Driving conditions for reaching readiness code

In order to obtain a readiness code, at least two trips must be run. No faults must be stored because some systems will not give a readiness signal unless they are free from faults. For example, the catalytic converter conversion monitoring function will only be operational if the oxygen sensors ahead of and behind the catalytic converter operate correctly. Before each trip made for obtaining a readiness code, the fault memory must therefore be checked. Any faults stored must first be remedied and the memory must then be erased. For the 6 diagnosis routines listed under menu item cycle flags to be processed, the following conditions must be met:

Catalytic converter efficiency

Cycle flag no. 1

The diagnostic procedure takes a total of 300 sec. The engine must run through 4 speed and load ranges.
The procedure is interrupted when the engine leaves the relevant ranges and continued again when the relevant speed and load ranges are reached again. This means that it is not necessary to run the engine in these ranges for a continuous period of 300 sec.

Manual Transmission

Engine speed: 1120 - 2,800 rpm
Engine load: 1.0 - 3.0 ms
Calculated catalytic converter temperature: > 300° C

Tiptronic

Engine speed: 920 - 3,000 rpm
Engine load: 1.2 - 3.5 ms
Calculated catalytic converter temperature: > 300° C

Oxygen sensor aging

Cycle flag no. 2

Aging is assessed by checking the period of the oxygen sensor signal in two engine speed/load ranges.

manual Transmission

1. Range 1: 1,620 - 2,120 rpm
   Load: 0.9 - 1.9 ms
   Duration: 40 seconds

2. Range 2: 1,400 - 3,000 rpm
   Load: 0.9 - 2.6 ms
   Duration: 110 seconds

Calculated catalytic converter temperature: > 300° C
In the case of oxygen sensors ahead of the catalytic converter, the heater must be switched on: if the engine is cold, wait for 500 to 600 seconds after starting.

Tiptronic

1. Range 1: 920 - 1,880 rpm
   Load: 1.2 - 2.1 ms
   Duration: 40 seconds

2. Range 2: 1,400 - 3,000 rpm
   Load: 0.9 - 2.6 ms
   Duration: 110 seconds

Calculated catalytic converter temperature: > 300° C
In the case of oxygen sensors ahead of the catalytic converter, the heater must be switched on: if the engine is cold, wait for 500 to 600 seconds after starting.

Secondary air injection system

Cycle flag no. 3

Engine speed:	720 - 2,800 rpm
Air mass flow:	< 100 kg/h
Duration:	70 seconds
Load:	1.0 - 2.6 ms
Engine temperature:	> 50° C
Time:	50 - 120 seconds after start
Elevation:	< 2 448 m

To simplify matters, diagnosis may be initiated using the system tester. Speed and load conditions and time are then not taken into account.

Tank ventilation system

Cycle flag no. 4

Engine temperature:	> 110° C
Engine temperature at start:	> - 15° C
Load:	< 2.2 ms
Air mass flow:	< 46 kg/h
Elevation:	< 2 448 m

Oxygen sensor activated
Engine at idle
Secondary air injection system not activated
Vehicle at standstill
Time: 1 000 seconds after starting engine

To simplify matters, diagnosis may be initiated using the system tester. Time of 1000 seconds after starting the engine will be suppressed.

Adaptation range 2 (FRA)

Cycle flag no. 5

Time:	250 - 350 seconds after starting engine and 950 - 1,050 seconds after starting engine
Duration:	60 seconds
Engine load:	> 1.2 ms
Air mass flow:	> 48 kg/h
Engige temperature	> 90°C
Air intake temperature:	< 90°C

Adaptation range 1 (TRA)

Cycle flag no. 6

Duration:	60 seconds
Air mass flow:	< 30 kg/h
Engine speed:	< 920 rpm
Engine temperature	> 90°C
Air intake temperature	< 90° C