

# **CITIPOINT**

## **USER'S MANUAL**

**ANADOLU  
ISUZU**

Revision No: 00



It is a representative photograph of the Citiport vehicle.

## FOREWORD

This user's manual is prepared to give general information about the efficient and most economical use of **E5 Citiport** vehicle. We strongly recommend you to read the information carefully and to abide by all warnings. We would like to inform you that our company will not be responsible for any financial, spiritual problems and losses that you may suffer unless you follow the instructions.

You may apply to authorized dealers and authorized services when you need more detailed information about your vehicle.

Keep the user's manual in the vehicle continuously.

There may be modifications in the shape, equipment and technical specifications as a result of our continuous efforts to improve our vehicles. The information, pictures and technical specifications here are based on the last product information available at the publication of the user's manual and Anadolu Isuzu A.Ş. reserves the right to change without any prior notification.

Thank you for choosing this product.

We wish you a nice drive.

### **Anadolu Isuzu Otomotiv Sanayi ve Ticaret A.Ş.**

**Headquarters** : Fatih Sultan Mehmet Mah. Balkan Cad. No : 58 Buyaka E Blok  
Tepeüstü 34771 Ümraniye / İSTANBUL

**Factory** : Şekerpınar Mah. Otomotiv Cad. No : 2 41435 Çayirova / KOCAELİ

**Phone** : 0850 200 1900

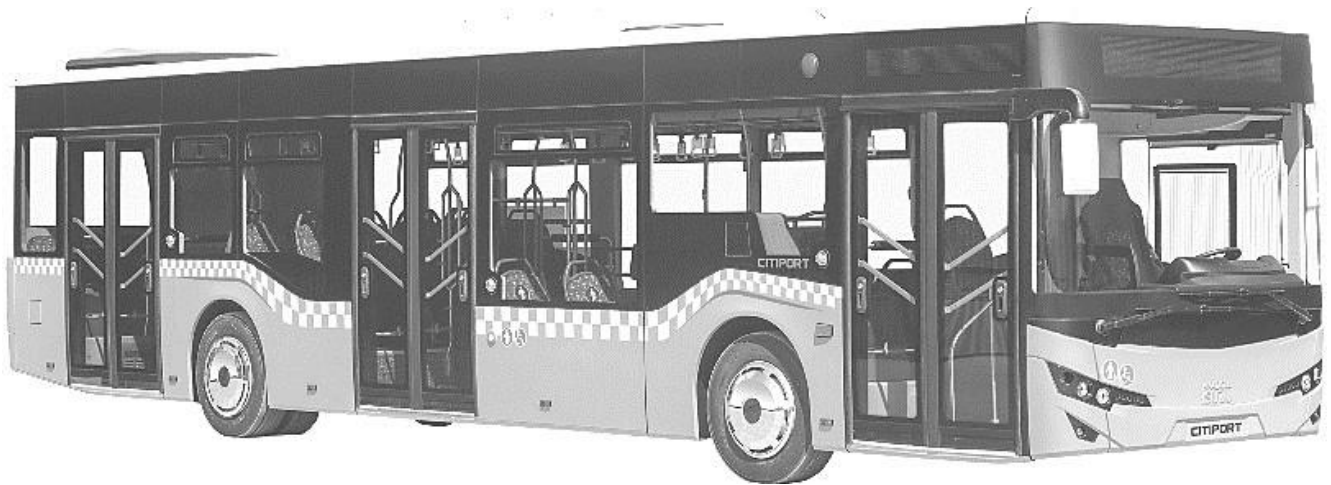
**e-mail** : isuzu@isuzu.com.tr

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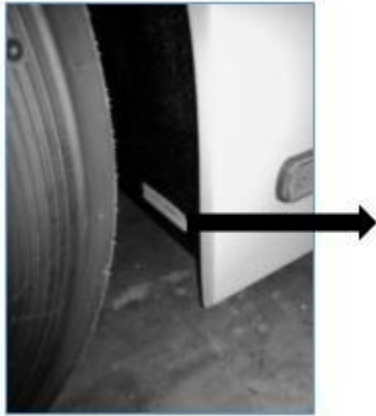
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# **1. INTRODUCTION**



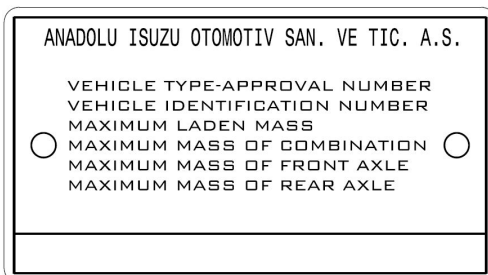
It is a representative photograph of the Citiport vehicle.

## CHASSIS NUMBER



Chassis number of the vehicle is located on the front wheelhouse inner covering sheet.

## IDENTIFICATION PLATE



The identification plate is located at the entrance of the front door, under the right front seat. Identification plate contains the VIN number, maximum axle load sum, maximum front axle load and maximum rear axle load information.

VIN number includes vehicle model, maximum loaded weight, type of engine, driving system, wheelbase, manufacturing place codes as well as the chassis number of the vehicle.



VEHICLE IDENTIFICATION NUMBER SYSTEM																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>N</b>	<b>N</b>	<b>A</b>	<b>M</b>	<b>0</b>	<b>B</b>	<b>D</b>	<b>L</b>	<b>B</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
(EXAMPLE)																
<b>1 - 3</b>	INTERNATIONAL WMI NO:					<b>NNA:</b>	(AIOS) ANADOLU ISUZU OTOMOTIV SANAYI VE TICARET ANONIM SIRKETI									
<b>4</b>	MODEL					<b>M</b>	BUS GROUP									
<b>5</b>	GVW OR CAPACITY RATING	<b>N</b>	14 PASSENGER SEATS													
		<b>H</b>	17 PASSENGER SEATS													
		<b>8</b>	18 PASSENGER SEATS													
		<b>F</b>	19 PASSENGER SEATS													
		<b>G</b>	20 PASSENGER SEATS													
		<b>L</b>	21 PASSENGER SEATS													
		<b>B</b>	22 PASSENGER SEATS													
		<b>C</b>	23 PASSENGER SEATS													
		<b>4</b>	24 PASSENGER SEATS													
		<b>E</b>	25 PASSENGER SEATS													
		<b>M</b>	26 PASSENGER SEATS													
		<b>D</b>	27 PASSENGER SEATS													
		<b>R</b>	28 PASSENGER SEATS													
		<b>P</b>	29 PASSENGER SEATS													
		<b>T</b>	30 PASSENGER SEATS													
		<b>K</b>	31 PASSENGER SEATS													
		<b>S</b>	32 PASSENGER SEATS													
		<b>U</b>	33 PASSENGER SEATS													
		<b>V</b>	34 PASSENGER SEATS													
		<b>5</b>	35 PASSENGER SEATS													
<b>6</b>	36 PASSENGER SEATS															
<b>7</b>	37 PASSENGER SEATS															
<b>Z</b>	38 PASSENGER SEATS															
<b>9</b>	39 PASSENGER SEATS															
<b>A</b>	43 PASSENGER SEATS															
<b>0</b>	INDEPENDENT FROM THE NUMBER OF THE SEATS															
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<b>2</b>	INTERURBAN TYPE															
<b>7</b>	ENGINE TYPE					<b>D</b>	CUMMINS ISB6.7e5 300B									
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<b>12-17</b>	PRODUCTION SEQUENCE NO															

## ENGINE NUMBER

The engine number is indicated at 2 places on the engine.



On the engine identification label on the cylinder cover



On the oil cooler body in the engine block

## VEHICLE WARRANTY

The warranty period and conditions of the vehicle are stated in the “Warranty Certificate” supplied with the vehicle. You can find the detailed information on the warranty procedure in the “Warranty Certificate”.

## OPTIONS

Other than the standard specifications of the vehicle, the following options can be applied to the vehicle when requested.

- Tachograph
- Preheater
- A/C with heater
- Automatic engine oil refill system
- Automatic fire extinguishing system at engine room
- Diesel exhaust emission fluid heater system
- Coloured front destination panel
- Passenger information panel (1 unit for the rear)
- Pre-arrangement for ticket vending
- Fuel tank cap with flap
- Water heater&cooler

## RECOMMENDATIONS / WARNINGS

- Only use fuel that is of the specified specification (EN 590 appropriate sulphur ratio max. 10 ppm) in your vehicle.
- Use diesel exhaust emission fluid according to DIN 70070.
- Do not load your vehicle above the passenger capacity and do not change the seat positions. Our factory shall not be responsible for any problems that may arise due to a change of the load balance in the vehicle.
- Check the exhaust pipe at times. If you see any damage (for example, a damaged coupling piece due to wear or a hole or crack, a leakage at the pipe connection points), have it checked and serviced by the nearest Authorized Service.
- Check tire pressures frequently and always make sure they are at the correct value.
- Have the front alignment adjustments checked at every 20000 km to take the tire wears under control.
- Check the high and low beam settings, do not drive with defective headlights.
- Check the brake, parking and licence plate lamps frequently, do not drive with defective or muddy brakes, parking and license plate lamps.
- To ensure maximum performance in your vehicle, make sure to have all maintenances carried out on time and periodically at the authorized services.
- Liquids such as waste oil, brake fluid, antifreeze, waste filters and scrap batteries that you have used in your vehicle are very harmful to the environment when they are thrown away randomly. Please note that such hazardous wastes should be able to be disposed of in accordance with environmental regulations.
- It is extremely dangerous to have empty boxes, empty bottles or other items that roll on the floor, please make sure that especially the floor around the driver's seat is clean and tidy.
- Before starting the engine, make sure that there are no flammable substances under or around the vehicle. Presence of such materials may lead to a fire.
- Before driving, make sure to adjust the seat, steering wheel and mirrors to the positions that provide the correct driving position for you.
- Always wear your seat belt.
- Make sure that the windscreen and side windows are clean. Keep the curtains so as not to interrupt your vision and your driving.
- Do not increase the engine speed before the engine has warmed up sufficiently.
- Use your vehicle by paying attention to the traffic rules and to the road conditions.
- If you feel any abnormality in a tire while driving, immediately stop in a safe place. If you continue to drive with a deflated tyre, excessive force may be applied to the wheel studs causing the bolts to break and the wheel to come out.
- Drive at a constant speed whenever possible. Heating the engine for longer than necessary and having a high engine speed waste the fuel.

- If a warning lamp lights, do not ignore it and do not continue driving. Please note that you must take a corrective action by referring to the descriptions of the meters, warning lamps and indicator lights.
- When the vehicle malfunctions while driving, run the the hazard lights and immediately take the vehicle to a safe location where it will obstruct the traffic. Place warning triangles to notify other vehicles of your presence. Get the other passengers out of the vehicle and have them wait in a safe place. Call the nearest authorized service.
- The vision is reduced in bad weather conditions and the slippery road conditions increase the stopping distance. Drive slower than your speed in good weather conditions. Also, do not rotate the steering wheel suddenly and do not brake harshly. Use tire chains and winter tires on the roads covered with snow or ice.

## **2. GENERAL INFORMATION**

## STARTING THE ENGINE

Turn the main switch to the “ON” position and the transmission to the “N” position. Turn the ignition key to the “M” position and turn on the ignition key and press the starter (“D” position).



**Do not run the starter for more than 30 seconds and do not press the accelerator pedal while running it. Wait two minutes between each running attempt.**



**If the engine oil warning lamp does not light within 15 seconds, turn off the engine to prevent damage to the engine. Contact with an authorized service.**



**Run the engine at idle for 3-5 minutes after starting the engine, increase the engine speed gradually. Do not operate the engine in such a way that it will exceed the maximum engine speed, which can seriously damage the engine.**

## Running the Engine at Cold Weather

Turn the main switch to the “ON” position and the transmission to the “N” position. Turn the ignition key to the “M” position and when the glow light is off turn the ignition key and press the starter (“D” position).



**If the vehicle will be parked for a long time (more than 2 days), turn the main switch off.**

## STOPPING THE ENGINE

Stop the engine by turning the ignition key to the “St” position.

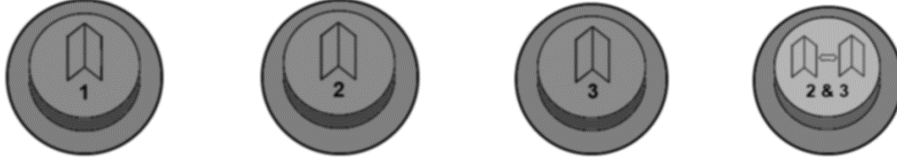


**Do not switch off the main switch when the ignition switch is open and before 70 seconds pass after the ignition switch has been switched off.**

## OPENING AND CLOSING THE DOORS

Front door is opened/closed with a remote control from outside.

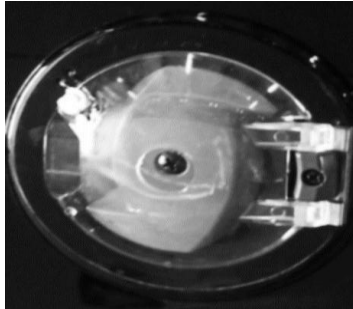
On the front control panel there are door opening/closing switches for opening/closing the doors from inside.



## Opening the Doors in Emergency Situations



For emergency situations, there are air cocks at the upper side of the doors. If necessary, discharge the air by turning the air cock clockwise and open the doors by pulling inward.



There are also air cocks on the sides of the doors to open the doors from outside when necessary. Turn the air cock clockwise and open the doors by pushing inwards.



There is also a red unlock / lock control on the door to open the door when the vehicle is locked from outside with a key, in case there are passengers inside. Where necessary, rotate the control in the arrow direction and rotate the air cock at the top of the door to discharge the air, the door is opened by pulling inward.

## EMERGENCY EXITS

In emergency situations, the windows on the right and left side of the vehicle and the window on the roof can be broken by the emergency hammer to enable emergency exit.



## STEERING WHEEL ADJUSTMENT



The steering wheel can be adjusted up, down, forward or backward according to the comfortable operating position of the driver. The steering level adjustment switch on the front control panel is used for this adjustment. It is necessary to have sufficient air pressure in the vehicle while making the adjustment.



## **3.CONTROLS AND INDICATORS**

## DRIVER CONTROL PANEL



### Driver control panel covers

Front control panel

Side control panel

Indicator and warning lights panel.

## FRONT CONTROL PANEL



1. Power front roller switch
2. Optional
3. Front roof ventilation cover switch
4. Rear roof ventilation cover switch
5. Roof lamp switches
6. Driver roof lighting lamp switch
7. ASR cancel switch
8. Outside rear view mirror resistance switch
9. Driver side window resistance switch
10. Steering level adjustment switch
11. Optional
12. Hazard warning lights switch
13. Optional
14. Optional
15. Optional
16. Headlight / parking / front - rear fog lamps control switch
17. Optional
18. Stop brake switch (Optional)
19. Digital route display switch
20. Heater switch
21. Selection switch that determines the front door operation mode
22. High driving switch
23. Tilting / driving level switch
24. Optional
25. Optional
26. Disabled passenger ramp switch
27. Optional
28. Optional
30. Front door wing selection switch
31. Middle door open/close switch
32. Rear door open/close switch
33. Middle and Rear door open/close switch
36. Optional
37. Automatic transmission control buttons
50. Retarder control lever
51. Ignition key
52. Signal and wiper lever
53. 7" LCD Display

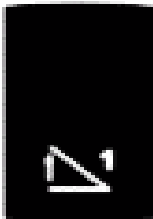
**NOTE : Location of the keys may vary from vehicle to vehicle.**

### 1. Power Front Roller Switch



It is used to open and close the curtain in front of the driver. The curtain goes down when the lower end of the switch is pressed. When the switch is released, the curtain stops moving and remains on the level where it is lowered. When the upper end of the switch is pressed, the curtain goes upward.

### 3. Front Roof Ventilation Cover Switch



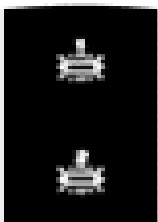
When pressed on the upper end of the switch, front roof vent is opened. It is closed when pressed on the lower end of the switch. The backlights flash during the up and down movements of the roof vent. The backlight illuminates when the roof vent is opened. The roof vent is automatically closed when the heater, air condition or wipers were operating.

### 4. Rear Roof Ventilation Cover Switch



When pressed on the upper end of the switch, rear roof vent is opened. It is closed when pressed on the lower end of the switch. The backlights flash during the up and down movements of the roof vent. The backlight illuminates when the roof vent is opened. The roof vent is automatically closed when the heater, air condition or wipers were operating.

### 5. Roof Lamps Switch



When the switch is pressed, the function lamp on the switch lights. The switch has 3 positions.

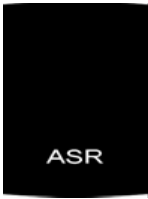
1. Partial lighting is provided when the upper end is pressed.
2. It closes in the middle position.
3. Full lighting is provided when the lower end is pressed.

### 6. Driver Roof Lighting Lamp Switch



The lights are on when the lower end of the switch is pressed, and off when the upper end is pressed.

## 7. ASR Cancel Switch



The ASR system is deactivated when the lower end of the switch is pressed, and the system is activated when the upper end is pressed.

## 8. Outside Rear View Mirror Resistance Switch



When the switch is pressed, the outside rear view mirror heating is activated. When pressed again, it will be deactivated immediately and if not pressed, it will be deactivated automatically after 500 sec. The backlight of the switch lights on during heating.

## 9. Driver Side Window Resistance Switch



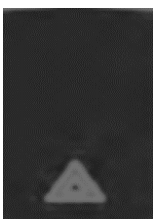
When the switch is pressed, the driver side window heating is activated. When pressed again, it will be deactivated immediately and if not pressed, it will be deactivated automatically after 500 sec. The backlight of the switch lights on during heating.

## 10. Steering Level Adjustment Switch



The vehicle is equipped with an air-assisted adjustment system for ease of adjustment. When the switch is pressed, the steering adjustment is unlocked, after the adjustment is made, the steering is locked by pressing the switch again.

## 11. Hazard Switch



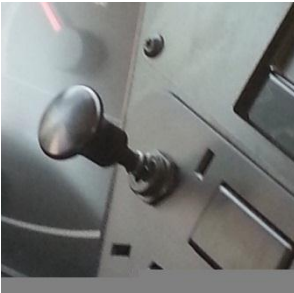
The hazard lights turn on when the lower end of the switch is pressed and turns off when the upper end is pressed. When the switch is pressed, the signal warning lights on the instrument panel and all the turn lamps on the vehicle and the function lamp on the switch blink and a buzzer is given.

## 16. Headlight / Parking / Front - Rear Fog Lamps Control Switch



When it is in “0” position and turned to right once, parking lights lit, when turned one more time, headlights lit. When the switch is pulled up while the parking lights or dipped headlights were lighting, front fog lights turn on; if it is pulled up one more time, rear fog lights turn on.

## 18. Stop Brake Switch (Optional)



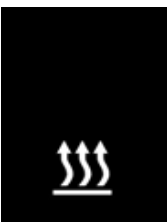
This switch is used to prevent the vehicle from moving in short-duration waits, such as getting on and off passengers at the stops. When the switch is pulled in, the system is activated and when pushed out, it is deactivated. When the doors are opened while the system is active, the stop brake is activated and the vehicle does not move.

## 19. Digital Route Display Switch



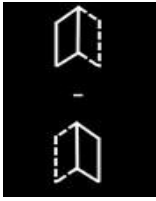
When the upper end of the switch is pressed, digital route display is activated and when the lower end is pressed it is deactivated.

## 20. Heater Switch



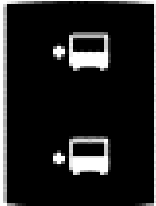
When the lower end of the switch is pressed once, the 1<sup>st</sup> stage is activated. When pressed the second time, the second stage is activated, it is deactivated when pressed the third time.

## 21. Selection Switch that Determines the Front Door Operation Mode



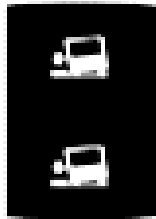
When the upper end of the switch is pressed, the front door left wing is opened and closed, when the lower end is pressed, the front door right wing is opened and closed and when it is left in the middle, two wings of the front door are opened and closed.

## 22. High Driving Switch



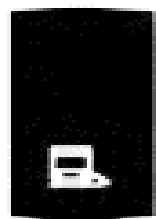
This switch is used for a driving level higher than the normal level in the vehicle. When the upper end of the switch is pressed, the vehicle reaches a higher level. When the lower end is pressed, the vehicle reaches normal driving level.

## 23. Tilting / Normal Level Switch



When the lower end of the switch is pressed, the vehicle tilts to the right and when the upper end is pressed, it comes to the driving position.


## 26. Disabled Passenger Ramp Switch



When the lower end of the switch is pressed, the disabled passenger ramp is opened with the accompany of the driver and the stop brake is automatically switched on. When the upper end of the switch is pressed, the stop brakes will not be deactivated if the disabled passenger ramp is not closed, preventing the vehicle from moving when the ramp is open.

## 30. Front Door Wing Selection Switch



With the selection switch  which determines the operational way the front door, it opens or closes the front door right, left or both wings based on the selection. The backlight lights up if the door is open, it turns off if it is closed. The door opening feature will not be active at speeds above 5 km.

### 31. Middle Door Open/Close Switch



It opens or closes the middle door. If the door is open, the backlight lights up, if it is closed it will turn off. The door opening feature will not be active at speeds exceeding 5 km.

### 32. Rear Door Open/Close Switch



It opens or closes the rear door. If the door is open, the backlight lights up, if it is closed it will turn off. The door opening feature will not be active at speeds exceeding 5 km.

### 33. Middle and Rear Door Open/Close Switch



It opens or closes the middle and the rear doors at the same time. The backlight lights up if the door is open, it turns off if it is closed. The door opening feature will not be active at speeds above 5 km.

### 37. Automatic Transmission Control Buttons



- 1** : Transmission does not go over the 1<sup>st</sup> gear
- 2** : Transmission does not go over the 2<sup>nd</sup> gear
- 3** : The transmission works each of the 3 gears.
- D button** : It is the forward driving gear.
- N button** : It is the neutral gear, parking position.
- R button** : It is the reverse driving gear.



## 50. Retarder Control Lever



The retarder is activated or deactivated in 3 stages.

## 51. Ignition Key



The ignition key operates against the spring pressure in the starter position and returns back again when released.

- St** Off
- M** The ignition is switched on
- D** Starter runs



**Do not attempt to remove the ignition key while the vehicle is moving.**

## 52. Signal and Wiper Lever



The lever signals to the left while it is in the downward direction and to the right while in the upward direction. At first rotation, it activates the wipers intermittently, at the second, at normal speed and at the third, at high speed. The water jet runs when it is pushed towards the steering wheel. When the button on the end is pressed, the horn is activated.

## 53. 7" LCD Display



The images of the cameras that provide vehicle interior and exterior safety during driving are viewed from this screen. When the vehicle is taken to the reverse gear position, it automatically switches back to the rear view position. Monitoring can be done by dividing the screen as desired (2, 4, 8, etc.).

## SIDE CONTROL PANEL



1. Amplifier
2. Cup holder
3. Cigarette lighter
4. Mirror control switch
5. Emergency switch
6. LCD (19") switch
7. Driver window switch
8. Parking brake

### 1. Amplifier



Speaker on/off operations are performed by the amplifier.

### 2. Cup holder

### 3. Cigarette lighter



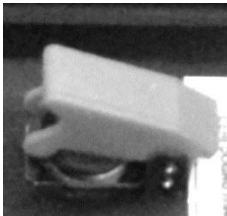
The cigarette lighter is pushed towards the inner heat element and automatically ejects when heated.

#### 4. Mirror Control Switch



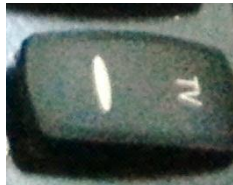
This switch is used for the driver to adjust the direction of the rear view mirrors according to himself. Turn the mirror to the desired direction by turning the arrow mark on the switch to the desired side of the mirror to be adjusted (right, left, up, down).

#### 5. Emergency Switch



To use the emergency switch, lift upwards and open the red safety cover on it. When it is pushed forward, the power in the system is cut off, the engine stops, all interior lighting lights and the hazard lights turn on and the door switches are in a actively operating condition. When pulled back, the system returns to normal.

#### 6. LCD Switch



When the lower end of the switch is pressed, LCD is activated and it is deactivated when the upper end is pressed.

#### 7. Driver Window Switch



When the lower end of the switch is pressed, the driver window moves down and when pressed again it stops; it moves up as long as the upper end is pressed.

## 8. Parking Brake



The parking brake system is of pneumatic type and spring installed. The parking brake lever is on the left side control panel. When the vehicle is stopped, the parking brake lever is pulled back, the lever must be locked in the lower position. To release the brake, pull the locking latch at the bottom of the lever slightly upwards and release the lever forward. There is a warning light on the instrument panel which indicates whether the parking brake system is active. For driving (vehicle active), if the brake air is insufficient when the parking brake is pulled to neutral (below 6 bars), the warning lights red. This light must be turned off before driving.

## INDICATOR AND WARNING LIGHTS PANEL



**High Beam Warning:** It is a blue warning which lights during the usage of the high beams or making selectors.



**Low Beam Warning:** It is a green warning which lights during the usage of low beams.



**Front Fog Warning:** It is a yellow warning which lights during the usage of front fog lamps.



**Rear Fog Warning:** It is a yellow warning which lights during the usage of rear fog lamps.



**Signal Warnings :** It is a green light, buzzer warning that shows right and left turns, that blinks when the signal lever on the steering or the hazard light switch is used.



**Low Pressure Warning:** It is a red warning when the brake circuit system pressure drops below 6 bars.



**Parking Brake Warning:** It is a red warning which lights when the parking brake is applied, indicating that the brake is active.



**Engine Fault Warning:** It is a yellow warning which lights when there is an engine malfunction.



**Engine Oil Warning:** It is a red warning which lights when the engine oil pressure is low.



**Transmission Failure Warning:** It is a red warning which lights when there is a fault in the transmission.



**ASR Warning:** It is a yellow warning which lights when ASR is switched on.



**Retarder Warning:** It is a yellow warning which lights when the retarder is active.



**Charge Warning:** It is a red warning which lights when the ignition is on and that turns off when the engine is powered and exceeded the idle speed. It indicates that there is a malfunction in the charging system if it lights during driving.



**Lining Pad Warning :** It is a yellow warning which lights when the brake lining thickness from EBS decreases below 10%.



**Driver Alert Warning:** It is a red warning which lights in case of a malfunction where the driver should be informed.



**Stop Brake Warning:** It is a green warning which lights when the stop brake is active. It is activated when any door is open and while the engine is running and it is deactivated when all the doors are closed.



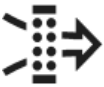
**Engine STOP Warning:** It is a red warning which lights if there is a serious engine malfunction; apply to the authorized service.



**EBS Warning:** It is a red or yellow warning which lights when a fault information comes from the EBS module.



**Transmission Overheating Warning:** It is a yellow warning which lights when the transmission oil is over 107°C.



**Air Intake Clogged Warning:** It is a yellow warning indicating there is not sufficient air intake.



**Engine Coolant Level Warning :** It is a red and buzzer warning indicating that the engine coolant level has dropped and should be added.



**Air Conditioner Active Warning :** It is a blue warning which lights after 2 minutes after the air conditioner has been activated.



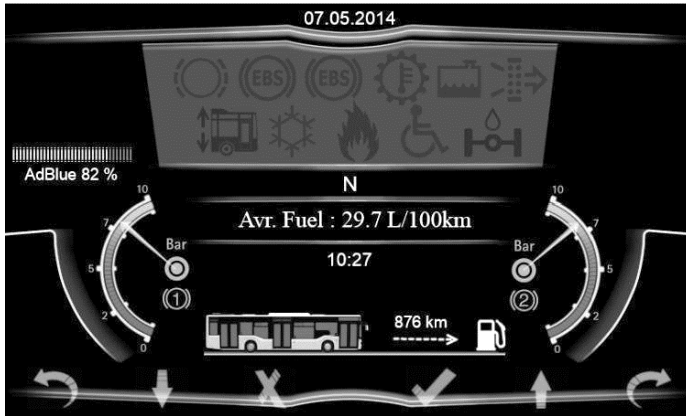
**Fire Warning :** It is a red and audible warning which lights when the engine room temperature exceeds 175°C.



**Greasing Fault Warning:** It is a yellow and audible warning which lights when there is a malfunction in the automatic greasing system.

## Information Screen

The following information can be accessed from this screen.



- Average fuel consumption
- The distance that can be taken with the current fuel
- Total distance travelled
- Digital clock
- Diesel exhaust emission fluid level
- Brake pressures

## Engine Speed Indicator



The engine speed indicator measures the number of engine revolutions per minute. It starts running when the engine is started.

## Speed (km/h) Indicator



It shows the speed of the vehicle in kilometre/hour. It starts running after the vehicle starts moving

## Fuel Indicator



The fuel indicator shows the fuel level in the fuel tank. When the needle approaches “0”, the red light in the lower right of the indicator lights, showing that the fuel has decreased. Fuel must be added before the fuel in the fuel tank completely finishes, otherwise the system will have air.

## Engine Overheating Indicator



It indicates the coolant temperature of the engine. When the temperature rises above 107°C, warning lights red.

## DIGITAL ROUTE DISPLAY CONTROL

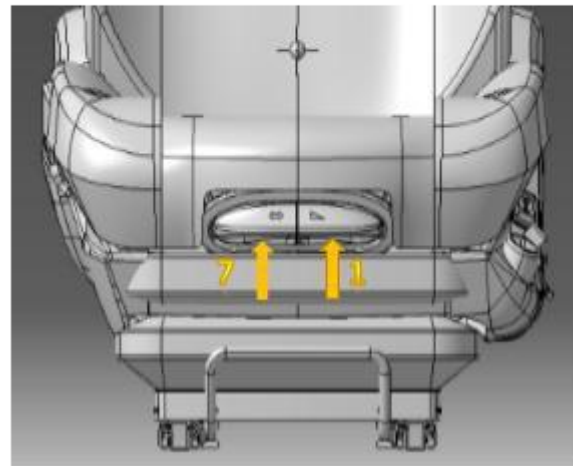
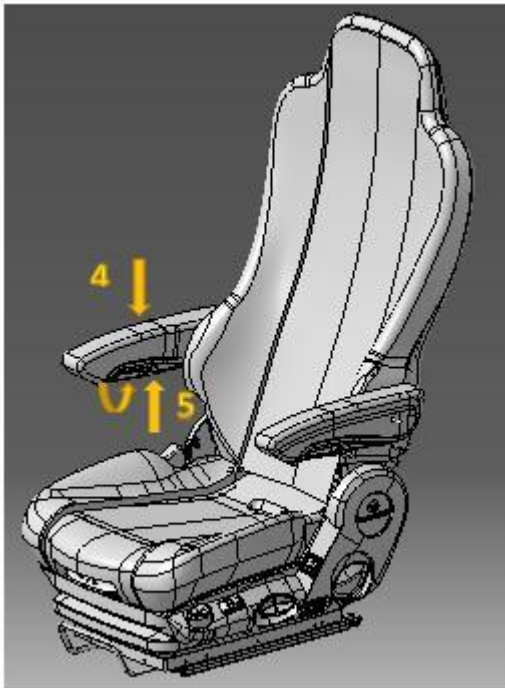


The driver's compartment top console is equipped with route display control. The route information to be displayed on the route display is selected and changed via this control.

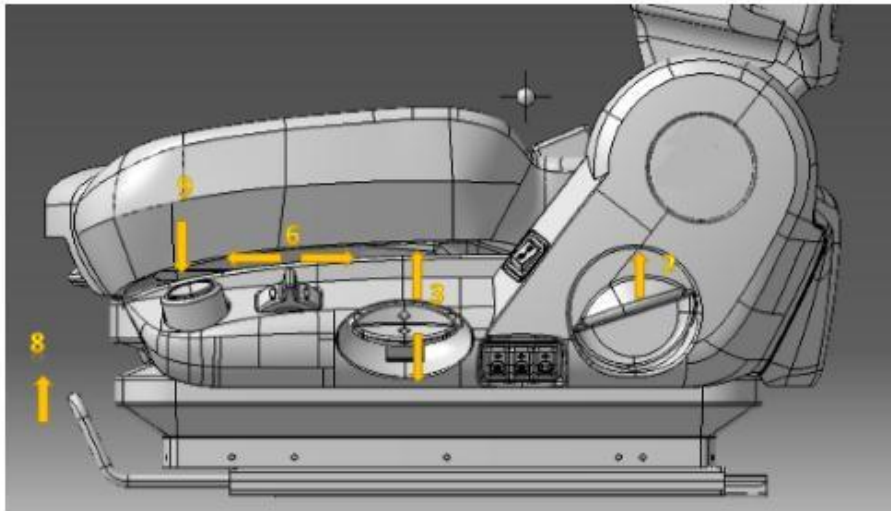


## **4.VEHICLE EQUIPMENT**

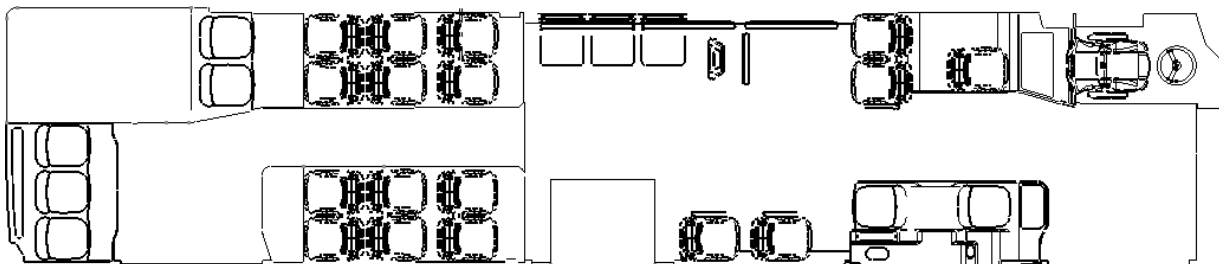
## DRIVER SEAT



1. **Seat inclination adjustment:** The button on the left is pulled up to adjust the inclination of the seat. Inclination of the seat is brought to the desired position by giving the weight to the front or back at the same time.
2. **Backrest inclination adjustment:** It is adjusted by unlocking the backrest (the lock lever is lifted up) and the backrest is depressed and tilted backward.
3. **Height adjustment :** The height of the seat is changed by pressing the adjustment knob up or down.
4. **Armrest:** There are armrests that can be lowered and risen on both sides of the seat.
5. **Armrest inclination adjustment:** The armrest inclination can be changed by turning the knob.
6. **Shock absorber stiffness adjustment:** Flexibility stiffness of the seat can be adjusted in 3 steps.
7. **Seat depth adjustment:** The right button is pulled up to adjust the forward move width of the seat. At the same time, the desired position is adjusted by pulling the seat forward and backward.
8. **Forward-back adjustment:** The seat can be moved forward or backward by pulling the locking lever.
9. **Fast lowering:** The seat can be lowered to the lowest position by pressing and fixing the button. When the button is pressed again, the seat rises to the driving position.



## PASSENGER SEATS



There are 27 passenger seats (24 + 3 folding seats) in the vehicle as a standard. The passenger seats are fabric upholstered. There is a triple seat at the rear, two single seats in the right front, one single seat on the left wheel and there are also double group seats in the other sections. Opposite to the middle door, there are 3 folding seats. There are two priority seats in front of the middle door right side of the vehicle and four priority seats including one double on the left. Armrests are available in the seats. There is a wheelchair area and backrest pad for disabled passengers, opposite the middle door.

	24/0	24/3	24/0
	0	0	1
	78	75	70
=	102	102	95

There is a passenger capacity label in the upper area, in front of the vehicle. This label shows the number of seated and standing passengers.

## **DRIVER SIDE WINDOW WITH RESISTANCE**

It is located on the left side of the driver. It can be driven by an electric motor and can be controlled by the driver with the switch on the front control panel.

If the moving glass breaks or the electric motor malfunctions, it is necessary to consult to an authorized service.

## **WATER HEATER & COOLER FOR DRIVER (OPTIONAL)**



On the right side of the driver's seat, there is a water heater & cooler for the driver. Cooling mode is at 22°C below the ambient temperature and the heating mode is at beverage temperature up to 60°C.

## **DVD PLAYER**



The top console of the driver compartment contains a DVD player with USB and AUX-IN inputs.

## **ROLLER BLINDS**

There is an power roller blind on the driver's side of the windscreen. The roller is opened and closed with the roller switch on the front control panel. There is also a roller blind on the left side of the driver, which is opened and closed manually.

## **DIAGNOSTIC SOCKET**

It is located on the rear of the driver seat. This socket is used for loading into and changing parameters in the vehicle data communication system and for diagnosing.

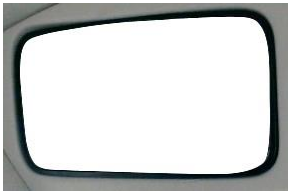
## PASSENGER INFORMATION PANEL



There is a digital panel on the upper section, rear right side of the driver to inform the passengers. This panel shows the time and air temperature and alternately the date information.

Also, when the stop button on the passenger information panel is pressed, a “STOP” warning is displayed.

## MIRRORS



There is 1 rear view mirror in the vehicle.

There are 2 exterior rear view mirrors in the vehicle, one on the right and one on the left. Mist or ice formation on the outer mirrors is prevented by the heater with resistance.

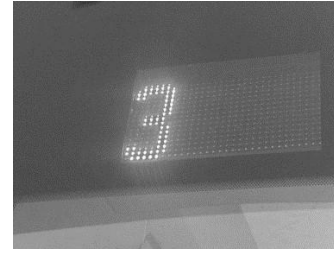


RIGHT EXTERNAL REAR VIEW MIRROR



LEFT EXTERNAL REAR VIEW MIRROR

## DIGITAL ROUTE DISPLAY



There are 1 front (corner turning) and 1 rear digital route displays in the vehicle.

## Coloured Front Destination Panel (Optional)

There are 3 optional route displays in the vehicle, including 1 front (coloured), 1 side, 1 rear.

## LCD SCREEN



There is 1x 19" LCD screen in the front section of the vehicle. This screen can be used for passenger information and advertisement display purposes.

## HALF OPENING WINDOW



There are 7 half opening windows in the vehicle. These windows can be opened and closed with the key given in the toolbox.

## TRAPDOOR



There are 2 trapdoors on the front and rear of the vehicle. They are electrically controlled. Opening/closing of trapdoors according to the desired air intake direction is done by the ventilation switch on the front control panel. Trapdoors are designed to serve as an emergency exit when necessary.

## HANDLES



Handles are available on the vehicle's holding pipes to enable the passengers to hold.

## STOP BUTTON



There are a total of 11 stop buttons, including 7 for the passengers, 3 for the priority passengers and 1 for the disabled passengers. Passengers wanting to get out of the vehicle alert the driver by pressing this button. The related door button lights and the passenger information panel displays the "STOP" text. The buzzer is also activated. When the doors are opened, the "STOP" text and the warning on the door buttons turn off.

## PACK AREA



There is a pack area on the left front wheel hood in the vehicle to allow the passengers to travel comfortably, to put the items on their hands (umbrella, package, suitcase etc.).

## WHEEL CHAIR FIXING AREA



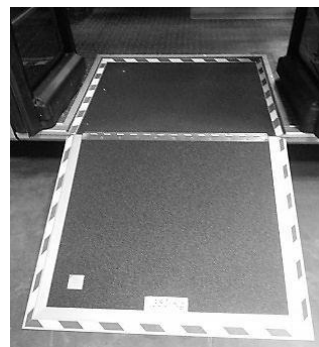
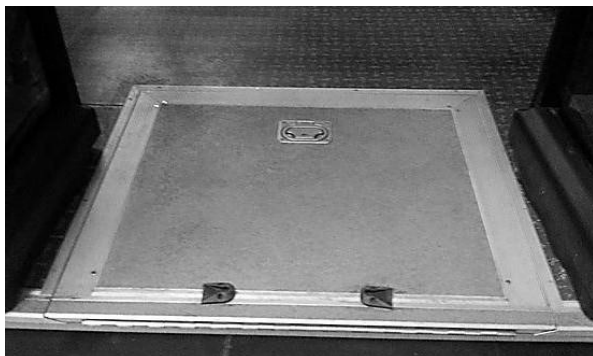
There is a special place on the opposite of the middle door for the passengers who enter the vehicle with a wheelchair to travel safely.



## **DISABLED PASSENGER RAMP**

A manual opening / closing ramp is installed in the middle door to facilitate entry/exit of the disabled passengers with a wheelchair.

### **Use of the ramp**



Stop the vehicle where the traffic is convenient

- Open the middle door
- Hold the ramp from its grips and open towards the outside of the vehicle
- Enable the entrance-exit of the disabled passenger
- Close the ramp by folding it into the vehicle.

In case the ramp is open, the Disabled Ramp Warning Lamp and the buzzer will be activated.

## **EXTERNAL CAMERA SYSTEM**

There are 2 external cameras on the sides of the right and left outside rear view mirrors to see the obstacles on the right and left during vehicle movement. The camera on the right also enables monitoring the middle and rear door passenger entrances and exits.

## **INTERNAL CAMERA SYSTEM**



There are 5 cameras inside the vehicle, including 3 cameras in the passenger area to follow the entrance and exit of the passengers and one for monitoring the driver and one for monitoring the road. The image obtained from the camera is displayed on the LCD screen on the front control panel.

## DVR (Digital Video Recorder)



DVR is installed under the front trapdoor in the driver's area. DVR allows you to record audio and video taken to the camera.

## REAR VIEW SYSTEM



There is a closed circuit camera system that displays the area behind the vehicle while parking and reverse driving. The image from the camera is displayed on the LCD screen on the front control panel.

## PARKING SENSORS

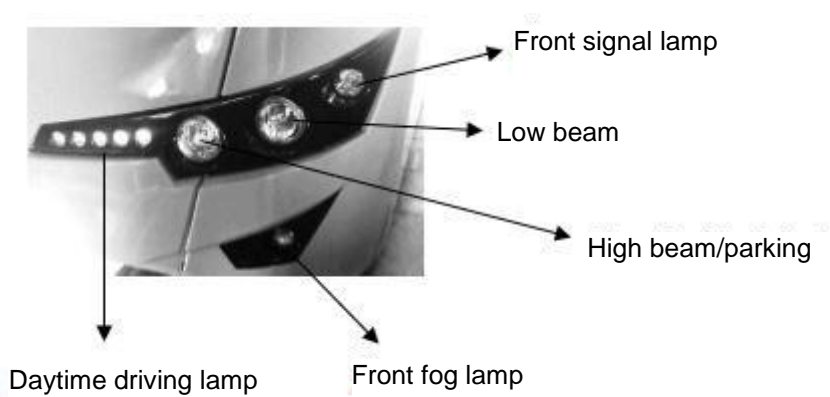


There are 4 parking sensors mounted on the rear bumper. The sensors are activated when the vehicle is taken to the reverse gear. During reverse manoeuvring, it warns the driver about the distance between the bumper and the rear obstacle.

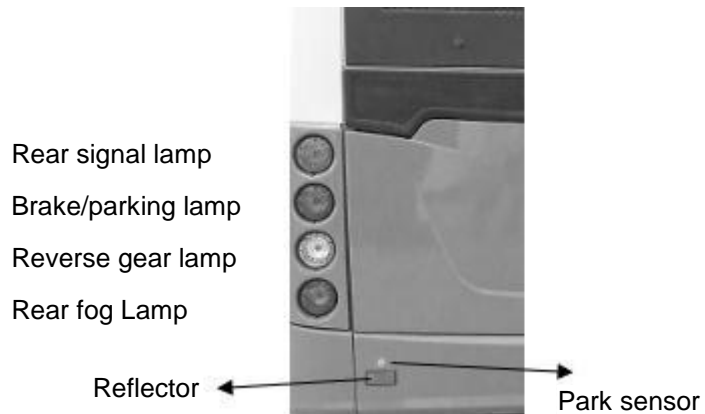
## EXTERNAL WARNING AND LIGHTING LAMPS

Lamps	Number in the vehicle
High beam/parking	2 pcs
Low beam	2 pcs
Front fog lamp	2 pcs
Front signal lamp (with led)	2 pcs
Front positioning lamp (with led)	2 pcs
Side turn lamp (with led)	2 pcs
Sidemarkers (with led)	10 pcs
Rear signal lamp	2 pcs
Brake/parking lamp	2 pcs
Reverse gear lamp	2 pcs
Rear fog lamp	2 pcs
Rear license plate lamp (with led)	2 pcs
Rear positioning lamp (with led)	2 pcs
Daytime driving lamp (with led)	1 set
Reflector	2 pcs
Engine lighting lamp (Led)	1 pcs

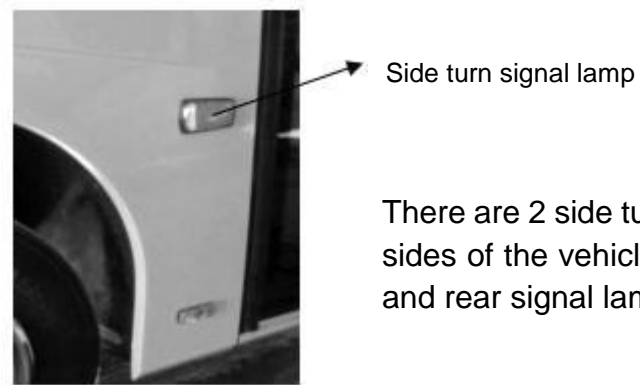
### Front Headlight Group



## Rear Lamp Group



## Side Turn Signal Lamps

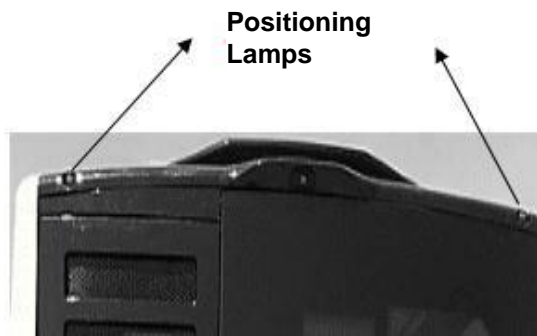


There are 2 side turn signal lamps, on the right and left sides of the vehicle. They work together with the front and rear signal lamps.

## Sidemarkers and Positioning Lamps

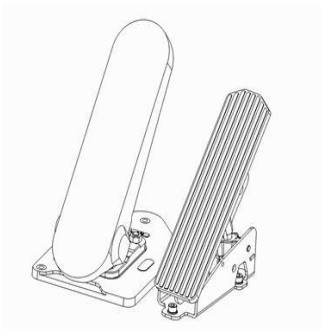


Sidemarker



There are a total of 4 positioning lamps in the vehicle, including 2 on the front top and 2 on the rear top side. Also, there are 10 sidemarkers in total, including 5 on the right and 5 on the left.

## PEDALS



**Brake Pedal** The pedal on the left is the brake pedal. The pedal is part of the electronic brake system (EBS). By pressing the brake pedal, an electrical signal is transmitted to the central control unit and air is distributed to the brake elements.

**Accelerator Pedal** The pedal on the right is the accelerator pedal. The electronic signal sent by the position sensor connected to the accelerator pedal is evaluated by the ECU (Electronic Control Unit) and the amount of fuel supplied to the engine is set. There is a kick-down button at the end of the accelerator pedal that increases the engine speed.

## TRANSMISSION



The vehicle is equipped with a 6-button gear selector;

**1, 2, 3 buttons** : It is used to limit the maximum gear value that the transmission will take.

**D button** : Automatic forward

**N button** : Transmission in neutral

**R button** : Reverse

The transmission must be in the "N" position while the engine is running.

When the ignition key is turned, firstly, the lights of all buttons light for 1-2 seconds; then only the light of the selected button remains on.

If the selected button light is blinking, it means that the selected gear is not accepted by the transmission control unit because proper conditions for gear shift are not provided.

If all the lights are blinking, it means that the gear selector is faulty or there is a problem with the vehicle data communication system (CAN) in the cable connection. If you accidentally press more than one key, the transmission will apply the selected smaller gear option. For example, when you press the D and 3 keys at the same time the transmission will take into account the key number 3.

### **When shifting the gear;**

- Accelerator pedal should not be pressed
- Engine speed should be below 900 rpm
- Vehicle must be stopping
- The brake pedal must be depressed
- The button of the gear to be selected must be pressed

In the following situations, the transmission does not allow gear selection and the light blinks when the button is pressed.

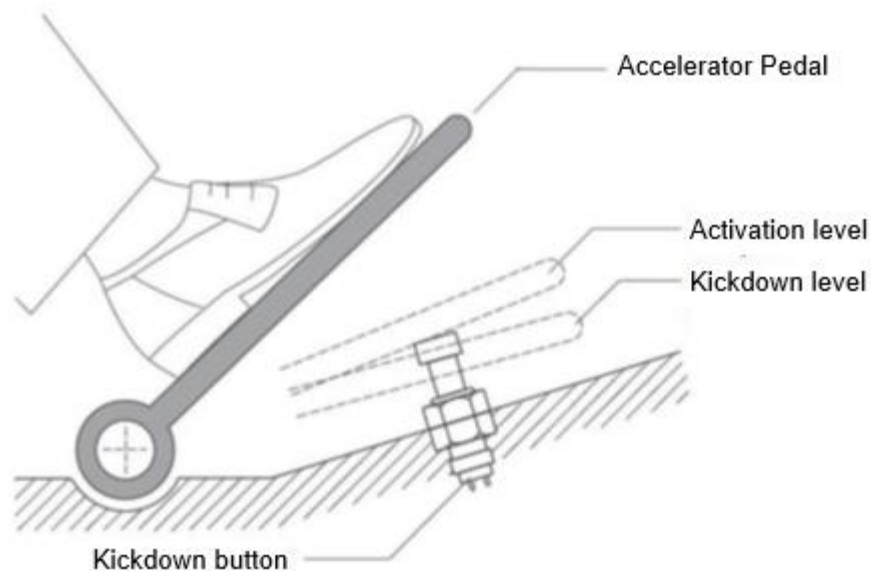
- If the accelerator pedal is pressed
- If the engine speed is above 900 rpm
- If the vehicle is moving at a speed higher than 3 km/h and it moves in the reverse of the desired direction
- If the transmission oil temperature is below -20°C

1-2 seconds after selecting the gear, pull your foot off the brake pedal and the vehicle will move.

While the vehicle is uphill, when the foot is pulled off the brake pedal, the transmission makes a brake to prevent the vehicle from slipping back.

### **Driving downhill**

For downhill cruising, the gear increase should be limited by selecting gear 1, 2 or 3 to limit the gear when needed.



### **Kickdown feature**

When high engine power is needed, gear is decreased by the kickdown feature. For this, the accelerator pedal must be depressed until it passes the kickdown activation point. Using the kickdown feature increases the fuel consumption.

### **Retarder feature**

The retarder is the hydrodynamic brake feature that the transmission has to extend the life of service brakes. It operates in three stages with the lever and/or the brake pedal. The first time the brake pedal is pressed, the retarder runs in the 1<sup>st</sup> stage, as the pedal is depressed, it increases up to the 3<sup>rd</sup> stage and increases the braking torque. If the pedal is pressed more, the service brakes are activated.

When the transmission oil temperature rises above the critical temperature, the retarder performance decreases or the transmission closes the retarder feature. When the transmission temperature rises excessively, the warning lights on the indicator.

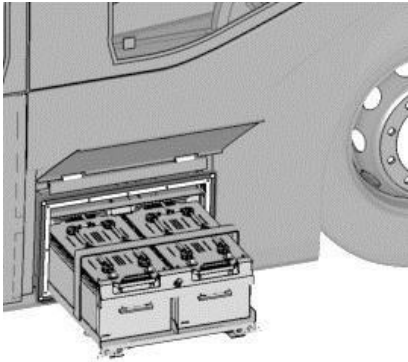
## FUEL TANK and CAP

Fuel tank is on the right side of the vehicle and is on the front wheel. Tank capacity is 300 lt.

Fuel tank cap is accessed by opening the protective cover. The cover is opened by the fuel tank key. After the filling process, the tank cap is locked by turning clockwise.

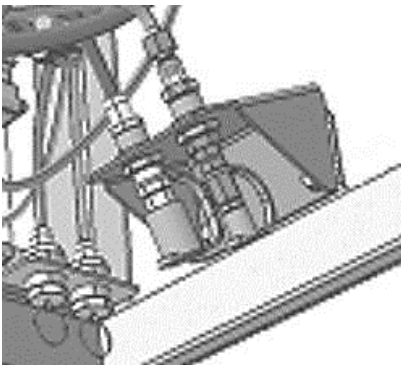
There is one fuel tank maintenance cover under the seat group in the right front area of the vehicle. For cleaning the fuel tank, the bolts of this cover are removed and the drain plug is reached. The cover is opened by turning the plug and the deposits in the fuel tank are discharged.

## BATTERY



The batteries are located on the front of the left rear wheel and are placed on slides which can be easily installed and dismantled. There are 2 batteries in the vehicle. Each battery is 12 V and 240 Ah.

## TIRE INFLATION SET



The air intake and air delivery ports of the vehicle are located on the lower part between the middle door and the rear wheel. If the air pressure in the vehicle's tires drops, the tire pressures can be adjusted using the tire inflation set that is available in the toolbox.

- Park the vehicle so as not to obstruct traffic.
- Pull the parking brake, shift the gear to neutral and start the engine.
- Take the tire inflator set.
- Attach one end of the hose to the valve of the tire to be inflated and the other end to the air outlet behind the middle door
- Complete the tire inflation process by supplying gas to the engine.



## HEATING and COOLING SYSTEM

### Air Conditioner Adjustment Control Unit

The control unit driver compartment is located in the upper console. On the rear panel of the control unit there are one 22-pin, one 20-pin and one 6-pin connection sockets available. On the front panel of the unit, there are 11 keys for managing the various functions of the air conditioner.

Different information and values, such as the desired (set) and current temperature degrees can be read from the three-digit, seven-segment display on the control unit of the passenger section.

Driver Section Control Keys

Passenger Section Control Keys



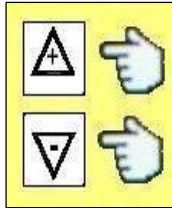
### Control Unit Key Functions

Key no	Key Function
T1	Switching on / off the driver side heating mode
T2	Selecting the driver side circulation air / fresh air mode
T3	Selecting the driver side air flaps (foot / foot-torpedo / windscreen)
T4	Driver side window defrosting
T5	Manual adjustment of the driver side fan efficiency
T6	Operation in driver side cooling mode
T7	Switching on/off passenger side air conditioner
T8	Activating the passenger side manual fan efficiency
T9	Selecting the passenger side circulation air / fresh air
T10	Rising the passenger side comfortable temperature degrees to 15°C - 30°C
T11	Reducing the passenger side comfortable temperature degrees from 15°C - 30°C
T10 - T11	Calling the sensor values (when both keys are pressed at the same time)
D	Display

## Reading the Internal Temperature Value



When the vehicle is running, the display automatically shows the current internal temperature. Manual Reading of the Outside Temperature Value

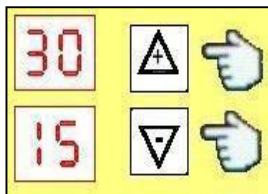


When the T10 and T11 keys are pressed at the same time, P1 appears on the display. Press the + key until P5 appears on the display, the display shows the outside temperature degrees for 5 seconds. It then automatically shows the passenger side temperature.

## Adjustment of the Passenger Side Temperature



Press the Auto (T7) key on the Control Unit, (led is active).



Press the T10 key to increase the desired ambient temperature It can be adjusted to max. 30C°. Press the T11 key to decrease the desired ambient temperature It can be adjusted to min. 15C°.



then the display automatically shows the passenger side (indoor temperature) again.

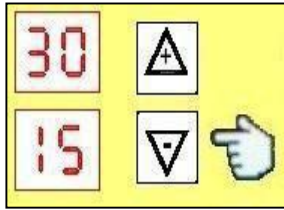
## Operating the Roof Air Conditioner in Cooling Mode

Run your vehicle's engine



Press the Auto key on the Control Unit and when you press the “**Auto**” Key, your air conditioner will start to run in the “**Auto Mode**”. The red led lights when Auto is active, and the red and green led light together in cooling mode.

**Note :** When the Auto key is pressed, the set value is automatically taken as 21°



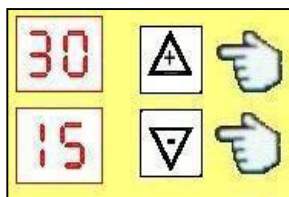
If you set the desired comfortable temperature for operating in “Cool mode” to minimum **1.5 degrees below** the passenger side temperature, then the device will start to operate in cooling mode after 60 seconds. The blowing fans automatically accelerate or decelerate depending on the degree. Press the (Auto) key again to exit the automatic operation mode. Condenser fans are deactivated after 20 sec.

### Operating of the Passenger Side Air Conditioner in Heating Mode

If the vehicle has a heated air conditioner (optional), it turns on the heated air conditioner. Start the engine of your vehicle.



Press the Auto key on the Control Unit and when you press the “Auto” Key, your air conditioner will start to run in the “Auto Mode”. The red led lights when Auto is active.



If you set the desired comfortable temperature for operating the Passenger air conditioner in “Heating mode” to minimum **1.5 degrees below** the passenger side temperature, then the Roof Air Conditioner will start to operate in heating mode after 60 seconds.

The blowing fans operate in the 1<sup>st</sup> stage in the “Auto” heating mode. Press the (Auto) button again to exit the automatic operation mode.

### Manual Adjustment of the Ventilation Efficiency of the Passenger Side Air Conditioner

It is possible to manually control the ventilation efficiency of the passenger side air conditioner.



T-8 By pressing the fan button repeatedly, you can gradually increase, decrease or close the ventilation efficiency.

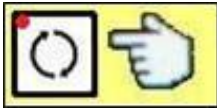
There is a fan symbol on the three side by side fan keys where you can see the fan speed. If the LED on this symbol is active, the fan speed you have selected can be seen.

**Led I** (Evaporator blower fan 1<sup>st</sup> stage active (related led lights))

**Led II** (Evaporator blower fan 2<sup>nd</sup> stage active (related led lights))

**Led III** (Evaporator blower fan 3<sup>rd</sup> stage active (related led lights))

## Operating the Passenger Side Air Conditioner in Circulation Air Mode



When you press the T9 Flap button on the control unit, the “Circulation air mode” is activated. The corresponding led becomes active.

When the air conditioner is in the “Auto” mode, it starts to operate in the “circulation air mode” automatically.

## Operating of the Passenger Side Air Conditioner in Fresh Air Mode



When you press the T9 Flap button on the control unit, if the corresponding “led” does not light, it starts to run in the “fresh air mode”. The corresponding led does not light.

## Operating of the Front / Driver Side Air Conditioner in Cooling Mode



When you press the T6 driver side cooling button on the control unit, the magnetic valve will open and it will start cooling. The related led turns on. When you press the same button once again to turn it off, the led turns off and closes.

Note: The front / driver side air conditioner will only perform cooling if the passenger side air conditioner is operating in the cooling mode.

## Operating of the Front / Driver Side Air Conditioner in Heating Mode



When you press the T1 button on the control unit, the heating valve is opened and the heating starts. The heating efficiency can be adjusted in 2 steps by pressing the T1 key successively.

When you press the T1 button once, the motorized valve is opened 50% and once you press it again, it is opened 100% fully.

## Manual Adjustment of the Ventilation Efficiency of the Front / Driver Side Air Conditioner

The ventilation efficiency of the front / driver air conditioner is controlled only manually.



By pressing the T5 fan button repeatedly, you can increase, decrease or close the ventilation efficiency.

**Led I** (Frontbox blower fan 1<sup>st</sup> stage active (related led lights))

**Led II** (Frontbox blower fan 2<sup>nd</sup> stage active (related led lights))

**Led III** (Frontbox blower fan 3<sup>rd</sup> stage active (related led lights))

At the same time, when you press the T5 fan button, you can see the fan speed you selected on the control unit display in the following codes.



Screen display dF0 / Blowing fan 0 / off



Screen display dF1 / Blowing fan 1<sup>st</sup> stage

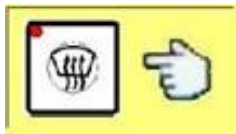


Screen display dF2 / Blowing fan 2<sup>nd</sup> stage



Screen display dF3 / Blowing fan 3<sup>rd</sup> stage

### **Defrosting the Windscreen with the Front / Driver Side Air Conditioner**



When you press the T4 “DEF” button, defrosting of the windscreen starts automatically. The fans automatically rise to the 3<sup>rd</sup> stage at maximum, the heating valve automatically opens up to 100% maximum, the air blower flap position automatically switches to the windscreen.

Press again the T4 “DEF” key to turn it off (the related led turns off)

### **Positioning of Front / Driver Side Air Conditioner Air Flap**



You can set the air circulation in the driver side in 3 different positions by pressing the T3 air flap positioning key successively.

1. Air flap position to the feet (if activated, the led on the symbol lights)
2. Air flap position foot and front torpedo. (if activated, the led on the symbol lights)
3. Air flap position to the windscreen (if activated, the led on the symbol lights)

### **Display codes descriptions:**

P1 - Indoor Sensor Right

P2 - Indoor Sensor Left

P3 - Indoor Sensor Right / Optional

P4 - Indoor Sensor Left / Optional

P5 - Outdoor Sensor

F0 - Passenger side blower fan is closed

F1 - Passenger side blower fan is in the 1<sup>st</sup> stage

F2 - Passenger side blower fan is in the 2<sup>nd</sup> stage

F3 - Passenger side blower fan is in the 3<sup>rd</sup> stage

dF0 - Driver side Frontbox blower fan / closed

dF1 - Driver side Frontbox blower fan / at 1<sup>st</sup> stage

dF2 - Driver side Frontbox blower fan / at 2<sup>nd</sup> stage

dF3 - Driver side Frontbox blower fan / at 3<sup>rd</sup> stage

### **Error Codes**

There are 10 error codes defined for the air conditioner control unit.

EEE - There is an error,

A1 - There is no main feed

C1 - Magnetic coupling does not pull the coil

H1 - Heating valve is not activated

E1 - Indoor sensor error (Right)

E2 - Indoor sensor error (Left)

E5 - Outdoor sensor error

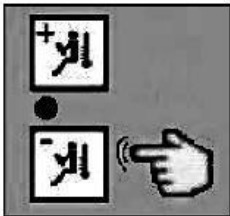
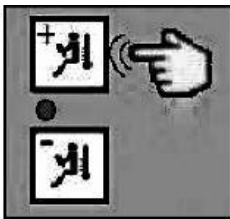
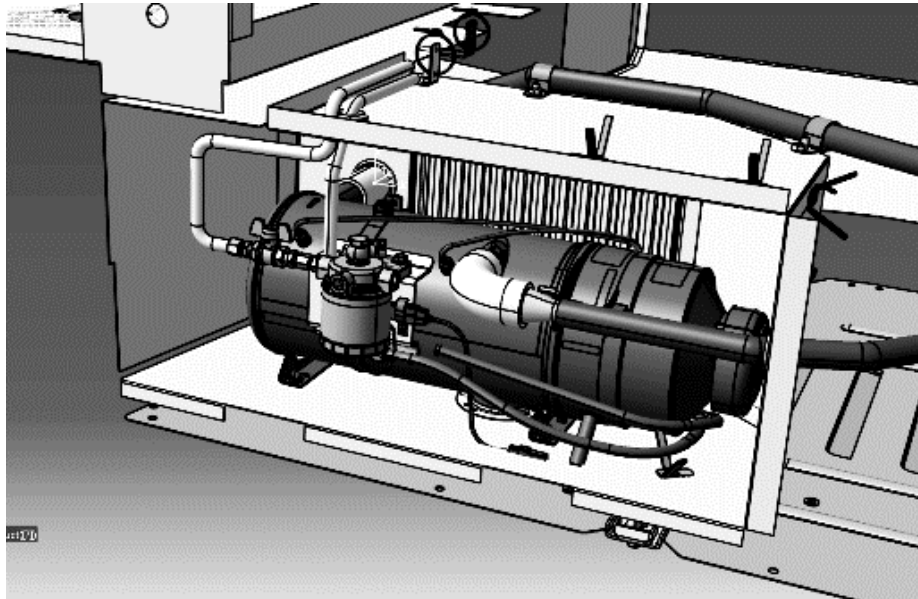
E6 - Right flap positioning error

E7 - Left flap positioning error

E10 - 3-way motor valve positioning error

E12 - Frontbox air management flap positioning error

## PREHEATER (OPTIONAL)

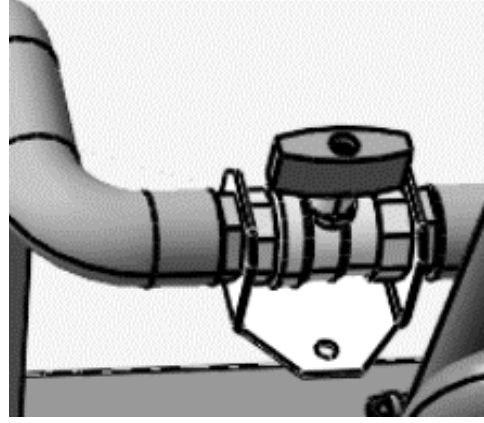
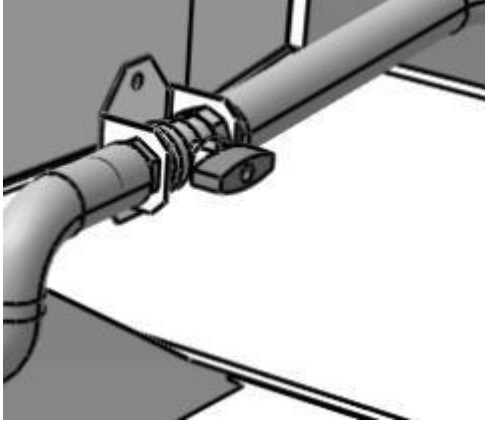


The front heater is located in the lower cabinet behind the rear wheels. The 3-way valve is closed to only pre-heat the engine water. (The - position must be pressed.) The desired programming can be done from the program time. The 3-way valve is opened to support the heating system. (The + position must be pressed.)

The filter valve must be open while running the preheater. The filter should be cleaned periodically.



**Before starting, check for fuel leakages on the fuel line and on the preheater. Air adjustment of the preheater must be made in very cold areas and in areas above the sea level. Black smoke is emitted from the preheater exhaust if no air adjustment is made (The air adjustment is only performed by an authorized preheater service). The preheater should not be operated while the heating system is in the summer mode (while the manual valve closed).**



Also, the battery switch and main power switch should not be turned off after the preheater is switched off. After the preheater is switched off, it automatically cools down for 5 minutes. The preheater may be damaged if the power switches are turned off.



**The heater can turn itself off due to overheating for any reason. If the heater turns itself off several times due to overheating, the control circuit turns off the heater automatically. Please contact the Authorized preheater service to open the heater and to eliminate the problem.**

The preheater is controlled from the controller on the console on the driver's side.





### **Use of Preheater**

The pre-heater control unit is located in the top console of the driver compartment.





## Main Functions of the Keys:

-  With this key you can operate the heater or confirm the inputs.
-  With this key you can turn off the heater, exit the menus or stop the functions.
-  With the keys you can select and adjust the functions.
-  The ventilation symbol operating unit appears only if it is connected to heaters (dry type heaters) that support this function.

## Running the Ventilation

Select with  confirm with 

 set the operation time with the keys


Confirm the settings with , the ventilation will start to run.

Press and hold the  key for 2 seconds to turn off

## Heating symbol

## Operating the Heater

Select with  confirm with 

 set the desired ambient temperature (only with dry type heaters) and the operating time with the keys

Confirm the settings with , the heater will start to run.

Press and hold the  key for 2 seconds to turn off.


## **A<sub>D</sub>** Additional Unit symbol

Additional Unit function can be activated by the Eberspaecher authorized service stations.

## Running the Ventilation with the Additional Unit

Select with **AD** confirm with 


Perform the steps in the running the ventilation section

Press the  key for 2 seconds to turn off

## Running the Heater with the Additional Unit

Select with **AD** confirm with 




Perform the steps in the running the heater section

Press the  key for 2 seconds to turn off

## P Programming symbol




### For programming

Select **P** and confirm with 

  select one of the P1, P2 or P3 programming memories with the keys and confirm with .

To activate the saved program; use the   buttons to switch the program to the

"ON" position, confirm with the key 

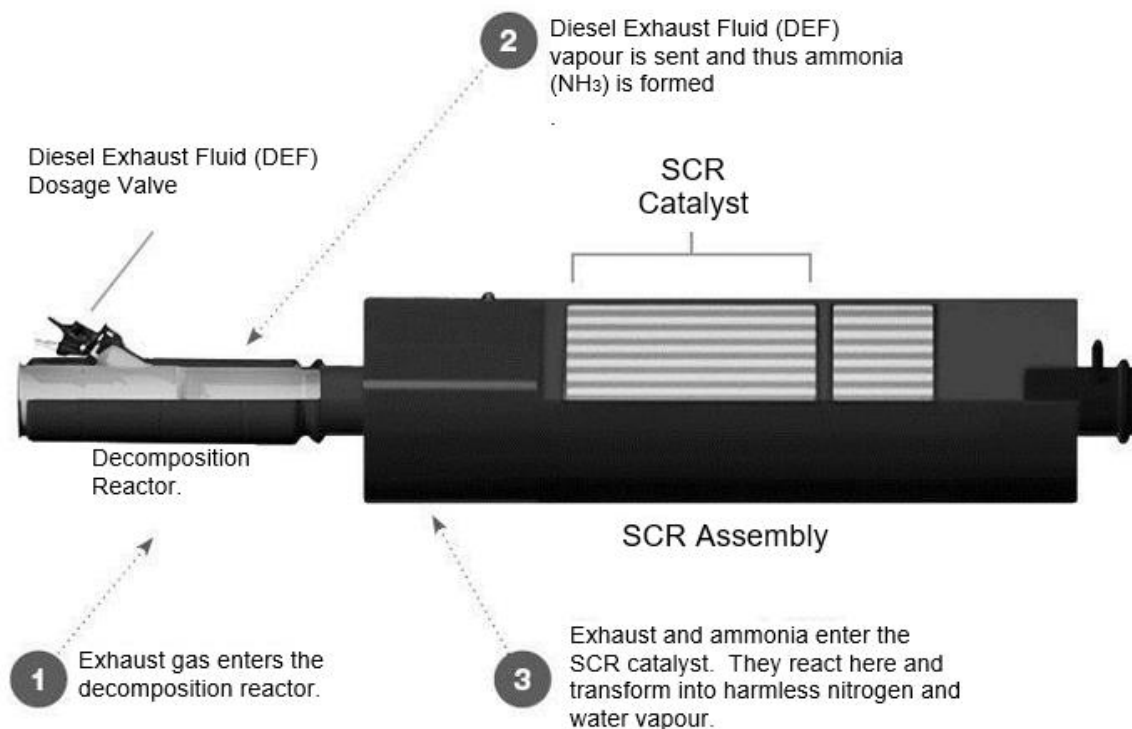
For the cancellation of the selected program;   turn to the "OFF" position and confirm with the key 

## SCR SYSTEM and DIESEL EXHAUST EMISSION FLUID TANK

The diesel exhaust emission fluid is a 32.5% urea solution in demineralised water. It is a fluid consumed to reduce the emission ratios of the engine.

The diesel exhaust emission fluid is pumped into the exhaust gases by the dosing pump. It forms during combustion and reacts with nitrogen-oxide gases being discharged and converts these gases into pure nitrogen and water.

This process is called "Selective Catalytic Reduction" (SCR).



The diesel exhaust emission fluid tank filler cap is located behind the rear door in the vehicle. The capacity of the diesel exhaust emission fluid tank is 47 liters. The fluid level in the tank is checked constantly. If the level drops below a certain value, the warning lamp on the indicator lights red. In this case, fluid level must be supplemented immediately. The tank must always contain at least 6% fluid for healthy operation of the vehicle. When the level of the diesel exhaust emission fluid falls below this value, the engine gives a malfunction code and cuts the power. The diesel exhaust emission that you purchase for the efficient operation and long life of the SCR system must be certified to comply with the American Petron Industry (API), DIN 70700, ISO 22241 and AUS 32 standards. Adhering to these standards guarantees that the fluid has the appropriate purity and concentration (32.5%). No additives are to be added to the diesel exhaust emission fluid.

### **DIESEL EXHAUST EMISSION FLUID HEATING SYSTEM (OPTIONAL)**

The diesel exhaust emission fluid used in the vehicle starts to freeze at  $-11^{\circ}\text{C}$ . When the temperature rises, the engine begins to spray urea into the exhaust system. If, when the engine warms up, the fluid in the tank remains frozen, the engine cuts power since there will be no urea spray. For this reason, in cold climate conditions (at  $-7^{\circ}\text{C}$  and lower temperatures), the engine heats the diesel exhaust emission fluid tank with hot water and the diesel exhaust emission fluid line from the tank to the injector with the electric heater.

## ELECTRONIC BRAKE SYSTEM (EBS)


The electronic brake system has both electronic and pneumatic infrastructure. Under normal conditions, the brake system is controlled electronically. The brake request from the driver is processed by the control unit and optimum braking in that condition is created. This system has a higher performance than conventional systems. In the event of an electrical failure, the system does not shut itself down, it continues to operate pneumatically.

The EBS system contains the following functions:

- 1 ) **Anti Blockage System (ABS):** It prevents locking of the wheels during braking, preventing the vehicle from slipping. It provides a steering stability in a sudden braking.
- 2 ) **Anti-Skid System (ASR):** On ramps, on slippery surfaces and during acceleration, when the drive wheels skid, ASR is engaged and the driving safety is improved by reducing the slip to the minimum level.
- 3 ) **Drift Torque Control (DTC):** The wheels can be locked due to the inertia of the transfer organs on slippery grounds. This system is engaged and increases the engine torque and tries to maintain the road holding.
- 4 ) **Electronic Brakeforce Distribution (EBD):** It distributes the braking force required according to the load condition and the wear of the linings on the vehicle to the wheels.
- 5 ) Wear of the linings can be controlled, the lining thickness on the instrument panel is continuously monitored.
- 6 ) **Retarder Integration:** The system is in constant interaction with the retarders. In the case of light brakes, the retarder is engaged, preventing wearing of the linings. At the same time, it supports the braking system under normal conditions. When the ABS function works, the retarder system is deactivated.

In the event of electronic malfunctions, the safety functions will not work, the brake performance will reduce, and in this case the driver will have to contact carefully with the nearest authorized service. Safety functions such as the ABS, ASR and DTC are effective in reducing the risk of accidents but the most important point is that the vehicle is driven according to the traffic and road conditions.

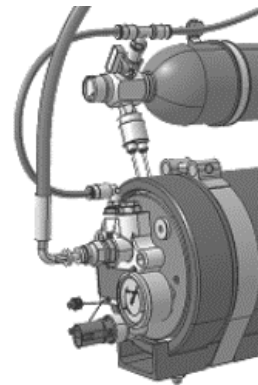
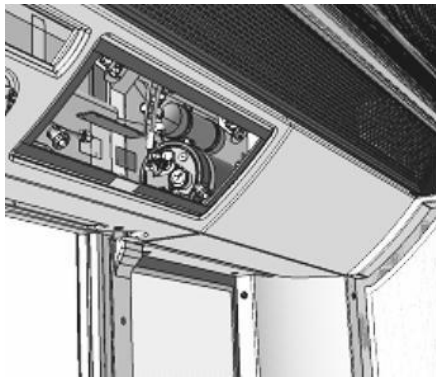
## ENGINE ROOM FIRE DETECTION SYSTEM

It is a system that gives a red light and buzzer warning  on the information screen when the engine room temperature exceeds 175°C. There are fire detection sensors in the engine room.

## **AUTOMATIC FIRE EXTINGUISHING SYSTEM AT ENGINE ROOM (OPTIONAL)**

It is a system that consists of a pressurized fire detection hose and fire spray nozzles which is passed through the areas where fire may occur in the engine room. There are 2 tanks in the system, one is the nitrogen tank which enables detecting the fire and the other is the extinguishing tank which contains the fire extinguishing liquid. Illuminated and audible warning lights warn during a fire detection.

During extinguishing process, the fire extinguisher is sprayed from the nozzles, which reduce the temperature and turn into column shaped smoke clouds that cut off the contact with air. The fire extinguisher is basically antifreeze water based. The extinguishing time is normally 3 - 5 seconds and the effective time is 50 - 75 seconds.



In case of fire;

- Stop the engine
- Empty the vehicle
- Close the current
- Keep the engine hood closed for at least 5 minutes
- Use a portable fire extinguisher if necessary
- Contact the authorized service.




When the fire extinguishing system comes into an active state for any reason other than fire and the tanks are empty, the following procedures must be carried out:

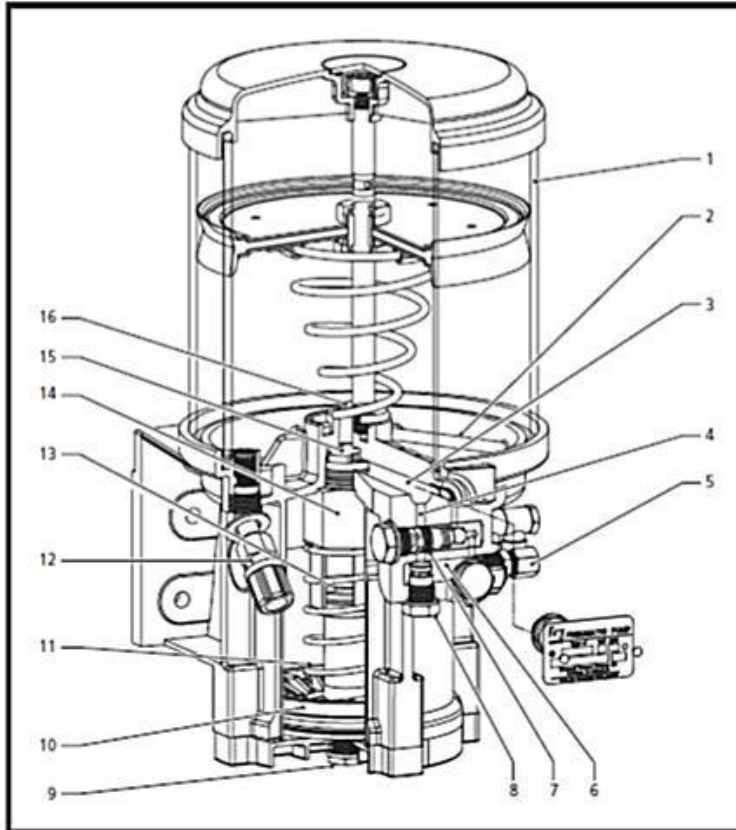
- Wash all component surfaces with water to avoid corrosion of the parts in the engine room affected by the system
- Supply water to the fire extinguishing tubing system and wash inside of the pipes and the nozzles, if it is late for this process, remove the nozzles and clean them with water together with the tubing. Replace the nozzles if necessary.
- Put on protective covers on the nozzles again
- Mount the filled tanks and re-engage the system.

## AUTOMATIC GREASING SYSTEM

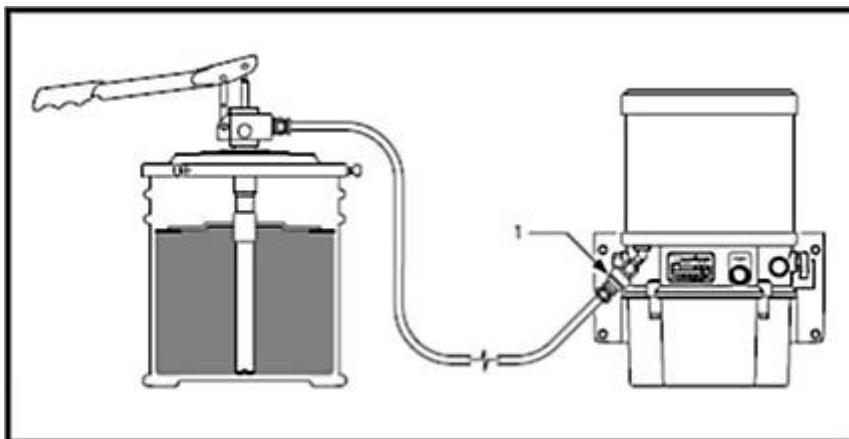
The automatic greasing system is a system that sends oil to 10 grease fitting points on the front axle at certain periods. The system's pump and grease unit is located on the front of the vehicle. It supplies oil to the front axle as 0.2 and 0.15 cc at certain periods.

If there is a fault in the system, a yellow warning  buzzer is activated on the information screen.

### Automatic Greasing System Filling Procedure



The place shown in the figure with number 12 is the filling point.



The grease in the tank must be refilled when it reaches the minimum level, for which usually a filling pump is used. The filling procedure is as follows:

There should be no air in the hose during the first filling, otherwise air will be pumped into the tank. For this, press the marble at the end of the connector and pump until oil comes out from the hose.

- Remove the dust plug from the filling mouth
- Clean and the connectors both on the hose and on the tank thoroughly
- Mount the hose and the tank connectors together
- Fill the tank so that it does not exceed the maximum level (2 cm below the tank) or until the level plate comes to the stopping point
- Disconnect the connectors from each other
- There is a filter in the tank connector. If it is difficult to pump, the filter may be clogged. In this case, remove the filter and clean it.

## **5. SERVICE AND MAINTENANCE**



## CLEANING THE VEHICLE

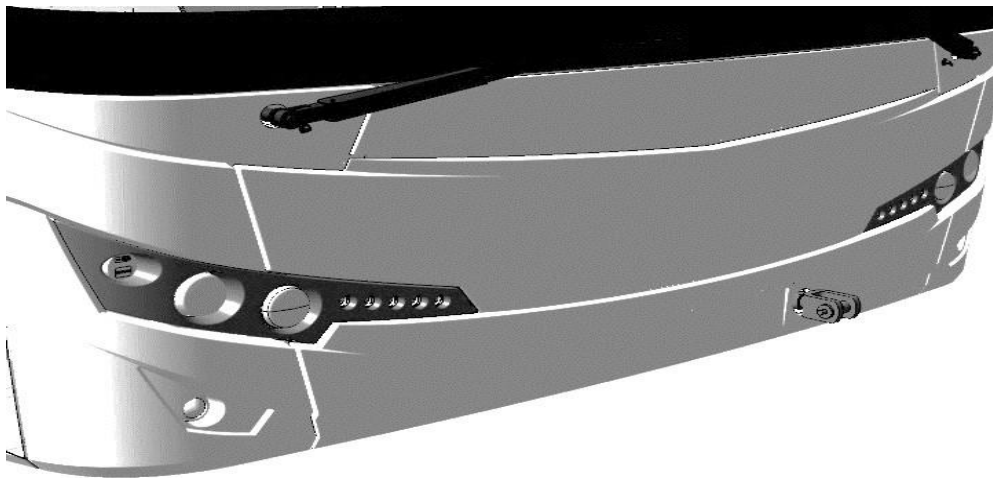
### Exterior Cleaning

- Do not clean your vehicle with detergents and chemicals, do not wipe with gasoline.
- Use pressurized water when cleaning the vehicle, do not leave the excess water on the vehicle after cleaning, remove the excess water with a cloth or chamois
- Do not wash your vehicle under hot sunshine
- Keep inside your fender clean in winter
- Use only soap and water when cleaning the air bellows inside the vehicle.

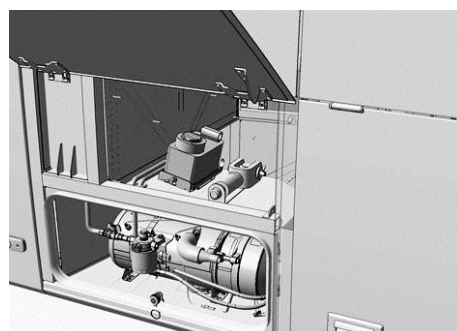
### Interior Cleaning

- Clean the instrument panel with a wet cloth, never use any substances such as alcohol or thinner.
- Clean the seats with a wet cloth or a foamed artificial leather cleaner.
- Wipe the passenger floor with a wet mop and then dry the floor.

## TOWING THE VEHICLE



- Open the towing hook cover on the front bumper.
- Take the towing hook from the pre-heater cabinet behind the left rear wheel
- Screw the towing hook firmly into the slot on the bumper and make sure it is fitted.



## ENGINE MAINTENANCE

The vehicle's engine is accessed from 4 sections.

It is possible to access the engine from behind, from the left side, inside and under the vehicle.

### Rear lower cover



Alternators, A/C compressor, V belts, recirculation pump, fuel water separator, oil tank of completing the engine oil, Diesel exhaust emission fluid tank, ECM (Electronic Control Module), oil dipstick, steering tank, dosing pump and dosing pump air filter are accessed by opening the rear bottom cover.

### Rear upper cover



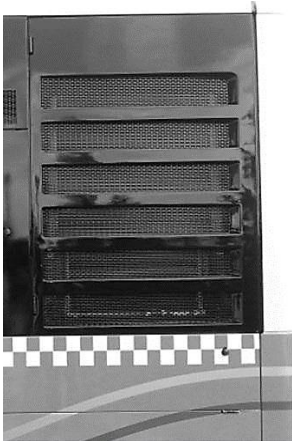
The hydraulic fan oil tank and the hydraulic fan motor are accessed by opening the rear top cover.

### Left side lower cover



The oil filter, fuel filter, starter, alternators and turbo unit are accessed by opening the left side lower cover.

### **Left side radiator cover**



The cooling unit, the expansion tank water filler neck and level sight glass are accessed by opening the left side radiator cover.

### **Left side filter cover**



The air filter, valves and pumps for the heating system are accessed by opening the left side filter cover.

### **Internal covers**

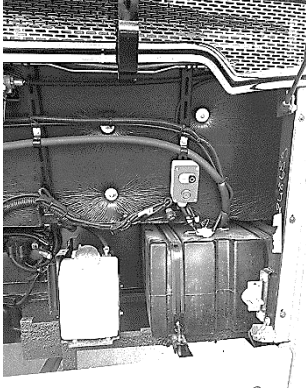


The air compressor, hydraulic fan, steering pump, fuel filter, fuel pump, the temperature and NOX sensor on the exhaust gas processing unit urea injector, crankshaft cover, engine oil filling mouth, transmission oil filling and level measuring neck are accessed by opening the 2 covers in the vehicle.

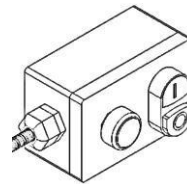
## Bottom cover

The engine oil pan is accessed by opening the cover under the vehicle.

## Start / Stop Button Group



If it is necessary to start the engine during an engine maintenance operation, the rear bottom cover of the vehicle is opened and the start/stop button group here is used.



To start the engine, the ignition key is put to the “M” position and this button is pressed when the transmission is in the “N” position.



This button is pressed to stop the engine.

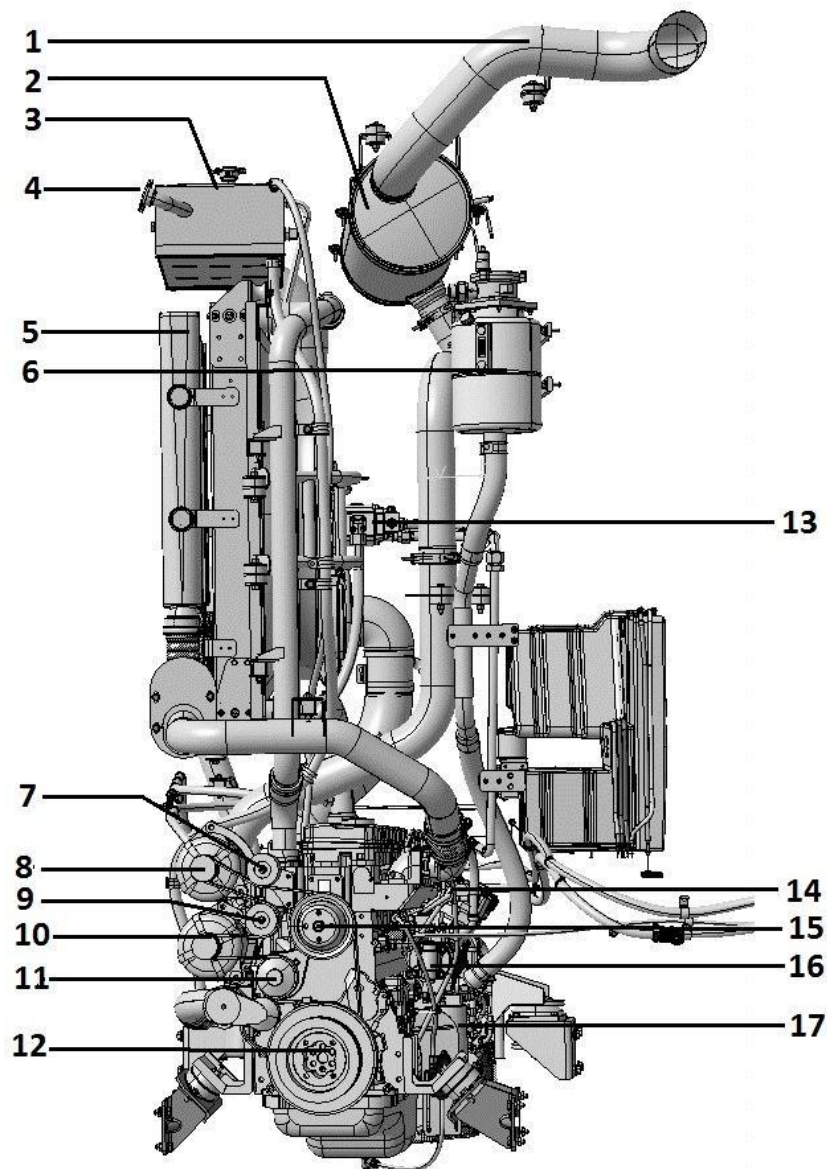


This (green) button is pressed for illumination of the engine.

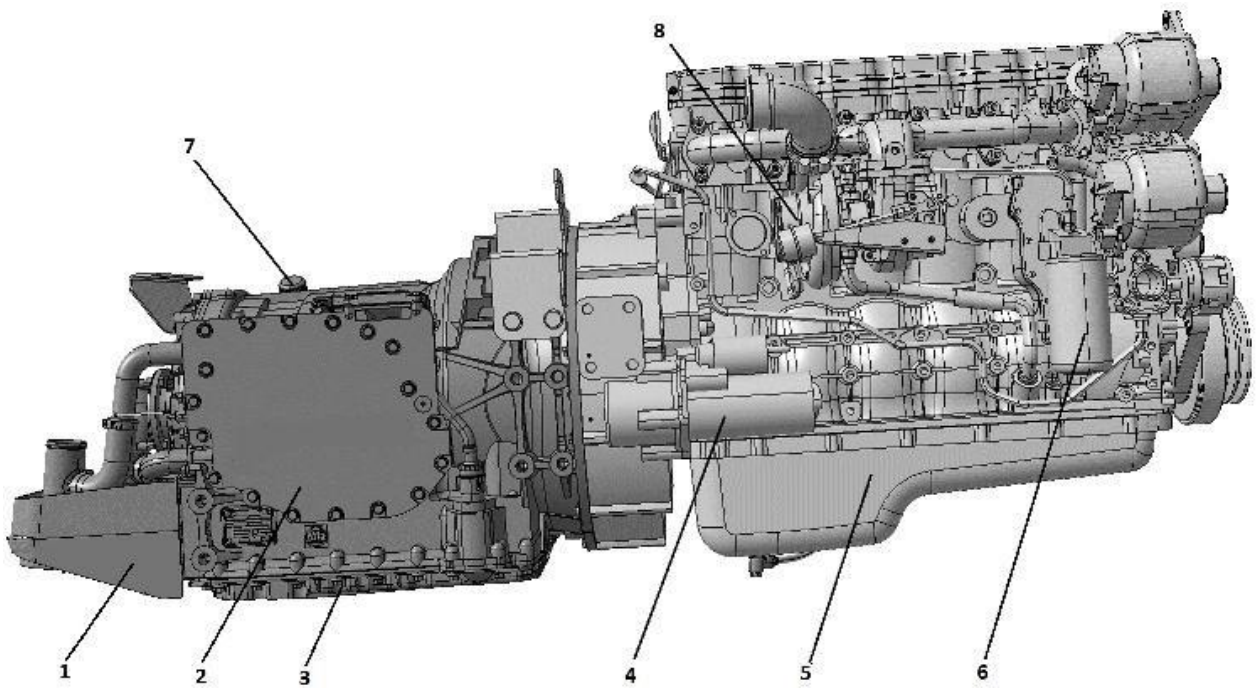


**For safety reasons when the rear cover is opened, there is a safety switch that prevents the engine from being operated from the driver’s side.**

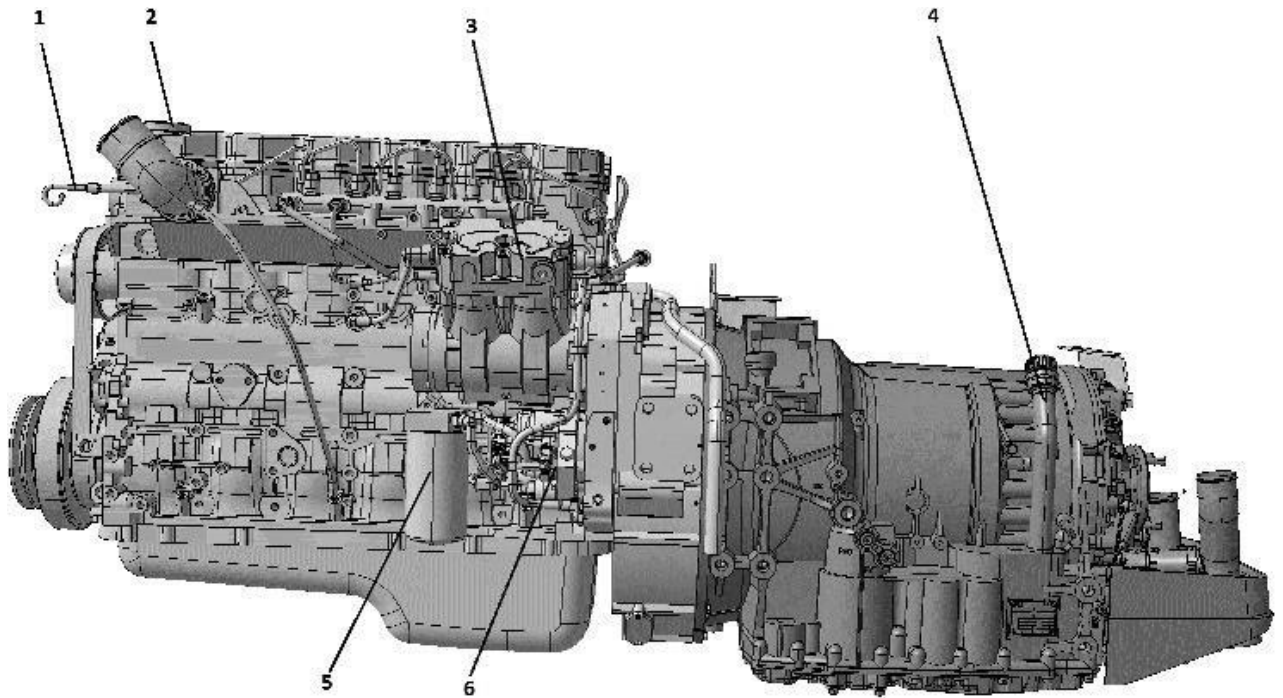
## ENGINE



- |   |                         |    |                                |
|---|-------------------------|----|--------------------------------|
| 1 | Exhaust Tail Pipe       | 9  | Guide Pulley                   |
| 2 | Exhaust Silencer        | 10 | Alternator                     |
| 3 | Expansion Tank          | 11 | Recirculation Pump             |
| 4 | Filling Neck            | 12 | Crankshaft Pulley              |
| 5 | Cooling Unit            | 13 | Hydro fan Motor                |
| 6 | Hydro Fan Oil Reservoir | 14 | Oil Dipstick                   |
| 7 | Guide Pulley            | 15 | Camshaft Pulley                |
| 8 | Alternator              | 16 | Hydro Fan - Steering Gear Pump |
|   |                         | 17 | Fuel Filter                    |



- 1 Torque Converter Oil Cooler
- 2 Transmission Oil Cooler
- 3 Transmission Oil Pan
- 4 Starter
- 5 Engine Oil Pan
- 6 Oil Filter
- 7 Transmission Oil Filler Cap
- 8 Turbo Unit



- 1 Oil Dipstick
- 2 Engine Oil Filler Cap
- 3 Air Compressor
- 4 Transmission Oil Filling Pipe
- 5 Fuel Filter
- 6 Fuel Pump

## ENGINE LUBRICATION SYSTEM

### Replacing the Engine Oil

- Place the vehicle in a horizontal position
- Run the engine until the coolant reaches 60°C
- Switch off the engine
- Remove the oil drain plug, drain the oil into the oil collecting container (remove and replace the oil filter if the oil drain is performed as a service maintenance interval)
- Install the oil drain plug with a new sealing washer and tighten with a torque of 80 Nm.



**Use engine oil as specified in the fluid specifications.**

- Do the oil filling process from the oil filler neck on the rocker cover
- Open the cover, fill oil in the amount specified in the fluid specifications
- After waiting 5 minutes for the oil to reach the pan, check the oil level from the oil dipstick (H level) and close the cover.

### Fluid Level Check

You can access the oil dipstick by opening the rear engine cover.

For oil level check;


- Take the dipstick out
- Wipe it with a clean cloth
- Install the dipstick back and pull again
- Check the oil level, fill to level H



**If the oil level is a little above the level L, it must be added (on vehicles without the oil supplementing system). The oil level must not fall below L.**

### AUTOMATIC ENGINE OIL REFILL SYSTEM (OPTIONAL)

Automatic engine oil refill system is a system that automatically supplements when the engine oil of the vehicle is low. There is an oil tank of 6 lt capacity in the engine section of the vehicle. The system checks the oil level automatically when the ignition key is switched on after it has been off for 3 hours. In case the engine oil level decreases, the pump connected to the oil tank replenishes 0.5 lt of oil to the engine.

There is a warning lamp  on the warning lights panel which alerts in the event of a failure during the supplementation of engine oil.



## **ENGINE COOLING SYSTEM**

The engine cooling system ensures that the engine temperature remains within the proper temperature range, thus keeps the engine running efficiently and maintains the proper oil viscosity to prevent engine wear. The system also cools the transmission. However, it provides the hot water requirement of the radiator system and the heating of the diesel exhaust emission fluid tank (optional) at very low air temperatures. The coolant used in the cooling system is a mixture of 50% water and 50% antifreeze and the antifreeze to be used must comply with the ASTM4985 (GM6038M specs) or ASTM D6210 standards. This mixture has a freezing point of -36 °C and a boiling point of +108°C. No additive should be used in the coolant.

## **ADDING COOLANT TO THE ENGINE AND HEATING SYSTEM**

When the liquid level in the tank drops to a minimum level, it can be seen with a lens on the tank. Also, with a warning indicator on the tank, a warning appears on the instrument panel.

- The vehicle is parked on a level ground.
- The entire heating system is switched on at the maximum position (All valves, all pumps are open. All lines are open.  
The controller is taken to manual maximum heating mode. The manual valve are open. The electronic 3 way valve is open. The system pump and heated air conditioner pump are running).
- The addition of the coolant is done via the radiator expansion tank. There are two covers on the tank. The other cover which is accessed from the left side cover is used for adding liquid to the system. The steam in the tank is discharged by the valve in the upper zone of the tank, which is opened with 1 bar pressure. This cover must always be open during filling liquid. Coolant check and liquid addition must be carried out when the engine is cold.  
Addition of the decreased liquid is carried out from the tank filling neck until the liquid overflows.
- After the first liquid addition, the filling cap is closed and the engine is warmed until it exceeds 83°C. The engine should be run for at least 10 minutes at a temperature range of 83-95°C.
- During this time, the thermostat is opened, the air in the cooling system is discharged and at the same time the air of the system should be discharged from the air relief cocks on the radiator. The engine is increased to the maximum speed during the discharging process (the air of the system must also be discharged from the air relief cocks on the heated air conditioner). As a result of these operations, the liquid level inside the expansion tanks drops.
- Wait until the engine cools down and add liquid again from the filling neck until the liquid overflows.
- If the heaters do not blow hot while the engine is hot as a result of all these operations, it means that the air of the radiator line is not completely discharged. In this case, the engine is run again at maximum speed for 15 minutes and adding liquid is repeated until it overflows when it cools down.



**The filling cap should not be opened when the engine is hot. Otherwise, the fluid may overflow from the cover causing serious injury.**

## **REPLACING THE OIL FILTER**

The oil filter can be accessed from the left side lower cover.  
To replace the oil filter;

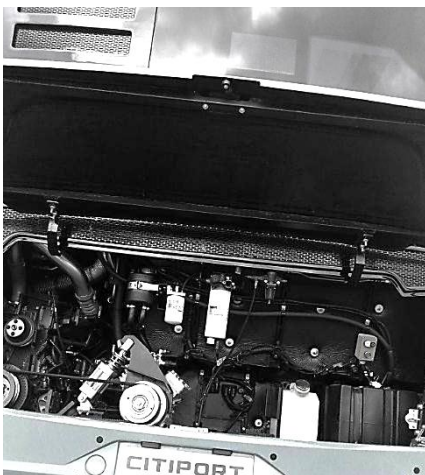
1. Clean the oil filter cap and remove the filter with the aid of a filter remover
2. Fill the new filter to be installed with clean engine oil
3. Apply a thin layer of engine oil to the oil filter o-ring
4. Tighten the oil filter by hand until it touches the surface of the rubber seal, then tighten  $\frac{3}{4}$  turns more with a filter apparatus
5. Start the engine and check the filter for leakages.

## **REPLACING THE FUEL FILTER**

The fuel filter can be accessed from the left side lower cover. To replace the fuel filter;

- Remove the fuel filter
- Remove the paper filter element inside the filter
- Remove the o-ring inside the filter
- Fit the new filter element properly into the filter
- Attach the new o-ring to the filter
- Lubricate the fuel filter o-ring with clean lubrication oil
- Fill the fuel filter with fuel
- Install the fuel filter on the fuel filter cap so as to hold a thread
- Tighten the filter with a torque of 32 Nm

## **FUEL WATER SEPARATOR**



The fuel water separator is located in the centre position as installed on the body when the rear lower cover of the vehicle is opened. Its function is to enable efficient use of fuel by distilling the water in the fuel.

For discharging the water that accumulates in the filter of the fuel water separator;

- Rotate and open the water discharge tap
- In a controlled manner, re-tighten again when switching from water to fuel
- After starting the engine, check for leakages.

To replace the fuel water separator's filter;

- Remove the connection cable of the fuel water control switch
- Remove the fuel filter
- Discharge the fuel filter, remove the fuel water control switch from the fuel filter
- Check for damages or cracks on the switch.
- Re-install the fuel water control switch to the new filter
- Lubricate the fuel filter o-ring with clean engine oil
- Install the filter.



## CONTROL OF BRAKE DISC AND BRAKE LININGS



The lining warning indicator should be checked regularly. When the lining indicator value is 10%, it must be replaced by an authorized service. The right and left brake linings on the same axle must be replaced together. The original brake part defined by the vehicle manufacturer must be used.

Brake discs should also be checked and if necessary, replaced when replacing the brake linings. Otherwise, the brake performance may be affected adversely.

## TRANSMISSION MAINTENANCE

The oil type should be 20E or 20F according to TE - ML 20.105 based on the ZF specs.

The transmission takes 38 lt of oil in the first filling.

When oil will be replaced, discharge of the oil should be waited for about 10 minutes and then 24 lt of oil should be added.

### Fluid Level Check

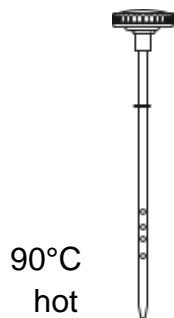
Oil level check when the transmission is cold (30°C):



30°C  
cold

- Park the vehicle on a level ground
- Put the transmission in the "N" position
- Run the engine for 10 - 20 seconds, at 1200 - 1500 rpm
- Take the engine in idle
- The oil level should be at the "30°C (cold)" level on the oil dipstick.

Oil level check when the transmission is hot (90°C):



- Park the vehicle on a level ground.
- Place the transmission in the “N” position.
- Run the engine for 10 - 20 seconds, at 1200 - 1500 rpm
- Take the engine in idle
- The oil level should be at the “90°C (hot)” level on the oil dipstick.

### Oil Replacement Period

The transmission oil must be replaced at the **180,000 km or every 3 years** (whichever comes first). The pressure filter must also be replaced with every oil replacement.

### Discharging the Oil

- Discharge the transmission oil for 10 minutes while the transmission is hot
- Stop the engine
- Remove the oil plug.
- Remove the oil plug on the filter cover and also discharge the oil in the filter section
- Remove the filter cover
- Replace the o-ring on the cartridge filter (pressure filter) and the filter cover's plug.

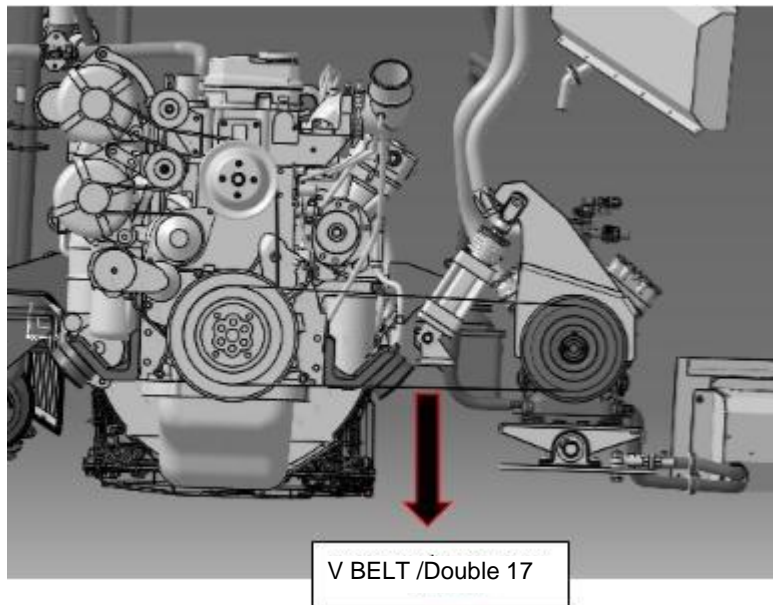
### Filling Oil

- When attaching the filter cover, tighten the bolts with a torque of 29 Nm, pay attention to the bolt lengths
- Install the plug on the filter cap (tightening torque 25 Nm)
- Tighten the oil plug with a torque of 35 Nm
- Add oil from the oil filler neck
- Check the oil level with a dipstick.

## REPLACING OF THE DIFFERENTIAL OIL

- Place the oil drain container under the differential housing for draining the oil
- Unscrew the oil drain plugs located under the housing, discharge the oil to the container
- Replace the plug washers after draining and tighten the plugs with a torque of 35 - 40 Nm
- When the level check plug is closed, remove the fill plug and fill in the oil (differential oil capacity is 16.5 litres)
- Wait for 15 minutes after the filling process so that the oil is spread onto the axles
- Remove the level check plug to check the oil level being filled (oil level should be at the plug slot level).
- When the required level is reached, replace the washers of the plugs and tighten at a torque of 130 Nm.

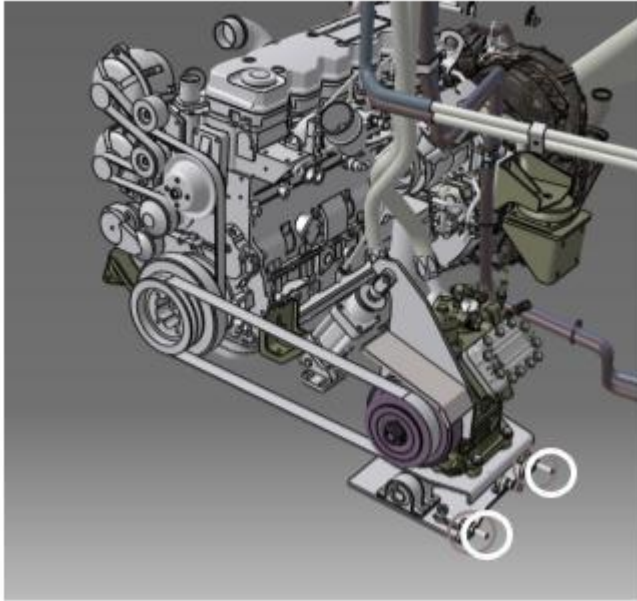
## AIR CONDITIONER COMPRESSOR BELT



A/C compressor belt is a Double 17 V-belt. The following codes are shown on the belt.

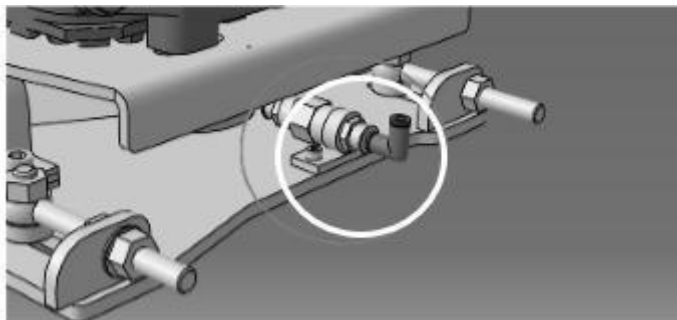


If the belts are damaged or ruptured, contact your authorized service for replacement.



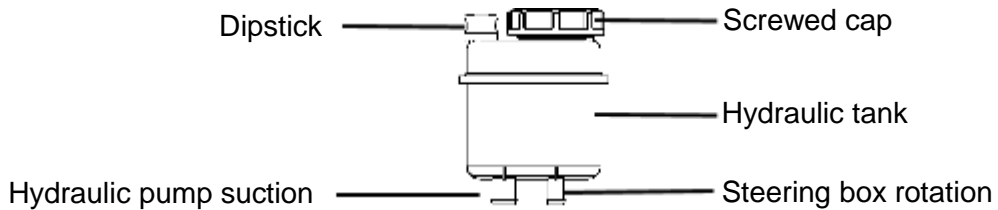
The compressor belt must be tightened by tightening the nuts at the indicated points (This must be performed by the authorized service).

However, the tensioning system always actively tightens the belt with an air piston. Before the first operation, check whether the air valve below is open. The air valve should be open. 6 bar air tightens the compressor together with the piston.



**Do not operate the engine if the valve is closed. There is a risk of jumping and rupture since the belt is not stretched. Do not approach while the engine is running and the belt is rotating and do not touch the belt with hands.**

## STEERING WHEEL HYDRAULIC TANK

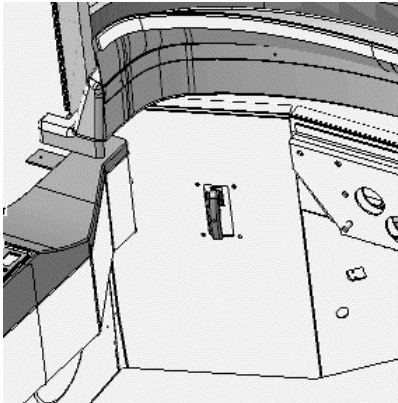


It is located on the right side of the engine when the rear maintenance cover is opened. There is a screw-cover and a dipstick on the reservoir. Oil level check should be done every 3000 km. For the oil level check, the dipstick of the reservoir is removed, there is a minimum and maximum line on the rod and the oil level should be between these two lines.

For the power steering and the pump to operate without any problems, the oil specified by the vehicle manufacturer must be used. If there is not enough oil in the steering system, the vehicle must not be started, the steering pump may be damaged. If the oil has decreased, oil is filled up to the maximum line of the dipstick.

## GLASS WATER JET TANK

Figure 1



The front dashboard cover of the vehicle is opened with the lever (Figure 1) located at the left knee level of the driver (Figure 2). After opening the cover, glass washing water can be put in the tank up to a level of maximum 10 liters.

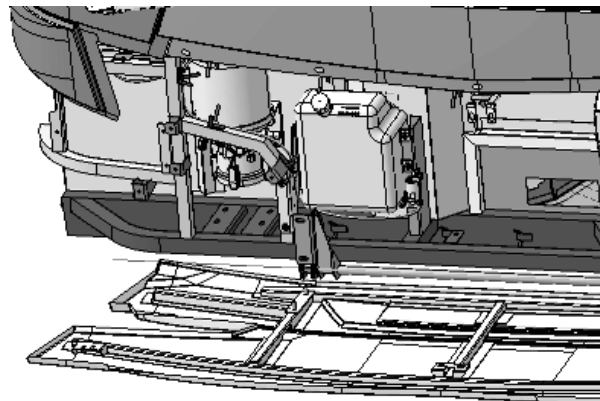
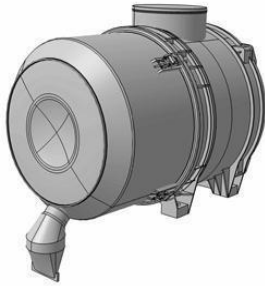


Figure 2



**In cold weathers, an antifreeze-glass water should be used to prevent the water from freezing.**

## AIR FILTER



The air filter is accessed by opening the left rear side cover of the vehicle.

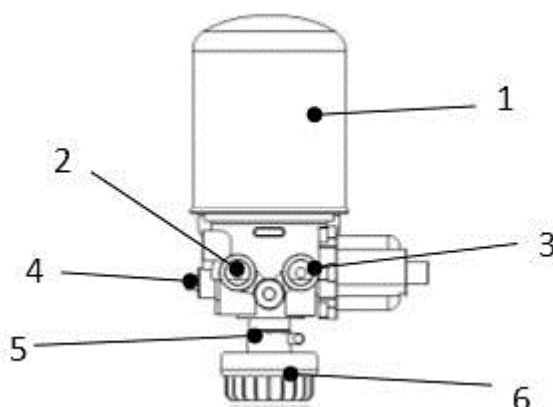
To clean the air filter, the rubber dust valve located on the bottom side is squeezed from its edges to discharge the accumulated dust.

## Air Filter Element

Air filter element must be replaced every 30,000 km, the following steps should be followed for the replacement:

- Open the connection latches
- Pull the rear cover towards yourself
- Remove the filter element by pulling it towards yourself
- Place the new filter element in the body housing and push it forward to fit it into its place
- Place the rear cover in the body so as that the discharge valve faces directly downwards
- Close the latches.

## AIR DRYER



1. Cartridge
2. Compressor connection
3. Four way valve connection
4. Heater
5. Air discharge
6. Silencer

The air dryer is located in the front of the right rear tire. The function of the air dryer is to adjust the air system pressure and to reduce the moisture and oil in the air pumped from the compressor. There is a heating feature that prevents the dryer from freezing in cold weathers. This feature is especially activated at low temperatures and deactivated at high temperatures.



The air dryer fills up the system with air until the circuit breaker discharge at 9.8 bars. When the filling process is completed, the dryer discharges the accumulated water and the oil from the silencer which is located in the lower part of the dryer with pressure. Thus, it cleans itself.

At the end of **1 year or 40000 km** usage, the cartridge of the air dryer should be replaced.

## REPLACING WIPERS

There are 2 wiper external arms in the vehicle, including right and left.

To replace the sweeper of the wiper, remove the bolts and nuts in the middle of the sweeper (Figure 1 and Figure 2).

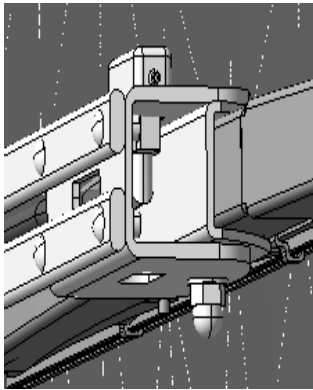


Figure 1

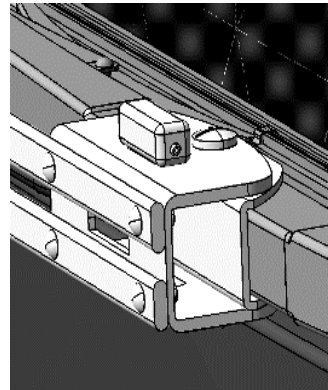


Figure 2

For the complete replacement of the wiper external arm, the plastic cover at the point of attachment to the vehicle body is opened and the wiper arm is removed by unscrewing the nut here (Figure 3). The jet hose connected to the arm during removal of the wiper arm must also be removed from the point of attachment to the vehicle body (Figure 4).

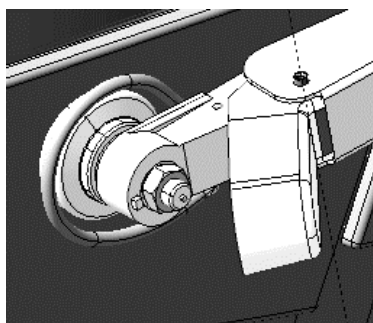


Figure 3

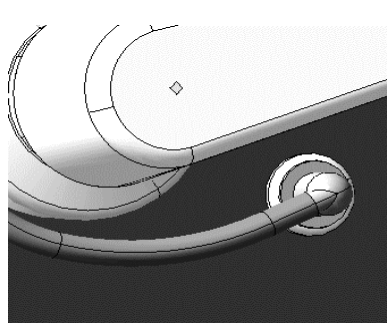


Figure 4



**During winter, the wiper rubbers must be checked and replaced if necessary.**

**Replacement of wiper internal mechanism should be performed by an authorized service.**

## **FUSES / RELAYS**

The fuse and relays panel is located behind the left ventilation cover, which is located on top of the battery cabinet. The fuse layout and the values are located on the fuse label under the cover. The fuses used in the vehicle are of blade type. When a short circuit or leakage current occurs in the system, the relevant fuse trips as an open circuit to protect the electrical components. After the electrical fault is removed, the fuse is replaced with a fuse having the same ampere.

## **REPLACEMENT OF THE LAMPS**

### **Replacement of the Low Beam Bulb**

- Open the front engine hood
- Pull out and remove the rubber guard behind the low beam
- Remove the bulb by pressing inward on the wire clamps
- Replace with an equivalent bulb
- Install the rubber guard so as that the water hole is facing downwards

### **Replacement of the High Beam / Parking Bulb**

Replacement of the high beam bulb

- Open the front engine hood
- Pull out and remove the rubber guard behind the headlight unit
- Remove the bulb by pressing inward on the wire clamps
- Replace with an equivalent bulb
- Install the rubber guard so as that the water hole is facing downwards

Replacement of the parking bulb

- Open the front engine hood
- Pull the socket with the bulb at the bottom end of the headlight unit
- Replace with an equivalent bulb
- Re-install the socket

### **Replacement of the Side Turn Signal Lamp**

- Disconnect the lens from the body
- Pull the lamp out by removing the screws of the frame
- Remove the socket
- Replace with an equivalent lamp
- Fit the lens by screwing the frame into its place

### **Replacement of the Rear Signal, Rear Brake/Parking, Reverse Gear, Rear Fog Lamp Bulb**

- Remove the lens by removing the screws
- Remove the bulb by rotating
- Replace with an equivalent bulb
- Screw the lens together with the rubber seal

### **Replacement of the Front Turn Signal Lamp**

- Open the front engine hood
- Remove the headlight cover entirely
- Remove the front turn lamp screws
- Disconnect from the socket
- Replace with an equivalent lamp
- Re-install the front turn signal lamp by screwing

### **Replacement of the Daytime Driving Lamp**

- Open the hood
- Remove the headlights cover from its place
- Remove the brackets that prevent the lamps on the cover from moving out by removing their screws
- Remove the lamps from their socket
- Disconnect the adapter (driver)
- Replace with an equivalent lamp set
- Re-install the headlight cover by screwing the brackets
- Screw the adapter (driver) back

### **Replacement of the Front Fog Lamp Bulb**

- Pull out and remove the rubber guard behind the headlight unit
- Remove the bulb by pressing inward on the wire clamps
- Replace with an equivalent bulb
- Install the rubber guard so as that the water hole is facing downwards

### **Replacement of the Roof Lighting Leds**

There are lighting lamps on the right and left side of the roof. The lighting lamps consist of led groups of certain sizes. If there is a problem in one of the roof lighting LEDs, the polycarbonate lens on the lighting is removed and the problematic led/leds group is/are replaced with a new one.

### **Replacement of the Rear Reflector**

- Remove the rear reflector from its place
- Clean adhesive residue on the bumper
- Tear off the adhesive protection in the rear reflector
- Paste the rear reflector in its place

### **Replacement of the Front and Rear Positioning Lamps**

- Remove the lamp
- Pull out and disconnect from the socket
- Replace with an equivalent lamp
- Re-install the lamp with the gasket

### **Replacement of the Sidemarker Lamp**

- Remove the sidemarker lamp by removing the screws
- Disconnect from the socket by pulling out the lamp
- Replace with an equivalent lamp
- Re-install the lamp by screwing it together with rubber seals

### **Replacement of the Engine Lighting Lamp**

- Open the rear radiator cover
- Unscrew and remove the engine lighting lamp
- Disconnect from the socket
- Replace with an equivalent lamp
- Re-install the engine lighting lamp by screwing

### **Replacement of the Rear Plate Lamp**

- Remove the lamp by removing the screws
- Disconnect from the socket
- Replace with an equivalent lamp
- Re-install the lamp by screwing

## **USING JACK and TIRE REPLACEMENT**

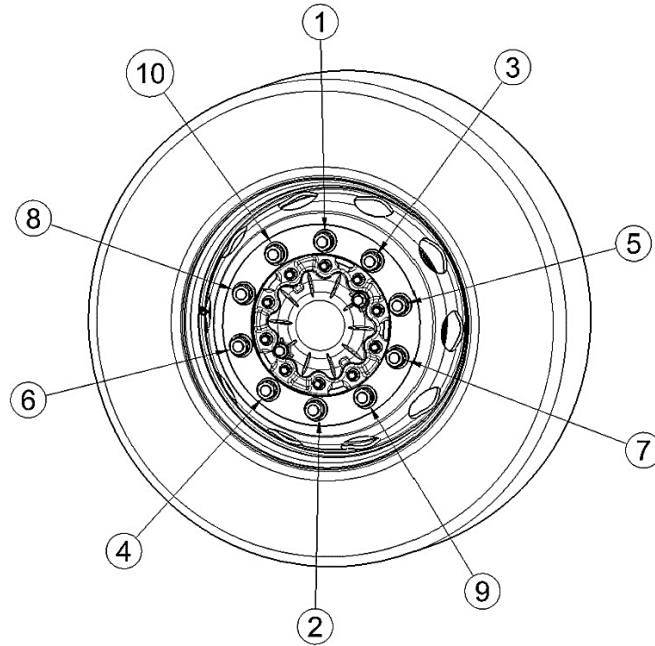
Jack points of the vehicle are located behind the front and rear tires on the body.

### **Using jack**

- Make sure the discharge screw is tight
- Use your own jack lever to lift the jack
- To lower the jack, turn the discharge screw two turns to the left.

### **Tire replacement**

- Place a wedge under the wheel opposite and across the tire you will lift
- Loosen the wheel nuts on the side of the tire to be replaced, but do not remove them
- Jack up the vehicle from the point of the jack behind the tire to be changed until the state where the tire will be completely lifted from the ground
- Remove the wheel bolts and remove the tire
- Install the spare tire
- Take the gap of the wheel nuts and fit the wheel
- Tighten the wheel nuts crosswise and with a torque of **600 +/- 60 Nm** in three steps



Lower the vehicle by loosening the relief screw of the jack slightly.



**Make sure that the jack is placed on a level and solid surface. Do not run the engine while the vehicle is on the jack. Do not go under the vehicle when using the jack.**

**When changing tires, get the passengers out of the vehicle, make sure the vehicle is parked, pull the parking brake and open the hazard lights.**

**NOTE :** If the tire pressure is constantly falling, there may be an object stuck to the tire. It should be checked whether there is an air leakage from the rim or from the valve.

## **PERIODICAL MAINTENANCE**

### **Daily Maintenance**

- Check the tires
- Check operation of the brakes
- Check engine coolant level
- Check the engine oil level
- Discharge the water condensed in the air tanks especially in the winter
- Check the diesel exhaust emission fluid level
- Check if the exterior lighting lamps are suitable for a safe drive
- Check the air intake hoses, exhaust pipes and belts
- Check the fan system for hydraulic leakages
- Drain the water of the air tanks
- Discharge the water that accumulates in the fuel water separator

### **Weekly Maintenance**

- Check the tire pressures with the air meter
- Check the power steering fluid tank level
- Check the air suspension bellows (hole, damage etc.) while the engine is running
- Check the air filter for contamination
- Check the level of the glass wash water.

## **PERIODIC MAINTENANCE TABLE**

The main periodic maintenance interval of the vehicle is 15000 km. The procedures to be performed at every 15000 km is on the periodic maintenance table.

I : Inspect then clean, repair or replace as necessary

R : Replace

A : Adjust

L : Lubricate

Maintenance Interval (*1000 km)	15	30	45	60	75	90	105	120	135	150	165	180	195
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## ENGINE

Engine Malfunctions Diagnostics	I	I	I	I	I	I	I	I	I	I	I	I	I
Engine oil	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I
Engine oil refill (OPTIONAL)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I	R (or 1 year)	I
Valve clearance adjustment						A			A			A	
Oil Filter	I	R	I	R	I	R	I	R	I	R	I	R	I
Fuel Filter	I	R	I	R	I	R	I	R	I	R	I	R	I
Fuel water separator filter	I	R	I	R	I	R	I	R	I	R	I	R	I
Fuel water separator filter water level	weekly												
Air filter element	I	R	I	R	I	R	I	R	I	R	I	R	I
Fuel tubes and hoses	I	I	I	I	I	I	I	I	I	I	I	I	I
Cooling system leakage check	I	I	I	I	I	I	I	I	I	I	I	I	I
Hydrostatic fan drive system oil	I	I	I	I	I	I	R (or 1 year)	I	I	I	I	I	I
Replacement of the oil filter of the hydrostatic fan drive system (with the oil replacement)			R			R			R			R	
Hydrostatic fan drive oil level, leakage and function checks	I	I	I	I	I	I	I	I	I	I	I	I	I
DEF system leakage	I	I	I	I	I	I	I	I	I	I	I	I	I
Urea pump filter		R		R		R		R		R		R	
Exterior cleaning of radiator cores (coolant, air and oil)		I		I		I		I		I		I	
Belt tension and damage	I	I	I	I	I	R	I	I	I	I	I	R	I

## POWER TRAIN

Lubricate the grease nipples (if there is no automatic greasing)	L	L	L	L	L	L	L	L	L	L	L	L	L
Automatic greasing oil filling					L					L			
Transmission oil and filter	I	I	I	I	I	I	I	I	I	I	I	R (or 3 years)	I
Clean the transmission ventilation valve		I		I		I		I		I		I	
Inspection of transmission oil leakage	I	I	I	I	I	I	I	I	I	I	I	I	I
Torque check of the transmission fixing (connection)		I		I		I		I		I		I	
Front axle shaft pins and bushings	I	I	I	I	I	I	I	I	I	I	I	I	I
Differential oil	I	I	I	I	I	I	I	R Hot country	I	I	I	R	I
Rear axle and brake calliper connection bolts	I	I	I	I	I	I	I	I	I	I	I	I	I
Rear axle ventilation hose	I	I	I	I	I	I	I	I	I	I	I	I	I
Steering hydraulic oil	I	I	I	I	I	I	I	R (or 2 years)	I	I	I	I	I
Oil leakage in the power steering system	I	I	I	I	I	I	I	I	I	I	I	I	I
Hydraulic steering system connections	I	I	I	I	I	I	I	I	I	I	I	I	I
Hydraulic steering hose	I	I	I	I	I	I	I	I	I	I	I	I	I
Wheel nuts	I	I	I	I	I	I	I	I	I	I	I	I	I
Tire air pressure	I	I	I	I	I	I	I	I	I	I	I	I	I
Tire hub bearing	I	I	I	I	I	I	I	I	I	I	I	I	I

Maintenance Interval (x1000 km)	15	30	45	60	75	90	105	120	135	150	165	180	195
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### BRAKES AND SUSPENSION

Brake pipe and hoses, leakages	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake linings and disc visual check	I	I	I	I	I	I	I	I	I	I	I	I	I
Looseness in the shock absorbers and fasteners	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake, gas and clutch pedal stroke	I	I	I	I	I	I	I	I	I	I	I	I	I
ECAS settings and air bellows	I	I	I	I	I	I	I	I	I	I	I	I	I

### ELECTRICAL EQUIPMENT

Headlight, turn, parking, fog and brake lamps function	I	I	I	I	I	I	I	I	I	I	I	I	I
Inner lighting	I	I	I	I	I	I	I	I	I	I	I	I	I
Window wiper and window wash system function	I	I	I	I	I	I	I	I	I	I	I	I	I
General checks of the fuse panel electric cable and socket connections	I	I	I	I	I	I	I	I	I	I	I	I	I
Battery connection cables	I	I	I	I	I	I	I	I	I	I	I	I	I
Concentration of the battery electrolyte	I	I	I	I	I	I	I	I	I	I	I	I	I
Starter electrical connections			I			I			I			I	

### CHASSIS AND BODY

Pneumatic door adjustment	I	I	I	I	I	I	I	I	I	I	I	I	I
Safety device function Check of all the doors	I	I	I	I	I	I	I	I	I	I	I	I	I
Air leakage, damage, tightness and door function of door elements	I	I	I	I	I	I	I	I	I	I	I	I	I
Rear view mirrors (including mirror heating system) fittings	I	I	I	I	I	I	I	I	I	I	I	I	I
Corrosion of chassis and body parts			I			I			I			I	

### HEATING COOLING SYSTEM

Replacement of the additional heating fuel filter (change sooner if necessary) (OPTIONAL)		R		R		R		R		R		R	
Air conditioner compressor oil	I : every 5000 hours or 3 years												
Air conditioner gas and oil	I : every 4000 hours or 2 years												

The filters of the radiators should be cleaned every 6 months. The air conditioner filters should be cleaned every 6 months and replaced with a new filter every year.

The antifreeze should be replaced once a year.

For fire extinguishing system; the extinguishing fluid must be changed every 5 years, the tanks must be changed every 10 years.

Hot country description for axle oil replacement:

The average temperature for two months during the year exceeds 25°C or the temperature exceeds 40°C for 7 days during the year.

The cooling tank should be cleaned at every maintenance or every 30000 km.

\*\*\* The periodic maintenance table is prepared for 195000 km. The maintenance after 195000 km is the same as the maintenance periods starting from 15000 km.



## **6. TECHNICAL INFORMATION**

<b>MAXIMUM LENGTH</b>	12030 mm
<b>MAXIMUM WIDTH</b>	2550 mm
<b>MAXIMUM HEIGHT</b>	3136 mm (including A/C unit)
<b>ENGINE</b>	
<b>Model</b>	CUMMINS ISB6.7E5300
<b>Max. Power</b>	289 HP / 2300 rpm
<b>Max. Torque</b>	1087 Nm / 1285 rpm
<b>Volume</b>	6700 cc
<b>Number of cylinders</b>	6
<b>Transmission</b>	ZF 6AP1200B
<b>Number of gears</b>	6 forward, 1 reverse
<b>AXLES</b>	
<b>Front axle capacity</b>	6300 kg
<b>Rear axle capacity</b>	11600 kg
<b>SUSPENSION</b>	Electronic controlled (ECAS)
<b>Front</b>	Air suspension 2 springs, independent suspension
<b>Rear</b>	Air suspension 4 springs
<b>BRAKE SYSTEM</b>	Full air with EBS, front and rear disc brakes
<b>PARKING BRAKE</b>	Air actuated acts on rear axle
<b>FUEL TANK</b>	300 lt
<b>AIR COMPRESSOR VOLUME</b>	460 (Knorr)
<b>AIR CONDITIONER CAPACITY</b>	39 KW KONVEKTA
<b>TIRE TYPE</b>	275/70 R22.5
<b>ALTERNATOR</b>	2 x 90 A
<b>BATTERY</b>	24 V – 2 x 240 Ah
<b>GRADEABILITY</b>	23 %
<b>MIN. TURNING RADIUS</b>	9110 mm

**NOTE :** The stated technical values are approximate values and may vary depending on the vehicle type and options.

<b>PRESSURE VALUES</b>		
Four Way Protective Valve	Static Closing Pressure	≥ 5.5 Bar
Air Dryer	Minimum Opening Pressure	8.1 Bar
Air Dryer	Maximum Closing Pressure	10.45 Bar
Tires	Cold Heading Pressure	9 bar / 131 psi

### **FLUID SPECIFICATIONS**

DEFINITION	CAPACITY	NORM	CLASS
Engine Oil	17 lt	SAE 15W 40	API CH-4/SJ, ACEA E-5, E-7, CES-20076,
Engine Oil Refill (OPTIONAL)	6 lt	SAE 15W 40	API CH-4/SJ, ACEA E-5, E-7, CES-20076,
Transmission Oil and Filter	24 lt (38 liters in the first filling)	TE-ML20.105	20E/20F according to TE-ML 20.105
Differential oil & Rear axle	16.5	SAE 80W 90, 80W - 110, 80W -140	ZF TE-ML 12-Ecofluid X, 12M
Front Suspension Greasing		KP2K-20 and upper grades according to DIN 51825 ISO-L-XBCEB2 and upper grades according to ISO 6743-9	ZF TE-ML 12G
Steering hydraulic oil	8 lt	GM Dexron-III	AUTRAN DX III
Hydrostatic fan oil	9.5 lt	GM Dexron-III	AUTRAN DX III
Air conditioner compressor oil	2 lt	DIN 51 503: KD, KE	FUCHS Reniso Triton SE 55
Antifreeze (50%) + Water (50%)	60 lt	ASTM D6210	CUMMINS FLEETGUARD COMPLEAT
Air conditioning refrigerant and oil	11 kg	1,1,1,2-Tetrafluoroethane (Refrigerant R134a)	Linde

## **7. LIST OF FOREIGN DISTRIBUTORS**

COUNTRY	STORE NAME	STORE ADDRESS	CONTACT NUMBER
ALGERIA	Spa Elsecom	Rue Baha H'med, BP 200 Bab Ezzouar - Alger	+213 (0)23 85 30 86
AZERBAIJAN	AZ Auto LLC	2207 Nobel avenue AZ1006 - Bakü	+(994) 124964598
BOSNIA	Sejari d.o.o. Sarajevo	Blažuj 78, 71215 Blažuj - Sarajevo	+387 33 770 306
BULGARIA	Isubus Ltd.	Botevgradsko Shose Blvd. 1839 Sofia	+(359) 28182929
CROATIA	STP Krapina Presečki Grupa d.o.o.	Frana Galovića 15 49 000 Krapina	+385 (049)328-045
CZECH REPUBLIC	Turancar CZ. s.r.o.	Bavorská 856/14 155 00 Praha 5	+420 776 111 113
FRANCE	Fast Concept Car	Z.I La Ribotiere 85170 Le Poire Sur Vie	+33 25 13 41 034
GERMANY	Omnicar Fahrzeughandel GmbH	Weinbrennerstrasse 10 77815 BÜHL	+49 (0)7223 8061930
GREECE	Petros Petropoulos S.A.	96-104 Iera Odos 122 10 Athens	+(30) 210349 92 00
HUNGARY	Anadolu Rom Hungary	1135 Budapest Robert Karoly Ket. 96-98	+36 703730637
ISRAEL	Universal Trucks Israel Ltd.	Industrial Area Segula, P.O. Box 4599 Petach-Tikva 49145	+972-3-9120010
ITALY	Midi Europe SRL	Via Crosaron, s.n. 37053 Cerea VR	+39 0442 328 212
LITHUANIA	UAB Saločiai Ir Partneriai	Mokyklos str. 1B, Bukiskės LT-14182 Vilniaus raj.	+370 5 2793000
MOROCCO	Maroc SDAMA	Route principale de Rabat 1, km 6,3 Ain Sebaa - Casablanca	+212 (0) 529 029 300
POLAND	Busimport PL Sp. z.o.o.	Gierłatowo 10A 62-330 Nekla Wielkopolskie	+48 61 43 86 905
ROMANIA	Anadolu Automobil Rom. Srl	Soseaua Bucuresti- Ploiesti Nr. 110 Comuna CiolPani	+4021-266 8300
SERBIA	Sejari Ltd. Belgrade	Auto-put za Zagreb 15 11199 Novi Beograd	+381 112608 700
SLOVAKIA	Turancar	Bratislavská 29 94901 Nitra	+421 37 6555 777

**DECEMBER 2018**