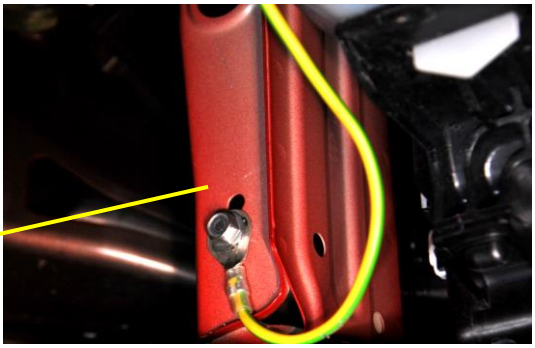


Fig. 29

Premium & Standard.
Attach the cables that are too long with cable ties in the marked location.

Let the car down and connect the 230V cable to the T-peace at the battery charger.



Fig. 30

Secure the rest of the cables in the engine compartment with cable ties and install the fuse holder (1) at the marked position.

⚠ CAUTION!
Make sure that the cables have enought distance to hot components and do not rub.
Do not bend cables to tight – see Technical description – sid 16

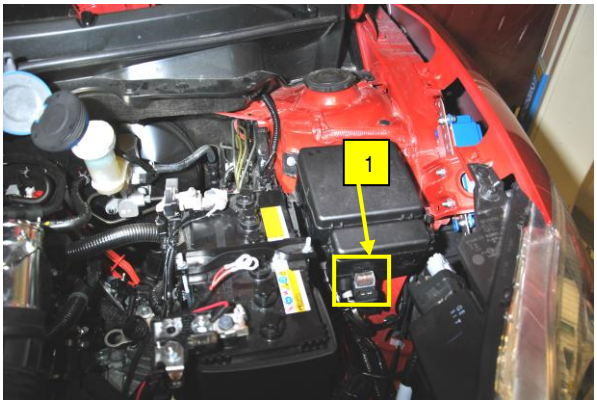


Fig. 31

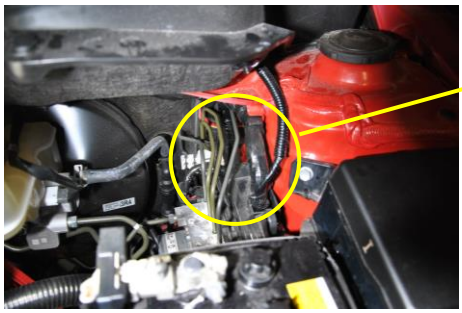
4 INSTALLATION COPE´HEATER

Premium !

For installation of separate compartment heater, see page 21.

Lead the cables from the fuse and the heater through the cable entry (1) into the footwell of the drivers side.

Use protective tape to connect the cables.



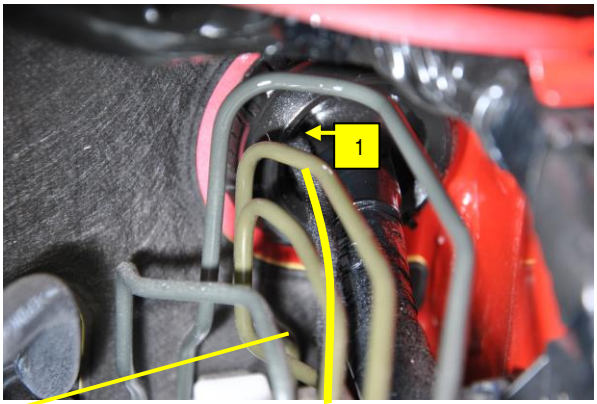


Fig. 32

Remove the cover from the center console (1) on both sides.



Fig. 33

Lay the cables behind the pedals through the center console to the foot well of the passenger.

Fix the cables with cable ties.

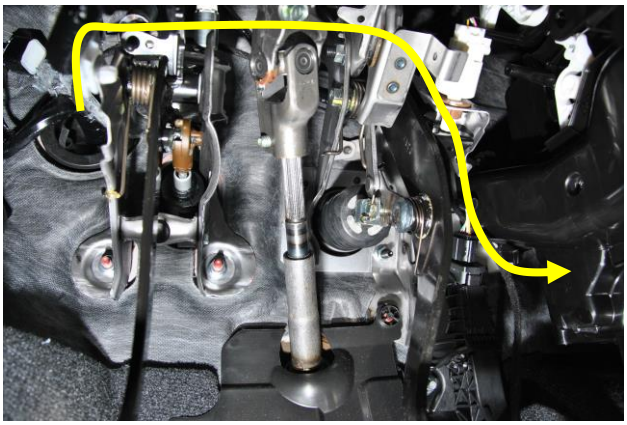


Fig. 34

4 INSTALLATION COPE´HEATER

Remove the 2-pin connector (1) from the blower placed in the foot well of the passenger.

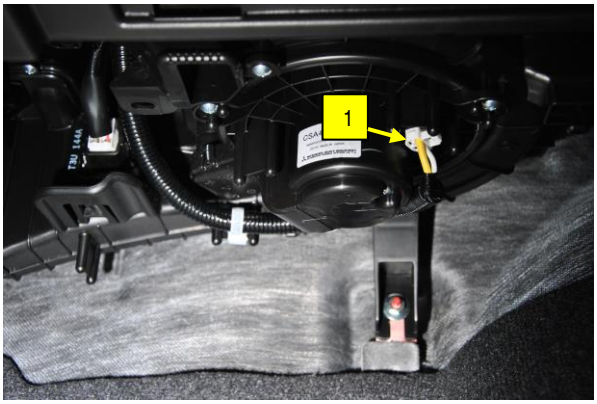


Fig. 35

Premium !

Cut the yellow cable 2,5mm^2 and connect the black/violet cable at the connector side (1) And the black cable to other yellow cable (2).

See also wiring diagram on page 22.

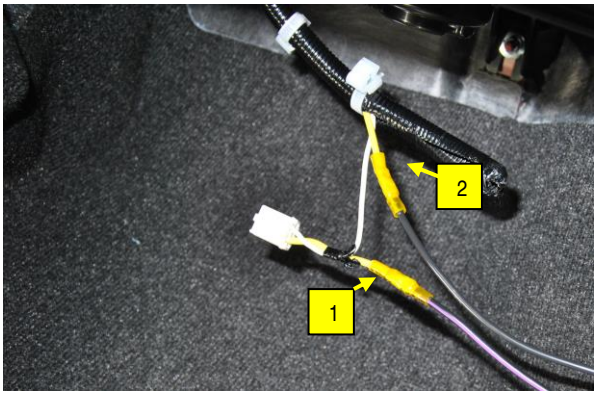


Fig. 36

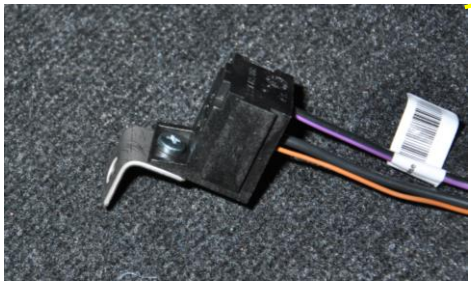
Connect the red cable 2,5mm^2 from the fuse to pin 87 of the relay and the black/red cable 0,75mm^2 from the heater to pin 86 of the relay.



Fig. 37

4 INSTALLATION COPE´HEATER

Mount the holder to the relais and fix it into the center console.
Attach the ground cable to the mounting place of the fuse (1).



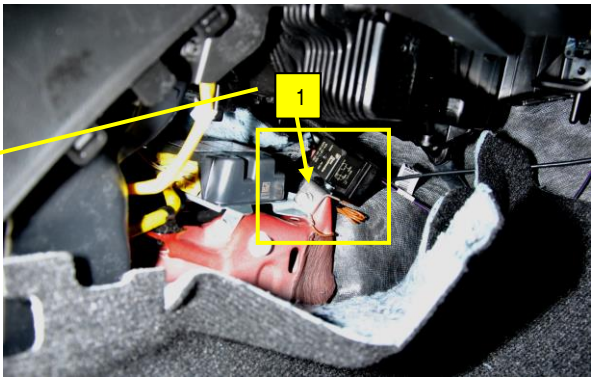


Fig. 38

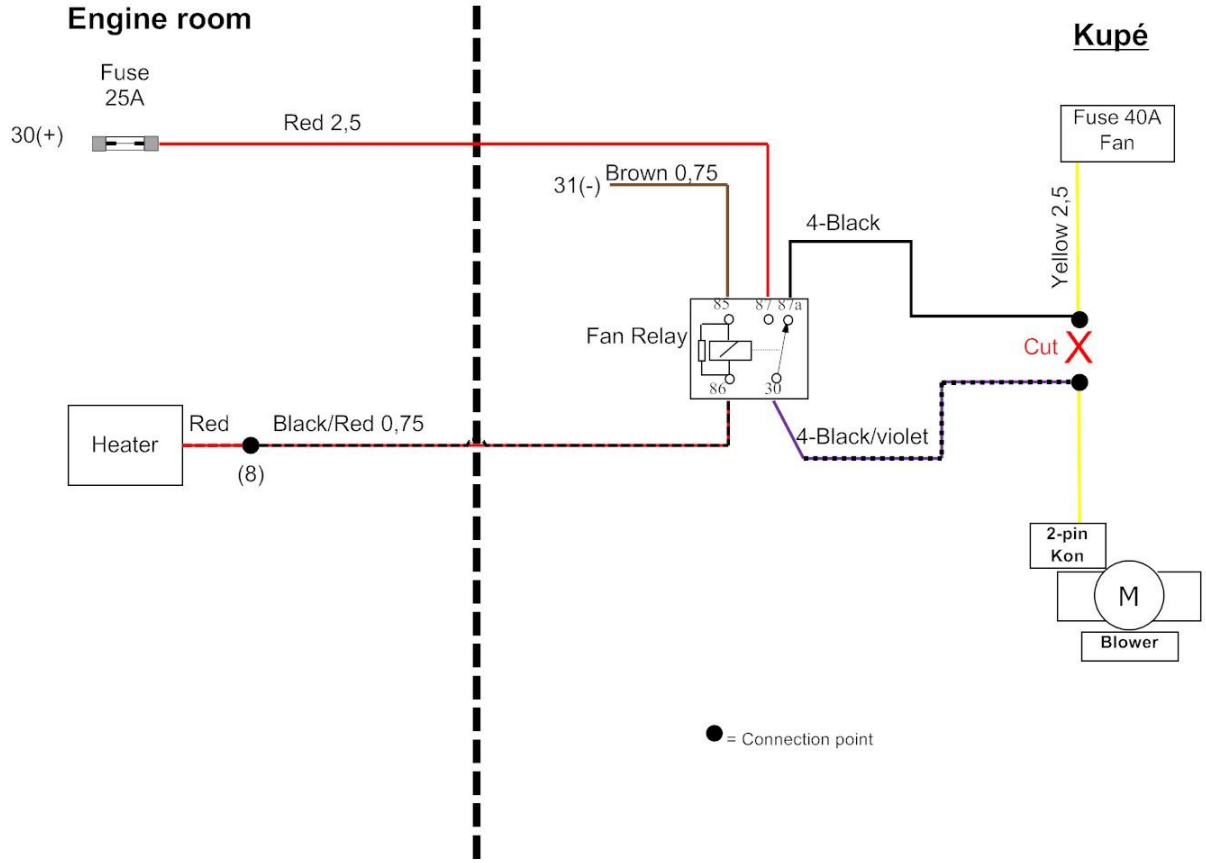
Premium & Standard.
Fix the red 12V cables to the positive terminal of the battery and the black 12V cables to the negative pole.



Fig. 39

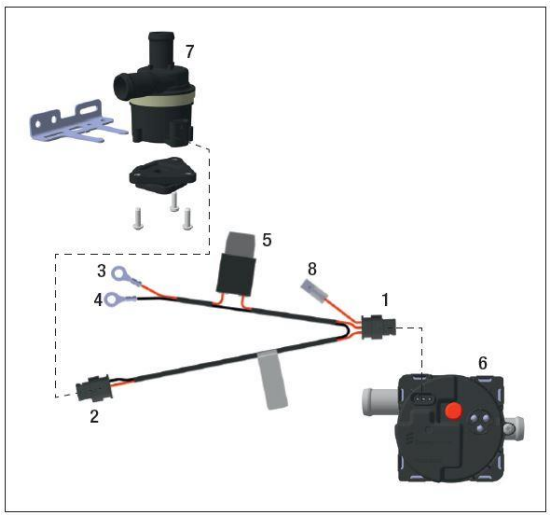
4 INSTALLATION COPE´HEATER

Wiring Diagram PlugTronic Premium



Premium and Standard

No.	Description	Connection to
1	3-pole contact, 3x red 0.75 mm², DC in/out to/from engine heater	Engine heater contact 6
2	3-pole contact, 1x red + 1x black 0.75 mm², DC for pump	Pump contact 7
3	Ring terminal end, 1x red 0.75 mm², DC+	Battery plus (+)
4	Ring terminal end, 1x black 0.75 mm², ground/minus	Battery minus (-)
5	Fuse holder, 2x red 0.75 mm², 5A fuse	n/a – contained in the wiring
6	3-pole contact for engine heater, DC in/out	Wiring contact 1
7	3-pole contact for water pump, DC +/-	Wiring contact 2
8	1-pole contact, 1x red 0.75 mm², DC+ for activating the climate system controls (only active in Plugtronic 1850WTS)	Climate control – vehicle dependent



4 INSTALLATION COPE´HEATER

Standard!

Installation of separate coupe heater

(Option)

Install the cable along the dotted line in the picture for the coupe heater. Fix the cable whit cable ties. See also the next picture.

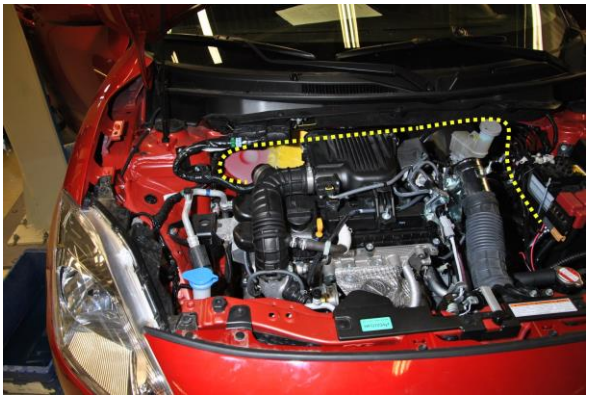


Fig. 40

Standard!

Fold away the insulation on the torpedo wall.
Fold away the carpet on the inside, and check that nothing is in the way.
Drill a 28mm hole. And put install the cable whit the rubber seal.

For more information, see attached manual for the for the coupe heater.

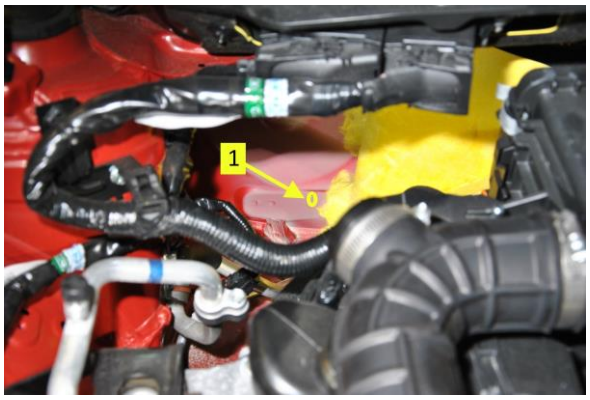


Fig. 41

5 AFTER INSTALLATION

COMPLETE THE VEHICLE

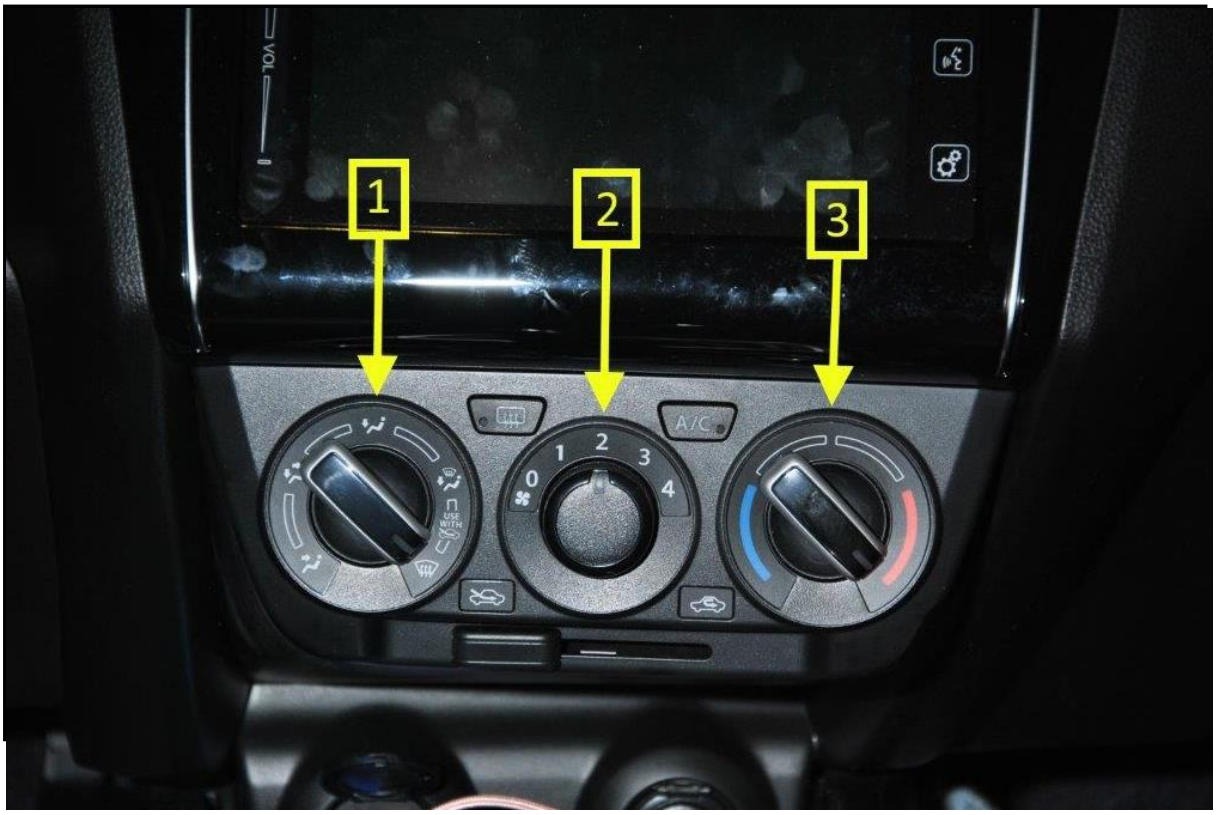
- Install all the removed parts in the reverse order.
- Reconnect the battery
- Check that the hoses, hose clips, and pipe clamps as well as all electrical connections are fitted securely
- Use cable ties to secure all loose cables, lines, etc.
- Restore all the vehicles's programmed settings (radio, window lift, etc.)
- Fill the cooling system, start the engine, vent the cooling system and check for leaks, to up any missing cooland liquid.
- Please also note and follow the vehicle manufacturer's information on filling and venting the cooling system.
- Read an observe all official regulations and safety instructions in the Technical Description.
- Do a test run and check for leaks

⚠ CAUTION!
Fill the cooling system only with the cooland liquid specified by the vehicle manufacturer.

6 GUIDANCE FOR THE CUSTOMER

RECOMANDED PREPARING BEFORE USE OF THE HEATER

- Direct the ventilation to the windscreen (1)
- Set the fan speed to the second step (2)
- Set the temperature regulator to the maximum setting (3)
- Connect the plugtronic



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H.S

