



CHAUFFAGE DE L'HABITACLE

REGLEMENT ECE 122R00

TYPE DE CHAUFFAGE : BINAR 5D

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SCHEMAS ET PHOTOS FOURNIS
DRAWINGS AND PHOTOGRAPHS SUPPLIED

Schéma ou photographie du système de chauffage à combustion : <i>Photograph or drawing of the combustion heater</i>	Page 5
Schéma ou photographie l'étiquette du constructeur : <i>Photograph or drawing of the manufacturer's label</i>	Page 5
Notice de montage du chauffage à combustion et de ses composants : <i>Mounting description of the combustion heater and all its components</i>	Pages 6-13

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1. GENERALITES

GENERAL

- 1.1.** Marque (raison sociale du constructeur) : TEPLOSTAR
Make (trade name of manufacturer)
- 1.2.** Type : BINAR 5D
Type
- 1.2.1** Дѣнomination(s) commerciale(s) : BINAR 5D
Commercial name(s)
- 1.3.** Nom et adresse du constructeur : OOO Advers,
Name and address of manufacturer 443068, Samara,
Novo Sadovaja st. 106
RUSSIA
- 1.4** Dans le cas d'ѣлѣments constitutifs, emplacement et
mѣthode de fixation de la marque d'homologation ECE: Label on the top of the
In the case of components, location and method of affixing of heater
the ECE approval mark:
- 1.5** Adresse des ateliers de montage : OOO Advers,
Address(es) of assembly plant(s) 443068, Samara,
Novo Sadovaja st. 106
RUSSIA

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2. CHAUFFAGE A COMBUSTION

COMBUSTION HEATER

- 2.1. Marque (raison sociale du constructeur) : TEPLOSTAR
Make (trade name of manufacturer)
- 2.2. Type : BINAR 5D
Type
- 2.2.1 Dénomination(s) commerciale(s) : BINAR 5D
Commercial name(s)
- 2.3 Moyens d'identification du type, s'il est indiqué sur le système de chauffage : Label on the heater
Means of identification of type, if marked on the heating system
- 2.4 Emplacement de cette marque : On the top of the heater
Location of that marking
- 2.5 Nom et adresse du constructeur : OOO Advers,
Name and address of manufacturer 443068, Samara,
Novo Sadovaja st. 106
RUSSIA
- 2.6 Adresse des ateliers de montage : 443068, Samara,
Address(es) of assembly plant(s) Novo Sadovaja st. 106
RUSSIA
- 2.7 Pression d'essai : 2 bars
Test pressure
- 2.8 Description détaillée, plan de masse et notice de montage du chauffage a combustion et de l'ensemble de ses éléments : Pages 6-13
Detailed description, layout drawings and mounting description of the combustion heater and all its components
- Carburant : Diesel
Fuel
- Fluide caloporteur : Coolant
Transfer medium



Photograph of the manufacturer's label



Photograph of the combustion heater



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MOUNTING DESCRIPTION

Installation specification for pre-heater and its assemblies

7 Installation specification for pre-heater and its assemblies.

7.1 General.

Heater shall be located lower the radiator overflow tank. Motor air pump shall be installed lower the radiator overflow tank and the heater.

Check up fluid flow in the heater and the engine cooling system; be sure it has the same direction.

Remove air blocks from the engine cooling system and the heater on completion of the heater installation. All the pipe junctions shall be leak-proof. Fuel and coolant pipes shall be assembled in a way avoiding their contact with hot or vibrating components of the vehicle.

It is unacceptable to operate the pre-heater with the cooling fluid frozen.

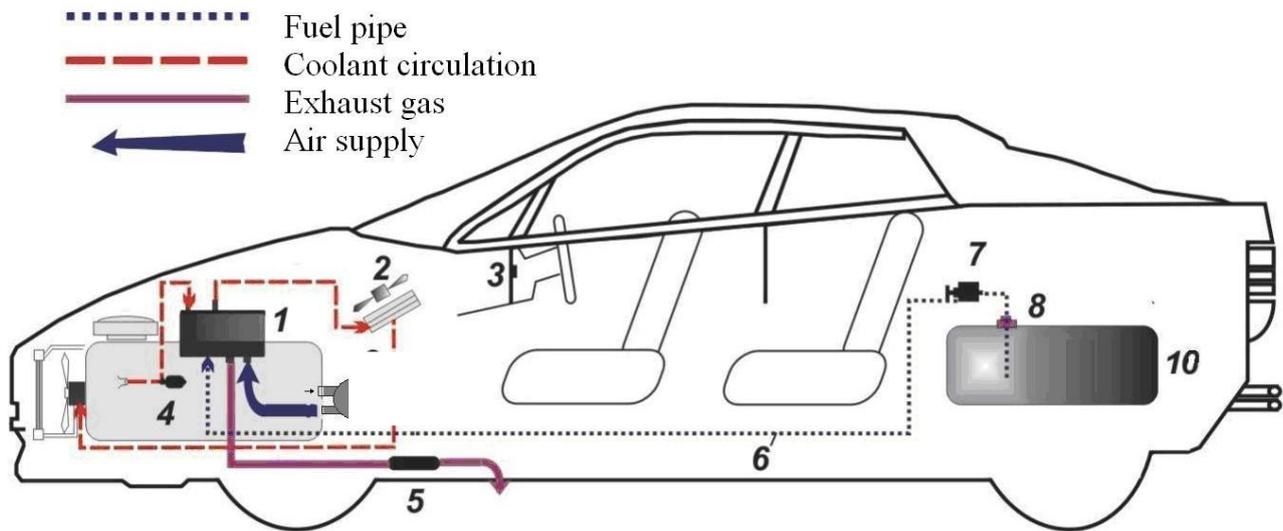
On completion of any activities with the cooling system (repair work, cooling fluid replacement) it shall be purged to remove air blocks as per

7.2. Installation of the pre-heater units and assemblies.

7.2.1 Installation of the heater.

The heater shall be installed under the bonnet as shown in Figure 4. It is unacceptable to install the heater on the engine, passenger compartment or cab of a vehicle.

The heater shall be installed with account of its operating positions (ref, Fig. 7.2, items 7.1.1 and 7.1.2).



- 1 Heater
- 2 Parking heater
- 3 Control panel
- 4 Motor pump
- 5 Exhaust pipe

- 6 Fuel pipe
- 7 Fuel pump
- 8 Fuel intake
- 10 Fuel tank

Figure 4 - Pre-heater installation diagram

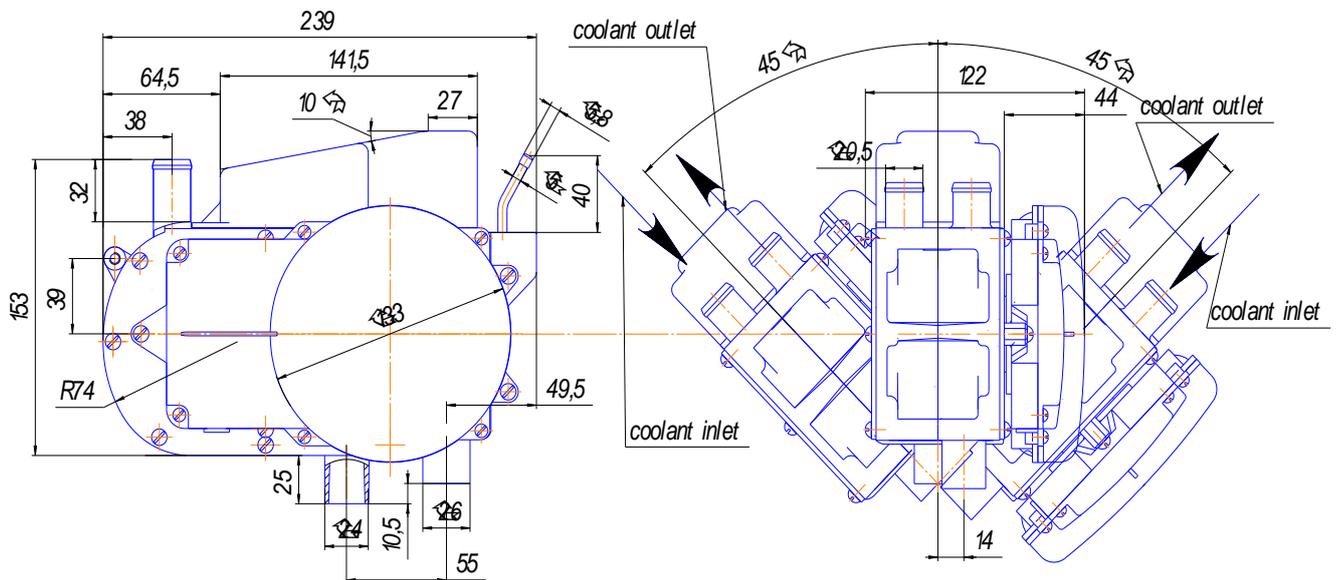


Figure 7.2 – Heater acceptable operating positions

Attention! In case the heater is tilted to be installed on the vehicle, fluid hoses shall be connected to the heater adapters as shown in Figure 7.2.

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7.2.2 Installation of the air intake.

The air intake shall be installed on heater as per Figure 4.2. Air for combustion shall not be absorbed from the passenger compartment, vehicle cab or baggage compartment. Suction inlet of the intake shall be assembled so that to avoid its blockage, ingress of snow and free drain of water. It is prohibited to locate the inlet against the incident flow.

7.2.3 Installation of the motor pump.

The motor pump shall be located in conformity with recommendations given in items 7.1.1 and 7.1.2.

Operating position of motor pipe is whatever from horizontal to vertical with the outlet fitting up.

7.2.4 Installation of pipes.

Pipes shall be connected with the pump, pre-heater and engine as shown in Figures 4.2, 7.1 and 7.2. Pipes shall not run in vicinity with the exhaust pipe and engine components having high temperature. Pipe junctions with other components shall be fixed with clamps. Pipe interconnections shall be fixed with fittings.

7.2.5 Installation of the exhaust pipe.

Note that exhaust pipe has high operating temperature. The exhaust pipe (flexible corrugated metal hose) shall be cut to necessary length.

The exhaust pipe is fixed with clamps slightly downwards in the direction of exhaust. Round holes 3mm in diameter for moisture drain shall be made at bends in the lowest points of the pipe.

To optimize connection with the heater fitting and to guarantee better sealing there shall be done a lengthwise cut (about 15mm long) on the exhaust pipe. The cut shall be the same length as the male fitting. The exhaust pipe shall not transcend the overall dimensions of the vehicle. Discharge gas shall be vented out. The exhaust outlet and combustion air inlet shall be located so that to avoid resuction of discharge gas. As well, there shall be taken measures to avoid penetration of this gas inside the passenger compartment or their absorption by the fan. Moreover discharge gas shall not affect operation of the other assemblies of the vehicle.

The exhaust outlet shall be assembled so that to avoid its blockage, ingress of snow and free drain of water. It is prohibited to locate the outlet against the incident flow.

7.2.6 Installation of the fuel supply system of the pre-heater.

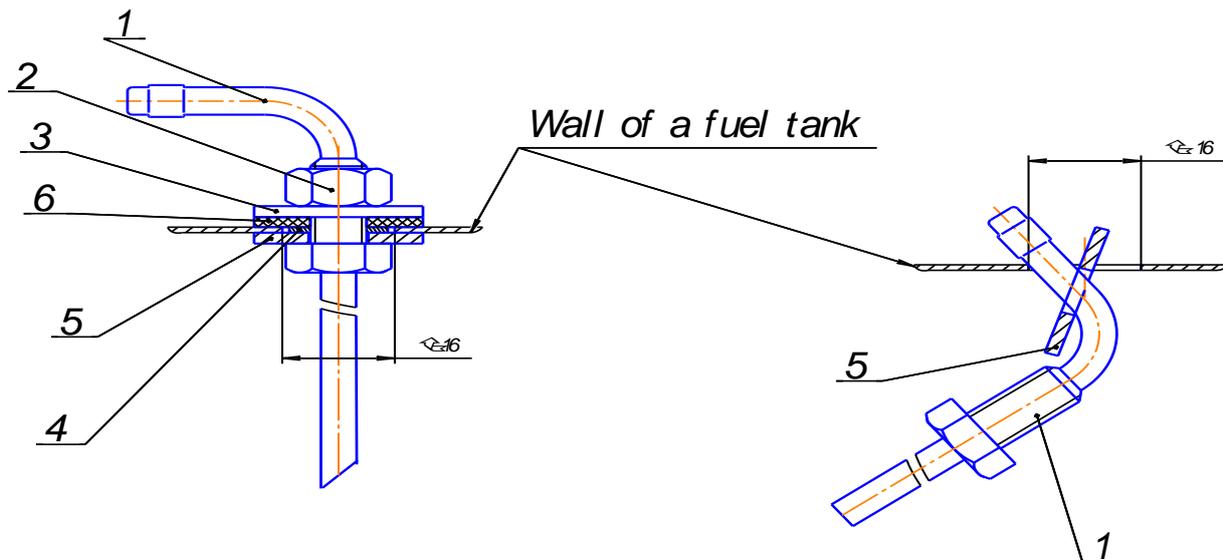
Failure to comply with the following recommendation will cause to malfunctions.
Fuel supply of the pre-heater with fuel intake.

Fuel intake is installed to the fuel tank according to figure 7.5.

- a) fuel intake and special washer installation in the fuel tank is performed according to figure 7.5,
- b) installation of fuel supply line from fuel intake to the pre-heater is performed according to figure 7.6

The fuel pipe from the fuel pump to the heater shall have no slope.

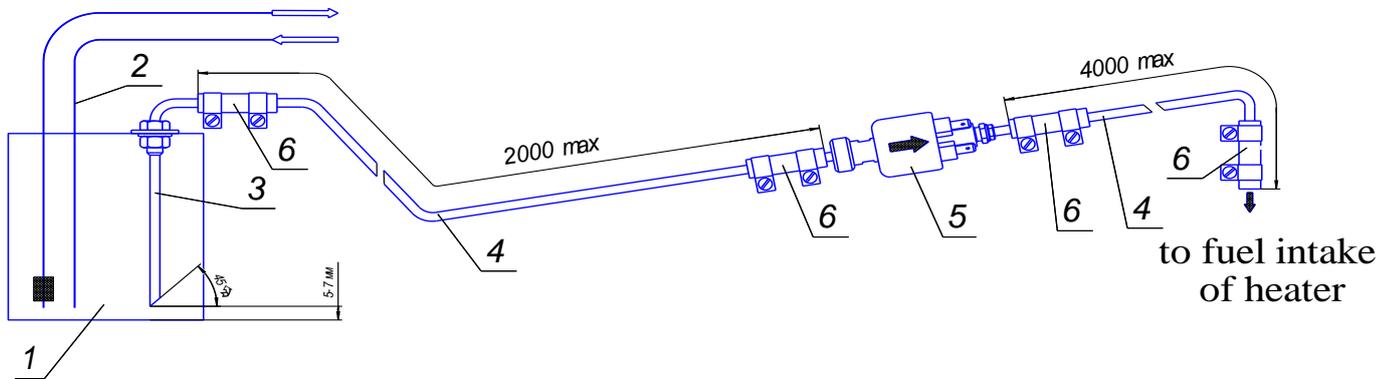
Attention!!! While making the inlet in the fuel tank follow safety measures for activities with tanks which were used for inflammable and explosive fuel.



1-Fuel supply intake
2-Nut M8
3-enlarged washer 8

4-washer 8
5-special washer
6-seal ring

Figure 7.5- Fuel intake installation

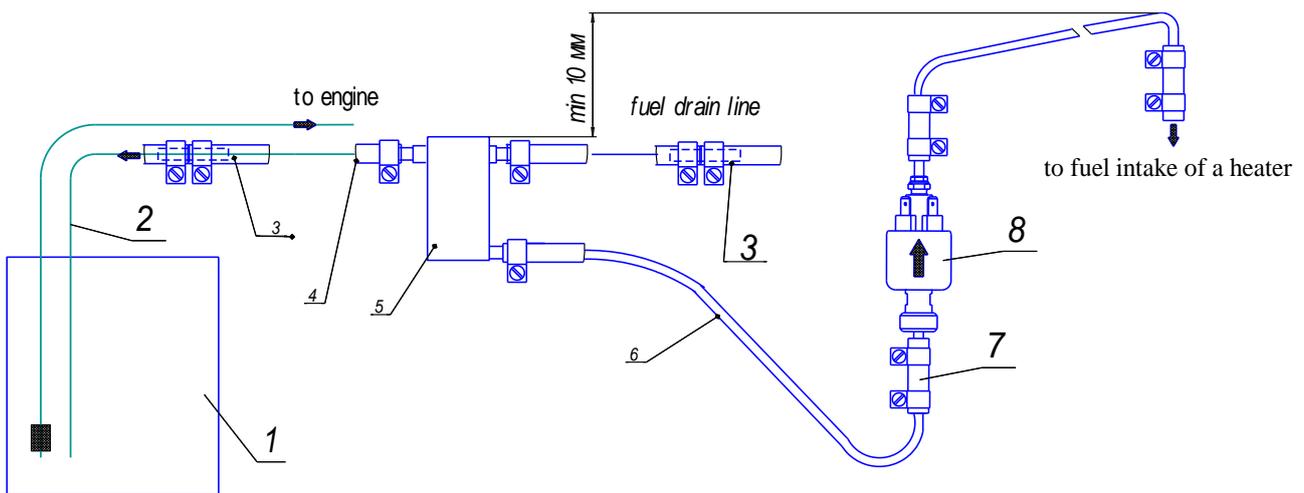


- 1-fuel tank of the vehicle
- 2- fuel supply line of the vehicle
- 3-fuel supply intake
- 4-connecting pipe(fuel supply line)
- 5-fuel pump
- 6-rubber or polyurethane sleeve

Figure 7.6- Installation diagram for the pre-heater connection with fuel supply line

Intake of the fuel for the pre-heater is allowable to perform from fuel drain line from engine to tank on condition that storage tank is installed. Fuel drain line shall have end at the bottom of the fuel tank.

It is advisable to install the tank in engine area close to the pre-heater fuel pump. Installation shall be performed according to figure 7.7.

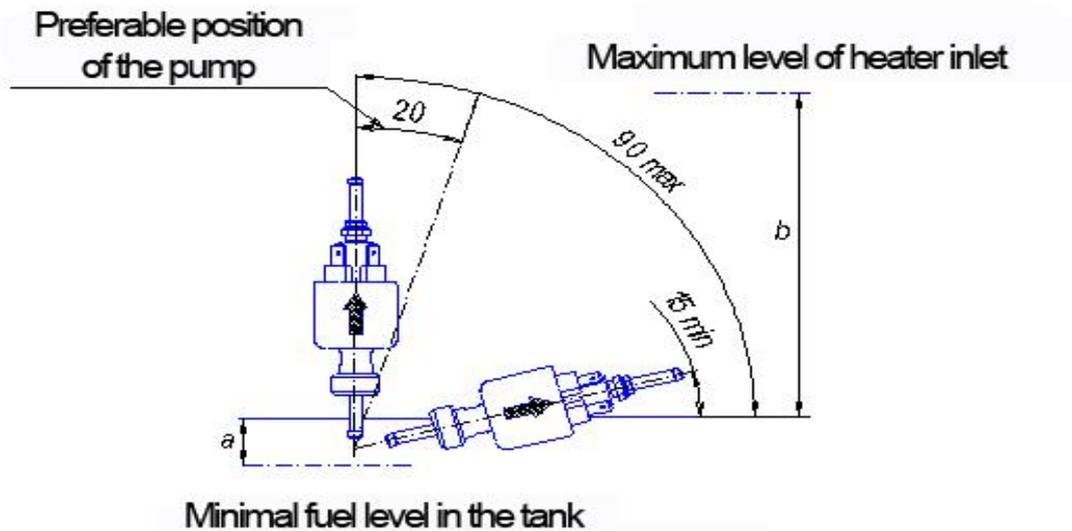


- 1 - vehicle fuel tank
- 2 - fuel drain line from the vehicle engine to the tank
- 3 - adapter
- 4 - fuel supply line
- 5 - storage tank
- 6 - connecting pipe (fuel pipe line)
- 7 - rubber or polyurethane sleeve
- 8 -fuel pump

Figure 7.7-Installation diagram of storage tank to the fuel drain line and its connection with fuel pump.

7.2.7 Fuel pump and fuel pipe installation.

It is advisable to install fuel pump close to the fuel tank and lower fuel level in the tank. Position of the fuel pump is given in Figure 7.8.



- a – lifting capacity: up to 500 mm in a free-flow tank при безнапорном баке;
up to 150 mm, in case of underpressure in the tank.
- b – pump head between the fuel pump and heater: up to 1500mm

Figure 7.8- Fuel pump acceptable assembling position

While assembling, the fuel pipe shall be cut only with a sharp knife, as shown in Figure 7.9. Cutoffs shall be free of restriction, dents and burrs.

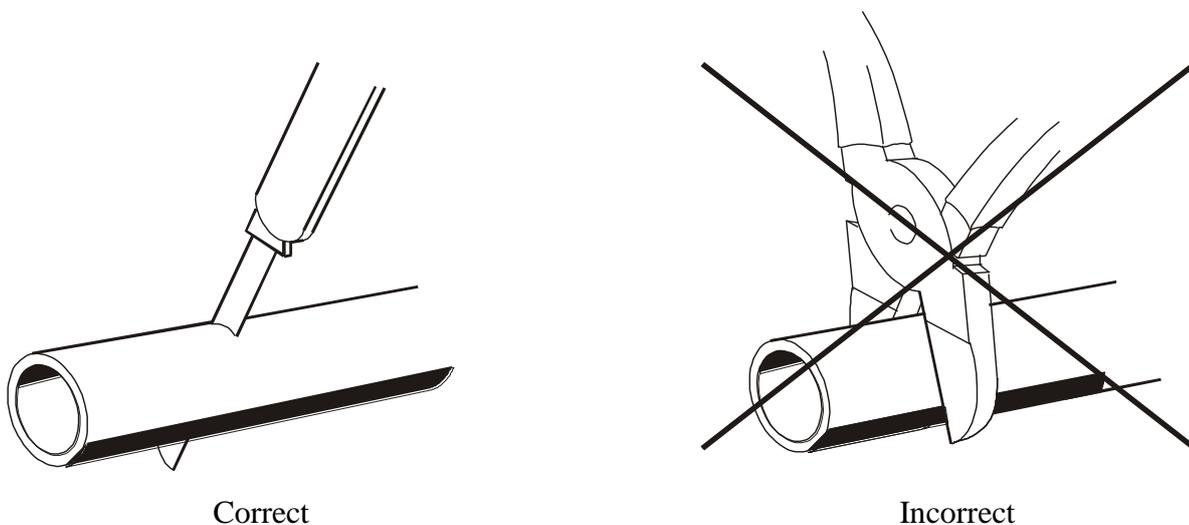


Figure 7.9 – Cutting the fuel pipe before installation

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Attention! The fuel pipe and fuel pump shall be protected from heating. It is prohibited to install them close to the exhaust pipe or on the engine.

7.2.8 Assembling of the pre-heater electrical harness.

The pre-heater wiring harness shall be connected as shown in Figure 1 (pre-heater electric circuit) and Figure 1.

While assembling note that heating, deformation or displacement of harness during operation of the vehicle is unacceptable. The wiring harness shall be fixed with plastic clamps to the components of the vehicle.

Attention! Assembling shall be performed with the safety devices dismantled.

7.2.9 Installation of the control panel.

Control panel is installed in the cabin on the dashboard or any other comfortable for the driver place. The control panel is fixed by adhesive tape. Degrease the surface before installation of the panel, remove protective film from the tape.

8 Post-installation checkout.

8.2 On completion of the assembling, the following shall be guaranteed:

- leak profess of the fluid system;
- leak profess of the fuel pipes;
- security of the pre-heater electric contacts attachment

8.3 Open the heater control valve to full. Remove air blocks from the fluid system of the vehicle following instructions of the vehicle manufacturer. Put vehicle heater fan switch in position of min rotation.

8.4 Install 15A, 25A and 5A safety devices, control panel indicator will light.

8.5 To perform the pre-heater operation test press the middle button. The pre-heater shall start combustion; the information will be on the indicator. Further on the pre-heater operates automatically. In 40-45minutes the pre-heater stops its operation automatically. To stop the work of the pre-heater is possible at any time pressing the middle knob on the control panel.

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8.6 While performing the pre-heater operation test it is necessary to check if the heater fan switches on. Normally the fan is activated when the cooling liquid reaches 40°C.

8.7 If the pre-heater demonstrates faulty operation during its switching on or in the process of operation, malfunction code will be on the indicator.

8.8 The productivity of the fuel pump is not big, that's why when the fuel line is empty, and it is filled slowly. The pre-heater performs 2 tries of ignition and if there's no fuel yet stops the activity with malfunction code 13- "No more tries to start the pre-heater are left". There's need to switch on the pre-heater until the fuel fills the fuel pipe line.

8.9 Start the pre-heater with the vehicle engine on and verify its operation.

Attention! Note that cooling fluid temperature readings displayed on the vehicle instrument panel and control panel may vary, as temperature is measured in different parts of the fluid system of the vehicle.