

2018 Mercedes Benz E63S AMG 4MATIC Sed (213.089) V8-4.0L Turbo (177.980)

Vehicle > Technical Service Bulletins

CHECK ENGINE LIGHT IS ON WITH DTC P030185/ P030685 FOR MISFIRE CYLINDER 1 AND 6.



Mercedes-Benz

- Check Engine Light is on with DTC P030185/ P030685 for misfire cylinder 1 and 6. -

Topic number	LI07.70-P-066276
Version	9
Function group	07.70 Gasoline injection and ignition system direct injection
Date	12-03-2018
Validity	All with M177LS1 and M178 engines.
Reason for change	Added location of VC number and picture

Complaint

Check engine light is on.

Cause

Misfire detection protocol in ME SW

Remedy

Check that the ME Control Software is up to date at version VC 5.1 or later (located in the ME CUL, see the attachments for location).

If ME Control Unit Software is **NOT** up to date:

1. If ME Control Unit Software is not up to date, update it along with the VGS, PTCU, and FSCU control units.
2. Ensure that all ignition coils are part number A 177 906 95 00
3. After updating, clear out the mixture adaptation data and perform 2 AMG Engine Adaptation Drives
4. Create a PTSS case and upload the old (showing the fault codes) IQT, the new (after ME update) IQT, and the injector performance data AFTER performing the 2 AMG Engine Adaptation Drives
5. The data will be reviewed and you will be given instructions on whether to release the vehicle or perform further adaptations

If ME Control Unit Software **IS** up to date:

Open a PTSS case.

Upload the following to the case:

- 1) MED1775 ECU Log
- 2) Quick Test with Freeze Frame Data
- 3) Injector Performance Data
- 4) Engine Performance Data
- 5) Guided Test Results
- 6) Line Graph Version of the Cold Start Fault Counter

7) Inspection of Coils for Improved Version. PN: A 177 906 95 00

8) PICO compression test

Note: Once DTS Frontline Support has reviewed the PTSS case, it will be escalated to the PTS Service Engineer for analysis.

File	Designation
AMG Adaptation.docx.	AMG Engine Adaptation Drive
Fault Counter.pdf	Line Graph Version of the Cold Start Fault Counter
vc.png.	VC Number Location

Symptoms

Symptom

Power generation / Engine management / Engine running / Runs rough/shakes
Power generation / Engine management / Indicator lamp / Engine diagnosis / lit

Control unit/fault code

Control unit	Fault code	Fault code description
N3/10 - Motor electronics 'MED1775' for combustion engine 'M177' (ME)	P030685	Combustion misfiring of cylinder 6 has been detected. There is a signal above the permissible limit value.
N3/10 - Motor electronics 'MED1775' for combustion engine 'M177' (ME)	P030185	Combustion misfiring of cylinder 1 has been detected. There is a signal above the permissible limit value.

LI07.70-P-066276_2

Misfiring detection

For reading out the misfiring detection, please have a look at the following pages.

Please choose at first the folder **actual values** and then **engine output** and **fault counter**, **Graphic representation of fault counter**

Selection

Test values while idling

Test values while driving in full load mode

Fuel system

Engine output

High pressure control

Boost pressure control

Test values of pressure sensors

Graphic illustration of position of camshafts

Compression test

Fault counter

Fault counter

Graphic representation of fault counter

Smooth running of combustion engine

Values of injector injection quantity adjustment

Exhaust system

System components

Adaptation data

Fault counter

Fault counter

Graphic representation of fault counter

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Misfiring detection

Now choose the selection of graphic illustration: **line graph**. You can select the recording time via the point **time interval** as **600 seconds**, if you did not get any other information for example via the TIPS case. After that press continue.

Selection of graphic illustration

Time interval

Line graph

Bar chart mode

Line graph

Selection of graphic illustration

Time interval

Line graph

600s

120s

300s

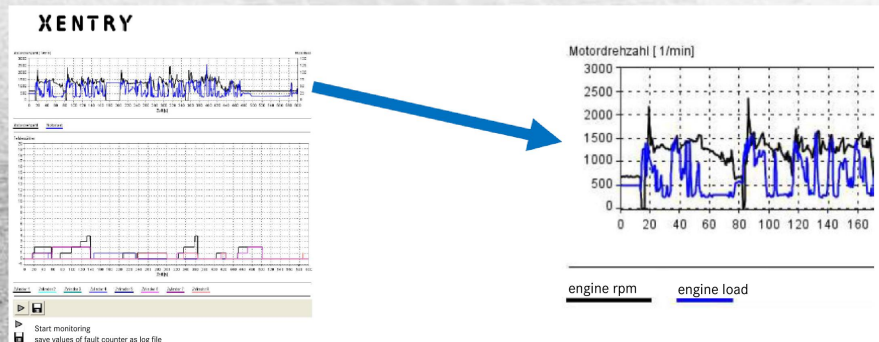
600s

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Misfiring detection

Now the following figure is visible in XENTRY. Please start the measurement under observance of customers complaint. Normally the engine should be started at cold after starting the measurement and then the car should be driven at complaint circumstances. The engine load and the rpm is visible at the upper part of the diagram.

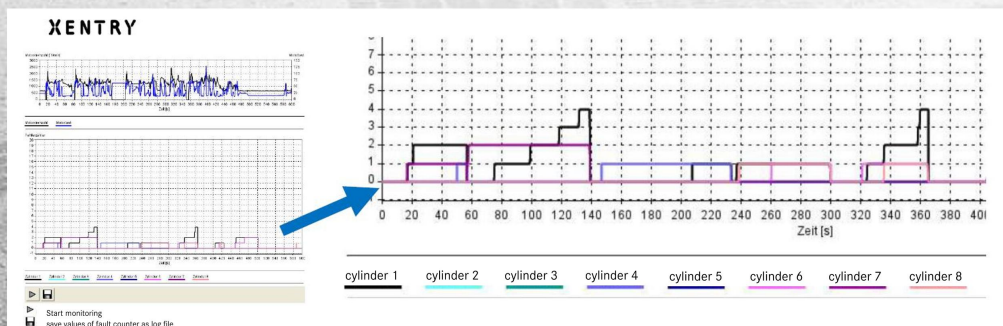


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Misfiring detection


Now the following figure is visible in XENTRY. Please start the measurement under observance of customers complaint. Normally the engine should be started at cold after starting the measurement and then the car should be driven at complaint circumstances. The measured misfiring will be shown at the lower part of the diagram and matched to every single cylinder.



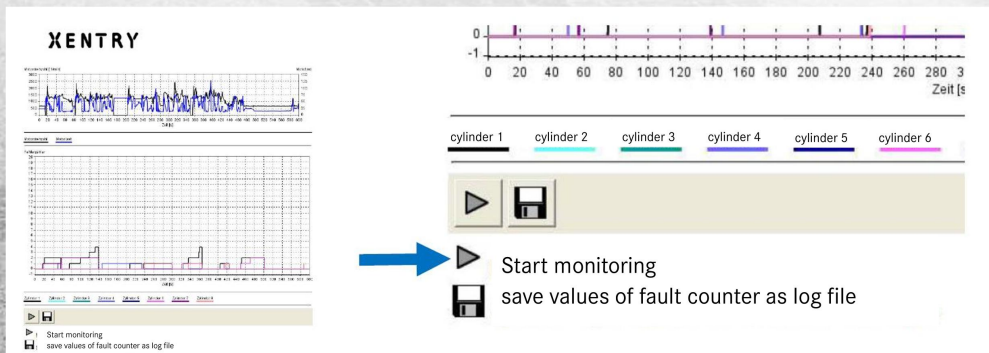
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Misfiring detection

To start the measurement, please press 

Let the measurement run for the time you have chosen before (e.g. 600 seconds)



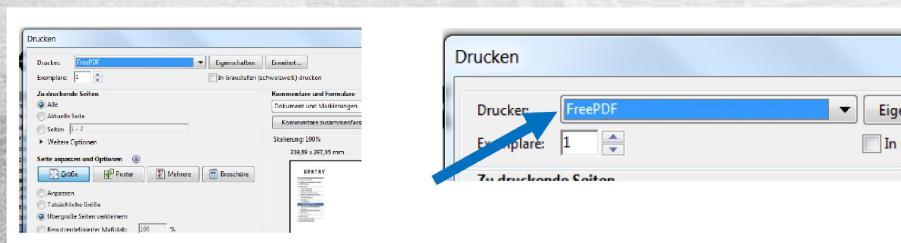
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Misfiring detection

At the end of the measurement, please proceed with the following steps:


Please print the screen view of the measurement firstly. Hereto choose „print“ and print it as pdf (not on paper). Save this pdf file. It is not possible to evaluate a normal printed out measurement on paper as black and white print out.



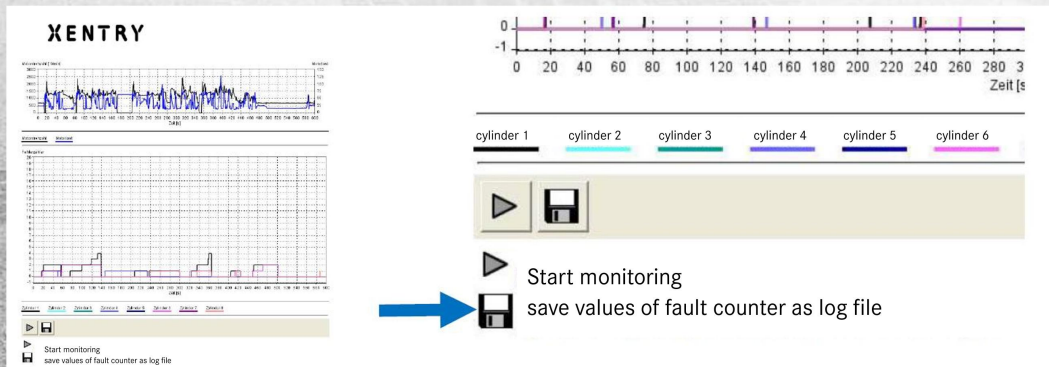
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Misfiring detection

Afterwards please save the values as log file via the button 


It is indispensable to follow the mentioned sequence because it is not possible to create a line graph after saving the log file.



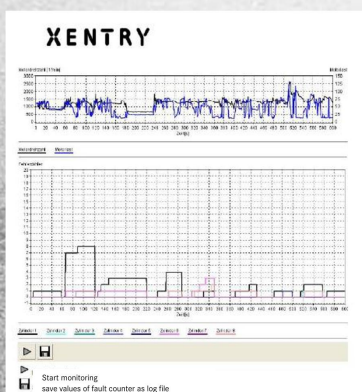
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Misfiring detection

To start an additional measurement, please press again 

Let the new measurement also run for the chosen time (e.g. 600 seconds)



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Misfiring detection

After the measurement you have the possibility to evaluate at what time the misfires were detected at every single cylinder.

You can also see under which circumstances they were visible: At idling, at load and at which rpm. If you were asked to attach them to a TIPS-case, please attach the diagram (screen view) as well as the log file to the case.

