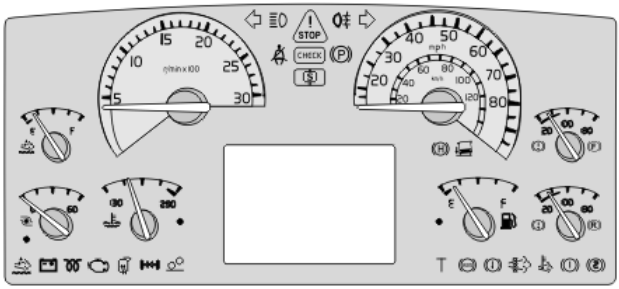
Operating Instructions

Driver information display

IC08



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VOLVO

Foreword

The following levels of observations, cautions and warnings are used in this Service Documentation:

Danger: Indicates an unsafe practice where serious personal injury or death could occur.

Warning: Indicates an unsafe practice where personal injury or severe damage to the product could occur.

Caution: Indicates an unsafe practice where damage to the product could occur.

Note: Indicates a procedure, practice, or condition that must be followed in order to have the vehicle or component function in the manner intended.

This operation instruction contains information concerning operation and functions of driver information display (**IC08**) for the *3rd generation* of the multiplex electrical system **BEA-3** (*Bus Electrical Architecture, version 3*) mounted on Volvo coaches.

This manual contains general information about driver information display (**IC08**). In case of the coach is not equipped with all functions described in this manual, it is due to the custom adaptation or different equipment levels.

The information in this operating instructions it applying to buses.

Technical data, construction information, descriptions and illustrations in this operating instructions, that were current when the book was published, can have been changed. The Volvo Company reserves the right to make changes without prior notice.

Volvo Bus Corporation
Göteborg, Sweden

Order number: 89376935

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Foreword

The National Highway Traffic Safety Administration (NHTSA) and Prevost should be informed immediately if you believe that the vehicle has a defect that could cause a crash, injury or death.
Contact NHTSA by calling the Auto Safety Hotline at 1 (888) 327-4236, by writing to NHTSA, U.S. Department of Transportation, Washington, DC 20590, by TTY at 1 (800) 424-9153, or visit their website at: *www.nhtsa.dot.gov*

Note: Illustrations in this operating instructions are used for reference only and may differ slightly from the actual vehicle. However, key components addressed in this document are represented as accurately as possible.

Please keep this operating instructions in the vehicle at all times.

Volvo Bus Corporation
Göteborg, Sweden

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Foreword

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Safety Information

IMPORTANT: Before driving this vehicle, be certain that you have read and that you fully understand each and every step of the driving and handling information in this manual. Be certain that you fully understand and follow all safety warnings.

IT IS IMPORTANT THAT THE FOLLOWING INFORMATION BE READ, UNDERSTOOD AND ALWAYS FOLLOWED.

The following types of advisories are used throughout this manual.

⚠ DANGER

Danger indicates an unsafe practice that could result in serious personal injury or death. A danger advisory banner is in **white** type on a **black** background with a **black** border.

⚠ WARNING

Warning indicates an unsafe practice that could result in personal injury. A warning advisory banner is in **black** type on a **gray** background with a **black** border.

⚠ CAUTION

Caution indicates an unsafe practice that could result in damage to the product. A caution advisory is in **black** type on a **white** background with a **black** border.

Note: Note indicates a procedure, practice, or condition that must be followed in order for the vehicle or component to function in the manner intended.

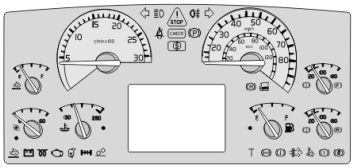
This booklet is intended to help the driver about how to operate properly the driver information display (**IC08**; *"Instrument Cluster 8 gauges"*).

Driver's responsibility

- As the driver, you are responsible for the safety and comfort of the passengers during the journey. Therefore, do not drive the bus before you have read this driver's manual. You must be familiar with all the indicators and warning lights and know what to do if something unexpected happens.
- It is also your responsibility to ensure that all the safety equipment of the bus is in place. Therefore check regularly the working order of seat belts, emergency door and window opening, door sensitive edges, fire extinguishers and first aid equipment.
- As the driver of the vehicle, you should be aware of the vehicle weight and loading capacity.
  See instructions on warning stickers, the vehicle registration book and on the identification plate.
- Follow the recommended service and maintenance programme to maintain the bus's condition and safety.
- It is also your responsibility to ensure that all bus components working in order.

Display and Stalk Switch Control Lever

The Driver Information Display (DID) is located in the middle of the instrument cluster. The display shows vehicle messages and information about the bus, and from it you can control some of the bus functions.



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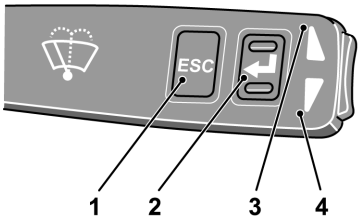
The display is controlled via the stalk switch control lever to the right of the steering wheel. The control lever has four buttons:

1 **ESC:** Abort or return to previous menu.

2 **SELECT:** Select or confirm marked choice.

3 **▲:** To Scroll the cursor up or set a symbol.

4 **▼:** Scroll the cursor down or set a symbol.



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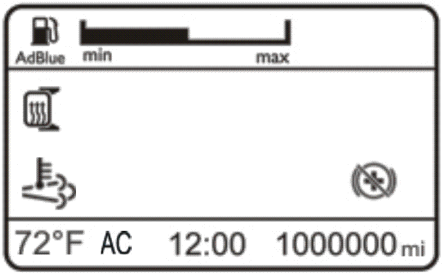
Getting Started

Display Fields

The display is divided into three fields:



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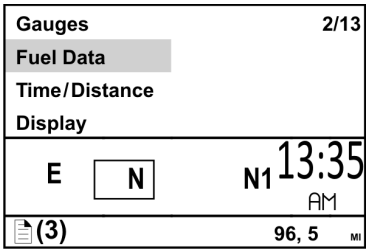
1 **Menu and message field (Upper section)**
Menus, stop, warning and information messages are shown.

2 **Favorite display (Middle section)**
Information is shown, which the driver has selected in the left area, using the “Favorite Display” menu. For buses with automatic transmissions, the selected gear is shown.

Note: Some variants do not have an adaptable Favorite Display.

3 **Status line (Lower section)**
To the left, current status symbols are shown. At the center the clock is shown, to the right; the odometer is shown.

Navigating in the DID, (Display at start)



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The DID lights up when the starter key is turned. If there are any vehicles messages, they will be shown in the top field. The most important message is shown first. The message order number is shown in the top right corner. For example, 2/13 indicates that the message now being displayed is the second of thirteen active messages. For more information on messages see “General Information on Vehicle Messages”, page 5.

Scroll between the various vehicle messages using the ▲ and ▼ button. Take suitable actions and then acknowledge them with **ESC**.

When the vehicle messages have been acknowledge the menus are shown. To navigate between the menus:

1 ▲/▼ Scroll the cursor between the menus, which are then marked. The hierarchical order for menus is shown in the top right corner (for example 2/13).

2 Pressing **SELECT** confirms the choice.

3 Pressing **ESC** exits the chosen menu. Repeated pressing on **ESC** moves the cursor back to the main menus.

For more information on menus, see “General Information on Vehicle Messages”, page 5.

General Information on Vehicle Messages

There are three lamps above the display:

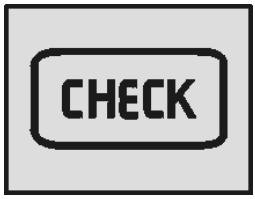
- Lamp for stop messages
- Lamp for warning messages
- Lamp for stop at the next bus stop.

When there is a fault in the bus or an incident occurs which requires attention, one of these three lamps is lit. Associated messages and symbols are shown in the Driver Information Display (DID) at the same time. Several messages may be active at the same time. The message with the highest priority is shown first in the display.
Previously shown messages can be retrieved in the DID; For more information see “Vehicle Messages”, page 38.
For more detailed technical information about vehicle messages, see “Fault Diagnostics”, page 48.

Note: For explanation of the symbols used in vehicle messages, see the driver's handbook.

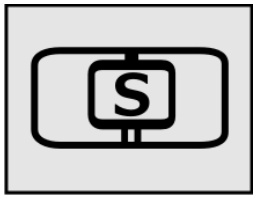
T3014364

Stop lamp.



T3014365

Check lamp.



W3079585

Stop at the next bus stop lamp.

Stop Messages

When the Stop telltale lights, the vehicle must be stopped immediately and the engine switched off.

A buzzer sounds at the same time as a stop message is displayed. The buzzer and stop message can be acknowledged with **ESC,** but is repeated after 10 seconds. The symbol is lit continuously.

T3014364

WARNING

If the Stop telltale lights while driving, stop the bus immediately and turn off the engine. Continuing to drive may severely endanger the vehicle, the driver and/or passengers.

Warning Messages

If this lamp lights, the vehicle must be taken to a workshop for repair as soon as possible. There is no immediate danger of the vehicle breaking down, and under normal circumstances it should be possible to complete the journey. This lamp is also used to draw the driver's attention to problems other than vehicle failures, e.g. as a warning in the case of an open luggage compartment hatch.

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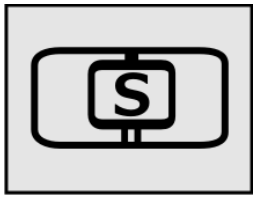
Acknowledge the message with **ESC.** If the fault is still active, it will be shown again next time the starter key is turned to the starting position.

Stop at the Next Bus Stop Messages



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Simultaneously with this lamp lighting up, a new message is shown on the display. The fact that this lamp lights up does not mean that there is something wrong with the vehicle. This lamp may for example illuminate to draw the driver's attention to low fuel level.

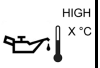
Acknowledge the message with **ESC** key. If the information message is still activate, it will be shown again next time the starter key is turned to the starting position.

8 Vehicle Messages and Symbols

Symbols and messages in the driver display

Symbols and messages are displayed in combination with stop or warning lamps coming on. Certain messages can have either a yellow or red lamp depending on level, pressure, temperature, etc. Several messages may be active at one time. The message with the highest priority is displayed first. Step through the messages with△ and ▽ on the display stalk.
Some messages are displayed without a symbol.

The symbols and their meaning are presented below:

Symbol	Meaning	Symbol	Meaning
	• High temperature, coolant, engine. • High temperature, coolant, retarder.		Sensor error, check level manually.
	Low level, hydraulic fluid for cooling fan.		• Low level, hydraulic fluid. • Low level, hydraulic fluid for power steering.
	High oil pressure, engine.		Low oil level, engine. See also, “Oil Level”, page 53 (*Vehicle data menu*).
	High temperature, engine oil. See also, “Temperature Engine Oil”, page 20 (*Meter menu*).		Temperature too high, engine oil.
	Fault in engine pre-heating.		Engine fault.
	Clogged air filter (*first check that the net in the air inlet is not blocked*).		Clogged fuel filter.
	Too cold for engine brake (VEB, *Volvo Engine Brake*).		Fire alarm.

Symbol	Meaning	Symbol	Meaning
	Idling engine turned OFF.		Turbo pressure, no data.
	Water in fuel. (*drain at next stop*).		Low fuel level. See also, “Remaining Fuel”, page 25 (*Fuel data menu*).
	Fault in fuel level sensor.		• Low level, AdBlue tank. Engine torque is reduced if AdBlue not topped up. See also, “AdBlue tank, level”, page 23 (*Meter menu*). • Empty AdBlue tank. Speed limited if AdBlue not topped up. • Level in AdBlue tank, no data.
	• Bad AdBlue quality. Engine torque reduced and speed limited. • Incorrect AdBlue consumption. Engine torque reduced.		Depress the brake pedal to check oil pressure, hydraulic turntable (*articulated bus only*).
	Low air pressure to gearbox.		Low level, transmission fluid.
	Low oil pressure, gearbox.		High temperature, transmission fluid. See also, “Temperature oil, gearbox/retarder”, page 21 (*Meter menu*).
	Temperature too high, transmission fluid.		Gear selector not in neutral. (*engine will not start*).
	High temperature, clutch.		High oil temperature, hydraulic retarder. See also, “Temperature oil, gearbox/retarder”, page 21 (*Meter menu*).
	High temperature, brakes.		Brake linings, wear warning.

10 Vehicle Messages and Symbols

Symbol	Meaning	Symbol	Meaning
	• Poor braking. • Fault in braking system. • Data link for EBS broken.		No data from 1st brake circuit.
	No data from 2nd brake circuit.		• Low pressure on 3rd brake circuit. • No data from 3rd brake circuit. See also, “Brake Pressure, 3rd Circuit”, page 23 (*Meter menu*).
	• Low parking brake pressure. • No data from parking brake.		Auxiliary brake disengaged.
	Fault in compressor.		Fault in compressor/air drier.
	Low pressure in air suspension system.		• Level control active (*raising/lowering*). • Low wet tank pressure (*value given in bar*). See also, “Pressure, Primary Tank”, page 22 (*Meter menu*).
	Fault in air suspension system.		Pinch guard active. See also, “Lowering protection”, page 43 (*Vehicle settings menu*).
	Bus fully lowered.		Vehicle kneeling.
	TCS (*Traction Control System*) enabled.		“TCS” temporarily disengaged. See also, “Traction Control”, page 43 (*Vehicle settings menu*).
	[1] “ESP” (*Electronic Stability Program*) enabled.		“ESP” disabled.

1 Telltale lit on instrument cluster when ESP system malfunction is detected.

Symbol	Meaning	Symbol	Meaning
	"ESP" requires calibrating.		Malfunction detected on "ESP" system.
	Luggage hatch open.		Door open.
	Faulty door.		Engine cover open.
	Faulty headlamp.		Faulty brake light.
	Faulty direction indicator.		Overheating, instrument.
	Battery voltage too high. See also, "Voltmeter", page 22 (*Meter menu*).		Low level, washer fluid.
	Hill start assist enabled.		Air conditioning not working.
	One or more lamps not lighting up.	**R**	Reverse gear selected.
	Graph sheet compartment open or sheet for driver 1 missing. (*analogue tachograph*).		Speeding.
	• High ash level. • Regeneration required.		Stop at next bus stop.

12 Vehicle Messages and Symbols

Symbol	Meaning	Symbol	Meaning
	Toilet fluid level.		Freezing conditions — Outdoor.
	Supply voltage below 24 V.		Auxiliary pressure no data.
	MCM programming switch activated.		High voltage / Starter Batteries.
	Accelerator pedal disengaged.		

Status Symbols

Status symbols are shown in the lowest row of the display.

Symbol	Meaning	Symbol	Meaning
	Pre-Heat active.		Regeneration active.
	Alarm clock activated.		Regeneration inactive.
	Message active.		Auxiliary brake position 0.
MI	Odometer, miles.		AdBlue level.
KM	Odometer, kilometers.		Low fuel level.
CC	Cruise control active.	WC	WC, engaged.
(A)	Auxiliary brake position A.	AC	Climate control active.
(1)	Auxiliary brake position 1.	(B)	Auxiliary brake position B.
(2)	Auxiliary brake position 2.		Auxiliary brake in operation.
(3)	Auxiliary brake position 3.		

14 Use the Display Menus

General Information on Menus

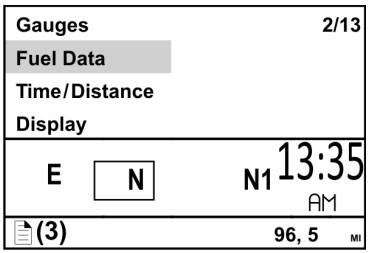
Using the menus you can see the status and control some of the bus functions. For reasons of safety, not all menus are available when driving. To see certain menus and to adjust certain settings, the bus must be stationary. A password is required for some menus.

Scroll Between the Menus

1 Scroll the cursor between menus using ▲ and ▼. The order number of the marked menu is shown in the top right corner. 2/13 indicates that there are 13 menus and that the current menu is number 2.

2 Go from a menu to a sub-menu using **SELECT**

3 Exit a sub-menu using **ESC**



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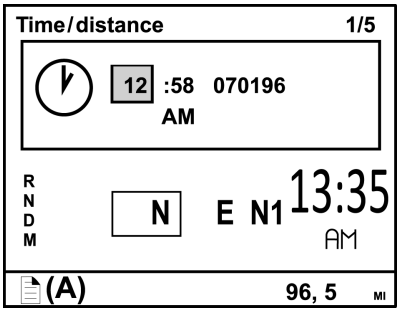
Changing Settings

1 Use ▲/▼ to change set values (for example, number of hours).

2 Pressing **SELECT** confirms the choice.

3 Use **ESC** to Scroll the cursor to the previous digit or abort the setting process.



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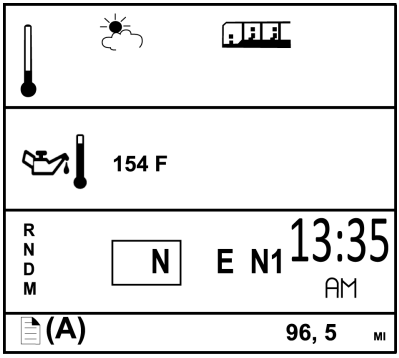
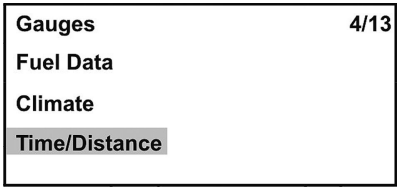
Example: Change a Setting
The Favorite Display is shown. To set the alarm clock to go off at 02:33. Proceed as follows:



T0031653

1

Go to the menus using **SELECT** Place the cursor on Time/Distance using ▲ and ▼.



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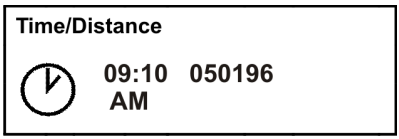
2

Press **SELECT** The current time and date are shown.



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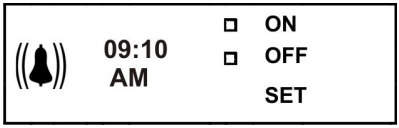
3

Scroll to the alarm clock using and ▲ and ▼.

4

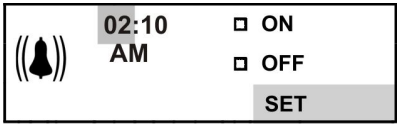
Press **SELECT** Scroll down to **SET** using ▲ and ▼.



T8056483

5

Press **SELECT** The hours are marked. Scroll to the required hour using ▲ and ▼.



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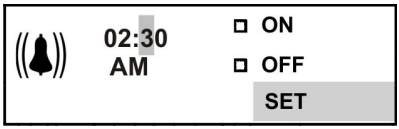
6

Press **SELECT** The first digit for minutes is marked. Scroll to the required digit using ▲ and ▼.



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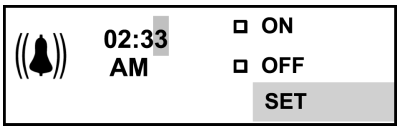
7

Press **SELECT** The second digit for minutes is marked. Scroll to the required digit using ▲ and ▼.



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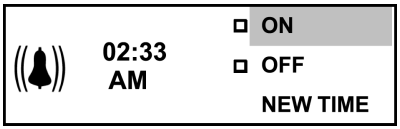
8

Press **SELECT** "ON" is marked.



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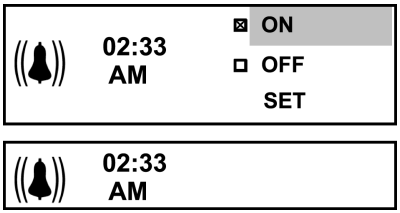
9

Press **SELECT** A cross is placed in the box in front of "ON." The symbol for activated alarm clock is shown in the status bar. The alarm clock setting is then automatically displayed.



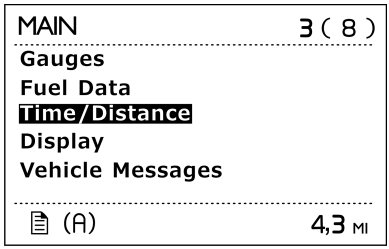
T0031662

10

Return to Favorite Display using ESC. The symbol for activated alarm clock is shown in the status bar.

To deactivate the alarm clock:

- Go into menu "Time/Distance" using **SELECT**
- Scroll to the alarm clock using ▲ and ▼.
- Press **SELECT.**
- Scroll to "OFF" with ▲ and ▼.
- Press **SELECT.**



W3079745

Main Menus and Sub-menus

The overview shows how the menus are structured.

- **Gauges**

Gear engaged

Temperature outside/inside

Temperature, engine oil

Voltmeter

Pressure, primary tank

Oil Pressure

Brake pressure, 3rd circuit

- **Fuel Data**

Average fuel consumption

Stage information

Remaining fuel

- **Climate**

Climate/Pause heating, passenger

Temperature/Roof Fan, passenger

Roof Heat/Floor Fan, passenger

Extra Heat, passenger

Floor Fan, driver

Note: Not all buses have all the menus that are shown in the overview.

- **Time/Distance**

Clock and Date

Alarm clock

Trip meter

Average speed

Estimated time of arrival

- **Display**

Black Panel

Backlight

Favorite Display, setting

Night/Day

- **Vehicle Messages**
- **Display Settings**

Favorite display set

Language

Clock/Date

Units

Time/Date

Display light

Change password

- **Aftertreatment System (ATS)**

Enable / Disable ATS

Regeneration request

System conditions

Soot/Ash level

- **Vehicle Settings**

Traction Control

Fleet limits

Fleet ID

Day Running Light

- **Diagnosis**

Fault diagnosis

Cluster self test

Part number

- **Vehicle Data**

Oil level

Lining wear prediction

- **Data Log**

Vehicle ID

Total data

Trip Data

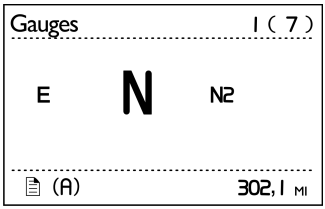
Reset trip data

- **Password**

Enter password

Gear Engaged

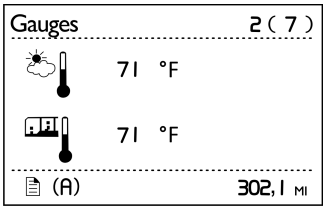
(This gauge is extra equipment. Only buses equipped with an I-shift transmission.) Information about the engaged gear, gear lever position, available gears and such like. For further information, see separate driver instructions for "I-shift".



W3079551

Temperature Outside/Inside

(This gauge is extra equipment).
Outside temperature shown above. Bus inside temperature shown at the bottom.



W3079552

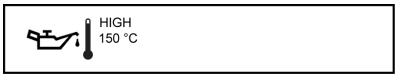
Temperature Engine Oil

Temperature of the engine oil.

Warning for high engine oil temperature.

T0031666

Engine oil temperature.



T0088897

High engine oil temperature.

Temperature oil, gearbox/retarder

(The gauge is extra equipment.)

For gearboxes with I-shift, the gearbox temperature is shown. For gearboxes manufactured by ZF or Voith the retarder temperature is shown.

Note: Temperatures below 45° C are not shown.

- Temperature of transmission fluid.
- Warning for high transmission fluid temperature.
- Temperature of retarder oil.
- Warning for high retarder oil temperature.

Temperature transmission fluid.

High transmission oil temperature.

Retarder oil temperature.

High retarder oil temperature.

22 Menu Gauge

Voltmeter

Battery voltage.
If the engine is running and the voltage drops below 20 V or over 31 V, a fault messages are displayed together with the information/warning symbol.

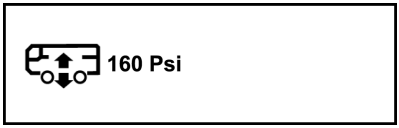
T0031667

Battery tension in volts.

Warning battery voltage too high.

Pressure, Primary Tank

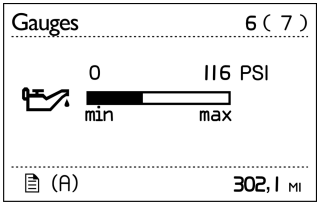
If the pressure in the primary tank drops **below 100 PSI (7 bar)**, a fault message is displayed together with the information/warning symbol.



T0031668

Engine Oil Pressure

If the pressure drops **below 25 PSI (1.7 bar)** a fault message is displayed together with the stop symbol and red light.

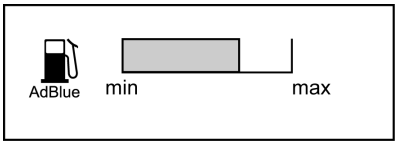


W3079554

AdBlue tank, level

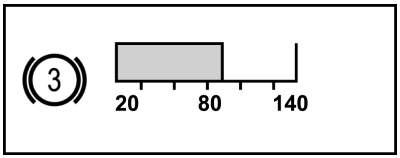
Shows the amount of AdBlue in the tank.

The “Low level, AdBlue tank” symbol and a message are shown on the display when only 20% of the AdBlue solution is remaining.



Brake Pressure, 3rd Circuit

(only on buses with min. three axles).
If the pressure drops **below 80 PSI (5.5 bar)** a fault message is displayed together with the stop symbol and red light.



T0031669

24 Menu Fuel Data

Fuel Used

For setting the units, see “Units”, page 39.

1 **Average fuel consumption:**
The value is presented as a figure and an arrow pointing down. For a time after resetting the display "– — —" is shown while average fuel consumption is being calculated.

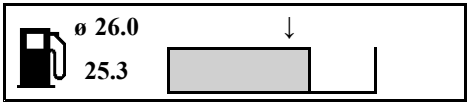
2 **Instantaneous fuel consumption:**
The value is presented numerically.

3 **Target fuel consumption:**
The value is presented with the symbol ⊥ below the bar. For information on setting this value, see “Fuel Target”, page 46.

Note: At idle, no bar is shown and the fuel consumption is displayed in gallons/hr (alternatively liter/hr).

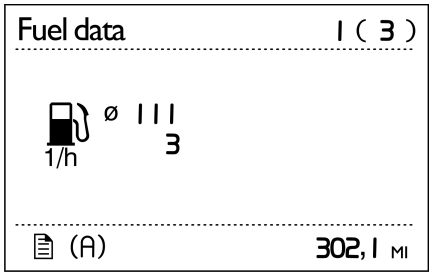
Resetting, fuel consumption

Press **SELECT.** To reset all fuel data, press SELECT for 1 second. Leg data is also reset.



Average fuel consumption

The average fuel consumption in gallons/hr (alternatively liter/hr)



W3079553

Stage Information

The amount of fuel consumed since the last reset.

W3079993

Resetting, leg data

Press **SELECT** To reset leg data, hold **SELECT** depressed for 1 second.

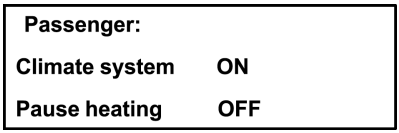
Remaining Fuel

- The first value shows the distance that can be driven before the tank is empty with current fuel consumption.
- The second value shows the amount of fuel currently in the tank.

T0031671

Climate System/Pause Heating, Passenger

Shows whether the passenger climate system or pause heating is switched on or off. Press **SELECT** once to come to "Climate system". Press **SELECT** twice to come to "Pause heating". Activate/deactivate the respective unit using the control lever buttons (SELECT, ESC, ▲ and ▼).



T0031672

Temperature/Roof Fan, Passenger

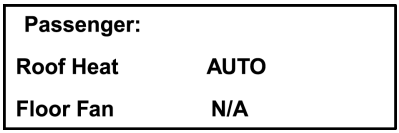
Shows the required temperature level or roof fan speed in the passenger compartment.

Press **SELECT** once to come to "Temperature". Press **SELECT** twice to come to "Roof Fan". Set the required temperature (between 59 and 82° F [15 and 28° C]) using the control lever buttons (SELECT, ESC, ▲ and ▼). Set the required roof fan speed (manually between -5 and +5, alt. automatic) using the control lever buttons (SELECT, ESC, ▲ and ▼).

T0031673

Roof Heat/Floor Fan, Passenger

Shows the selected level for roof heat or status for floor fan in the passenger compartment. Press **SELECT** once to come to "Roof Heat". Press **SELECT** twice to come to "Floor Fan". Set the required level for Roof Heat (manually between -5 and +5, alt. automatic) using the control lever buttons (SELECT, ESC, ▲ and ▼). Activate/deactivate the floor fan (switched off, alt. automatic) using the control lever buttons (SELECT, ESC, ▲ and ▼



T0031684

Extra Heat, Passenger

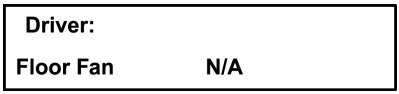
Shows whether the extra heating in the passenger compartment is switched on or off. Activate/deactivate the extra heat using the control lever buttons (SELECT, ESC, ▲ and ▼).

T0031685

Floor Fan, Driver

Shows whether the floor fan in the driver compartment is in automatic position or switched off.

Activate/deactivate the floor fan using the control lever buttons (SELECT, ESC, ▲ and ▼).



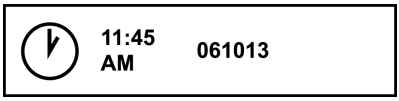
T0031686

Clock and Date

Shows current time and date. For setting the formats, 12 hr alt. 24 hr and date, see “Time/Date”, page 40.

Setting, time and date

Press **SELECT.** Set the time and date using the control lever buttons (SELECT, ESC, ▲ and ▼). If the starter key is in stop position and it takes more than 30 seconds between button depressions, the setting process is aborted.



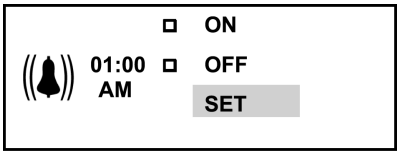
T0031687

Note: The menu "Time and date" is available even when the starter key is in the stop position. The menu is activated by pressing any of the buttons on the control unit for at least 1 second. The menu remains active for 30 seconds after the last depression.

Alarm Clock

Alarm clock, setting

Press "SELECT". Set the alarm time using the control lever buttons (SELECT, ESC, ▲ and ▼). Finish off by selecting "ON". The symbol for the alarm is shown on the status bar to indicate that the alarm clock is active.

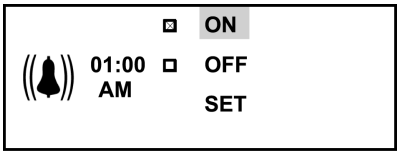


T0031688

Note: The alarm clock cannot be set while driving. If the starter key is in stop position and it takes more than 30 seconds between button depressions, the setting process is aborted. The menu "Alarm clock" is available even when the starter key is in stop position. The menu is activated by pressing any of the buttons on the control unit for at least 1 second.

Activate alarm clock

Here the alarm clock can be activated without changing the alarm time. Activate the alarm using the control lever buttons (SELECT, ESC, ▲and ▼). When the clock has been activated, the symbol for activated alarm clock is shown on the display status bar.



T0031689

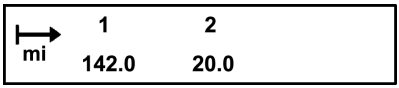
Switch Off the alarm clock

When the alarm clock goes off, the word "ALARM" lights up, the current time is displayed and a warning signal is sounded. The alarm shuts off after 60 seconds or if **ESC** is depressed.

Trip Meter

Two independent distances can be saved, for leg 1 and leg 2.

Note: The trip values must be reset before each measurement.



T0031690

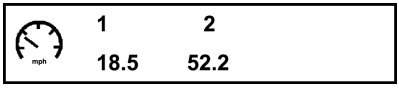
Reset Trip Meter

Press "SELECT". Reset the trip meters 1 and 2 respectively using the control lever buttons (SELECT, ESC, ▲ and ▼).

Average Speed

The average speed is calculated as the distance driven divided by the time the engine has been running (since latest reset). Two different average speeds can be measured, average speed **1** and **2**.

Note: The values must be reset before each measurement.



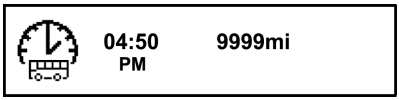
T0031691

Reset Average Speed

Press "SELECT". Reset average speeds 1 and 2 respectively using the control lever buttons (SELECT, ESC, ▲ and ▼).

Estimated Time of Arrival

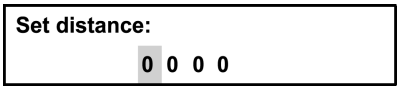
The estimated time of arrival is calculated as the remaining distance divided by the vehicle's average speed.



T0031692

Set Distance

Press "SELECT". Set the remaining distance in Km (alt. miles) using the control lever buttons (SELECT, ESC, ▲ and ▼).



T0031693

Driving and rest time

Information about driving and resting times is obtained from the digital tachograph.

The symbol is at the **far left** and the information under it varies depending on the selected activity in the digital tachograph.

The symbol in the **centre** indicates pause and rest time.

The symbol to the **right** indicates driving time.

32 Regeneration menu

Regeneration

An automatic regeneration is carried out on particles collected in the Diesel Particle Filter (DPF). This prevents large amounts of soot collecting in the filter. A clogged filter can mean the permitted NOx emissions will not be met.

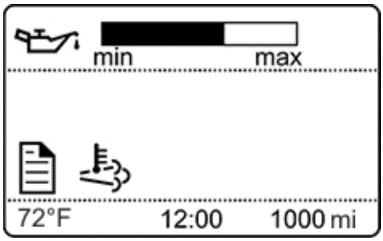
Parameters for enabling regeneration are level of soot in the particle filter and the amount of fuel consumed.

There are two categories of regeneration.
Moving regeneration that is carried out while driving.
Parked regeneration that is enable manually while the vehicle is stationary.

A status symbol, high exhaust temperature, is displayed while regeneration is in progress. The symbol disappears when the process is complete.

Note: There are no warning or indicator lamps when moving regeneration is enabled.

For more information, see driver instruction “Aftertrteatment, SCR.”.

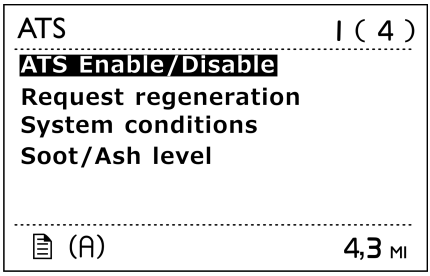


Driver’s display.

Aftertreatment (ATS)

For additional information about the aftertreatment system (ATS), refer to Exhaust Aftertreatment System manual.

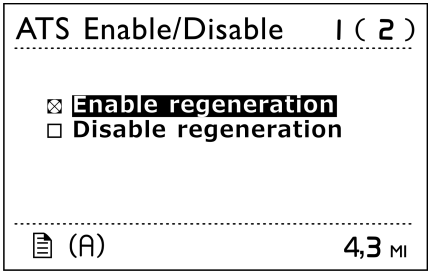
The aftertreatment menu allows the operator to request a parked regeneration, check the status of the aftertreatment system, and cancel a regeneration.



W3079746

Aftertreatment (ATS) Enable/Disable

To temporarily disable automatic regeneration, scroll to the Aftertreatment menu, select "ATS Enable/Disable". When automatic regeneration is disabled, the letters ATS with X through them will be displayed in the DID. Enable regeneration by scrolling to the Aftertreatment menu, selecting "ATS Enable/Disable" and selecting "Enable REGEN".

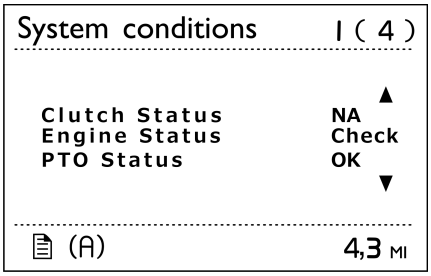


W3079740

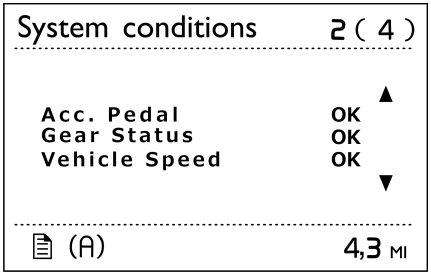
34 Regeneration menu

System Conditions

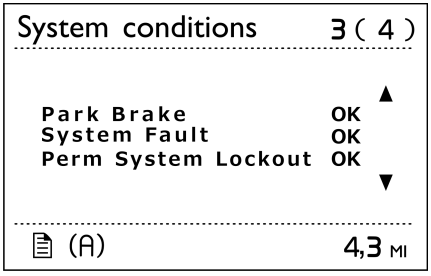
The system conditions menus are used to help determine why a parked regeneration failed.



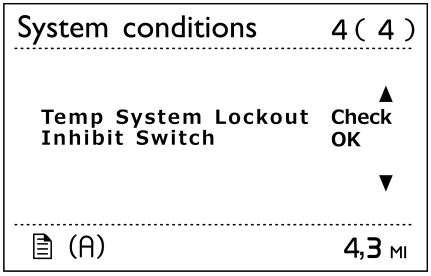
W3079741



W3079742



W3079743



W3079744

Black Panel

When "Black panel" is activated, only the speedometer, tachometer (except the colored field) and the lowest line of the display light up. The following events light the backlighting:

- a message is activated
- a button is depressed
- the engine speed enters the red field on
- the tachometer

Favorite Display

This function is used to activate " Favorite Display".

Backlight

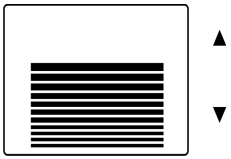
This menu can be used to alter the display lighting with respect to the lighting of the other instruments.

Set Backlight

1 Increase or decrease the backlight in the display using ▲/▼.

2 Confirm with **SELECT**.

3 **ESC** aborts the setting process.



W3079738

Favorite Display, Set

Select the gauges and functions to show in "Favorite Display".

No display	
Gear engaged	
Outside temperature	
Temperature, engine oil	
Fuel used	
Stage information	
Remaining fuel	
Trip meter	
Pressure, primary tank	
Pressure, 3rd brake circuit	
Average speed	
Estimated time of arrival	

W0098323

Select Favorite Display

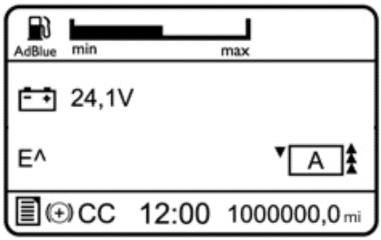
To Select Favorite Display:

1 Press **SELECT**.

2 Press **SELECT** once more and the upper field becomes active. Select gauge or function using ▲ and ▼. Confirm with **SELECT** when the desired gauge or function is shown.

3 Press **SELECT** once more to activate the next field. Select gauge or function using ▲ and ▼. Confirm with **SELECT** when the desired gauge or function is shown.

4 Press **SELECT** or **ESC** until all the fields are active and the clock is shown.



Night/Day

This function is used to switch between white text on a black background and black text on a white background.

Press **Select** to switch between alternatives.

Vehicle Messages

If a message appears on the display, confirm to be aware by pushing ESC key, then a symbol will appear on the status bar. Enter to this menu to view the messages confirmed and not corrected.

Switch between messages using ▲ and ▼.

Press **ESC** to return to the main menu.

If a confirmed message is still active it will appear as unconfirmed message the next time the starter key will set in ON position. The message symbol will stay as long as there are unconfirmed messages.

Language

Select the desired language using the control lever buttons (SELECT, ESC, ▲ and ▼).

Units

Distance

Select to show distances in miles or kilometers using the control lever buttons (SELECT, ESC, ▲ and ▼).

Fuel Consumption

Select, using the control lever buttons (SELECT, ESC, ▲ and ▼), to show fuel consumption in:

- L/100 Km
- Km/L
- mpg (*IMP gallons*).
- mpg (*US gallons*).

Temperature

Select, using the control lever buttons (SELECT, ESC, ▲ and ▼), to show temperatures in Fahrenheit (F) or Celsius (C).

Time/Date

Time

Set the time format (AM/PM or 24:00) using the control lever buttons (SELECT, ESC, ▲ and ▼).

Date Display

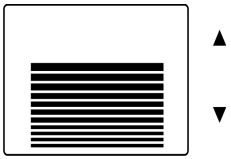
Select, using the control lever buttons (SELECT, ESC, ▲ and ▼), from the various date formats.

- year, month, day (**yymmdd**).
- day, month, year (**ddmmyy**).
- month, day, year (**mmddyy**).

Display light

Contrast

Set the contrast using the control lever buttons (SELECT, ESC, ▲ and ▼).



W3079738

Backlight

In this menu the display lighting can be altered in relation to the other instrument lighting, using the control lever buttons (SELECT, ESC, ▲ and ▼).

W3079738

Standard / Inverted; (Night Mode)

This function is used to switch between white text with black background and black text with white background, using the control lever buttons (SELECT, ESC, ▲ and ▼).

Change Password (If Password is Required)

First enter the current password, see “Enter Password”, page 56.

1 Mark the password to be changed using ▲ and ▼.

2 Confirm with **SELECT**.

3 Enter the first digit using ▲ and ▼.

4 Scroll to the next digit using **SELECT**.

5 Scroll back in the menu using **ESC**.

Traction Control

T0014612

Note: Normally, traction control should be on. The disengagement function must only be used by workshop personnel or vehicle testing centres.

Select On or Off using the control lever buttons (SELECT, ESC, ▲ and ▼).

When traction control is disengaged, the symbol for disengaged TCS (Traction Control System) is shown in the driver's display.

Lowering protection

T0014566

(Only for certain variants)
The the lowering protection is active (symbol for the lowering protection is shown in the display) kneeling is not possible. Should there be special circumstances where kneeling is required, the lowering protection can be inactivated in this menu. Activate/inactivate the lowering protection with the display control buttons.

Fleet Limits (Password is Required)

Revolutions Per Minute (RPM) Limit

Only accessible if correct password is entered.

This function makes it possible for the carrier to set an engine speed limit for the fleet. If the engine exceeds this limit, it will be registered, see "Trip data" page 46.

Select **RPM Limit (max)** and set the new engine speed limit in rpm using the control lever buttons (SELECT, ESC, ▲ and ▼).

If the setting fails:

- Press **ESC** and try to do the setting once again.
- If it still fails, perform a diagnosis of the display and engine control unit, see “Fault Diagnostics”, page 48.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

Speed Limit

Only accessible if correct password is entered.

This function makes it possible to set a road speed limit for the fleet. If the bus exceeds this speed it is registered, see "Trip data" page 46. Go to "Speed Limit (max)" and set the new speed limit using the control lever buttons (SELECT, ESC, ▲ and ▼).

The message "Transfer complete" is shown

If the setting fails:

- Press **ESC** and try to do the setting once again.
- If it still fails, perform a diagnosis of the display and engine control unit, see “Fault Diagnostics”, page 48.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

Fuel Target

Only accessible if correct password is entered.

This function makes it possible to set a fuel consumption target for the fleet. For information about fuel consumption for a journey, see "Trip data" page 46.

If the setting fails:

Select "On" or "Off" using the control lever buttons (SELECT, ESC, ▲ and ▼).

- Press **ESC** and try to do the setting once again.
- If this still fails, perform a diagnosis of the display and engine control unit, see “Fault Diagnostics”, page 48.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

Fleet ID (Password Required)

Only accessible if correct password is entered.

Using this menu the carrier can enter the vehicle ID within the fleet if required. Data registered in the engine control unit is then registered for that ID.

Set the fuel consumption target using the control lever buttons (SELECT, ESC, ▲ and ▼) 13 digits must be entered (a space is entered for unused positions).

If the setting fails:

- Press **ESC** and try to do the setting once again.
- If it still fails, perform a diagnosis of the display and engine control unit, see “Fault Diagnostics”, page 48.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

Day Running Lights

Day running lights can be switched off in this menu. This means that if the day running lights have been set to the **OFF** position, the dipped beam must be turned on and off using the lights knob in the panel.

Select **ON** or **OFF** using the control lever buttons (SELECT, ESC, ▲ and ▼).

Fault Diagnostics

A list of the bus's control units is shown in the “Fault diagnostics” menu.

Switch between control units using ▲ and ▼. **SELECT** confirms choice of control unit. To abort press **ESC**.

1 During the time that the selected control unit is being called up, the display indicates that "Data transfer is taking place".

2 If the selected control unit has no faults "No faults" is displayed. Press **ESC** to return to the previous menu.

3 If the selected control unit does not reply within 5 seconds the following is shown "Operation failed" in the display.

- Press **ESC** and try to do the setting one again, see point 1.
- If it still fails, perform a diagnosis on the display and selected control unit.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

4 The following is shown if the selected control unit has a fault code:

- Which control unit it applies to
- Which parameter or component is faulty
- Which type of fault it is
- If the fault is active or inactive
- How many times the fault has been registered since the last reset

5 If there are several fault codes or fault messages for the same control unit, you can scroll through the fault codes using ▲ and ▼. "Reset all" is shown last in the list. This resetting only clears the fault codes for the selected control unit.

6 A maximum of 20 fault codes/messages can be shown for a control unit. To see more than the first 20, one or more messages must be deleted.

7 Press **SELECT** to show more information on the fault code. Fault codes are shown numerically here. If the fault is inactive, among other things, the time and date when it occurred are shown:

- **MID:** Module Identification.
- **PID:** Identification of parameters.
- **PPID:** Volvo unique Identification of parameters.
- **SID:** Identification of components.
- **PSID:** Volvo unique Identification of components.
- **FMI:** Identification of fault IDs.

Instrument Cluster Self Test

Telltales Test

1 Select "Telltales test".

2 The control lamps light for approx. 5 seconds.

3 Abort the test using **ESC**.

Gauges test

Gauges Test

1 Select "Gauge test".

2 Gauge function is checked through the entire of the gauge. The pointers move back and forth a couple of times between the end positions. The pointers should not show a particular value; this is only a function check.

3 Stop the test using **ESC**.

Display Test

1 Select "Display test".

2 The whole display lights up for 3 seconds after which it blacks out for 3 seconds. After this a checkered pattern is displayed for 3 seconds. The checkered pattern is then displayed inverted for 3 seconds.

3 Stop the test using **ESC**.

Speaker Test

1 Select "Speaker test".

2 The ticking sound of the direction indictors is heard from the instrument panel load speakers.

3 Cancel the test using **ESC**.

Part Number

A list of the bus control units is shown in the menu "Part number".

1 Select a part using ▲ and ▼.

2 Confirm with **SELECT**.

3 Return using **ESC**.

Status test

Note: This menu is only for use by workshops.

MENU: Diagnostics, Status test.

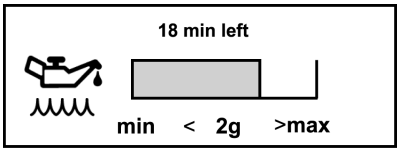
Messages on the bus data link are shown in the menu “Status test”.

Status test	
MID:	**128**
PID:	**091**
Data:	**000**

Calibration number

Number to identify the version of software equipped to the electronic engine control.

Oil Level



T0031743

The bus has an electronic oil level sensor.

The bar marked "min" and "max" shows the engine oil level. The figure in the centre shows how many gallons there are between min. and max. levels.

The engine oil level is also shown when the key is turned to the ignition position. This is shown for 5 seconds or until the engine is started.

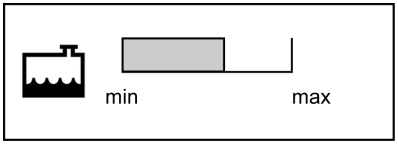
In order to show the correct value, the engine must have been turned off for at least 70 minutes. If the engine has not been turned off sufficiently long, the display shows how many minutes remain until a correct value can be shown.

If the oil level is below "min" a warning symbol is shown.

Note: There is no warning for low oil level while driving.

Coolant Level

Shows how much coolant is in the container.



T0088895

Lining Wear Prediction

See operating instructions Engine Braking System (EBS) for more information about lining wear prediction.

Vehicle ID

The bus chassis id and the vehicle number that were entered into the menu are displayed. For more information see “Fleet ID (Password Required)”, page 47.

Total Data

The total values show the engine's total values to date, logged during the lifetime of the engine control unit. The values that are saved are:

- Total distance
- Total fuel used
- Total engine hours.
- Total idle time
- Total engine revolutions

If the transfer should fail, then "No data" is shown when data is missing.

Trip Data

There are 12 different trip data stored.

- Trip distance.
- Trip fuel avg.
- Trip fuel acc.
- Trip over revolutions.
- Trip uneconomic revolutions.
- Trip fuel uneconomic revolutions.
- Trip average speed.
- Trip over speed.
- Trip engine hours.
- Trip idle time.
- Trip idle fuel.
- Trip cruise.

Switch between values using ▲and ▼. Return to previous menu using **ESC** . If the transfer should fail, then "No data" is shown when data is missing.

Note: In the menu "Trip data" you can find information saved since the last reset.

Reset Trip Data (Password Required)

Only accessible if correct password has been entered.

Reset all information in menu “Trip data”. Follow the instructions on the display.

56 Menu Password

Enter Password

Certain functions in the display are protected by a password. There are three passwords for the display. The factory set passwords are:

Workshop Password 1	0000
Owner Password	1234
Workshop Password 2	5678

When “Workshop, password 1” is entered, it is possible to reset values (*applies to a number of functions*).
With both the other passwords the following menus are accessible:

- Fleet limit: engine speed
- Fleet limit: speed
- Fleet limit: fuel
- Fleet ID

When the starter key has been in the stop position for more than 60 seconds or if the battery has been disconnected, the password must be entered again in order to access all functions.
It is not possible to remove the password protection for certain functions. This can only be done at a authorized VOLVO workshop or Prevost service center/provider.

1 Set the first digit using ▲and ▼

2 Scroll to the next digit using **SELECT**

3 Scroll back using **ESC**

Note: Change password to prevent unauthorized access to menus, see “Change Password (If Password is Required)”, page 42.

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