

Document Title: SE5501, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE5501, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-325

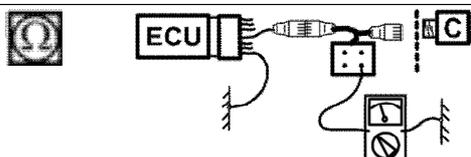
Tools:

- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9990014 Break out harness](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [88890016 Break out harness](#)
- [88890019 Template](#)

Description

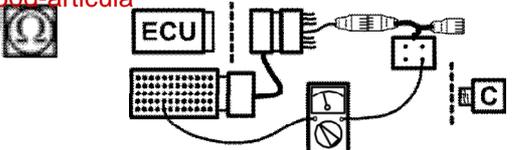
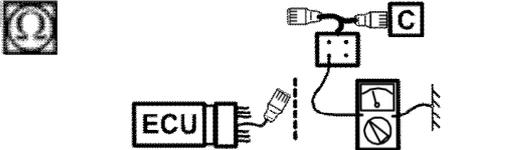
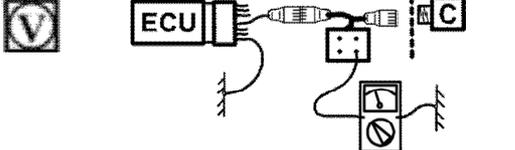
Function	Parking brake
References	Wiring diagram, SE5501
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU MID187), check
Miscellaneous	Connector versus adapter/template conversion: <div style="text-align: center;"> A = 1 B = 2 C = 3 </div>

Control measurement

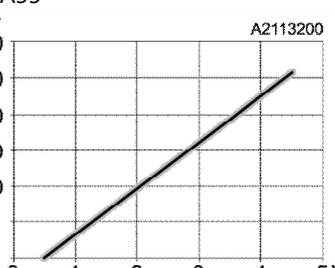
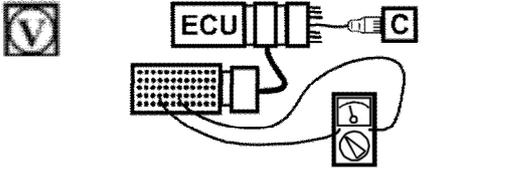
Measuring point	Correct value	Condition	Test method
2 - 	≈ 0 Ω		

Sample of manual. Download All 3401 pages at:

<https://www.arespairmanual.com/downloads/volvo-t450d-articulated-haulers-service-manual/>

	$\approx 0 \Omega$		
<p>1 - </p> <p>3 - </p>	$\approx \infty \Omega$		
<p>1 - </p>	$\approx 5 V$		

Verification measurement

Measuring point	Correct value	Condition	Test method
<p>VB4 - V2A55 \approx</p> <p>psi bar</p> <p>4351 300</p> <p>3626 250</p> <p>2901 200</p> <p>2175 150</p> <p>1450 100</p> <p>725 50</p> <p>0 0</p> 			

Document Title: SE6403, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE6403, description and measuring

Showing Selected Profile

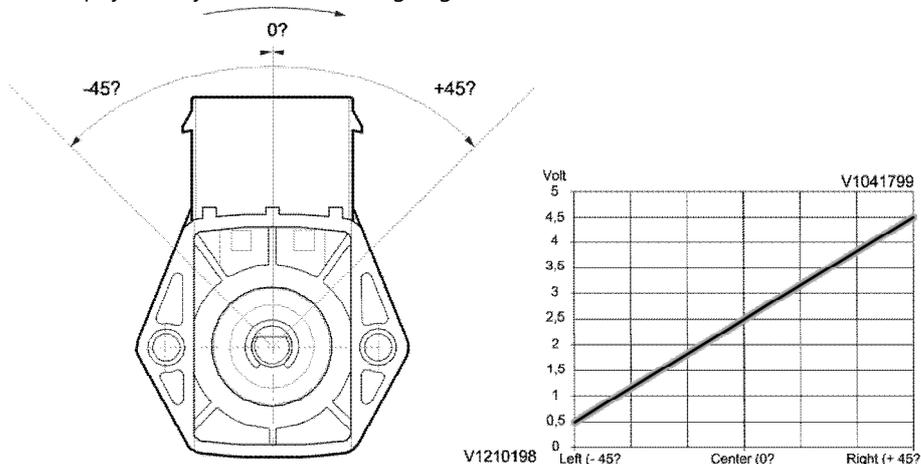
Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-102

Tools:

- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9990014 Break out harness](#)
- [88830139 Break out harness](#)

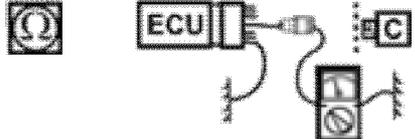
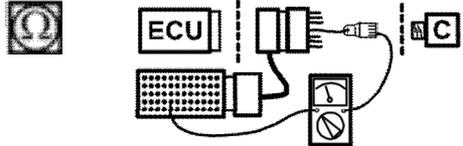
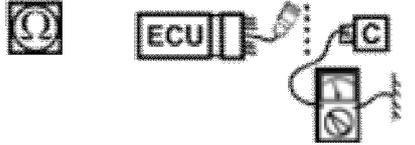
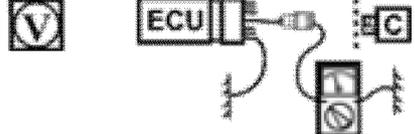
Description

Function	Read off the angle in the steering linkage.
References	Wiring diagram, SE6403 Steering angle sensor, checking and adjusting
Tech Tool tests	46075-3 Sensors ATC, check
Miscellaneous	<p>Sensor physical layout and measuring angle:</p>  <p>The sensor is placed in the steering linkage. The angle in the linkage is less than the actual steering joint angle. [T1] ⚠ Measuring on the sensor axle angle and the machine steering angle will give</p>

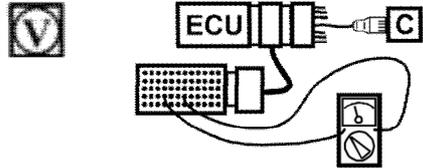
different results, see description below.

[T1] **Note!** Always refer to the verification measurement below when installed in the machine

Control measurement

Measuring point	Correct value	Condition	Test method
2 - 	$\approx 0 \Omega$		
4 - V2B15	$\approx 0 \Omega$		
1 -  4 - 	$\approx \infty \Omega$		
1 - 	$\approx 5 V$		

Verification measurement

Measuring point	Correct value	Condition	Test method
See below:			

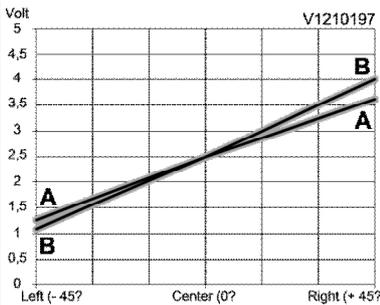
V2B15 – V2A54:

A25 — A30 (marked A in the figure)

- Steering fully to the left ($\approx -45^\circ$) 1,2 – 1,4 V
- Steering Straight ($\approx 0^\circ$) $\approx 2,5 V$
- Steering fully to the right ($\approx +45^\circ$) 3,5 – 3,7 V

A35 — A60 (marked B in the figure)

- Steering fully to the left ($\approx -45^\circ$) 1,0 – 1,2 V
- Steering Straight ($\approx 0^\circ$) $\approx 2,5 V$
- Steering fully to the right ($\approx +45^\circ$) 3,9 – 4,1 V



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SE8301, description and measuring

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-533

Tools:

[88890074 Multimeter](#)

[9998699 Adapter](#)

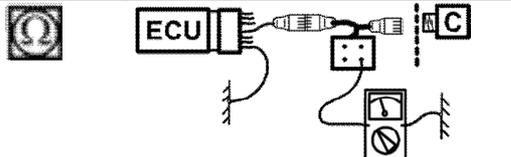
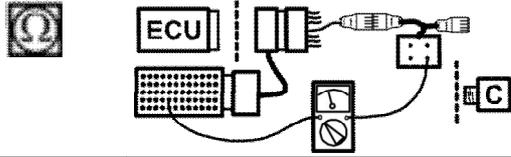
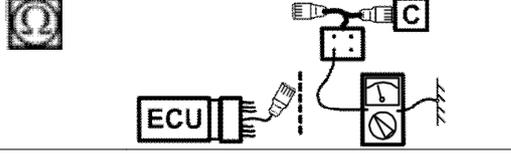
[9990062 Cable](#)

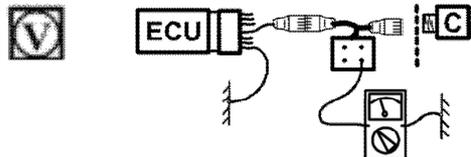
[9998534 Break out harness](#)

Description

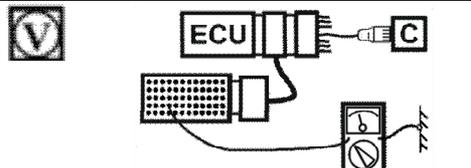
Function	Senses if cab door is open or closed.
References	Wiring diagram, SE8301
Tech Tool tests	38108-3 Sensor values Instrument control unit (HMIM MID140), check
Miscellaneous	

Control measurement

Measuring point	Correct value	Condition	Test method
4 - 	≈ 0 Ω		
2 - HMIM:1	≈ 0 Ω		
1 -  2 - 	≈ ∞ Ω		

	$\approx U_{bat}$		
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Verification measurement

Measuring point	Correct value	Condition	Test method
HMIM:1 - 	$\approx U_{bat}$ (closed) $\approx 0 V$ (open)		

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SE8501, description and measuring

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Valid for option/configuration			
Model	Option no.	Option	Configuration
A40G Volvo	11371182	Cab, operator seat	Air suspension, Grammer

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	340001	341999

Op nbr 302-535

Tools:

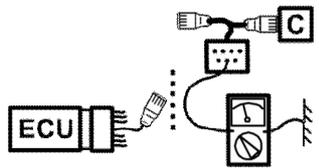
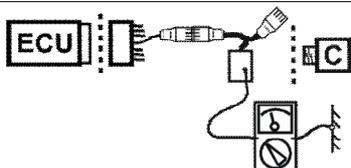
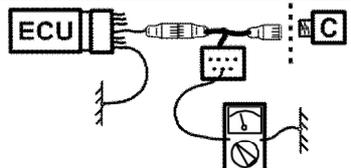
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9998567 Break out harness](#)

Description

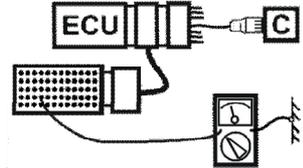
Function	Senses if seatbelt is buckled in the operator's seat.	<p>VB29, signal position closed VB28, signal not closed</p>
References	Wiring diagram WD801 Connectors, position	
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check	
Miscellaneous		

Control measurement

Measuring point	Correct value	Condition	Test method
AA:4 – VB28 AA:5 – VB29	≈ 0 Ω		

AA:3 –  AA:4 –  AA:5 – 	$\approx \infty \Omega$		 
AA:4 –  AA:5 – 	$\approx \infty \Omega$		 
AA:3 – 	$\approx U_{bat}$		 

Verification measurement

Measuring point	Correct value	Condition	Test method
VB28 – 	$\approx U_{bat}$ (belt fastened) $\approx 0 V$ (belt not fastened)		 
VB29 – 	$\approx 0 V$ (belt fastened) $\approx U_{bat}$ (belt not fastened)		

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Valid for option/configuration			
Model	Option no.	Option	Configuration
A40G Volvo	11371182	Cab, operator seat	Air suspension, Grammer
A40G Volvo	85181	Cab, operator seat	Air suspension, KAB

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-535

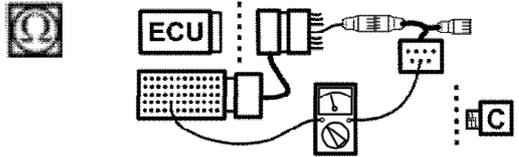
Tools:

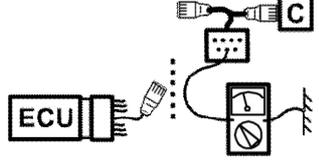
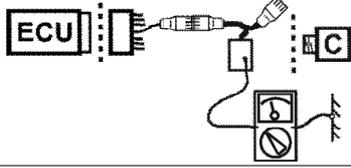
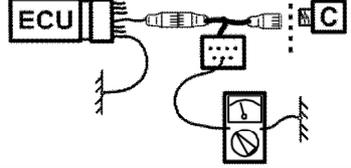
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9998567 Break out harness](#)

Description

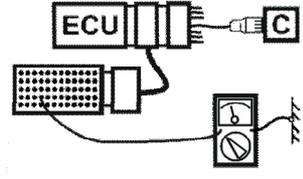
Function	Senses if seatbelt is buckled in the operator's seat.
References	Wiring diagram: KAB seat: FX1096 Grammer seat: FX1098
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	

Control measurement

Measuring point	Correct value	Condition	Test method
AA:4 – VB28 AA:5 – VB29	≈ 0 Ω		

AA:3 –  AA:4 –  AA:5 – 	$\approx \infty \Omega$		 
AA:4 –  AA:5 – 	$\approx \infty \Omega$		 
AA:3 – 	$\approx U_{bat}$		 

Verification measurement

Measuring point	Correct value	Condition	Test method
VB28 – 	$\approx U_{bat}$ (belt fastened) $\approx 0 V$ (belt not fastened)		 
VB29 – 	$\approx 0 V$ (belt fastened) $\approx U_{bat}$ (belt not fastened)		

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SE8502, description and measuring

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Valid for option/configuration			
Model	Option no.	Option	Configuration
A40G Volvo	85181	Cab, operator seat	Air suspension, KAB

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	340001	341999

Op nbr 302-582

Tools:

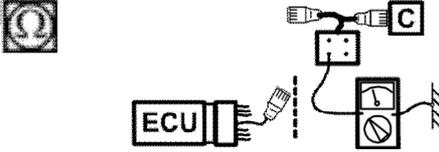
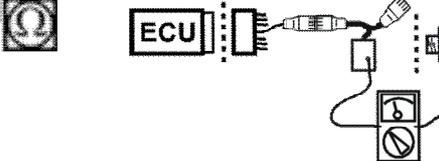
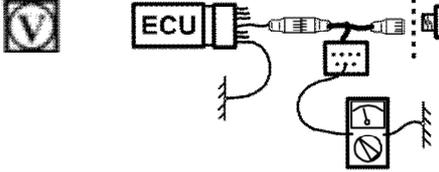
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9998567 Break out harness](#)

Description

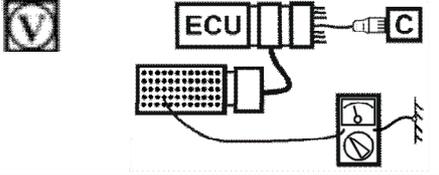
Function	Sense if the operator is sitting in the seat.			<p>VB66, signal position seat cushion</p>
References	Wiring diagram WD801 Connectors, position			
Tech tests	30101-3	Sensor values	Vehicle control unit (VECU, MID187), check	
Miscellaneous	KAB seat			

Control measurement

Measuring point	Correct value	Condition	Test method
AA:7 – VB66	≈ 0 Ω		

AA:2 – 	$\approx \infty \Omega$		
AA:7 – 	$\approx \infty \Omega$		
AA:2 – 	$\approx U_{bat}$		

Verification measurement

Measuring point	Correct value	Condition	Test method
VB66 – 	$\approx U_{bat}$ (loaded) $\approx 0 V$ (not loaded)		

Document Title: SE8502, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
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SE8502, description and measuring

Showing Selected Profile

Valid for option/configuration			
Model	Option no.	Option	Configuration
A40G Volvo	11371182	Cab, operator seat	Air suspension, Grammer
A40G Volvo	85181	Cab, operator seat	Air suspension, KAB

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

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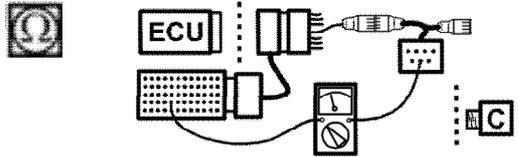
Tools:

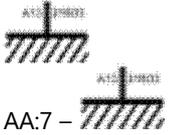
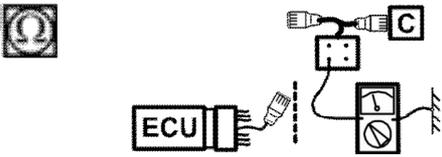
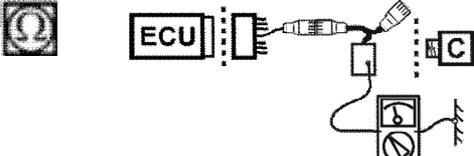
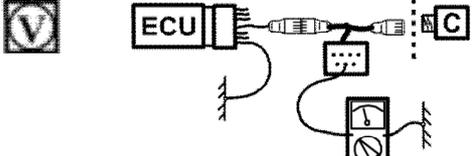
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9998567 Break out harness](#)

Description

Function	Sense if the operator is sitting in the seat.
References	Wiring diagram: KAB seat: FX1096 Grammer seat: FX1098
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	

Control measurement

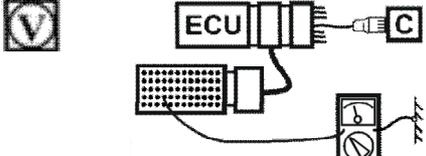
Measuring point	Correct value	Condition	Test method
AA:7 – VB66	≈ 0 Ω		

AA:2/ AA:3[T1] ① - $\approx \infty \Omega$ 			
AA:7 - 	$\approx \infty \Omega$		
AA:2/ AA:3[T2] ① - $\approx U_{bat}$ 			

[T1]KAB seat AA:2, Grammer seat AA:3

[T2]KAB seat AA:2, Grammer seat AA:3

Verification measurement

Measuring point	Correct value	Condition	Test method
VB66 - 	$\approx U_{bat}$ (loaded) $\approx 0 V$ (not loaded)		

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SE8702, description and measuring

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-059

Tools:

- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9993893 Break out harness](#)
- [9990008 Measuring equipment](#)

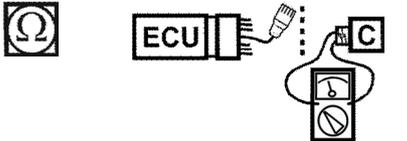
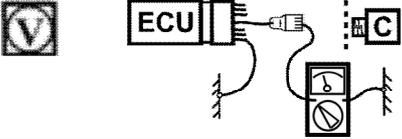
Description

Function	Measures temperature of the evaporator.	
References	Wiring diagram, SE8702	
Tech Tool tests	87376-3 Sensor values, ECC, check	
Miscellaneous		

ECC:50, signal
ECC:48, ground

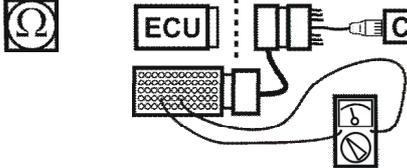
Control measurement

Measuring point	Correct value	Condition	Test method
ECC:50 – 2 ECC:48 – 1	≈ 0 Ω		
1 –	≈ 0 Ω		

1-2	$\approx 3 \text{ k}\Omega$ [T1] ⓘ (20 °C / 68 °F)		
2- 	$\approx 5 \text{ V}$		

[T1]See SE8702 resistance values table below

Verification measurement

Measuring point	Correct value	Condition	Test method
ECC:50 – ECC:48	$\approx 3 \text{ k}\Omega$ [T1] ⓘ (20 °C / 68 °F)		

[T1]See SE8702 resistance values table below

SE8702 resistance values

Air temp. (°C)	Air temp. (°F)	Resistance	Air temp. (°C)	Air temp. (°F)	Resistance
-40	-40	83.1 kΩ	+30	+86	2.0 kΩ
-30	-22	43.4 kΩ	+40	+104	1.3 kΩ
-20	-4	23.7 kΩ	+50	+122	0.9 kΩ
-10	+14	13.5 kΩ	+60	+140	0.6 kΩ
0	+32	8.0 kΩ	+70	+158	430 Ω
+10	+50	4.9 kΩ	+80	+176	310 Ω
+20	+68	3.1 kΩ	+90	+194	230 Ω

Document Title: SE8705, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
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SE8705, description and measuring

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-328

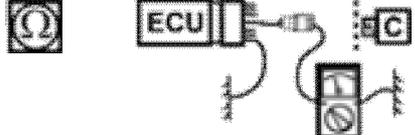
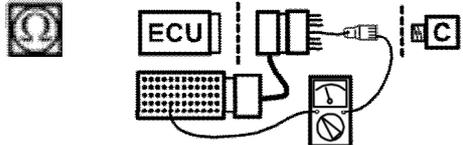
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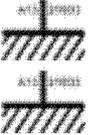
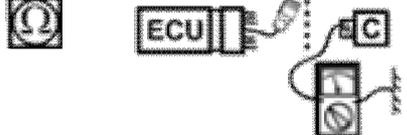
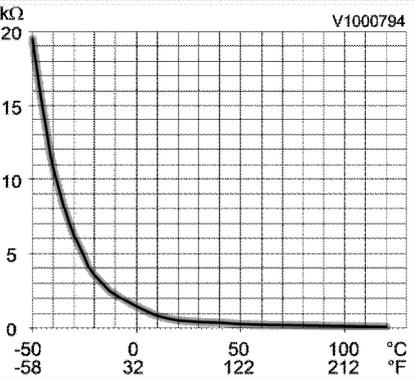
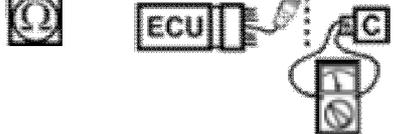
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9990014 Break out harness](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9990008 Measuring equipment](#)

Description

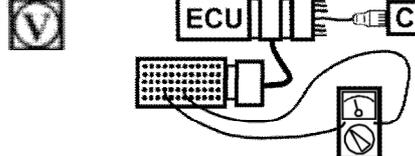
Function	Senses outdoor temperature.
References	Wiring diagram, SE8705
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	

Control measurement

Measuring point	Correct value	Condition	Test method
2 - 	≈ 0 Ω		
1 - VB42	≈ 0 Ω		

	$\approx \infty \Omega$		
<p>1 – 2 $\approx 0.6 \text{ k}\Omega$ (20 °C / 68 °F)</p> 			
	$\approx 5 \text{ V}$		

Verification measurement

Measuring point	Correct value	Condition	Test method
VB42 – VA54	$\approx 0.5 - 4.5 \text{ V}$ [T1] ⓘ $\approx 3.2 \text{ V}$ (20 °C / 68 °F)		

[T1] 0.5 V = high temperature, 4.5 V = low temperature

Document Title: SE8706, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

[Go back to Index Page](#)

SE8706, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-060

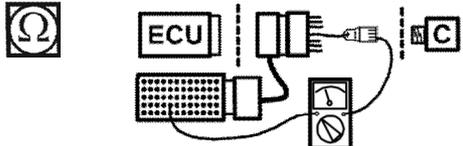
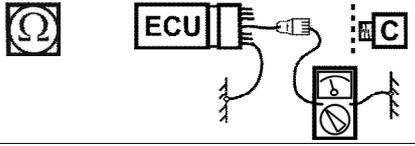
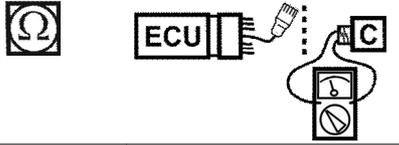
Tools:

- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9993893 Break out harness](#)
- [9990062 Cable](#)
- [9990008 Measuring equipment](#)

Description

Function	Measures temperature in the cab.
References	Wiring diagram, SE8706
Tech Tool tests	87376-3 Sensor values, ECC, check
Miscellaneous	

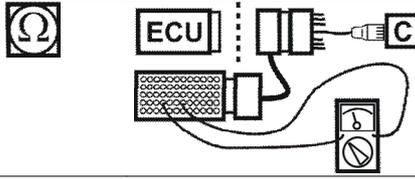
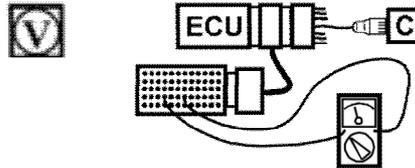
Control measurement

Measuring point	Correct value	Condition	Test method
ECC:26 – 2 ECC:48 – 1	≈ 0 Ω		
1 - 	≈ 0 Ω		
1 – 2	≈ 3 kΩ [T1] ⓘ (20 °C / 68 °F)		



[T1]See SE8706 resistance values table below

Verification measurement

Measuring point	Correct value	Condition	Test method
ECC:26 – ECC:48	$\approx 3.1\text{ k}\Omega$ [T1] ⓘ (20 °C / 68 °F)		
ECC:26 – ECC:48	$\approx 2,6\text{ V}$ (20 °C / 68 °F)		

[T1]See SE8706 resistance values table below

SE8706 resistance values

Air temp. (°C)	Air temp. (°F)	Resistance	Air temp. (°C)	Air temp. (°F)	Resistance
-30	-22	44.3 kΩ	+20	+68	3.1 kΩ
-20	-4	24.2 kΩ	+30	+86	2.0 kΩ
-10	+14	13.8 kΩ	+40	+104	1.3 kΩ
0	+32	8.1 kΩ	+50	+122	0.9 kΩ
+10	+50	5.0 kΩ	+60	+140	0.6 kΩ

Document Title: SE8708, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE8708, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-061

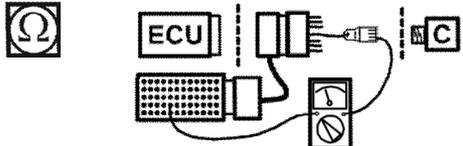
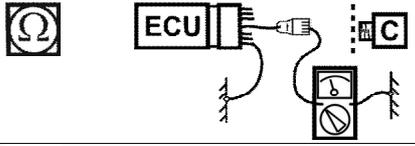
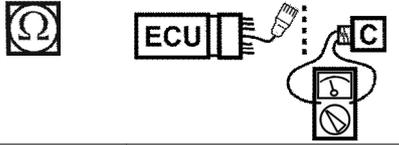
Tools:

[88890074 Multimeter](#)
[9998699 Adapter](#)
[9990062 Cable](#)
[9993893 Break out harness](#)
[9990008 Measuring equipment](#)

Description

Function	Measures temperature in the air channel.
References	Wiring diagram, SE8708
Tech Tool tests	87376-3 Sensor values, ECC, check
Miscellaneous	

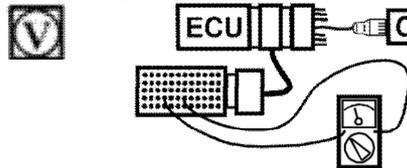
Control measurement

Measuring point	Correct value	Condition	Test method
ECC:49 – 2 ECC:48 – 1	≈ 0 Ω		
1 - 	≈ 0 Ω		
1 – 2	≈ 3 kΩ[T1] ⓘ (20 °C / 68 °F)		



[T1] See SE8708 resistance values table below

Verification measurement

Measuring point	Correct value	Condition	Test method
ECC:49 – ECC:48	$\approx 2.6 \text{ V}$ (20 °C / 68 °F)		

SE8708 resistance values

Air temp. (°C)	Air temp. (°F)	Resistance	Air temp. (°C)	Air temp. (°F)	Resistance
-40	-40	83.1 kΩ	+30	+86	2.0 kΩ
-30	-22	43.4 kΩ	+40	+104	1.3 kΩ
-20	-4	23.7 kΩ	+50	+122	0.9 kΩ
-10	+14	13.5 kΩ	+60	+140	0.6 kΩ
0	+32	8.0 kΩ	+70	+158	430 Ω
+10	+50	4.9 kΩ	+80	+176	310 Ω
+20	+68	3.1 kΩ	+90	+194	230 Ω

Document Title: SE8709, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE8709, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-007

Tools:

[88890074 Multimeter](#)

[9998699 Adapter](#)

[9990062 Cable](#)

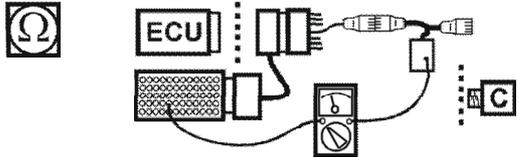
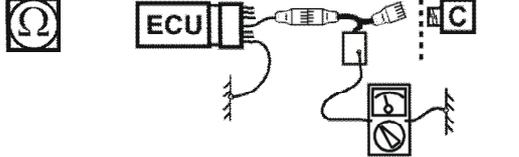
[9993893 Break out harness](#)

[9990191 Break out harness](#)

Description

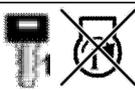
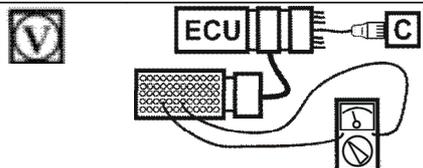
Function	Measures pressure of the refrigerant in the air conditioning (AC).
References	Wiring diagram, SE8709
Tech Tool tests	87376-3 Sensor values, ECC, check
Miscellaneous	

Control measurement

Measuring point	Correct value	Condition	Test method
ECC:48 – 1 ECC:1 – 2 ECC:20 – 3	≈ 0 Ω		
 1 –	≈ 0 Ω		



Verification measurement

Measuring point	Correct value	Condition	Test method
ECC:1 – ECC:48	$\approx 0.8 \text{ V}$ (normal system pressure)		
	$\approx 0.1 - 4.5 \text{ V}$ [T1] ⓘ		

[T1] See SE8709 voltage values table below

SE8709 voltage values

Pressure (kPa)	Pressure (psi)	Voltage	Pressure (kPa)	Pressure (psi)	Voltage
0	0	0.1 V	2000	290.1	3.0 V
500	72.5	0.8 V	2500	362.6	3.7 V
1000	145.0	1.6 V	3000	435.1	4.5 V
1500	217.6	2.3 V			

Document Title: SE9102/SE9103, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE9102/SE9103, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-605

Tools:

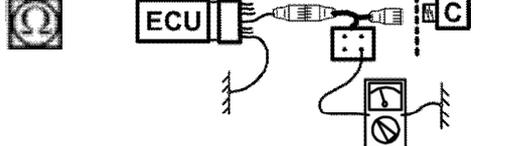
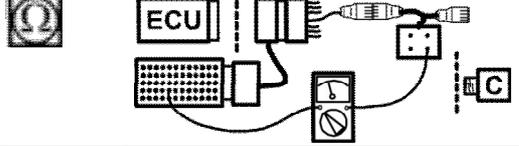
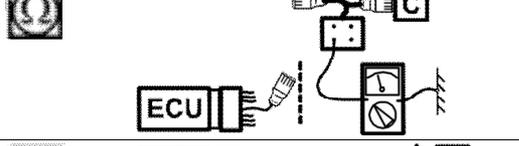
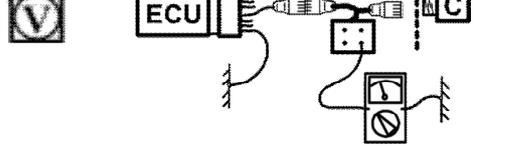
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [9990014 Break out harness](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88890016 Break out harness](#)
- [88890019 Template](#)

Description

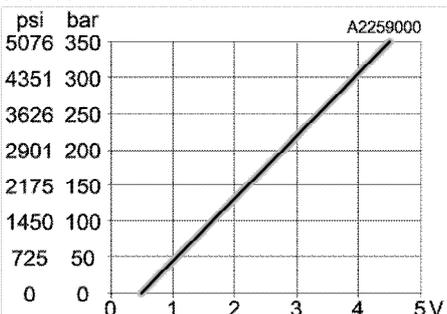
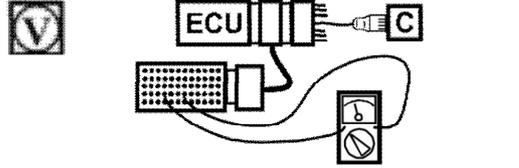
Function	Senses oil pressure from ground-dependent and engine-dependent pumps
References	Wiring diagram: SE9102 SE9103
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	Connector versus adapter/template conversion: A = 1 B = 2 C = 3

Control measurement

Measuring point	Correct value	Condition	Test method
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	$\approx 0 \Omega$		
SE9102: 3 – VB6 SE9103: 3 – VB7	$\approx 0 \Omega$		
 	$\approx \infty \Omega$		
	$\approx 5 V$		

Verification measurement

Measuring point	Correct value	Condition	Test method
SE9102: VB6 – VA50 \approx SE9103: VB7 – VA50 \approx 			

Document Title: SE9104, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE9104, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-103

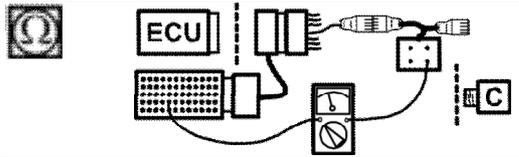
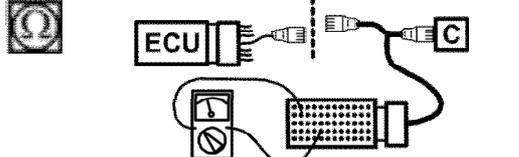
Tools:

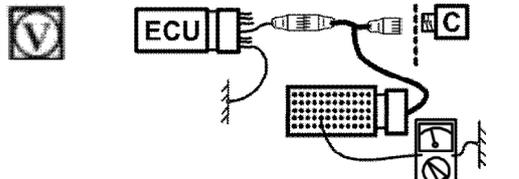
- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [88830139 Break out harness](#)
- [88890167 Break out harness](#)

Description

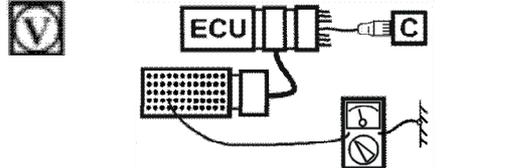
Function	Monitors the level in the hydraulic oil tank.
References	Wiring diagram, FX1009
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	Combined sensor with SE9105 SE9105, description and measuring

Control measurement

Measuring point	Correct value	Condition	Test method
2(44 på adapter) – VB56	$\approx 0 \Omega$		
1 – 2 (43 –44 på adapter)	$\approx 0 \Omega$ (normal level) $\approx \infty \Omega$ (low level)		

<p>1(43 på adapter) – $\approx U_{bat}$</p> 			
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Verification measurement

Measuring point	Correct value	Condition	Test method
<p>VB56 – </p>	<p>$\approx U_{bat}$ (normal level) $\approx 0 V$ (low level)</p>		

Document Title: SE9105, description and measuring	Function Group: 3021	Information Type: Service Information	Date: 4/11/2025
Profile: A40G Volvo			

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SE9105, description and measuring

Showing Selected Profile

Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
A40G Volvo	Braås	322001	329999
A40G Volvo	Braås	342001	349999
A40G Volvo	Braås	352001	359999
A40G Volvo	Pederneiras	752001	759999

Op nbr 302-104

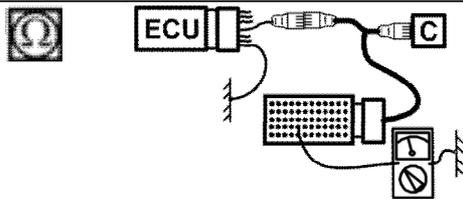
Tools:

- [88890074 Multimeter](#)
- [9998699 Adapter](#)
- [9990062 Cable](#)
- [9990014 Break out harness](#)
- [88830139 Break out harness](#)
- [9990062 Cable](#)
- [9998699 Adapter](#)
- [88890167 Break out harness](#)

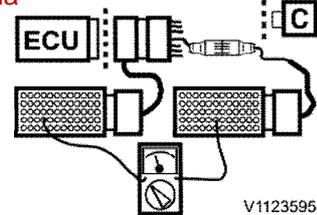
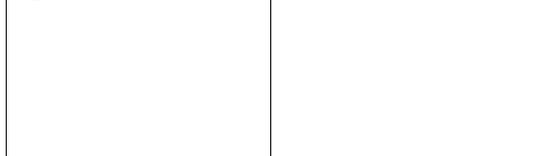
Description

Function	Senses oil temperature in the hydraulic oil tank
References	Wiring diagram, FX1009
Tech Tool tests	30101-3 Sensor values Vehicle control unit (VECU, MID187), check
Miscellaneous	Combined sensor with SE9104 SE9104, description and measuring

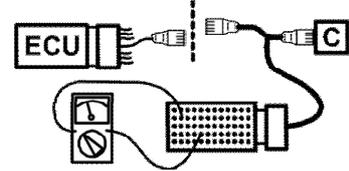
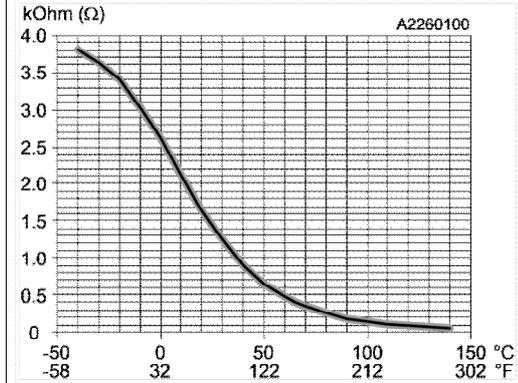
Control measurement

Measuring point	Correct value	Condition	Test method
4(46 on adapter) - 	≈ 0 Ω		

VB39
3(45 on adapter) - $\approx 0 \Omega$



3 - 4 (45-46 on adapter) \approx



Verification measurement

Measuring point	Correct value	Condition	Test method																																	
VB39 - VA55 \approx <table border="1"> <caption>Graph Data: Voltage vs Temperature</caption> <thead> <tr> <th>Temperature (°C)</th> <th>Temperature (°F)</th> <th>Voltage (V)</th> </tr> </thead> <tbody> <tr><td>-40</td><td>-40</td><td>4.8</td></tr> <tr><td>-20</td><td>-4</td><td>4.7</td></tr> <tr><td>0</td><td>32</td><td>4.5</td></tr> <tr><td>20</td><td>68</td><td>4.2</td></tr> <tr><td>40</td><td>104</td><td>3.5</td></tr> <tr><td>60</td><td>140</td><td>2.5</td></tr> <tr><td>80</td><td>176</td><td>1.8</td></tr> <tr><td>100</td><td>212</td><td>1.2</td></tr> <tr><td>120</td><td>248</td><td>0.9</td></tr> <tr><td>140</td><td>284</td><td>0.8</td></tr> </tbody> </table>	Temperature (°C)	Temperature (°F)	Voltage (V)	-40	-40	4.8	-20	-4	4.7	0	32	4.5	20	68	4.2	40	104	3.5	60	140	2.5	80	176	1.8	100	212	1.2	120	248	0.9	140	284	0.8			
Temperature (°C)	Temperature (°F)	Voltage (V)																																		
-40	-40	4.8																																		
-20	-4	4.7																																		
0	32	4.5																																		
20	68	4.2																																		
40	104	3.5																																		
60	140	2.5																																		
80	176	1.8																																		
100	212	1.2																																		
120	248	0.9																																		
140	284	0.8																																		