



INSTALLATION INSTRUCTION

Edition A	Language English	Operation no. 370-903	Issuer ART	Date 2026-08-31	Page 1/9
Kit no.				Option no.	
Applies to models A25J, A30J, A35J, A40J, A45J, A50J, A60J, JA30J, JA40J					

CAN bus interface for EU Data Act Direct Access

Introduction

Read and understand the safety instructions in the Operator's Manual and Service Information for the machine.

The Installation Instruction is based on the use of special tools, E-tools and standard tools generally available.

Regarding bolted joints which are not listed here, see "Volvo standard tightening torques".

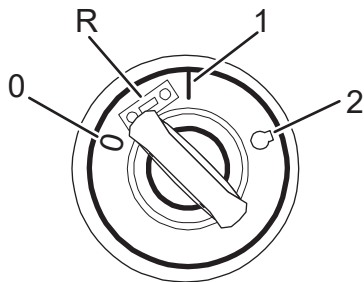
Volvo Construction Equipment will not accept any responsibility if any lifting devices, tools or working methods are used other than those described in this publication.

Volvo works with continuous improvement of the machine's environmental performance.

Description

The machine CAN bus interface can be used when it is necessary to send information from machine in a machine-readable format. This is a one-way communication from the machine. To access the interface follow steps 1-13.

- 1 Turn the ignition to position 0.
- 2 Wait until the machine has shut down all systems and that the information display units in the cab are off.



V1092158

Fig.1 Key switch in cab

- 0 Off position
- R Radio position
- 1 Operating position
- 2 Starting position

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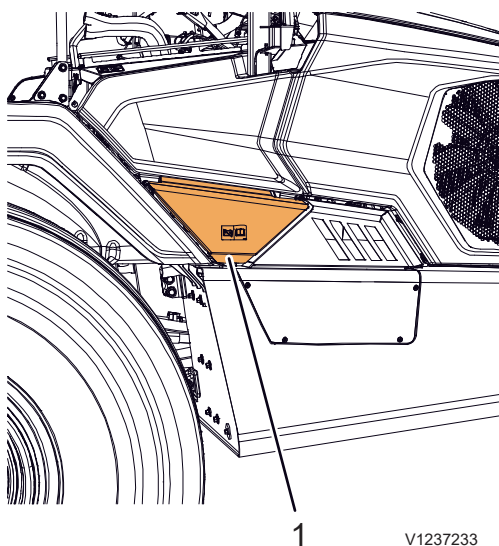


Fig.2

- 1 Service distribution box

- 3 Open the service distribution box hatch located on the right side of the tractor unit.

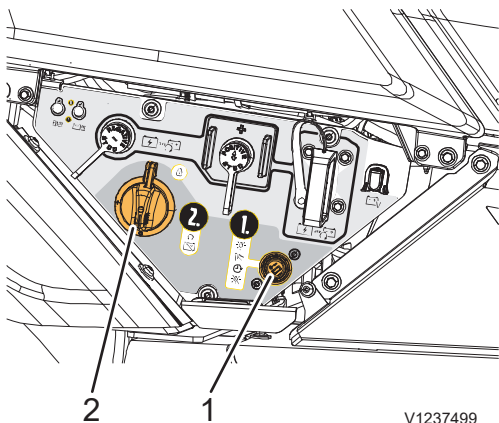


Fig.3

- 1 Button/lamp for controlled machine shutdown
- 2 Service switch

- 4 If the button/lamp (item 1 in Fig 3) is lit, press the button and wait until the lamp stops flashing. This can take between 2-300 seconds.
- 5 Turn the main power switch (item 2 in Fig 3) to position 0. Lock the switch with a padlock.

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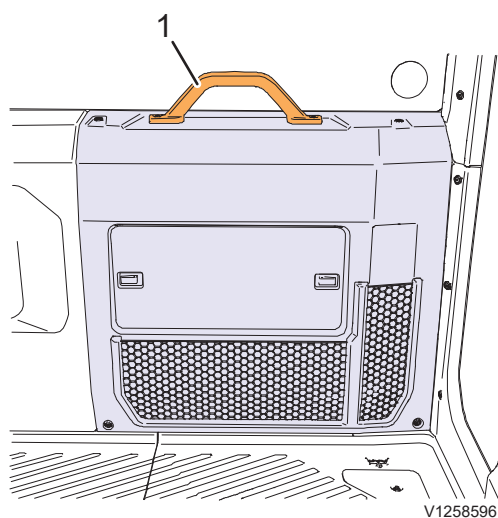


Fig.4 Plastic cover on rear cab wall.

1 Handle

- 6 Remove the handle above the plastic cover on the rear cab wall.

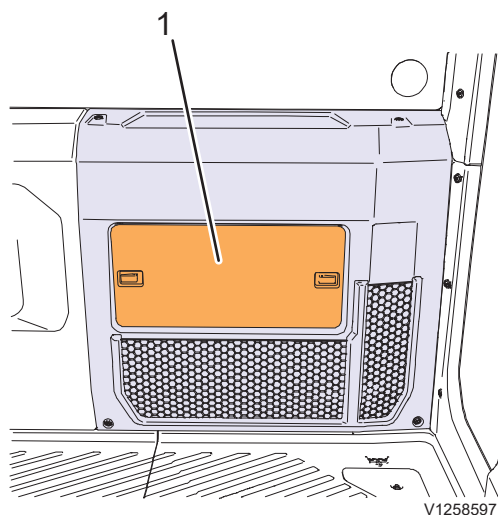


Fig.5

1 Fuse panel cover

- 7 Remove the fuse panel cover on the rear cab wall.

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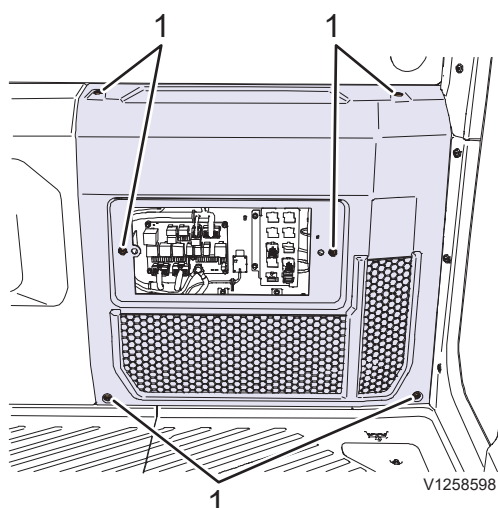


Fig.6 Right plastic cover on the rear cab wall.

1 Plastic rivets

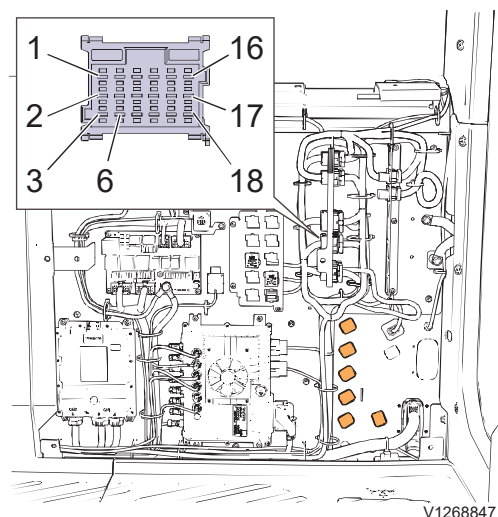


Fig.7 OC05 connector pin description and location.

8 Remove right plastic cover on the rear cab wall.

9 To connect a body builder to the CAN bus interface, the connection is made through connector OC05, pin 11 and 12. To avoid any disturbance, attached wires must be twisted 45 turns/meter. The attached CAN bus needs to be terminated with a 120 Ohm resistor in the end.

Table 1.

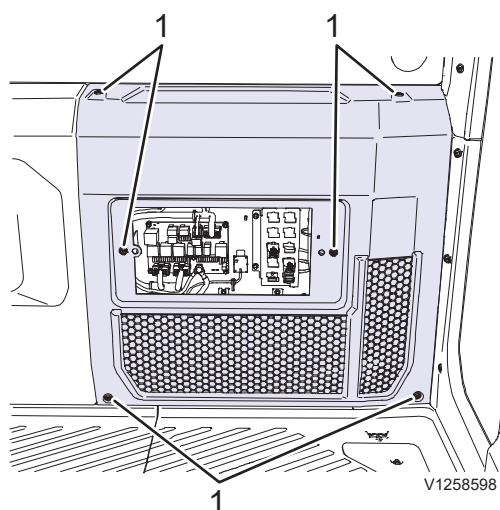
Description	Connector
ATLH - Attachment link, CAN bus H	OC05:11
ATLL - Attachment link CAN bus L	OC05:12

To connect with the correct pin terminal, it is recommended to use pin terminals according to Table 2.

Table 2.

Pin terminal	Wire size (mm2)
Tab Terminal (VOE978295), TE Connectivity 1-963745-1	0,5 - 1
Tab Terminal (VOE978296), TE Connectivity 1-963746-1	1 - 2,5
Cable Terminal (VOE982695), TE Connectivity 1-963745-1	2,6 - 4

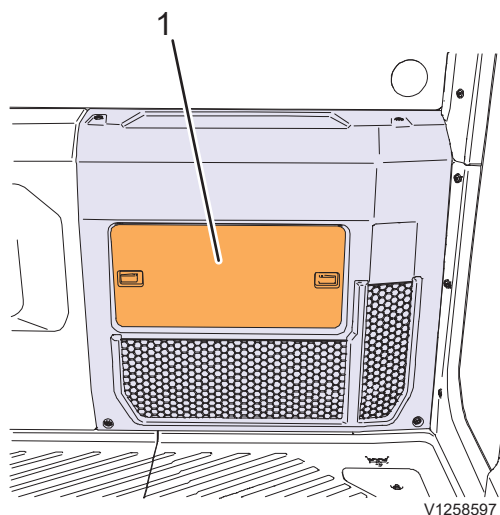
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10 Install the plastic cover.

Fig.8 Right plastic cover on the rear cab wall.

1 Plastic rivets.



11 Install the fuse panel cover.

Fig.9

1 Fuse panel cover

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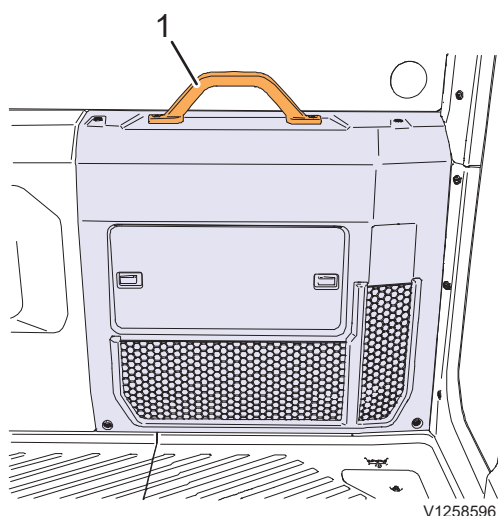


Fig.10 Plastic cover on rear cab wall.

1 Handle

- 12 Install the handle above the plastic cover on the rear cab wall.
- 13 Connect the main electric power by removing the padlock and turning the service switch (see item 2 in Fig 3) to position 1. Close the hatch to the service distribution box.

CAN Signal Description

Table 3. Models A25J-A60J

Message name	Cycle Time (ms)	29-bit ID	Start bit	Length (bit)	Signal names	Scaling	Offset	Description	Unit
VDS	1000	0x18FEE8D8	0	16	Compass Bearing	0.0078125	0	Machine direction	Degrees
			48	16	Altitude	0.125	-2500	Machine Altitude	Meter
CCVS	100	0x18FEF1D8	2	2	Parking brake switch			0 -> Parking brake released 1 -> Parking brake engaged	Parking brake status
			8	16	Wheel Based Speed	0.00390625	0		kmph
VEP1	1000	0x18FEF7D8	32	16	Battery Potential	0.05	0	Battery voltage, 24V system	Voltage
HOURS	1000	0x18FEE5D8	0	32	Engine Total Hours of Operation	0.05	0		Hours
VDHR	1000	0x18FEC1D8	0	32	High Resolution Total Vehicle Distance	5	0		Meters
MOS_ART_0	100	0x18FF10D8	0	16	Articulation Angle	0.1	-90		Degrees
			16	3	Body Position			0 -> Unknown 1 -> Down 2 -> Up	Body state

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Message name	Cycle Time (ms)	29-bit ID	Start bit	Length (bit)	Signal names	Scaling	Offset	Description	Unit
MOS_Comm on_0	100	0x18FF00D8	0	4	Vehicle Mode			0 -> Hibernate 1 -> Parked 2 -> Living 3 -> Accessory 4 -> Pre-running 5 -> Cranking 6 -> Running	Vehicle mode
AMB	1000	0x18FEF5D8	24	16	Ambient Air Temperatue	0.03125	-273		Degree Celsius
ETC2	100	0x18F005D8	24	8	Current Gear	1	-125	0 -> Neutral >0 -> Forward <0 -> Reverse	Gear
DM1	1000	0x18FECAD8	2	2	Amber Warning Lamp			0 -> Not active 1 -> Active	Check notification
			4	2	Red Stop Lamp			0 -> Not active 1 -> Active	Warning notification
TD	1000	0x18FEE6D8	0	8	Seconds	0.25	0		Seconds
			8	8	Minutes	1	0		Minutes
			16	8	Hours	1	0		Hours
			24	8	Month	1	0		Month
			32	8	Day	0.25	0		Day
			40	8	Year	1	1985		Year
LFC	1000	0x18FEE9D8	32	32	Engine Total Fuel Used	0.5	0		Liters
EEC1	20	0x18F004D8	24	16	Engine Speed	0.125	0		rpm
LFE	100	0x18FEF2D8	0	16	Fuel Rate	0.05	0		Liter/hour
VP1	1000	0x18FEF3D8	0	32	Latitude	0.0000001	-210		Degrees
			32	32	Longitude	0.0000001	-210		Degrees
DD1	1000	0x18FEFCD8	8	8	Fuel Level 1	0.4	0		Percent
At1T1I	1000	0x18FE56D8	0	8	Aftertreatment 1 Diesel Exhaust Fluid Tank 1 Level	0.4	0		Percent

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Table 4. Models JA30J and JA40J

Message name	Cycle Time (ms)	29-bit ID	Start bit	Length (bit)	Signal names	Scaling	Offset	Description	Unit
VDS	1000	0x18FEE8D8	0	16	Compass Bearing	0.0078125	0		Degrees
			48	16	Altitude	0.125	-2500		Meter
CCVS	100	0x18FEF1D8	2	2	Parking Brake Switch			0 -> Parking brake released 1 -> Parking brake engaged	Parking brake status
			8	16	Wheel Based Speed	0.00390625	0		kmph
VEP1	1000	0x18FEF7D8	32	16	Battery Potential	0.05	0		Voltage
HOURS	1000	0x18FEE5D8	0	32	Engine Total Hours of Operation	0.05	0		Hours
VDHR	1000	0x18FE1D8	0	32	High Resolution Total Vehicle Distance	5	0		Meter
MOS_ART_0	100	0x18FF10D8	0	16	Articulation Angle	0.1	-90		Degrees
			16	3	Body Position			0 -> Unknown 1 -> Down 2 -> Up	Body state
MOS_Common_0	100	0x18FF00D8	0	4	Vehicle Mode			0 -> Hibernate 1 -> Parked 2 -> Living 3 -> Accessory 4 -> Pre-running 5 -> Cranking 6 -> Running	Vehicle Mode
AMB	1000	0x18FEF5D8	24	16	Ambient Air Temperature	0.03125	-273		Degrees Celsius
ETC2	100	0x18F005D8	24	8	Current Gear	1	-125	0 -> Neutral >0 -> Forward <0 -> Reverse	Gear
DM1	1000	0x18FECAD8	2	2	Amber Warning Lamp			0 -> Not active 1 -> Active	Check notification
			4	2	Red Stop Lamp			0 -> Not active 1 -> Active	Warning notification

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Message name	Cycle Time (ms)	29-bit ID	Start bit	Length (bit)	Signal names	Scaling	Offset	Description	Unit
TD	1000	0x18FEE6D8	0	8	Seconds	0.25	0		Seconds
			8	8	Minutes	1	0		Minutes
			16	8	Hours	1	0		Hours
			24	8	Month	1	0		Month
			32	8	Day	0.25	0		Day
			40	8	Year	1	1985		Year
VEP4	1000	0x18FC87D8	0	16	Hybrid Battery Pack Remaining Charge	0.0025	0		Percent
EVSE1DCS1	1000	0x18FAB8D8	0	4	DC Charging State			0 -> Idle, charging not active 1 -> Charging active 3 -> Downgraded charging 12 -> Completed/Terminating 14 -> Fault	Charging status
MOS_Common_2	100	0x18FF40D8	0	16	Transmission input speed	0.1	-3000		rpm
			16	16	Total actual battery power	22	-900000	>0 —> Power to battery <0 —> Power consumed from battery	Watt
VP1	1000	0x18FEF3D8	0	32	Latitude	0.0000001	-210		Degrees
			32	32	Longitude	0.0000001	-210		Degrees
EVDCCIP	1000	0x18FA60D8	24	16	EV Full Charge Time Remaining	10	0		Seconds