

MB-12 Cyl. M137 ME7

TC6MOD 11.10 Test Communication CARB; Mode 6, Output Test Thresholds

FDEF TC6MOD 11.10 Function definition

The basis of this section is SAE J1979 Mode 6:

Mode 6 should give access to the current test results and test thresholds from not continuously tested functions.

As a starting value at an original start, after power-failure or a memory fault deletion, '00' must be entered in value and threshold.

CAUTION ! Values must be saved in the continual- RAM !

TID \$00 ► Bit coded transfer from control unit supported TID s

DATA:	4								5								6								7							
Bit:	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
TID in hex:	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20
Default with all diagnoses	F8h								80h								00h								00h							

Because with the variant coding some diagnoses can be switched off, the respective TID is not used. The related Bit in TID \$00 will be reset.

In the following tables only the TID \$00 (\$20 etc.) reported values are actually supplied:

For TID's >= 1 the following applies:

The subsequent TID's from the respective test function are provided by the continuous-RAM, the following structure is standard:

Data 1: pos. response (46h)

Data 2: TID

Data 3: Test limit & component-ID (type of threshold and measurement path coding (Mpf))

Bit 7=0: bad, when value is a larger threshold

Bit 7=1: bad, when value is a smaller threshold

Example for description: b7 Mpf

1 15d: means measuring path 15 with fault at value of a smaller threshold

0 39d: means measuring path 39 with fault at value of a larger threshold

Data 4: High-Byte - value (possibly fill with 00h)

Data 5: Low-Byte - value

Data 6: High-Byte - threshold (possibly fill with 00h)

Data 7: Low-Byte - threshold

In the following tables are conversions mentioned and in brackets are the described labels that serve as appl-notifications and are not part of the function %TC6MOD.

TID \$01 catalyst conversion (only with vk_mot1.b3=1)

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
3.906E-3/INC	0 01d	katw (=ahkat)	kats (=AHKATMX)	Cat. Triple1
3.906E-3/INC	0 02d	katw2 (=ahkat2)	kats2 (=AHKATMX)	Cat. Triple2
7.81E-3/INC	0 03d	katw3 (=ahkat+ahkat2)	kats3 (=AHKATS)	Sum. fault Triple1+Triple2
3.906E-3/INC	0 04d	katw4 (=ahkat)	kats4 (=AHKATSB)	Cat. Triple1
3.906E-3/INC	0 05d	katw5 (=ahkat2)	kats5 (=AHKATSB)	Cat. Triple2
3.906E-3/INC	0 06d	katw6 (=ahkat3)	kats6 (=AHKATMX)	Cat. Triple3
3.906E-3/INC	0 07d	katw7 (=ahkat4)	kats7 (=AHKATMX)	Cat. Triple4
7.81E-3/INC	0 08d	katw8 (=ahkat3+ahkat4)	kats8 (=AHKATS)	Sum. fault Triple3+Triple4
3.906E-3/INC	0 09d	katw9 (=ahkat3)	kats9 (=AHKATSB)	Cat. Triple3
3.906E-3/INC	0 10d	katw10 (=ahkat4)	kats10 (=AHKATSB)	Cat. Triple4

TID \$02 Lambda Sensors (only with vk_mot1.b3=1)

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
0.01 s/INC	0 01d	lsaw (=tpsvkmf1)	lsas (=TSVKO/TSVKKATO)	Sensor vK Triple1 req. Period duration
0.01 s/INC	0 02d	lsaw2 (=tpsvkmf2)	lsas2 (=TSVKO/TSVKKATO)	Sensor vK Triple2 req. Period duration
0.01 s/INC	0 03d	lsaw3 (=tpsvkmf3)	lsas3 (=TSVKO/TSVKKATO)	Sensor vK Triple3 req. Period duration
0.01 s/INC	0 04d	lsaw4 (=tpsvkmf4)	lsas4 (=TSVKO/TSVKKATO)	Sensor vK Triple4 req. Period duration

TID \$03 Secondary Air System (only with vk_mot1.b1=1)

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
1.526E-3/INC	1 03d	slsnw (=fr_b1-frslsa1)	slsns (=DFRSLS)	SLV-Triple1; Delta fr with pump on Triple1
1.526E-3/INC	1 04d	slsnw2 (=fr_b2-frslsa2)	slsns2 (=DFRSLS)	SLV-Triple2; Delta fr with pump on Triple2
1.526E-3/INC	1 05d	slsnw3 (=fr_b3-frslsa3)	slsns3 (=DFRSLS)	SLV-Triple3; Delta fr with pump on Triple3
1.526E-3/INC	1 06d	slsnw4 (=fr_b4-frslsa4)	slsns4 (=DFRSLS)	SLV-Triple4; Delta fr with pump on Triple4

TID \$04 Exhaust Gas Recirculation (only with vk_mot1.b0=1)

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
5.392hPa/INC	1 05d	agrfrw (=dpsaug)	agrfs (=PRDAGR)	EGR-system; pressure method

TID \$05 Tank Ventilation System (only with vk_abg.b7=1)

Measuring path-number 37d only with vk_abg.b5=1

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
1.19E-4 hPa/s /INC	1 47d	tesw (=gudauf)	tess (=GGRTED)	16Bit, vacuum pressure diag., gross leak
5.96E-5 hPa/s /INC	0 45d	tesw2 (=qudabk)	tess2 (=KFUATED)	16Bit, vacuum pressure diag., fine leak
5.96E-5 hPa/s /INC	0 37d	tesw3 (=gudabk)	tess3 (=KFUAFSKB)	16Bit, vacuum pressure diag., micro leak

TID \$09 Fuel Supply System

Conversion	Data 3 b7 Mpf	Data 4+5 value	Data 6+7 threshold	comment
	0 01d	kvsfxw (=fra b1)	kvsfxs (=FRADX)	multipl. Adaptation value Triple1
	1 01d	kvsfnw (=fra b1)	kvsfns (=FRADN)	multipl. Adaptation value Triple1
-	0 03d	kvstxw (=tra b1)	kvstxs (=TRADX)	add. Adaptation value Triple1
-	1 03d	kvstnw (=tra b1)	kvstns (=TRADN)	add. Adaptation value Triple1
	0 02d	kvsfxw2 (=fra b2)	kvsfxs2 (=FRADX)	multipl. Adaptation value Triple2
	1 02d	kvsfnw2 (=fra b2)	kvsfns2 (=FRADN)	multipl. Adaptation value Triple2
-	0 04d	kvstxw2 (=tra b2)	kvstxs2 (=TRADX)	add. Adaptation value Triple2
-	1 04d	kvstnw2 (=tra b2)	kvstns2 (=TRADN)	add. Adaptation value Triple2
	0 05d	kvsfxw3 (=fra b3)	kvsfxs3 (=FRADX)	multipl. Adaptation value Triple3
	1 05d	kvsfnw3 (=fra b3)	kvsfns3 (=FRADN)	multipl. Adaptation value Triple3
-	0 07d	kvstxw3 (=tra b3)	kvstxs3 (=TRADX)	add. Adaptation value Triple3
-	1 07d	kvstnw3 (=tra b3)	kvstns3 (=TRADN)	add. Adaptation value Triple3
	0 06d	kvsfxw4 (=fra b4)	kvsfxs4 (=FRADX)	multipl. Adaptation value Triple4
	1 06d	kvsfnw4 (=fra b4)	kvsfns4 (=FRADN)	multipl. Adaptation value Triple4
-	0 08d	kvstxw4 (=tra b4)	kvstxs4 (=TRADX)	add. Adaptation value Triple4
-	1 08d	kvstnw4 (=tra b4)	kvstns4 (=TRADN)	add. Adaptation value Triple4

+: Offset 8000h; 1.526E-5/INC
-: Offset -8000h; 0.0032 /INC

The values of the triple 3 and 4 are the values of the triple 1 and 2 of the left bank (ZAS-bank).

ABK TC6MOD 11.10 Abbreviations

Variable	Source	Type	Name
AGRFS	DAGRFP	EIN	Mode6 - Storage value
AGRFW	DAGRFP	EIN	Mode6 - Storage value
KATS	DKAT	EIN	Mode6 - Storage value
KATS10	DKAT	EIN	Mode6 - Storage value
KATS2	DKAT	EIN	Mode6 - Storage value
KATS3	DKAT	EIN	Mode6 - Storage value
KATS4	DKAT	EIN	Mode6 - Storage value
KATS5	DKAT	EIN	Mode6 - Storage value
KATS6	DKAT	EIN	Mode6 - Storage value
KATS7	DKAT	EIN	Mode6 - Storage value
KATS8	DKAT	EIN	Mode6 - Storage value
KATS9	DKAT	EIN	Mode6 - Storage value
KATW		EIN	Mode6 - Storage value
KATW10	DKAT	EIN	Mode6 - Storage value
KATW2		EIN	Mode6 - Storage value
KATW3	DKAT	EIN	Mode6 - Storage value
KATW4	DKAT	EIN	Mode6 - Storage value
KATW5	DKAT	EIN	Mode6 - Storage value
KATW6		EIN	Mode6 - Storage value
KATW7		EIN	Mode6 - Storage value
KATW8	DKAT	EIN	Mode6 - Storage value
KATW9	DKAT	EIN	Mode6 - Storage value
KVSFNS		EIN	Mode6 - Storage value
KVSFNS2		EIN	Mode6 - Storage value
KVSFNS3		EIN	Mode6 - Storage value
KVSFNS4		EIN	Mode6 - Storage value

Variable	Source	Type	Name
KVSFNW		EIN	Mode6 - Storage value
KVSFNW2		EIN	Mode6 - Storage value
KVSFNW3		EIN	Mode6 - Storage value
KVSFNW4		EIN	Mode6 - Storage value
KVSFXS		EIN	Mode6 - Storage value
KVSFXS2		EIN	Mode6 - Storage value
KVSFXS3		EIN	Mode6 - Storage value
KVSFXS4		EIN	Mode6 - Storage value
KVSFXW		EIN	Mode6 - Storage value
KVSFXW2		EIN	Mode6 - Storage value
KVSFXW3		EIN	Mode6 - Storage value
KVSFXW4		EIN	Mode6 - Storage value
KVSTNS		EIN	Mode6 - Storage value
KVSTNS2		EIN	Mode6 - Storage value
KVSTNS3		EIN	Mode6 - Storage value
KVSTNS4		EIN	Mode6 - Storage value
KVSTNW		EIN	Mode6 - Storage value
KVSTNW2		EIN	Mode6 - Storage value
KVSTNW3		EIN	Mode6 - Storage value
KVSTNW4		EIN	Mode6 - Storage value
KVSTXS		EIN	Mode6 - Storage value
KVSTXS2		EIN	Mode6 - Storage value
KVSTXS3		EIN	Mode6 - Storage value
KVSTXS4		EIN	Mode6 - Storage value
KVSTXW		EIN	Mode6 - Storage value
KVSTXW2		EIN	Mode6 - Storage value
KVSTXW3		EIN	Mode6 - Storage value
KVSTXW4		EIN	Mode6 - Storage value
LSAS		EIN	Mode6 - Output value
LSAS2		EIN	Mode6 - Output value
LSAS3		EIN	Mode6 - Output value
LSAS4		EIN	Mode6 - Output value
LSAW		EIN	Mode6 - Output value
LSAW2		EIN	Mode6 - Output value
LSAW3		EIN	Mode6 - Output value
LSAW4		EIN	Mode6 - Output value
SLSNS	DSLS	EIN	Mode6 - Storage value (Word)
SLSNS2	DSLS	EIN	Mode6 - Storage value (Word)
SLSNS3	DSLS	EIN	Mode6 - Storage value (Word)
SLSNS4	DSLS	EIN	Mode6 - Storage value (Word)
SLSNW		EIN	Mode6 - Storage value (Word)
SLSNW2		EIN	Mode6 - Storage value (Word)
SLSNW3		EIN	Mode6 - Storage value (Word)
SLSNW4		EIN	Mode6 - Storage value (Word)
TESS	DTESK	EIN	Mode6 - Storage value
TESS2	DTESK	EIN	Mode6 - Storage value
TESS3	DTESK	EIN	Mode6 - Storage value
TESW	DTESK	EIN	Mode6 - Storage value
TESW2	DTESK	EIN	Mode6 - Storage value
TESW3	DTESK	EIN	Mode6 - Storage value
VK_ABG		EIN	Variant coding exhaust
VK_MOT1		EIN	Result of var.-coding: motor-code E/A 1

FB TC6MOD 11.10 Functional Description

APP TC6MOD 11.10 Application Information

KDH TC6MOD 11.10 Customer Service information

Section is KD-relevant.

CARB TC6MOD 11.10 CARB-Dokumentation