

<b>FMI</b>	<b>Description</b>	<b>SAE-text</b>
0	Too high value.	Valid data, but higher than normal operating range.
1	Too low value.	Valid data, but lower than normal operating range.
2	Incorrect data.	Intermittent or incorrect data.
3	Electric problem.	Abnormally high voltage or short-circuiting to higher voltage.
4	Electric problem.	Abnormally low voltage or short-circuiting to lower voltage.
5	Electric problem.	Abnormally low current or open circuit.
6	Electric problem.	Abnormally high current or short-circuiting to frame ground.
7	Mechanical problem.	Incorrect response from mechanical system.
8	Mechanical problem or electric problem.	Abnormal frequency.
9	Communication error.	Abnormal update rate.
10	Mechanical problem or electric problem.	Abnormally large variations.
11	Unknown error.	Non-identifiable error.
12	Component problem.	Defective unit or component.
13	Incorrect calibration.	Values outside calibration values.

14	Unknown error.	Special instructions.
15	Unknown error.	Reserved for future use.

## Error codes engine (engine alternative Volvo)

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
94/FMI	3.6	PID94/ FMI	Sensor fuel pressure short-circuited to voltage, ground, or open circuit.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/2:3  Volvo TAD1250VE: D794/B:16	-
94/FMI	3.8	PID94/ FMI	Low fuel pressure (feed).	No limitation.	Change fuel filter.  <b>Change fuel prefilter.</b>  Check if pressure can be built up with the hand pump.	-	-

						Drain water separator.		
						Clean metal filter in the fuel feed's hose connection on the engine.		
97/1	2.1	PID97/ 1	Water in fuel.	No limitation.	Check fuel filter and fuel pre-filter.	–	–	
						Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/2:4	
97/3	2.9	PID97/ 3	Sensor water in fuel short-circuiting to ground or open circuit.	No limitation.	Check the sensor.	Volvo TAD1250VE: D794/B:8	–	
98/FMI	5.7	PID98/ FMI	Low oil level.	No limitation.	Check oil level.	–	Engine, menu 6	
						Check cable harness between the control unit and the component.	Volvo TAD1250VE: D794/B:3, B:4, A:31	
98/FMI	5.9	PID98/ FMI	Sensor oil level short-circuiting to voltage, ground, or open circuit.	No limitation.	Check the sensor.		ENGINE, menu 6	

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
100/1	6.6	PID100 /1	Low engine oil pressure.	Engine is shut off.	Check oil level. Change oil filter.  Check the system pressure valves and the safety valve in the lubrication system. Check the sensor.	–	ENGINE, menu 6
100/3	3.1	PID100 /3	Sensor oil pressure cable short-circuited to volt- age.	No limitation.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:14 Volvo TAD1250VE: D794/B:11	ENGINE, menu 6
100/4	3.1	PID100 /4	Sensor oil pressure, open circuit, or short-circuiting to ground.	No limitation.	Check cable har- ness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:14 Volvo TAD1250VE: D794/B:11	ENGINE, menu 6

102/0	3.5	PID102 /0	Boost pressure too high.	No limitation.	Check the turbo-charger.  Check the sensor.  Check fuel quality and injectors.	–	ENGINE, menu 6
102/1	3.5	PID102 /1	Boost pressure too low.	Reduced engine power.	Check the air filter.  Check the turbo-charger.  Check the sensor.  Check the fuel feed pressure.	–	ENGINE, menu 6
102/3	3.4	PID102 /3	Sensor boost pressure, cable short-circuited to voltage.	Engine smokes more than normal during acceleration or when load- ed.	Check cable har- ness between the control unit and the component.  Check the sensor.	Volvo TWD1240VE: D794/1:3  Volvo TAD1250VE: D794/A:22	ENGINE, menu 7
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnosti menu</b>

102/4	3.4	PID102 /4	Sensor boost pressure, cable short-circuited to ground or open circuit.	Engine smokes more than normal during acceleration or when load- ed.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:3  Volvo TAD1250VE: D794/A:22	ENGINE, menu 7
105/0	6.2	PID105 /0	High charge-air temperature.	Engine is shut off.	Check coolant level.  <b>Check that the charge-air cooler is clean.</b>  <b>Check thermostat.</b>  <b>Check the sensor.</b>	–	ENGINE, menu 7
105/3	3.2	PID105 /3	Sensor charge-air temperature, cable short-circuited to voltage or open circuit.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:2  Volvo TAD1250VE: D794/A:47	ENGINE, menu 7
105/4	3.3	PID105 /4	Sensor charge-air temperature, cable short-circuited to	No limitation.	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/1:2  Volvo TAD1250VE: D794/A:47	ENGINE, menu 7

			ground or open circuit.			<b>Check the sensor.</b>		
106/ FMI	3.4	PID106 /FMI	Sensor boost pressure, short-circuiting to voltage, frame ground, or open circuit.	Engine smokes more than normal during acceleration or when load- ed.	Check cable harness between the control unit and the component.	<b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:3  Volvo TAD1250VE: D794/A:22	ENGINE, menu 6

106/ FMI	3.5	PID106 /FMI	Boost pressure too high.	No limitation.	Check cable harness between the control unit and the component.	<b>Check the sensor.</b>	–	ENGINE, menu 6
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Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagn menu
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110/0	6.1	PID110 /0	High coolant temperature.	Volvo TWD1240VE:  Engine is shut off.  Volvo TAD1250VE: No limitation.	Check coolant level.  Check that radiator is clean.  Check thermostat.  Check the cap on the	–	ENGINE, men
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					expansion tank.				
					Check if there's air in coolant system.				
					Check the sensor.				
110/3	3.3	PID110 /3	Sensor coolant temperature, cable short-circuited to voltage or open circuit.	Preheating is activated even if engine is warm.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:25  <b>Volvo TAD1250VE: D794/B:27</b>		ENGINE	men
110/4	3.3	PID110 /4	Sensor coolant temperature, cable short-circuited to ground.	Preheating is activated even if engine is warm.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:25  <b>Volvo TAD1250VE: D794/B:27</b>		ENGINE	men
111/1	2.2	PID111 /1	Low coolant level.	Volvo TAD1250VE: Engine is shut off.  <b>Volvo TAD1250VE: No limitation.</b>	Check the coolant level, top up if needed.  <b>Check the sensor.</b>	–		–	–



111/ FMI	2.3	PID111 /FMI	Sensor coolant level, short- circuited to volt- age.	Volvo TWD1240VE:  <b>Engine is shut off.</b>  Volvo TAD1250VE: No limitation.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TWD1240VE: D794/2:7  Volvo TAD1250VE: D794/B:23	-
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153/ FMI	7.7	PID153 /FMI	Crankcase ventilation pressure too high.	No limitation.	Clean crankcase ventilation.  <b>Check wear of cylinder liner, piston, and piston rings.</b>	-	-
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Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
153/ FMI	7.7	PID153 /FMI	Sensor crankcase ventilation pressure, short- circuiting to volt- age, frame ground, or open circuit.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	Volvo TAD1250VE: D794/B:28	-

					Check and charge the batteries.		
158/ FMI	3.9	PID158 /FMI	Low battery voltage.	Engine may be difficult to start.	Check the alternator. Check the battery cables.	–	–
172/ FMI	7.9	PID172 /FMI	Sensor air temperature inlet, short-circuited to voltage, ground, or open circuit.	No limitation.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:2  Volvo TAD1250VE: D794/A:47	ENGINE, menu 7
175/0	5.8	PID175 /0	High engine oil temperature.	Reduced engine power.	Check oil level. Check the lubrication system's thermostat. Check the sensor.	–	ENGINE, menu 7
175/3	3.7	PID175 /3	Sensor oil temperature, cable short-circuited to voltage or open circuit.	No limitation.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:1  Volvo TAD1250VE: D794/A:31, B:3, B:4	ENGINE, menu 7

175/4	3.7	PID175 /4	Sensor oil temperature, cable short-circuited to ground.	No limitation.	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	Volvo TWD1240VE: D794/1:1  Volvo TAD1250VE: D794/A:31, B:3, B:4	ENGINE, menu 7
190/ FMI	2.6	PID190 /FMI	Engine rpm too high.	No limitation.	Ease off throttle or select higher gear.	–	–
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnosis menu</b>
608/ FMI	–	PPID9 8/FMI	Signal error for start and stop.	No limitation.	Check CAN-bus drivetrain.	–	CAN/ POWER,  menu 3
620/3  1079/2	9.3	SID232 /3	Voltage feed to sensors, cable short-circuited to voltage.	Several error codes for defective sensor.  <b>Reduced engine power.</b>  <b>Incorrect instrument values.</b>	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/1:5  Volvo TAD1250VE: D794/B:17	–

620/4		SID232	Voltage feed to sensors, cable short-circuited to ground.	Several error codes for defective sensor.	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/1:4	
1079/3	9.3	/4		<b>Reduced engine power.</b> <b>Incorrect instrument values.</b>		<b>Volvo TAD1250VE. D794/B:17</b>	-
626/3	5.4	PID45/3	Preheating relay, cable short-circuited to volt- age.	Preheating can- not be activated.	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/2:36	ENGINE menu 5
626/4	5.4	PID45/4	Preheating relay, cable short-circuited to ground.	Preheating is al- ways activated.	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/2:36	ENGINE menu 5
626/5	5.4	PID45/5	Preheating relay open circuit on	Preheating can- not be activated.	Check cable harness	Volvo TWD1240VE: D794/2:36	ENGINE menu 5

			cable or defective component.		between the control unit and the component.	Volvo TAD1250VE: D794/B:25	
					<b>Check the relay.</b>		
629/ FMI	9.9	SID254 /FMI	Control unit engine (D794) internal error.	Engine doesn't start.	<b>Engine runs rough.</b>	Change the control unit.	-
						<b>Connection and component</b>	<b>Diagnostic menu</b>
630/ FMI	9.9	SID253 /FMI	Control unit engine (D794) memory error.	Engine doesn't start.	Re-program the control unit.	-	-
636/3	2.5	SID21/3	Sensor rpm camshaft, no signal.	Engine takes longer time to start than normal. Engine runs normally when it has started.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:7, 1:18 Volvo TAD1250VE: D794/B:45, B:46	-

636/8	2.5	SID21/8	Sensor engine rpm, camshaft, abnormal frequency.	Engine takes longer time to start than normal. Engine runs normally when it has started.	Check cable harness between the control unit and <b>the component. Check the sensor.</b>	Volvo  TWD1240VE: D794/1:7, 1:18 Volvo TAD1250VE: D794/B:45, B:46	-
637/2	2.4	SID22/2	Sensor engine rpm, flywheel, irregular signal.	Engine is extremely difficult to start and runs <b>rough, if it starts.</b>	Check cable harness between the control unit and <b>the component. Check the sensor.</b>	Volvo  TWD1240VE: D794/1:30, 1:31 Volvo TAD1250VE: D794/B:37, B:38	ENGINE, menu 2
637/3	2.4	SID22/3	Sensor engine rpm, flywheel, abnormal frequency.	Engine is extremely difficult to start and runs <b>rough, if it starts.</b>	Check cable harness between the control unit and <b>the component. Check the sensor.</b>	Volvo  TWD1240VE: D794/1:30, 1:31 Volvo TAD1250VE: D794/B:37, B:38	ENGINE, menu 2

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
630/ FMI	9.9	SID253 /FMI	Control unit engine (D794) memory error.	Engine doesn't start.	Re-program the control unit.	–	–
636/3	2.5	SID21/3	Sensor rpm camshaft, no signal.	Engine takes longer time to start than normal. Engine runs normally when it has started.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:7, 1:18 Volvo TAD1250VE: D794/B:45, B:46	–
636/8	2.5	SID21/8	Sensor engine rpm, camshaft, abnormal frequency.	Engine takes longer time to start than normal. Engine runs normally when it has started.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:7, 1:18 Volvo TAD1250VE: D794/B:45, B:46	–

637/2	2.4	SID22/2	Sensor engine rpm, flywheel, irregular signal.	Engine is extremely difficult to start and runs rough, if it starts.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:30, 1:31 Volvo TAD1250VE: D794/B:37, B:38	ENGINE, menu 2
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637/3	2.4	SID22/3	Sensor engine rpm, flywheel, abnormal frequency.	Engine is extremely difficult to start and runs rough, if it starts.	Check cable harness between the control unit and the component. Check the sensor.	Volvo TWD1240VE: D794/1:30, 1:31 Volvo TAD1250VE: D794/B:37, B:38	ENGINE, menu 2
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Code	Flash	J1587	Description	Limitation	Action	Connecti componen
637/8	2.4	SID22/ 8	Sensor engine rpm, flywheel, abnormal frequency.	Engine is extremely difficult to start and runs rough, if it starts.	Check cable harness between the control unit and the component. Check that the sensor is correctly connected.	Volvo TWD1240VE: D794/1:30, 1:31 Volvo TAD1250VE: D794/B:37, B:38



639/FMI		SID231/FMI	Communication error with Engine control unit (D794), configuration error.	Engine off: engine cannot be started.	Use diagnostic menu to find incorrect segment.	Volvo
2017/FMI	6.5	PSID201/FMI		Engine on: engine goes to idle and can only be stopped by using the emergency stop.	Check cable harness between the control unit and the component. Check the control unit.	TWD12 D794/2 Volvo TAD125 D794/B B:55
639/FMI		SID231 /FMI	Communication error with Engine control unit (D794), configuration error.	Instruments and controls do not work.	Use diagnostic menu to find incorrect segment.  Check cable harness between the control unit and the component.  Check the control unit.	-
639/FMI		SID240 /FMI	Memory error engine control unit.	It may not be possible to start the engine.	Re-program the control unit.	-
651/2		SID1/2	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has	Check cable harness between the control unit and	Volvo TWD12 D794/1
	7.1					

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnosti menu
					reduced power.	the component. Check the injector.	1:12 Volvo TAD1250VE: D794/A:20, A:24
651/3	7.1	SID1/3	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:11, 1:12 Volvo TAD1250VE: D794/A:20, A:24	-
651/4	7.1	SID1/4	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:11, 1:12 Volvo TAD1250VE: D794/A:20, A:24	-
651/5	7.1	SID1/5	Electric failure,	Engine runs on 5 cylinders, sounds	Check cable harness	Volvo TWD1240VE: D794/1:11,	-

			injector cylinder 1.	rough and has reduced power.	between the control unit and  the component. Check the injector.	1:12 Volvo TAD1250VE: D794/A:20, A:24
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					Check fuel pressure. Check valve clearance. Check cable harness between the control unit and  the component. Check the injector. Perform compression test and check cylinder 1.	Volvo TWD1240VE: D794/1:11, 1:12  Volvo TAD1250VE: D794/A:20, A:24	
651/7	7.1	SID1/7	Incorrect compression or defective injector cylinder 1.	Runs rough at low rpms and low load.			-

Code	Flash	J1587	Description	Limitation	Action	Connection and compo- nent	Diag- nostic menu
				Engine runs on 5 cylinders, sounds rough and	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:11, 1:12 Volvo TAD1250VE: D794/A:20,	-
651/11	7.1	SID1/11	Electric failure, injector cylinder 1.	has reduced power.			-

									A:24	
									Volvo	
652/2	7.2	SID2/2	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.				Volvo	
									TWD1240VE: D794/1:22, 1:12 TAD1250VE: D794/A:20, A:24	-
									Volvo	
652/3	7.2	SID2/3	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.				Volvo	
									TWD1240VE: D794/1:22, 1:12 TAD1250VE: D794/A:12, A:16	-
									Volvo	
652/4	7.2	SID2/4	Electric failure, injector cylinder 1.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.				Volvo	
									TWD1240VE: D794/1:22, 1:12 TAD1250VE: D794/A:12, A:16	-

						Volvo	
				Engine			TWD1240VE:
				runs on 5	Check cable		D794/1:22,
				cylinders,	harness		1:12
				sounds	between the		Volvo
			Electric	rough and	control unit and		TAD1250VE:
			failure,	has	the component.		D794/A:12,
			injector	reduced	Check the		A:16
652/5	7.2	SID2/5	cylinder 1.	power.	injector.		-

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Dia mer
					Check fuel pressure.		
					Check valve clearance.		
					Check cable harness between the control unit and the component.	Volvo	
			Incorrect compression or defective injector	Runs rough at low rpms and low load.	Check the injector. Perform compression test and check cylinder 2.	TWD1240VE: D794/1:22, 1:12 Volvo TAD1250VE: D794/A:12, A:16	-
652/7	7.2	SID2/7	cylinder 2.				
		SID2/		Engine	Check cable	Volvo	
652/11	123DTC7.2	11	Electric failure,	runs on 5 cylinders,	harness between the	TWD1240VE:	-

			injector cylinder 2.	sounds rough and has reduced power.	control unit and the component. Check the injector.	D794/1:22, 1:12 Volvo TAD1250VE: D794/A:12, A:16	
						Volvo	
653/2	7.3	SID3/2	Electric failure, injector cylinder 3.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	TWD1240VE: D794/1:23, 1:12 Volvo TAD1250VE: D794/A:28, A:32	-
						Volvo	
653/3	7.3	SID3/3	Electric failure, injector cylinder 3.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and  <b>the component. Check the injector.</b>	TWD1240VE. D794/1:23, 1:12 Volvo TAD1250VE: D794/A:28, A:32	-
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagno menu</b>

653/4	7.3	SID3/4	Electric failure, injector cylinder 3.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. <b>Check the injector.</b>	Volvo TWD1240VE: D794/1:23, 1:12  Volvo TAD1250VE: D794/A:28, A:32	-
653/5	7.3	SID3/5	Electric failure, injector cylinder 3.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. <b>Check the injector.</b>	Volvo TWD1240VE: D794/1:23, 1:12  Volvo TAD1250VE: D794/A:28, A:32	-
653/7	7.3	SID3/7	Incorrect compression or defective injector cylinder 3.	Runs rough at low rpms and low load.	Check fuel pressure. Check valve clearance. Check cable harness between the control unit and the component. <b>Check the injector. Perform compression test and check cylinder 3.</b>	Volvo TWD1240VE: D794/1:23, 1:12  Volvo TAD1250VE: D794/A:28, A:32	-
653/11	7.3	SID3/11	Electric failure,	Engine runs on 5	Check cable harness	Volvo	-

injector cylinder 3.	cylinders, sounds rough and has reduced power.	between the control unit and the component. Check the injector.	TWD1240VE: D794/1:23, 1:12 Volvo TAD1250VE: D794/A:28, A:32
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Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
654/2	140 DTC 7.4	SID4/2	Electric failure, injector cylinder 4.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:34, 1:24 Volvo TAD1250VE: D794/A:52, A:56	-
654/3	7.4	SID4/3	Electric failure, injector cylinder 4.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:34, 1:24 Volvo TAD1250VE: D794/A:52, A:56	-



						Volvo	
				Engine			TWD1240VE:
				runs on 5	Check cable		D794/1:34,
				cylinders,	harness		1:24
				sounds	between the		Volvo
			Electric	rough and	control unit and		TAD1250VE:
			failure,	has	<b>the</b>		D794/A:52,
			injector	reduced	<b>component.</b>		A:56
654/4	7.4	SID4/4	cylinder 4.	power.	<b>Check the injector.</b>		-

						Volvo	
				Engine			TWD1240VE:
				runs on 5	Check cable		D794/1:34,
				cylinders,	harness		1:24
				sounds	between the		Volvo
			Electric	rough and	control unit and		TAD1250VE:
			failure,	has	<b>the</b>		D794/A:52,
			injector	reduced	<b>component.</b>		A:56
654/5	7.4	SID4/5	cylinder 4.	power.	<b>Check the injector.</b>		-

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnos menu
					Check fuel pressure. Check valve clearance.		
			Incorrect compression or defective	Runs rough at low rpms and low load.	Check cable harness between the control unit and <b>the component.</b> Check the	Volvo TWD1240VE: D794/1:34, 1:24  Volvo TAD1250VE: D794/A:52, A:56	-
654/7	7.4	SID4/7	injector cylinder 4.				

					injector. Perform compression test and check cylinder 4.	
						Volvo
654/11	7.4	SID4/ <b>11</b>	Electric failure, injector cylinder 4.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and  <b>the component. Check the injector.</b>	TWD1240VE: D794/1:34, 1:24 Volvo TAD1250VE: D794/A:52, A:56
						Volvo
655/2	7.5	SID5/2	Electric failure, injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and  <b>the component. Check the injector.</b>	TWD1240VE: D794/1:35, 1:24 Volvo TAD1250VE: D794/A:44, A:48
						Volvo
655/3	7.5	SID5/3	Electric failure, injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and  <b>the component. Check the injector.</b>	TWD1240VE: D794/1:35, 1:24 Volvo TAD1250VE: D794/A:44,

A:48

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnosis menu
655/4	7.5	SID5/4	Electric failure, injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. <b>Check the injector.</b>	Volvo TWD1240VE: D794/1:35, 1:24  Volvo TAD1250VE: D794/A:44, A:48	-
655/5	7.5	SID5/5	Electric failure, injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. <b>Check the injector.</b>	Volvo TWD1240VE: D794/1:35, 1:24  Volvo TAD1250VE: D794/A:44, A:48	-
655/7	7.5	SID5/7	Incorrect compression or defective injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check that cabling to the injectors is not damaged. Check cable harness between the control unit and the component. <b>Check the injector. Perform compression test and</b>	Volvo  TWD1240VE: D794/1:35, 1:24  Volvo TAD1250VE: D794/A:44, A:48	-

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
655/11	7.5	SID5/ 11	Electric failure, injector cylinder 5.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:35, 1:24 Volvo TAD1250VE: D794/A:44, A:48	-
656/2	7.6	SID6/2	Electric failure, injector cylinder 6.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the component.	Volvo TWD1240VE: D794/1:36, 1:24 Volvo TAD1250VE: D794/A:36, A:40	-
656/3	7.6	SID6/3	Electric failure, injector cylinder 6.	Engine runs on 5 cylinders, sounds rough and has	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/1:36, 1:24 Volvo	-

				reduced power.	Check the injector.	TAD1250VE: D794/A:36, A:40	
						Volvo	
				Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	TWD1240VE: D794/1:36, 1:24 Volvo TAD1250VE: D794/A:36, A:40	-
656/4	7.6	SID6/4	Electric failure, injector cylinder 6.				

						Volvo	
				Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	TWD1240VE: D794/1:36, 1:24 Volvo TAD1250VE: D794/A:36, A:40	-
656/5	7.6	SID6/5	Electric failure, injector cylinder 6.				

Code	Flash	J1587	Description	Limitation	Action	Connection and component	D
656/7	7.6	SID6/7	Incorrect compression or defective	Runs rough at low rpms and low load.	Check fuel pressure. Check valve clearance.  Check cable harness between the	Volvo TWD1240VE: D794/1:36, 1:24 Volvo TAD1250VE:	-

			injector cylinder 6.		control unit and the component. Check the injector. Perform compression test and check cylinder 6.	D794/A:36, A:40
656/11	7.6	SID6/ 11	Electric failure, injector cylinder 6.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. Check the injector.	Volvo TWD1240VE: D794/1:36, 1:24 Volvo TAD1250VED 794/A:36, A:40
677/ FMI	6.3	PPID3/ FMI SID39/ FMI	Starter motor re-lay, short-circuiting to voltage ground.	Engine doesn't start. <b>Engine starts immediately when ignition is turned on.</b>	Check cable harness between the control unit and the component. Check the motor.	Volvo TWD1240VE: D794/2:31 Volvo TAD1250VED 794/B:29
1485/3	5.1	PPID5/ 3	Main relay, cable short-circuited to voltage.	Instrument panel loses voltage when ignition key is turned to start	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/1:32 Volvo TAD1250VE: D794/A:8

				position. Engine doesn't start.	<b>Check the relay.</b>		
					Check sensor boost pressure.		
			Internal EGR, electric problem or		<b>Check the component. (IEGR)</b>		
2791/ FMI	–	PPID1 9/FMI	mechanical problem.	No limitation.	<b>Contact Volvo Penta workshop for more information.</b>	Volvo TAD1250VE: D794/B:30	–
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnostic menu</b>
			Sensor piston cooling pressure short-circuiting to voltage, ground, or open circuit.	No limitation.	Check cable harness between the control unit and the component.	Volvo TAD1250VE: D794/B:14	–
52019 2/FMI	6.8	PPID8/ FMI					
			Low piston cooling pressure.	No limitation.	Check that engine's oil pressure is higher than 175 kPa.	–	–
52019 2/FMI	6.7	PPID8/ FMI					

52019		PPID4/	Stop input on control unit short-circuits to ground or open circuit.	Engine cannot be shut off.	Check cable harness between the control unit and the component.	Volvo TWD1240VE: D794/2:6	
5/FMI	4.8	FMI				Volvo TAD1250VE: D794/B:27	-

**Error codes engine (engine alternative Cummins QSM11)**

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
84/2	241	PID08 4/2	Electric problem sensor speed, data invalid.	Engine rpm restricted to max. rpm without gear.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	-	-
84/10	242	PID08 4/10	Electric problem sensor speed, manipulation of signal detected.	Engine rpm restricted to max. rpm without gear.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	-	-
91/3	131	PID09 1/3	Electric problem throttle pedal, cable short-circuited to voltage.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	-	-



						<b>Check the component.</b>		
91/4	132	PID09 <b>1/4</b>	Electric problem throttle pedal, cable short-circuited to ground.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	<b>Check the component.</b>	–	–
91/8	147	PID09 <b>1/8</b>	Electric problem throttle pedal, frequency too low.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	<b>Check the component.</b>	–	–
91/8	148	PID09 <b>1/8</b>	Electric problem throttle pedal, frequency too high.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	<b>Check the component.</b>	–	–
91/19	287	SID09 <b>1/2</b>	Communication error with Cab control unit (D790-1), electric problem throttle pedal.	Engine only runs on idle.	Use diagnostic menu to localize incorrect segment.		–	CAN/ POWER, <b>menu 3</b>

97/3	428	PID09 <b>7/3</b>	Electric problem sensor water in fuel, cable short-circuited to voltage.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the component.</b>	D794/Sensor:09	–
						<b>Connection and component</b>	<b>Diagnostic menu</b>
97/4	429	PID09 <b>7/4</b>	Electric problem sensor water in fuel, cable short-circuited to ground.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the component.</b>	D794/Sensor:09	–
97/15	418	PID09 <b>7/15</b>	Water in fuel.	Risk of white exhaust smoke and reduced engine power.	Drain water from the fuel filter.	–	–
100/1	415	PID10 <b>0/1</b>	Low engine oil pressure.	Engine power drops gradually, after 30	Check oil level in the engine, top up as needed.	–	ENGINE, menu 6

				seconds the engine is shut off.				
100/2	435	PID10 <b>0/2</b>	Sensor oil pressure, data error.	No warning for low oil pressure engine.	Check the sensor.	D794/Sen- sor:44	ENGINE, <b>menu 6</b>	
100/3	135	PID10 <b>0/3</b>	Sensor oil pressure cable short- circuited to voltage.	No warning for low oil pressure engine.	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	D794/Sen- sor:44	ENGINE, <b>menu 6</b>	
100/4	141	PID10 <b>0/4</b>	Sensor oil pressure, open circuit, or short- circuiting to ground.	No warning for low oil pressure engine.	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	D794/ <b>Black:14</b>	ENGINE, <b>menu 6</b>	
100/ <b>18</b>	143	PID10 <b>0/1</b>	Low engine oil pressure.	No limitation.	Check oil level in the engine, top up as need- ed. <b>Check the sensor.</b>	–	ENGINE, <b>menu 6</b>	

102/2	433	PID10 <b>2/2</b>	Sensor boost pressure indicates high boost pressure, but other engine data indicate that pressure should be normal.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	D794/Sensor:39	ENGINE, menu 7
102/3	122	PID10 <b>2/3</b>	Sensor boost pressure, cable short-circuited to voltage.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	D794/Sensor:39	ENGINE, menu 7
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnosis menu</b>
102/4	123	PID10 <b>2/4</b>	Sensor boost pressure, cable short-circuited to ground or open circuit.	Reduced engine power.	Check cabling between control unit and component.  <b>Check sensor boost pressure.</b>	D794/Black:3	ENGINE, menu 7

103/ 16	595	PID10 3/0	Overspeed protection turbo.	Reduced engine power.	Check the component.	–	–
					Check the coolant level in the engine, top up as needed.		
				Engine power drops gradually, after 30 seconds the engine is shut off.	Check that the charge-air cooler is clean, clean as needed. Check that the fan belts are intact. Check sensor inlet air temperature.		ENGINE, menu 7
105/0	155	PID10 5/0	Inlet air too warm.			–	
					Check cabling between control unit and component.		
			Sensor charge-air temperature, cable short-circuited to voltage or open circuit.	Risk of white exhaust smoke. No warning for high coolant temperature.	Check that sensor charge-air temperature is installed correctly and connected. Check sensor charge-air temperature.	D794/Sensor:38	ENGINE, menu 7
105/3	153	PID10 5/3					
			Sensor charge-air temperature,	Risk of white exhaust smoke. No	Check cable harness between the control unit	D794/Sensor:38	ENGINE, menu 7
105/4	154	PID10 5/4					

			cable short-circuited to ground or open circuit.	warning for high coolant temperature.	and the component.  <b>Check that sensor is installed correctly and connected.</b>  <b>Check the sensor.</b>		
108/2	295	PID10 <b>8/2</b>	Electric problem sensor air pressure, data error.	Reduced engine power.	Check the sensor.	–	–
108/3	221	PID10 <b>8/3</b>	Electric problem air pressure, cable short-circuited to voltage.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	D794/Sensor:06	–
						<b>Connection and component</b>	<b>Diagnostic menu</b>
108/4	222	PID10 <b>8/4</b>	Electric problem air pressure, cable short-circuited to ground.	Reduced engine power.	Check cable harness between the control unit and the component.	D794/Sensor:06	–



Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
111/1	235	PID11 1/1	Low coolant level.	Engine power drops gradually, after 30 seconds the engine is shut off.	Check the sensor.  Check the coolant level, top up if needed.  Check the sensor.	–	–
111/2	422	PID11 1/2	Electric problem sensor coolant level, data error.	No warning for low coolant level.	Check cable harness between the control unit and the component.  Check the sensor.	D794/Sensor:09	–
166/2	951	PID11 6/2	Power imbalance between cylinders.	Rough idling.	Check the fuel quality. If the fuel system has been opened so that air may have entered the system, the error code may be generated.  Troubleshoot the engine.	–	–



167/1	598	PID16 <b>7/1</b>	Low battery volt- age.	Warning active until voltage is correct.	Check batteries and alternator.	D794/ OEM:7, 8, <b>17, 18, 28</b>	–
167/ <b>16</b>	596	PID16 <b>7/0</b>	Low battery volt- age.	Warning active until voltage is correct.	Check fuses. Check batteries and alternator.	D794/ OEM:7, 8, <b>17, 18, 28</b>	–
167/ <b>18</b>	597	PID16 <b>7/1</b>	High battery volt- age.	Warning active until voltage is correct, engine runs at high idle to increase volt- age.	Check batteries and alternator.	D794/ OEM:7, 8, <b>17, 18, 28</b>	–
168/ <b>16</b>	442	PID16 <b>8/0</b>	Voltage feed to control unit high.	No limitation.	Check fuses. Check batteries and alternator.	D794/ OEM:7, 8, <b>17, 18, 28</b>	–
168/ <b>18</b>	441	PID16 <b>8/1</b>	Voltage feed to control unit low.	Rough idling.	Check fuses. Check batteries and alternator.	D794/ OEM:7, 8, <b>17, 18, 28</b>	–
175/0	214	PID17 <b>5/0</b>	High engine oil temperature.	Engine power drops gradually, after 30 seconds the	Check coolant level and oil level in engine, top up as needed.  <b>Check that the oil cooler</b>	–	ENGINE,  <b>menu 7</b>

				engine is shut off.	is clean, clean as needed.		
					Check that the fan belts are intact.		
					Check the sensor.		
175/3	212	PID17 5/3	Sensor oil temperature, cable short-circuited to voltage or open circuit.	No display of oil temperature engine.	Check that the sensor is correctly connected.	D794/Sensor:42	ENGINE, menu 7
					Check cable harness between the control unit and the component.		
						<b>Connection and component</b>	<b>Diagnostic menu</b>
175/4	213	PID17 5/4	Sensor oil temperature, cable short-circuited to ground.	No display of oil temperature engine.	Check the sensor.	D794/Sensor:42	ENGINE, menu 7
					Check cable harness between the control unit and the component.		
188/4	466	SID03 2/4	Electric problem solenoid valve	Reduced engine power.	Check cable harness between the control unit	D794/Actuator: 24	

			wastegate 1 short-circuiting to ground.		and the component.				
						<b>Check the solenoid valve.</b>			
190/0	234	PID19 0/0	Engine rpm too high.	Fuel feed is restricted until engine rpm is below permitted rpm.	Ease off throttle or select higher gear.			–	–
190/2	115	PID19 0/2	Electric problem sensor rpm/ignition position, no signal from any of the sensors.	Engine stops and cannot be started.	Check cable harness between the control unit and the component.	<b>Check the sensor.</b>	D794/Sensor:47, 50		–
190/10	121	PID19 0/10	Electric problem sensor rpm/ignition position, on of two signals is missing.	No limitation.	Check cable harness between the control unit and the component.	<b>Check the sensor.</b>	D794/Sensor:47, 50		–
191/16	349	PID19 1/0	Speed limitation activated.	Speed is reduced.	Ease off throttle.			–	–

191/ <b>18</b>	489	PID19 <b>1/1</b>	Speed warning for low speed.	Engine only runs on idle.	Increase throttle.	–	–
251/2	319	PID25 <b>1/2</b>	Internal error Control unit engine.	–	–	–	–
441/3	293	PID44 <b>1/3</b>	Extra sensor temperature short- circuited to ground.	No warning at high temperature Control unit engine (D794).	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	D794/Sensor: 12	
441/4	294	PID44 <b>1/4</b>	Extra sensor temperature short- circuited to voltage.	No warning at high temperature Control unit engine (D794).	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	D794/Sensor: 12	
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnos menu</b>
558/2	431	SID23 <b>0/2</b>	Electric problem sensor throttle ped- al,	No limitation.	Check cable between control	D794/ OEM: 03, <b>13</b>	–

			idle switch data error.		unit and component.				
					<b>Check component.</b>				
558/4	551	SID23 0/4	Electric problem sensor throttle pedal, idle switch cable short-circuited to ground.	Engine does not respond to throttle.	Check cable between control unit and component.	D794/ OEM: 03,	<b>13</b>		–
558/13	432	SID23 0/13	Electric problem sensor throttle pedal, idle switch calibration error.	Engine only runs on idle.	Check cable between control unit and component.	D794/ OEM: 13	<b>13</b>		–
608/2	412	SID25 0/2	Communication error with Control unit engine (D794).	No limitation.	Check the control unit.	D794/ OEM: 26, 27, 36, 37,	<b>46</b>		
608/9	414	SID25 0/9	Communication error with Control unit engine (D794).	No limitation.	Check the control unit.	D794/ OEM: 26, 27, 36, 37,	<b>46</b>		
620/3 1080/ 3	227	SID23 2/3	Electric problem reference voltage to	Reduced engine power. No warning low	Check cable harness between the control unit	D794/Sensor: 18, 25,	<b>45</b>		–

			sensor short-circuited to voltage.	oil pressure or low coolant level.	and the component.				
						<b>Check the control unit.</b>			
620/4			Electric problem reference voltage to sensor short-circuited to ground.	Reduced engine power. No warning low oil pressure or low coolant level.	Check cable harness between the control unit and the component.		D794/Sensor: 18, 25,		
1081/4	187	SID23 2/4				<b>Check the component.</b>	45		–
626/			Electric problem to control of relay pre- heating.	Preheating does not work. Risk of white smoke	Check cable harness between the control unit and the component.		D794/Actuator: 34		ENGINE menu
11	381	SID23 7/11				<b>Check the component.</b>			
627/2			Voltage feed to control unit disappears without engine off.	Reduced engine power. Engine difficult to start or engine stops.	Check fuses.		D794/ OEM:7, 8,		
627/2	434	SID25 1/2				<b>Check batteries and alternator.</b>	17, 18, 28		–
629/			Internal error Control unit engine.	Engine doesn't start.	Check the control unit.		–		–
12	111	SID25 4/12							

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
629/ 12	343	SID25 4/12	Internal error Control unit engine.	No limitation.	Check the control unit.	–	–
630/2	341	SID25 3/2	Software error control unit, engine (D794).	Reduced engine power. Engine difficult to start or engine stops.	Re-program the soft- ware in Control unit engine (D794).	–	–
632/3	255	SID01 7/3	Electric problem solenoid valve fuel shut-off, cable short- circuited to voltage.	No limitation.	Check cable harness between the control unit and the component.  <b>Check the solenoid valve.</b>	D794/Actuator: 33	–
632/4	254	SID01 7/4	Electric problem solenoid valve fuel shut-off, cable short- circuited to ground.	Engine is shut off.	Check cable harness between the control unit and the component.  <b>Check the solenoid valve.</b>	D794/Actuator: 33	–

639/2	426	SID23 1/2	Communication error with Control unit engine (D794).	Functions via CAN-bus do not work.	Use diagnostic menu to find incorrect segment.	–	CAN/ POWER, <b>menu 2</b>
639/9	427	SID23 1/9	Communication error with Control unit engine (D794).	Functions via CAN-bus do not work.	Use diagnostic menu to find incorrect segment.	–	CAN/ POWER, <b>menu 2</b>
639/9	285	SID23 1/9	Communication error with Engine control unit (D794), timeout error.	Functions via CAN-bus do not work.	Use diagnostic menu to find incorrect segment.	–	CAN/ POWER, <b>menu 2</b>
639/ 13	286	SID23 1/13	Communication error with Engine control unit (D794), configuration error.	Functions via CAN-bus do not work.	Use diagnostic menu to find incorrect segment.	–	CAN/ POWER, <b>menu 2</b>
644/2	237	SID03 0/2	Electric problem throttle pedal, signal outside valid range.	Engine is shut off.	Check cable harness between the control unit and the component. <b>Check the component.</b>	–	–
647/4	245	SID03 3/4	Electric problem fan connection, cable short-	Cooling fan always driven.	Check cable harness between the	D794/Actuator:10, Actuator: 9	–



Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
			circuited to ground.		control unit and the component.		
					<b>Check the component.</b>		
651/5	322	SID00 1/5	Electric problem injector cylinder 1, open circuit on cable.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	D794/Actuator:10, Actuator: 9	–
651/6	311	SID00 1/7	Electric problem injector cylinder 1, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	D794/Actuator:10, Actuator: 9	–
652/5	331	SID00 2/5	Electric problem injector cylinder 2, open circuit on cable.	Engine runs on 5 cylinders, sounds rough and has	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	D794/Actuator: 7, 8	–

				reduced power.				
652/6	315	SID00 2/6	Electric problem injector cylinder 2, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	D794/Actuator:7, 8		–
653/5	324	SID00 3/5	Electric problem injector cylinder 3, open circuit on cable.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.  <b>Check the injector.</b>	D794/Actuator:6, 16		–
653/6	313	SID00 3/6	Electric problem injector cylinder 3, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable between control unit and component.  <b>Check component.</b>	D794/Actuator:6, 16		–
654/5	332	SID00 4/5	Electric problem injector cylinder 4,	Engine runs on 5 cylinders, sounds	Check cable harness between the	D794/Actuator:26, 36		–

			open circuit on cable.	rough and has reduced power.	control unit and the component.	<b>Check the injector.</b>		
654/6	321	SID00 4/6	Electric problem injector cylinder 4, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.	<b>Check the injector.</b>	D794/Actuator:26, 36	–
							<b>Connection and component</b>	<b>Diagnosis menu</b>
655/5	323	SID00 5/5	Electric problem injector cylinder 5, open circuit on cable.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component.	<b>Check the injector.</b>	D794/Actuator: 3, 4	–
655/6	312	SID00 5/6	Electric problem injector cylinder 5, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has	Check cable between control unit and component.	<b>Check component.</b>	D794/Actuator: 3, 4	–

					reduced power.				
656/5	325	SID00 6/5	Electric problem injector cylinder 6, open circuit on cable.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable between control unit and component. <b>Check component.</b>	D794/Actuator: 1, 2			–
656/6	314	SID00 6/6	Electric problem injector cylinder 6, cable short-circuited to ground.	Engine runs on 5 cylinders, sounds rough and has reduced power.	Check cable harness between the control unit and the component. <b>Check the injector.</b>	D794/Actuator: 1, 2			–
702/3	527	SID04 0/3 PID15 4/3	Electric problem extra output 2, cable short-circuited to voltage	No limitation.	Check cable harness between the control unit and the component. <b>Check the component.</b>	D794/Actuator: 14			–
703/3	529	SID05 1/3	Electric problem extra output 2, cable short-circuited to voltage	No limitation.	Check cable harness between the control unit and the component.	D794/Actuator: 45			–

						<b>Check the component.</b>		
974/3	133	SID02 <b>9/3</b>	Electric problem extra throttle pedal, cable short-circuited to voltage.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	<b>Check the component.</b>	D794/ OEM: 21	–
974/4	134	SID02 <b>9/4</b>	Electric problem extra throttle pedal, cable short-circuited to ground.	Engine does not respond to throttle.	Check cable harness between the control unit and the component.	<b>Check the component.</b>	D794/ OEM: 21	–
974/ <b>19</b>	288	SID02 <b>9/2</b>	Communication error with Cab control unit (D790-1), electric problem throttle pedal.	Engine does not respond to throttle.	Use diagnostic menu to find incorrect segment.		–	CAN/ POWER, <b>menu 2</b>
<b>Code</b>	<b>Flash</b>	<b>J1587</b>	<b>Description</b>	<b>Limitation</b>	<b>Action</b>	<b>Connection and component</b>	<b>Diagnostic menu</b>	
1043/ <b>3</b>	387	PID22 <b>1/3</b>	Electric problem throttle pedal	Engine only runs on idle.	Check cable harness between the	D794/ OEM: 48	–	

			reference voltage, cable short-circuited to voltage.		control unit and the component.			
					<b>Check the component.</b>			
1043/		PID22	Electric problem throttle pedal reference voltage, cable short-circuited to ground.	Engine only runs on idle.	Check cable harness between the control unit and the component.	D794/ OEM:		
<b>4</b>	443	<b>1/4</b>			<b>Check the component.</b>	48		–
1072/		SID07	Electric problem solenoid valve engine brake 2.	Engine brake 1 cannot be activated.	Check cable harness between the control unit and the component.	D794/Actuator:		
<b>11</b>	388	0/11			<b>Check the solenoid valve.</b>	44		–
1073/		SID02	Electric problem solenoid valve engine brake 2.	Engine brake 2 cannot be activated.	Check cable harness between the control unit and the component.	D794/Actuator:		
<b>11</b>	392	9/11			<b>Check the solenoid valve.</b>	44		–

1079/ <b>3</b>	386	SID23 <b>2/3</b>	Electric problem reference voltage to sensor short- circuited to voltage.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	D794/Sesor: 17, 37	–
1079/ <b>4</b>	352	SID23 <b>2/4</b>	Electric problem reference voltage to sensor short- circuited to ground.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>	D794/Sen- sor: 17, 37	–
1188/ <b>3</b>	465	SID03 <b>2/3</b>	Electric problem solenoid valve wastegate 1 short- circuited to voltage.	Reduced engine power.	Check cable harness between the control unit and the component.  <b>Check the solenoid valve.</b>	D794/Actuator: 24	–
1189/ <b>3</b>	491	SID08 <b>8/3</b>	Electric problem solenoid valve wastegate 2 short-	Reduced engine power.	Check cable harness between the control unit and the component.	D794/Actuator: 23	

Code	Flash	J1587	Description	Limitation	Action	Connection and component	Diagnostic menu
			circuited to voltage.		Check the solenoid valve.		
1189/ 4	492	SID88/ 4	Electric problem solenoid valve wastegate 2 short-circuited to ground.	Reduced engine power.	Check cable harness between the control unit and the component.  Check the solenoid valve.	D794/Actuator: 23	
1265/ 4	223	SID08 5/4	Electric problem solenoid valve oil-burn, cable short-circuited to ground.	No limitation.	Check cable harness between the control unit and the component.  Check the solenoid valve.	—	—
1319/ 2	419	PID10 2/2	Electric problem sensor boost pressure.	Reduced engine power.	Check cable harness between the control unit and the component.	D794/Sensor: 9	—



					<b>Check the sensor.</b>		
1380/ <b>1</b>	219	PID01 <b>7/1</b>	Low oil level engine.	No limitation.	Check oil level in the engine, top up as needed.	–	–
1383/ <b>31</b>	611	SID15 1/11	Engine shut off in another way than with start key means loading.	No limitation.	Shut off the engine with the start key.	–	–
1384/ <b>31</b>	299	SID02 9/14	Engine shut off in another way than with start key means loading.	No limitation.	Shut off the engine with the start key.	–	–
1387/ <b>3</b>	297	PID22 <b>3/3</b>	Electric problem extra sensor pressure, cable short-circuited to voltage.	No protection for pressure (customer-specific option).	Check cable harness between the control unit and the component. <b>Check the sensor.</b>	D794/Sesor: 19	–

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			Electric problem extra sensor pressure, cable short-circuited to ground.	No protection for pressure (customer-specific option).	Check cable harness between the control unit and the component.  <b>Check the sensor.</b>		
1387/		PID22				D794/Sesor:	
<b>4</b>	298	<b>3/4</b>				19	–

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					Check error codes for the other control units on the machine, primarily Control unit cab (D790-1) and Control unit transmission (D793).		
1484/		SID21	Error codes in other control units.	No limitation.			
<b>31</b>	211	6/11				–	–