

MARS

Intercity Bus

Built on VOLVO B8R chassis



Driver Manual

06/2021

Dear customer,

We would like to congratulate you on purchasing a Merkavim Mars body.

We wish you a pleasant journey.

To be familiar with the bus, we recommend that you read the operating instructions.

The instructions provide information about the body.

For further information contact a representative from Merkavim, who will be pleased to answer any questions.

Subject	Page
Introduction	2
Technical data	
External dimensions	7
Internal dimensions and data	8
Identification plates	9
Entrance	
Front entrance - door opening/closing external control	10
Rear entrance - door opening external control	11
Front entrance - door opening/closing internal control	12
Rear entrance - door opening/closing internal control	13
Front and rear entrance - internal emergency opening	14
Driver area	
Driver area - general view	15
Driver seat	16
Instrument panel	18
Left switches group	21
Gauges panel and central switches group	22
Right switches group - control switches	23
Right switches group - CD/MP3/RADIO/MIC Player	26
Fire system test switch	28
Reversing and rear door cameras system	29
Side instrument panel	31

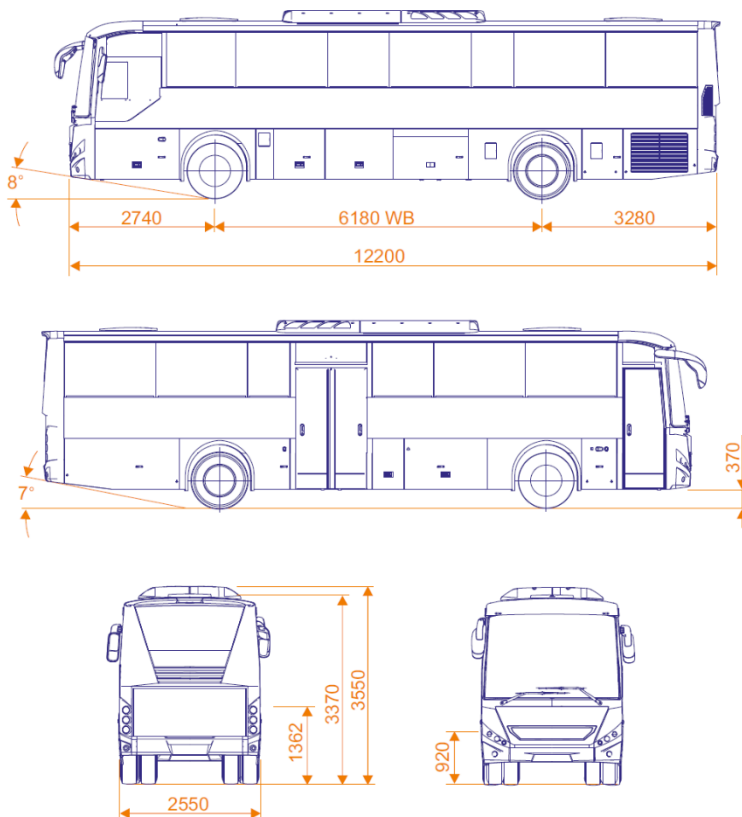
Subject	Page
Driver luggage compartment/Alco test system	34
Driver side window	35
Upper area	37
Front window curtain	38
Passenger compartment	
General view	39
Passenger seats	40
Hand luggage racks and accessories	42
Passenger personal multiset	43
Hand luggage racks and accessories	44
Roof accessories	45
Roof emergency hatch - ventilation state	46
Roof emergency hatch - emergency state - inside actuation	47
Roof emergency hatch - emergency state - external actuation	48
Floor service covers	49
Wheelchair area	50
Stop request system	51
Heating and air conditioning	
Driver area heating (Sans clima)	55
Passenger compartment heating (Sans clima)	59

Subject	Page
Driver area heating (Sans clima)	60
Passenger compartment heating (Sans clima)	61
Passenger compartment heating (AC system heater)	62
Driver area heating (AC system heater)	64
Passenger compartment air conditioning	65
Interior lighting	
Driver area and front entrance lighting	66
Passenger compartment - floor and rear entrance lighting	69
Passenger compartment - roof lighting	71
Wheelchair lift	
Wheelchair lift operating - lifting	74
Wheelchair lift operating - folding	77
Wheelchair fixing	78
Safety equipment	
First aid kit and safety equipment	79
Emergency doors opening	80
External service compartments	
Front and engine service compartments	83
Side service compartments	83
Front service compartment - accessories	85
Battery compartment	86

Subject	Page
Battery compartment – Multi Charger 2x35A	88
Right luggage compartment	89
E6 exhaust system/Preheater compartment	90
Main electrical board compartment	92
Filler doors	97
Wheelchair cassette/Fire automatic system compartment	99
Engine compartment	101
External light	
Front light	106
Back light	107
Side light	108
Side cameras	109

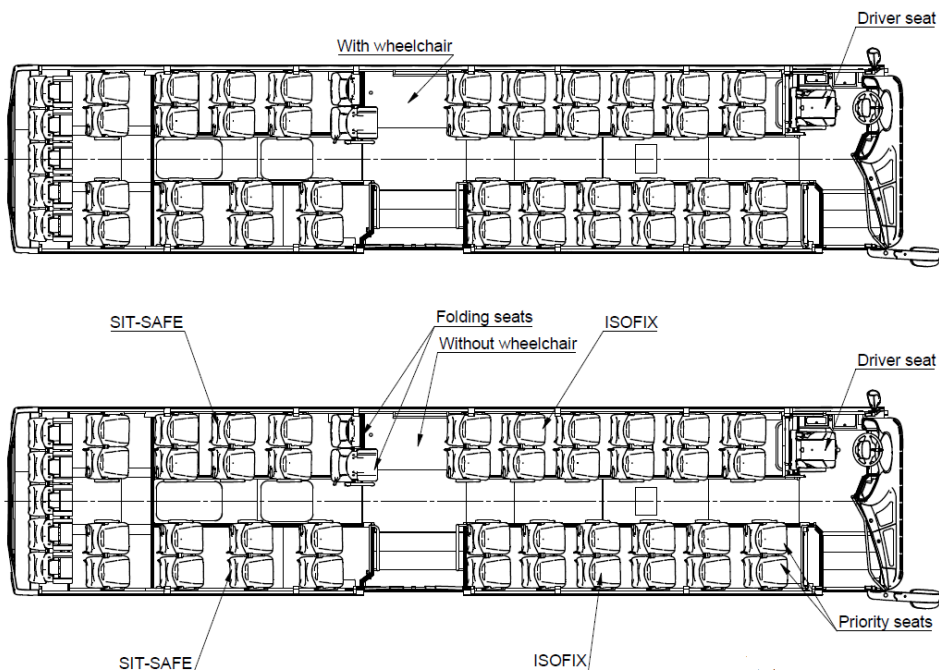
External dimensions

Vehicle length	12200 mm
Wheel base	6180 mm
Rear overhang	3280 mm
Front overhang	2740 mm
Vehicle width	2550 mm
Vehicle height	3550 mm



Internal dimensions and data

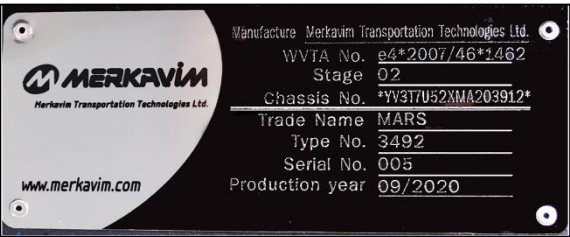
Height of passenger	2040 mm
gangway	450 mm
Width of passenger	45+2+Driver (ISOFIX x4)
gangway	
Seating capacity	



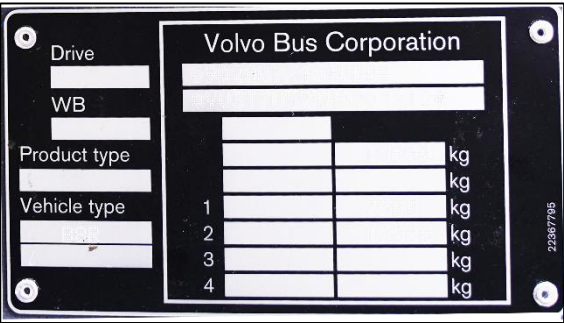
Identification plates



Identification plates



Vehicle identification plate



Chassis identification plate

Front entrance - door opening/closing external control

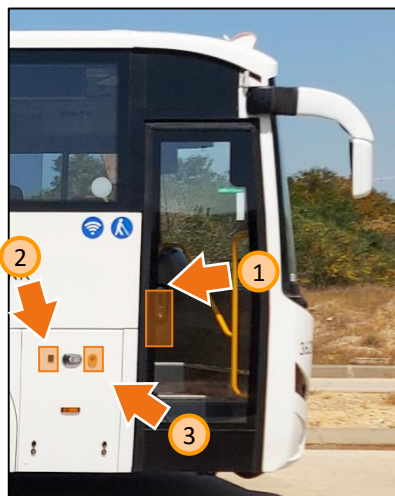
- ① Door opening/closing handle with mechanical lock. ①a



PS200 door lock

①a

- ② Electric switch for opening/closing the front door from pneumatic system.



a



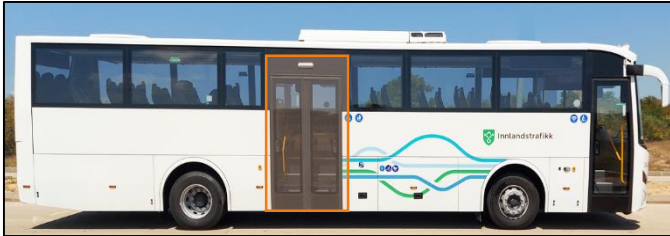
b



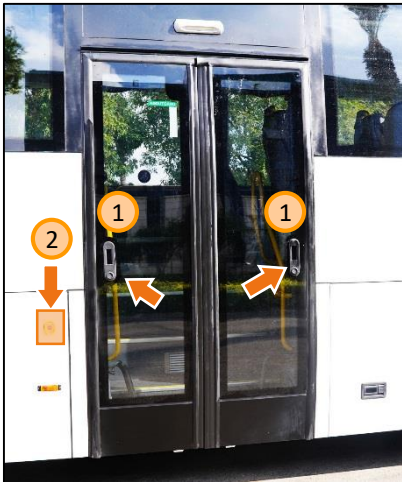
- ③ Emergency door open switch (switch is active when a bus is in parking mode or speed is less than 3 km/h).

Rear entrance - door opening external control

- 1 Door opening/closing handle
(In case of emergency opening).



1



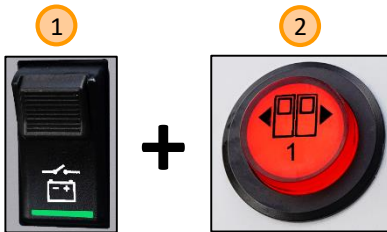
- 2 Emergency door open switch (switch is active when the bus is in parking mode or speed is less than 3 km/h).



2



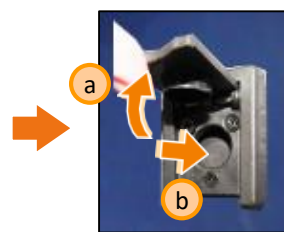
Front entrance - door opening/closing internal control



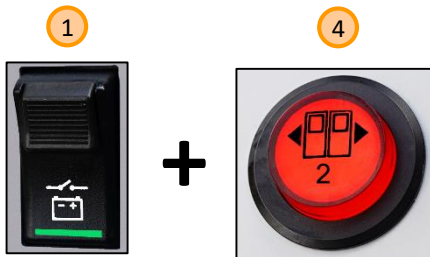
1 Main switch.

2 Front door switch.

3 Pneumatic switch for opening/closing the door (recommended only for maintenance use).



Rear entrance - door opening/closing internal control



1 Main switch

4 Rear door switch

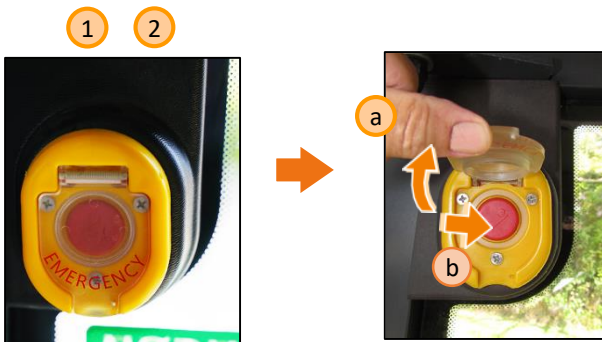


Front and rear entrance - internal emergency opening



① Internal emergency front door opening switch.

② Internal emergency rear door opening switch.








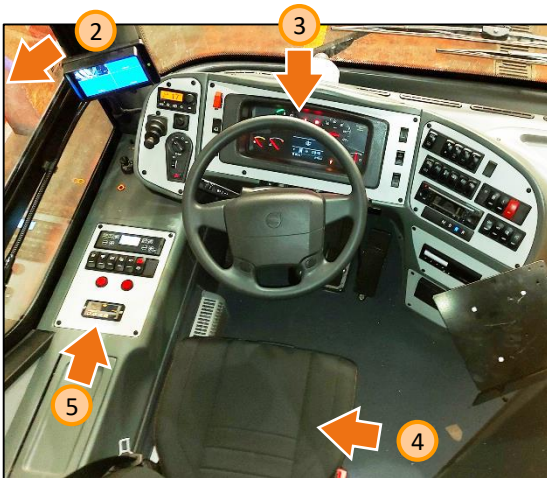
Emergency opening switches function when the bus is parked or speed is less than 3 km/h.

After pressing the switch, the door must be opened manually outwards.

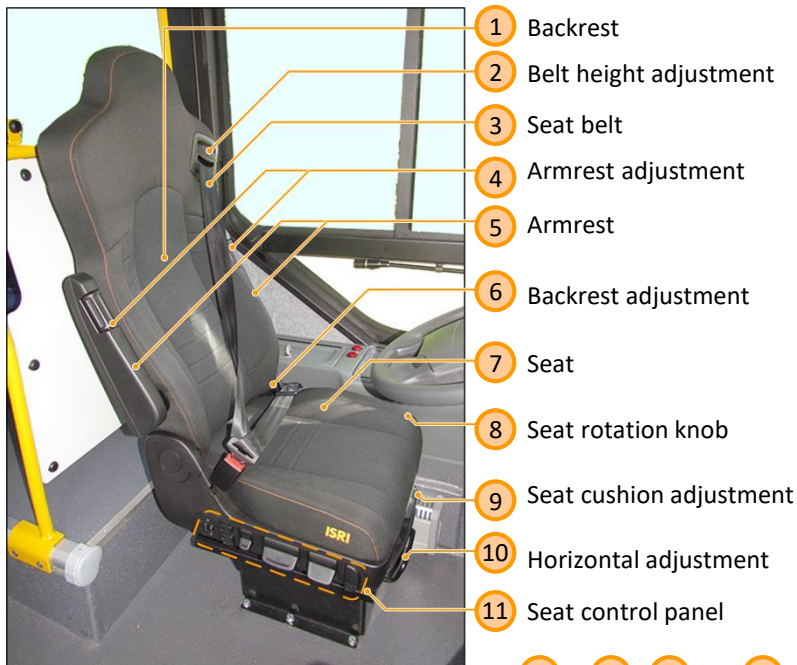
Driver area - general view



- 1 Driver area
- 2 Driver side window  35
- 3 Main instrument panel  18
- 4 Driver seat  16
- 5 Side instrument panel  31
- 6 Front entrance area
- 7 Upper area  37



Driver seat



- 12 Seat control panel.
- 13 Integrated pneumatic system.
- 14 Adjustable vertical shock absorber.
- 15 Memory function height adjustment.
- 16 Tilt adjustment.
- 17 Quick release.

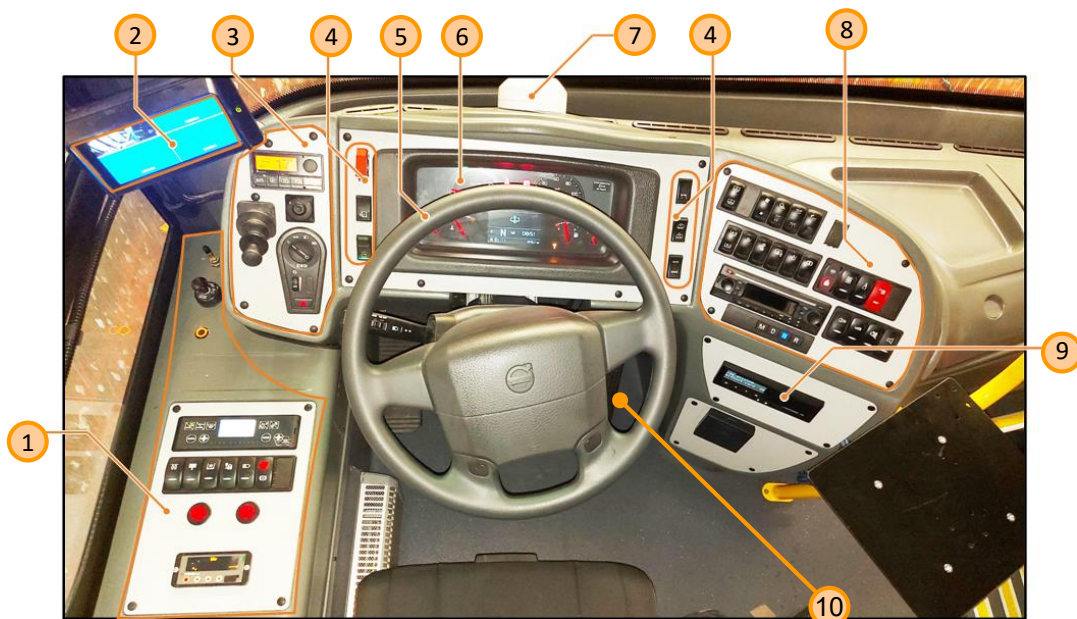
Driver seat



- ④ Armrest adjustment
- ⑥ Backrest adjustment
- ⑨ Seat cushion adjustment
- ⑩ Horizontal adjustment
- ⑮ Height adjustment with memory function
- ⑯ Tilt adjustment
- ⑰ Chair base



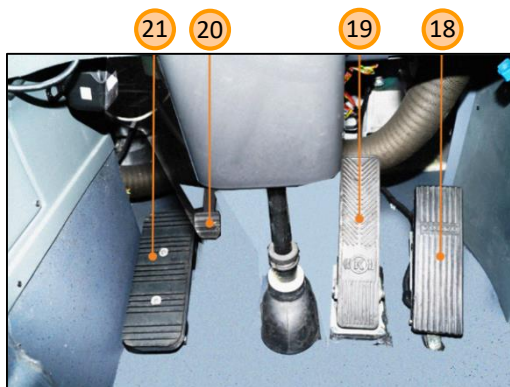
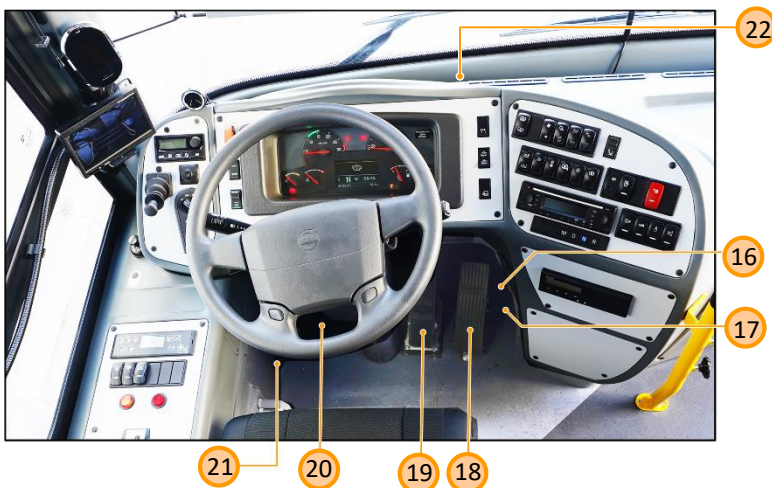
Instrument panel



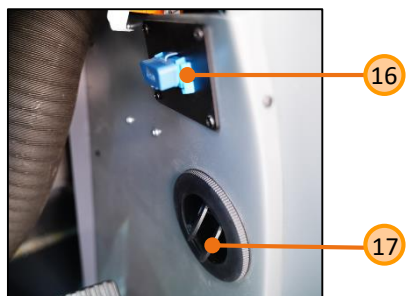
- 0 Stop position.
- I Intermediate position.
- II Ignition position.
- III Start position (spring-return position).

- 1 Left instrument panel.
- 2 Monitor - reverse/rear door.
- 3 Front left instrument panel.
- 4 Central switches group.
- 5 Steering wheel.
- 6 Gauges and indicators lights panel.
- 7 Dashboard camera.
- 8 Front right instrument panel.
- 9 Tachograph.
- 10 Starter switch.

Instrument panel

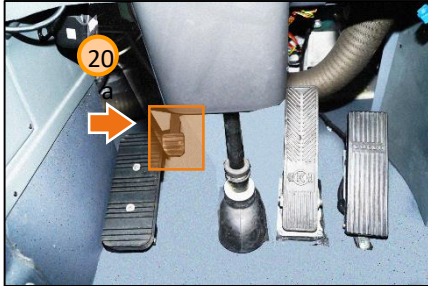


- 16 Chassis systems diagnostic plug.
- 17 Driver heater air jet.
- 18 Accelerator pedal.
- 19 Break pedal.
- 20 Steering wheel adjustment pedal.
- 21 Foot step.
- 22 Battery charging remote panel.



Steering wheel adjustment

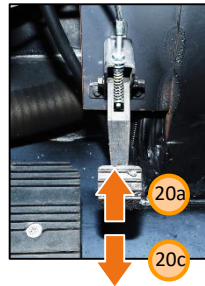
20 Steering wheel adjustment.



20a Push the adjustment pedal.

20b Adjust steering wheel to a comfortable Position.

20c Release the pedal.



Tilt adjustment



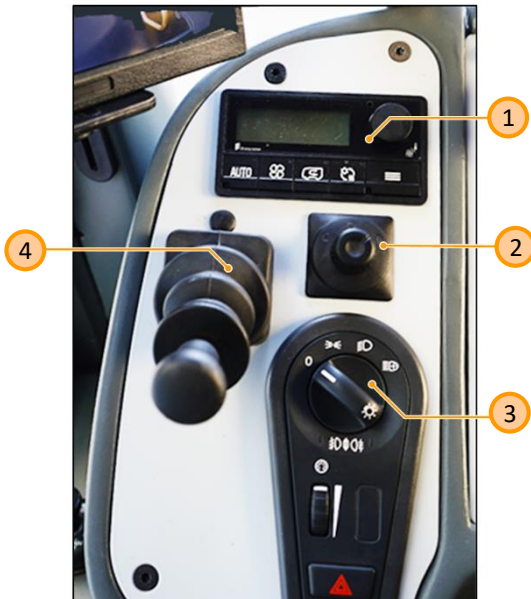
Height adjustment



Front left instrument panel



- 1 A/C EBERSPACHER control panel.
- 2 Driver mirror selector.
- 3 Light selector.
- 4 Parking brake.



Manually release parking brake

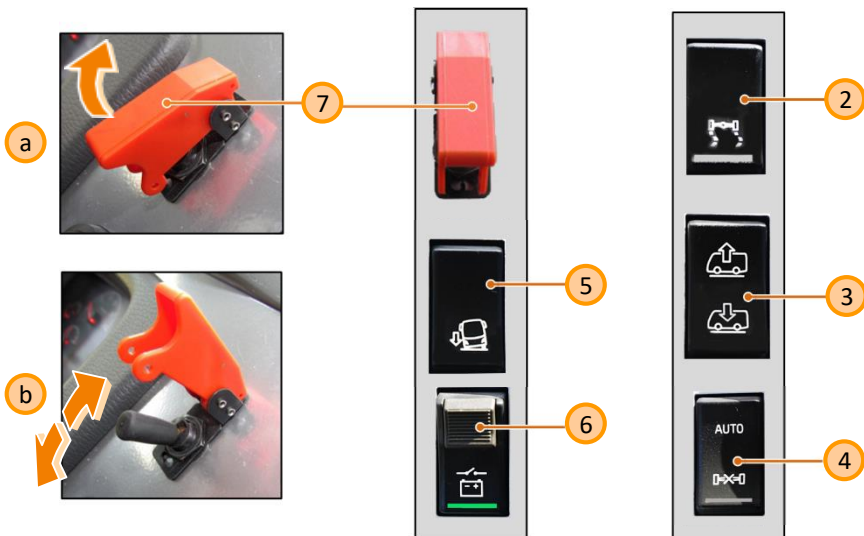


NO.	Switch Description	Prerequisites for operation
1	A/C EBERSPACHER control panel	Running engine
2	Driver mirror selector	Open main circuit breaker
3	Light selector	Open main circuit breaker
4	Parking brake	Open main circuit breaker

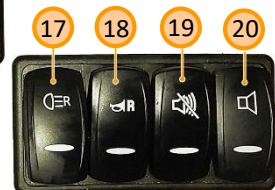
Gauges panel and central switches group



- 1 Gauges and indicator lights panel.
- 2 Traction control switch.
- 3 Level up/down switch.
- 4 Difflock switch.
- 5 Kneeling switch.
- 6 Main circuit breaker switch.
- 7 Emergency switch.



Right switches group - control switches



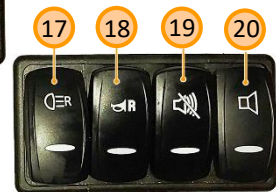
NO.	Switch Description	Prerequisites for operation
1	Sun roll switch	Open main circuit breaker
2	Option	
3	Driver fun switch	Running engine
4	Ticket light switch / Driver light switch	Open main circuit breaker
5	Interior light switch (2 levels)	Open main circuit breaker
6	Night/reading light switch	Open main circuit breaker
7	Driver heater switch	Running engine + driver heating activated

Right switches group - control switches



NO.	Switch Description	Prerequisites for operation
8	steps heating switch	Running engine
9	Rear camera sprinkler switch	Open main circuit breaker
10	Mirrors defroster switch	Running engine
11	Wheelchair lift switch	Open main circuit breaker + open rear door + parking brake activated
12	Station brake switch	Running engine
13	Stop request / Disabled stop request indicator	Open main circuit breaker
14	Release doors from emergency	Open main circuit breaker

Right switches group - control switches



NO.	Switch Description	Prerequisites for operation
15	Ticket machine canceling switch	Open main circuit breaker
16	Emergency lighting system operation/reset	
17	Additional reversing lamps	Gear in reverse
18	Reverse buzzer canceling switch	Gear in reverse
19	Reverse buzzer 78/90db volume level switch	Open main circuit breaker
20	External load speaker	Open main circuit breaker

Right switches group - CD/MP3/RADIO/MIC player



Driver zone (DRV)

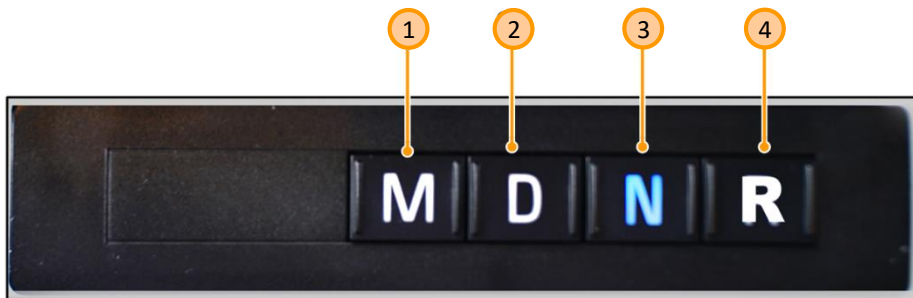


Passenger zone (PSG)



- | | |
|----------------------------------|-------------------------------------|
| 1 Power | 9 USB slot |
| 2 USB/SD card content play/pause | 10 Phone operations (DRV zone only) |
| 3 DRV source selector | 11 Memorized radio stations |
| 4 LCD screen | 12 Auto/manual tuning |
| 5 PSG source selector | 13 Radio stations scan |
| 6 TA/AF functions control | 14 SD card slot |
| 7 Speakers control | 15 Reset control |
| 8 Passangers volume knob | 16 Driver volume knob |

Front right instrument panel - CD/MP3/RADIO/MIC player



- ① Manual gear position lock
- ② Drive gear position
- ③ Neutral gear position
- ④ Reverse gear position

Fire system test switch



To test press the test button:

- Red lamp flashes red.
- Alarm siren sounds a repeating (continuous) acoustic signal.

Reversing and rear door cameras system



- 1 Monitor - reverse/rear door
- 2 Rear view camera
- 3 Water sprinkler
- 4 Gear selector switch 27

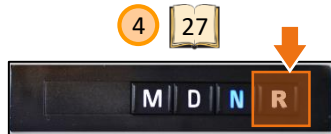
Clear the rear view camera with the water sprinkler by pressing the switch.



When the main switch is opened and the gear is in reverse, the monitor switches to rear view camera 2 automatically.



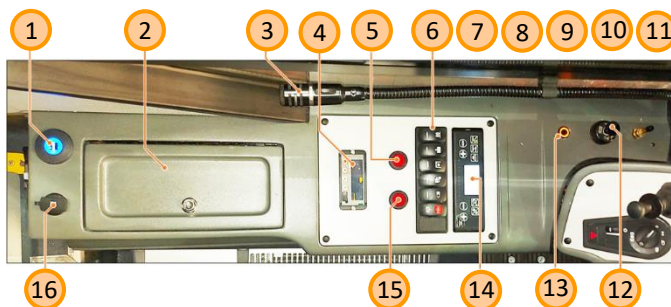
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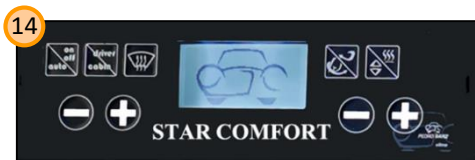
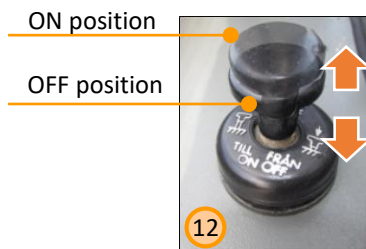
Side instrument panel



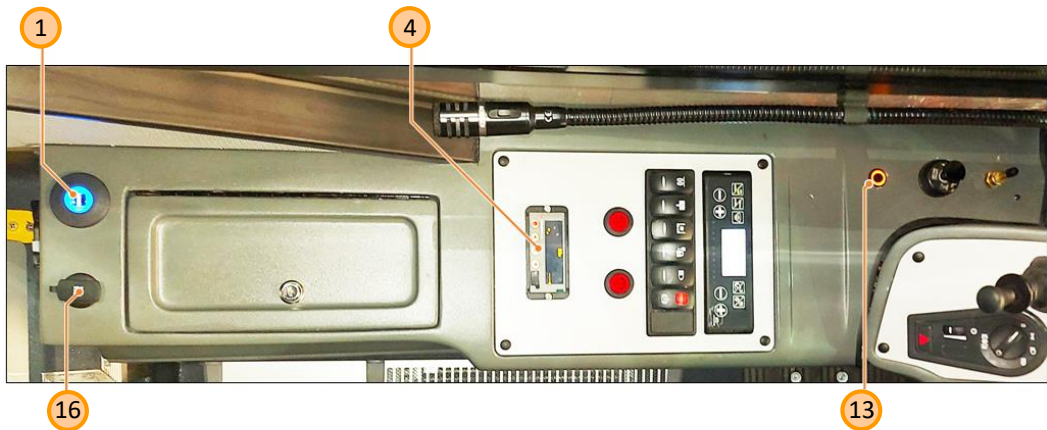
- 1 USB power socket
- 2 Glove compartment
- 3 Driver microphone
- 4 Destination sign controller
- 5 Front door switch
- 6 Preheater switch
- 7 Stop request cancelling
- 8 Passenger heating blowers control switch
- 9 Alcolock driver reset switch



- 10 Projectors switch
- 11 Station break canceling switch
- 12 Blocking brake valve
- 13 Fire system test switch
- 14 Control panel heating system Star Comfort
- 15 Rear door switch
- 16 24V power socket



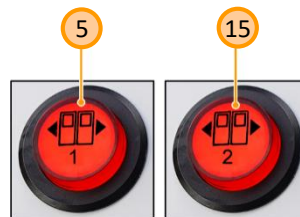
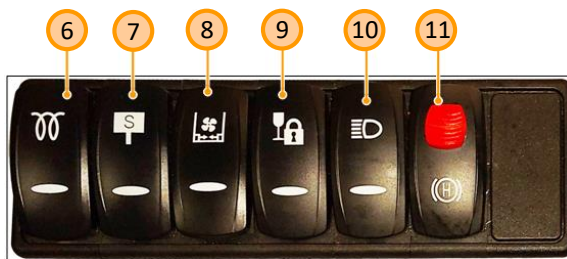
Side instrument panel



- 1 USB power socket
- 4 Destination sign controller
- 13 Fire system test switch
- 16 power socket

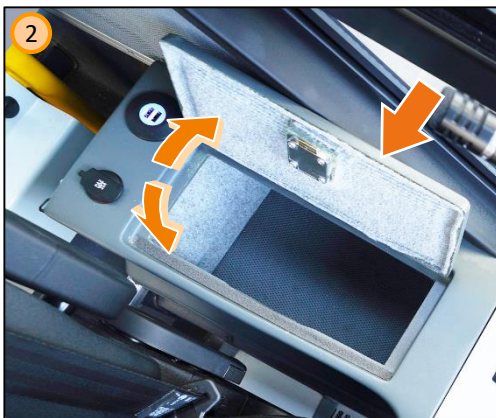
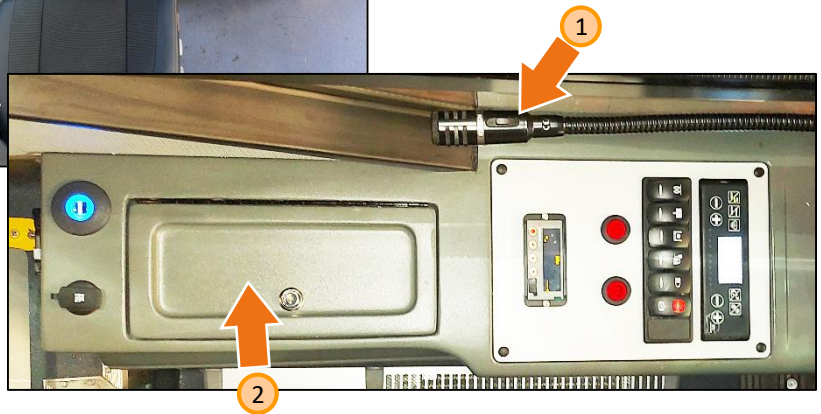


Side instrument panel



NO.	Switch Description	Prerequisites for operation
4	Destination sign controller	Open main circuit breaker
5	Front door button	Open main circuit breaker + battery door closed
6	Preheater switch	Running engine + heat activation
7	Canceling a passenger bell	Bell switch is pressed closed doors
8	Passenger heating blowers control switch	Running engine/passenger heating activated
9	Alcolock driver reset switch	Open main circuit breaker
10	Projectors switch	Open main circuit breaker
11	Station break canceling switch	Open main circuit breaker
14	Driver/passenger heating control	Running engine
15	Rear door button	Open main circuit breaker + trunk door before door 2 is closed + lift is stowed

Side instrument panel



- 1 Driver microphone
- 2 Glove compartment

Driver luggage compartment



1 Driver compartment with lock.

2 Grip handles of front entrance.

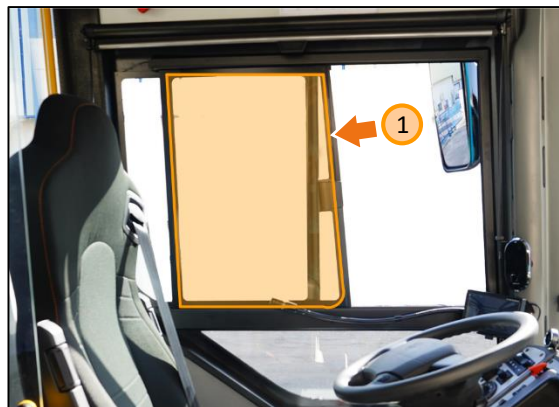


Driver side window



1 Driver sliding window.

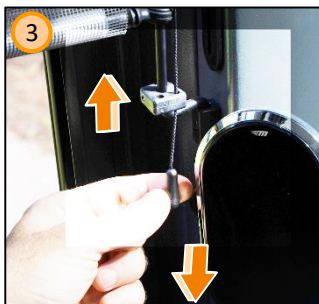
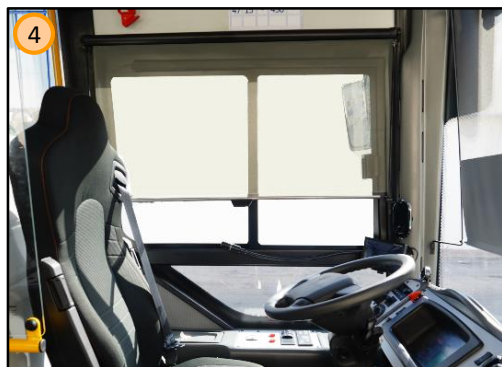
2 Window handle.



Driver side Curtain



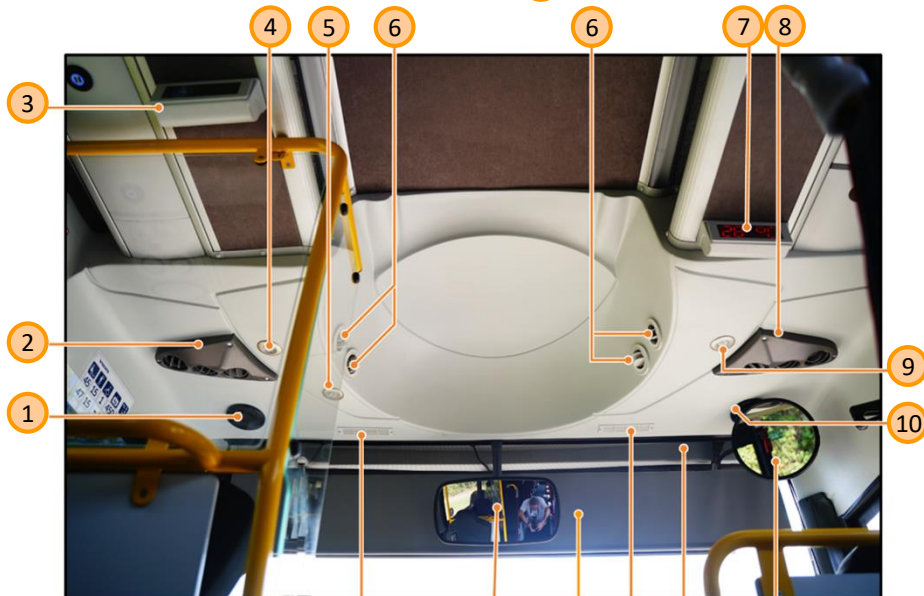
- 1 Driver sliding window.
- 2 Driver side curtain handle.
- 3 Driver side curtain release.
- 4 Driver side curtain.



Upper area



- 1 Driver speaker.
- 2 Driver air jet panel.
- 3 Belt reminder and stop request sign.
- 4 Tickets device lighting lamp.
- 5 Driver lighting lamp.
- 6 Round air jets.
- 7 Digital bus clock/temperature.
- 8 Front entrance air jet panel.
- 9 Front entrance lighting lamp.



- 10 Passenger speaker
- 11 Rear entrance mirror
- 12 Air jets
- 13 front window curtain
- 14 Front destination sign
- 15 Driver rear view mirror

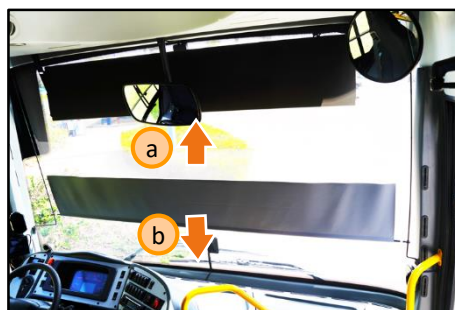
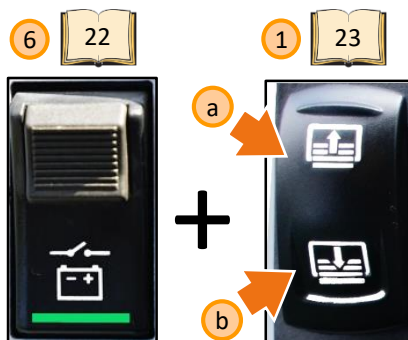


Front window curtains



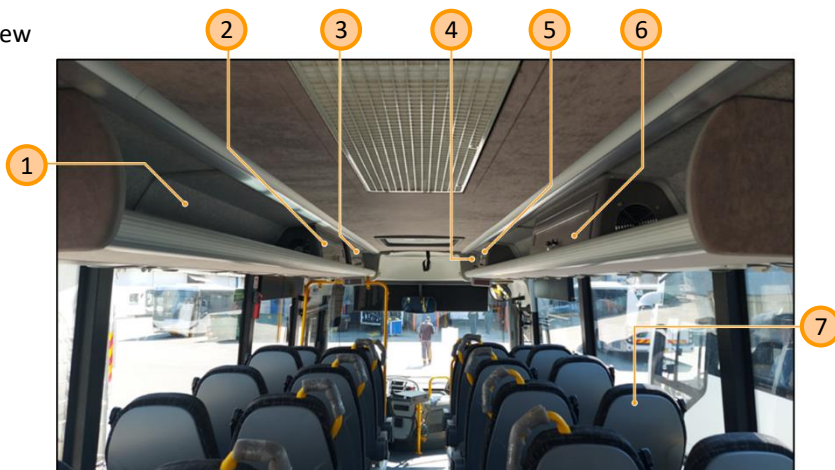
① Front window curtain.

② Main switch.



General view

Rear view



① Passenger hand luggage racks.

② DVR Box.

③ IT*PT + IT*PT fuse box.

④ Driver box.

⑤ First aid box.

⑥ IT*PT box.

⑦ Passenger seats.

⑧ Rear entrance.

⑨ Wheelchair area.



Passenger seats



- 1 Passenger seats.
- 2 Passenger folding seats.
- 3 Seat armrest.



- 4 Seat safety belts.



Passenger seats



1 Passenger folding seats.

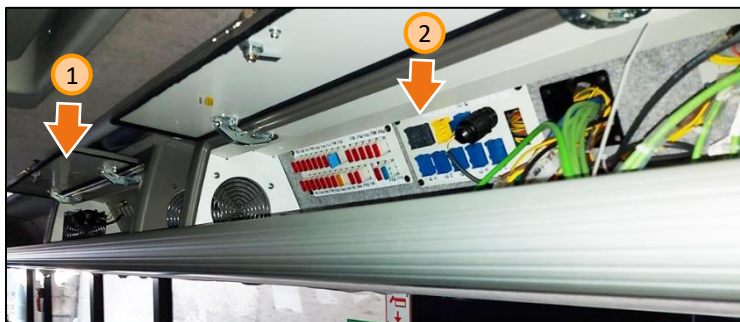
a Click to fold the seat.



Hand luggage racks and accessories



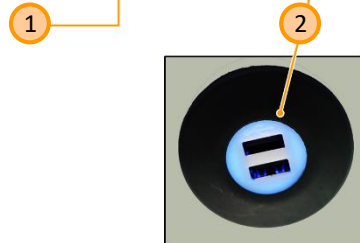
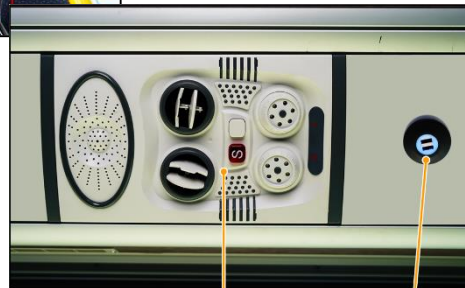
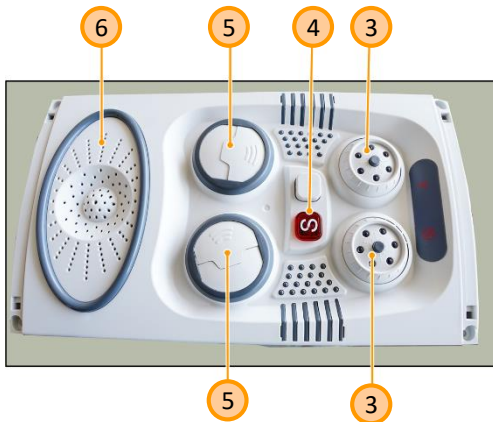
- 1 DVR Box.
- 2 IT*PT + IT*PT fuse.
- 3 Driver box.
- 4 First aid box.
- 5 IT*PT box.



Passenger personal multiset

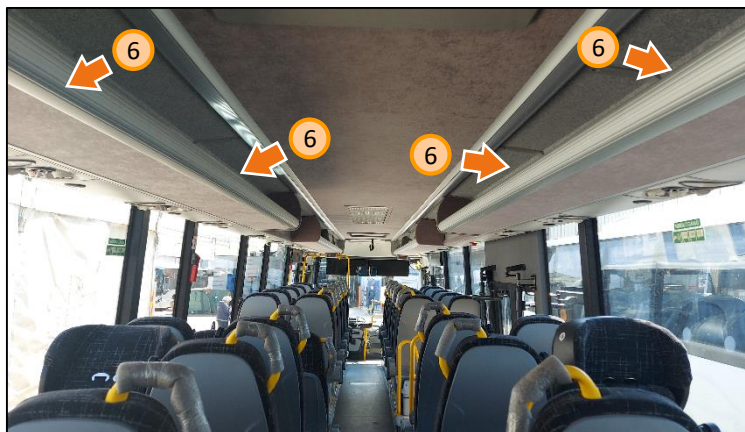


- ① Passenger personal multiset
- ② USB power socket
- ③ Personal reading lamp
- ④ Stop request switch
- ⑤ Air jets
- ⑥ Speaker



Hand luggage racks and accessories

6 Passenger hand luggage racks



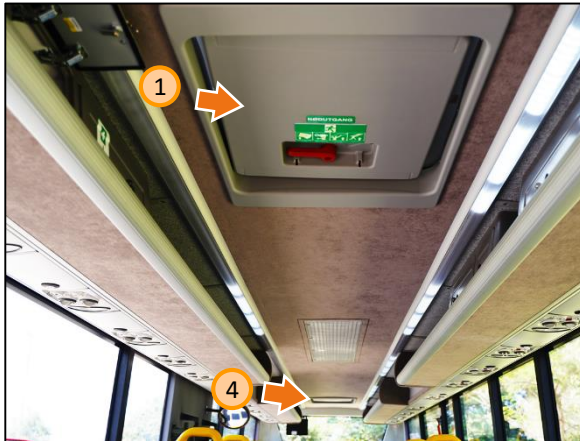
Roof accessories



- ① Front roof emergency hatch
- ② Passenger compartment lighting lamps
- ③ A/C recycled air entry
- ④ Rear roof emergency hatch



Roof emergency hatch - ventilation state



1 Front roof emergency hatch.

4 Rear roof emergency hatch.

a Emergency hatch – closed position.



b Front direction open position.



c Rear direction open position



d Hatch fully open - ventilation position



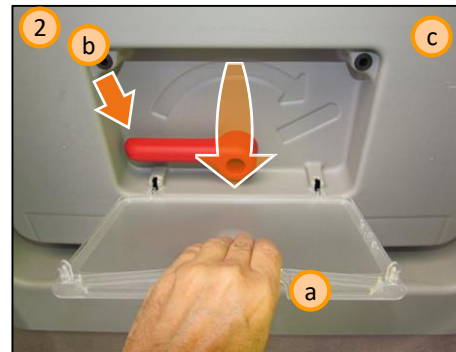
Roof emergency hatch - emergency state - inside actuation



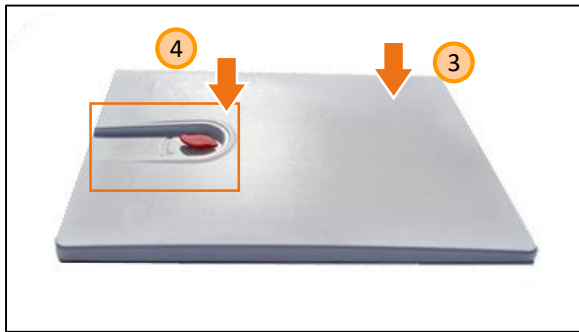
Within action :

- a Release the emergency handle cover.
- b Turn handle towards arrow.
- c Raise the emergency hatch up.

- 1 Emergency hatch handle cover
- 2 Emergency hatch handle



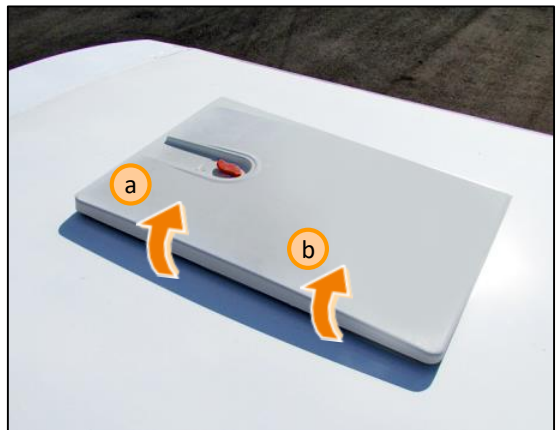
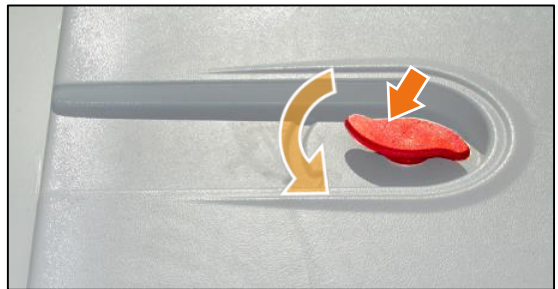
Roof emergency hatch - emergency state - external actuation



- ③ Emergency hatch.
- ④ Emergency hatch external handle.

Within action:

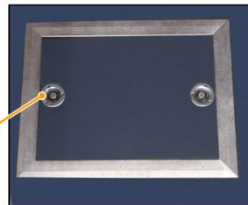
- a Turn external handle arrow direction.
- b Raise the emergency hatch up.



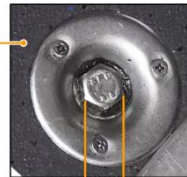
Floor service covers



2 3 4



5



13mm

4



3

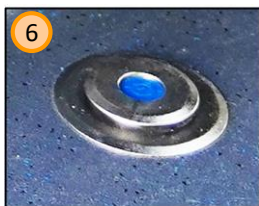
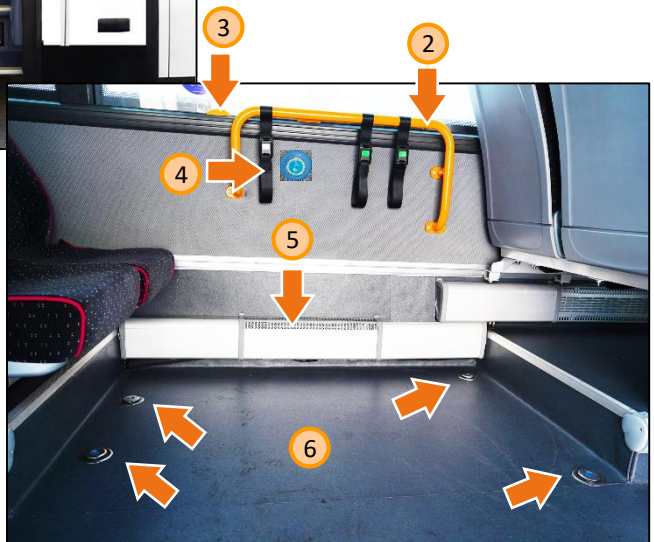
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- 1 Front axle service hatch cover.
- 2 Rear axle service hatch cover.
- 3 Gear service hatch cover.
- 4 Engine service hatch cover.
- 5 Tightening screw.

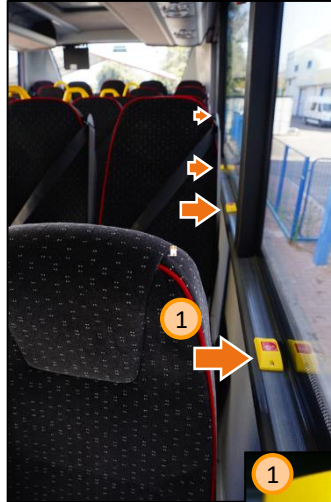
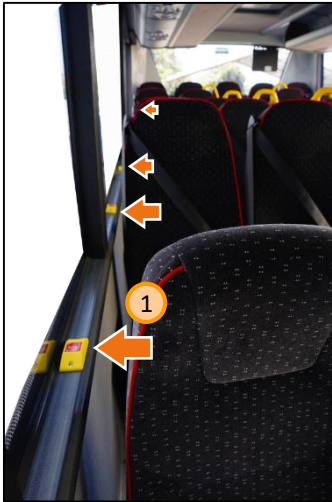
Wheelchair area



- 1 Wheelchair area.
- 2 Passenger handrail.
- 3 Stop request disabled switch.
- 4 Pram connecting straps.
- 5 Wheelchair area heater.
- 6 Wheel chair anchors.



Stop request system



- 1 Stop request buttons on the side windows.
- 2 Multi-set stop button above each pair of passenger seats.



Driver area STOP lighting

Driver area STOP lighting

6 22



+

1 51



or

2 51



+

Closed doors



a



b

After activating a stop request by
Closing doors **a** or **b** buttons

- 1 A "STOP" digital display on and audio sound (gong) rings once



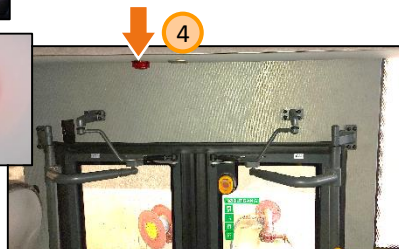
+



- 2 "S" dashboard indicator light is on
- 3 "Stop request" light on in the instrument panel.



- 4 A red light comes on above the rear door.



Stop request system

6 22



1 52



Closed doors



e



f

After activating a disable stop request by

Buttons:

- 1 A "STOP" digital display on and audio sound (gong) rings once

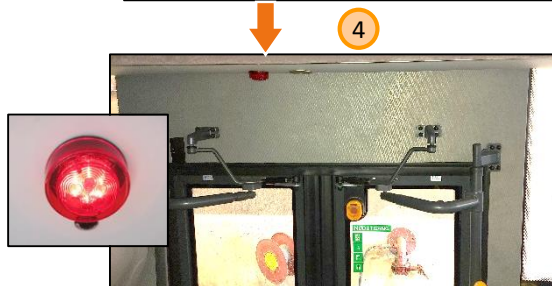


- 2 "S" dashboard indicator light is on

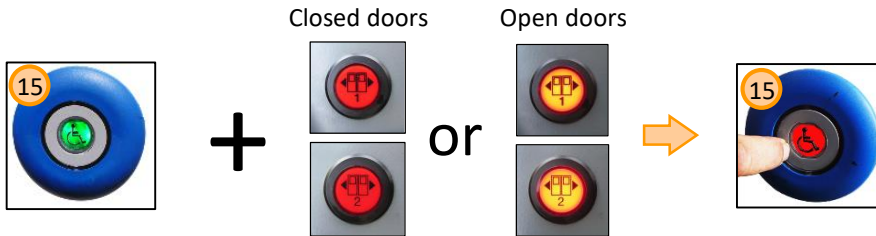
13 24



- 4 A red light comes on above the rear door

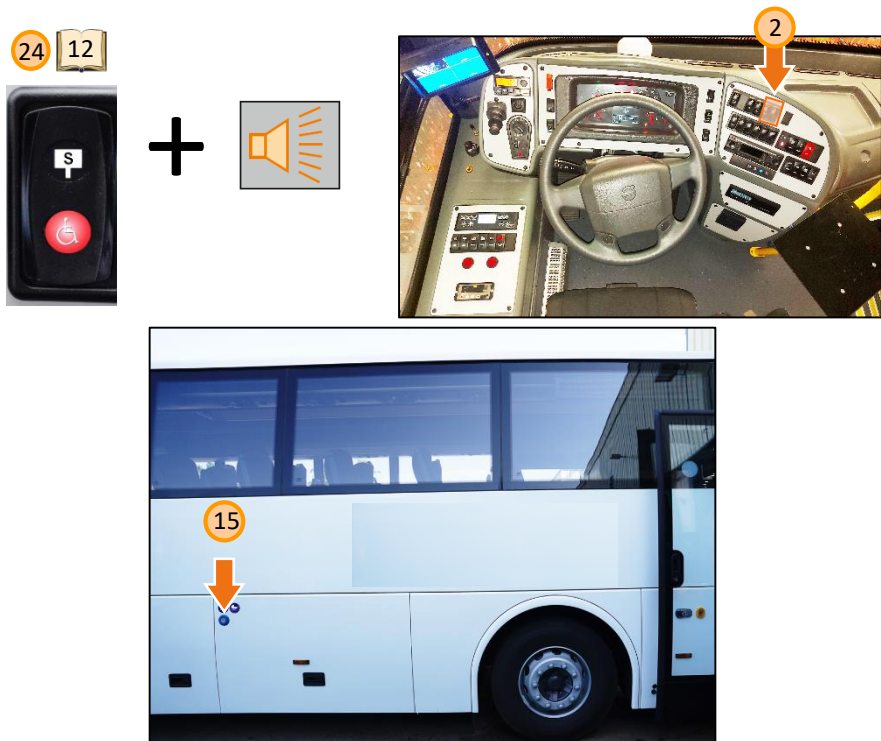


Stop request system

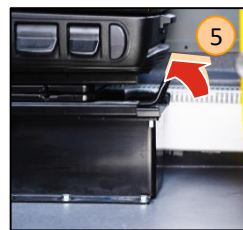
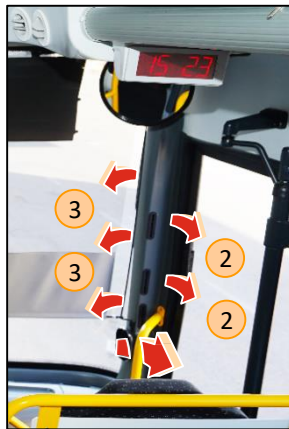
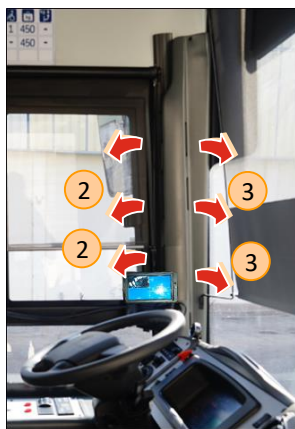
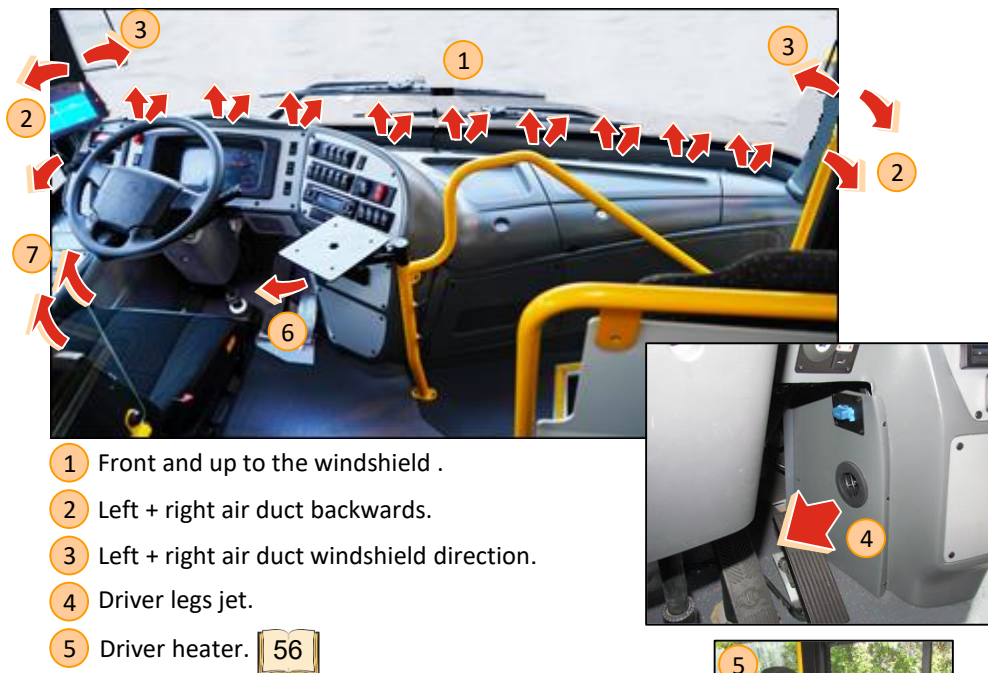


When the external disabled button is pushed, the light temporarily turns to red.

After activating the disabled external button:
The disabled indicator light comes on in the instrument panel, and the gong rings once in the driver area.



Driver area heating (Sans clima)



Driver area heating (Sans clima)



Order of starting driver area heating:

b Start the engine.

6 **22**

10 **18**



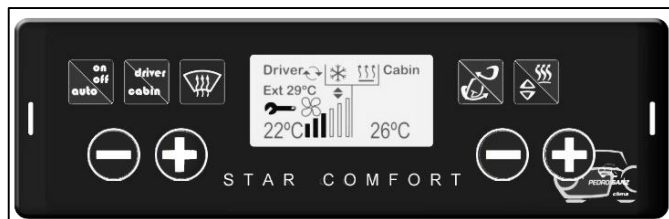
+



c Driver heater activation – select driver zone and the requested **57** temperature on the star comfort + push Driver air flow switch to activate the air flow.

The driver heater has two air flow speed.

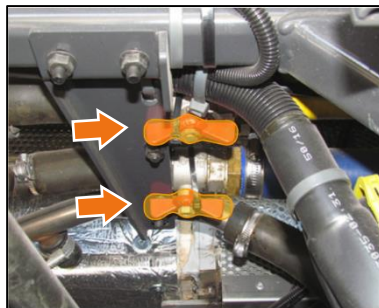
Default position is off.



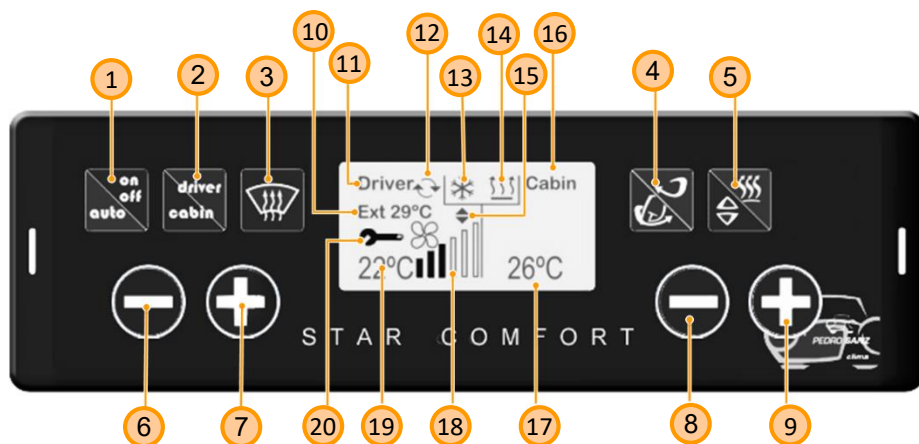
The **11** key on the keyboard **57** can set
The driver heater's blower speed.



a Heating system water valves must be open **104**



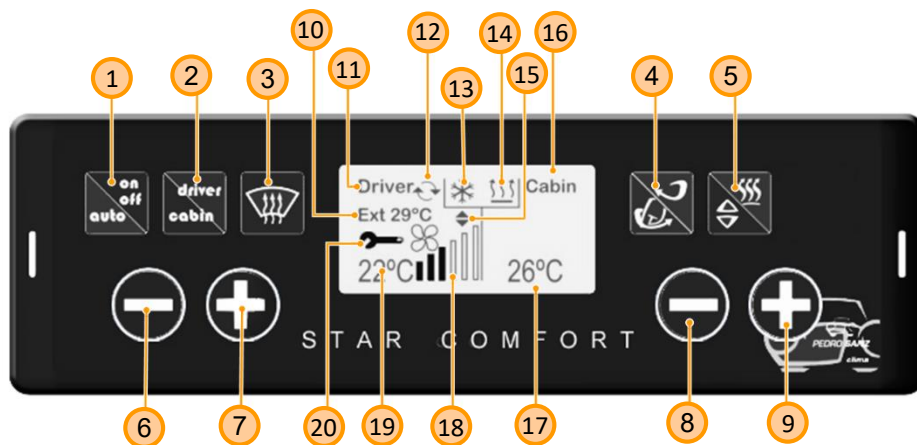
Driver area heating (Sans clima)



Control Panel - star comfort:

- 1 On/Off switching (pressed more then 2 sec) or switching off Automatic mode.
- 2 Active zone selection: driver/ cabin (passengers).
- 3 Fast windscreen demisting operation.
- 4 Outside/inside air entrance.
- 5 Preheater switching on/off (pressed more 2 sec) or changing an air distribution flow (less then 2 sec).
- 6 Decrease fan speed of the defroster/temperature in passenger zone.
- 7 Increase fan speed of the defroster/ temperature in passenger zone.
- 8 Decrease temperature in driver zone.
- 9 Increase temperature in driver zone.

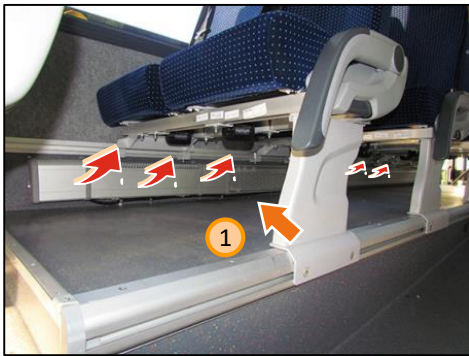
Driver area heating (Sans clima)



Control Panel screen indicators:

- 10 Outside temperature/ automatic operation on.
- 11 Active driver zone.
- 12 Active air recirculation function.
- 13 Front A/C unit is ready to be switched on.
- 14 Preheater is connected.
- 15 Air flow distribution.
- 16 Active cabin (passenger) zone
- 17 Inside temperature in passenger zone.
- 18 Defroster fans speed.
- 19 Inside temperature in driver zone.
- 20 System error.

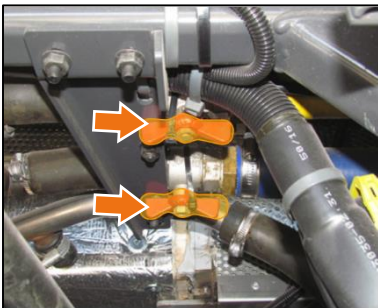
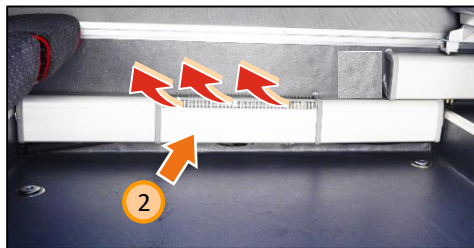
Passenger compartment heating (Sans clima)



- 1 Passenger compartment heating activation
- 2 Wheelchair area heater

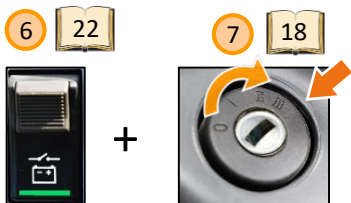
Order of starting passenger compartment heating.

- a Heating system water valves must be open 104



Driver area heating (Sans clima)

b Start the engine



c Passengers heaters activation: 59

Select cabin zone and the requested temperature on the star comfort + push passengers air flow switch to activate the air flow. 8

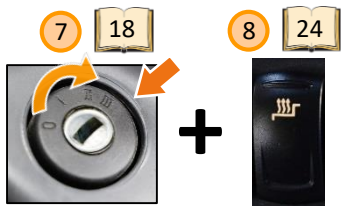


Passengers air flow switch 8 has 3 mechanical positions: no flow/low flow/high flow. 30



Passenger compartment heating (Sans clima)

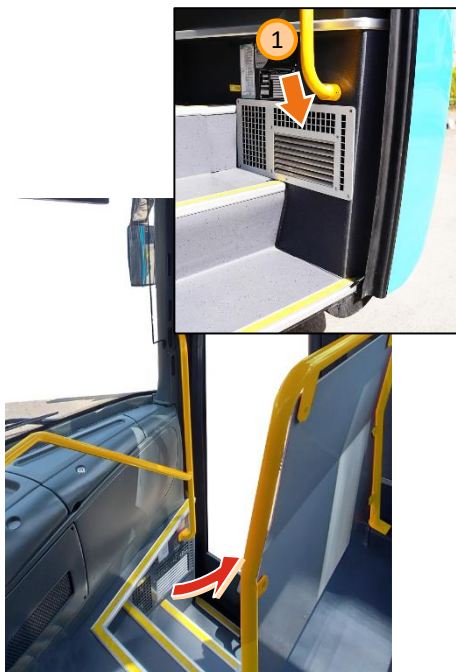
Step heaters



- ① Front entrance heater air jet.
- ② Rear entrance heater air jet.

When the switch ⑧ is activated under condition ⑦, hot air flow from heaters 1 and 2.
Default position is off.

Front entrance



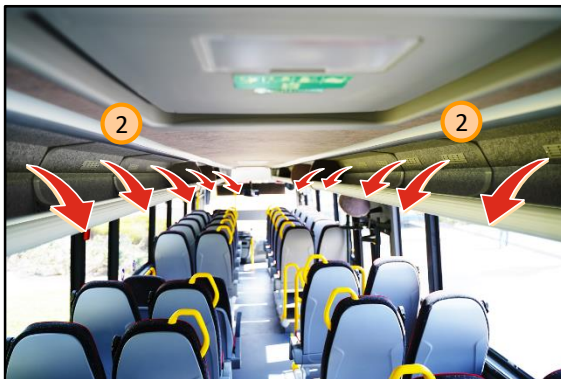
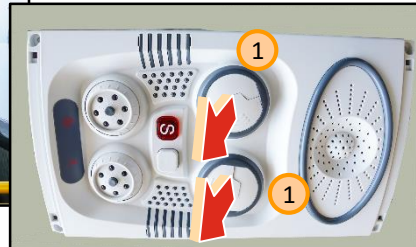
Rear entrance



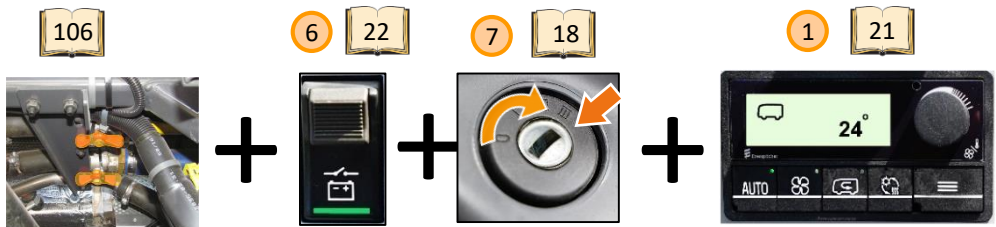
Passenger compartment heating (AC system heater)



- 1 Personal multisets air jets
- 2 Hand luggage air jets



Order of starting the heating in passenger compartment from A/C controller.

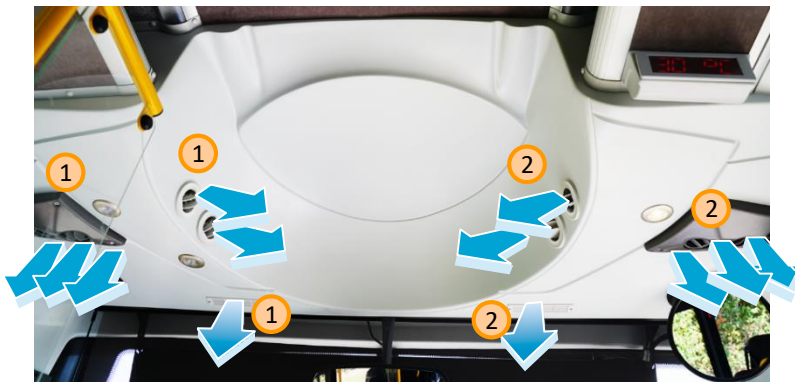


Passenger compartment heating (AC system heater)

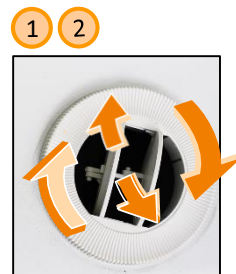
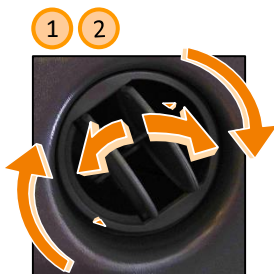


- 1 Description knob
- 2 Display
- 3 Auto function key
- 4 Fan strength key
- 5 Function key SMOG
- 6 Function key REHEAT/DEFROST
- 7 Menu key

Driver area heating (AC system heater)



- 1 Driver A/C fan air outlets
- 2 A/C air outlets



Driver area A/C heating activation

106



6 22



7 18



1 21

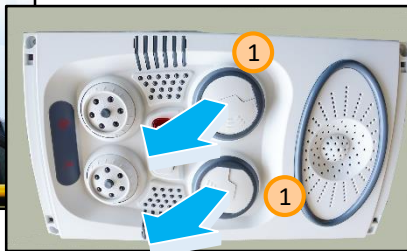
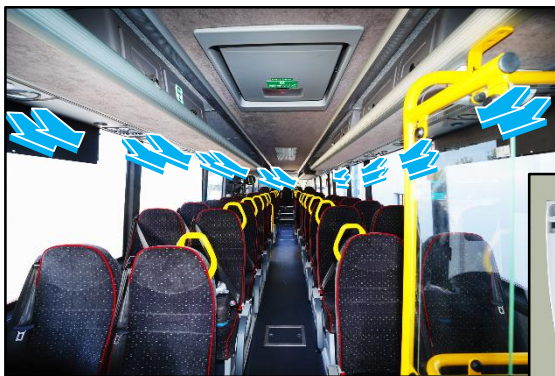


3 24

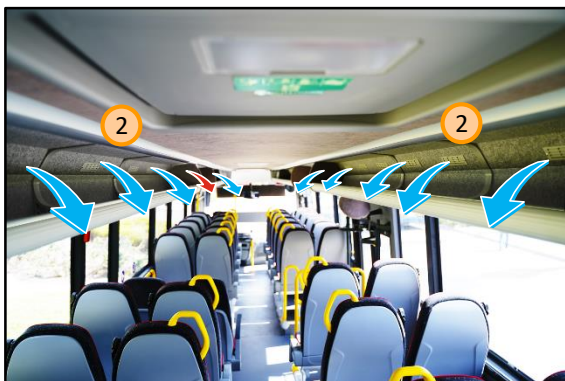


Driver blower take air from the left A/C tunnel and boost it to the driver air outlets 1
Driver fan switch 3 24 has 10 air flow optional velocities
Shutdown by long press down

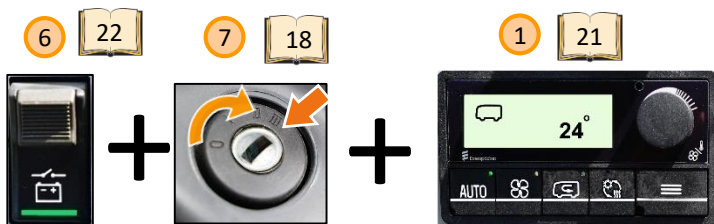
Driver area air conditioning



- 1 Personal multisets air jets
- 2 Hand luggage air jets



Order of starting air conditioning in passenger compartment



Driver area and front entrance lighting



① Interior lightning.

When the door is opened from the outside switch, the headlight ① comes on for about 20 seconds.

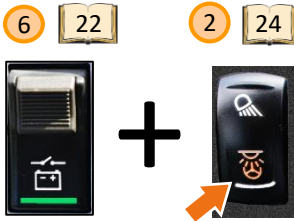


Level 1 interior light can be switched on without operation of the main switch.

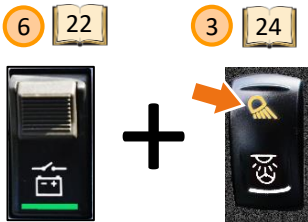


Driver area and front entrance lighting

Driver area lighting

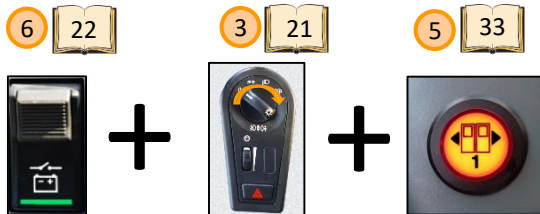


Ticket device lighting



Driver area and front entrance lighting

Driver area lighting



When parking light is turned on and front door open, driver headlight, **1** entry light **2** and step light **4** are turned on.



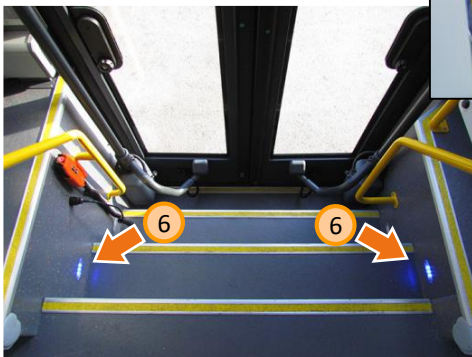
Passenger compartment - floor and rear entrance lighting

Floor and rear entrance lighting



5 Passing light

6 Rear door steps lighting
(when rear door is closed)

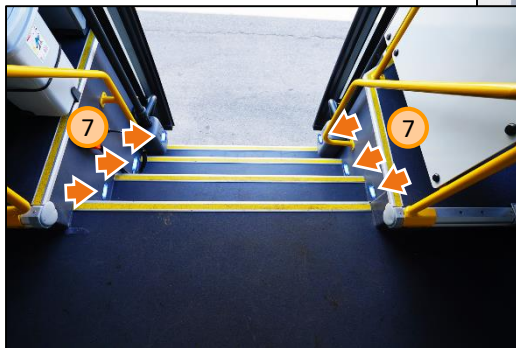
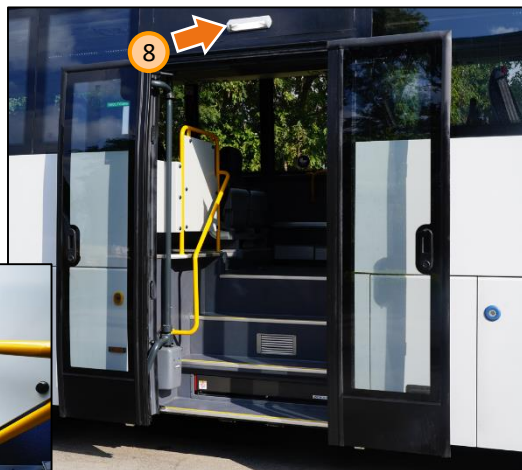


Passenger compartment - floor and rear entrance lighting

Floor and rear entrance lighting

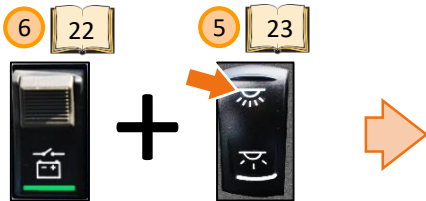


When a parking light is turned on and rear door is opened, the rear entrance Light, ⑥ steps light ⑦, and exterior headlight ⑧ turn on above the door.

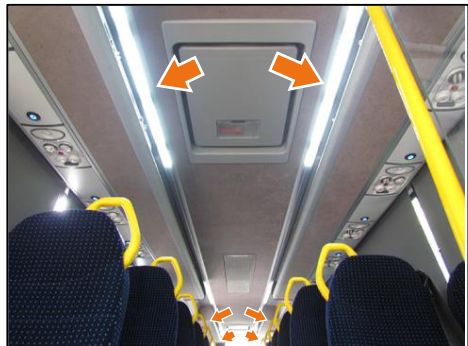
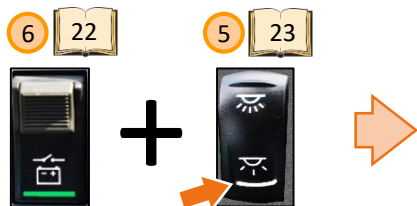


Passenger compartment - roof lighting

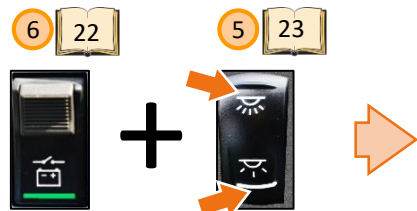
Passenger compartment lighting 1.



Passenger compartment lighting 2.

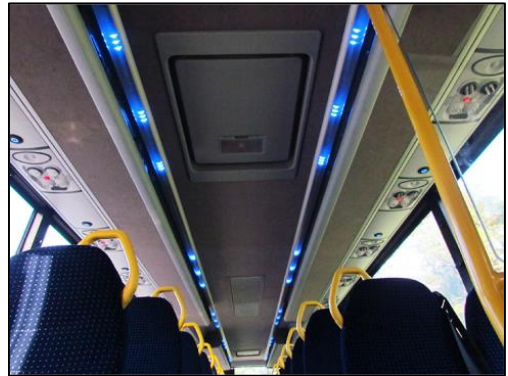
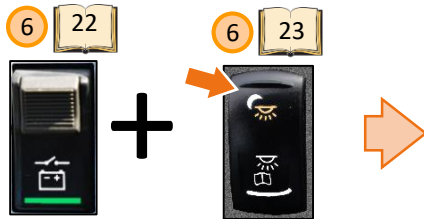


Passenger compartment full lighting.

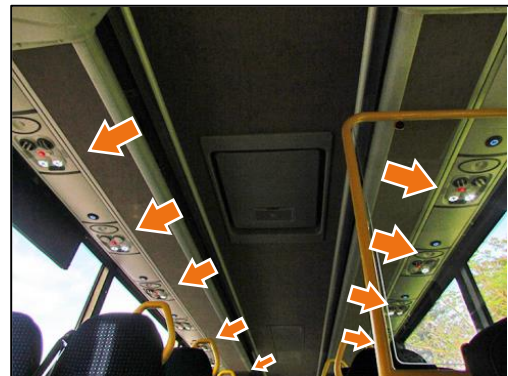
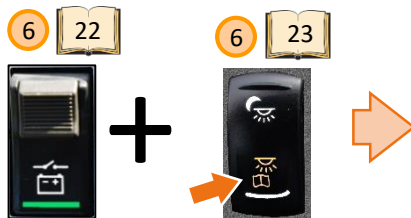


Passenger compartment - roof lighting

Passenger compartment night lighting.



Passenger compartment reading light.



Light up the lamp knob



Light up the lamp knob



Passenger compartment - roof lighting

16 25



or

Front door



Rear door



Emergency lighting (indoor and outdoor) is light by the 16 or when the door (doors) are opened by emergency key.

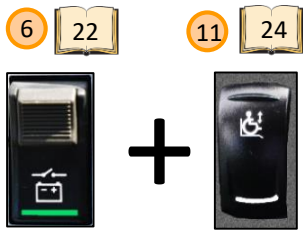
Emergency lightning activate:

- Passenger compartment lighting.
- Entrance lights

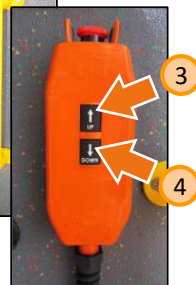
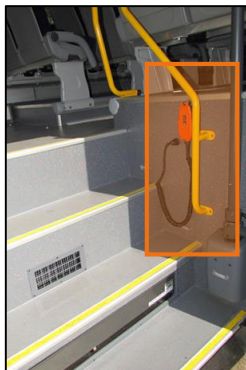
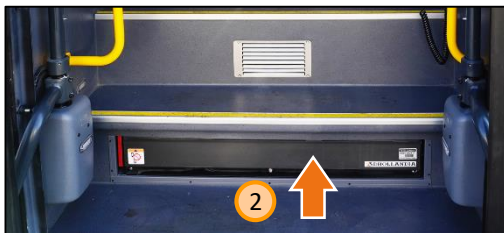
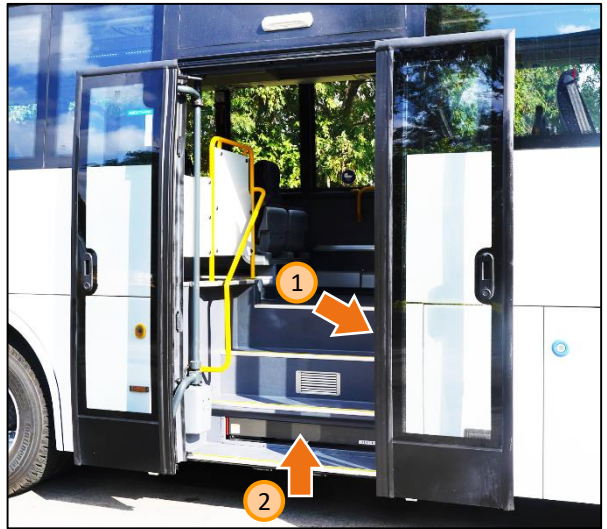
Lighting is turned off by the RESET switch or automatically after 30 minutes. 16



Wheelchair lift operating - lifting



- 1 Wheelchair lift remote control.
- 2 Wheelchair lift platform.
- 3 Up switch.
- 4 Down switch.
- 5 Remote control socket.
- 6 Remote control plug.



Wheelchair lift operating - lifting



- a Press the Up switch to fully extend the platform from the cassette.



- b Lift the bridge platform.



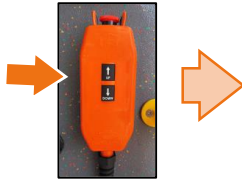
- c Lift the rails to the upright position.



- d Press the Down switch to fully lower the platform to the ground.



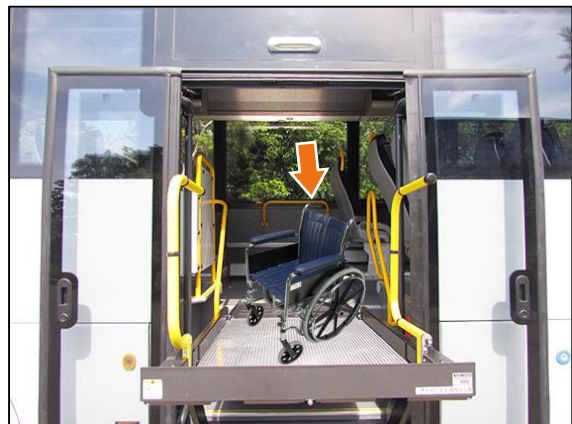
Wheelchair lift operating - lifting



- e Press the Up switch and hold it pressed.
At the highest position, the bridge of the platform automatically rises.



- f Put the wheelchair in the designated place and secure it.

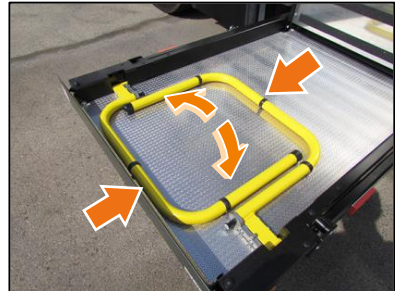


Wheelchair lift operating - folding

- g Press the Down switch.



- h Fold the handrails.



- i Fold the bridge platform.



- j Press the Down switch until the platform stops automatically at the cassette level.

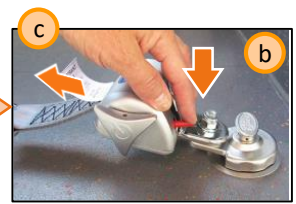


- k Press the Down switch to fully retract the platform to the cassette.

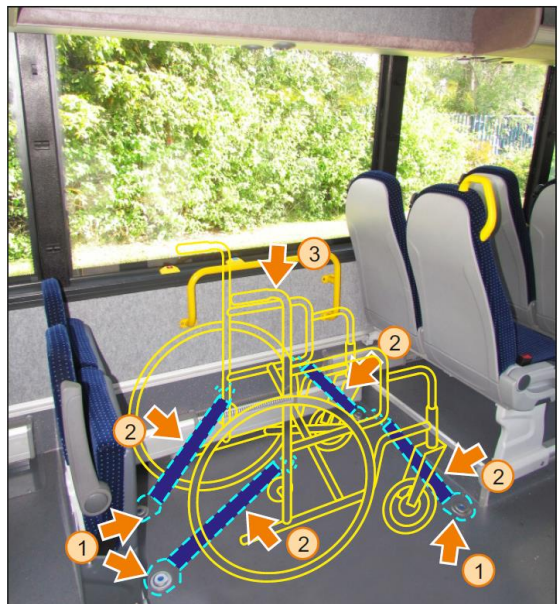
Wheelchair fixing



- 1 Click retractors set.
- 2 Retractors holding belt.
- 3 Wheelchair.



Retractors dismantling



First aid kit and safety equipment



1 First aid set box.

2 First aid box.

3 Fire extinguisher.

First aid set



2



3 Fire extinguisher



3

First aid kit and safety equipment



1 2 3 4 Emergency hammers



Emergency doors opening

External actuation



After the air exits, the doors must be manually pulled out.



Internal actuation



After the air exits, the doors must be manually pushed out.



Front and engine service compartments

Front service compartment.

85



Engine service compartment.





102



Side service compartments










Right side service compartments



- 1 Battery compartment.  86
- 2 Right luggage compartment I.  89
- 3 Right luggage compartment II.  89
- 4 E6 exhaust system/preheater compartment.  90

Left side service compartments



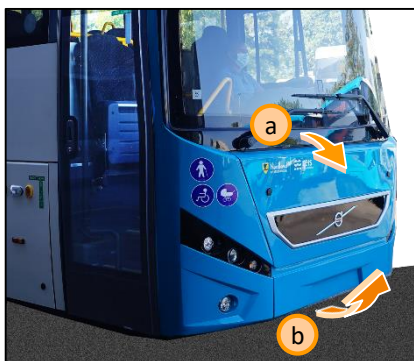
- 5 Main electrical board.  92
- 6 Fuel filler door.  97
- 7 Left luggage compartment I.  98
- 8 Left luggage compartment II.  98
- 9 Wheelchair lift compartment.  99
- 10 Service door.  97
- 11 Ad Blue filler door.  97
- 12 Ad Blue tank service compartment.  100
- 13 Engine radiator service compartment.  100

Side service compartments

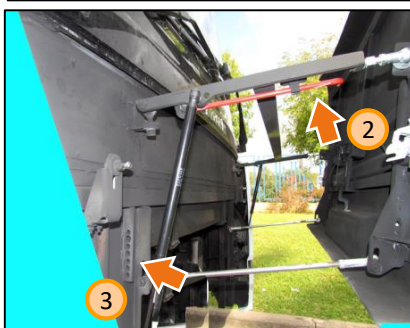
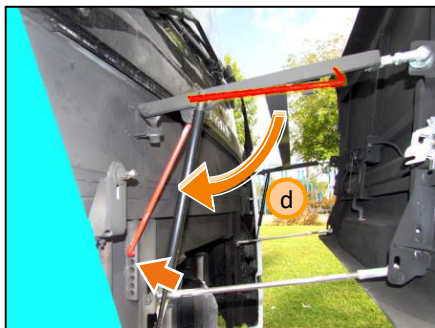
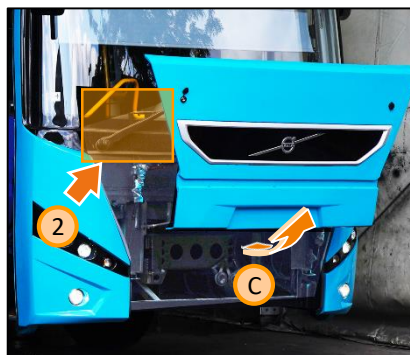


- 1 Front door locking mechanism.
- 2 Manual safety stopper.
- 3 Catcher.

Right lock rotates clockwise left lock rotates counterclockwise.



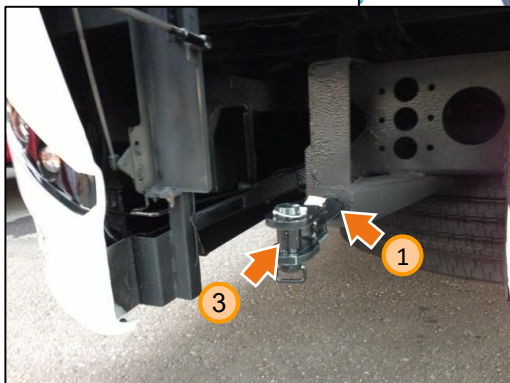
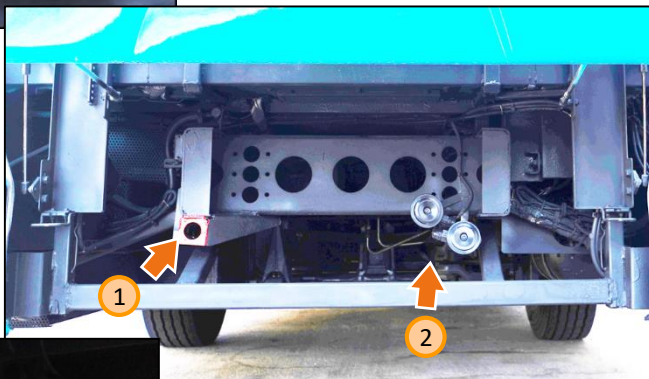
- a Release the door lock.
- b Release the door spring stoppers.
- c Lifting door up.
- d Position safety stopper, as illustrated.



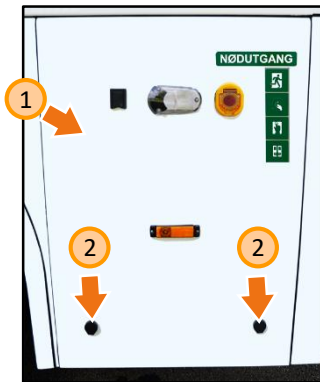
Front service compartment - accessories



- 1 Towing hook threaded port.
- 2 Horn.
- 3 Pin extraction.



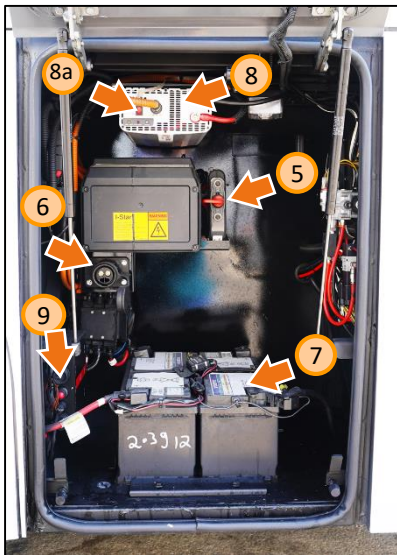
Battery compartment




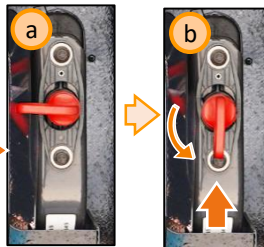
- 1 Battery compartment door.
- 2 Locking/Unlocking door.
- 3 Service light with switch.
- 4 Door safety switch
(when the in open – parking brake is on).



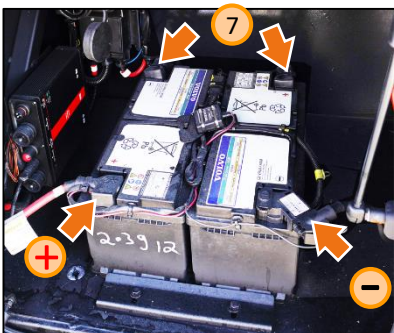
Battery compartment



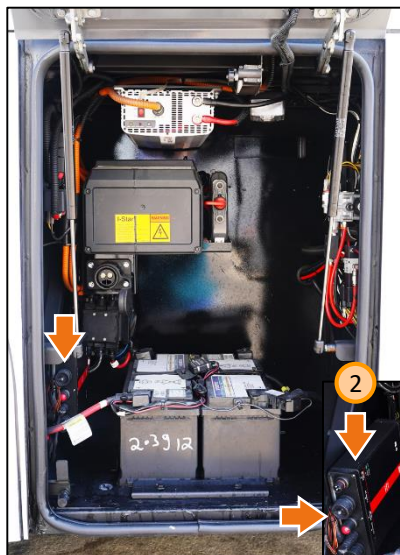
- 5 Main manual switch.
- 6 Nato socket - connecting an external source for charging the batteries.
- 7 Batteries.
- 8 Inverter - PlugIn 24V/230V 1500W.
- 8a Power Converter Power switch.
- 9 MultiCharger 2x35A 



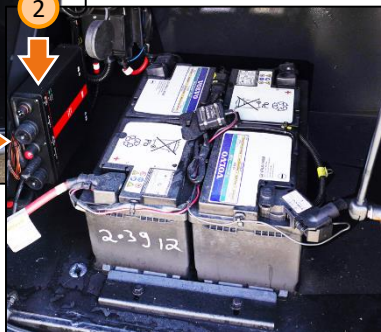
- a Detached mode.
- b Active mode.



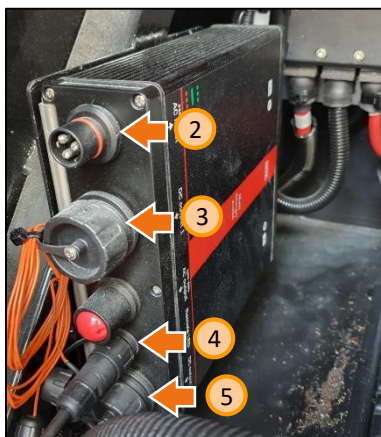
Battery compartment – MultiCharger 2x35A



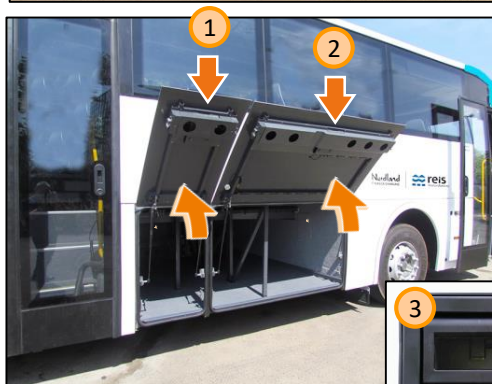
- 1 Remote panel
- 2 MultiCharger 2x35A



- 2 AC input 230V-50Hz.
- 3 DC output 1.
- 4 Control cable.
- 5 DC output 2.

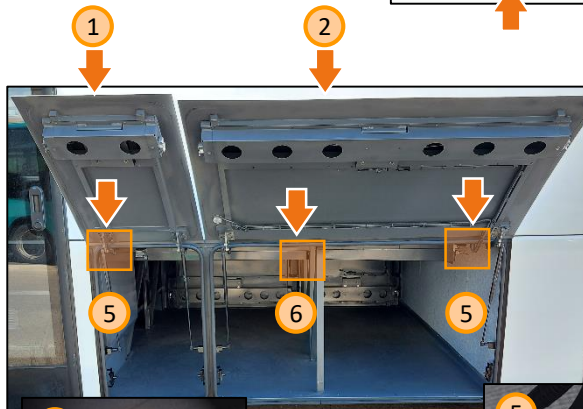
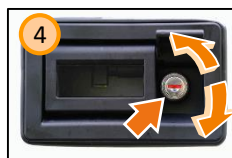


Right luggage compartment



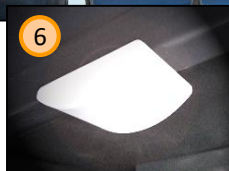
- 1 Right luggage compartment door I.
- 2 Right luggage compartment door II.
- 3 Door opening handle.
- 4 Door opening handle lock.

Key – PS220



- 5 Door safety switch.
- 6 Luggage compartment light.

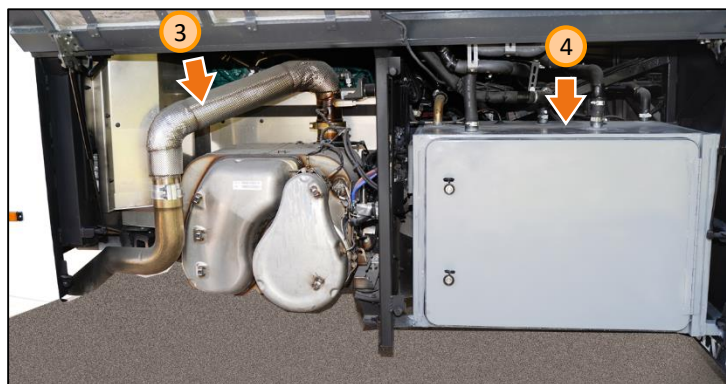
When a door is opened, the bus hold
The brake and the trunk light are activated.
When the right door II is opened, rear
entrance door opening is disabled.



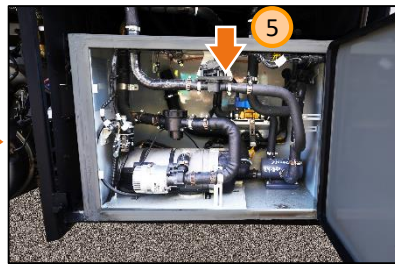
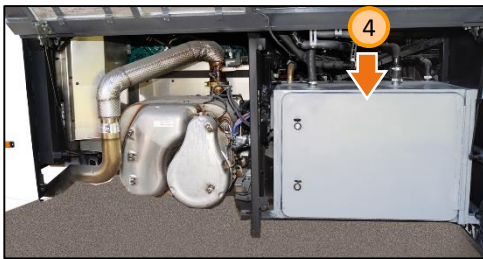
E6 exhaust system / Preheater compartment



- 1 Exhaust system/preheater compartment door.
- 2 Door lock.
- 3 E6 exhaust system.
- 4 Preheater box.



E6 exhaust system / Preheater compartment

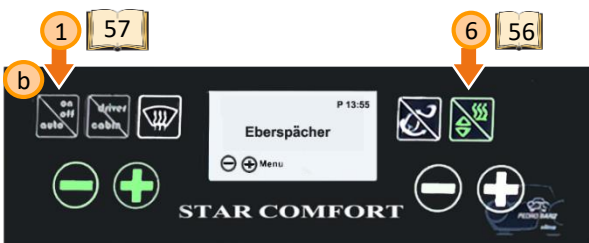


5 Preheater system

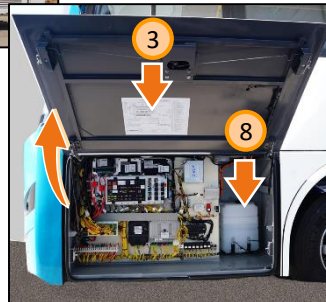
Manual activation: The preheater can be activated manually by the Star Comfort 6 56

Automatic activation:

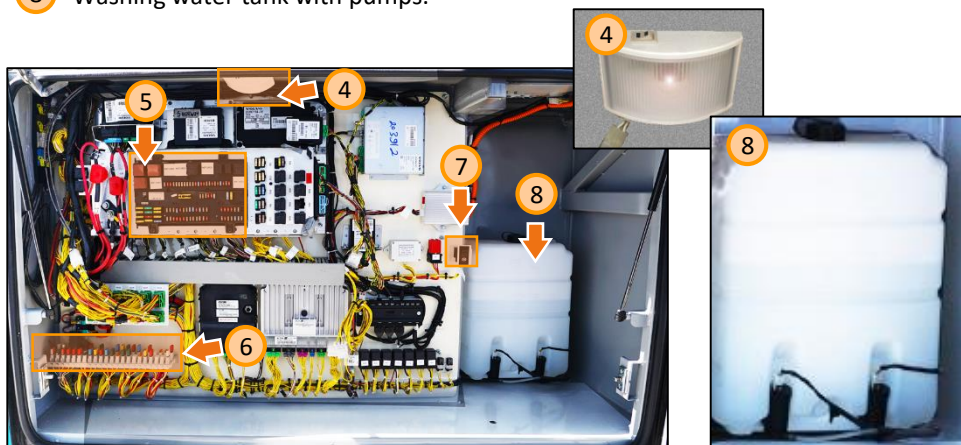
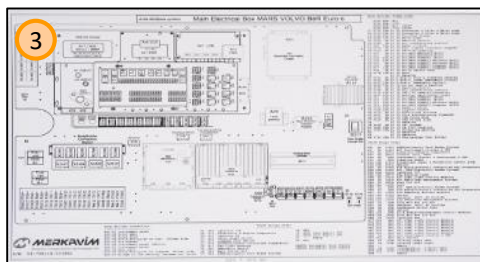
- a Programming the Star comfort.
- b Pre heater switch 6 32 + Star comfort on 1 57
- IT*PT



Main electrical board compartment



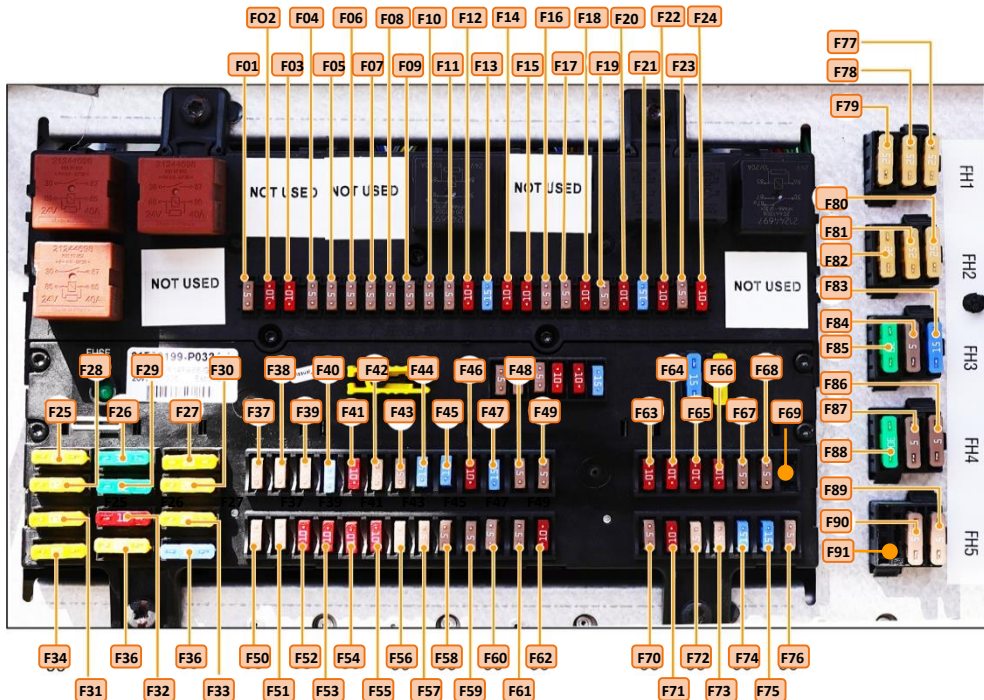
- 1 Door handle.
- 2 Door handle lock.
- 3 Main electrical board scheme.
- 4 Service lamp.
- 5 Chassis (VOLVO) electrical fuse board.
- 6 Merkavim electrical fuse board.
- 7 Door brake Cancel SW.
- 8 Washing water tank with pumps.



Main electrical board compartment



Fuses in VOLVO circuit board

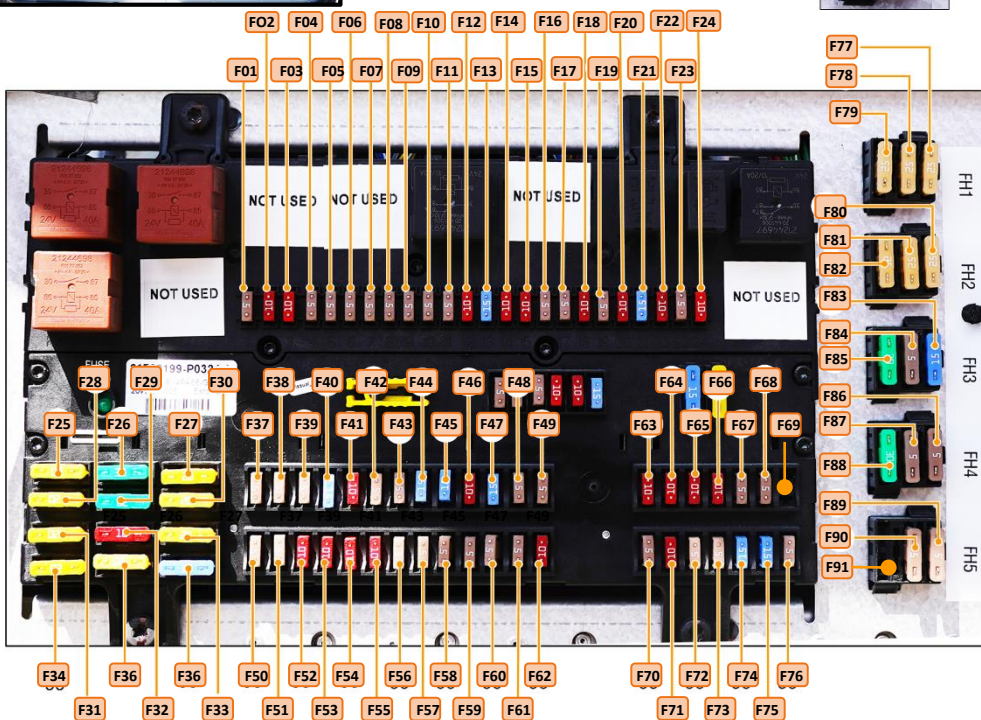
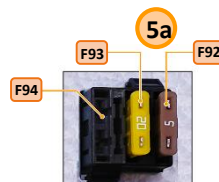


F01	5A	APBE (Automatic Park Brake Engine)	F30	20A	Ignition +15
F02	5A	A03 Instrument cluster/OBD	F36	15A	Day running light
F06	5A	Alternator/Engine components	F38	5A	A27 LCM
F07	5A	Control unit, VECU	F39	5A	A22 FMS
F08	5A	Instrument cluster/Tachograph/OBD	F43	5A	Fuel cut off
F10	5A	Steering wheel	F46	10A	Horn
F13	15A	Windscreen wipers / Wipers pump	F48	5A	A21 EBS
F14	10A	Option	F49	5A	A16 ECS
F23	5A	A16 ECS	F51	5A	A36 BBM
F28	20A	A21 EBS	F52	10A	Option

Main electrical board compartment



Fuses in VOLVO circuit board



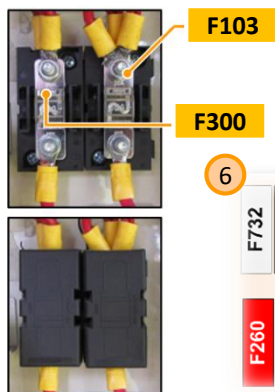
F53	10A	Gearbox, TECU, ZF Ecolife	F78	25A	A27 LCM
F54	10A	A22 FMS	F79	25A	A27 LCM
F55	5A	A191 BIO bus I/O ECU	F80	25A	A27 LCM
F57	5A	Gearbox, TECU, ZF Ecolife	F81	25A	A27 LCM
F59	5A	Dashboard switch feed	F82	25A	A27 LCM
F60	5A	Option	F86	5A	A03 Instrument cluster/OBD
F62	10A	A174 ACM	F87	30A	Main switch
F63	10A	195 BIO bus I/O ECU	F89	5A	Parking lamps left
F68	5A	Ignition key	F90	5A	Parking lamps right
F77	25A	A27 LCM (Light Control Module)			

Main electrical board compartment



- 6 Merkavim body builder fuses.
- 7 Door brake cancel switch.

Fuses in Merkavim circuit board



6	F732	F733	F192	F292	F193	F195	F95	F370	F310	F30	F31	F32	F34	F35	F36	F37	F38	F178	Res	F101	F102	F103
	F260	F191	F155	F115	F457	F21	F22	F23	F24	F159	F320	F319	F451	F511	F510	Res	F458	F660	F355	Res	Res	F762

F732 25A Preheater & Valeo & Water pump
 F733 25A Preheater & Valeo & Water pump
 F192 20A Frontbox blower
 F292 10A Water pump
 F193 2A Heating control
 F195 3A Air conditioning control
 F95 10A Radio & Clock
 F370 3A Rear lights indicator adapter
 F310 6A Service lighting
 F30 3A ActiMUX MASTER25(A100)
 F31 5A ActiMUX MASTER25(A100)

F32 15A ActiMUX POWER66 (A102)
 F34 20A ActiMUX POWER33 AirCanal(A101)
 F35 6A ActiMUX POWER33 AirCanal(A101)
 F36 8A ActiMUX POWER33 Luggage (A103)
 F37 15A ActiMUX POWER33 Luggage (A103)
 F38 3A Actia Switch Pack
 F178 10A Horn
 Reserve
 F101 5A Door's pressure sensors
 F102 5A Timer emergency circuit
 F103 10A Emergency circuit

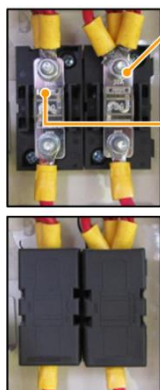
Main electrical board compartment



6 Merkavim body builder fuses

7 Door brake cancel switch

Fuses in MERKAVIM circuit board



F103

F300

6

F732	F733	F192	F292	F193	F195	F95	F370	F310	F30	F31	F32	F34	F35	F36	F37	F38	F178	Res	F101	F102	F103
F260	F191	F155	F115	F457	F21	F22	F23	F24	F159	F320	F319	F451	F511	F510	Res	F458	F660	F355	Res	Res	F762

F260 10A Driver seat heating

F191 2A Heating control

F155 3A Air conditioning control

F115 10A 24V/12V cameras converter

F457 10A Mobitec destination signs

F21 10A ActiMUX POWER66 (A102)

F22 10A ActiMUX POWER66 (A102)

F23 15A ActiMUX POWER33 AirCanal(A101)

F24 20A ActiMUX POWER33 Luggage (A103)

F159 10A Radio & Clock

F320 15A Lighter socket

F319 6A Electrical mirrors

F451 5A Fire extinguishing FOGMAKER

F511 6A USB Doors side

F510 6A USB Driver side

Reserve

F458 5A 29" screen

F660 20A 24/230V Inverter

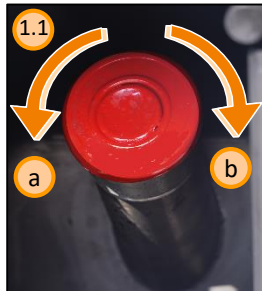
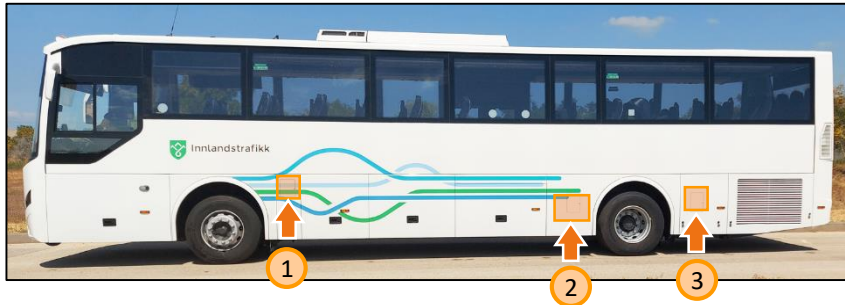
F355 10A Ticketing machine

Reserve

Reserve

F762 25A Pre-heater fuel filter

Filler doors



1 Fuel filler door.

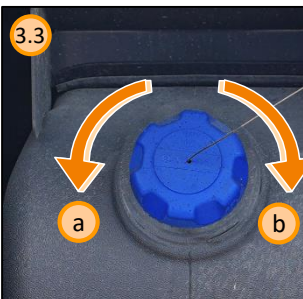
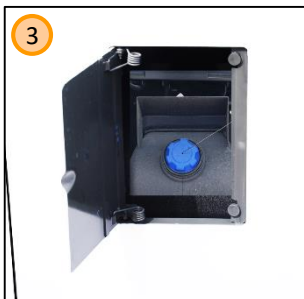
1.1 Fuel filler.

a Opening direction.

b Closing direction.



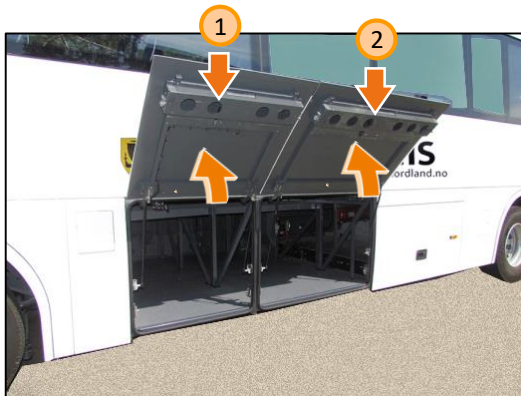
2 Open Service.



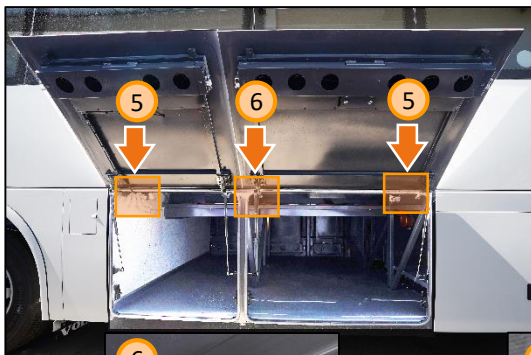
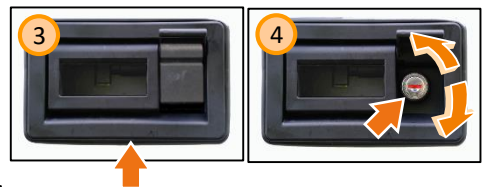
3 Ad Blue filler door.

3.3 Ad Blue filler.

Filler doors



- ① Left luggage compartment door I.
- ② Left luggage compartment door II.
- ③ Door opening handle.
- ④ Door opening handle lock.



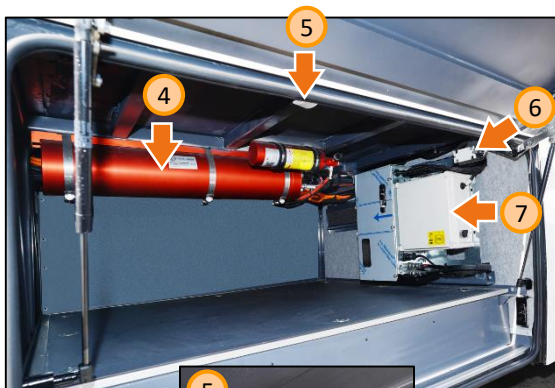
- ⑤ Door safety switch.
- ⑥ Luggage compartment light (activated with luggage door opening).



Wheelchair cassette/Fire automatic system compartment



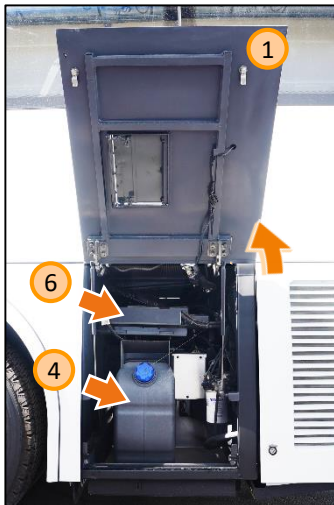
- 1 Compartment door
- 2 Door handle
- 3 Door handle lock



- 4 Automatic fire extinguishing system.
- 5 Compartment light lamp.
- 6 Safety switch.
- 7 Disabled lift Control block.



Wheelchair cassette/Fire automatic system compartment



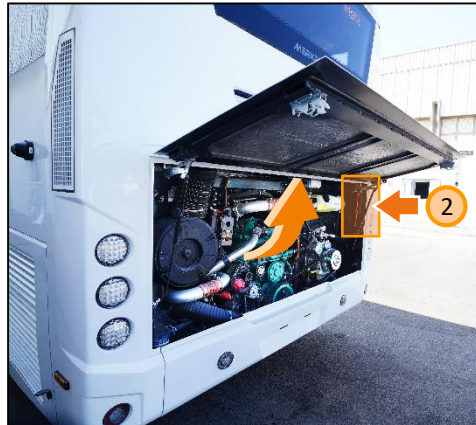
- 1 Ad Blue tank compartment.
- 2 Radiator compartment.
- 3 Door lock.
- 4 Ad Blue tank.
- 5 Radiator.
- 6 Engine starting auxiliary batteries.



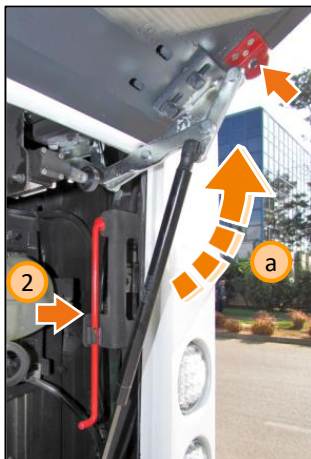
Engine compartment



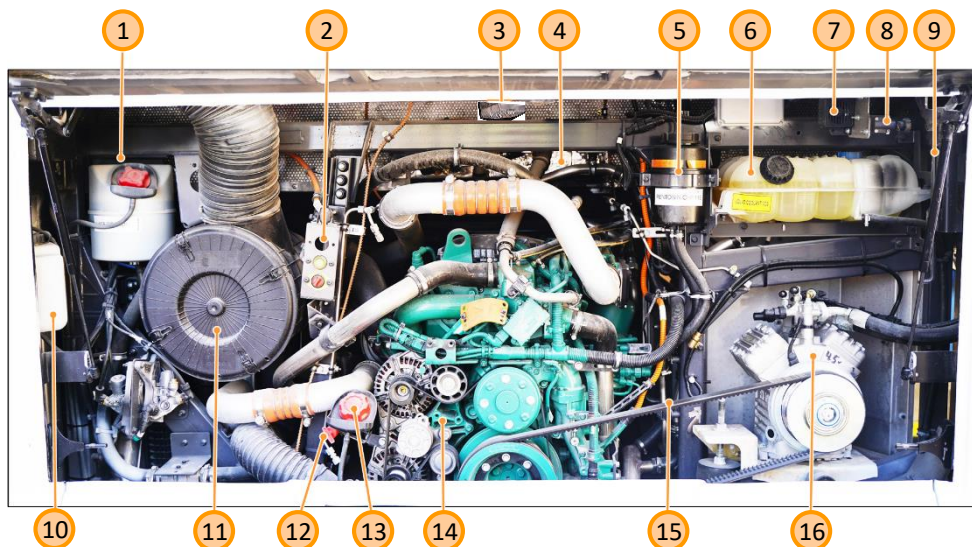
- 1 Engine compartment door.
- 2 Manual safety stopper.



- a b Place manual safety stopper after opening engine compartment door.

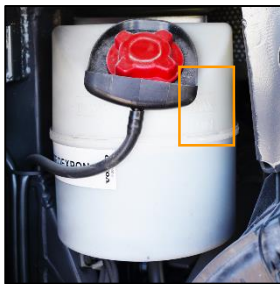
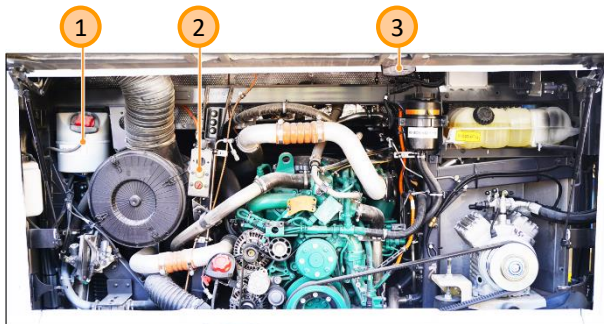


Engine compartment

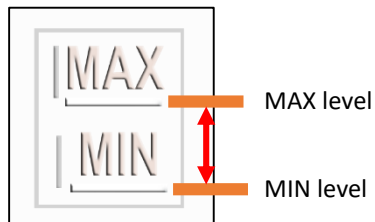


- | | |
|--|--|
| 1 Hydraulic fan motor fluid tank. | 9 Manual safety stopper. |
| 2 Engine start rear control panel. | 10 Rear camera cleaner water tank with pump. |
| 3 Service lamp. | 11 Engine air filter. |
| 4 Manual heating system water valves. | 12 Engine oil level dipstick. |
| 5 Steering hydraulic system tank. | 13 Engine oil filler. |
| 6 Expansion water tank of engine coolant system. | 14 Engine. |
| 7 Revers buzzer. | 15 A/C compressor belt. |
| 8 Door safety switch. | 16 A/C compressor. |

Engine compartment



① Hydraulic fan motor fluid tank.



② Engine start rear control panel.

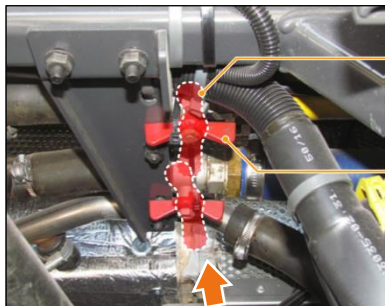
Start switch

Selector breaker



③ Service lamp

Engine compartment



4 Manual heating system water valves

Open valve position

Close valve position



5 Steering hydraulic system tank

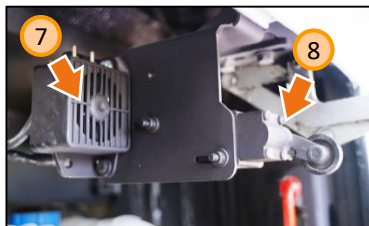
6 Expansion coolant tank of engine coolant system.



MAX coolant level

MIN coolant level

Engine compartment



- 7 Reverse buzzer
- 8 Door's safety switch

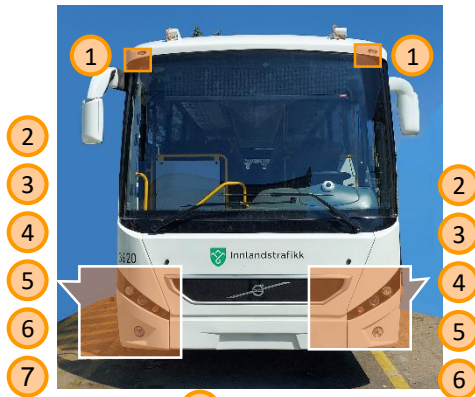


- 10 Rear camera water tank

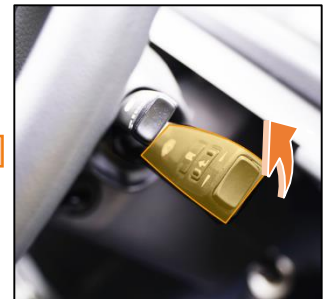
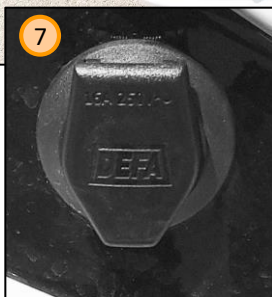
- 12 Engine oil level dipstick
- 13 Engine oil filler



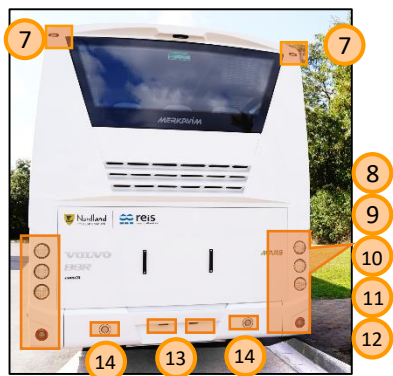
Front light



- 1 Front clearance light lamps.
- 2 Combination lamp - day time running light/parking light.
- 3 Bi LED main light/Dipped beam light.
- 4 Direction indicator.
- 5 Front fog light lamp.
- 6 Main light lamp water sprinkler.
- 7 220V Socket.



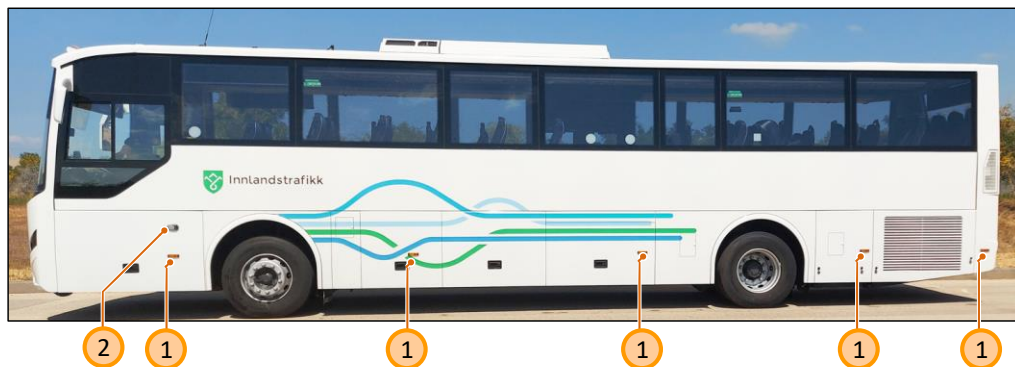
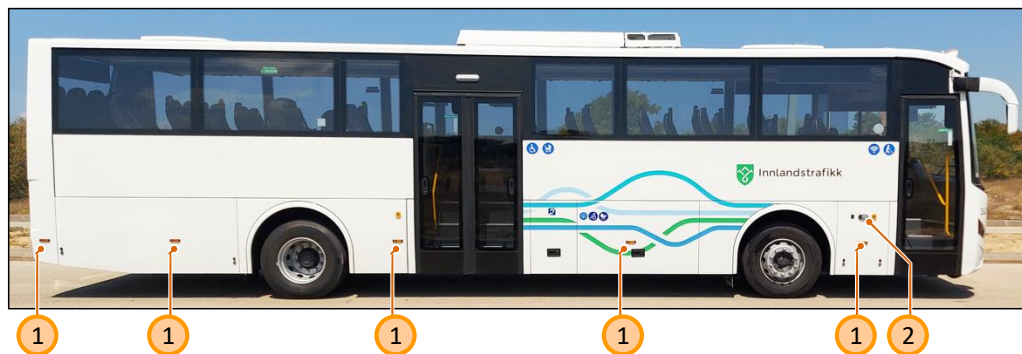
Back light



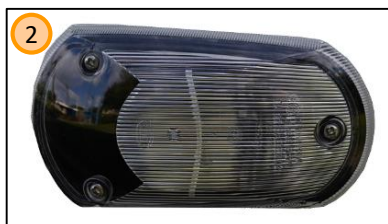
- 7 Rear clearance light lamps.
- 8 Combination lamp - day time running.
- 9 Rear direction indicator.
- 10 Reversing light.
- 11 Rear fog light.
- 12 Fog light reflector.
- 13 License plate light.
- 14 Reflector.



Side light



1 Side position light with reflector



2 Side direction indicator



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