

993 Monitor Test Drive Sequence

Cycle Flag #	Function	Load (TL) ms Load (ML) Kg/h	Speed/ Engine RPM	Time of Test	Remarks	Comp
1	*Diagnosis of catalytic converter efficiency	0.6 to 1.7 ms	1400-2800 RPM	300 seconds (5 minutes)	Time is Cumulative	
2	Diagnosis of oxygen sensor aging	.9 to 2.6 ms	1400-3000 RPM	120 seconds (2 minutes)		
2	**Diagnosis of oxygen sensor period length	.3 to 1.3 ms	1560-2120 RPM	40 seconds		
3	***Diagnosis of secondary air injection system	25-150 kg/h	680-2800 RPM	120 seconds after the engine starts	Engine temperature between 12°C to 60°C Can be triggered with 9288	
4	Diagnosis of tank venting	25-46 Kg/h	No vehicle speed Idle conditions	20 Seconds	Starts 1000 seconds after starting the engine Temp > 80.25°C. Can be triggered with 9288	
5	Adaptation Range 2	.9-5.0 ms 50-250 kg/h	Not relevant	50 Seconds	Starts 250 seconds after starting (4 min 17 sec.)	
6	Adaptation Range 1	25-48 kg/h	Idle speed	50 seconds	Adaptation should occur after adaptation of range 2	

* Catalytic converter has to be 300°C before diagnosis starts.

** Diagnosis only Possible after 600 seconds (10 minutes/ after catalytic converter heating cycle is complete.

*** At elevations above 7680 ft. diagnosis of secondary air injection is not possible.

Drive sequence order of completion

Cycle Flag #	Function	Load (TL) ms Load (ML) Kg/h	Speed/ Engine RPM	Time of Test	Remarks	Total time from start:
3	***Diagnosis of secondary air injection system	25-150 kg/h	680-2800 RPM	120 seconds after the engine starts	Engine temperature between 12°C to 60°C Can be triggered with 9288	Start. AIS on after 2 min. Off @ 4 min.
5	Adaptation Range 2	.9-5.0 ms 50-250 kg/h	Not relevant	50 Seconds	Starts 250 seconds after starting (4 min 17 sec.)	Starts @ 4 min. Ends @ 5 min.
6	Adaptation Range 1	25-48 kg/h	Idle speed	50 seconds	Adaptation should occur after adaptation of range 2	Starts @ 5 min. Ends @ 6 min
2	**Diagnosis of oxygen sensor period length	.3 to 1.3 ms	1560-2120 RPM	40 seconds		Starts @ 6 min. Ends @ 7 min
2	Diagnosis of oxygen sensor aging	.9 to 2.6 ms	1400-3000 RPM	120 seconds (2 minutes)		Starts @ 7 min. Ends @ 9 min
1	*Diagnosis of catalytic converter efficiency	0.6 to 1.7 ms	1400-2800 RPM	300 seconds (5 minutes)	Time is Cumulative	Starts @ 9 min. Ends @ 14 min
4	Diagnosis of tank venting	25-46 Kg/h	No vehicle speed Idle conditions	20 Seconds	Starts 1000 seconds after starting the engine Temp > 80.25°C. Can be triggered with 9288	Starts @ 16:40 Ends @ 17 min. (Run to 18 min.