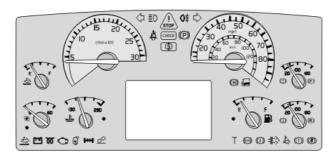
# **Operating Instructions**

# **Display**



# **VOLVO**

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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.



### **Display and Stalk Switch Control Lever**

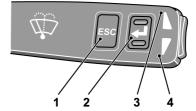
The Driver Information Display (DID) is located in the middle of the instrument cluster. The display shows vehicle messages and information about the bus, and from it you can control some of the bus functions.



W3079694

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.



### 2 General

### **Getting Started**

### **Display Fields**

The display is divided into three fields:

#### 1 Menu and message field

Menus, stop, warning and information messages are shown.

#### 2 Favorite display/Clock

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.

To the right, the clock is shown.

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

#### 3 Status line/Odometer

To the left, current status symbols are shown. To the right, the odometer is shown.

(1)			
(2)			
(3)			

### Navigating in the DID

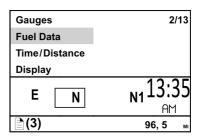
The DID lights up when the starter key is turned. If there are any vehicles messages, they will be shown in the top field. The most important message is shown first. The message order number is shown in the top right corner. For example, 2/13 indicates that the message now being displayed is the second of thirteen active messages. For more information on messages see "General Information on Vehicle Messages", page 4.

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 4.



### 4 Vehicle Messages and Symbols

### **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 31.

For more detailed technical information about vehicle messages, see "Fault Diagnostics", page 41.

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

### **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.



#### 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.



T3014364

### **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.

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.

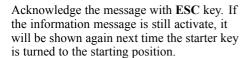


T3014365

### 6 Vehicle Messages and Symbols

### Stop at the next bus stop Message

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.





W3079585

# **Status Symbols**

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

	· · · · · · · · · · · · · · · · · · ·
Symbol	Meaning
$\mathfrak{M}$	Pre-Heat active
((4))	Alarm clock activated
	Message active
MI	Odometer, miles
KM	Odometer, kilometers
CC	Cruise control active
AC	Climate control active
(A)	Auxiliary brake position A
(1)	Auxiliary brake position 1
(2)	Auxiliary brake position 2
(3)	Auxiliary brake position 3
(B)	Auxiliary brake position B
	Auxiliary brake in operation

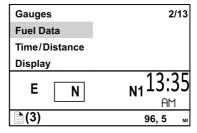
### 8 Use the Display Menus

### **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.

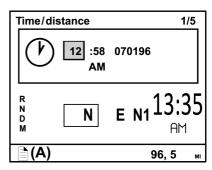
### Scroll Between the Menus

- 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**



### **Changing Settings**

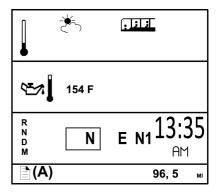
- 1 Use ▲/▼ to change set values (for example, number of hours).
- 2 Pressing **SELECT** confirms the choice.
- 3 Use **ESC** to Scroll the cursor to the previous digit or abort the setting process.



T0031652

#### **Example: Change a Setting**

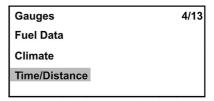
The Favorite Display is shown. To set the alarm clock to go off at 02:33. Proceed as follows:



T0031653

1

Go to the menus using **SELECT** Place the cursor on Time/Distance using  $\triangle$  and  $\blacktriangledown$ .



### 10 Use the Display Menus

#### 2

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



T8056484

#### 3

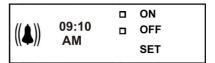
Scroll to the alarm clock using and  $\blacktriangle$  and  $\blacktriangledown$ .



T0031656

#### 4

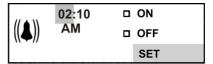
Press **SELECT** Scroll down to **SET** using  $\blacktriangle$  and  $\blacktriangledown$ .



T8056483

#### 5

Press **SELECT** The hours are marked. Scroll to the required hour using  $\blacktriangle$  and  $\blacktriangledown$ .



T8056482

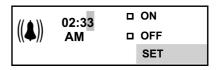
#### 6

Press **SELECT** The first digit for minutes is marked. Scroll to the required digit using  $\blacktriangle$  and  $\blacktriangledown$ .



#### 7

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



T0031660

#### 8

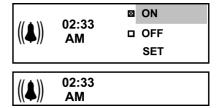
Press SELECT "ON" is marked.



T0031661

#### 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.



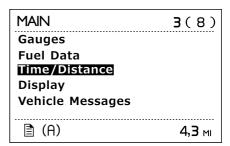
T0031662

#### 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.



#### 12 Menu Overview

#### 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

#### DisplaySettings

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

### Menu Overview 13

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

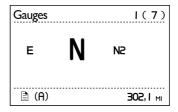
• Password

Enter password

### 14 Menu Gauge

### **Gear Engaged**

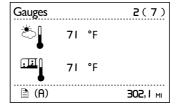
(This gauge is extra equipment. Only buses equipped with an I-shift transmission.) Information about the engaged gear, gear lever position, available gears and such like. For further information, see separate driver instructions for "I-shift".



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.



#### Voltmeter

Battery voltage.

If the engine is running and the voltage drops below 20 V, a fault message is displayed together with the information/warning symbol.



T0031667

### Pressure, Primary Tank

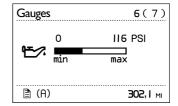
If the pressure in the primary tank drops **below 100 PSI (7 bar)**, a fault message is displayed together with the information/warning symbol.



T0031668

### **Engine Oil Pressure**

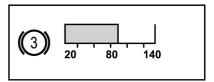
If the pressure drops below 25 PSI (1.7 bar) a fault message is displayed together with the stop symbol and red light.



W3079554

### **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.



#### 16 Menu Fuel Data

### **Fuel Used**

For setting the units, see "Units", page 32.

#### 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 39.

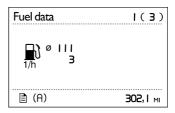
**Note:** At idle, no bar is shown and the fuel consumption is displayed in liter/hr (alternatively gallons/hr).

#### 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.



### 18 Menu Climate

### 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 ▼).

Passenger:	
Climate system	ON
Pause heating	OFF

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 ▼).

Passenger:		
Temperature	62 F	
Roof Fan	+1	

### 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 ▼).

Passenger:	
Roof Heat	AUTO
Floor Fan	N/A

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,  $\triangle$  and  $\nabla$ ).

Passenger:		
Extra Heating	N/A	

T0031685

### Floor Fan, Driver

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

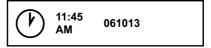
Activate/deactivate the floor fan using the control lever buttons (SELECT, ESC,  $\blacktriangle$  and  $\blacktriangledown$ ).

Driver:		
Floor Fan	N/A	

### 20 Menu Time/Distance

#### **Clock and Date**

Shows current time and date. For setting the formats, 12 hr alt. 24 hr and date, see "Time/Date", page 33.



T0031687

#### 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

**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

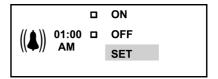
Note: The alarm clock cannot be set while driving. If the starter key is in stop position and it takes more than 30 seconds between button depressions, the setting process is aborted. The menu "Alarm clock" is available even when the starter key is in stop position. The menu is activated by pressing 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,  $\triangle$  and  $\nabla$ ). When the clock has been activated, the symbol for activated alarm clock is shown on the display status bar.

#### 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.



T0031688



### 22 Menu Time/Distance

### **Trip Meter**

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

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

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

<u></u>	1	2	
mi	142.0	20.0	

T0031690

### **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

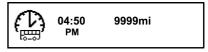
#### Reset Average Speed

Press "SELECT". Reset average speeds 1 and 2 respectively using the control lever buttons (SELECT, ESC,  $\blacktriangle$  and  $\blacktriangledown$ ).

3	1	2	
F by	18.5	52.2	

### **Estimated Time of Arrival**

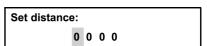
The estimated time of arrival is calculated as the remaining distance divided by the vehicle's average speed.



T0031692

#### **Set Distance**

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



#### 24 Menu Time/Distance

### **Aftertreatment (ATS)**

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

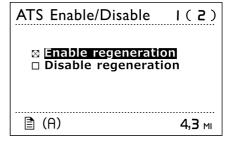
The aftertreatment menu allows the operator to request a parked regeneration, check the status of the aftertreatment system, and cancel a regeneration.

ATS	1(4)
ATS Enable/Disable Request regeneration System conditions Soot/Ash level	
 ∄ (A)	4,3 м

W3079746

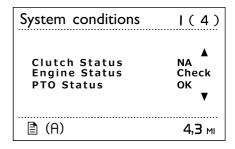
### Aftertreatment (ATS) Enable/Disable

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".

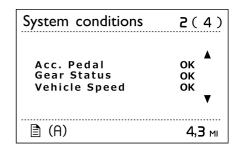


### **System Conditions**

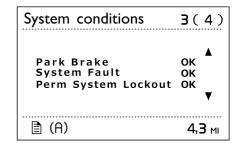
The system conditions menus are used to help determine why a parked regeneration failed.



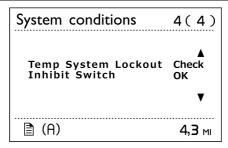
W3079741



W3079742



### 26 Menu Time/Distance



### **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**

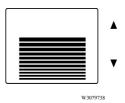
This function is used to activate "Favorite Display".

### **Backlight**

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

#### Set backlight

- Increase or decrease the backlight in the display using ▲/▼.
- 2 Confirm with **SELECT**.
- 3 **ESC** aborts the setting process.



# 28 Menu Display

# **Favorite Display, Set**

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

No display	
Gear engaged	
Outside temperature	
Temperature, engine oil	<b>₹</b>
Fuel used	
Stage information	$\mapsto$
Remaining fuel	→ E
Trip meter	lmi

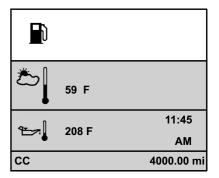
Pressure, primary tank	€.‡.=
Pressure, 3rd brake circuit	<b>(3)</b>
Average speed	(mph
Estimated time of arrival	

T0031745

#### 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.



T0031746

# 30 Menu Display

# 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  $\triangle$  and  $\nabla$ .

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.

# 32 Menu Vehicle Messages

## Language

Select the desired language using the control lever buttons (SELECT, ESC,  $\blacktriangle$  and  $\blacktriangledown$ ).

#### **Units**

#### Distance

Select to show distances in Km or miles using the control lever buttons (SELECT, ESC,  $\blacktriangle$  and  $\blacktriangledown$ ).

### **Fuel Consumption**

Select, using the control lever buttons (SELECT, ESC,  $\triangle$  and  $\nabla$ ), to show fuel consumption in Km/l, l/100 Km, miles per gallon (mpg) for IMP gallons or as miles per gallon (mpg) for US gallons.

### **Temperature**

Select, using the control lever buttons (SELECT, ESC,  $\triangle$  and  $\nabla$ ), 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,  $\blacktriangle$  and  $\blacktriangledown$ ).

#### **Date Display**

Select, using the control lever buttons (SELECT, ESC,  $\blacktriangle$  and  $\blacktriangledown$ ), from the various date formats.

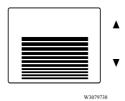
- year, month, day (yymmdd)
- day, month, year (**ddmmyy**)
- month, day, year (mmddyy)

# 34 Menu Vehicle Messages

# **Display light**

#### Contrast

Set the contrast using the control lever buttons (SELECT, ESC,  $\triangle$  and  $\nabla$ ).



#### **Backlight**

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



#### Standard / Inverted

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,  $\blacktriangle$  and  $\blacktriangledown$ ).

# **Change Password (If Password is Required)**

First enter the current password, see "Enter Password", page 48.

- 1 Mark the password to be changed using  $\blacktriangle$  and  $\blacktriangledown$ .
- 2 Confirm with **SELECT**.
- 3 Enter the first digit using  $\triangle$  and  $\nabla$ .
- 4 Scroll to the next digit using **SELECT**.
- 5 Scroll back in the menu using **ESC**.

# 36 Menu Vehicle Settings

### **Traction Control**

Select On or Off using the control lever buttons (SELECT, ESC,  $\triangle$  and  $\blacktriangledown$ ). When traction control is turned off, a warning symbol is shown.



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## 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 41.
- Contact a authorized VOLVO workshop if necessary or Prevost service center/provider.

## 38 Menu Vehicle Settings

#### **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 41.
- Contact a workshop if necessary.

#### **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,  $\blacktriangle$  and  $\blacktriangledown$ ).

- 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 41.
- Contact a workshop if necessary.

# 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 41.
- Contact a workshop if necessary.

# **Day Running Light**

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,  $\triangle$  and  $\blacktriangledown$ ).

# **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 workshop if necessary.
- 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.

# 42 Menu Diagnosis

- 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: Identification of control unit

### **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**.

# 44 Menu Diagnosis

### **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**.

### Oil Level

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.

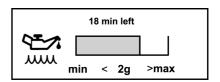
In order to show the correct value, the engine must have been turned off for at least 70 minutes. If the engine has not been turned off sufficiently long, the display shows how many minutes remain until a correct value can be shown.

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

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

# **Lining Wear Prediction**

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



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## 46 Menu Data Log

### **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 40.

### **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 uneconomy revolutions
- Trip fuel uneconomy revolutions
- Trip average speed
- Trip overspeed:
- 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.

#### 48 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 35.



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