Script.CAN.DAIMLER.MERCEDES-BENZ.POS5.v1.14.2.1

Daimler Mercedes-Benz 2023 CAN Script

The compatibility if this script can only be guaranteed for:

1. Daimler Mercedes 2023 model manufactured in South Africa

This script can be used with the following devices:

1. MiX 4000
2. MiX 6000
3. FM3316 and FM3306 Communicators
4. FM3517i and FM3507i Communicators
5. FM3617i and FM3607i Communicators
6. FM3717i and FM3707i Communicators
7. FM3817i and FM3807i Communicators

Version History

Reference	Version	Changes
SCR-61	V1.2.5.10	Added two parameters and the correct two parameters: • Add Parking brake switch, Top Brake and Differential Lock Correct Engine Temperature and Engine Oil Temperature
SCR-102	V1.2.5.51	Script for Daimler-Mercedes that uses Torque Fuel and reports Error Codes
SCR-174	V1.2.5.52	Script for Daimler-Mercedes that uses Torque Fuel and reports Error Codes. The Speed value was incorrectly scaled in the previous version, causing false over speeding events.
SCR-494	V1.3.0.2	High Res Odo added; Fuel level added; Re-added oil pressure. (For fuel level --> Reverted back to CANFL acronym from FMSFL for compatibility with previous event setups)
SR-3761 SR-3584 SCR-768 SR-3338	V1.3.0.3	It was found that the Torque signal in the filter file uses 0x14 as its signal function, this means that it that the first preceding signal's value and multiplies with its own. When ODO was added the ODO signal was inserted in that position replacing RPM. So now instead of Torque being multiplied with RPM it was multiplied with ODO. This was rectified and the results were much better. **Disclaimer**: There is, however, still a difference in the FM's and 6000's fuel recordings that is being investigated by Firmware team.
SCR-847	V1.4.0.0	The script now supports ECMST update to work with the ROVI. If the ROVI's time and the ECMST time differs by more than 5 seconds, the ROVI assumes there is CAN connection problems. The script just sends the latest time via the ECMST acronym, the check is done by the ROVI.
SR-6624	V1.4.0.1	Added Engine Torque to the XML. **Disclaimer:** CSO has no way to verify whether this parameter correct scales the values. It is up to the RSO to do testing.

SCR-1403	V1.5.0.0	The following signals were added: • Absolute engine torque • Engine request torque • Accelerator pedal switch Intake manifold temperature
SR-7836	V1.6.0.0	Fuel rate reported too low, scaling increased with 2.1 in fms.
SR-7836	V1.6.1.0	Resolved compile issue
SR-7836	V1.6.1.1	Reverted to original fuel scaling. Torque fuel is used to get Fuel rate; therefore, scaling must be done in DynaMiX for each vehicle model.
SR-9904 SR-10071	V1.7.1.2	Fixed a non-working timer for the fuel increase and decrease parameters in FMS. Moved parking brake switch to the correct message header in the XML.
SR-10910	V1.8.1.2	The high-resolution odometer parameter has been replaced by its standard parameter which has a scaling of 0.005.
SR-11130 ESCR-23 SR-11044	V1.9.1.3	An ignition check has been implemented to prevent speed from syncing if ignition is off. A check is also done prevent speed from syncing values of 200km/h or larger. The FMS speed calibration value has been changed to make the speed value more understandable in the code. The XML wheel-based speed scaling has also been changed to comply with the new calibration value. Parking brake information is now obtained from message 0x250 instead of 0x450.
SR-11825	V1.10.1.0	Added Odo Jump Protection to prevent the Odo from jumping when the difference between the old and new Odo values is greater than 20 km.
SR-13260	V1.11.1.0	Added Fuel Jump Protection to prevent the Fuel from jumping when the difference between the old and new Fuel pulses is greater than 5000 or 5 liters.
SR-13271	V1.11.1.1	Adjusted Coolant Temperature Offset.
SR-13271	V1.12.1.0	Reverted changes from 1.11.1.1, and instead corrected in FMS to get the correct (expected) values on Dynamix

ESCR-118	v1.13.1.0	Added Cruise Control State. Correction in Top Brake (now supporting range from 0 to 5). Added new Gear handling, based on tracer data). The script currently supports the following parameters: Engine RPM, High resolution odometer, Fuel Quantity, Wheel based speed, Engine Oil Temperature, Oil Pressure, Fuel level, Accelerator Pedal Position, Active Diagnostic Trouble Codes, Adblue1 Tank Level, Brake pedal pressed ,Clutch Switch, Clutch pedal position, Cruise Control Active, Current Gear, Differential Lock, Engine Coolant Temperature, Engine Intake Manifold Temperature, Engine Oil Pressure, Engine torque, Parking brake switch, Previously Active Trouble Code, Service Brake Air Pressure Circuit 1,Service Brake Air Pressure Circuit 2,Top Brake, High Res Odo, SYS Accelerator switch, SYS Engine Requested Torque 1,SYS Engine Torque 1
SR-20037	v1.14.1.0	Updated FMS Parking brake switch calibration type from Boolean to Direct Value.
ESCR-118	v1.14.2.1	Added PTO state. Added CANFQ fuel. Set Torque fuel as second priority.

Supported Parameters

ACRONYM	PARAMETER NAME	PARAMETER DESCRIPTION	Return values/states (if applicable)
CAN_N	System.Scratch40C	Engine RPM	0 to 8191 RPM
HRESD	FMS.HRESD	FMS High resolution odometer	0 to 21 055 406.075 km
CANFP	System.CAN.FuelQuantity	CAN Fuel Quantity	
CANV2	CAN.CANV2	CANV2 - Wheel based speed	
EOTEM	System.FM.CAN.EOTEM	FM CAN: Engine Oil Temperature	0 to 200
FCAOP	System.FM.CAN.FCAOP	FM CAN: Oil Pressure	0 to 1000
CANFL	CAN.CANFL	FM Fuel level	
FMSAP	FMS.FMSAP	FMS Accelerator Pedal Position	0 to 100 %
DM1DA	FMS.DM1DA	FMS Active Diagnostic Trouble Codes	
BLUTL	FMS.BLUTL	FMS Adblue1 Tank Level	0 to 100
FMBPP	FMS.FMBPP	FMS Brake Pedal Pressed	0 = Released. 1 = Depressed
FMSCS	FMS.FMSCS	FMS Clutch Switch	0 = Clutch pedal released. 1 = Clutch pedal depressed.
FMCPP	FMS.FMCPP	FMS Clutch pedal position	0 to 100 %
FMSCC	FMS.FMSCC	FMS Cruise Control Active	0 = Inactive 1 = Active
FMSGR	FMS.FMSGR	FMS Current Gear	1 to 6 = Active Gear 55 = Unknown 82 = Reverse 78 = Neutral
FMDFL	FMS.FMDFL	FMS Differential Lock	0 = Lock phase off 1 = Lock phase one 2 = Lock phase two
FMSCT	FMS.FMSCT	FMS Engine Coolant Temperature	-40 to 250 ˚C
FMIMT	FMS.FMIMT	FMS Engine Intake Manifold Temperature	-40 to 210 ˚C
FMSOP	FMS.FMSOP	FMS Engine Oil Pressure	

FMSTQ	FMS.FMSTQ	FMS Engine torque	-125 to 125
FMSPB	FMS.FMSPB	FMS Parking brake switch	0 = Disengaged 1 = Engaged
DM2PA	FMS.DM2PA	FMS Previously Active Trouble Code	
SBAP1	FMS.SBAP1	FMS Service Brake Air Pressure Circuit 1	
SBAP2	FMS.SBAP2	FMS Service Brake Air Pressure Circuit 2	
FMSTB	FMS.FMSTB	FMS Top Brake	0 to 5 = Valid > 5 = Invalid
SETOD	FMS.SETOD	High Res Odo	
SYSAS	FMS.SYSAS	SYS Accelerator switch	
SYSRT	FMS.SYSRT	SYS Engine Requested Torque 1	
SYSAT	FMS.SYSAT	SYS Engine Torque 1	
FMSPT	FMS.FMSPT	FMS PTO State	0 = Off 1 = On 2 = NA 3 = NA

Installation Notes

1. **The script is NOT compatible with TRACERS**
2. The CAN jumpers must be in a position to ONLY allow **read** actions on the CAN bus (Passive Mode)
3. The script supports 29 bit CAN headers.
4. The script only supports a CAN bus with a speed of 500 kb/s
5. Device Drivers: BAS 1.70k - E15.08.27.xx or later sets are supported

Wiring and Installation Instructions

CAN bus location	5) Other
Wire colours & details	No details provided
Can bus speed	CAN_500_kbps