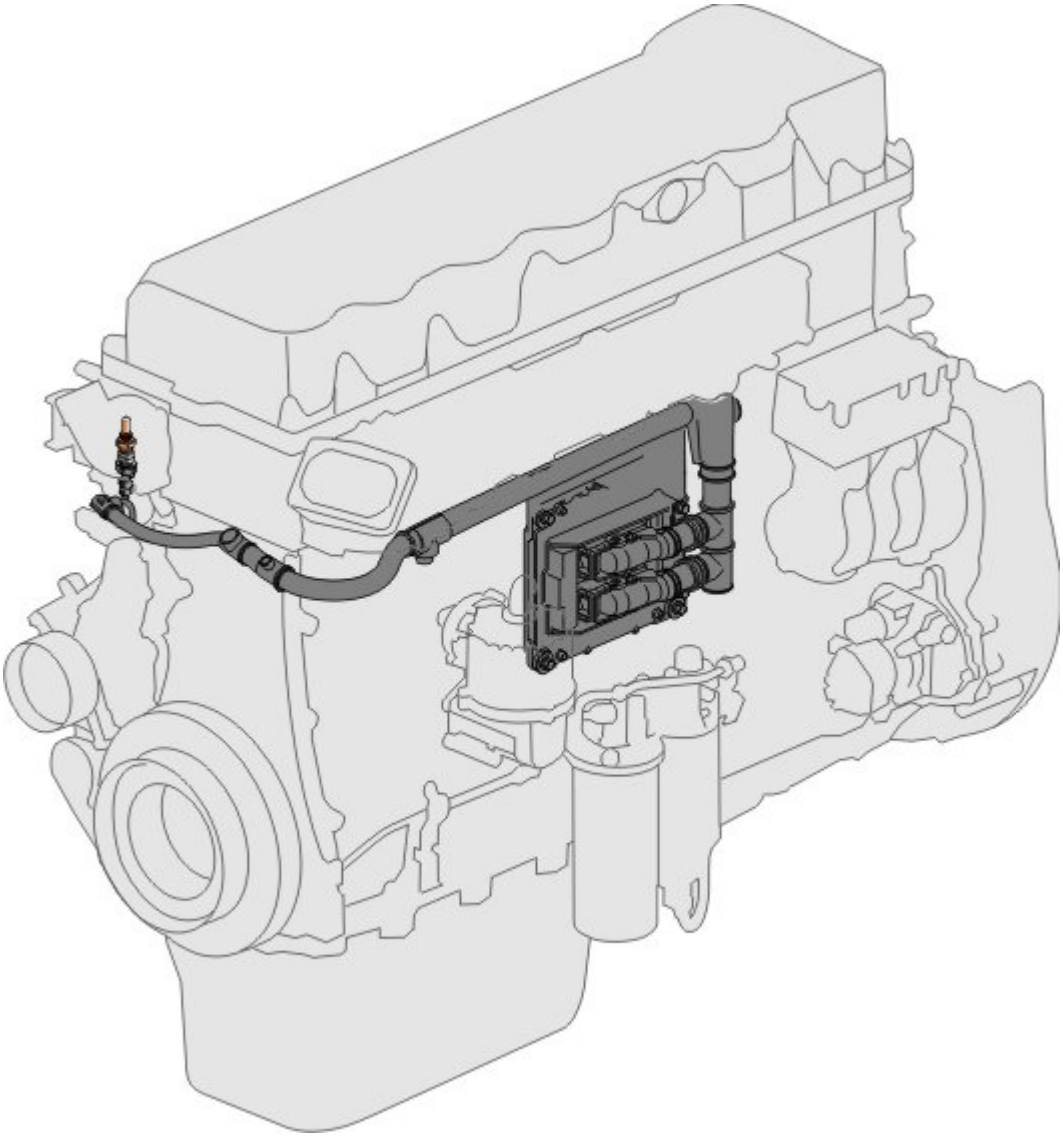
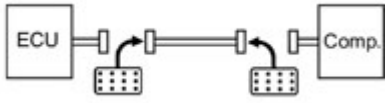
P0117 - Engine Coolant Temperature Circuit Low

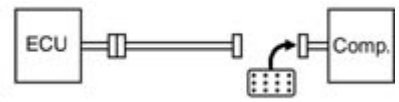


Fault type	Condition for Fault	Observable Symptoms	Possible cause
P0117 FTB00	• The voltage at pin A14.J2:27 is less than 0.17V.	• High fuel consumption. • The coolant temperature gauge shows 0. • Engine fan constantly engaged. • Less powerful engine since the fan takes power from the engine.	• Engine coolant temperature sensor. • Short circuit to ground, Signal wire. • Connector. • Wiring harness. • Engine control module (ECM).

Resistance measurement



Measuring	Key position	Measurement points		Reference value	Measured value	Other (Special tool No.)
		Breakout box	Wiring diagram			
Short Circuit / Open Circuit	Off	1– 27, 2– 18	B21:1– A14.EB:27, B21:2– A14.EB:18	R = <10 Ω		9998699, 9990014, 9990216



Measuring	Key position	Measurement points		Reference value	Measured value	Other (Special tool No.)
		Breakout box	Wiring diagram			
Component resistance	Off	1– 2	B21:1– B21:2	Reference Table		9990216, 88890074

Reference Table:

[°F]	[°C]	MIN > [Ω]	R [Ω]	MAX < [Ω]
-40	-40	38,313	45,313	52,926
-22	-30	22,307	26,114	30,194
-4	-20	13,402	15,462	17,718
14	-10	8,244	9,397	10,661
32	0	5,227	5,896	6,623
50	10	3,390	3,792	4,217
68	20	2,262	2,500	2,760
77	25	1,870	2,057	2,260
86	30	1,553	1,707	1,866
104	40	1,080	1,175	1,277
122	50	771	834	900
140	60	555	596	639
158	70	408	435	465
176	80	304	323	342
194	90	230	243	257
212	100	178	186	196
230	110	136	144	152
248	120	106	113	119
266	130	84	89	95
284	140	67	71	76